

EL32114 “Aladdin Project”

Final Report

08/11/2019 to 10/10/2024

Future Energy Minerals Ltd
14 November 2024

Title:	EL32114
Titleholder:	Future Energy Minerals Ltd
Project Operator:	Future Energy Minerals Ltd
Commodities Sought:	REE, Li, Base Metals and Precious Metals
Area:	200 Blocks
1:100k Mapsheet:	5365 Nelly
1:250k Mapsheet:	SE5301 Daly Waters
Author:	Austwide Mining Title Management Pty Ltd
Report Date:	14/11/2024

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1 Title Page

Report Type:	Final Report for EL32114
Authority Number:	EL32114
Authority Holder:	Future Energy Minerals Ltd
Grant Date:	08 November 2019
Cessation Date:	10 October 2024
Project Operator:	Future Energy Minerals Ltd
Project Location:	Centred on the settlement of Top Springs and 240km South from Katherine
Reporting Period:	Final Report – 08/11/2019 to 10/03/2024
Date of Report:	14 November 2024
Author/s:	Adam Walters
Contact Details:	adam@austwidemining.com.au

2 Executive Summary

Mineral Exploration License (EL) 32114 was granted to Santonian Resources Ltd on 08 November 2019 for a term of 6 years and transferred to Mr. Aaron Banks on 7th December 2022 and subsequently transferred to Future Energy Minerals on 03 September 2024.

EL32114 forms part of the Aladdin Project which stretches for a ENE strike of 200km and is centred on the settlement of Top Springs and 240km South from Katherine. Historically the area has been suspected to have bornite mineralisation due to iridescent stains found within the laterite. Geochemical assays of rock chip samples recovered from the project area has shown high anomalous Vanadium, Titanium, Iron and Aluminium content within the surficial mineralised laterite. Pre-liminary office studies have shown that the suspected mineralised laterite extends further North.

Exploration of the Aladdin Project Area and consequently EL 32114 recovered reasonable vanadium results from rock chip sampling suggesting a possible underlying Titanium / Magnetite / Vanadium / mafic intrusive from the tenure in the Project. Remote sensing techniques using the ASTER Ferric Oxide map and DTM elevation map suggest that iron oxides are present.

Following the completion of this preliminary work as detailed in the past reports, Future Energy Minerals Ltd concluded that the potential for economic mineralisation/deposits was very low and therefore the title was surrendered with a cessation date of 10 October 2024.

3 Copyright

3.1 Subject to 2, the tenure holder acknowledges that this Report, including the material, information and data incorporated in it, has been made under the direction or control of the Northern Territory (NT) within the meaning of section 176 of the Copyright 1968 (Cwth).

3.2 To the extent that copyright in any material included in this Report is not owned by NT, the tenure holder warrants that it has the full legal right and authority to grant, and does hereby grant, to NT, subject to any confidentiality obligation undertaken by NT, the right to do (including to authorise any other person to do) any act in the copyright, including to:

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Reproduce;

Publish; and

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4 Location

The Aladdin Project stretches for a ENE strike of 200km and is centred on the settlement of Top Springs and 240km South from Katherine. The tenement comprises of 200 blocks covering an area of 658.9 square kilometres and is located within the Killarney and Birrimba Pastoral Stations. Tenement EL 32114 is shown in Figure 2. EL32114 is affected by the below listed Native Title Claims or Determinations.

Table 1: Native Title Land

Tribunal Id	Name	Determination Date	Determined Outcome
DCD2011/013	Killarney Pastoral Lease	02/06/2011	Native title exists (non-exclusive)
DCD2011/012	Birrimba Pastoral Lease	02/06/2011	Native title exists (non-exclusive)

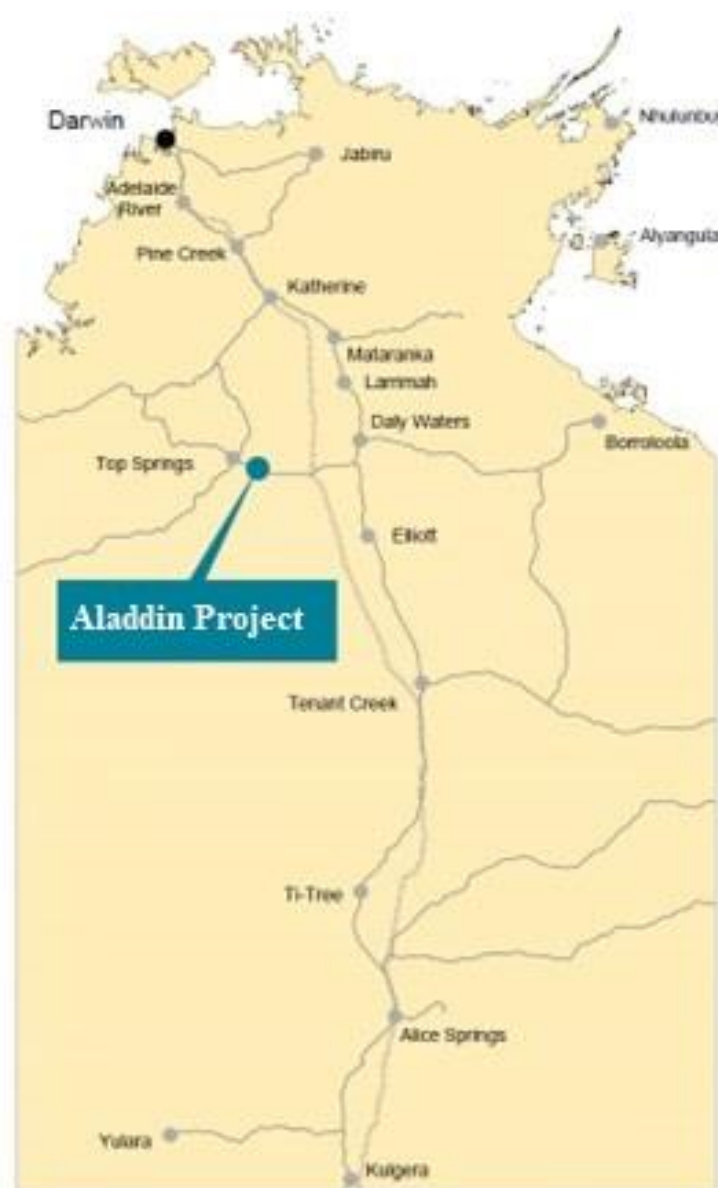


Figure 1: Locality Plan

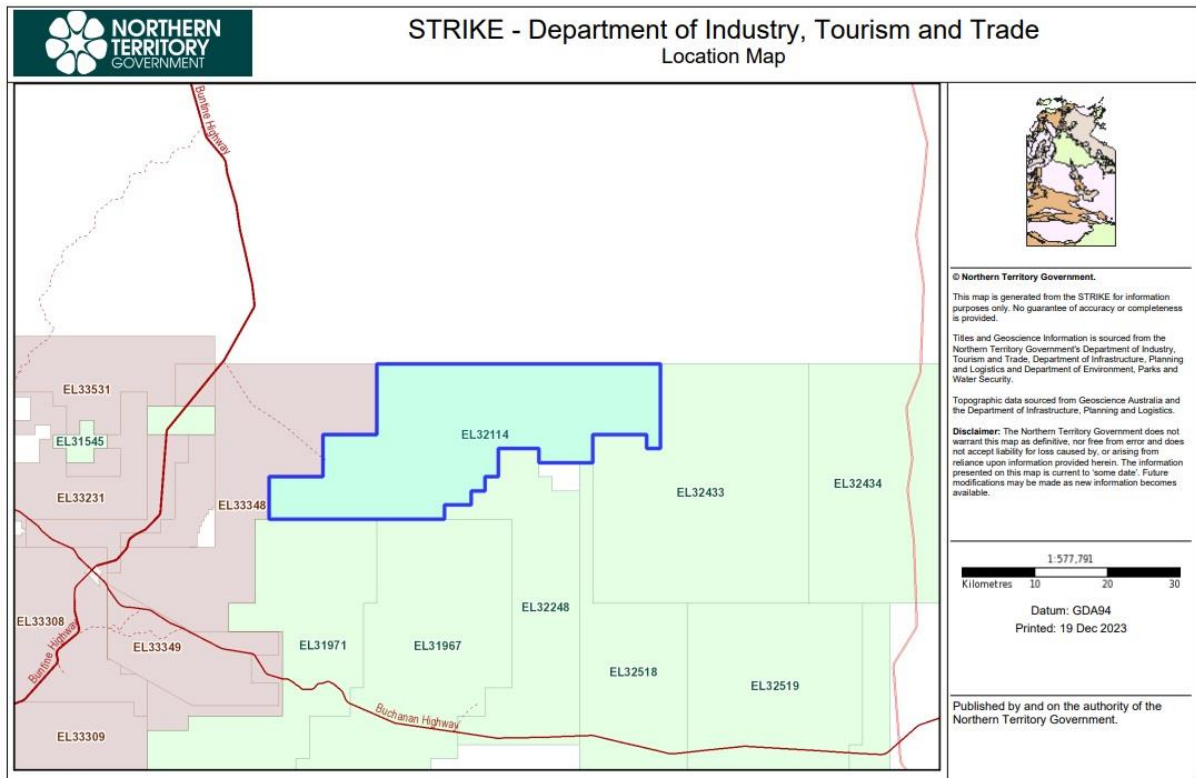


Figure 2: Tenement Location

5 Title History

Mineral Exploration License (EL) 32114 was granted to Santonian Resources Ltd on 08 November 2019 for a term of 6 years and transferred to Mr. Aaron Banks on 7th December 2022 and subsequently transferred to Future Energy Minerals on 03 September 2024.

EL 32114 was applied to cover the interpreted mineralised laterite containing anomalous Vanadium, Iron, Titanium and Aluminium content.

Following the completion of this preliminary work as detailed in the past reports, Future Energy Minerals Ltd concluded that the potential for economic mineralisation/deposits was very low and therefore the title was surrendered with a cessation date of 10 October 2024.

6 Access

The Aladdin Project is primarily accessed by via the Buchanan Highway which bisects the tenement, then north and south via graded stations tracks using 4x4 vehicles. Access to the project can become limited during seasonal monsoons and heavy rains between the months of November to April.

7 Geological Setting

The Victoria River Downs and Daly Waters geological sheets show an area that is geomorphically and tectostratigraphically dominated by several distinct and denuded Cretaceous-age lateritic-bauxite palae-land surfaces. Regionally, the topography comprises of isolated (dissected) low-amplitude mesas separated by Tertiary drainages. The mesa tables appear to be capped by a laterally contiguous ferruginous horizon that may be a potential host to base minerals. Multi-element anomalies comprising chemically inert and immobile elements (e.g. Ni, Al, V, Ti, REE), typically concentrate in laterally extensive ferruginous duricrust horizons lying atop bauxitic plateaux.

The stylised cross section shown in Figure 4 is an interpreted understanding of the stratifications that underly the lateritic occurrences. Isolated mesas form the remnant Cretaceous surface topography where Cambrian-aged Limestones and tholeiitic volcanics underlie the Cretaceous Sediments. The area is technically stable which is an important factor in the development of lateritic regolith.



Figure 3: Regional Geology

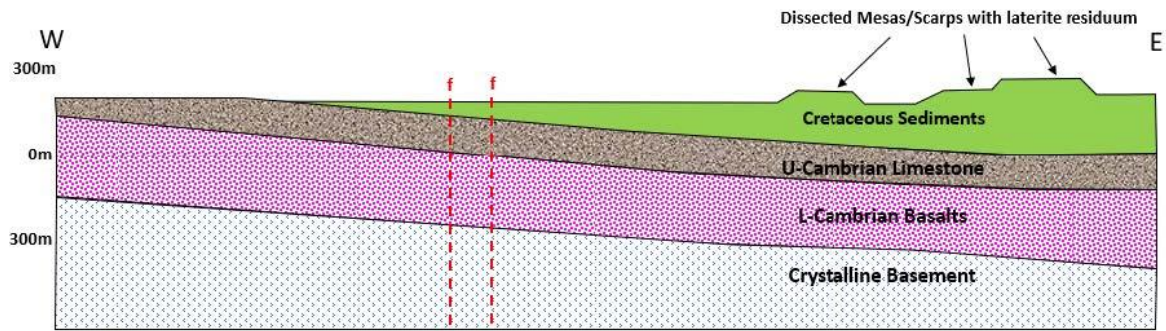


Figure 4: Stylised cross-section

An interpreted regional geological model for such enriched lateritic residua on relict regolith landforms is shown in Figure 5.

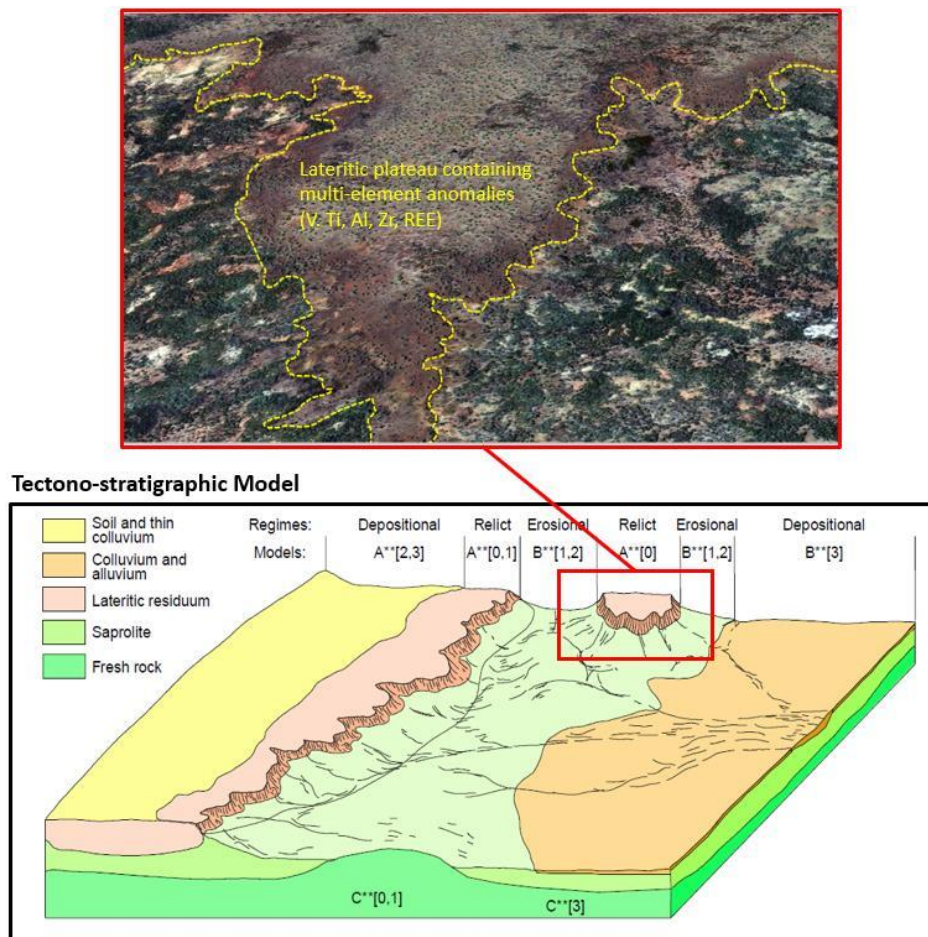


Figure 5: Interpreted Regolith-landform Model of the Project Area

8 Exploration History

Historically, the Victoria River Downs geological map, published in 1969, noted iridescent stains in laterite leading to erroneous reports of copper mineralization in the area (Brown,

1969). It was believed that the iridescent stains resembled bornite mineralisation, however, geochemical analysis had shown low copper content throughout the laterite. The laterite has since been used for road construction material where numerous roadside quarries are present.

Other commodities of interest within the vicinity was explored by R W A Crowe in search for coober pedy style opals, Stockdale Prospecting Ltd and Aberfoyle Exploration Pty Ltd in search for diamonds and C.R.A. Pty Ltd in search for gold mineralisation.

Geochemical assays of rock chip samples recovered from the Aladdin Project Area has shown high anomalous Vanadium, Titanium, Iron and Aluminium content within the surficial mineralised laterite. Preliminary office studies have shown that the mineralised laterite extends further north.

9 Exploration Completed

Exploration completed during the reporting period.

Year 1

Exploration Data Review – A search on DITT database showed that to the east of EL32114, Imperial Granite & Minerals Pty Ltd, in search for Vanadium mineralisation, recovered rock chip sample in 2008 (Imperial Granite & Minerals, 2008) under their EL25712. The fourteen rock chip samples shown below in Figure 6 and ranged from 0.1 to 0.235ppm in Vanadium content. Imperial Granite and Minerals Pty. Ltd. suggests a possible underlying Titanium / Magnetite / Vanadium / mafic intrusive across various parts of the Aladdin Project Area. It is this data and geological interpretation that has highlighted a southerly trend and subsequently the area covered by EL32114 has a potential target for similar styles of mineralisation.

Remote Sensing Review – The use of remote sensing technology such as Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER) Ferric oxide map and digital terrain model (DTM) was used to review the Aladdin Project Area, including EL 32114, where a geological map and tenure owned by Mr. Aaron Banks is shown for reference below in Figure 7. The ASTER map shown in Figure 8 shows an abundance of potential iron oxides spotted throughout the western part of the Aladdin Project including EL33155, coinciding with the higher points on the DTM shown in Figure 9. It is recommended that future field activities should search for iron oxide outcropping to rock chip sample as it is likely to be high in Vanadium content.

Year 2 – 10/10/2024

Activities were limited to desktop studies and corporate preparations for ASX listings and various title sale processes. Desktop studies included a review of historical exploration data within the Aladdin Project Area, including EL 32114.

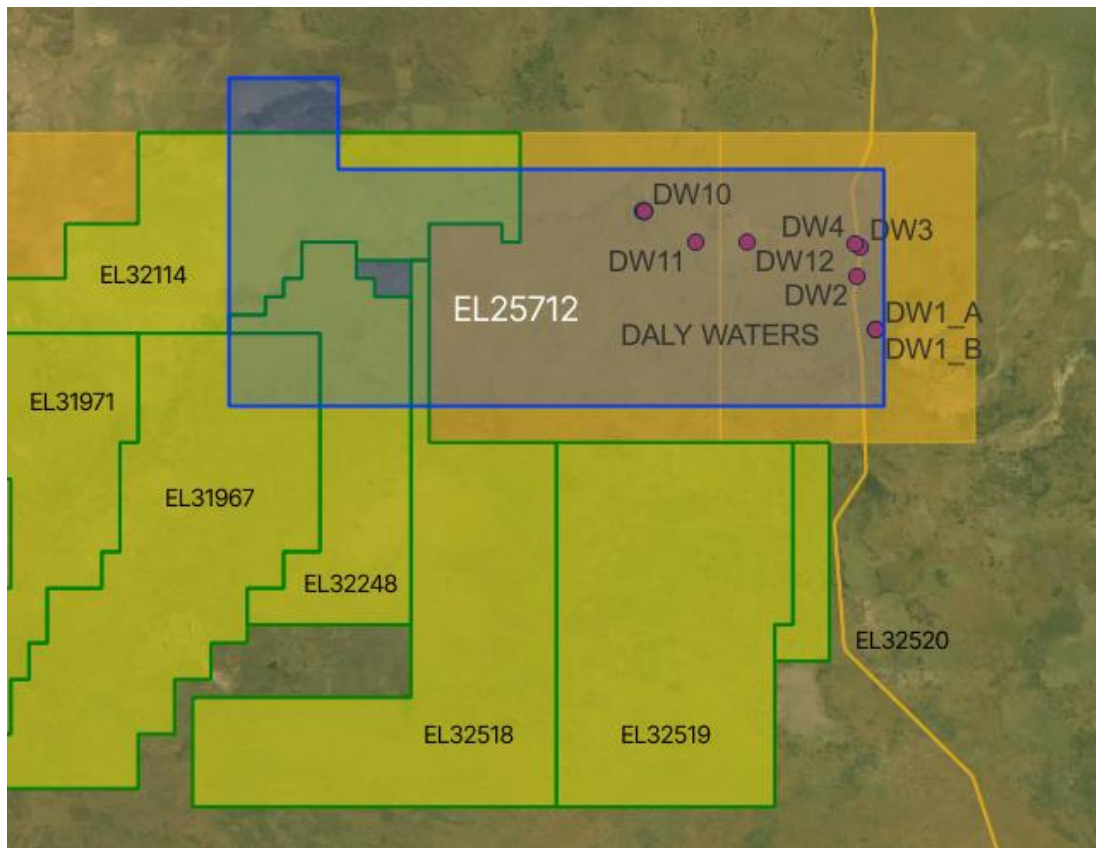


Figure 6 Imperial Granite and Minerals Pty. Ltd. Rock Chip Sampling North - East of EL 32114

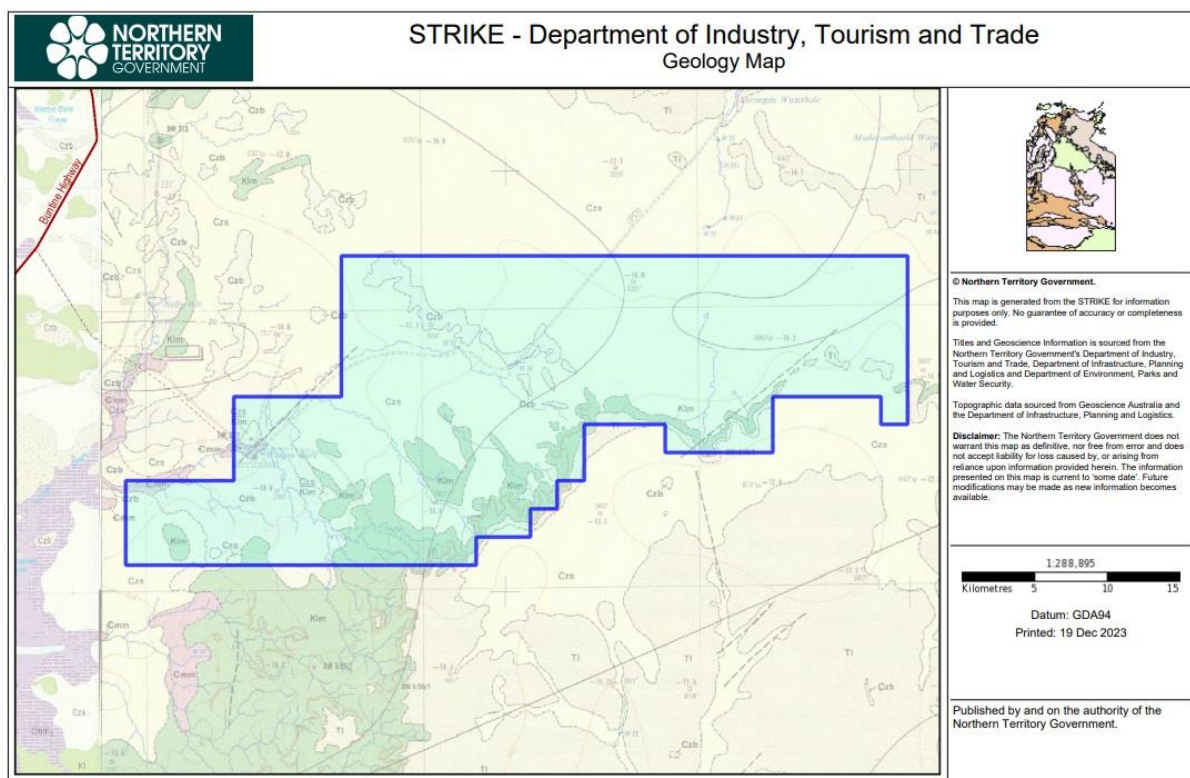


Figure 7 Geological Map Overlay

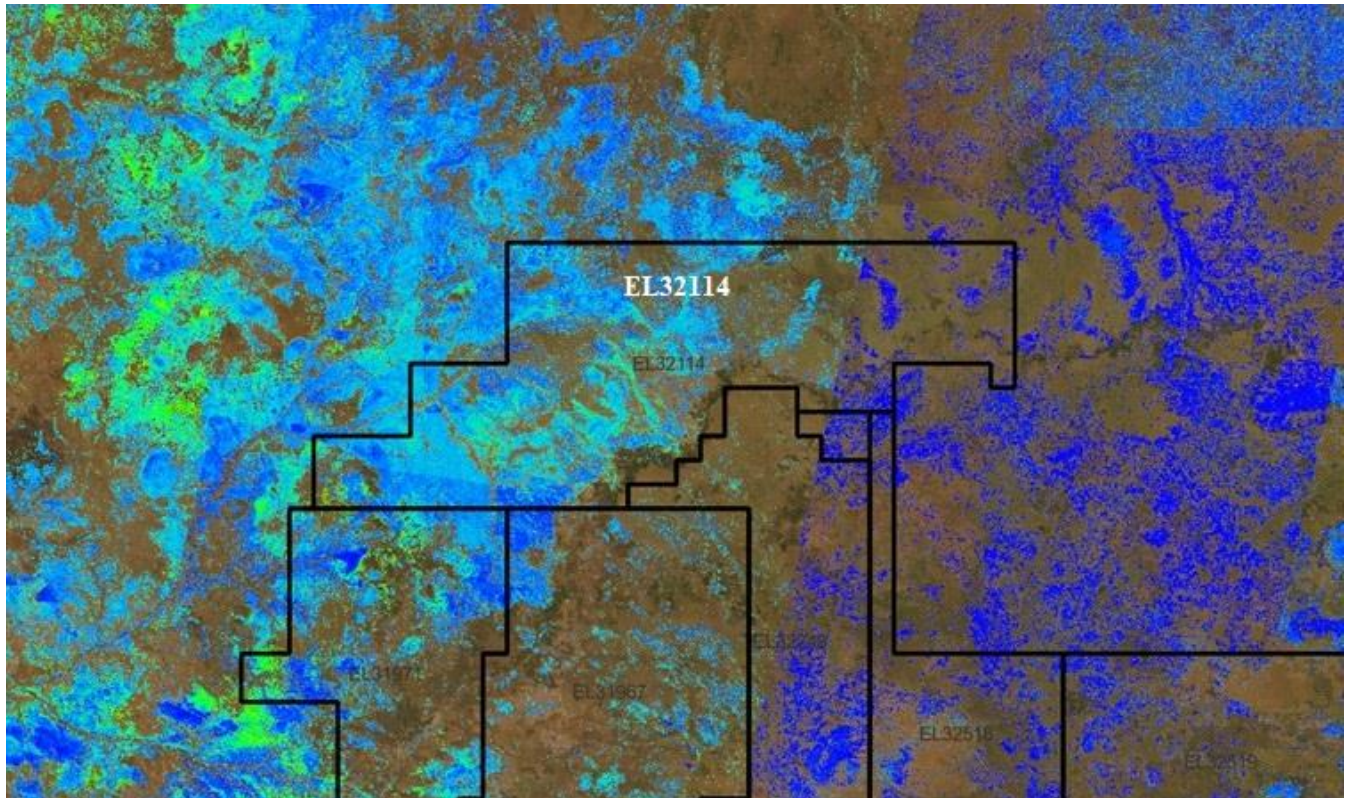


Figure 8 Ferric Oxide Overlay

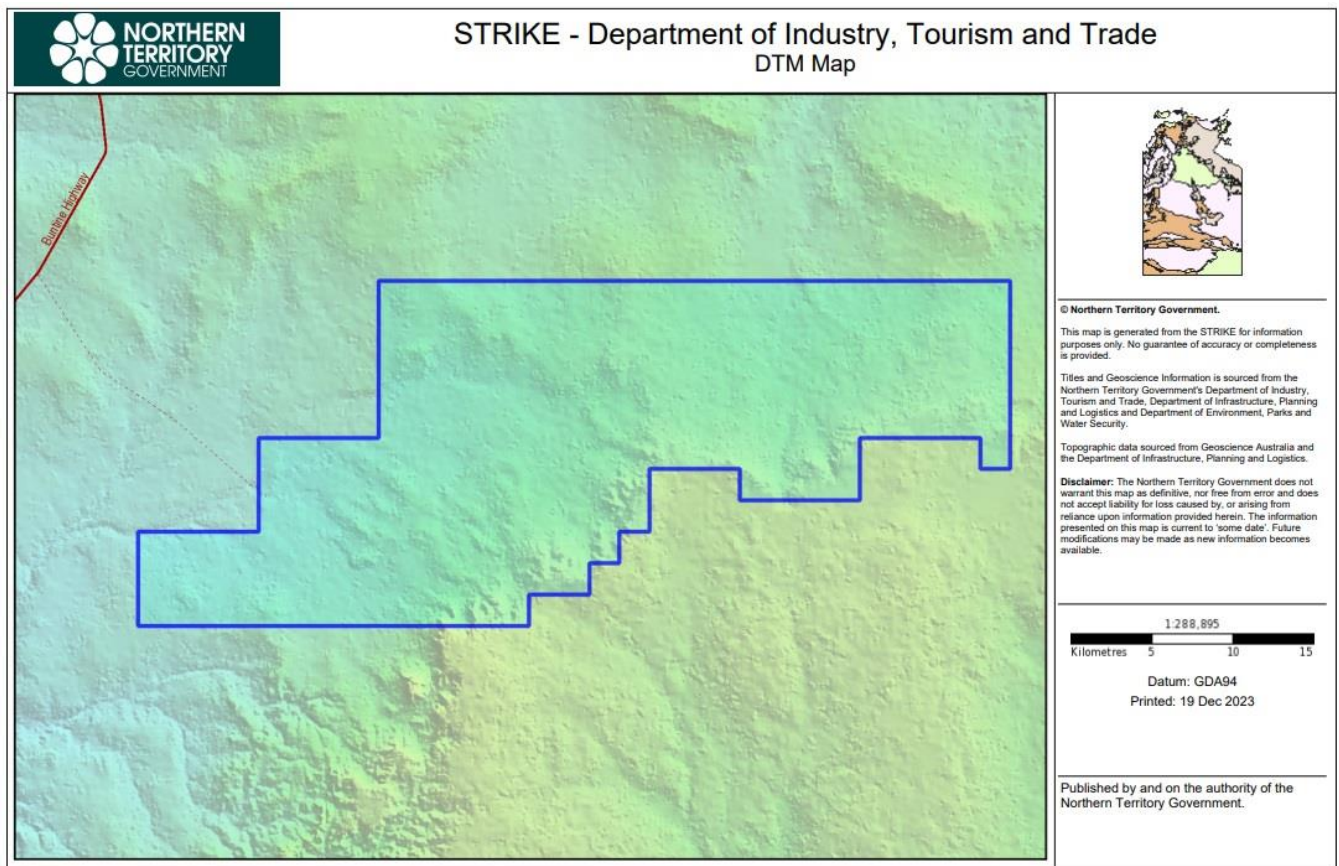


Figure 9 DTM Overlay

10 Summary

The Aladdin Project has shown high anomalous Vanadium, Iron, Titanium and Aluminium content through multiple field trips. Furthermore, preliminary metallurgical test work warrants that the style of mineralisation can allow Vanadium to be extracted from economical mining processes including magnetic separation and leaching. In addition, the thin section analysis reinforces the metallurgical test work demonstrating that the Vanadium content is distributed free throughout the laterite.

Following the completion of this preliminary work as detailed in the past reports, Future Energy Minerals Ltd concluded that the potential for economic mineralisation/deposits was very low and therefore the title was surrendered with a cessation date of 10 October 2024.

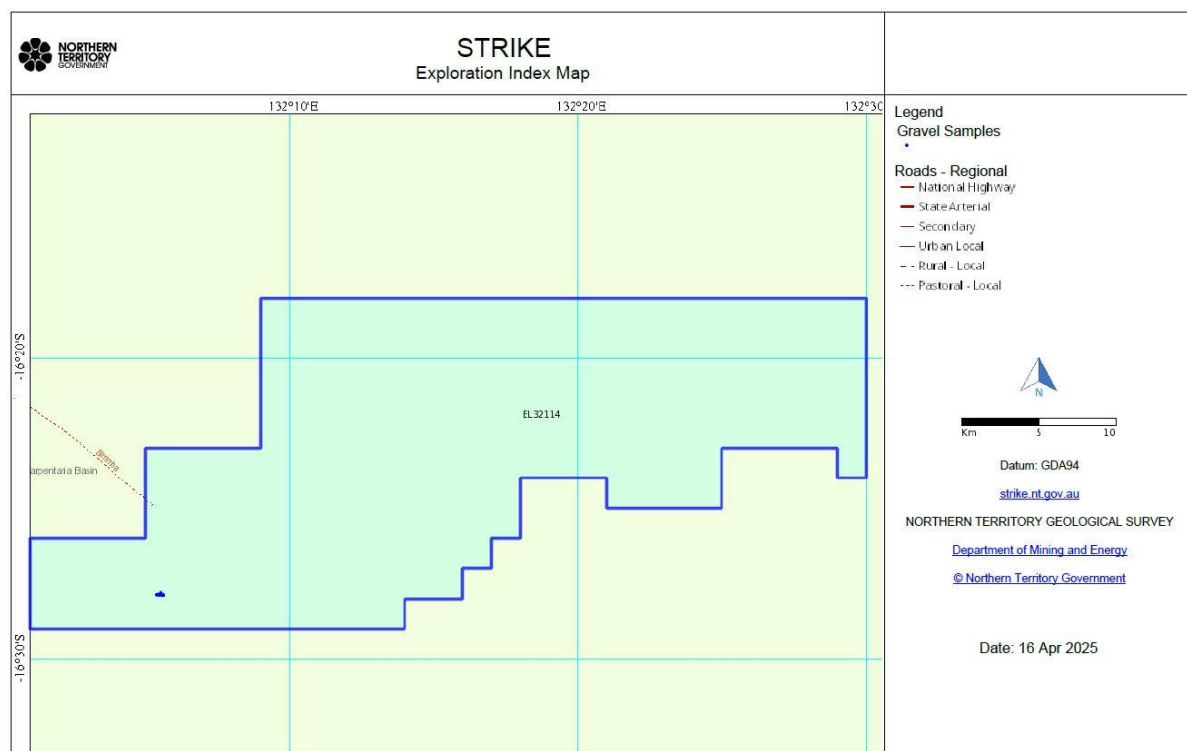


Figure 10 Exploration Index Map

11 Data

No new data was generated during the reporting period.

12 References

Brown, M. (1969). Victoria River Downs, Northern Territory: explanatory notes.

Crossland Diamonds Pty Ltd. (2005). EL23684 Western Creek Project Annual Report 17 June 2004 to 16 June 2005.

Imperial Granite & Minerals. (2008). First and Final Report on EL 25712 Daly Waters, year ending 26 September 2008. CR2008-0780