



**Tuckers Creek  
Exploration Licence 11/2022**

**Annual and Final Report for the period 09/05/2023 to 08/05/2024**

A Lintner  
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Venture Minerals Ltd  
191 Mackintosh Dam Rd  
Tullah Tas 7321

Datum: MGA Zone 55 GDA94

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# 1 Summary

EL11/2022 was sought by Venture Minerals Ltd subsidiary Tasmanian Rare Earths Pty Ltd to explore for clay hosted Rare Earth Element (REE) mineralisation. Lateritic clay developed over Tertiary alkali basalts and saprolite developed from Scottsdale Batholith granitoids were identified as clays hosted REE targets and 80 rock and regolith samples and 14 soil samples were collected mainly from road cuttings. Samples were assayed for a broad suite of elements including REEs but none are considered encouraging for further REE exploration.

## 2 Introduction

Tuckers Creek, Exploration Licence 11/2022 was granted on the 9<sup>th</sup> May 2023. The licence area is thought to be underlain by the Scottsdale Batholith with Tertiary alkali to tholeiitic basalt and sedimentary cover. Tasmanian Geological Survey mapping and previous exploration shows the localised presence of lateritic regolith over the Tertiary basalt and potentially saprolitic granitoid. Both are considered prospective for clay-hosted REE mineralisation. Recent exploration by ABx Group has shown the presence of potentially significant clay hosted REE mineralisation associated with deep leads and bauxite deposits in NW Tasmania. While the lateritic areas with EL11/2022 have been previously drilled to test for bauxite they were never tested for REEs.

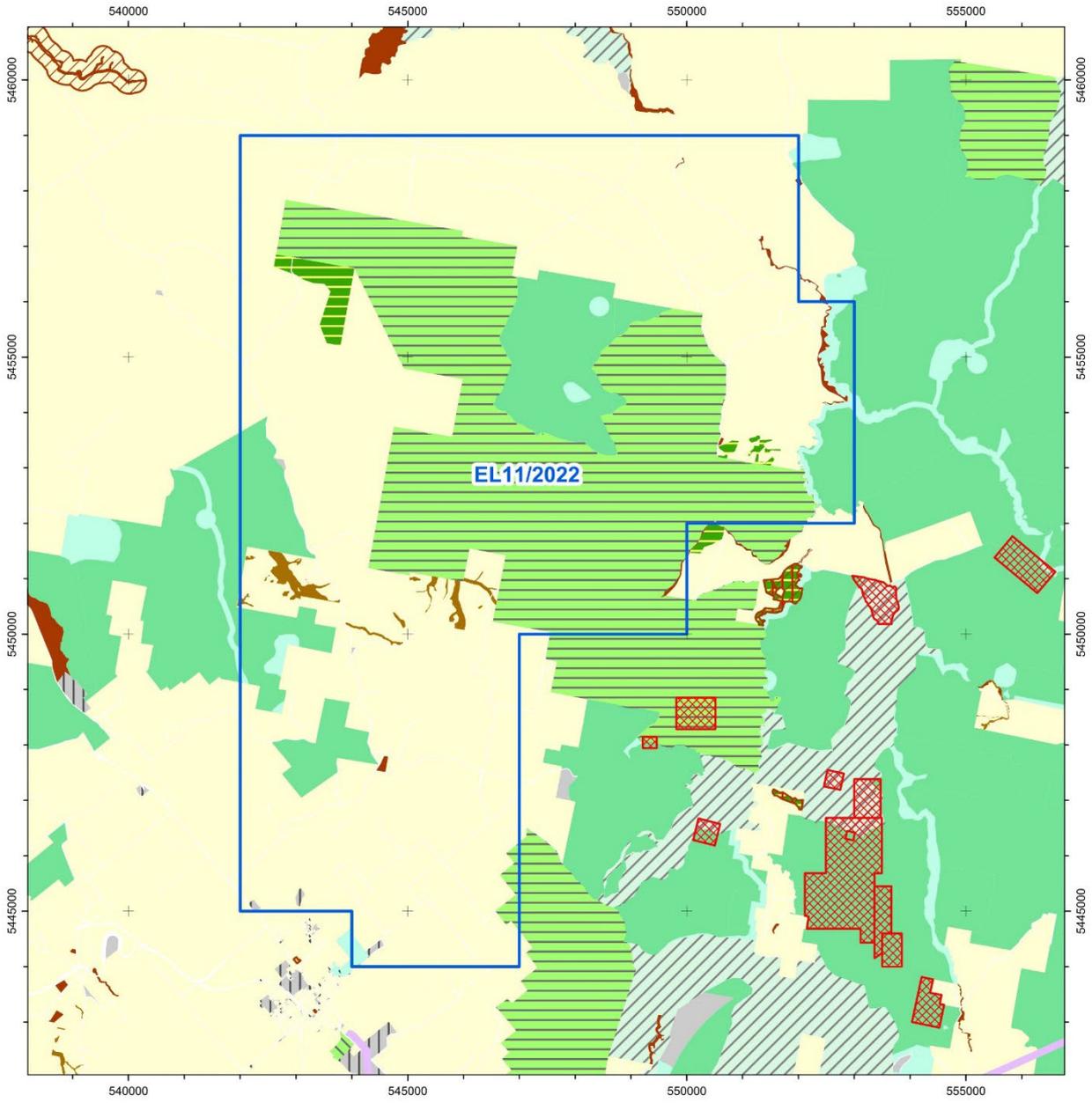
## 3 Location and Access

Tuckers Creek EL11/2022 covering 118 km<sup>2</sup> is located immediately north of the town of Scottsdale in northeast Tasmania (Figure 1). The eastern part of the licence area is very readily accessed from North Scottsdale and Old Waterhouse roads, and the western part of the tenure via Burnside and Barnbogle roads. Topography is hilly and the main landmarks Harrys and Holmes hills. Tuckers, Devils, Coxs and Barlows creeks drain northwards to Great Forrester River and Anderson Bay just 5-10km to the north of EL11/2022.

Land use comprises mainly private agricultural land, production forestry land and regional reserve (North Scottsdale Regional Reserve), with minor, irregular pockets of informal and public reserves (Figure 2). Climate is temperate with mean maximum temperature c. 12° (July-August) to 23°C (January-February) and mean annual rainfall c. 970mm with a winter maximum (mean c. 120 mm in July-August).



Figure 1: EL11/2022 tenement location



**EL11/2022 118km<sup>2</sup>**  
**Vicinity of Tuckers Creek (8km N of Scottsdale)**  
0 1 2 3 4 5 km  
1:100,000  
Coordinate Datum - GDA94 MGA Zone 55

**Land Tenure / Special Management Areas (Guide Only)**

- |                              |   |  |  |
|------------------------------|---|--|--|
| Unavailable Areas            | Future Potential Production Forest (HEC)              | Historic Site                              | Informal Reserve - Public Land   |
| Mining Lease                 | Informal Reserve (Forestry Operations) - Private Land | National Park                              | Permanent Timber Production Zone Land  |
| RAMSAR Site                  | Private Land  | Nature Recreation Area                     | Authority Land   |
| Gas Pipeline Corridor        | Aboriginal Administered Land                          | Nature Reserve                             | Crown Land   |
| Fossil Site                  | Wellington Park                                       | Regional Reserve                           | <b>Private Reserves</b>  |
| Commonwealth Land            | Conservation Area                                     | State Reserve                              | Available under the MRDA   |
| Aurora / Hydro / Tasnetworks | Game Reserve  | Public Reserve                             | Available under the MRDA but not available under administrative arrangements |
|                              |   | Future Potential Production Forest (Crown) |  |

Note: Land tenure is derived from the LIST and other sources and may be incomplete. Not all land tenure depicted in legend may appear on the map.  
Relevant tenement land tenure / land management area indicated \*



Figure 2: EL11/2022 land use

## 4 Geological Setting

EL11/2022 is interpreted to be underlain by part of the Devonian-Carboniferous Scottsdale Batholith covered by a thin veneer of largely unconsolidated Tertiary sediments (mainly gravel, sand and silt), Tertiary basalt, and locally lateritic regolith developed on the basalt. Moderately weathered granitoids of the Scottsdale Batholith and locally specifically the Mount Stronach Granite are exposed in the southern and northeastern parts of the EL11/2002 (Figure 3). The area was targeted for clay hosted REE mineralisation associated

## 5 Exploration and Mining History

The lease area was most recently held by ABx4 from 2012-2017 to explore for bauxite associated with Tertiary volcanics. ABx4 drilled 68 holes to test the depth of the laterite with a truck mounted RC rig. Samples were tested with a pXRF on site, with 104 samples found sufficiently enriched in Al to warrant analysis at ALS, with a further 14 samples sieved and also sent for analysis. The resulting analyses revealed subeconomic grade bauxite with an estimated total tonnage in the Scottsdale tenement of <50,000t (Coyte, 2017).

Prior to ABx4, the area including the current tenement outline was explored by James Stewart who sought heavy mineral sands including zircon, monazite, cassiterite & Au. Mr Stewart followed up a desktop study with some reconnaissance mapping and sampling and relinquished EL10/2008 in 2012 (Stewart, 2012). The area immediately surrounding Scottsdale was held by Comalco for a year as EL33/84 as part of their search for local deposits of low iron kaolin for use in the production of aluminium/silicon alloys (McConachie, 1985).

Energy exploration has occurred across the ground currently encompassing EL11/2022 and beyond including SEL5/2005 held by Overseas Energy Holdings (Roberts, 2015) and SEL37/2007 held by Geopower Energy Limited (Anon, 2011). These companies were exploring for oil and geothermal energy respectively and neither found anything of significance within the local area of Scottsdale.

## 6 2023-2024 Exploration Activities and Results

Three campaigns of rock and reconnaissance soil sampling was undertaken to assess EL11/2022 for clay hosted REE mineralisation. Initial rock and regolith sampling was along public roads targeting weathered granitic materials, ideally saprolite, while access to private land, forestry plantation and regional reserve was sought. Historic bauxite exploration reports and MRT geological maps were used to target lateritic areas for sampling. Once access permission was gained reconnaissance rock (regolith) and soil sampling of the laterite targets was undertaken.

A total of 80 rock and regolith samples and 14 soil samples were collected and assayed from within EL11/2022. Rock and soil samples were collected by pick, located by handheld GPS and logged by a Venture geologist and placed in a calico bag for assay. Soil samples were sieved to <1.6 mm if necessary on site. Assaying was conducted by ALS Geochemistry using multi acid digest and fusion methods as appropriate for the elements of interest. All methods and results are included in Appendices A to D.

The sampling encompassed but target granitic saprolite and lateritic clays developed over basalt. Encouraging elevated levels of P (up to 1150 ppm) and Zr (up to 539 ppm) are noted from ferruginous lateritic clay over basalt protolith (confirmed by strongly elevated Cr, Ti and V levels). REE results

are considered universally low at c. <300 ppm Total Rare Earth Oxides (TREO) from the rock samples and Nd max 55 ppm from the soil samples. Sample locations coloured by Nd are shown in Figure 3.

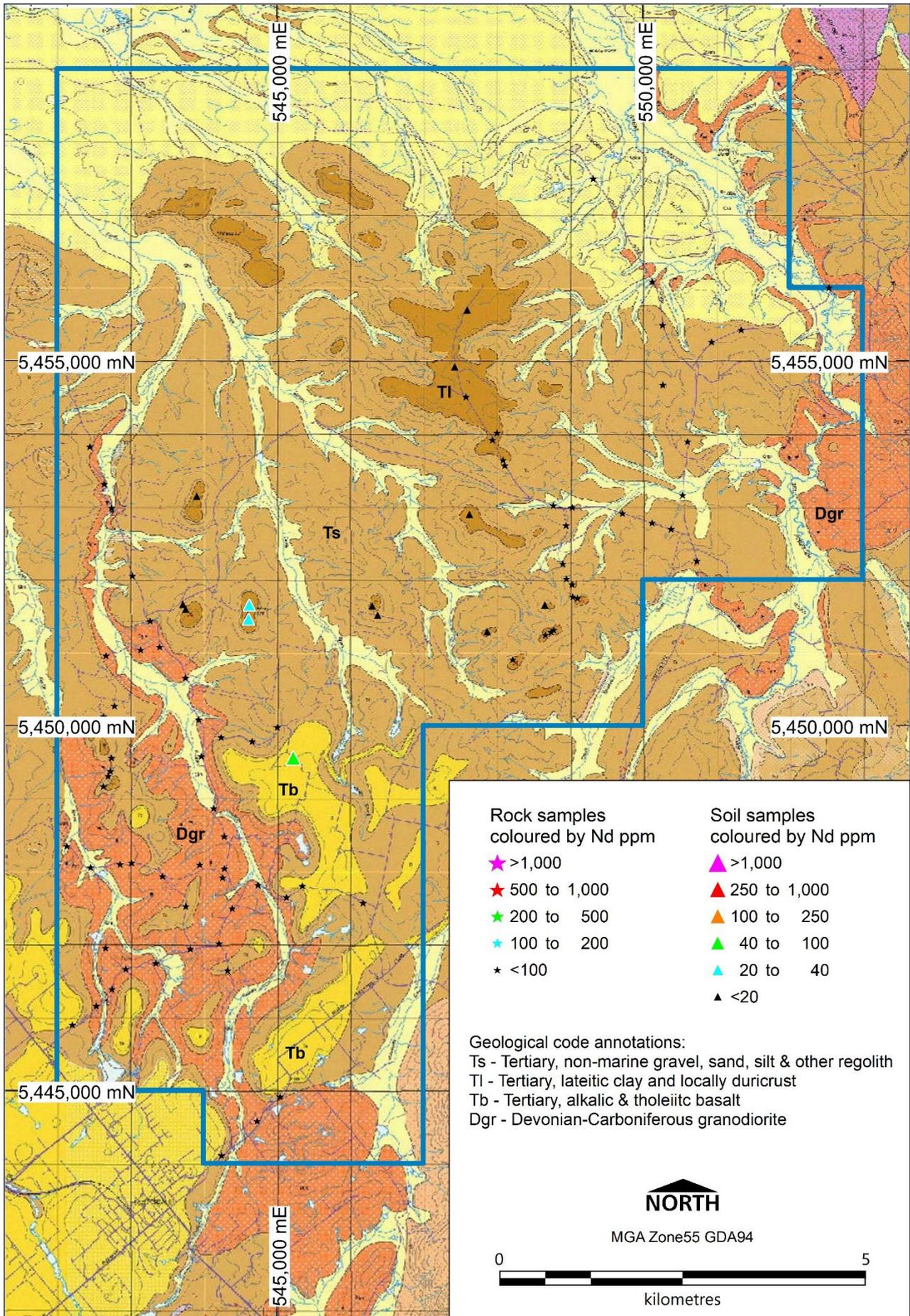


Figure 3: Rock and soil sample locations within EL11/2022, coloured by Nd

## **7 Conclusions and Recommendations**

Reconnaissance rock and soil sampling of saprolitic granite and lateritic clays developed over both Scottsdale Batholith granitoid and Tertiary ?alkali basalt targets with EL11/2022 during the 2023-2024 anniversary year failed to identify Rare Earth Element mineralisation of potential economic significance. While the sampling does not constitute a thorough evaluation the results do not justify further work. Surrender of EL11/2022 is recommended.

Rock and soil samples were collected by hand tools and were largely conducted along existing roads and tracks. Beyond established roads and tracks samples were collected on foot without use of cut tracks The sampling did not result in any environmental impact for remediation.

## 8 References

Anon, 2011. Exploration Licence SEL37/2007 North East Tasmania relinquishment report. Unpublished report available from MRT (11\_6215)

Coyte, T., 2017. Final report on EL4/2010 – Evandale – 14 September 2010 – 13 September 2017. Unpublished report available from MRT (17\_7798)

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McConachie, B.A., 1985. 1<sup>st</sup> Quarterly and Final Report. Unpublished report available from MRT (85\_2338)

Roberts, M., 2015. SEL5/2005 annual report December 2015. Unpublished report available from MRT (16\_7375)

Stewart, J., 2008. Surrender report for the period to 5<sup>th</sup> August 2012 Bridport Exploration Licence EL10/2008. Unpublished report available from MRT (10\_2008)