



EL40/2022  
Voyager Project

FIRST AND FINAL ANNUAL REPORT  
13<sup>th</sup> September, 2024

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DATE: 13<sup>th</sup> January, 2025

Datum used in report: GDA94

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# 1 Executive Summary

This is the first / final annual report on EL40/2022 by Lithium Universe Limited. The tenement is explored as part of the company's Voyager Rare Earth Project, comprising two adjacent exploration licences; EL40/2022 and EL32/2022, located in central and eastern Tasmania.

Exploration work during the year to 13/09/2024 on EL40/2022 involved historical review associated with ongoing GIS-based data compilation, interpretation, target generation and planning. This work was in part related to preliminary analysis of aerial survey data.

No field work has been undertaken following the tenement granting; largely since the company's focus had been upon research initially focused on identifying targets with rare earth elements (REE) potential. There is obvious potential to upgrade digital data sets and test target models, likely resulting in large gains in understanding of the area.

The EL40/2022 tenements has similar geological setting to ABx Group Limited (ABx) tenures of the Launceston area, where clay-hosted REE have been discovered with mineral resources reported as 89Mt @ 844ppm Total Rare Earth Oxides (TREO) in May 2023. These deposits are analogous with Ionic Adsorption Clay (IAC) deposits that have produced REE in southern China using simple leaching. ABx stated that early test-work indications show their rare earth elements are easily leached and could be concentrated at low cost, with no deleterious elements.

Geological assessment of Voyager's tenures indicates the presence of various areas of clay and bauxite, representing an ideal environment for the occurrence of rare earth elements.

Lithium Universe exploration rationale aimed to assess the following:

- To assess the regional extent of the source rock that is rich in REE (principally Neodymium) and highly corroded and leached so that it has released REE into ancient groundwaters.
- Discovery of transport pathways that have transported the REE; and
- To identify and drill-test the traps where potentially large REE deposits could exist.

A systematic exploration program comprising surface mapping, geochemical soil sampling and geophysical surveys to identify drill targets for drill testing was originally planned for the Voyager licences, however due to a change in corporate strategy Lithium Universe Limited has opted to focus its efforts on the development of its Lithium Carbonate Refinery and Exploration Assets in Québec, Canada and hence the complete surrender of the licence.

## 2. Introduction

The Voyager Project consists of two Exploration Licences, EL32/2022 and EL40/2022 currently held by Tasmanian REE Limited in an 80/20 JV arrangement between Lithium Universe Ltd and Kanata Minerals Pty Ltd, located in northern and eastern Tasmania respectively. The Voyager Project boasts a large landholding of 369 km<sup>2</sup> over two exploration licenses covering seven separate areas. This report focuses on license EL40/2022 comprising three areas totalling ~198 km<sup>2</sup>, extending from east of Campbelltown in the midlands through to Swansea on Tasmania's east coast (Figure 1).

EL40/2022 is an under explored greenfield exploration project for Rare Earths, strategically located near good labour supply, road and power infrastructure. The tenement areas are prospective for REE with ironstone / laterite, bauxite and clay occurrences similar to the first Ionic Clay Rare Earth discovery in Tasmania made by ABx near Launceston. Importantly, the numerous recorded clay and bauxite occurrences are yet to be tested for Rare Earths.

The regional work done to date indicates an exciting potential for further discoveries of REE in Ionic Clays. A systematic exploration program comprising surface mapping, geochemical soil sampling and geophysical surveys to identify drill targets for drill testing was originally planned for the Voyager licences, albeit due to a change in corporate strategy Lithium Universe Limited has opted to focus its efforts on the development of its Lithium Carbonate Refinery and Exploration Assets in Québec, Canada and hence the complete surrender of the licence.

Regionally, the geology of relevance to REE exploration primarily comprises Jurassic tholeiitic dolerite, Tertiary calc-alkaline basalt with Cretaceous – Quaternary ferricrete, silcrete, laterite and derived lag deposits as well as Quaternary sand, gravel and mud of alluvial, lacustrine and littoral origin (MRT 250k digital geology). Forsyth (et al., 2014) cite widespread laterite or pisolitic lag and bauxite as indicative of an extensive landscape surface. Minor occurrences of undifferentiated Triassic fluviolacustrine sequences of sandstone, siltstone and mudstone, as well as Permian upper glaciomarine sequences of pebbly mudstone, pebbly sandstone and limestone are evident within EL40/2022. A significant control on the geology is the Tamar Graben - Longford Basin complex formed dominantly by NW aligned faulting active during Cretaceous to early Neogene age (Forsyth, et al., 2014).

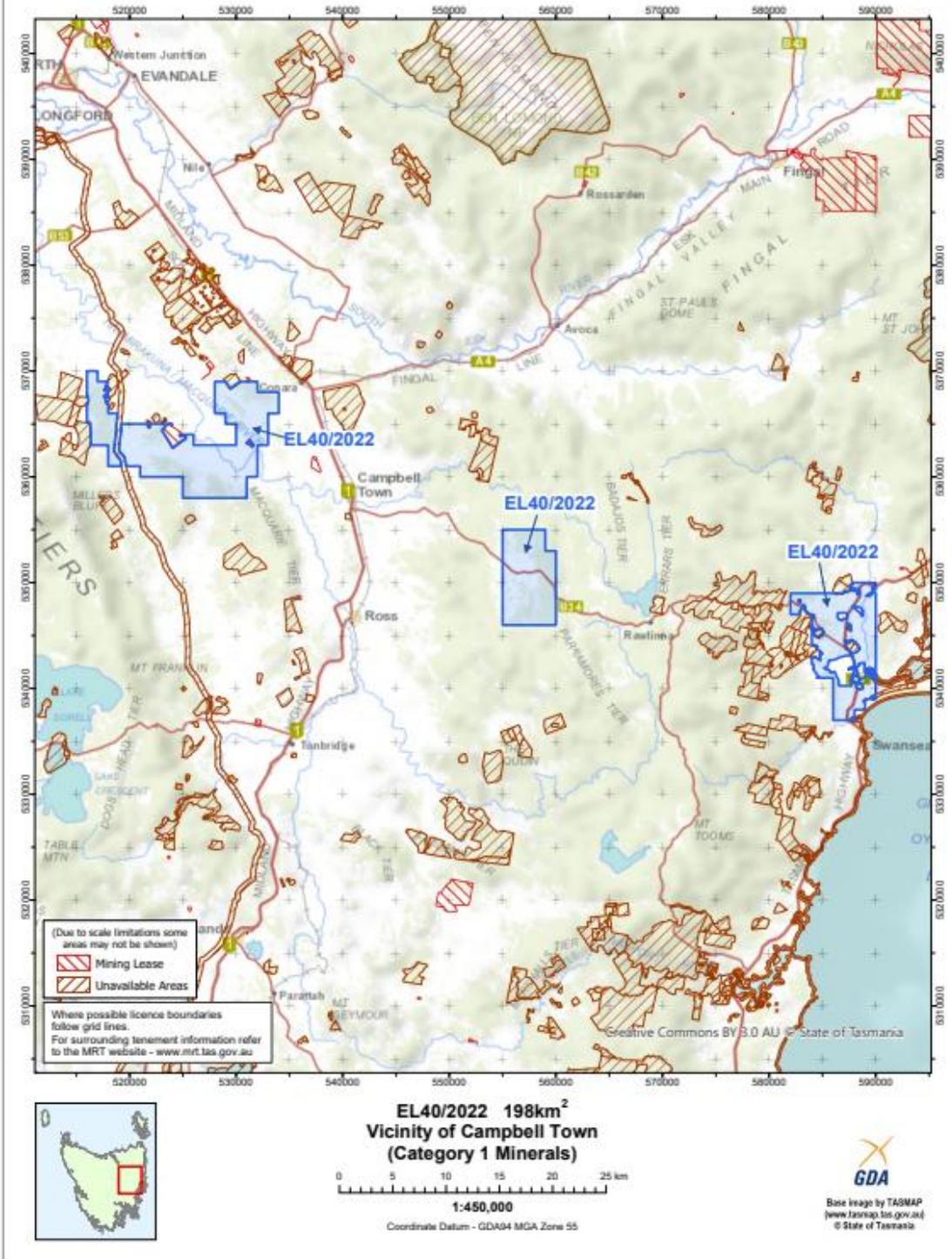


Figure 1 Location map of EL40/2022

### 3. Review of Previous Work

Historically exploration within the EL40/2022 and EL32/2022 region has largely focused upon nonmetallic industrial minerals mainly including construction materials and minor resources and occurrences of brown and lignite coal. Ball, fire and brick clays are noted from the Launceston Basin with principal deposits at Carrick and Western Junction. Dolomite has been mined at Cressy for use as smelter flux (Bacon et al., 2008) and more recently petroleum and geothermal “hot rock” power potential has been investigated.

Bauxite has been known in the EL40/2022 and EL32/2022 areas since the 1940s. Small areas of bauxite in the northern Midlands and Swansea areas were apparently derived from deep weathering of dolerite and basalt during the Tertiary (Bacon *et al.*, 2008). The known deposits are small by Australian standards and little production has occurred, but relatively recently ABx identified and mined a small bauxite resource near Campbell Town, Tasmania.

ABx later identified REE potential in bauxite bearing areas, via analyses of old drill hole samples in 2020 on their exploration licenses EL9/2010 and EL10/2010 in northern Tasmania. Subsequently in 2021, 31 drill holes extended the recognised potential beyond the identified bauxite at their DL130 (renamed to Deep Leads) and Rubble Flat prospects, with another campaign of 145 holes further expanding REE potential linking the prospects of 7km separation (Towns and Levy, 2022).

ABx worked with EDrill Australia to develop a push-tube clay coring tool to improve recoveries when sampling for clay-hosted REE mineralisation. Their leach test work demonstrated true Ionic Adsorption Clay REE (IAC REE) mineralisation potential, achieving REE leach extraction rates of up to 70% at pH 4 with low-cost benign reagents and short residence times. Towns and Levy (2022) considered their drilling had discovered potentially mineable grades and thicknesses of IAC REE mineralisation in clay-filled channels containing fragments eroded from the bauxite horizon and dolerite.

A further 36 track mounted RC holes in 2023 identified widespread mineral potential including 5km northeast of Deep Leads where RM302 returned ABx’s strongest intercept to-date of 11m @ 1700ppm TREO (Levy 2023, ASX Announcement). This drilling upgraded the Deep Leads – Rubble Mound resource to 27Mt @803ppm TREO. Exploration drilling ramped up through early 2024 with a significant global resource upgrade from four principal deposits (also including the Alluvial Flats and Leech Scrub prospects) reported by ABx (Levy, 2024) from further work as 89 Mt @ 844 ppm TREO based upon 895 drill holes.

### 4. Exploration completed during the reporting period

Exploration work during the year to 13/9/2024 on EL40/2022 involved historical review associated with ongoing GIS-based data compilation, interpretation, target generation and planning. This work was undertaken in conjunction with EL40/2022 and in part related to analysis of aerial geophysical and LIDAR survey data. Assessment concluded that significant untested Ionic Adsorption Clay REE potential exists within the EL40/2022 tenement area.

No fieldwork has been done following the tenement granting; this is mainly because the company's focus had been upon research, with the initial focus on identifying targets with REE potential. No significant conclusions were made given the early stages of review undertaken. However, there is obvious potential to upgrade digital data sets and test target models, in part via orientation surveys, likely resulting in large gains in understanding of the area.

Lithium Universe exploration rationale aimed to assess the following:

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A systematic exploration program comprising surface mapping, geochemical soil sampling and geophysical surveys to identify drill targets for drill testing was originally planned for the Voyager licences, however due to a change in corporate strategy Lithium Universe Limited has opted to focus its efforts on the development of its Lithium Carbonate Refinery and Exploration Assets in Québec, Canada and hence complete surrender of the licence.

A desk top review involving REE research and deposit model development, compilation of GIS data including digital geology and airborne geophysics data gridding was conducted. This assessment reached a cursory level without generating specific targets. Similarly, the evaluation of the IAC deposit data generated by leading competitor *Abx*, was also in its infancy.

GIS data compilation captured relevant open-source data from Mineral Resources Tasmania (MRT) and "The LIST". This in part involved digitisation of some competitor REE explorers (ABx) ASX releases for comparative assessment. The LIST provided an extensive data source - [LISTdata Open Data \(thelist.tas.gov.au\)](https://thelist.tas.gov.au) for cadastra and topography data sets related to council areas. [MRT](#) digital data sources downloaded and investigated include deposits, drilling, 250k & 25k geology and geophysical surveys. The later surveys [northtas1999](#), [setas2022](#) and [tiers2021](#) sample magnetics and radiometrics, whilst [cressy1993](#) provides magnetics and conductivity data. Open file ABX annual reports to MRT were investigated to glean relevant information, in particular targeting rationale and assisting development of an exploration model for regional assessment. Most of these reports relate to partial relinquishments.

## 5. Environmental Management

There are no environmental concerns to address since no on groundwork was undertaken.

## 6. Expenditure

Table 1 EL40/2022 expenditure for 2024

Geology	\$2,355
Geochemistry	
Geophysics	
Remote Sensing	
2. Drilling & Gridding	
Drilling	
Gridding	
3. Land Access	
4. Rehabilitation	
5. Feasibility Studies	
6. Other	\$11,923
7. Administration	\$16,144
<b>8. Total Exploration Costs</b>	<b>\$30,422</b>

## 7. References

- Bacon, C, A., Calver, C, R., and Pemberton, J., 2008. The Industrial Mineral Deposits of Tasmania. Mineral Resources Tasmania Bulletin 13. GSMR13.pdf.
- Forsyth, S, M., Quilty, P, G., & Calver, C, R., 2014. Cenozoic Onshore Basins and Landscape Evolution. In Corbett, K. D., Quilty, P. G., & Calver, C. R. editors, 2014. Geological Evolution of Tasmania. Geological Society of Australia (Tasmania Division).
- Levy, I., 2023. REE resource increases to 27m tonnes and new discovery. ABX ASX Announcement 18/7/2023.
- Levy, 2024. ABx Rare Earth Resources Increase 70% to 89Mt. ABX ASX Announcement 2/5/2024
- Towns, N and Levy, I., 2022. Final drilling report on work subject to an Exploration Drilling Grant Initiative (EDGI) Finding – Round 6. Company report to MRT. 23\_8718

## 8. Appendix

Table 2 List of Appended Digital Files

Exploration Work Type	Filename	File format
<i>Report</i>	EL402022_202409_01_Report.pdf	<i>pdf</i>
<b>Other (specify)</b>		
<b>File Verification Listing</b> ( <i>this file</i> )	EL402022_202409_02_FileListing.xls	<i>xls</i>