

## Wirrulla Project – Uranium Exploration Update

### HIGHLIGHTS

- **Highly anticipated Uranium / REE Wirrulla Project (EL 6968) in South Australia now granted**
- **Recent satellite and radar imagery analysis at the Wirrulla Project has highlighted uranium ( $U_3O_8$ ) mineralisation potential and defined a number of priority target areas**
- **High-grade uranium ( $U_3O_8$ ) mineralisation at Yarranna<sup>1</sup> and ionic absorption REE mineralisation at Boland<sup>2</sup> hosted in the Narlabby palaeochannel which is mapped to cover an extensive footprint with-in the Wirrulla Project**
- **Significant  $U_3O_8$  intercepts at the Yarranna project include<sup>3</sup>:**
  - **3,550ppm  $U_3O_8$  over 1m from 66m (IR1377)**
  - **1,400ppm  $U_3O_8$  over 1m from 69m (IR1378)**
- **Cluster of  $U_3O_8$  targets located within 10km of Yarranna have been elevated to priority status**
- **Project is located in South Australia, a pro-uranium mining jurisdiction**

Pinnacle Minerals Ltd (ASX: **PIM**) ("**Pinnacle**", the "**Company**") is pleased to announce that recent satellite and radar imagery analysis has highlighted the potential for uranium ( $U_3O_8$ ) mineralisation within the Narlabby paleochannel in its newly granted Wirrulla Project ("**Project**"). This Palaeochannel is linked to isoEnergy's (ISO.CVE) Yarranna Uranium Project which has significant uranium intercepts of up to **3,550ppm  $U_3O_8$** .

South Australia is a pro-uranium mining jurisdiction and hosts approximately 80% of Australia's economically demonstrated resources of uranium and approximately 23% of the world's uranium resources<sup>4</sup>.

Satellite and radar imagery analysis has identified numerous uranium targets. Of these, a cluster, located 10km to the south of the Yarranna uranium occurrence(s) are considered the most prospective as they overly and straddle the interpreted continuation of the paleochannel that hosts the Yarranna mineralisation.

Consolidated Uranium (TSXV.CUR) ("**CUR**") acquired the Yarranna Uranium Project in October 2022 for CA \$4M and has now merged with isoEnergy (ISO.CVE) to create a c.\$700M Diversified Uranium Company with a focus on the World's top uranium jurisdictions<sup>5</sup>. Their 2022 acquisition of the Yarranna Projects serves to highlight the status of the region as a potential uranium district.

### **Pinnacle Minerals Managing Director, Nic Matich, commented:**

*"The Uranium spot price has increased dramatically over the past 18 months to more than US \$100 per pound today (a 16 year high). The investment thesis for uranium is strengthening as the drive towards net zero increases. South Australia is an ideal jurisdiction to explore for uranium given the states "pro-uranium stance". Having known high grade  $U_3O_8$  mineralisation in paleochannels that are mapped with-in our Wirrulla Project is a positive indicator and one Pinnacle is investigating as a priority."*

1 – Open File Envelope No. 4010, Carpentaria Exploration Co. Pty Ltd, 1984,

2 – Cobra Resources PLC (COBR.LON) LSE announcement dated 11<sup>th</sup> September 2023

3 – Open File Envelope No. 4010, Carpentaria Exploration Co. Pty Ltd, 1984,

4 – <https://www.energymining.sa.gov.au/industry/minerals-and-mining/mineral-commodities/uranium>

5 – <https://www.isoenergy.ca/>

### Satellite and radar analysis

Dirt Exploration (and its principal, Dr Neil Pendock) acquired, processed and analysed Sentinel multispectral data (Sentinel) and Synthetic Aperture Radar (SAR) data over the Wirrulla Project. The methodology employed (resistivity mapping) has been retrospectively shown to detect basement-hosted unconformity-related uranium deposits such as NextGen Energy's Arrow deposit, the largest, highest-grade undeveloped uranium deposit in the world<sup>6</sup>.

Correlating synthetic aperture radar (SAR) and Sentinel (captured on the 16<sup>th</sup> June 2007 and 7<sup>th</sup> October 2023 respectively) with the Yarranna uranium prospects (1 through 4), Dirt Exploration generated numerous targets, of which a cluster less than 10km from the Yarranna prospects are considered the most prospective. This cluster overlies and is adjacent to an interpreted extension of the Narlaby paleochannel which hosts the Yarranna mineralisation.

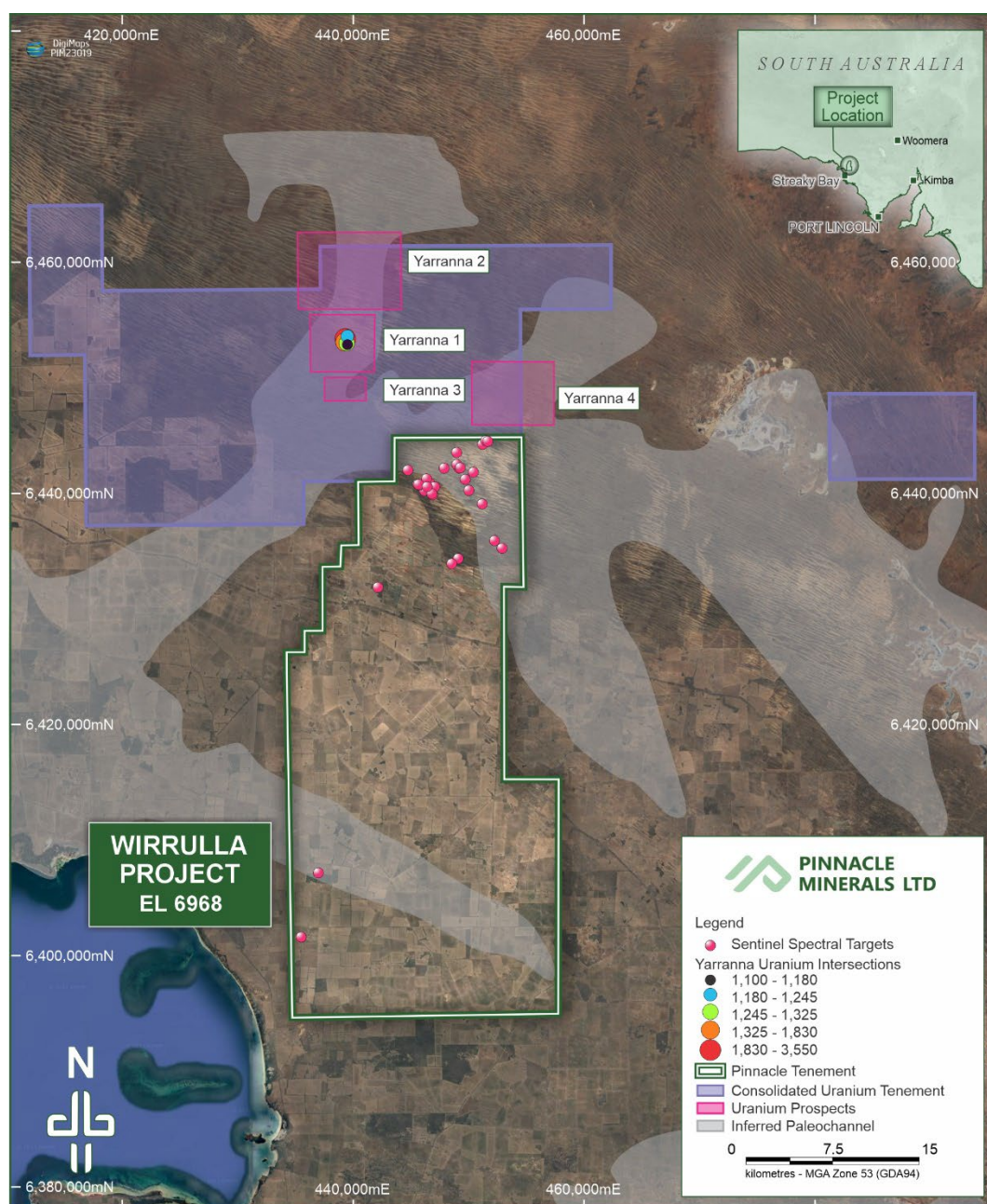


Figure 1: Wirrulla Project highlighting uranium mineralisation and targets

6 – Dr. Neil Pendock, Dirt Exploration, Uranium exploration at Wirrulla, South Australia, using visible-near infrared [VNIR], shortwave infrared [SWIR] & synthetic aperture radar [SAR] satellite imagery



### The Wirrulla Project

The 100% Pinnacle owned Wirrulla Project (EL 6968) is 957km<sup>2</sup> of tenure in the northwestern extents of the Eyre Peninsula South Australia. The project is centred on a circular magnetic feature resembling a Mount Weld style intrusion and was applied for in July 2023 primarily for its' rare earth element (REE) potential which was identified from historical drilling intercepts where elevated apatite > 10% (typical in carbonatites) were intercepted<sup>7</sup>.

The REE Ionic Absorption potential of the Narlaby palaeochannel has also been identified by Cobra (COBR.LON) who have defined the Boland Ionic Rare Earth Project which is hosted with-in the palaeochannel. Cobra has recently acquired tenements EL6966 and EL6967 which cover a substantial portion of the palaeochannel.

Desktop studies undertaken whilst the tenement was under application have highlighted the uranium prospectivity in the northern extents of the tenement where the uranium-bearing Narlaby paleochannel is mapped continuing into the tenement. The palaeochannel hosts high grade uranium mineralisation at Yarranna only 10km from the targets identified by satellite and radar imagery analysis conducted by Pinnacle.

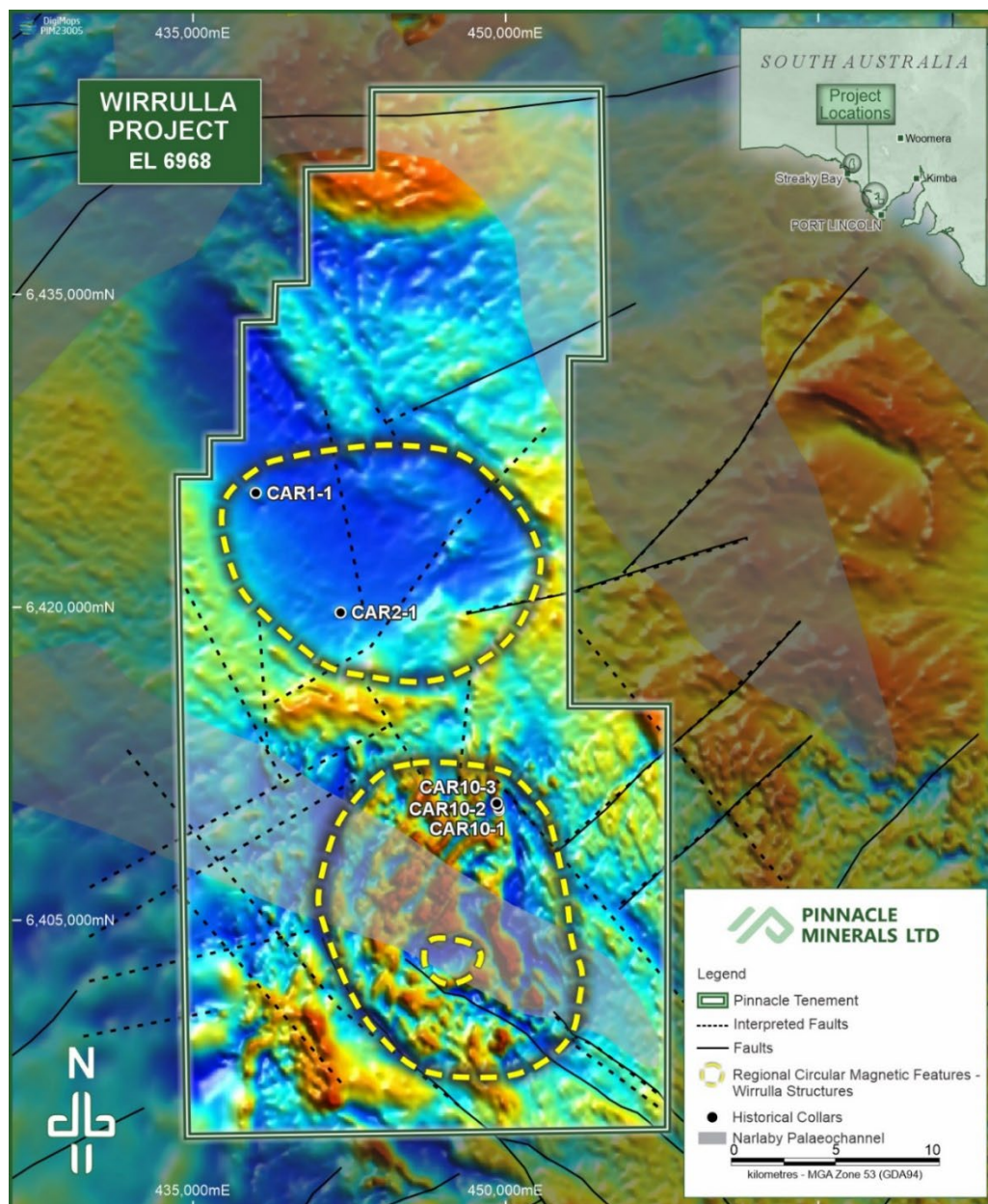


Figure 2: Wirrulla Project highlighting circular magnetic structures, faults and underlying palaeochannel.

7 – Pinnacle Minerals Announcement 19<sup>th</sup> July 2023

**Further Work**

Pinnacle is reviewing historical records on the South Australian Resources Information Gateway (SARIG) and those held by the Geological Survey of South Australia (GSSA) to define the general extents and stratigraphy of the Narlabby paleochannel. Once better understood, non-invasive techniques such as passive seismic may be used to map the paleochannel locally to define specific drill targets.

The Rare Earth potential of the project is also currently under investigation with the Company, engaging an experienced South Australian based geologist to conduct a desktop review of historical drill logs and to undertake XRF analysis of select core held at the Tonsley core library. This work will endeavour to define a series of drill targets for testing post successful negotiation of land access with farmers.

This announcement has been authorised for release by the Board of Pinnacle Minerals Ltd.

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8 – Consolidated Uranium TSXV market announcement 31st October 2022  
9 – Open File Envelope No. 4010, Carpentaria Exploration Co. Pty Ltd, 1984  
10 – GDA2020 MGA50

**About Pinnacle Minerals**

Pinnacle Minerals Ltd (ASX: PIM) is an ASX listed technology minerals company focused on delivering shareholder value via the systematic exploration and development of its portfolio of battery and technology metals projects in Canada, Western Australia and South Australia. Pinnacle aims to deliver exploration success via systematic and geologically rigorous techniques. The Company's focus is the "Adina East Project" in James Bay, Quebec which is proximal to the world class Adina Lithium Project (Winsome Resources: WR1.ASX) and adjacent to the Trieste Lithium Project (Loyal Lithium: LLI.ASX) and the Tilly Lithium Project (WR1.ASX). The Company's Australian exploration assets are prospective for Rare Earth Elements, Mineral Sands and Kaolin.

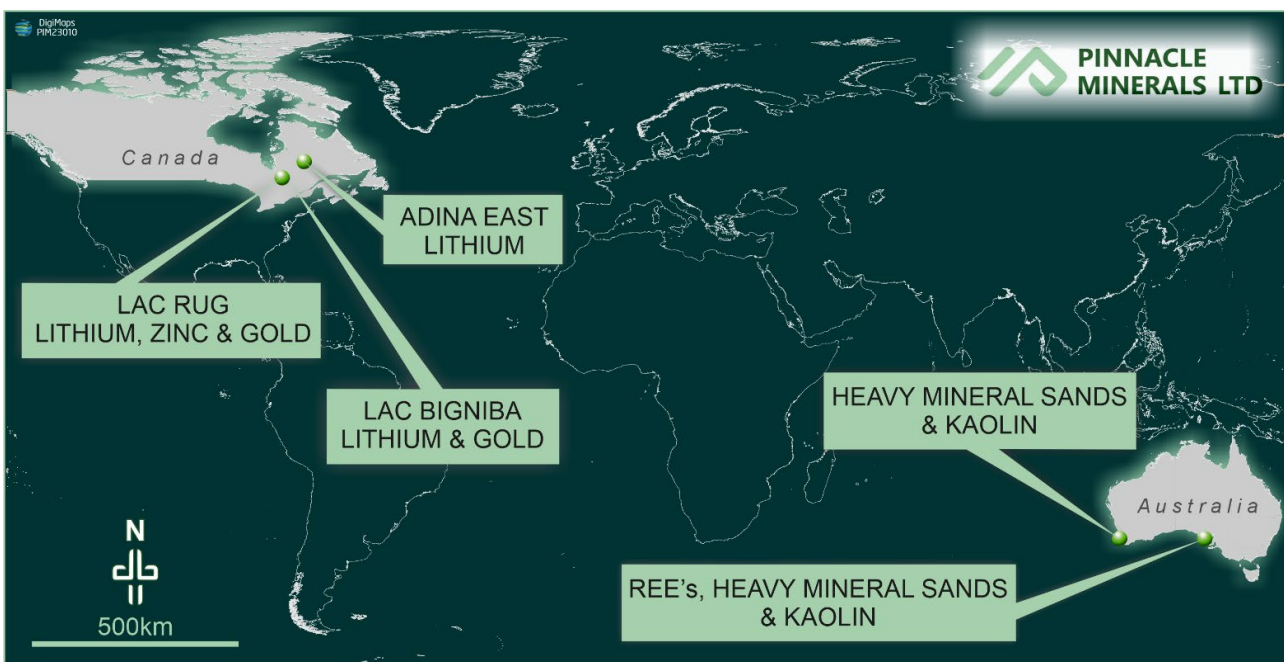
**Forward Looking Statements**

This announcement contains 'forward-looking information' that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different. Forward looking information is subject to known and unknown risks, uncertainties and

other factors that may cause the Company's actual results, level of activity, performance, or achievements to be materially different from those expressed or implied by such forward-looking information.

#### **Competent person statement**

The information in this announcement that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by William Witham, a Competent Person who is a Member of The Australian Institute of Geoscientists (AIG). William Witham is a director of Pinnacle Minerals Ltd. William Witham has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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'. William Witham consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.



*Figure 3: Pinnacle Minerals Projects' Location Map*



## Appendix 1 JORC Tables

### Section 1 Historical Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g., 'reverse circulation drilling was used to obtain 1m 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., submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Air core drilling was used to obtain samples for analysis at 1m intervals</li> <li>Carpentaria Exploration Company Pty Ltd conducted the drilling</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>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-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</li> </ul>	<ul style="list-style-type: none"> <li>Aircore drilling was used to obtain samples for analysis at 1m intervals, followed by wireline logging was considered standard at the time of drilling</li> <li>NQ diameter (76mm) drill bits and rods were used</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>1 metre sampling is not expected to alter the interpretation of the results.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>The 1m samples were each qualitatively logged by the onsite geologist.</li> <li>The samples were logged quantitatively as being representative of hole lithology</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc., and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages</li> </ul>	<ul style="list-style-type: none"> <li>No further details on sample handling are available.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p>to maximise representivity of samples.</p> <ul style="list-style-type: none"> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.</li> </ul>	<ul style="list-style-type: none"> <li>XRF was utilised to log the uranium grade</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>All results were reviewed by the Competent Person</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>All results taken from Open File Envelope No. 4010, Carpentaria Exploration Co. Pty Ltd, 1984</li> <li>CRS utilised was AMG Zone 53H, local grids established using a Ensign GPS and 99 reading average. Drill collars located on local grids.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>The drilling program was conducted to test for sedimentary hosted uranium mineralisation</li> <li>Hole spacing varied from 50m centres to 500m centres and considered appropriate for the style of mineralisation</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Drill holes were vertical as the aim of the campaign was to test for sedimentary hosted uranium mineralisation</li> <li>1m meter XRF samples are sufficient to estimate mineralisation</li> <li>The orientation of the drilling is considered appropriate for testing the basement material</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Unknown security of samples</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No independent audits or reviews of sampling techniques and data has been conducted.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>EL 6968 is held by 100% owned Pinnacle subsidiary REE Exploration Limited</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Diamond Ventures explored for diamonds targeting magnetic anomalies thought to represent kimberlites. Diamond drill core from 8 targets was assessed by petrology and geochemistry.</li> <li>National Mineral Sands (1989-91), Peko Exploration (1991-1992), BHP (1989-1992) and Iluka (2005-2016) all explored the area for Heavy Mineral Sands.</li> <li>Carpentaria (1981-83) explored for sedimentary uranium.</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Basement rocks are the Archean Sleaford Complex of the Gawler Craton consisting of metamorphosed granites, mafic volcanics and gneisses. The Archean rocks are overlain by remnant units of the Eocene and/or Miocene littoral marine sediments of the Eucla and Polda Basins.</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>No relevant material data has been excluded from this report.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<p>of the drill hole collar</p> <ul style="list-style-type: none"> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> <p>• 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.</p>	
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>• 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.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• There are no data aggregation methods applied</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>• Holes are all drilled vertically. Reported widths represent true thickness</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Figures and plans are displayed in the main text of the Release</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• No Assays from ELA 2023/00031 have been report</li> <li>• Key intercepts from adjacent projects have been reported</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• All information has been provided as available</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>• The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>• Reconnaissance soil sampling over areas of interest for benchmarking and delineating new target areas.</li> <li>• Drilling to target potential carbonatite and uranium mineralisation.</li> <li>• Exploration by geophysical analysis and drilling is planned on other parts of the</li> </ul>



Criteria	JORC Code explanation	Commentary
		tenement. <ul style="list-style-type: none"><li>• Refer to the main body of the release for further information regarding diagrams</li></ul>