

Orpheus Commences Exploration Program for Unconformity-Style Uranium at Mount Douglas



Highlights:

- **Exploration program underway at Mt Douglas, targeting unconformity-style uranium systems on Orpheus 100% owned Mt Douglas, Northern Territory (NT) project.**
- **Orpheus awarded ~\$80,000 (incl. GST) in NTGS co-funding to support a high-resolution gravity survey - scheduled for Q3 2025.**
- **Northern Territory Government approved Mining Management Plan (MMP) in place, enabling advanced-stage activities including drilling.**

Orpheus Uranium Limited (ASX: ORP) ("Orpheus" or "the Company") is pleased to announce the commencement of activities associated with on-ground exploration at its Mt Douglas Project in the Northern Territory (Figure 1). This follows the recent award of a \$80,000 co-funding grant (inclusive of GST) from the NT Government under its 'Innovative Targeting' Geophysics and Drilling Collaborations (GDC) program.

The exploration campaign plans to include:

- Geological reconnaissance and heritage clearance surveys across high-priority areas,
- Targeted trenching designed to expose key structures and alteration zones,
- The integration of new and legacy datasets, including acquisition of high-resolution gravity data, to define and prioritise drill-ready unconformity-style uranium targets.

The Mt Douglas Project is being progressed using a well-established geological model, drawing strong parallels to the Thunderball deposit and other unconformity-style uranium systems of the Alligator Rivers Province. These deposits typically form near the intersection of major structural corridors and the sediment-basement unconformity and are often associated with subtle alteration zones (see Figure 4). Unlike many other uranium systems, such as those in Canada's Athabasca Basin, these deposits generally lack conductive geophysical signatures and can occur near surface—making gravity data and on-ground reconnaissance critical tools for effective targeting.

Co-funding from the NTGS will therefore enable a high-resolution regional gravity survey, scheduled to commence in Q3 2025 (see Figure 2). This work builds on collaborative datasets generated in 2024 by NTGS and Geoscience Australia and will significantly enhance the structural and lithological interpretation of the Mt Douglas area (see Figure 3). Combined with results from the exploration activities, the gravity data will directly inform the definition of high-priority, drill-ready targets.

With an approved Mining Management Plan (MMP) and associated EP Act Authorisation (DML1190-01), Orpheus is fully permitted to undertake advanced-stage exploration, including drilling of defined unconformity-style uranium targets.

Commenting on the exploration program, Orpheus Chief Executive Officer Clint Dubieniecki commented:

"We appreciate the Northern Territory Government's continued support through the GDC initiative. This funding allows us to fast-track on-ground exploration at Mt Douglas, where field activities are now underway. By integrating early results with upcoming high-resolution gravity data, we aim to define drill-ready targets based on a proven model analogous to Thunderball and other unconformity-style uranium systems. With approvals in place, we're well positioned to advance this highly prospective project."

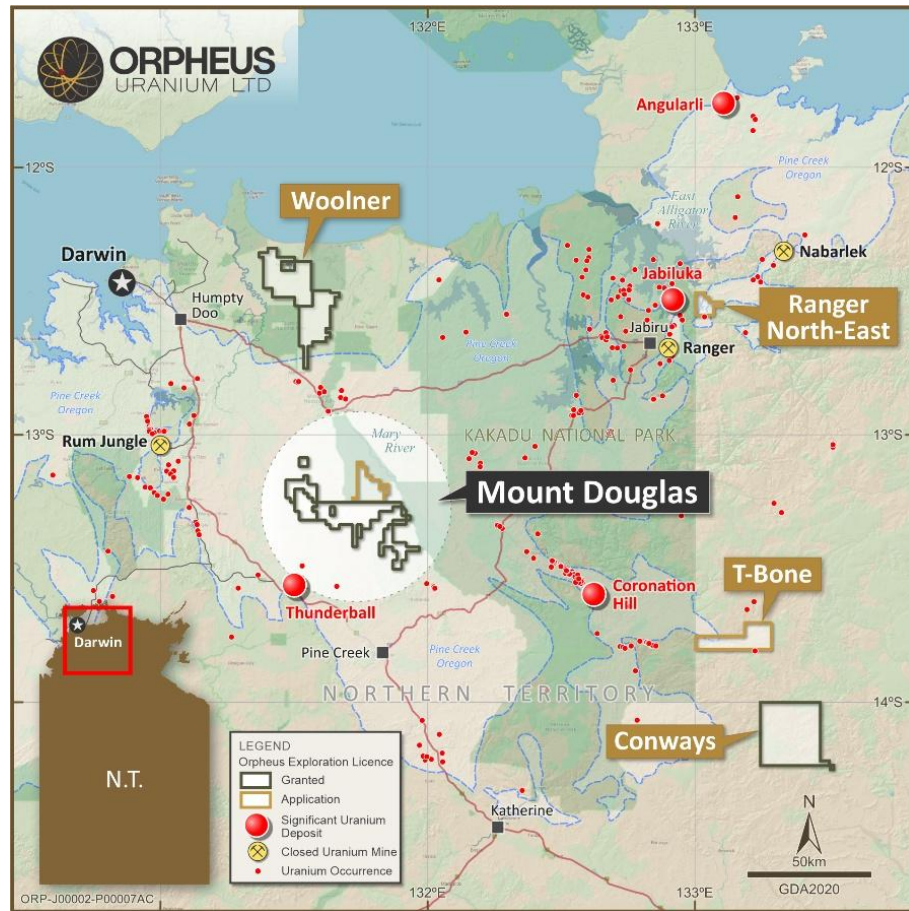


Figure 1: Location map of NT uranium assets owned by Orpheus, highlighting the Mount Douglas Project.

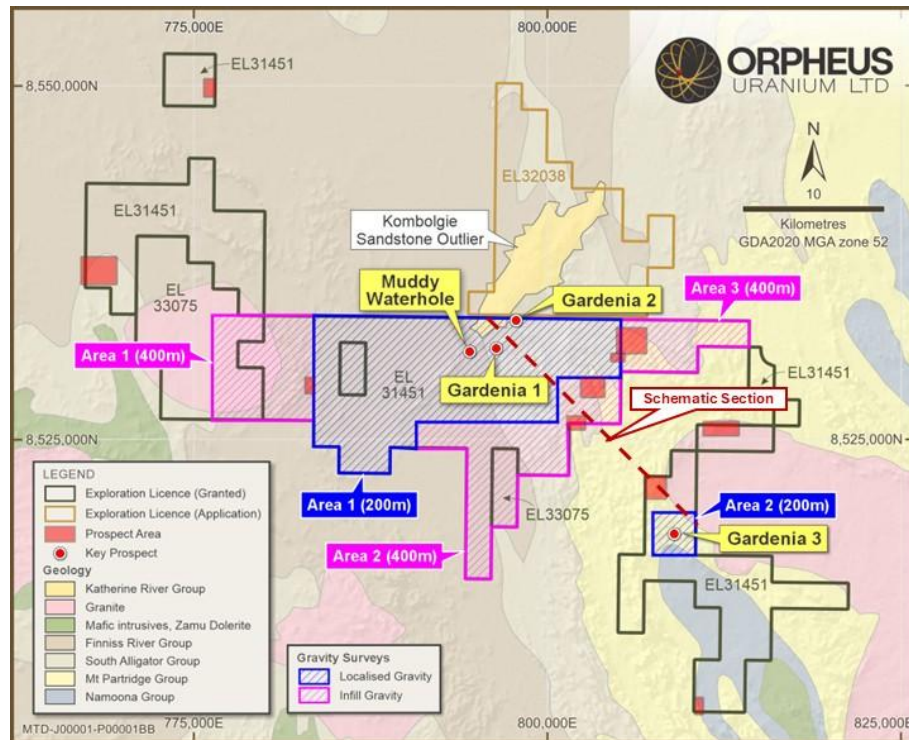


Figure 2: Regional geological maps displaying priority prospects (red dots), prospect areas (red squares), and planned gravity areas with approximate station spacing (pink and blue).

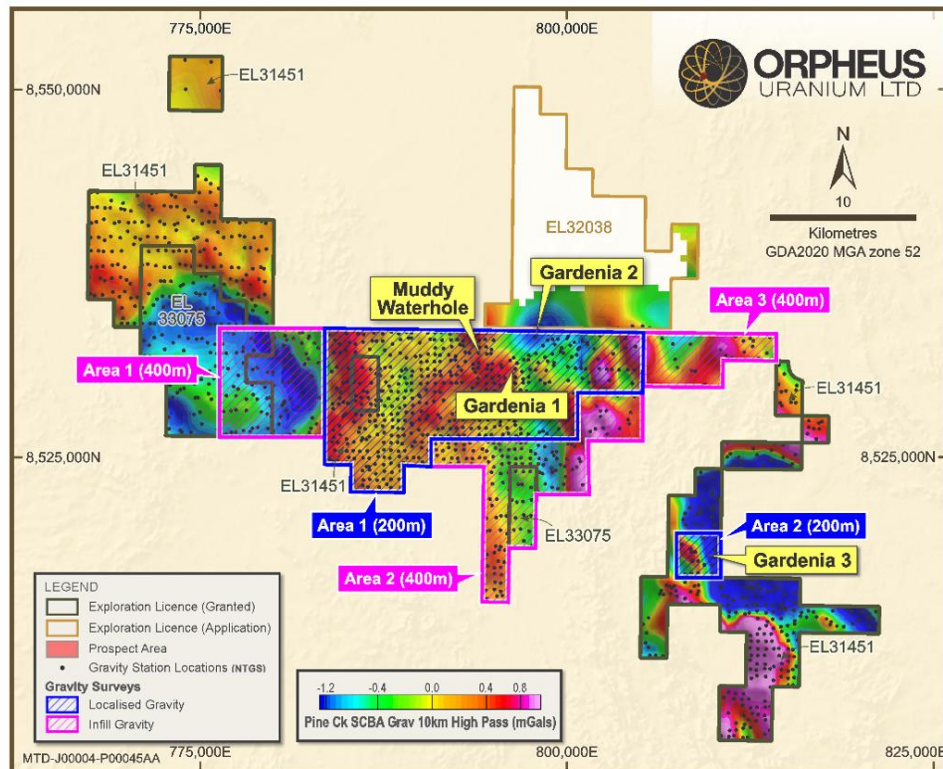


Figure 3: Regional filtered 10km High Pass Gravity preliminary gridded dataset with associated survey stations collected in conjunction with 2024 NTGS Pine Creek Gravity Survey and planned gravity survey areas. 2024 NTGS data available from: <https://resourcingtheterritory.nt.gov.au/news-and-events/news/2025/enhanced-gravity-coverage-boosts-exploration-potential-in-the-pine-creek-region>

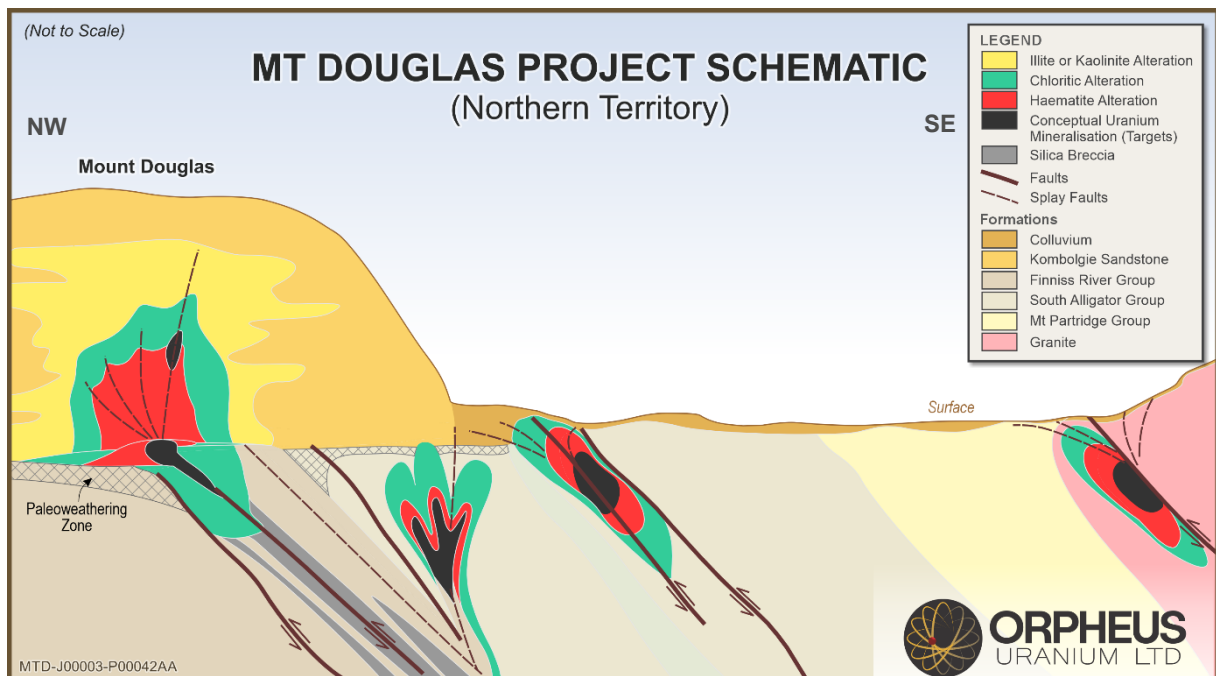


Figure 4: Schematic section and associated conceptual mineralising models for targeting unconformity-style uranium mineralisation at Mount Douglas Project (modified from Potter and Wright, 2015).

Potter, E.G., and Wright, D.M., 2015, Targeted Geoscience Initiative 4: unconformity-related uranium systems: Natural Resources Canada/CMSS/Information Management, Available <https://ostrnrcan-dostnrcan.canada.ca/entities/publication/67713449-a26a-4419-9d49-e588b0a1c7bd>

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This announcement was approved for release by the Board of Orpheus Uranium Limited.

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About Orpheus Uranium

Orpheus Uranium Limited is an Australian Securities Exchange listed exploration company exploring for uranium in South Australia and the Northern Territory, both jurisdictions which allow uranium mining and processing.

Competent Person Statement

Sections of information contained in this report that relate to Exploration Results were compiled or reviewed by Mr Clinton Dubieniecki BSc (Hons), who is a Member of the Australian Institute of Geoscientists (AIG), Member of Australasian Institute of Mining and Metallurgy (AusIMM), and is a full-time employee of Orpheus Uranium Limited. Mr Dubieniecki has sufficient experience which is relevant to the style of mineral deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Dubieniecki consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

Forward Looking Statements

The written presentation may contain forward-looking statement regarding the outlook for the Company's interpretation, work programs, and financial results. These forward-looking statements generally can be identified by phrases such as "anticipates", "potential", "plans", "intends", "believes", "likely", "appears", "expects", "likely", "appears" or other words or phrases of similar impact. There is inherent risk and uncertainty in any forward-looking statements. Variance will occur and some could be materially different from management's opinion. Developments that could impact the Company's expectations include a variety of known and unknown risks, uncertainties and other factors that could cause actual events or results to differ from those expressed or implied, including, without limitation, business integration risks; uncertainty of development plans and cost estimates, commodity price fluctuations; political or economic instability and regulatory changes; currency fluctuations, the state of the capital markets, Orpheus' ability to attract and retain qualified personnel and management, potential labour unrest, unpredictable risks and hazards related to the development and operation of exploration programs that are beyond the Company's control, the availability of capital to fund all of the Company's projects. These forward-looking statements are made as of the date of this presentation and the Company assumes no obligation to update these forward-looking statements, or to update the reasons why actual results differed from those projected in the forward-looking statements, except in accordance with applicable securities laws.