Acquisition of Strategic Tenure Enhances Uranium Potential of Marree Project

Highlights

- **Binding agreement executed to acquire 100% interest in seven exploration licences from Adavale Resources Limited (ASX: ADD), covering approximately 2,513 km², significantly expanding Orpheus Uranium's landholding contiguous with and adjacent to the Company's existing Marree Uranium Project, (subject to satisfaction of conditions precedent).**
- **Acquisition consolidates a district-scale uranium exploration position along the western margin of the Northern Flinders Ranges, strategically positioning Orpheus as the only ASX-listed junior uranium explorer with district-scale tenure in a region otherwise dominated by established private and global uranium explorers and producers (see Figure 1).**
- **Historical drilling and heliborne electromagnetic surveys have identified prospective palaeochannel-hosted sedimentary sequences and widespread uranium anomalism, including 36 drillholes >100 ppm eU_3O_8 within the eastern portion of EL6553 (see Figure 5), with peak responses exceeding 450 ppm eU_3O_8, highlighting the uranium fertility and exploration potential of the acquired tenure.**
- **George Creek and MacDonnell Creek (EL6533) provide a practical exploration model for the broader tenure package, with George Creek identified as a high-priority near-term target due to its interpreted deepening sedimentary setting, oxidised-to-reduced redox transition and elevated historical gamma responses.**
- **The transaction includes existing Native Title Mining Agreements with the Adnyamathanha Traditional Lands Association (ATLA) and The Dieri Aboriginal Corporation (TDAC), supporting an efficient pathway to future exploration activities, subject to consultation, approvals and access requirements.**
- **Consideration comprises a $50,000 non-refundable exclusivity payment, $300,000 cash and 2.5 million ORP securities (payable at execution of the acquisition agreement and satisfaction of conditions precedent, 6-month escrow) and a further $300,000 cash and 2.5 million ORP securities (payable upon the transfer of the tenements and assignment of the deeds for the two associated NTMAs, 6-month escrow). Total cash consideration is funded from existing cash reserves.**

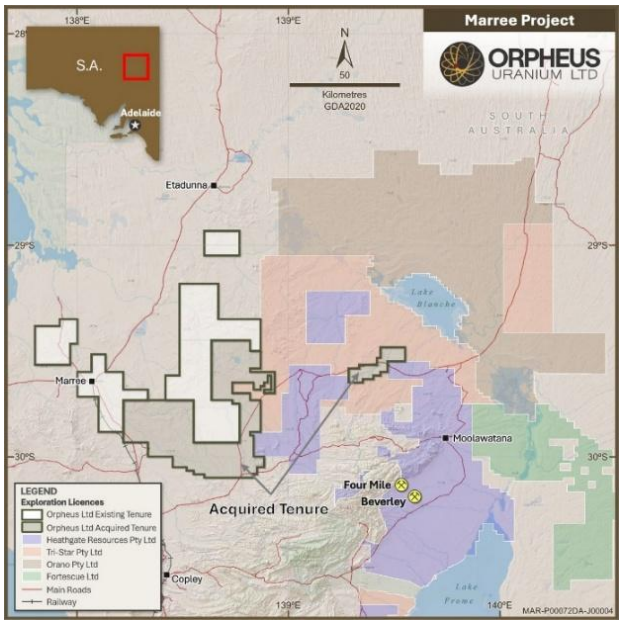


***Figure 1**: Acquired tenements and surrounding tenement holders*

Managing Director Mr Clinton Dubieniecki commented:

"This acquisition is a strong strategic fit for Orpheus, expanding our position in one of South Australia's most prospective uranium regions. It adds known uranium anomalism, a district-scale opportunity adjacent to our Marree Project, and a pathway to advance the project within our exploration pipeline.

Our strategy is to build a balanced uranium portfolio across Australia's leading uranium districts. This acquisition strengthens that platform and gives Orpheus the opportunity to unlock value through modern targeting, and exploration programs implemented by our team of internal experts."

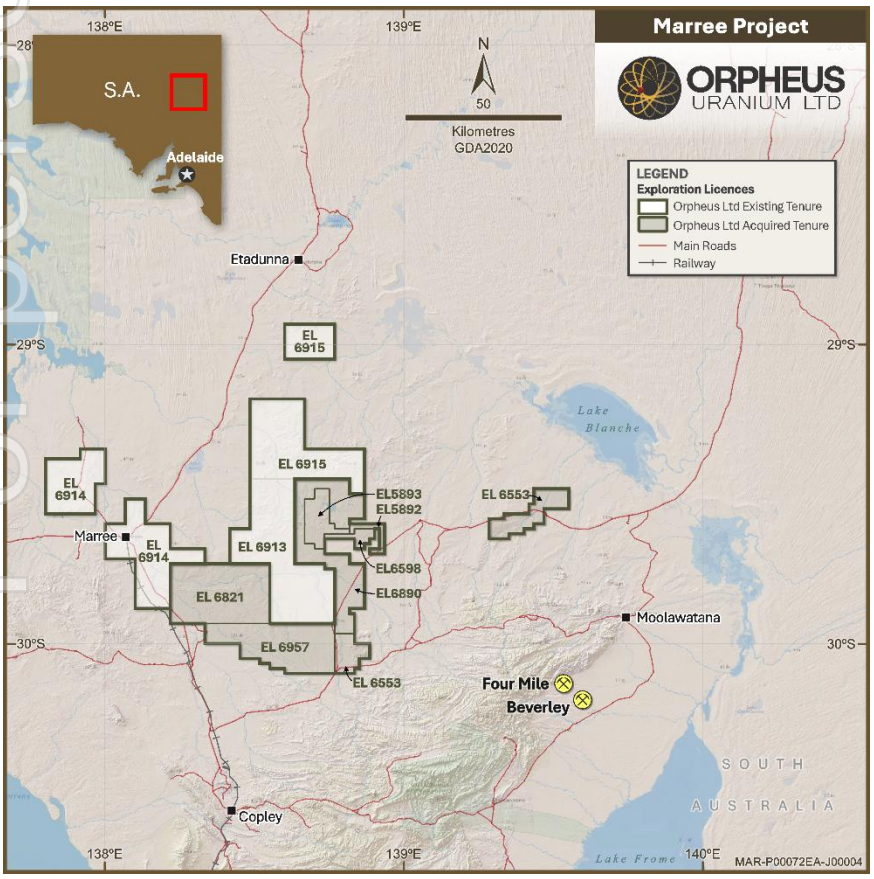
Summary

Orpheus Uranium Limited (ASX: ORP) ("Orpheus" or "the Company") is pleased to announce that it has entered into a binding agreement to acquire seven exploration licences covering approximately 2,513 km² within South Australia's highly prospective Lake Eyre Basin, along the western margin of the Northern Flinders Ranges (see Figure 2). The acquisition from Adavale Resources Limited (ASX: ADD), subject to satisfaction of customary conditions precedent, reinforces the Company's strategy to build a portfolio of high-quality uranium exploration assets in proven and prospective uranium districts.

The acquisition complements the Company's existing Marree Project, which comprises three granted exploration licences, with the majority of the acquired tenure contiguous with, or adjacent to, Orpheus' existing landholding. The expanded tenure package is located within South Australia's established uranium exploration and development jurisdiction and benefits from historical exploration datasets, existing Native Title Mining Agreements and identified uranium anomalism within the acquired tenure.

The Project is positioned within a highly prospective uranium province and within geological settings known to host significant sediment-hosted uranium systems. The broader district includes established uranium operators and project holders, including Heathgate Resources Pty Ltd, Tri-Star Resources Pty Ltd and Orano Mining Australia Pty Ltd (see Figure 1). The enlarged tenure package strategically strengthens Orpheus' position as an ASX-listed junior uranium explorer with district-scale tenure in a region otherwise dominated by established private and global uranium explorers and producers.

The acquisition aligns with Orpheus' strategy of consolidating underexplored assets within proven uranium districts and applying contemporary exploration techniques to unlock value from historical datasets. Importantly, the acquired tenure provides Orpheus with exposure to known uranium-bearing systems, priority targets at George Creek and MacDonnell Creek, and a broader regional exploration opportunity where prospective Eyre Formation sediments may be preserved beneath cover.



The acquisition was prioritised based on the following geological and commercial attributes:

- 100% ownership of a project with known uranium mineralisation intersects >100 ppm U_3O_8.
- Sedimentary roll-front uranium mineralising style – with evidence of an associated geochemical cell analogous with this type of mineralisation within acquired tenure.
- Limited recent uranium exploration – with most exploration activity completed in the 1970s, late 2000s/early 2010s and 2020s.

***Figure 2**: Location of the acquired tenements with Exploration Licence (EL) numbers*

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Geological Setting

The expanded Marree Project tenure is strategically located at the intersection of the southern Eromanga Basin and northern Lake Eyre Basin, a region widely recognised as one of Australia's most prospective for sedimentary roll-front uranium mineralisation. The surrounding district hosts several operating and advanced uranium deposits, including Heathgate Resources Four Mile, Pannikan and Pepegoona, as well as Boss Energy's Honeymoon and Goulds Dam. These deposits are typically associated with palaeochannel systems developed within Tertiary (Eocene) Eyre Formation sediments, while mineralisation at Heathgate Resources Four Mile West and Beverly Uranium Deposits are hosted in Cretaceous glacial sediments and Tertiary (Miocene) Namba Formation units respectively.

The Project is situated northwest of the Mount Babbage and Mount Painter Inliers, which comprise uranium-enriched Mesoproterozoic granitic and metamorphic rocks (see Figure 3 and Figure 4). These highly radiogenic source rocks (Figure 4) are considered a primary contributor of uranium to the Lake Eyre and Callabonna Sub-basins via meteoric groundwater systems. Periodic exposure of these inliers during younger sediment deposition may also have facilitated alternative mineralisation pathways, including the incorporation of radiogenic material into sedimentary sequences followed by mobilisation or remobilisation by oxidised fluids. These fluids transport uranium into adjacent basin sediments, where precipitation occurs under reducing conditions.

The tenure occupies a favourable basin-margin position where syn- to post-depositional tectonic activity has uplifted Proterozoic basement and overlying Mesozoic–Cenozoic sequences (see Figure 3). This has resulted in the development of preserved troughs and localised depocenters that provide accommodation space and effective traps for uranium-bearing fluids, enhancing prospectivity for roll-front mineralisation.

Recent geological interpretations highlight the importance of earlier Cretaceous sedimentation, including diamictite-bearing sequences, in establishing basin architecture and influencing permeability distribution[1]. Partially exposed Cretaceous units, together with overlying Eyre and Namba Formations, form permeable and oxidised pathways for uranium transport into the Project area. These pathways may also facilitate remobilisation within the sedimentary sequence, with uranium deposition occurring in palaeochannel-hosted redox traps. An evolving understanding of regional geomorphology and neotectonic activity further supports the role of basin reactivation in controlling sedimentation, fluid flow and mineralisation.

Despite its favourable geological setting, the broader Project area remains underexplored, with historical drilling insufficient to define the geometry and continuity of roll-front mineralisation. However, work to date has been able to provide evidence for a geochemical REDOX cell analogous with such mineralisation. The combination of a fertile uranium source, established regional analogues, favourable host stratigraphy and well-developed fluid pathways highlights strong potential for the discovery of both primary and remobilised sedimentary roll-front uranium mineralisation.

In Summary, the key components required for uranium mineralisation are present, including:

- **Source:** Uranium-enriched granites of the Mt Babbage and Mt Painter Inliers or the associated sediments sourced from their exposure during deposition.
- **Transport:** Permeable sediments of the Tertiary Eyre and Namba Formations, together with underlying Cretaceous sequences.
- **Trap:** Reducing environments indicated by the presence of organic material and pyritic sediments.

[1]Hore, S.B., Hill, S.M. & Alley, N.F. (2020). Early Cretaceous glacial environment and palaeosurface evolution within the Mount Painter Inlier, northern Flinders Ranges, South Australia. Australian Journal of Earth Sciences.

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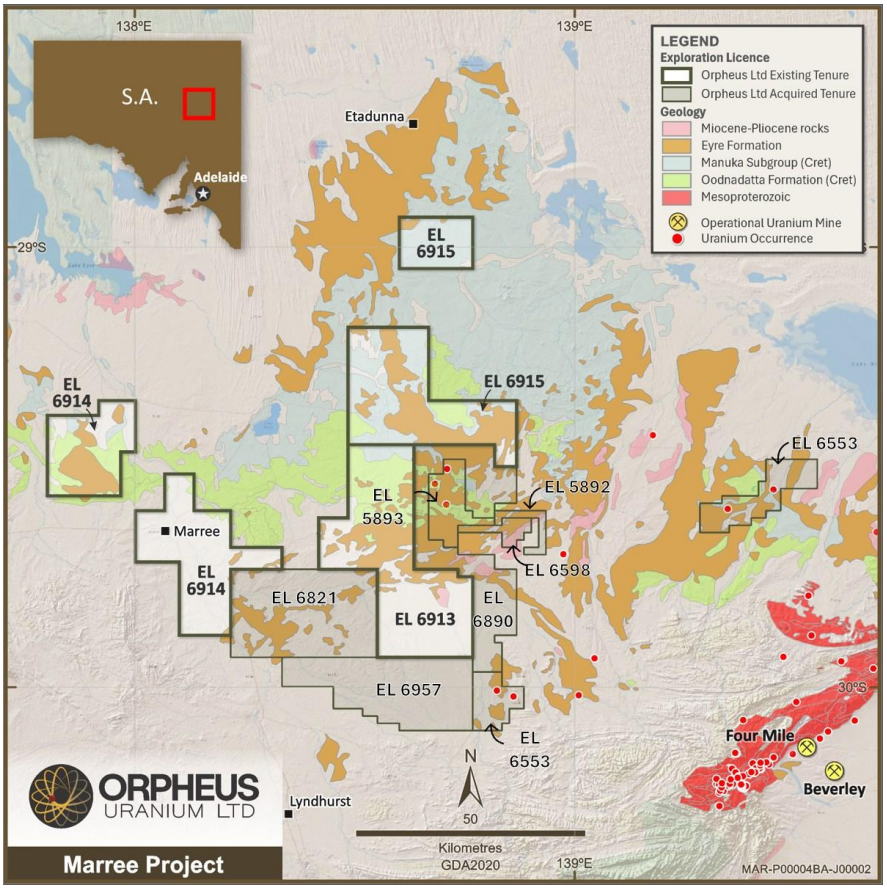

Figure 3: *Selected surface geology units of the Marree Project area*

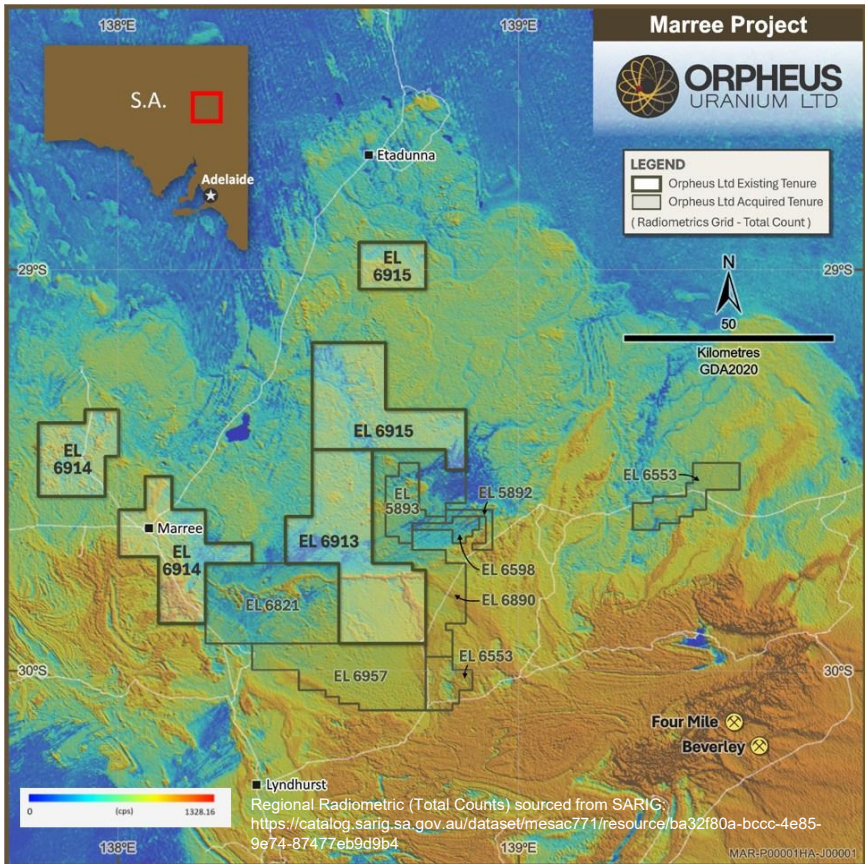

Figure 4: *Radiometric (Total counts) geophysical grid of the project area (scale sourced from SARIG)*

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Historical Activities & Known Uranium Intersections

The eastern portion of EL6553 is a key technical driver for the acquisition, encompassing the MacDonnell Creek and George Creek uranium prospects, formerly part of Cauldron Energy's Marree Uranium Project. The area was explored between 2008 and 2011, including under a Farm-In and Joint Venture arrangement with a South Korean consortium. Importantly, exploration activity ceased during the post-Fukushima downturn in uranium markets and financing, rather than as a result of any identified reduction in the technical prospectivity of the project area.

Historical drilling and heliborne electromagnetic (EM) surveys identified palaeochannel-style sedimentary sequences comprising Namba Formation cover sediments overlying prospective Eyre Formation sands, lignitic clays and other reduced sedimentary units. Uranium anomalism is interpreted to be associated with redox boundaries within permeable Eyre Formation sediments and may also be influenced by regional fault-related structures. Historical downhole gamma logging identified 36 anomalous drillholes (>100 ppm equivalent U_3O_8) within the eastern portion of EL 6553 (see Figure 5), with peak responses exceeding 450 ppm eU_3O_8. Whilst historically most exploration focused on MacDonnell Creek, Orpheus has identified George Creek as the highest-priority target. Historical drilling at George Creek intersected elevated gamma responses over thicknesses of up to 20m, coincident with a transition from oxidised to reduced conditions within an interpreted palaeochannel adjacent to regional-scale structures (see Figure 6 and 7). This combination of favourable stratigraphy, redox architecture and structural setting is considered highly prospective for sediment-hosted uranium mineralisation.

Beyond their prospect-scale potential, George Creek and MacDonnell Creek provide a valuable exploration model for the broader tenure package and Orpheus' regional landholding. Historical exploration outside these prospects has been relatively limited and focused largely on surface geochemistry, geophysics and shallow drilling. Orpheus intends to adopt a broader subsurface-focused approach targeting preserved Eyre Formation sediments beneath cover through the integration of historical drilling, palaeochannel architecture, redox controls and structural interpretation. Reprocessing historical datasets and evaluating modern geophysical techniques will support the generation of a pipeline of covered palaeochannel-hosted uranium targets across the district.

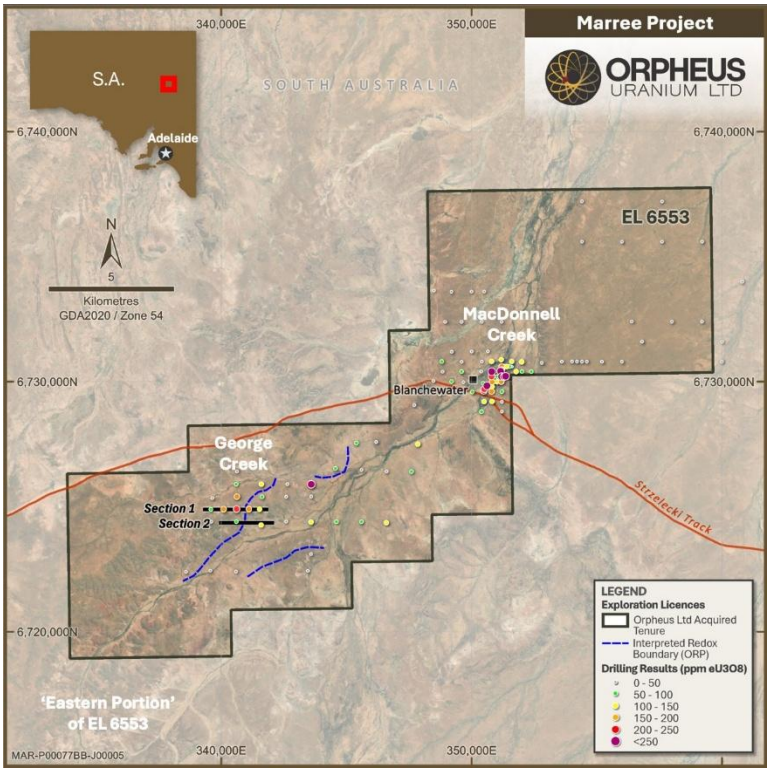

Figure 5: *Map of holes with max U_3O_8 ppm through eastern portion of EL 6553 (containing George Creek and MacDonnell prospects).*

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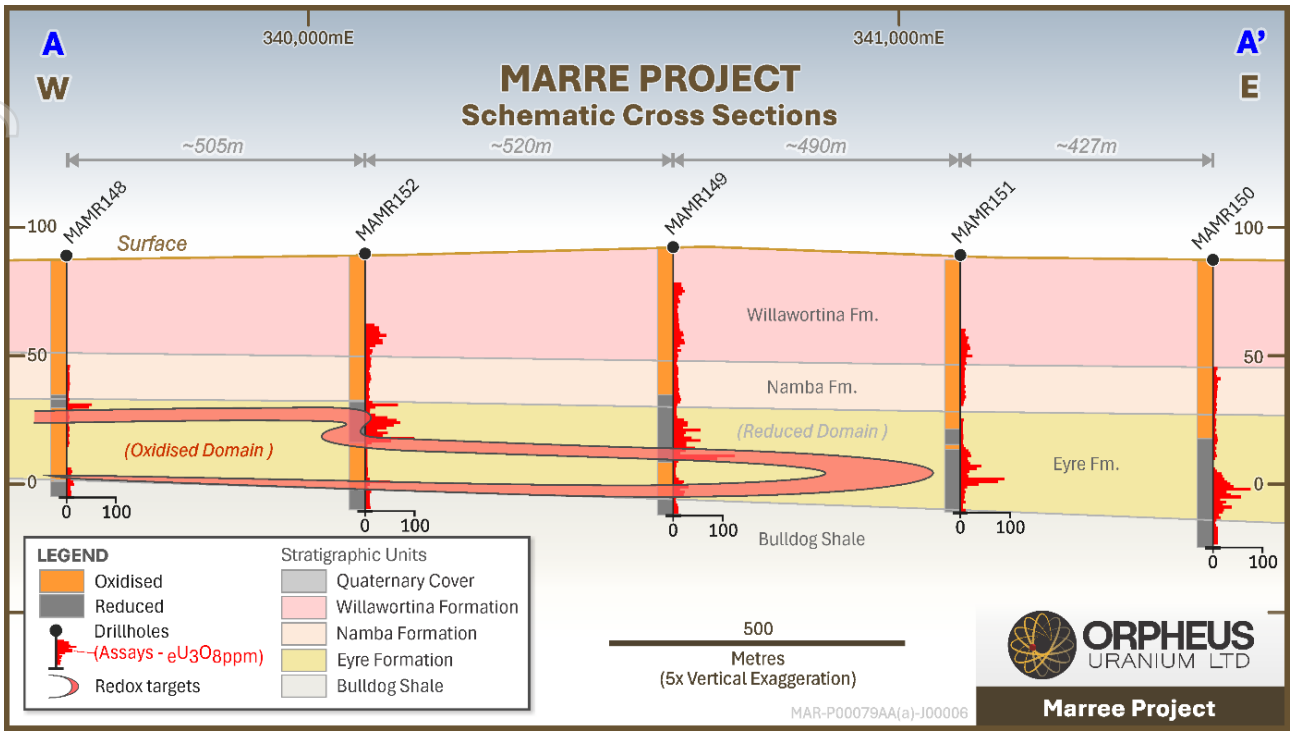

Figure 6: *Example section (A-A') with eastern portion of EL 6553 identifying interpreted REDOX cell associated with potential sedimentary-style Uranium mineralisation (refer to figure 5 Section 1 for location).*

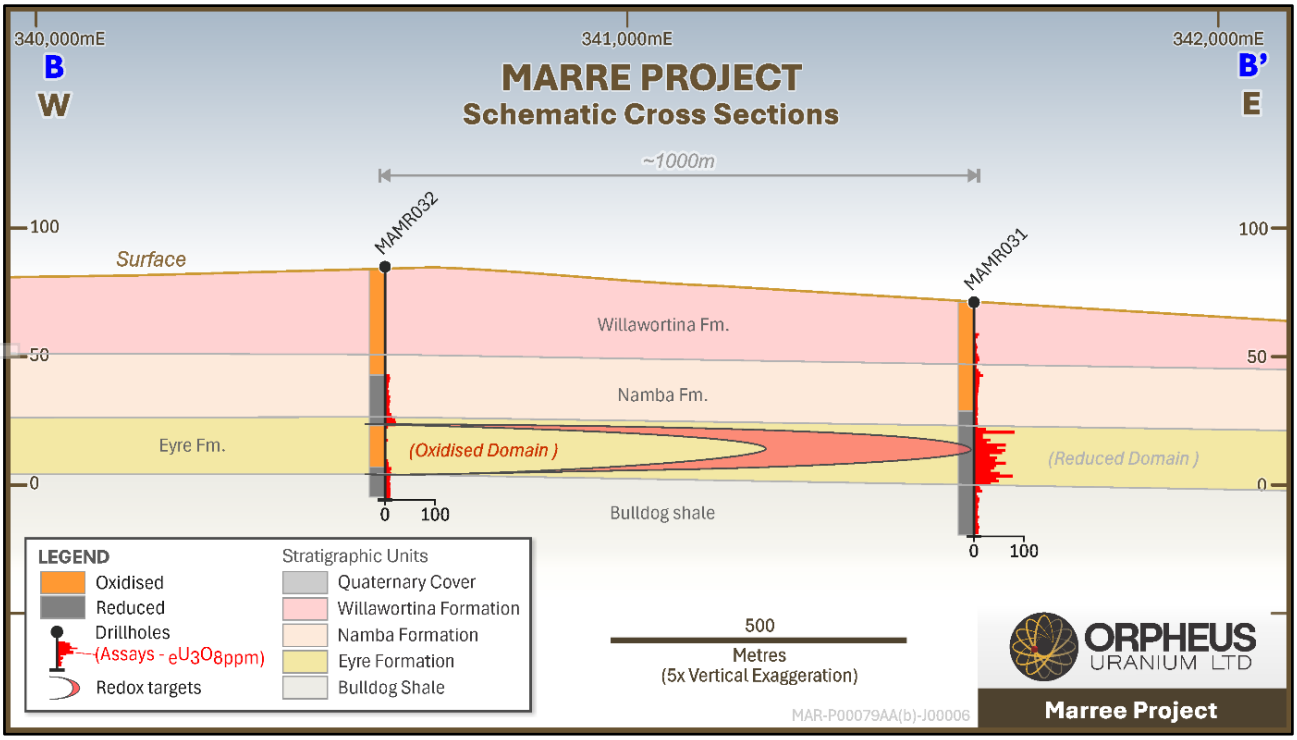

Figure 7: *Example section (B-B') with eastern portion of EL 6553 identifying interpreted REDOX cell associated with potential sedimentary-style Uranium mineralisation (refer to figure 5 Section 2 for location).*

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Tenure and Access

The project comprises seven (7) tenements at varying stages within their 18-year lifecycle (Table 1). While a small number of these tenements are approaching expiry, the priority work areas are located on tenements with longer remaining durations and are in good standing. The Company is confident it can complete planned exploration activities within the required timeframes to ensure key targets are either adequately tested or retained for ongoing work.

In parallel, Orpheus intends to rationalise the project area based on geological prospectivity, sharpening its exploration focus while reducing unnecessary holding costs. The incoming tenure is considered a strategic enhancement to Orpheus' existing portfolio, with all assets to be assessed collectively to determine the optimal tenure position moving forward.

With respect to Heritage and Native Title, the primary areas of interest within the project area are covered by two Native Title Determination groups (see Figure 8)—the Adnyamathanha (ATLA) and the Dieri (TDAC). Acquired tenements have registered Native Title Mining Agreements (NTMAs) for exploration with each group. These agreements are expected to be assigned to Orpheus as part of the transfer, or alternatively, new NTMAs will be established under the framework of the Company's existing agreements with both groups.

Orpheus will continue to engage proactively with all stakeholders across the project area, including Traditional Owners, landholders, government agencies, and local communities, to secure the necessary approvals for advanced exploration activities such as drilling. It has also been agreed with Adavale agreements that provides Orpheus with the ability to access the acquired tenure under agreed conditions during the period between execution of the sale agreement and final completion. This will allow the Company to progress planning and preparatory exploration activities ahead of completion, where permitted.

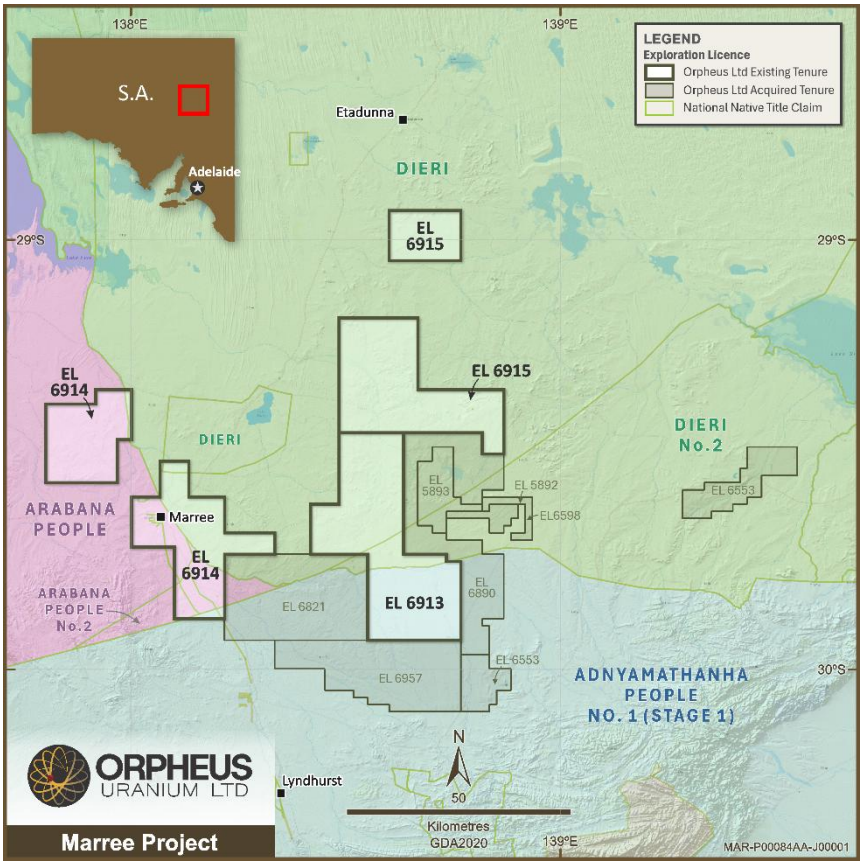

Figure 8: *Location of the determination of Native Title with respect to the Marree Project tenement locations. NTMAs required for advanced stage activities have been established with Adnyamathanha (Blue) and Dieri (Green).*

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Exploration Licence	Area Legal	Start Date	End Date (Current Renewal Period)	12-year (50% Partial surrender)	18 Year (Full Surrender)
EL 5892	45	29/08/2016	28/08/2027	N/A	28/08/2027
EL 5893	167	29/08/2016	28/08/2027	N/A	28/08/2027
EL 6553^	340	04/12/2020	03/12/2031	03/12/2031	03/12/2037
EL 6598	57	14/07/2020	13/07/2031	13/07/2031	13/07/2037
EL 6821	714	25/08/2022	24/08/2028	24/08/2034	24/08/2040
EL 6890	599	14/12/2022	13/12/2028	13/12/2034	13/12/2040
EL 6957	591	18/12/2023	17/12/2029	17/12/2035	17/12/2041

Table 1: *Incoming exploration licence details (^ EL 6553 comprises of two spatially separated portions)*

Orpheus Tenement Portfolio & Next Steps

The acquisition of highly prospective tenure contiguous with Orpheus' existing Marree Project materially enhances the project's position within the Company's pipeline (see Figure 9). In the near term, this moves the project from 'greenfields' exploration to 'advanced' exploration status. With ongoing detailed analysis of existing datasets, and supporting results from an initial work program, the project is anticipated to have the potential to advance toward an 'exploration target' classification.

Existing data interpretation has delineated geologically credible targets that, subject to heritage clearances and government work program approvals, are capable of being tested in the short term. Continued assessment of the regional geological setting and further refinement of targets can be undertaken efficiently, supported by a portfolio of regional prospects—some within Orpheus' current tenure and others previously refined by Adavale.

The strategy of consolidating a critical mass of highly prospective tenure ensures the project is well positioned to capture value as exploration progresses in a state that has bipartisan support for developing uranium projects and mining of the commodity. It further underpins Orpheus' commitment to developing a pipeline of high-quality, discovery-driven uranium assets.

In the immediate term, the Company will engage with key stakeholders to secure access for on-ground activities, with the aim of progressing toward more advanced exploration phases. Development of the asset will be guided by personnel with direct experience in Australian sediment-hosted uranium operations, including practical expertise in advancing projects from exploration through to resource definition.

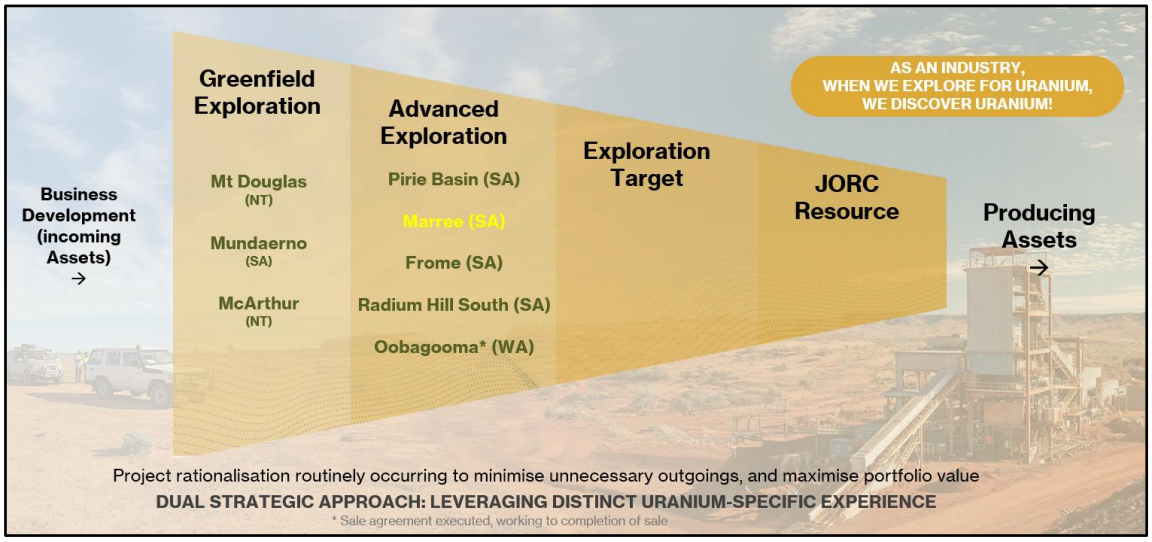

Figure 9: *Orpheus Uranium's Project Pipeline including the upgraded position of the Marree Project (to Advanced Exploration).*

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Acquisition Details

Orpheus has entered into a binding sale agreement with Adavale Resources Limited to acquire a 100% interest in seven exploration licences, subject to the satisfaction of certain conditions precedent considered customary for a transaction of this nature.

The consideration payable under the transaction comprises upfront, deferred and conditional components as follows:

- **Exclusivity Payment**: a non-refundable payment of $50,000 on execution of the binding terms sheet, providing Orpheus with an initial three-month exclusivity period to finalise the sale agreement, with the potential to extend exclusivity by a further one month;
- **Settlement Consideration**: $300,000 cash and 2,500,000 ORP securities, subject to a six-month escrow period, payable on satisfaction of certain conditions precedent typical for this style of transaction; and
- **Final Completion Consideration**: $300,000 cash and 2,500,000 ORP securities, subject to a six-month escrow period, payable on registration of the transfer of the exploration licences and completion of the associated native title agreement transfer arrangements.

As part of the transaction, Orpheus will also acquire the benefit of, and assume the obligations under, the existing Native Title Mining Agreements through a Deed of Assignment and Assumption. The relevant recognised native title bodies corporate associated with the acquired tenure are The Dieri Aboriginal Corporation RNTBC and the Adnyamathanha Traditional Lands Association Aboriginal Corporation RNTBC.

The assignment and assumption of the existing native title agreements is expected to satisfy the relevant South Australian Part 9B native title access requirements, enabling Orpheus to commence exploration activities following consultation with representatives of the relevant native title determination groups, satisfaction of the conditions under the sale agreement and receipt of applicable regulatory approvals.

The sale agreement also provides Orpheus with the ability to access the acquired tenure under agreed conditions during the period between execution of the sale agreement and final completion, allowing the Company to progress planning and preparatory exploration activities ahead of completion, where permitted.

Funding the Acquisition

Orpheus is well positioned to satisfy the financial commitments associated with the acquisition. Initial transaction costs will be funded through the already completed sale of Prospect Resources Limited (ASX: PSC) shares. The Company will determine the most appropriate funding source for future cash payments at the relevant time, having regard to its financial position, prevailing market conditions and the best interests of shareholders.

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-END-

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 (ASX) listed exploration company exploring for uranium in South Australia and the Northern Territory, both jurisdictions which allow uranium exploration, mining and processing. More recently, Orpheus has extended tenure into Western Australia through the execution of the sale agreement for the acquisition of the Oobagooma Uranium Project (progressing to completion), a state that contains multiple known uranium deposits.

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 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.

Cautionary Statement

The potential quantity and grade of an Exploration Target is conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource, and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Appendix 1 – Significant Uranium Intersects within Tenure Acquired

Intersects of 100ppm eU3O8 or greater are considered as significant

Hole ID	Depth (m)	Max Grade eU_3O_8 (ppm)	Formation	Drilling Program
MAMR029	41.1	102	Eyre Fm	CXU (2008-11)
MAMR031	67.1	117	Eyre Fm	CXU (2008-11)
MAMR034	46.0	176	Eyre Fm	CXU (2008-11)
MAMR038	23.9	104	Eyre Fm	CXU (2008-11)
MAMR043	14.0	133	Eyre Fm	CXU (2008-11)
MAMR052	107.1	253	Eyre Fm	CXU (2008-11)
MAMR054	89.1	134	Eyre Fm	CXU (2008-11)
MAMR073	113.7	255	Eyre Fm	CXU (2008-11)
MAMR074	109.8	148	Eyre Fm	CXU (2008-11)
MAMR077	102.3	186	Eyre Fm	CXU (2008-11)
MAMR078	98.9	196	Eyre Fm	CXU (2008-11)
MAMR079	92.8	214	Eyre Fm	CXU (2008-11)
MAMR080	104.1	153	Eyre Fm	CXU (2008-11)
MAMR084	109.9	105	Eyre Fm	CXU (2008-11)
MAMR085	108.2	101	Eyre Fm	CXU (2008-11)
MAMR086	101.6	150	Eyre Fm	CXU (2008-11)
MAMR087	106.3	105	Eyre Fm	CXU (2008-11)
MAMR088	102.8	117	Eyre Fm	CXU (2008-11)
MAMR125	103.4	177	Eyre Fm	CXU (2008-11)
MAMR126	102.7	141	Eyre Fm	CXU (2008-11)
MAMR127	84.5	120	Eyre Fm	CXU (2008-11)
MAMR130	100.5	186	Eyre Fm	CXU (2008-11)
MAMR132	108.2	375	Eyre Fm	CXU (2008-11)
MAMR133	113.3	211	Eyre Fm	CXU (2008-11)
MAMR134	106.0	462	Eyre Fm	CXU (2008-11)
MAMR135	75.3	362	Eyre Fm	CXU (2008-11)
MAMR137	103.3	146	Eyre Fm	CXU (2008-11)
MAMR138	85.2	362	Eyre Fm	CXU (2008-11)
MAMR139	93.0	141	Eyre Fm	CXU (2008-11)
MAMR140	91.3	231	Eyre Fm	CXU (2008-11)
MAMR141	70.2	115	Eyre Fm	CXU (2008-11)
MAMR143	32.0	362	Eyre Fm	CXU (2008-11)
MAMR149	79.5	219	Eyre Fm	CXU (2008-11)
MAMR150	85.5	113	Eyre Fm	CXU (2008-11)
MAMR151	83.7	160	Eyre Fm	CXU (2008-11)
MAMR152	68.6	161	Eyre Fm	CXU (2008-11)

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Appendix 2 – Key Holes within the Marree project area

Collar coordinates are given with respect to GDA2020 Zone 54 grid(-90 dip represents a vertical hole)

Hole ID	Easting	Northing	Elevation (m)	Depth (m)	Dip	Azim
MAMR001	349678	6729979	56	120	-90	0
MAMR002	349195	6730004	69.6	120	-90	0
MAMR003	348472	6730025	75.4	90	-90	0
MAMR005	346191	6727591	72	84	-90	0
MAMR006	345401	6727546	77.7	108	-90	0
MAMR007	347710	6729060	75.6	78	-90	0
MAMR009	349999	6731202	54.6	162	-90	0
MAMR010	349206	6731198	56.9	150	-90	0
MAMR011	351196	6732390	44.8	204	-90	0
MAMR012	350403	6732398	44.6	198	-90	0
MAMR013	349600	6732390	52.6	156	-90	0
MAMR014	348945	6732390	58.6	162	-90	0
MAMR015	350499	6733603	42.1	180	-90	0
MAMR016	349996	6733600	50.1	168	-90	0
MAMR017	349194	6733595	63.2	162	-90	0
MAMR018	348490	6733647	72.7	156	-90	0
MAMR019	350650	6731210	44.1	150	-90	0
MAMR020	343584	6723111	82.3	64	-90	0
MAMR021	343461	6722441	72.9	72	-90	0
MAMR023	341611	6722407	82.4	72	-90	0
MAMR024	340590	6722407	83.9	96	-90	0
MAMR025	339567	6722444	75.3	54	-90	0
MAMR026	338596	6722399	80.9	72	-90	0
MAMR028	343594	6725410	68.7	72	-90	0
MAMR029	343590	6724389	68.6	72	-90	0
MAMR030	342594	6724407	68.1	84	-90	0
MAMR031	341594	6724271	70.5	90	-90	0
MAMR032	340604	6724403	83.1	90	-90	0
MAMR033	339604	6724402	99.1	102	-90	0
MAMR034	340626	6725404	82	102	-90	0
MAMR035	340627	6726407	78.4	108	-90	0
MAMR036	344563	6726533	65.6	66	-90	0
MAMR037	345605	6726473	62.2	54	-90	0
MAMR038	346597	6724360	80	54	-90	0
MAMR039	345601	6724401	71.2	54	-90	0
MAMR040	344602	6724402	66.6	54	-90	0
MAMR041	346607	6726411	63.1	42	-90	0
MAMR042	347597	6726406	76	42	-90	0
MAMR043	347852	6727505	68.8	30	-90	0
MAMR046	348806	6730805	65.3	144	-90	0
MAMR047	348842	6730399	65.8	126	-90	0
MAMR048	349596	6730405	52.8	138	-90	0
MAMR049	349598	6730793	55.1	138	-90	0
MAMR050	350380	6730405	47.7	132	-90	0
MAMR051	350459	6729936	44.7	126	-90	0
MAMR052	351153	6730414	45.2	138	-90	0
MAMR054	350497	6729203	48.5	120	-90	0

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Hole ID	Easting	Northing	Elevation (m)	Depth (m)	Dip	Azim
MAMR055	348722	6729500	85.8	48	-90	0
MAMR062	351208	6729195	55.2	126	-90	0
MAMR064	351205	6728803	61.5	126	-90	0
MAMR073	350799	6730402	46.6	138	-90	0
MAMR074	351774	6730403	44.2	138	-90	0
MAMR075	352010	6730406	45.1	132	-90	0
MAMR076	352379	6730401	45.9	126	-90	0
MAMR077	351184	6730001	46.1	126	-90	0
MAMR078	350816	6729991	46	126	-90	0
MAMR079	350481	6729632	48.9	120	-90	0
MAMR080	350796	6729606	45.4	120	-90	0
MAMR081	351204	6729602	47.2	120	-90	0
MAMR082	350022	6729589	48.1	114	-90	0
MAMR083	350403	6730804	46.3	132	-90	0
MAMR084	350796	6730809	45.4	126	-90	0
MAMR085	351180	6730879	45.2	126	-90	0
MAMR086	351596	6730806	42.1	132	-90	0
MAMR087	352000	6730790	44.1	138	-90	0
MAMR088	350812	6729209	48.8	120	-90	0
MAMR089	350392	6728800	55.7	108	-90	0
MAMR125	351196	6730605	45	126	-90	0
MAMR126	351288	6730604	44.1	126	-90	0
MAMR127	351401	6730602	46.3	126	-90	0
MAMR128	351512	6730605	43.5	120	-90	0
MAMR129	351600	6730604	43.9	120	-90	0
MAMR130	351209	6730481	45.2	120	-90	0
MAMR131	350995	6730203	46.4	120	-90	0
MAMR132	351197	6730205	45.3	120	-90	0
MAMR133	350793	6730205	45.9	120	-90	0
MAMR134	351296	6730200	45	120	-90	0
MAMR135	351354	6730218	45.6	120	-90	0
MAMR136	351202	6730106	45.7	120	-90	0
MAMR137	351005	6730001	45.1	120	-90	0
MAMR138	350608	6729837	46.3	120	-90	0
MAMR139	350812	6729797	45.6	120	-90	0
MAMR140	350502	6729697	47.2	114	-90	0
MAMR141	341603	6725904	77.2	96	-90	0
MAMR142	342647	6725903	73	84	-90	0
MAMR143	343594	6725898	72.2	72	-90	0
MAMR144	342595	6725403	80.8	96	-90	0
MAMR145	341633	6725398	81.6	102	-90	0
MAMR146	340599	6725899	78.1	96	-90	0
MAMR147	339647	6725346	81.8	96	-90	0
MAMR148	339590	6724897	91.3	90	-90	0
MAMR149	340614	6724909	90.5	102	-90	0
MAMR150	341531	6724901	80.7	108	-90	0
MAMR151	341104	6724905	89.6	96	-90	0
MAMR152	340095	6724903	88.8	96	-90	0
MAMR153	354402	6730803	53.1	150	-90	0
MAMR154	354597	6730801	54.6	150	-90	0
MAMR155	355202	6730800	54.9	150	-90	0

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Hole ID	Easting	Northing	Elevation (m)	Depth (m)	Dip	Azim
MAMR156	355998	6730801	54.9	156	-90	0
MAMR157	353601	6730806	54	150	-90	0
MAMR158	352802	6730751	43.9	150	-90	0
MAMR159	354006	6730811	54.6	150	-90	0
MAMR160	354204	6730809	53.7	150	-90	0
MAMR162	356802	6731597	51.7	168	-90	0
MAMR164	356394	6732404	50.3	156	-90	0
MAMR165	357997	6732399	48.5	168	-90	0
MAMR166	359195	6732401	44.5	168	-90	0
MAMR168	359992	6730801	35.9	156	-90	0
MAMR169	359997	6731591	38.5	162	-90	0
MAMR170	360799	6733993	33.9	168	-90	0
MAMR171	359200	6735599	34.5	174	-90	0
MAMR172	357600	6735596	43.3	186	-90	0
MAMR173	356000	6735593	45	174	-90	0
MAMR174	354405	6735598	41.8	162	-90	0
MAMR175	354402	6737208	39.3	168	-90	0
MAMR176	357600	6737203	40	186	-90	0

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JORC Code, 2012 Edition

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• No Sampling or drilling has been completed by Orpheus Uranium • Cauldron Energy (CXU): Programs were completed over a period of four years from 2008 to 2011 with holes being Rotary Mud in style. Initial holes at MacDonnell Creek were drilled 800m apart along lines. Lines were 1200m apart, with later drilling infilling some areas to 400m x 400m, 200m x 200m and some 200m x 100m in 2011. Initial drilling at George Creek was on 1km x 1km spacings with later drilling infilling some areas to 500m x 500m. • Cauldron Energy (CXU) : The vast majority of drill holes were geophysical logged by Borehole Wireline Pty Ltd. With a Geovista 38mm total count gamma probe. Probes were calibrated in the Adelaide calibration pits, Readings are averaged over 5-centimetre intervals and the readings and depth were recorded on a portable computer. The gamma ray readings were converted to equivalent U3O8 readings by using the calibration factors derived from the Adelaide calibration pits. These factors also take into account differences in hole size and water content and were applied by Borehole Wireline.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Cauldron Energy (CXU) : Programs were rotary mud drilling which was predominantly conducted by Thompson Drilling, rig type is unknown.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to*	• Cauldron Energy (CXU): 2 metre composite samples for geological logging were collected from the open-hole drill collar, as the drill cuttings were lifted from the hole by the drilling muds. The geological logging recorded various geological parameters, including lithology, colour, grain size and reduction and oxidation state. No relationship exists between sample recovery and uranium grade, as the grade

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	preferential loss/gain of fine/coarse material.	is calculated from a separate downhole gamma tool.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Cauldron Energy (CXU): All drill chip samples were geologically logged for the entire length of the drill hole. Drill holes were routinely downhole logged for gamma.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Cauldron Energy (CXU): No historic geochemical sampling was undertaken .
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Cauldron Energy (CXU): No historic geochemical sampling was undertaken. All results presented were derived from downhole gamma probing completed at the time of drilling by Borehole Wireline. The probe was a Geovista 38mm gamma probe, which measured total counts, and was calibrated in calibration pits as to provide equivalent eU3O8. Measurements were calculated as an average for 5cms downhole.

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Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Cauldron Energy (CXU): To date there has been no verification of significant intersections, given the early stages of exploration this is not considered to be applicable as work aims to identify broader areas with potential to host mineralising system.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Cauldron Energy (CXU): Handheld GPS using GDA94 to locate and record drill collar locations.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Cauldron Energy (CXU) Initial drilling completed between 2008 to 2011. Initial holes were spaces at MacDonnel Creek: 800m apart along lines 1200m apart with infill drilling in localised areas to 400m x 400m, 200m x 200m and some 200m x 100m. George Creek: 1km x 1km for initial drilling with select later infill 500m x 500m Intervals reported in this announcement are representative peak eU308 grades in ppm over 10cm. No Mineral Resource is being reported at this time.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Cauldron Energy (CXU) All holes were drilled vertically on a regular grid pattern. The true width of the mineralisation is likely to be similar to the intervals reported.
Sample security	• *The measures taken to ensure sample security.*	• Cauldron Energy (CXU) Not applicable as no geochemical samples were collected.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Cauldron Energy (CXU) Not applicable as no audit has been undertaken.

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Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The tenure EL 5892, EL 5893, EL 6553, EL 6598 EL 6821, EL 6890 & EL 6957 have been held by Adavale for a various number of years with acquisition ranging from 2016 – 2023. Details of tenure is presented in Table 1. • Adavale has acquired the tenure through a combination of granted tenure through application and acquisition agreements, the tenements come free of encumbrance in association with prior dealings. • Adavale (or its wholly owned subsidiary) is the sole owner of the tenure, and the sale agreement will result in the 100% Orpheus (or its wholly owned subsidiary) ownership of the tenure. • Due to underspending, there has been required reductions on 3 of the tenements: EL5892 (expires at next renewal), EL6553 (T1 - has been subject to a 25%) and EL6958 (T1 - has been subject to a 25%). • There have been no noted access or tenure issues, however, it is recognised that a selection of the tenure is adjacent to the Flinders Ranges. Furthermore, a selection of Great Artesian Basin (GAB) 'mound springs' are located adjacent or within the tenements (ref SARIG for locations). To date there has been no material restrictions on access besides those sites identified within the heritage survey in association with these springs. Orpheus will continue to assess the potential impact of these should work be identified to be undertaken in the areas. • The establishment of NTMAs with the determination groups and a heritage survey has been completed over areas by Adavale (ref ASX Announcement October 1 2024 'Heritage Survey Completed for Uranium Drilling in South Australia'. • Regionally there are a number of recorded heritage sites, with current knowledge these do not impact priority work areas. • The tenure is located in the North-East Pastoral District of South Australia, and overlaps with the Clayton, Murnpeowie, Mount Lyndhurst, Mundowdna, Witchelina, Farina, Leigh Creek pastoral properties.

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Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Historically the tenure has had multiple operators and can summarised per contemporary tenement. • EL 5892 & EL 5893 - Uranium was identified in outcrop during reconnaissance (2006). Photogeological mapping was completed by B.R. Senior & Associates (2006–2007). An airborne radiometric survey, ground gamma surveys and a Wards Water Search resistivity study were completed (2007). 486 holes (456 RAB/rotary mud, 30 diamond) were drilled by Adavale (2007–2010). An airborne EM survey was flown by Geoscience Australia (2014). A 200 km ground gamma survey and 28 rock chips (max 356 ppm U) were completed (2021). Sentinel-2 analysis, a drone survey and a Work Area Clearance were completed (2022). 56 RC holes were drilled for 742 m (2023). • EL 6553 - Seven rotary holes were drilled by Petromin/Exoil/Transoil (1971). 42 mud rotary holes were drilled by Mines Administration (1972). 27 air/mud rotary holes were drilled by Pechiney (1973). Scimitar Resources compiled historical data, flew the HoistEM and a second airborne EM survey, and completed initial drilling (2005–2008). Rock chip, stream sediment and thin section sampling was completed by Central West Gold at Ooloo Mine (2006–2009). Cauldron Energy drilled 19 mud rotary holes (max 61 ppm eU_3O_8, 2008), 42 holes for 3,121 m (2010), and the Red Banks Well, George Creek and MacDonnell Creek prospects (best 1.0 m at 263 ppm eU_3O_8, 2011–2013), then completed gravity, IP and resistivity surveys and eight RC holes at Ooloo and Mt Freeling (2013–2016). Adavale re-processed RepTEM data, completed Sentinel-2 interpretation, and completed drill pegging, a heritage clearance survey and drill planning (2023–2024). • EL 6598 - Photogeological mapping was completed by B.R. Senior & Associates (2006–2007). An airborne radiometric survey, ground gamma surveys and a resistivity study were completed (2007). An airborne EM survey was flown by Geoscience Australia (2014). • EL 6821 - A RepTEM/magnetic airborne survey, bore water sampling, rock chip sampling and 36 rotary mud holes were completed under the Maximus–Eromanga

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		Uranium JV (2006–2009). Adavale re-processed the RepTEM data, completed a Daishsat gravity survey and a radiometric survey at 100 m stations, completed Sentinel-2 interpretation, and collected 749 TerraLeach soil samples (220 on EL6821, max 1.2 ppm U) (2023–2024). • EL 6890 & EL 6957 - Airborne radiometric surveys identified 41 anomalies, eight evaluated with auger drilling, by Pechiney (1970–1973). Well water sampling and six gamma-logged stratigraphic holes were completed by Central Pacific Minerals (1970–1971). Carnotite was discovered at Yerelina Creek by Nissho Iwai (1973), followed by water and stream sediment sampling, costeaning and 122 rotary percussion holes (1974). Eromanga Uranium flew 2,930 line-km of RepTEM, sampled rock chips and soils (max 85 ppm U), sampled five bores, drilled 36 rotary mud holes for 4,969 m, and completed 160 XRF analyses (all <5 ppm) and downhole gamma logging (2007–2014). Adavale re-processed the RepTEM data and completed Sentinel-2 interpretation over both licences (2023–2025). On EL6957, Adavale also completed a Daishsat gravity survey, a radiometric survey, and 529 of 749 TerraLeach soil samples (max 1.2 ppm U) (2023–2024).
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The mineralisation model at the Marree project comprises sediment-hosted roll-front-style uranium mineralisation within Tertiary sediments including the Eocene Eyre Formation (primary target) and Miocene Namba Formation, both of which are known to host economic uranium mineralisation at the Four Mile and Honeymoon (Eyre Formation) and Beverley (Namba Formation) deposits. Further consideration will be given to the same type of mineralising system being hosted with Cretaceous sediments which are also know to host economic uranium mineralisation at the Four Mile West (Four Mile Diamictite) deposit. • Descriptions within the report primarily elaborate on potential sedimentary-style uranium mineralisation contained within the Eocene Eyre Formation sediments (primary target) of the Lake Eyre Basin. Consideration will be given to alternate host sediments as the project progresses.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results*	• Drillhole data is presented in Appendices 1 and all information has been sourced from South Australian Geodata Database

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	including a tabulation of the following information for all Material drill holes: ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	(including published historical reports) and ASX Announcements. Note that the presented data focusses on the MacDonnell and George Creek regions and there is other regional drilling, however, this is not considered meaningful to this announcement and will be reviewed/compiled and presented if considered meaningful with future interpretation.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Data is historic in nature and all information is sourced from what is available within historical reports/available with South Australian Geodata Database, however, where applicable reported intercepts generally single downhole intervals. Where applicable compositing has been noted in the sampling techniques above, however, no top-cutting, or weighting detailed has been undertaken.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Data is historic in nature, and all information is sourced from what is available within historical reports/available with South Australian Geodata Database, or primary downhole geophysical assay datasets. Where applicable maximum mineralisation is presented as a point value, and all downhole data in section is shown as downhole geophysical log format. No estimates of true width provided. • The report presents details about a potential source rock and the mineralising style that for Orpheus exploration purposes, can be aligned with the broader tenement package.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be*	• Data is historic in nature, and all information is sourced from what is available within

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	included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	historical reports/available with South Australian Geodata Database or publicly available ASX announcements released by the relevant companies. • Where applicable Orpheus has sourced original data files to ensure reporting is accurate. • Where applicable information has been presented within in the body of this announcement. All other sections, and maps detailed to the relevant activities are Included in historic reports Commonly plans, sections, and logs referenced in appendices.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• This announcement summarises multiple historical exploration campaigns completed by CXU. While key assay highlights and geological outcomes are referenced, it is not intended to provide a comprehensive dataset or re-report all results in full. Further historical QAQC and sampling detail may exist in original reports but is not re-stated herein
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Orpheus is working through all historical data to provide further guidance and context of this historical data. It is noted that in context the McDonnell and George Creek regions contain meaningful data with respect to current geological modelling. Ongoing assessment of historical regional work undertaken by Adavale and previous companies will be subject to ongoing review and any meaningful data will be presented separately.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Orpheus will continue the completion of historical datasets, and associated literature review. This will be complimented by stakeholder engagement as to obtain on ground access and gain regulatory approvals. Geophysical or other exploration techniques will be assessed, whilst advanced stage activities such as drilling will be pursued targets sedimentary style uranium mineralisation.

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