

EXPLORATION UPDATE – LYNDON PROJECT

Highlights:

- Upcoming mapping and rock chip sampling for unconformity-type and calcrete-type uranium mineralisation at Lyndon Project
- More than 100km strike of prospective Devonian carbonate – Glenburgh Terrane at Lyndon Project
- Unconformities at Lyndon remain largely unexplored but are related to uranium mineralisation, as proven at the Ben Hur, Giant and Red Hill prospects
- Following receipt of the Heritage Survey, the Relief Well and Baltic Bore prospects are permitted for drilling, with additional work ongoing to obtain clearances for additional targets near creeks at Baltic Bore
- Devonian carbonates of Western Australia are known hosts of copper-lead-zinc Mississippi Valley-Type deposits – mapping of carbonates aims to determine prospectivity of carbonate units at Lyndon for base metal mineralisation
- Relief Well Uranium Prospect immediately adjoins Paladin Energy's Carley Bore Uranium Project (15.6MLbs U₃O₈ announced resource)

Odessa Minerals Limited (ASX:ODE) ("Odessa" or the "Company") is pleased to provide an Exploration Update for the Lyndon Project ("Project"), located approximately 200km northeast of Carnarvon in Western Australia.

Zane Lewis, Non-Executive Chairman of Odessa, said;

"Odessa is set to commence its 2025 exploration programs that will focus on uranium mineralisation at the Lyndon Project. Across the Project, the unconformity between the Devonian Carbonates and the Glenburgh Terrane spans more than 100km of strike and is directly related to uranium mineralisation at the Ben Hur prospect. Beyond the Ben Hur Trend, no work has been undertaken to assess the potential for unconformity-type or calcrete-type uranium mineralisation related to the unconformity.

Our exploration team is mobilising to site this month to begin a detailed assessment of the unconformities for uranium prospectivity. Relief Well is fully permitted for air core drilling that will test for extensions to Paladin Energy's Carley Bore roll-front uranium deposit. Odessa continues to engage with the Native Title Group to expand Heritage Clearances at Baltic Bore, building on last year's survey."

Lyndon Uranium Mineralisation

Uranium mineralisation at the Lyndon Project is present in multiple types, including calcrete- and roll front-type, with the Project being considered prospective for unconformity-type (Figure 1). Historic work at the Ben Hur prospect has shown that, in addition to calcrete-type mineralisation, uranium mineralisation is present within the matrix of a limestone host proximal to an outcropping portion of the Devonian-Glenburgh unconformity¹.

¹ Refer to ASX announcement called "Uranium at Odessa's Lyndon Project Gascoyne Region, Western Australia" dated 29 January 2024.

Since then, no further work has been conducted along the unconformity with all uranium exploration focusing on calcrete-type mineralisation at Giant, Red Hill, Baltic Bore and Jailor Bore.

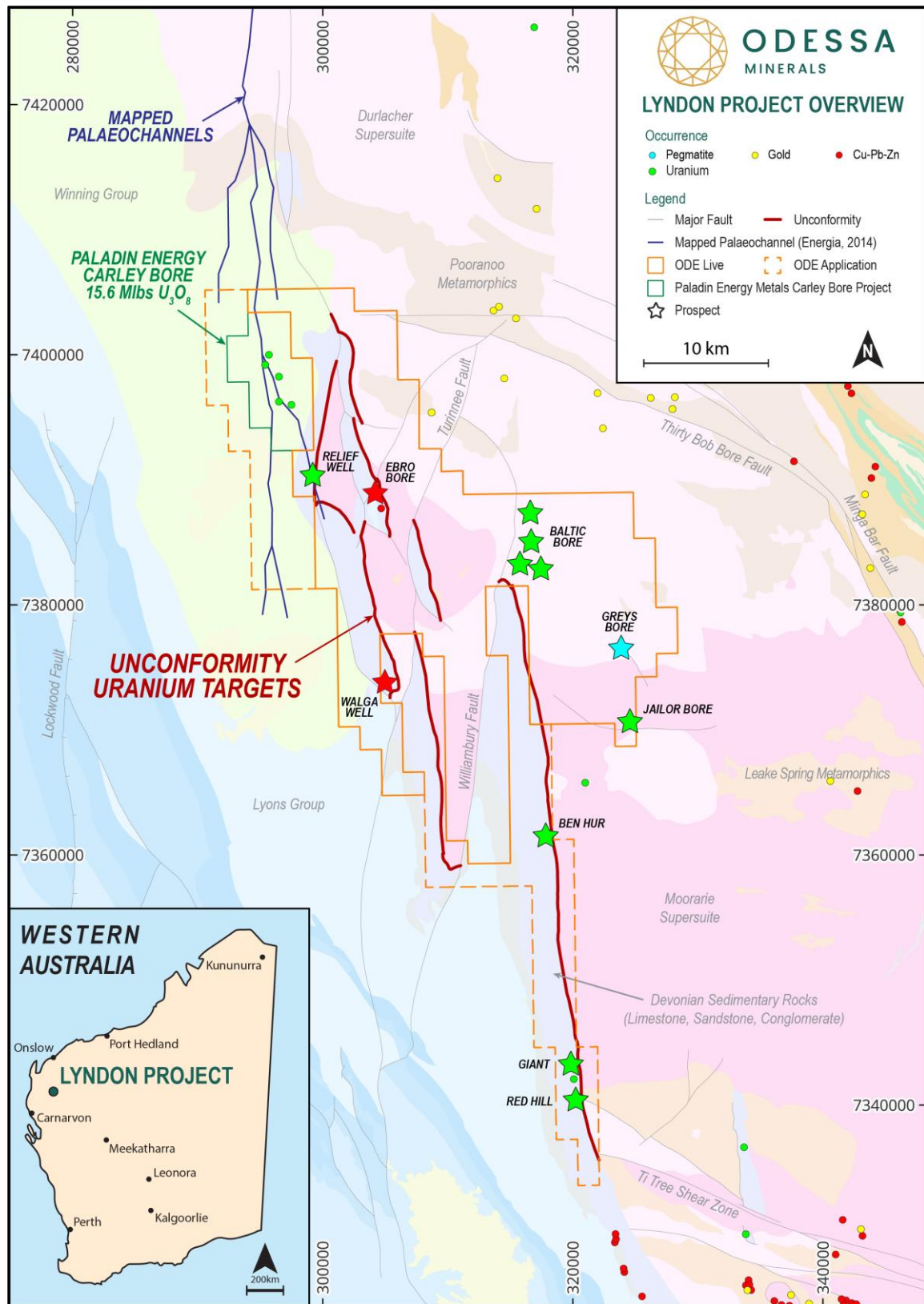


Figure 1: Lyndon Project in relation to Minedex occurrences and the Carley Bore Project (Paladin Energy). Underlain with GSWA 1:500k bedrock geology and structures. Unconformity targets highlighted by red lines.

Exploration by Odessa for uranium mineralisation at the Lyndon Project has, to date, focused on roll front-type mineralisation at the Relief Well prospect and calcrete-type mineralisation at the Baltic Bore and Jailor Bore prospects. The Devonian sediments of the Gneuda Formation represent promising uranium targets within the Lyndon Project, including surficial calcrete-type, sandstone-hosted tabular-type and unconformity-type mineralisation (Figure 2).

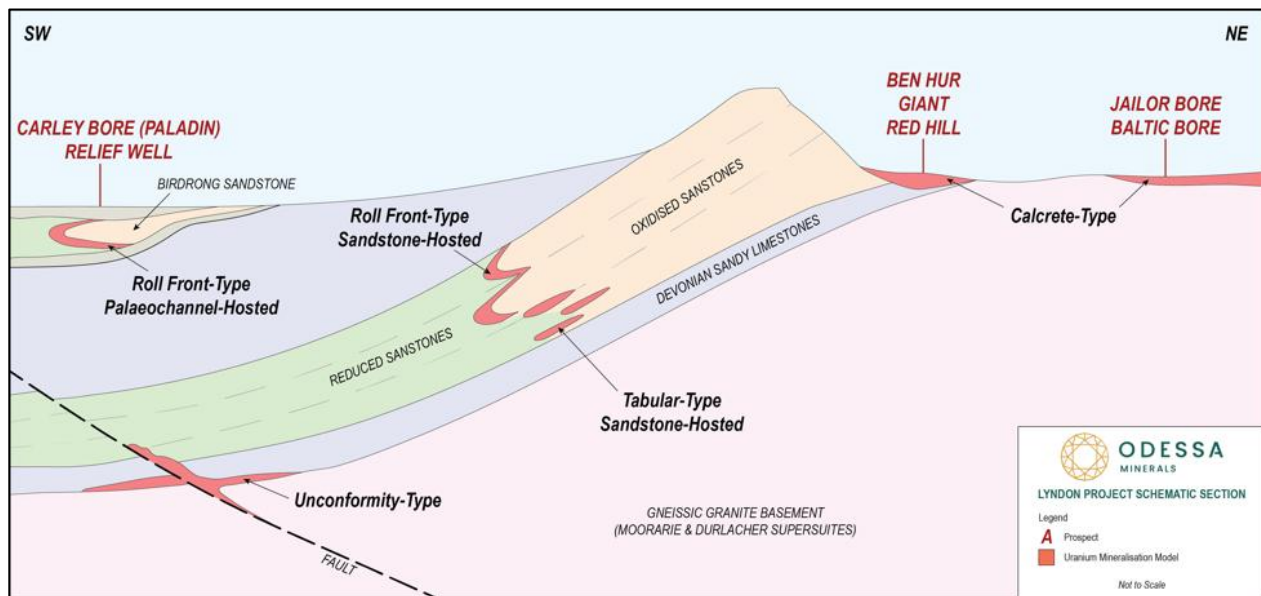


Figure 2: Schematic model section of potential uranium mineralisation styles across the Lyndon Project area. The relative position of prospects are displayed.

During 2008-2010, VTEM surveys returned a series of conductive anomalies, interpreted as shales and micritic limestones, spanning over 35km strike of the Devonian Gneuda Formation and overlying Cretaceous units².

Re-processing and re-interpretation of data by Odessa Minerals highlights multiple targets across the Ben Hur Trend that are prospective for unconformity-type and sandstone-hosted roll front-type and tabular uranium mineralisation, related to fault intersections with sandstone units and the unconformity (Figure 3). These fault-intersections are particularly prospective targets, where uranium sourced from the radiogenic granites of the Glenburgh Terrane are more likely to concentrate in the porous, reducing units of the Devonian sequence.

Newera Resources conducted drilling during 2011 at the Giant-Red Hill Prospects and reported 69 significant intersections above 100ppm U_3O_8 , up to 2m @ 411ppm U_3O_8 from 4m³.

Additional interpretation of VTEM data at the Relief Well prospect shows similar structural intersections are present along the unconformity situated to the east of the palaeochannel (Figure 4). No field work has been conducted along this portion of the unconformity and will be the initial focus of fieldwork by Odessa.

² Refer to ASX announcement called "Uranium at Odessa's Lyndon Project Gascoyne Region, Western Australia" dated 29 January 2024.

³ Refer to ASX announcement called "Uranium at Odessa's Lyndon Project Gascoyne Region, Western Australia" dated 29 January 2024.

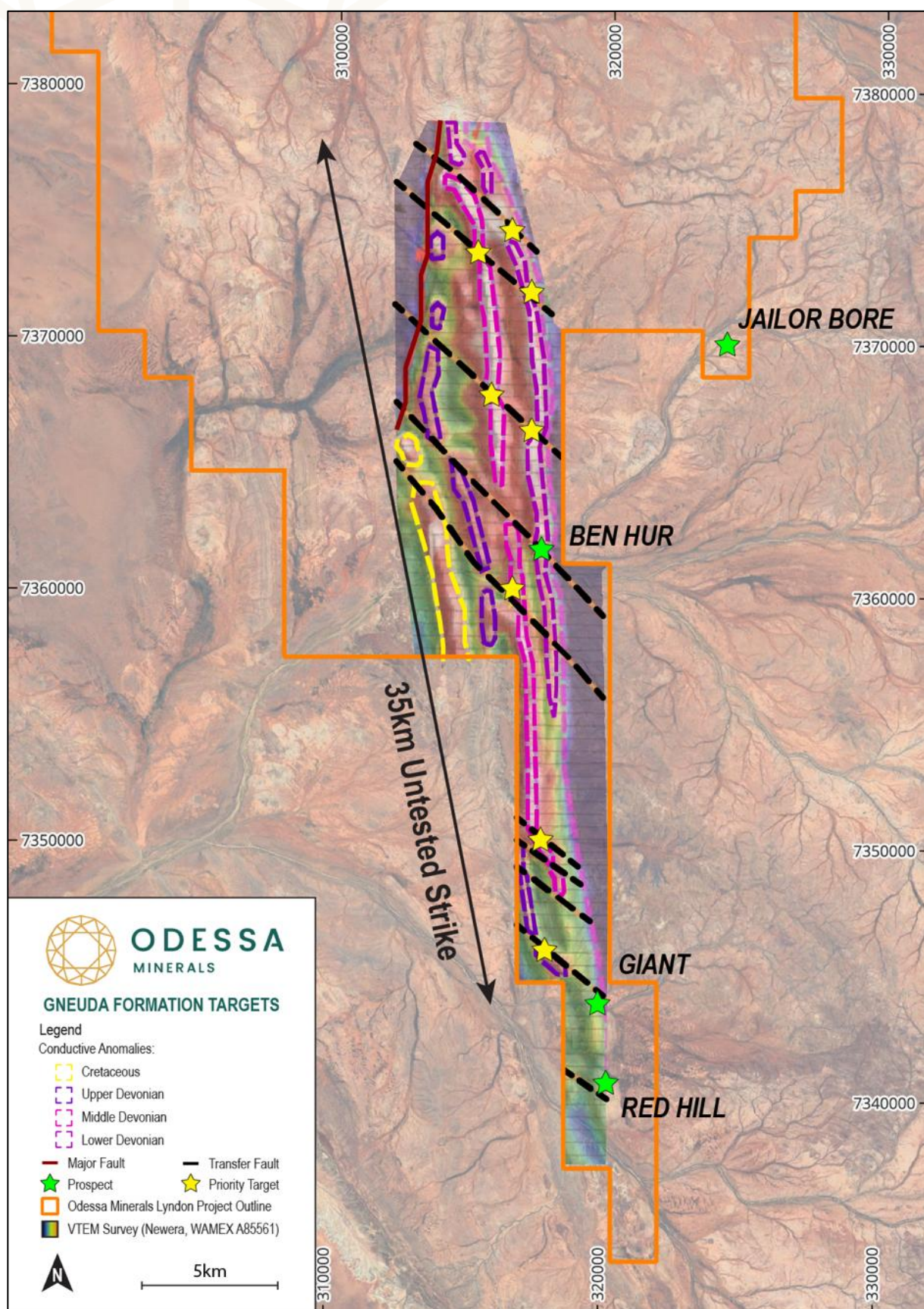


Figure 3: VTEM imagery along the Ben Hur Trend overlain with interpreted conductive anomalies and faults, with priority targets displayed relative to known prospects. Modified after Newera Resources.



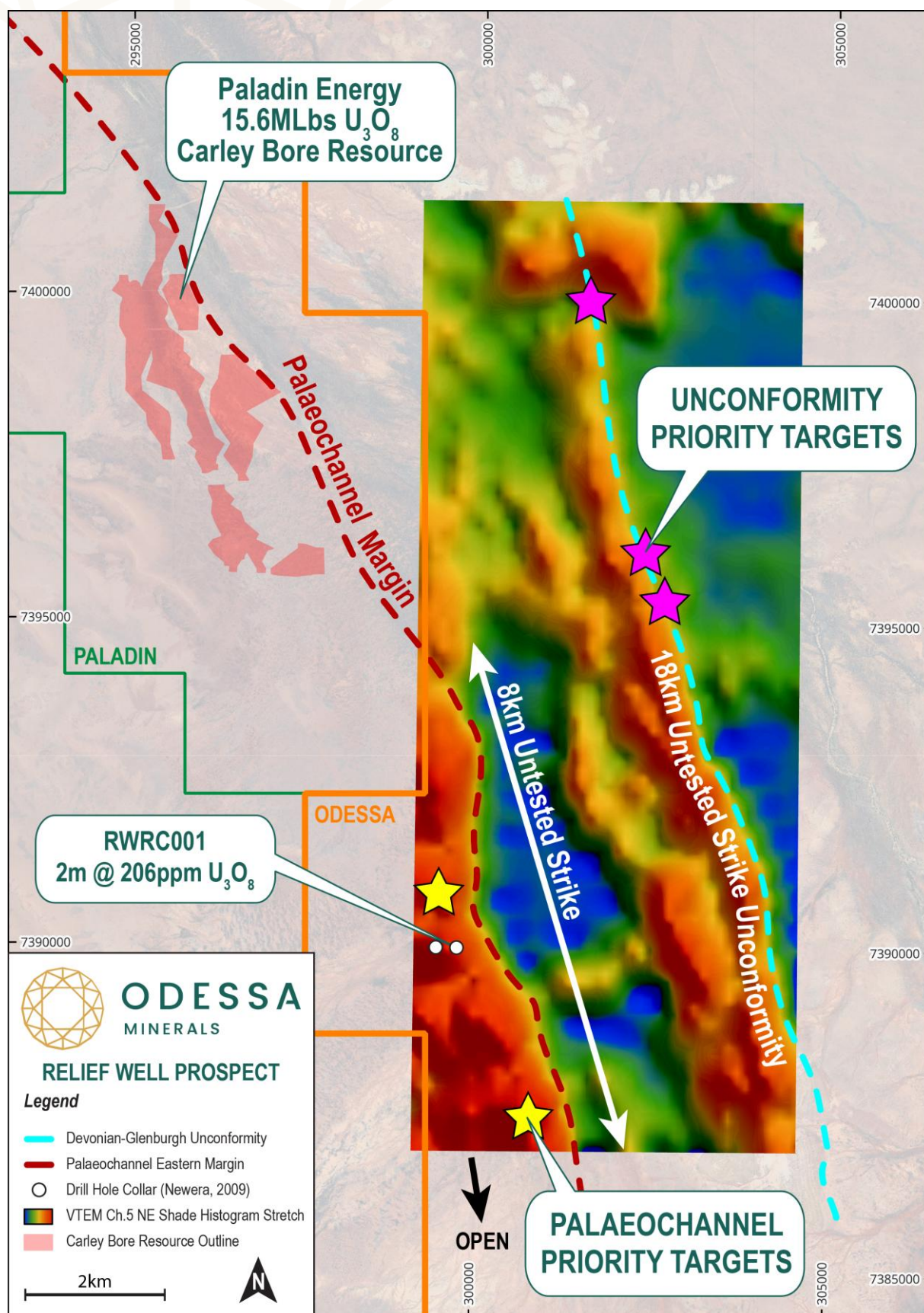


Figure 4: Relief Well Prospect interpreted palaeochannel extension from the Carley Bore Uranium Deposit. Structural intersections that are targets for uranium mineralisation are highlighted by pink stars. Newera drill holes displayed.



Next Steps

Odessa's exploration team are set to commence on-ground exploration along the unconformity following completion of structural interpretation and target ranking. Initial mapping and rock chip sampling will be undertaken along the unconformity situated to the east of the Relief Well prospect, an area that has seen no previous exploration.

Following detailed mapping, future systematic drilling along the contact between the Gneuda Formation and the underlying Durlacher and Moorarie Supersuites is required to map out the location of the unconformity and hydrothermal alteration that may indicate the presence of uranium mineralisation.

Additional mapping will be undertaken across the Devonian sequence in order to delineate the potential for the units to host Mississippi Valley-Type copper-lead-zinc mineralisation, analogous to the deposits of the same-aged Lennard Shelf.

Odessa is engaged with the Native Title Group to expand the surveyed areas at Baltic Bore to obtain clearances for additional calcrete-type uranium targets

Lyndon Project Overview

The Lyndon Project is located on the margin of the Carnarvon Basin and Gascoyne Complex approximately 200km south of Onslow and 200km NE of Carnarvon, in Western Australia. The project consists of over 1,000km² of exploration licenses and applications.

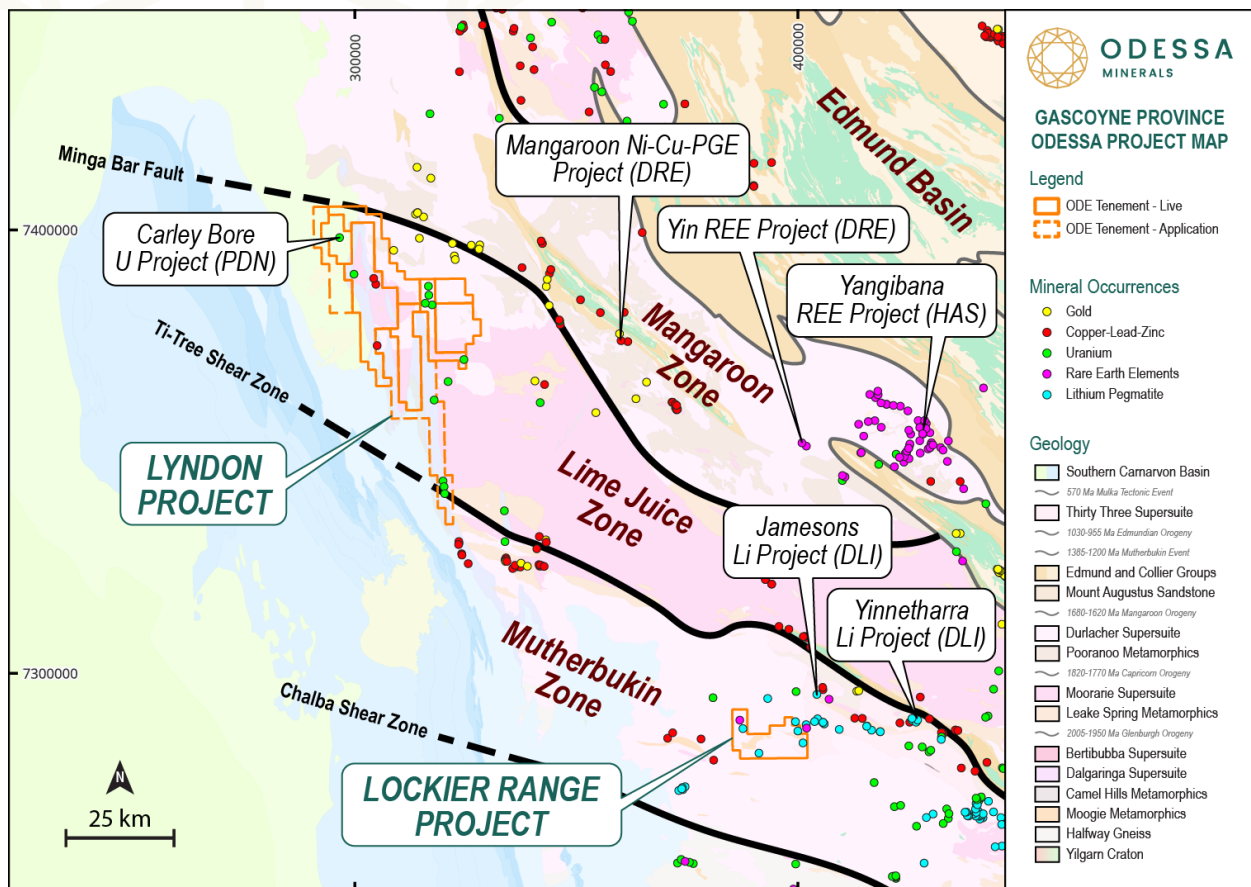


Figure 5: Odessa Minerals regional Gascoyne Project location map overlain with Geological Survey WA Minedex Occurrences.

The Company has previously conducted detailed airborne magnetics and radiometrics over a large part of the project area. The Project encompasses multiple MINDEX occurrences and is prospective for Lithium-pegmatites, uranium, rare earth elements, intrusive Ni-Cu-PGE, orogenic gold and sedimentary-hosted Cu-Pb-Zn mineralisation (Figure 3).

The Project area covers the unconformity between the eastern margin of the Phanerozoic Carnarvon Basin overlying Precambrian basement of the Gascoyne Province. The basement consists of Proterozoic granites, metamorphic gneisses and schists of the Gascoyne Complex. The western parts of the Project include the Palaeozoic-Mesozoic basin margin sedimentary sequences of the Southern Carnarvon Basin including the Merlinleigh Sub-Basin, marked by Devonian sedimentary carbonates; Carboniferous-Permian glaciogene sediments of the Lyons Group; and the siliciclastic sequences of the Cretaceous Winning Group that were deposited coincident with NW-SE rifting.

This announcement has been approved for release by the Board of Odessa Minerals.

ENQUIRIES

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About Odessa Minerals

Odessa Minerals Ltd is an ASX listed company (ASX: ODE) that holds exploration licenses over 3,000km² of highly prospective ground in the highly sought-after Gascoyne region of Western Australia. Odessa's Projects are located in close proximity to significant recent lithium/pegmatite discoveries and lie in a north-south corridor of recent world class REE carbonatite discoveries.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.