

**Core Uranium Pty Ltd**

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**Exploration Licence for Minerals (EL32976)  
“Behr Project”  
6 June 2022 – 5 June 2023  
Annual Report**

July 2023

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## Introduction

Core Uranium Pty Ltd (Core Uranium) is a mineral exploration company established for the purpose of exploring for uranium within the Northern Territory.

Core Uranium believes strongly that uranium is set to play an increasingly significant role in the global energy supply. There is currently a resurgence of interest in nuclear energy with many new reactors and life extensions being announced across the world. Many countries are announcing 'zero-carbon' goals and it is becoming apparent that this is unlikely to be achieved without the assistance of nuclear energy. This, together with several years of uranium prices below the average cost of production, has led to a structural supply deficit in the uranium fuel market. Global inventories are currently being consumed to meet this deficit and the spot price of yellowcake is trending upwards. It is now apparent that new sources of supply will need to be brought online in the coming decades to meet not only the current demand shortfall, but also the forecast increase in demand.

Following a review of various publicly available data-sets, Core Uranium believes that the application area has significant potential to host an economic uranium deposit. Core Uranium is growing a strong technical team with vast experience and expertise in mineral exploration and is focused on making a discovery.

## Minerals Sought

Core Uranium would like to apply for the 241 sub-blocks which are the subject of this work program rationale to investigate any potential uranium targets. During the course of this work, Core Uranium will naturally assess prospectivity for other minerals, however, our primary focus is uranium.

## Exploration Rationale

Review of historic exploration reports, published literature and open-source data indicates potential for uranium within the application area. Previous exploration in the area has not thoroughly tested the area and we believe that there is potential for economic uranium resources to exist in the area.

Core Uranium is keen to utilise the most modern geophysical, geochemical and other techniques to search for exploration targets.

Core Uranium is aware of anomalous helium concentrations in petroleum bores in the southern Amadeus Basin, only a few tens of kilometres to the north of the application area, which leads us to suspect that there may be anomalous concentrations of uranium in the vicinity.

## Targets and Methodology

The entire application area is underlain by rocks of the Amadeus Basin, which have the potential to host roll-front or similar style mineralisation. Initial studies would comprise further desktop work, including more thorough and comprehensive interpretation of available geophysical and geochemical data to further refine potential exploration targets. This desktop work would be followed by fieldwork such as mapping and geochemical sampling and an appropriately designed geophysical survey to further refine drilling targets.

## Regional Geology

The Amadeus Basin is a large intra-cratonic basin that extends across the south-western part of the Northern Territory, south of Alice Springs and into Western Australia. It is approximately 800 km long in the east-west direction and up to 300 km wide in the north-south direction. It contains up to 14 km of sedimentary rocks of Neoproterozoic to Palaeozoic age. These are partially covered by surficial Tertiary and Quaternary deposits. The basin has had a long-lived multi-event tectonic history.

The basal sequence of Neoproterozoic strata comprises shelf, lagoonal and continental fluvio-glacial sediments, including thick evaporates and minor volcanics. Cambrian sediments of continental and shallow marine origin overlie disconformably and include carbonates and evaporates. Unconformable late Cambrian-Ordovician marine sediments or continental Devonian-Carboniferous sediments complete the sequence. The present day shape of the Amadeus Basin effectively results from two major orogenic cycles. Extensive broad folding and thrusting deformed the southern margin of the basin during the Petermann Orogeny (late Proterozoic). The Alice Springs orogeny (Devonian-Carboniferous) similarly deformed the northern margin. These events are regarded as important to ore forming processes.

## Local Geology

Sub-surface geology of the area is interpreted to consist entirely of sedimentary rocks of the Amadeus Basin, as described above, see Figure 1.

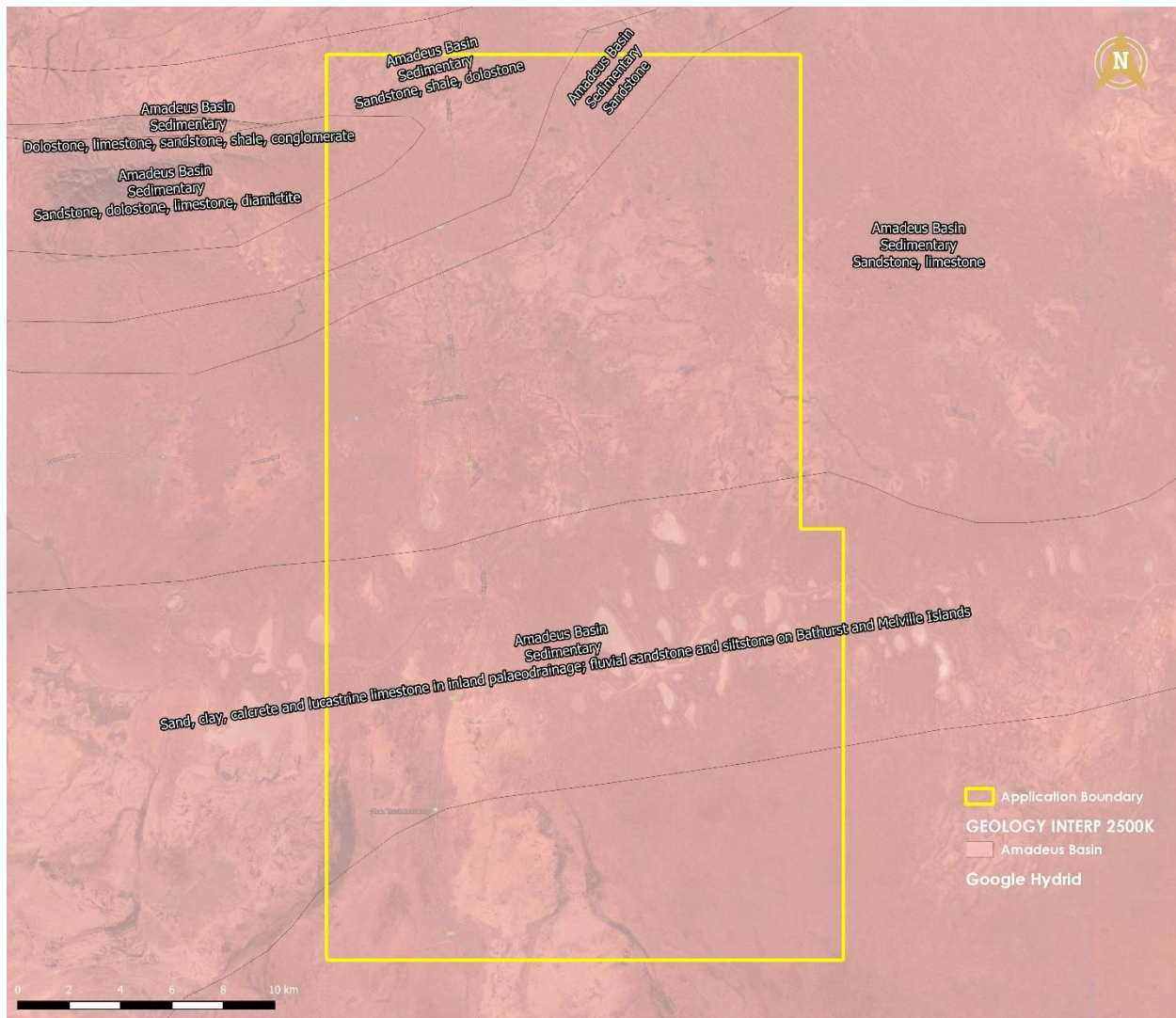


Figure 1: Geology.

## Granted Area

Core Uranium is applying for 241 sub-blocks as described in **Error! Reference source not found.** and shown in Figure 2.



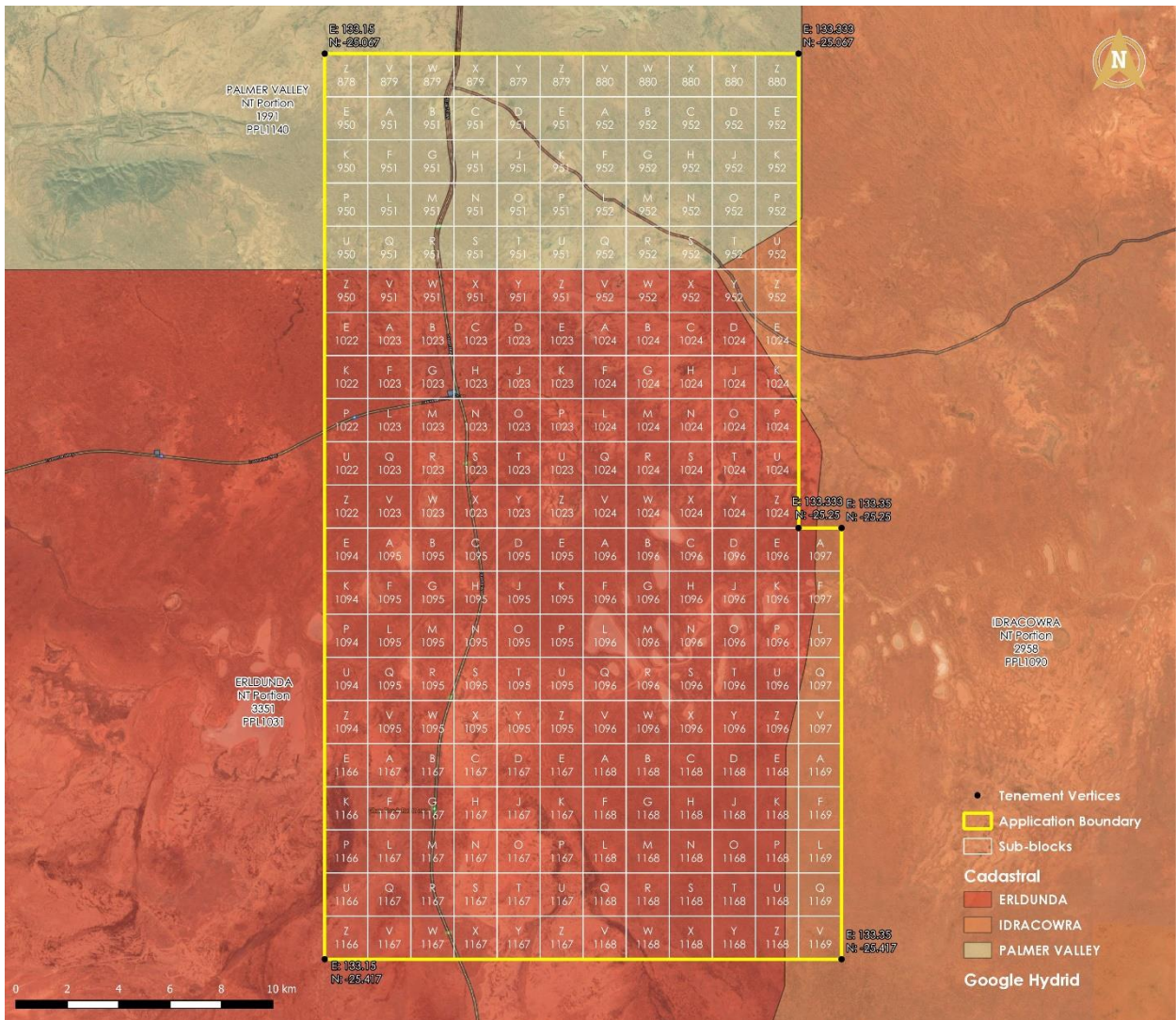


Figure 2: Sub-blocks, tenement vertices and cadastral.

## Conclusion and Recommendation

Core Uranium decided after the completion of initial field work to relinquish the tenement.