28 November 2024

Overland Progress Update

Additional drilling results continue to support strong uranium potential

Highlights:

- **Interim drilling progress:** Successfully completed ten Air Core (AC) drill holes, totalling 1,354 meters, at the first and second targets of the Overland Project, a new frontier uranium region in South Australia.
- **Target stratigraphy intersected:** Drillholes within the first and second target areas continue to intersect thick sequences of Murray group stratigraphy containing interbedded sands and clays. These formations display all attributes required for pathways of uranium bearing groundwaters and for the potential for hosting uranium mineralisation.
- **Preliminary results indicating presence of uranium:** New drillholes within the first target area continued to yield anomalous downhole natural gamma readings and portable X-ray fluorescence (pXRF)[1] results, indicating the presence of uranium further reinforcing the region's exploration potential.
- **Next steps:** Planned follow up drilling, and extensional drilling to resume this week of the first and second targets based on initial drilling results.
- Engage with this announcement at the AR3 ***investor hub.***

AR3 Managing Director and CEO, Travis Beinke, said:

"Today's drilling progress update provides additional proof-of-concept with the first ten holes targeting uranium within this frontier uranium region. Positive results from the additional six holes across our first two target areas at the Overland Uranium Project provide us with further

[1] ***Cautionary Statement***- *- In relation to the disclosure of pXRF results, the Company cautions that estimates of uranium elemental abundance from pXRF results should not be considered a proxy for quantitative analysis of a laboratory assay result. Assay results are required to determine the actual widths and grade of the mineralisation. The company uses an Olympus Vanta M Series portable X-ray Fluorescence (pXRF) analyzer to screen Air Core drilling samples for mineralization prior to submitting samples to a commercial laboratory for assay. This provides an initial understanding of the mineralization distribution before sampling, ensuring submitted samples are representative of the targeted mineralization. While pXRF confirms the presence of mineralization, it does not accurately determine elemental concentrations due to limitations such as a small analysis window, uneven distribution, shallow penetration depth, and irregular surfaces. The pXRF results are indicative and the pXRF readings are subject to confirmation by chemical analysis from an independent laboratory. The Olympus Vanta M Series (S/N 842924) pXRF was last inspected on 11/07/2023 by SA Radiation Pty and checked against known standard reference material daily.*

confidence in our geological model for potential sedimentary-hosted uranium deposits in the project area.

Additionally, through last week's Farm-In Agreement with Sheer Gold on EL6778, we have obtained access to a further ~1,000km² of strategic ground immediately adjacent to the project area, strengthening our position in one of South Australia's most prospective frontier uranium regions.

Drilling continues at our inaugural ~5,000-meter drilling program where we have a significant number of high-priority targets to test over time.

I look forward to providing further progress updates of drill results as the program continues through the balance of 2024 and into early 2025."

Australian Rare Earths Limited (ASX: AR3) is pleased to provide a progress update from drilling at the Overland Uranium Project. The project has now expanded to ~4,000km², following the recent Farm-In Agreement for the sedimentary-hosted uranium rights within EL6678[2]. This region demonstrates strong potential for In-Situ Recovery (ISR) amenable, sedimentary-hosted uranium deposits. AR3 believes the paleochannel sediments of the Renmark Group and Murray Group sediments (Eyre and Namba equivalents) offer significant potential for uranium discovery.

Drilling at the Overland Project commenced in October 2024, following the granting of two approvals for Exploration Program for Environment Protection and Rehabilitation (EPEPR), opening up ~770 km² of the total project area for immediate exploration (Figure 1).

Overland – Sedimentary Hosted Uranium Prospectivity supported by recent drilling

The initial reporting from the first four drill holes[3], totalling 640 meters, has yielded compelling evidence supporting AR3's initial geological model (Table 1). The five critical elements required for the formation of a sedimentary-hosted uranium deposit have been identified, including:

- a uranium source rock,
- permeable sediments as migration pathways, and
- effective reductants acting as traps for uranium precipitation.

Additionally, six more drill holes, totalling 714 meters have been completed across the first two target areas. This drilling has continued to intersect thick sequences of the Murray group stratigraphy containing sands and clays, which display all attributes required for pathways for uranium bearing groundwaters and for hosting uranium mineralisation.

This reinforces AR3's confidence in the Overland Project's potential for significant uranium mineralisation.

[2] ASX release 19 November 2024
[3] ASX release 13 November 2024

Table 1- summary of key components required for uranium mineralisation.

Requirements	AR3 interpretation	Status
Source	Granites on the western margin of the Murray Basin, emplaced at the same time, and from the same processes as U rich Granites in the Mount Painter Province and the Curnamona Province - home to Beverley / Four Mile, and Honeymoon	✓
Pathway	Paleochannel definition though interpretation of base of Cenezoic contours (Geoscience Australia), and drill testing	✓
Host	Targeting Renmark Group and Murray Group sediments (Eyre and Namba equivalents)	✓
Trap	Reduced sediments containing carbonaceous matter, pyrite and lignite (identified to occur now through drill testing at first target)	✓
Uranium Mineralisation	Drill testing at first target has identified anomalous gamma responses in sands, the contact between sands and clay, and within lignite horizons	✓

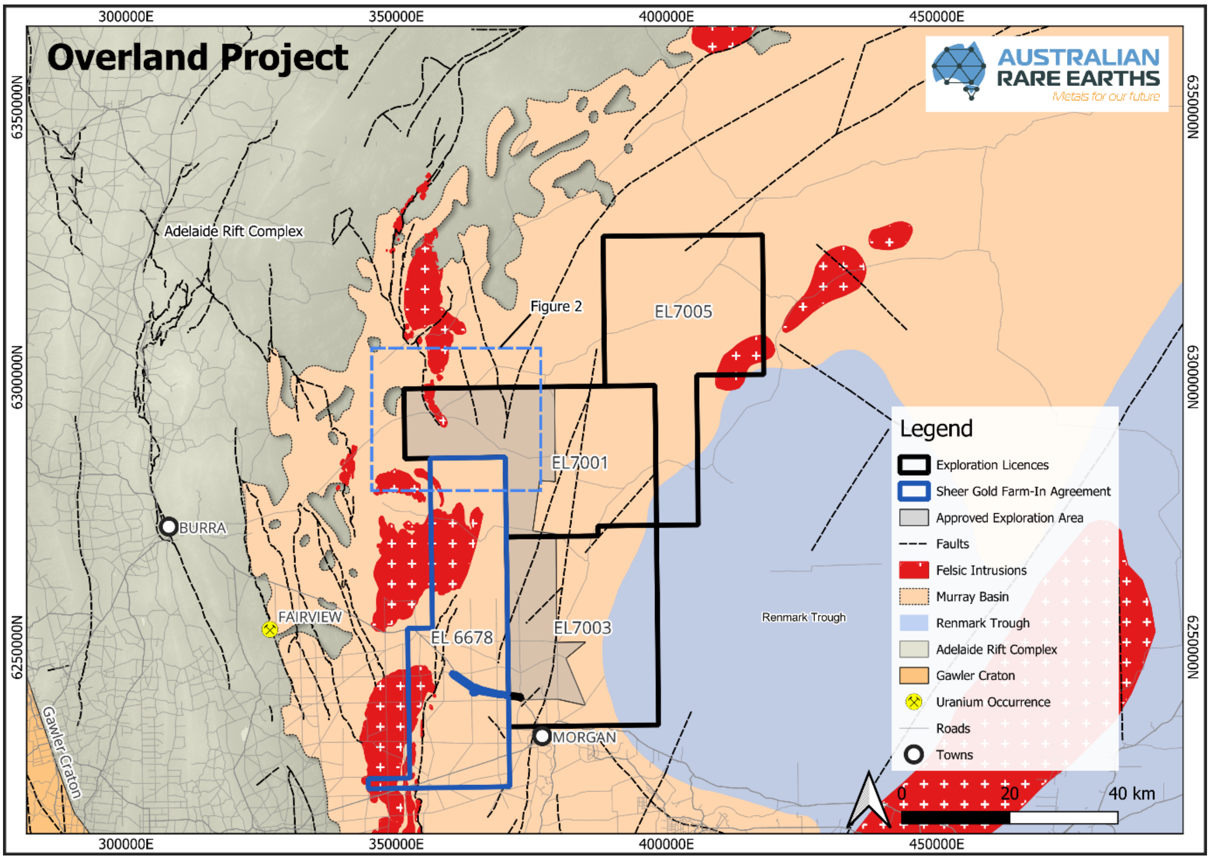

***Figure 1:** Overland project with approved work areas, regional geology.*

AR3 is initially pursuing three highly prospective drill targets within the northwest of EL7001 (Figure 2), starting with Target 1, which has been tested with six drill holes (OV001-OV004, OV009 & OV010). This area was selected to assess a prominent north-south fault feature, the interpreted felsic basement as a potential uranium source, and the permeable sands of the Renmark and Murray Groups, which have been identified as highly prospective for hosting uranium mineralisation.

Drilling within Target 1, at 800-meter drill spacing, intersected Murray Group sediments, revealing zones with anomalous gamma responses and elevated pXRF uranium readings[1]. These sequences are effectively bounded by confining clay layers above and below, with multiple zones of permeability identified (see Table 2 and Figures 3 & 5) ideal settings for ISR amenable uranium deposits.

Drilling within Target 2, at 800-meter drill spacing, identified shallow basement between 80 and 110m depth, including fresh basement rocks in Hole OV006. Holes OV007 & OV008 intersected Murray Group sediments, revealing zones with anomalous gamma responses within sandy clays and clayey sands at the base of the sequence with lignite layers. Like Target 1, these sequences are effectively bounded by confining clay layers above and below, with zones of permeability identified (see Table 2 and Figure 4).

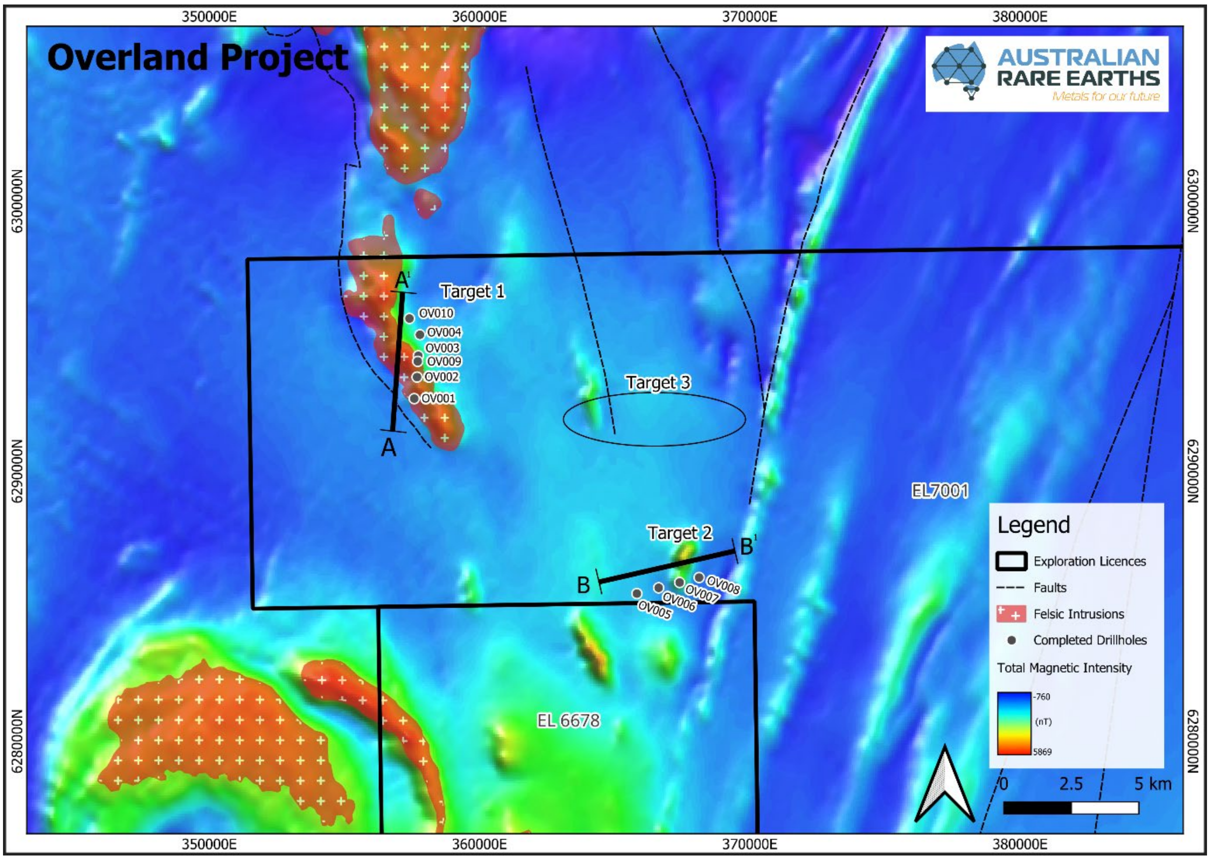

Figure 2: *Overland Targets showing recent drilling relative to airborne magnetics, faulting, and interpreted felsic intrusives.*

Table 2: Select holes from the Overland project containing intersections and lithologies.

Target Area	Hole ID	From (m)	To (m)	Width (m)	Lithology	Summary Description
1	**OV001**	92	93	1	Reduced sands	Anomalous gamma and pXRF U associated with interbedded clays and silty clays at the base of the upper package of permeable sediments
1	**OV001**	107.5	108	0.5	Clay	Anomalous gamma at base of the lower package of permeable sediments
1	**OV002**	79.5	82.5	3	Reduced sands and Lignite	Anomalous gamma (peak 570 counts per second (cps)) and pXRF U associated with a lignite horizon and the reduced sands surrounding it, in the upper package of permeable sediments
1	**OV002**	110	111	1	Clay	Anomalous gamma (peak 333 cps) at the base of the lower package of permeable sediments
1	**OV003**	84.5	86.0	1.5	Clay	Anomalous gamma (peak 394 cps) at base of the upper package of permeable sediments.
1	**OV003**	102	109	7	Oxidized sands	An oxidised sand zone bounded by thin clay layers, the gamma response for which is interpreted as limbs of a classic roll front, potentially occurring between OV003 and the reduced sediments in holes OV002 and/or OV004.
1	**OV004**	84	86	2	Clay	Anomalous gamma (peak 288 cps) with a coinciding pXRF U anomaly at the base of the upper package of permeable sediments.
1	**OV009***	85	86.5	1.5	Sand	Anomalous gamma response (peak 258 cps) in fine sand with carbonaceous clay at its base
1	**OV009***	94	96	2	Sand	Anomalous gamma response (peak 201 cps) in thin sand (2m) bounded by clay
1	**OV009***	106	110	4	Sandy-clay	Anomalous gamma response (peak 226 cps) in sandy clay at the depth related to gamma limbs in nearby hole OV003.
1	**OV010***	84	96	12	Clay/lignite	Anomalous gamma responses (peak 457 cps) associated with carbonaceous clays and lignite horizons
1	**OV010***	108	110	2	Sand/Clay	Anomalous gamma response (peak 183 cps) at the base of the lower package of permeable sediments in the sand and clay at the base.
2	**OV007***	99	101	2	Sandy-clay	Anomalous gamma response (peak 115 cps) in sandy-clay
2	**OV008***	102.5	105	2.5	Clayey-sand / sand	Anomalous gamma response (peak 117 cps) in clayey-sand / sand with lignite

***Note:** Results of new drill holes reported within this release. All other holes have previously been reported[3].

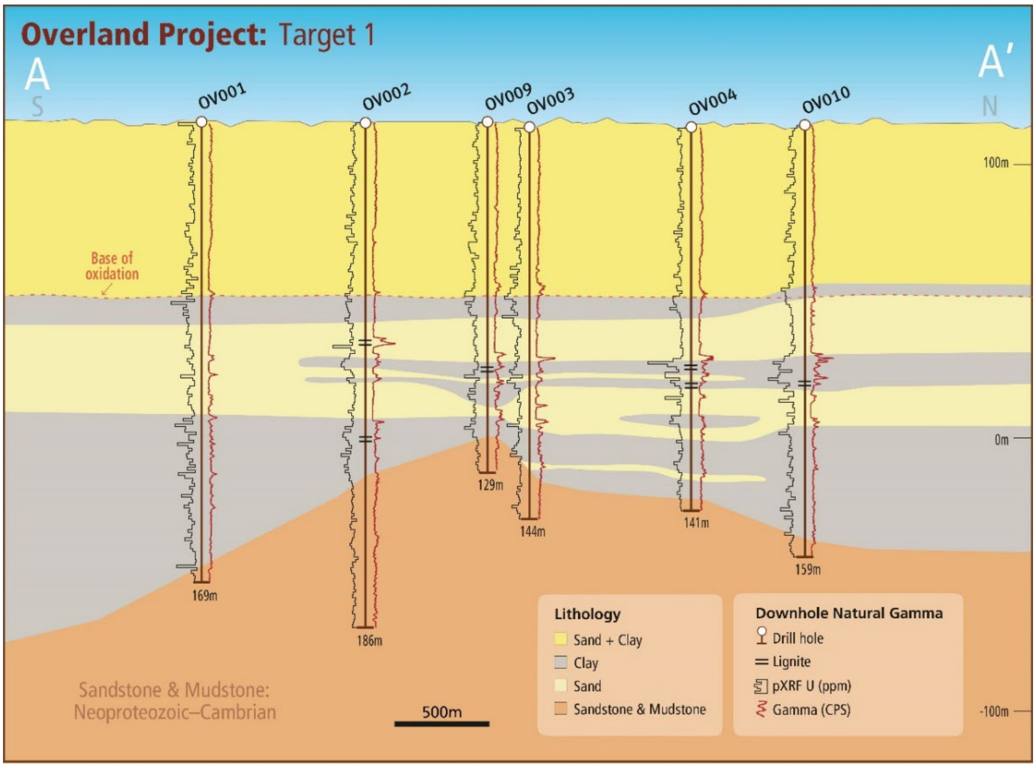

Figure 3: *Cross section A-A[1] showing OV001-OV004, OV009 & OV010 lithology, pXRF U (ppm), Gamma (cps). In relation to the disclosure of pXRF results, the Company cautions that estimates of uranium elemental abundance from pXRF results should not be considered a proxy for quantitative analysis of a laboratory assay result. Assay results are required to determine the actual widths and grade of the mineralisation.*

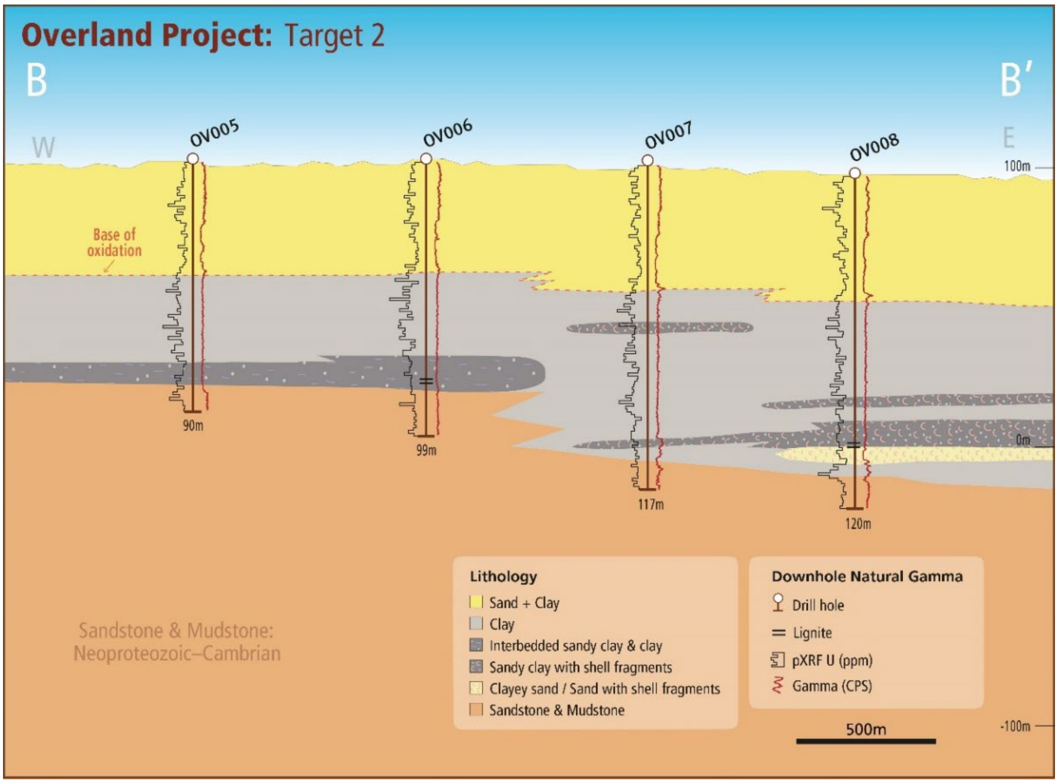

Figure 4: *Cross section B-B[1] showing OV005-OV008 lithology, pXRF U (ppm), Gamma (cps).*

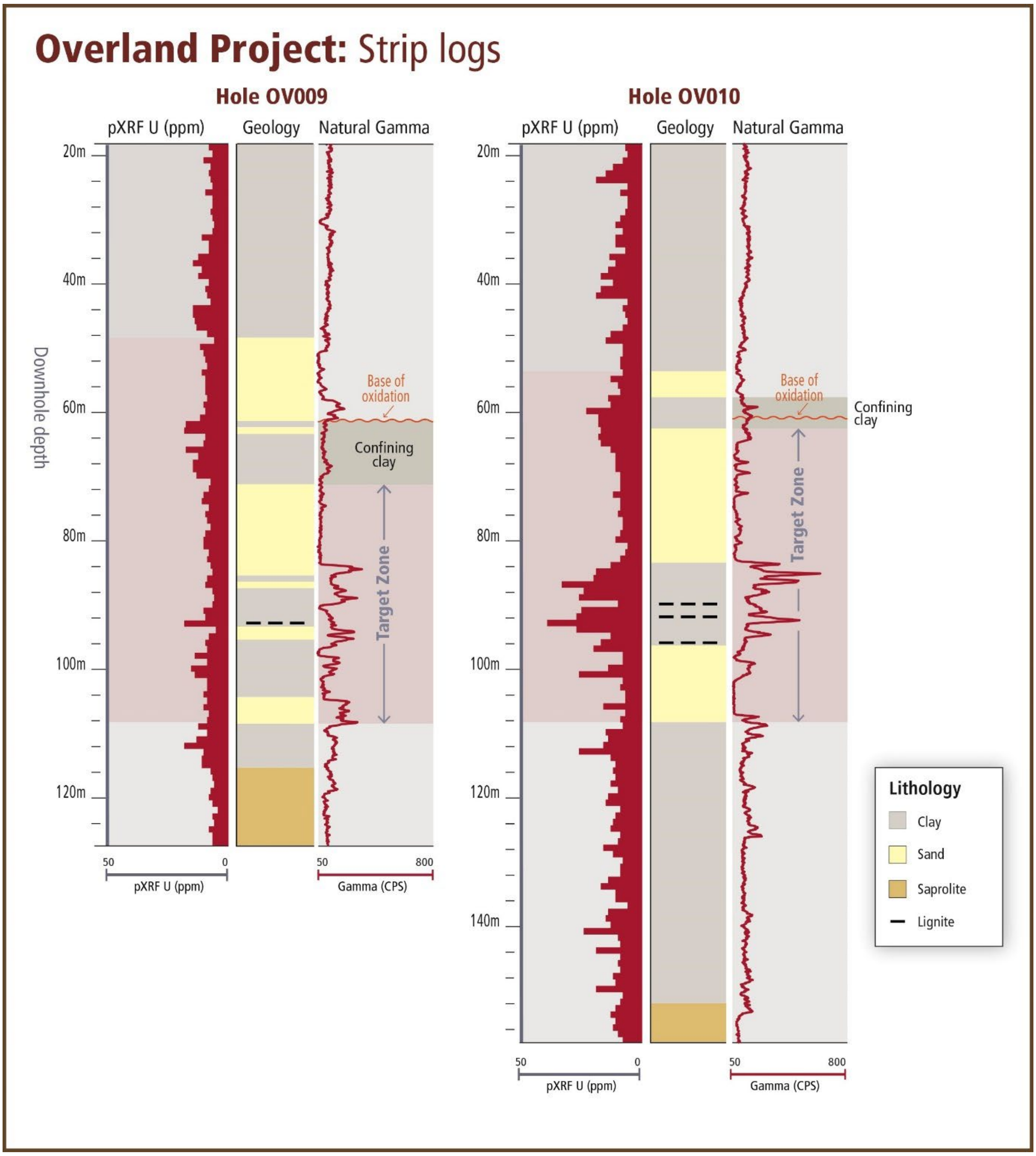

Figure 5: *Downhole pXRF and natural gamma logs over target intervals for holes OV009 and OV010. In relation to the disclosure of pXRF results, the Company cautions that estimates of uranium elemental abundance from pXRF results should not be considered a proxy for quantitative analysis of a laboratory assay result. Assay results are required to determine the actual widths and grade of the mineralisation.*

Next steps

The first batch of drill samples have been submitted for assay, with initial results expected late 2024.

Drilling is to continue in the northwest of EL7001 (Figure 2) targeting key structural features, including faulting and zones where historic drillholes intersected Murray and Renmark Group stratigraphy. Thick sequences of interbedded sands and clays within the Murray and Renmark

Group will be a primary focus, as they are considered highly prospective for hosting uranium mineralisation.

Based on initial results, further follow up drilling at Target 1 will take place. This is to test the interpreted roll front mineralisation and the remainder of the target area with an east-west traverse covering the prominent north-south fault feature and the interpreted felsic basement - a potential uranium source. Additionally, follow up drilling at Target 2 to expand on the permeable horizons below 80m depth including within thicker sequences at potentially greater basement depths. Wide spaced drilling at Target 3 will be conducted to make an initial assessment of the potential in the Murray and Renmark Group sediments at that location.

Figure 6: *Air Core drilling at Target Area 1*.

The announcement has been authorised for release by the Board of Australian Rare Earths Limited.

For further information please contact:

Australian Rare Earths Limited
Travis Beinke
Managing Director and CEO
T: 1 300 646 100

Media Enquiries
Jessica Fertig
Tau Media
E: info@taumedia.com.au

Engage and Contribute at the AR3 investor hub: https://investorhub.ar3.com.au/

Competent Person's Statement

The information in this report that relates to Exploration results is based on information compiled by Australian Rare Earths Limited and reviewed by Mr Rick Pobjoy who is the Chief Technical Officer of the Company and a member of the Australian Institute of Mining and Metallurgy (AusIMM). Mr Pobjoy has sufficient experience that is relevant to the style of mineralisation, the type of deposit under consideration and to the activities undertaken to qualify as a Competent person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Pobjoy consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

About Australian Rare Earths Limited

Australian Rare Earths is committed to the timely exploration and development of its 100% owned, flagship Koppamurra Project, located in the new Koppamurra rare earths Province in southeastern South Australia and western Victoria. Koppamurra is a prospective ionic clay hosted rare earth deposit, rich in all the elements required in the manufacture of rare earth permanent magnets which are essential components in electric vehicles, wind turbines and domestic appliances. In addition, AR3 is actively reviewing other potential prospective areas which may also host uranium and ionic clay hosted rare earth deposits throughout Australia.

The Company is focused on executing a growth strategy that aims to position AR3 as an independent and sustainable source of energy transition metals, playing a pivotal role in the global transition to a green economy.

JORC Table 1

Section 1 Sampling Techniques and Data		
Criteria	**Explanation**	**Comment**
Sampling techniques	*Nature and quality of sampling (e.g., 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 (e.g., '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 (e.g.,*	*Air Core drilling methods were used to obtain samples from the Overland drilling program.* *The following information details the Air Core drill sampling process:* • *All Air Core drill samples were collected from the rotary splitter mounted at the bottom of the cyclone into a pre-numbered calico bag. The samples were geologically logged at 1 m intervals.* • *Based on hole-diameter, generic material density and a 20% split on the cyclone samples averaged ~1.5-2.5 kg in mass.* • *Chip trays were used to collect a representative sample for each 1m sample interval for each hole.* • *After the samples were collected within the calico bags, they were screened for anomalous gamma radiation using a handheld Ranger EXP survey meter (S/N R318772) calibrated 23/09/2024 prior to being geologically logged and tested with a pXRF at the drill site.* • *The gamma screening was conducted by placing the handheld Ranger survey meter ~10cm from the calico sample for 5-10sec and noting the dose rate in µSv. If elevated dose rates were detected the field crew was then notified before any additional sample logging was conducted and the anomalous reading recorded in the geological log.* • *A handheld Olympus Vanta pXFR Analyser (Model Vanta M Series S/N 842924) was used to assess the geochemistry of the Air Core samples in the field. The pXRF analysis provided screening analysis to characterize the sample lithology and full suite.* • *The pXRF sampling was analized through the calico bag with a beam count time of 30 sec beam 1 and 10 sec beam 2. One analysis*

	submarine nodules) may warrant disclosure of detailed information.	per sample was performed. • Samples are laid on a workbench and flattened to create a stable surface for the pXRF. The pXRF is placed on the sample with the beam down for the analysis. • All readings were taken at ambient temperatures between 20 and 40 degrees Celsius. The Olympus Vanta is rated for continuous operation within these temperatures. • Samples range from dry to wet, this is dependent on which formation is being intercepted and whether drilling water has been injected. • A Uranium standard Oreas 121 (215 ppm U, sourced from Mantra Resources Nyota Prospect, Tanzania, which is a Tabular Sandstone hosted deposit) was used to verify the accuracy of the pXRF before and after each analysis session. • The OREAS 121 standard was prepared using an industry standard pXRF sample cup and analized for 30 sec on beam 1 and 10 Sec on beam 2. • A silica blank is used to monitor the accumulation of contamination on the lens of the pXRF. Analysis of the blank is undertaken before and after each analysis session. • Review of pXRF standard and blank data is checked to ensure the pXRF is operating correctly before and after each session. • Samples were selected for assay at the end of the hole based on geology, pXRF, and natural downhole gamma response. • Field duplicates were taken at a rate of ~1:40 and inserted blindly into the sample batches. • Field Standards were taken at a rate of ~1:40 and inserted blindly into the samples batches. • Samples were submitted to Bureau Veritas in Adelaide for analysis. The sample weights were recorded (wet and dry) and samples

		were oven dried at 105 degrees for a minimum of 24 hours. The samples were secondary crushed to 3 mm fraction and then pulverised to 90% passing 75 µm. Excess residue was maintained for storage while the rest of the sample placed in 8x4 packets and sent to the central weighing laboratory. The samples were submitted for analysis using Mixed Acid Digest – Lithium Borate Fusion ICP-MS method (BV Code SC302) for Ag (0.1), Al (100), As (1), Ba (1), Be (0.5), Bi (0.1), Ca (100), Cd (0.5), Ce (0.1), Co (1), Cr (10), Cs (0.1), Cu (1), Dy (0.05), Er (0.05), Eu (0.05), Fe (100), Ga (0.2), Gd (0.2), Hf (0.2), Ho (0.02), In (0.05), K (100), La (0.5), Li (0.5), Lu (0.02), Mg (100), Mn (2), Mo (0.5), Na (100), Nb (0.5), Nd (0.05), Ni (2), P (100), Pb (1), Pr (0.2), Rb (0.2), Re (0.1), S (50), Sb (0.1), Sc (1), Se (5), Si (100), Sm (0.05), Sn (1), Sr (0.5), Ta (0.1), Tb (0.02), Te (0.2), Th (0.1), Ti (50), Tl (0.1), Tm (0.2), U (0.1), V (5), W (0.5), Y (0.1), Zn (2), Zr (1), Yb (0.05) • *Select samples were also analyzed for gold using Lead collection Fire Assay AAS (BV Code FA001)* • *A laboratory repeat was taken at ~ 1 in 21 samples;* • *Commercially obtained standards were inserted by the laboratory at a rate of ~ 1 in 9 into the sample sequence.* • *After the hole was drilled to completion a Reflex EZ Gamma logging tool (serial number GAM-043) rented from Imdex, and operated by the drilling crew was run down the hole, inside the rods/innertube to log the natural gamma response of the sediments. The gamma tool was last calibrated by Imdex on October 9th 2024 as noted in the provided Certificate of Conformance.* • *The survey was run in and out of the hole at a speed of no more than 10m/min and the downhole speed was reviewed after the survey.* • *The up (out) survey was then used to plot on sections, after reviewing both in and out*

		gamma surveys. • *Before each downhole gamma survey the Reflex EZ Gamma logging tool was checked with a EZ-Gamma confidence checker by AR3 staff (S/N 025). The confidence checker was last calibrated 29/08/24.* • *Using the EZ-Gamma confidence checker at the start of each run allows the gamma tool to be checked ensuring it is within specifications and the tool has not been damaged or faulty providing confidence an accurate gamma reading is collected for each hole.* • *The check is completed by first running the gamma tool for 5min to measure background gamma, then a second survey after sliding the EZ-Gamma Confidence checker over the gamma probe and subtracting the background. The resulting pass value of ~600 cps +/- 5% is required before the survey tool is confirmed as operating within expected limits.* • *After the gamma survey is completed the data is uploaded to the Imdex hub IQ portal (https://iq.imdexhub.com) from the rig via satellite internet and available for review.* • *The Fairview uranium occurrence shown on maps within this report is based on reported SA Geodatabase Reference sample #152296 (Explorers sample 45835) sourced from the SA Geodatabase available on SARIG https://minerals.sarig.sa.gov.au/RockSampleDetails.aspx?SampleNo=45835* • *Sample #152296 was collected by A.F. Crooks on 20/08/1984 and the sample was analyzed by XRF. Details on the lab or XRF device were not specified.*
Drilling techniques	*Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-*	• *Drilling was completed using a Wallis "Mantis 200"Air Core drill rig with an onboard Sullair compressor (560cfm @ 200psi).* • *Aircore drilling is a form of reverse circulation drilling where the sample is*

	sampling bit, or other type, whether core is oriented and if so, by what method, etc).	*collected at the face and returned inside the inner tube. The drill cuttings are removed by injection of compressed air into the hole via the annular area between the inner tube and the drill rod.* • *Aircore drill rods used were 3 m long.* • *NQ diameter (76 mm) drill bits and rods were used.* • *All aircore drill holes were vertical with depths varying between ~140 m and 200 m.*
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 preferential loss/gain of fine/coarse material.*	• *Drill sample recovery for Air Core drilling is monitored by recording sample condition descriptions where 'Poor' to 'Very Poor' were used to identify any samples recovered which were potentially not representative of the interval drilled.* • *A comment was included where water injection was required to recover the sample from a particular interval. The use of water injection can potentially bias a sample. Minimal water injection was required during this drilling program and used sparingly.* • *No significant loses of sample material was observed.* • *The rotary splitter was set to an approximate 20% split, which produced approximately 1.5-2.5 kg sample for each meter interval.* • *The 1.5-2.5 kg sample was collected in a pre-numbered calico bag and the remaining 80% (5 kg to 8 kg) was disposed directly into the sump as drilling progressed.* • *At the end of each drill rod, the drill string is cleaned by blowing down with air to remove any clay and silt potentially built up in the sample pipes and cyclone.* • *The relationship (if any) between sample recovery and grade is unknown* • *No sample recovery information was reported in historical reports relating to historical drilling within this release.*
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support*	• *All Air Core samples collected in calico bags were logged for lithology, colour, cement type, hardness, percentage rock estimate, sorting, and any relevant comments such as moisture, sample condition, evidence of*

	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.	reducing or oxidizing conditions, and vegetation/organic material. • Geological logging data for all drill holes was qualitatively logged onto Microsoft Excel spreadsheet using a field laptop with validation rules built into the spreadsheet including specific drop- down menus for each variable. The data was uploaded to the Australian Rare Earths Azure Data Studio database. • Every drill hole was logged in full and logging was undertaken with reference to a drilling template with codes prescribed and guidance to ensure consistent and systematic data collection. • The detail of logging is not sufficient to support consideration of resource estimation, mining, or metallurgical studies and no geotechnical logging was completed.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all cores 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.	• 1m Air Core sample interval was homogenised within the cyclone and the rotary splitter was set to an approximate 20% split producing around 1.5-2.5 kg sample for each metre interval. • The 1.5-2.5kg sample was collected in a pre-numbered calico bag and the 80% (5 kg to 8 kg) portion was disposed directly into the sump as drilling progressed. • Duplicates were generally taken within intervals which indicated potential for anomalous U mineralization based on geology, pXRF, and gamma signature. These duplicate samples were collected by splitting the 1m interval by emptying the sample on to a table, mixing and splitting into 1/8th subsamples and randomly assigning 4 of the splits into the duplicate and 4 remaining as the primary. • The 1.5-2.5 kg sample collected in the calico bag was logged by the geologist onsite. • Approximately 10-20g of sample material from each for each 1m calico sample placed in a chip tray. • The logged calico samples were scanned with a pXRF onsite through the calico bag. • At the end of the drillhole samples were

	Whether sample sizes are appropriate to the grain size of the material being sampled.	*selected for analysis.* • *Samples were placed in polyweave bags labelled with the sample number, From-To interval, and Hole ID, then segregated into bulka bags for transport either to the lab for analysis or to AR3's warehouse or similar storage facility.* • *No correction factors were applied to pXRF results.* • *Field duplicates of all the samples were completed at a frequency of ~1 in 40 samples. Field standards were inserted into the sample sequence at a frequency of ~1:40. Standard reference Material (SRM) samples were inserted into the sample batches at a frequency rate of 1 per 10 samples by the laboratory and a repeat sample was taken at a rate of 1 per 21 samples.* • *An on-site geologist oversaw the sampling and logging process and selected samples for analysis based on the logging descriptions Pxrf analysis, and downhole gamma response.*
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 (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of*	*•The detailed geological logging of samples provides lithology (sand/clay component)* *•The 1.5 kg air core samples were assayed by Bureau Veritas laboratory in Wingfield, Adelaide, South Australia, which is considered the Primary laboratory.* *•The samples will be initially oven dried at 105 degrees Celsius for 24 hours. Samples will be secondary crushed to 3 mm fraction and the weight recorded. The sample will then be pulverised to 90% passing 75 µm. Excess residue will be maintained for storage while the rest of the sample is placed in 8x4 packets and sent to the central weighing laboratory.* *•All weighed samples will then be analysed using the Multiple Elements Fusion/Mixed Acid Digest analytical method;* *•ICP Scan (Mixed Acid Digest – Lithium Borate Fusion) Samples are digested using a mixed acid digest and also fused with Lithium Borate to ensure all elements are brought into solution. The*

	bias) and precision have been established.	*digests are then analysed for the following elements (detection Limits shown): Al (100) As (1) Ba (1) Be (0.5) Ca(100) Ce (0.1) Co (1) Cr (10) Dy (0.05) Er (0.05) Eu(0.05) Fe(100) Gd (0.2) Ho (0.02) K (100) La (0.5) Lu (0.02) Mg (100) Mn (2) Na (100) Nd (0.05) Ni (2) Pr (0.2) S (50) Sc (1) Si (100) Sm(0.05) Sr (0.5) Th (0.1) Ti (50) Tm (0.2) U (0.1) V (5) Y (0.1) Yb (0.05) Zr (1)* • *Select samples that were deemed likely to be of basement lithology (or saprolite) were also analyzed for Au Fire Assay with a detection limit of (0.01)* *•Field duplicates were collected and submitted at a frequency of ~1 per 40 samples.* • *Bureau Veritas will complete its own internal QA/QC checks that include a Laboratory repeat every 21st sample and a standard reference sample every 9th sample prior to the results being released.;* • *Australian Rare Earths submitted field standards at a frequency of ~1:40 samples.* • *Australian Rare Earths requested BV insert blank washes at a frequency of 1:40 samples. These blank washes were inserted in the sample sequence behind samples which were thought to be mineralized to ensure that no contamination from higher grade samples was occurring. Frequency of blank samples totalled ~1 in 40 samples.* *The adopted QA/QC protocols are acceptable for this stage of test work. The sample preparation and assay techniques used are industry standard and provide a total analysis.* *Historical data referenced within this report is detailed below;* • *The Fairview uranium occurrence an is based on reported SA Geodatabase Reference sample #152296 (Explorers sample 45835) sourced from the SA Geodatabase available on SARIG (https://minerals.sarig.sa.gov.au/RockSampleDetails.aspx?SampleNo=45835)* • *Sample #152296 was collected by A.F. Crooks*

		on 20/08/1984 and the sample was analyzed by XRF, details on the lab or XRF device were not specified.
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.*	• *All results are checked by the company's Chief Technical Officer.* • *Field based geological logging for drill holes was entered directly into an Excel spreadsheet format with validation rules built into the spreadsheet including specific drop-down menus for each variable. This digital data was then uploaded to the Australian Rare Earths Azure Data Studio database.* • *Assay data will be received in digital format from the laboratory and uploaded to Australian Rare Earths Azure Data Studio database.* • *Field and laboratory duplicate data pairs of each batch will be plotted to identify potential quality control issues.* • *Standard Reference Material sample results will be checked from each sample batch to ensure they are within tolerance (<3SD) and that there is no bias.*
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.*	• *All maps are in GDA94/MGA zone 54.* • *All overland coordinate information was collected using handheld GPS utilizing GDA 1994, Zone 54. While spatial location is expected to be recovered within 3 – 5 m, it is possible that the elevation can be as much as 10 m out with respect to the currently established geoid.*
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*	• *Locations of Overland drill holes are reported within the appendices of this report.* • *No geological or grade continuity estimations are being determined from the Overland drilling data.*

	applied.	
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.*	• *All Overland drill holes were drilled vertically as detailed in the appendices of this report.* • *There is no indication that a sampling bias exists as the geology is relatively flat lying therefore vertical holes are appropriate.*
Sample security	*The measures taken to ensure sample security.*	• *After logging, the samples in calico bags were tied and placed into polyweave bags, labelled with the drill hole and sample numbers contained within the polyweave and transported to the site laydown area, at the end of each day.* • *Sample selections were determined at the drill site and at the end of the day the polyweave bags were placed into bulk bags for either sending to the lab or storage facility.* • *Samples were shipped at a frequency of once every ~10 days during drilling.* • *Samples were transported to the lab by AR3 personnel or by courier.* • *The laboratory inspected the packages and did not report tampering of the samples and provided a sample reconciliation report for each sample dispatch.*
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	• *Internal reviews were undertaken by AR3's Exploration Manager and Technical Director during the drilling, sampling, and geological logging process and throughout the sample collection and dispatch process to ensure AR3's protocols were followed.*

Section 2 Reporting of Exploration Results		
Criteria	**Explanation**	**Comment**
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.*	• *Australian Rare Earths Overland project is comprised of EL7001, EL7003 and EL7005 held by Valrico Resources Ltd Pty and WRDBD PTY LTD, wholly owned subsidiaries of Australian Rare Earths.* • *The three EL's cover an area of approximately 2,980km2.* • *In addition, Valrico Resources Ltd Pty have entered into an earn in agreement with the license holders of EL6678 (Shear Gold Pty Ltd) on November 19^{th} 2024 (see ASX announcement).* • *When the earn in period is completed, the tenure will be transferred to Valrico adding another 990km^2 to the Overland project and bringing the total Overland project area to 3779km^2.* • *There are no Conservation Parks or Regional Reserves in the EL areas.* • *The White Dam CP has been excised from the SW corner of EL7003 and southern portion of EL6678.* • *The Morgan CP are located outside the SW corner of EL7003.* • *Registered Native Title Determination Application SC2019/001 overlaps with the central portion of EL7003 and southern portion of EL6678.* • *Registered Native Title Determination Application SC20/002 overlaps with the NW corner of EL7005.* • *A registered and Notified Indigenous Land Use Agreement (ILUA)- The River Murray and Crown Lands SI2011/025 overlaps with the southern portion of EL7003* • *A registered and Notified Indigenous Land Use Agreement (ILUA)- Ngadjuri Faraway Hill Pastoral SI2005/005 overlaps with the Northwest corner of EL7005.*

Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	• *Exploration activities by other exploration companies extends back to the 1970's.* • *Historically the area has been explored for Base Metals, Coal, Gold, Copper, Heavy Mineral Sands, and Water.*
Geology	*Deposit type, geological setting and style of mineralisation.*	• *The Overland project is targeting Paleochannel Uranium within the Murray and Renmark Group sediments of the Murray Basin.* • *Sedimentary hosted uranium deposits occur in medium to coarse-grained sedimentary sequences deposited in a continental fluvial or marginal marine sedimentary environment. Impermeable shale/mudstone units are interbedded in the sedimentary sequence and often occur immediately above and below the mineralised sediments. Uranium is precipitated under reducing conditions caused by a variety of reducing agents within the permeable sediments including carbonaceous material (detrital plant debris, amorphous humate, marine algae), sulphides (pyrite, H2S), and hydrocarbons.* • *Anomalous uranium within the Murray Basin occurs in carbonaceous clay and lignite of the Winnambool Formation and Geera Clay (Murray Group) of the Murray Basin, however the Renmark Group sediments have never been effectively targeted for uranium in the South Australian portion of the Murray Basin and therefore represent a highly promising new frontier for uranium exploration.*
Drill hole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* - *easting and northing of the drill hole collar*	• *The material information for the Overland drilling is contained within the Appendices of this report*

	- *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.*	
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.*	• *No data aggregation methods were used in reporting of this release.*

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').*	• *All down hole lengths of geological intervals are interpreted to be true widths as the geology in the region is relatively flat lying and the holes are vertical.*
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be 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.*	• *Diagrams are included in the body of this release.*
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 release contains all drilling results that are consistent with the JORC guidelines. Where data may have been excluded, it is considered not material.*
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;*	• *All known relevant exploration data has been reported in this release.*

	bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
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.*	• *Additional work will consist of (but not limited to) continued desktop review and reprocessing of historical geophysical and geological data to assist with target generation.* • *Air Core drilling, downhole gamma logging, and sampling.* • *Additional EPEPR applications to expand exploration across the broader tenure.*

Appendix 2 – List of Collars

Hole ID	East (m)	North (m)	RL (m ASL)	Drill Method	Down Hole Width (mm)	Total Depth EOH (m)	Azimuth	Dip Direction
OV001	357586	6292689	150	Aircore	76	169	0	-90
OV002	357690	6293487	142	Aircore	76	186	0	-90
OV003	357737	6294273	138	Aircore	76	144	0	-90
OV004	357797	6295053	138	Aircore	76	141	0	-90
OV005	365825	6285470	115	Aircore	76	90	0	-90
OV006	366631	6285684	119	Aircore	76	99	0	-90
OV007	367406	6285881	138	Aircore	76	117	0	-90
OV008	368128	6286065	138	Aircore	76	120	0	-90
OV009	357716	6294068	138	Aircore	76	129	0	-90
OV010	357408	6295655	138	Aircore	76	159	0	-90