ANNUAL/FINAL TECHNICAL RELINQUISHMENT REPORT

EL25395

Jandapa

RELINQUISHMENT DATE: 24 April 2014

YEAR 5 END DATE: 1 December 2014

Titleholder: Spectrum Rare Earths
(previously TUC Resources Ltd)

Report No. 2014-034
Prepared for Spectrum Rare Earths Limited
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1. **SUMMARY**

This is the final relinquishment report for EL25395, relinquished during year 5.

EL 25395 was granted on 01/12/2009 under the name Territory Uranium Company Ltd. Territory Uranium has been re-named TUC Resources Ltd and now Spectrum Rare Earths.

Rio Tinto Exploration (RTX) was the operator of this project under an Option Agreement with Spectrum until the date of withdrawal from the agreement which was 22 October 2013.

The approved field exploration program is still in dispute due to unresolved access issues over the key target areas. Informal discussions held by the NLC with the regard to the disputed area did not indicate any easy resolution. Due to this impasse and a review of the prospectivity, RTX decided to withdraw from the project. No field work was conducted during the reporting period.

The tenements are located approximately 50 km west of Nhulunbuy in north-east Arnhem Land and were consequently processed under the Aboriginal Land Rights Act 1975 (ALRA). After the tenement was granted in December 2009, a work program clearance meeting was held on the 18th May 2010. The approved work program was planned to be conducted in October 2010 following all necessary final approvals by the NLC and during the dry season to aid in access and general work conditions. Due to issues with community members and an early onset of the Northern Territory 2010 wet season, the approved work program was rescheduled for the 2011. However due to a dispute to access over the key target area, this work could not be undertaken. In 2013 the fundamental access issue with respect to the key target area remained unresolved and a review of the project by RTX led to them exiting from the Option Agreement.

Therefore during year 5 Spectrum decided to relinquish EL25395.
2. LOCATION AND ACCESS

EL25395 covers 174 km² in NE Arnhem Land approximately 50km east of Nhulunbuy (Figure 1). The licence area lies adjacent the small community of Mata Mata. There is dry season road access to the licence area.

Figure 1: EL25395 location
3. TENEMENT STATUS AND OWNERSHIP

EL 25395 was granted on 1 December 2009 and its first relinquishment of greater than 50% (46 out of 87 sub blocks) was finalised on 1 December 2013.

EL 25395 and EL 27591 were granted from the original application area of ELA 25395 following the consent process from the Northern Land Council. The remaining area was split out and put into moratorium under ELA 27592. The original EL 25395 tenement application covered 483 km$^2$ of which 174 km$^2$ was granted as EL 25395 and 5 km$^2$ as EL 27591.

The tenement falls wholly within Arnhem Land and is subject to the provisions of the Aboriginal Land Rights Act which is administered by the Northern Land Council.
4. GEOLOGY

The primary target for the exploration program within this license is lateritic bauxite of similar style as the nearby world class, Gove deposit. The main geological formation of interest are preserved lateritic surfaces on clay rich Cretaceous sediments.

The geology of the license area is dominated by a northeast trending ridge of Neoproterozoic hard quartz rich sandstones of the Mantugula Fm, Roper Group (see geological survey map SD5303, figure 5). The coastal areas have low elevation gently sloping plateaus which are mapped as recent cover or laterite. It is these areas (shown in green on figures below) which constitute the broad geological area prospective for bauxite. Due to access issues the main areas of interest have not been visited or mapped. The target areas are shown in the figures below. The prime target area which is located to the south of Mata Mata covers an area of approximately 18km$^2$.

![Figure 2: EL25395 showing the bauxite target areas (in green) with the main target highlighted in blacked dotted line](image-url)
Figure 3: EL25395 showing the bauxite target areas (in green) with the main target highlighted in blacked dotted line plotted on the 1:250,000 topographic map.
Figure 4: EL25395 showing the bauxite target areas (in green) with the main target highlighted in blacked dotted line plotted on the SRTM digital elevation model data.
Figure 5: EL25395 showing the bauxite target areas (in green) with the main target highlighted in blacked dotted line plotted on the 1:250,000 geology plan
5. PREVIOUS EXPLORATION

Previous exploration within the area of EL25395 is limited to early reconnaissance work completed by BHP for manganese and bauxite. Within the original application area, BHP had previously drilled 11 holes, of which 4 are within the granted area of EL 25395. Of these four holes drilled to an average depth of 37m, no geochemical assays are recorded. No further work has been conducted in the area since the late 1960’s.

<table>
<thead>
<tr>
<th>Year</th>
<th>Company</th>
<th>Tenement</th>
<th>Exploration Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960-1970</td>
<td>BHP Ltd</td>
<td>ATP1138</td>
<td>Manganese and Bauxite reconnaissance exploration. Eleven (11) holes completed on the original ELA 25395 area, including four (4) within the granted area of EL 25395.</td>
</tr>
</tbody>
</table>
6. **EXPLORATION DURING YEAR 1 (2010)**

Rio Tinto Exploration (RTX) was the operator of this project under an Option Agreement with Spectrum. The approved field exploration program is still in dispute due to unresolved access issues over the key target areas therefore no field work was undertaken during this period.

7. **EXPLORATION DURING YEAR 2 (2011)**

Rio Tinto Exploration (RTX) was the operator of this project under an Option Agreement with Spectrum. The approved field exploration program is still in dispute due to unresolved access issues over the key target areas therefore no field work was undertaken during this period.

8. **EXPLORATION DURING YEAR 3 (2012)**

Rio Tinto Exploration (RTX) was the operator of this project under an Option Agreement with Spectrum. The approved field exploration program is still in dispute due to unresolved access issues over the key target areas therefore no field work was undertaken during this period.


Exploration within EL 25395 was restricted to desk top review of the existing data, mostly being landforms and radiometric data. Field work on the area was to be conducted within EL 25395 however due to ongoing access issues this was never completed.

RTX dropped out of the agreement on 22 November 2013.

Reduction on 13 November 2013. A review of the license after RTX withdrew from the Option Agreement has resulted in the relinquishment of 46 of the 87 sub blocks.

10. **EXPLORATION DURING YEAR 5 (2014)**

Due to the unresolved access issues over the key target area Spectrum decided to fully relinquish the tenement.
11. REFERENCES


12. CONFIDENTIALITY STATEMENT

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