



# Koppamurra Drilling Program Indicates Strong Potential for Larger Resource

## Highlights

- Koppamurra project's second major drilling program which ran between February and April 2022 successfully identified extensive, shallow, rare-earth mineralisation adjacent to the Red Tail and Yellow Tail resource deposits, with thicknesses and grades consistent with those previously found in these areas.
- The intensive resource definition drilling program, undertaken over an area equivalent in size to the Red Tail and Yellow Tail maiden resource footprint, consisted of 1,158 holes and 11,480m at 100m x 100m spacing to supplement the previous drilling of 899 holes and 9,920m in late 2021
- Additional density determinations across a wide area of the closely spaced drilling supports a 30% dry bulk density increase to be applied in the updated resource estimate
- These results provide a high level of confidence that the mineralised clays remain shallow, low cost to mine and consistently thick up to ~8km north of Red Tail and Yellow Tail.
- The three-fold increase in meters drilled at tighter spacing will form the basis for a planned mineral resource update scheduled for June 2022. This will be the first major update since the maiden resource of 39.9Mt reported in April 2021.

Australian Rare Earths Limited ([ASX: AR3](#)) ('AR3' or the **Company**) is pleased to announce the following update on exploration activities on its 100% owned, flagship Koppamurra Project, located in South Australia and Victoria.

### **Resource Definition Drilling**

Drilling has recently concluded on a second 10,000m drilling program aimed at the delineation of additional JORC compliant mineral resources adjacent to and extending from the existing Red Tail and Yellow Tail maiden resource announced in April 2021. The program is a continuation of a similar size program completed between October and December 2021, where promising assays were received, showing the potential for extensions to both Red Tail and Yellow Tail of shallow mineralised clay sediments with at least comparable Total Rare Earth Oxide (TREO) grades and thickness to existing resources, at ~6km along strike to the north.

The location of drilling and the assays received are illustrated in Figure 1. A total of 1,158 drillholes and 11,480m were completed during the program which commenced on 2 February and concluded on 13 April 2022. The average depth for the drillholes was 9.9m.

The program successfully identified extensive, shallow, rare-earth mineralisation adjacent to Red Tail and Yellow Tail, with thicknesses and grades in many instances exceeding those from within Red Tail and Yellow Tail. The results from this drilling will support an updated mineral resource estimate due to be completed in June 2022. The areas recently drilled were at 100m x 100m spacing to support resource definition, and

For personal use only



together with the areas already defined for Red Tail and Yellow Tail, forms the basis for an updated resource estimate planned for June 2022.

Assays have been received from 467 drill holes (KM0749 through KM1215). From these, 376 drill holes or 81% returned a weighted average grade of 769ppm TREO, using a 350ppm cut-off. Alternative cut-off grades indicate the following results:

- 70% of holes returned an average grade of 947ppm TREO at 500ppm cut-off, and
- 34% of holes returned an average grade of 1,556ppm TREO at 1,000ppm cut-off.

Assays will continue to be completed over the next 6 weeks to support an updated mineral resource estimate scheduled for June 2022.

Notable intersections are as follows:

- KM0884, 9m @ 908ppm TREO from 1m with 22.5% combined Neodymium/Praseodymium (Nd/Pr) and 2.4% Dysprosium (Dy)
- KM1198, 7m @ 1,001ppm TREO from 1m with 20.7% combined Nd/Pr and 2.7% Dy
- KM0976, 8m @ 1,072ppm TREO from 6m with 24.2% combined Nd/Pr and 2.4% Dy
- KM0762, 7m @ 872ppm TREO from 12m with 21.5% combined Nd/Pr and 2.8% Dy
- KM0895, 8m @ 566ppm TREO from 1m with 23.9% combined Nd/Pr and 2.7% Dy
- KM0879, 3m @ 1,610ppm TREO from 1m with 23.9% combined Nd/Pr and 1.9% Dy
- KM1079, 3m @ 1,428ppm TREO from 4m with 22.9% combined Nd/Pr and 2.0% Dy
- KM0951, 3m @ 1,403ppm TREO from 5m with 20.8% combined Nd/Pr and 2.5% Dy
- KM0769, 3m @ 1,367ppm TREO from 2m with 18.6% combined Nd/Pr and 2.2% Dy
- KM0933, 3m @ 1,545ppm TREO from 5m with 21.7% combined Nd/Pr and 2.0% Dy
- KM1014, 2m @ 1,542ppm TREO from 4m with 25.8% combined Nd/Pr and 2.2% Dy

The program was undertaken predominantly on private land holdings where AR3 has established access agreements. AR3 continues to have positive engagement with local landowners across its exploration tenure and is working collaboratively to increase the area available for subsequent drilling programs planned for 2022.

For personal use only



For personal use only

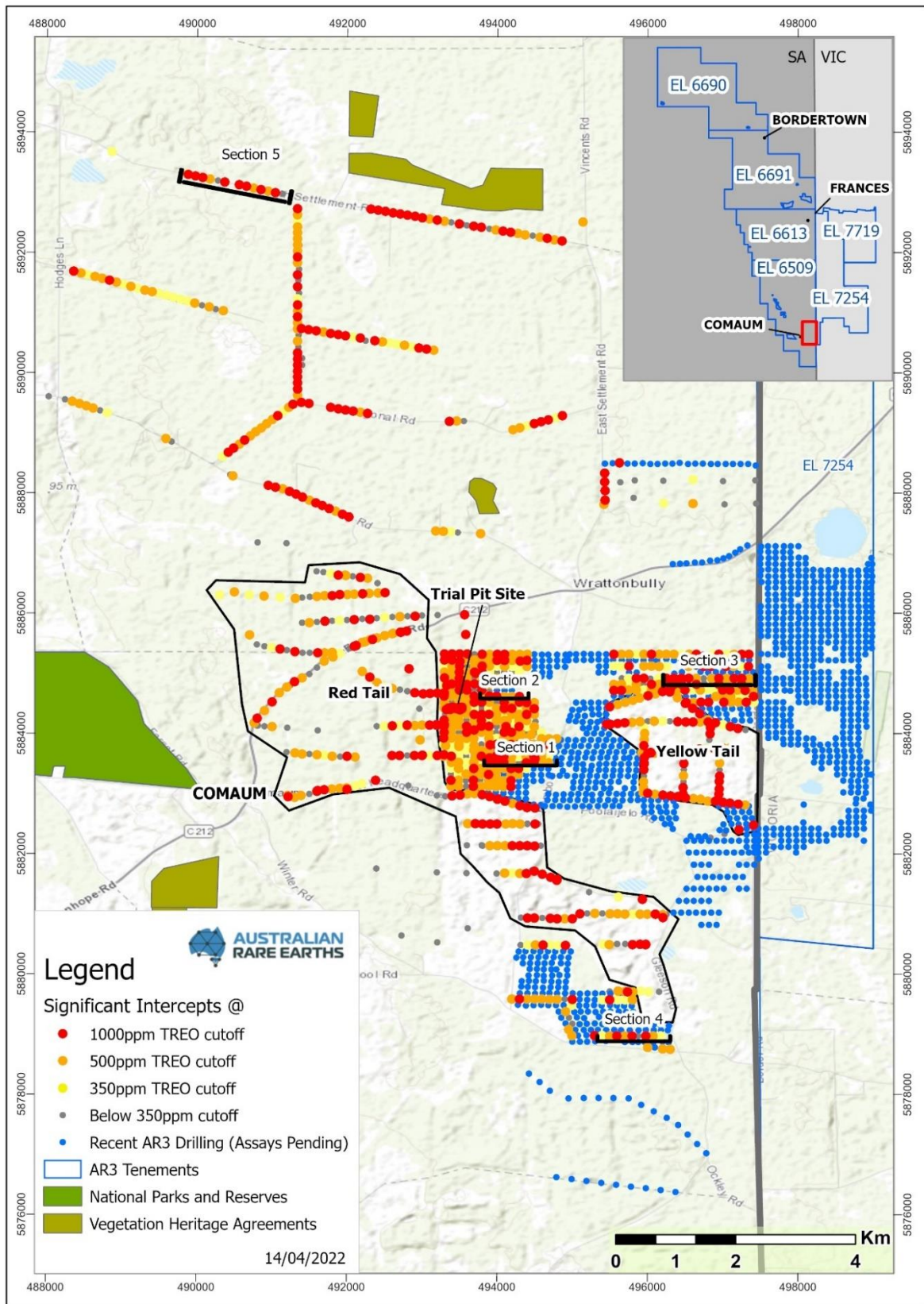


Figure 1 – AR3 drillhole locations on EL6509 (Comaum), with Section Locations identified



Five cross sections from the recent drilling adjacent to Red Tail and Yellow Tail illustrates the shallow, extensive, nature of the mineralisation. Most notably, thicker than average intersections have been observed, some up to 9m thick with high grades. The rare earth mineralisation continues to be found accumulated in the clayey sediments overlying the Gambier Limestone. Figure 1 identifies the location of the following five cross sections, with significant intersections detailed in Table 1.

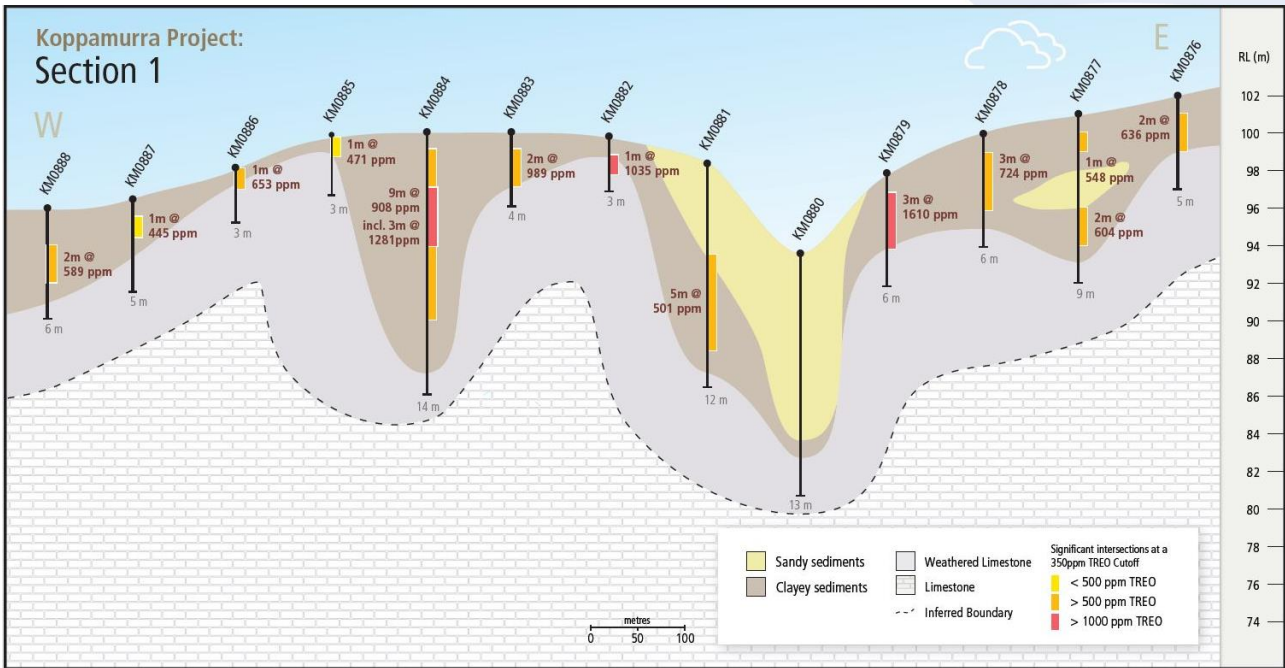


Figure 2 – Cross Section 1

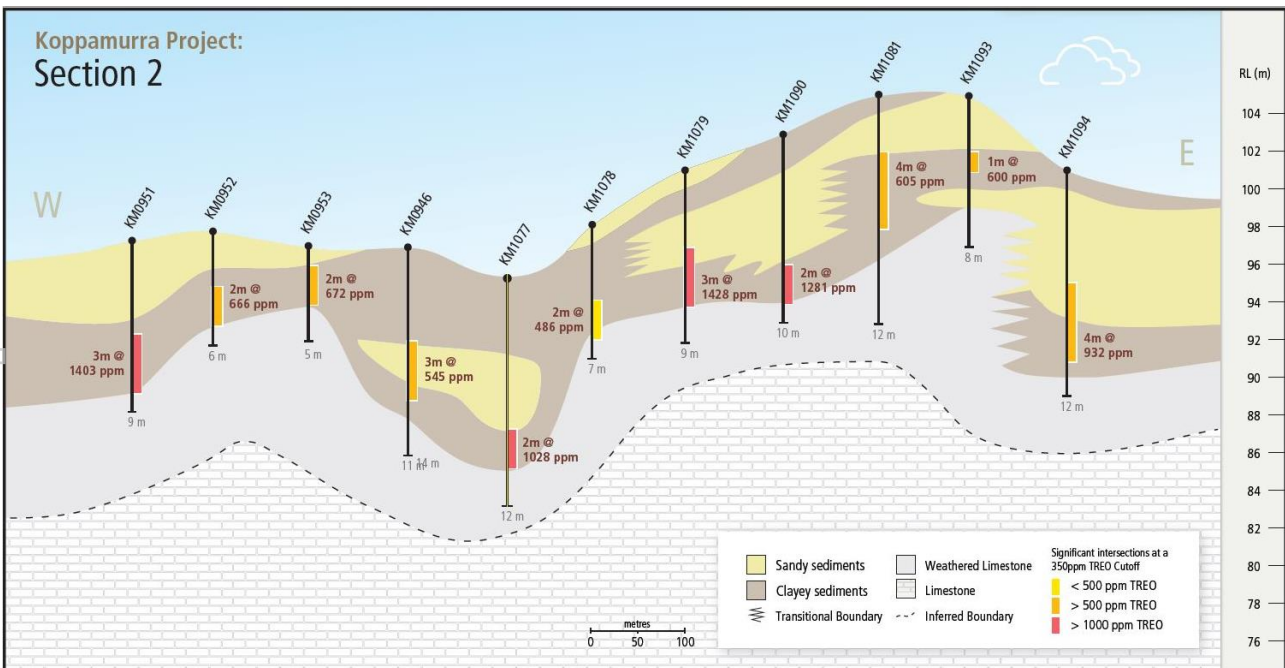


Figure 3 – Cross Section 2

For personal use only

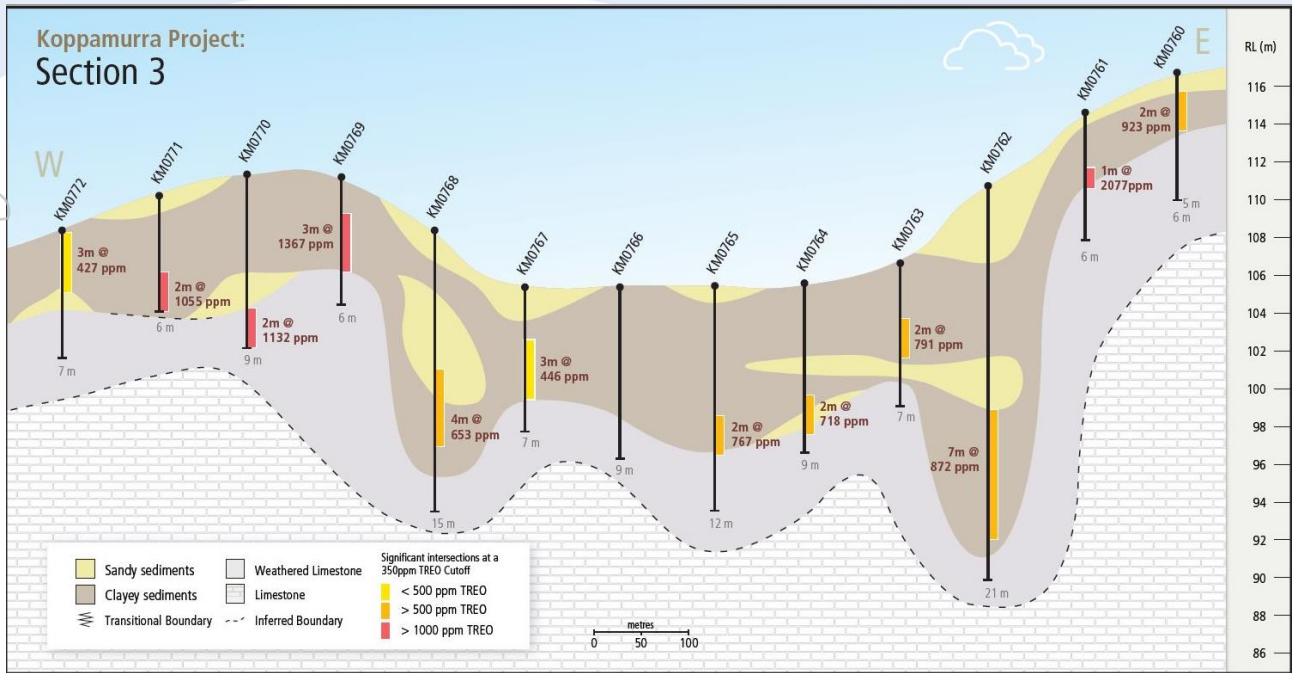


Figure 4 – Cross Section 3

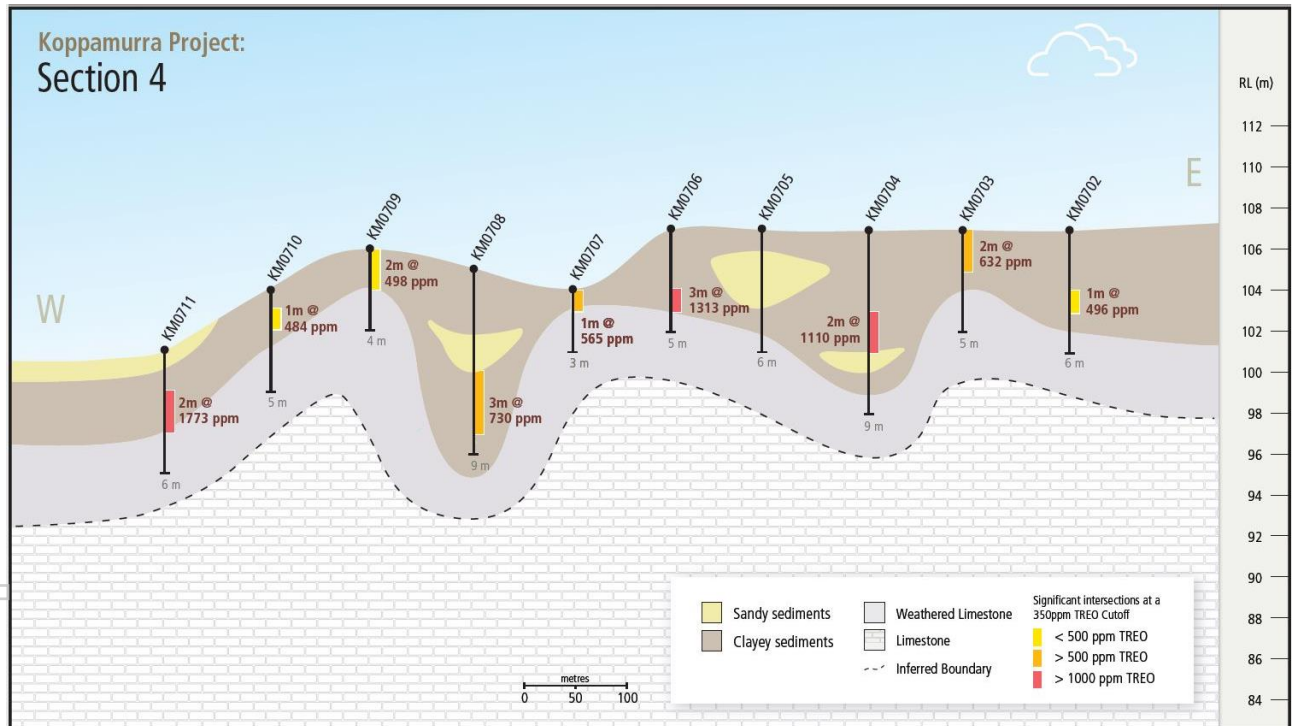


Figure 5 – Cross Section 4

For personal use only

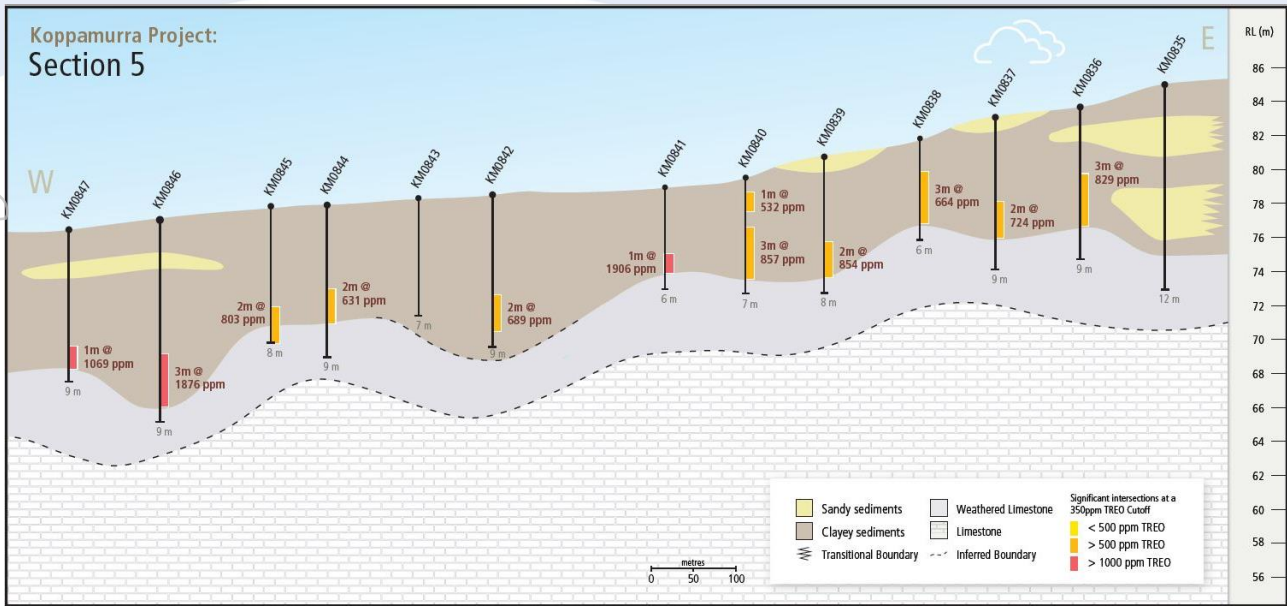


Figure 6 – Cross Section 5

Table 1: Selected results from EL6509 (Comaum) using sample length weighted averages at 350ppm TREO cut-off

Koppamurra – Resource Definition – Drilling Program Highlights – April 2022													
Drill Hole	Depth		Thick (m)	TREO (ppm)	Magnet Rare Earths								
	From (m)	To (m)			Praseodymium		Neodymium		Terbium		Dysprosium		
					Pr <sub>6</sub> O <sub>11</sub> (ppm)	% TREO	Nd <sub>2</sub> O <sub>3</sub> (ppm)	% TREO	Tb <sub>4</sub> O <sub>7</sub> (ppm)	% TREO	Dy <sub>2</sub> O <sub>3</sub> (ppm)	% TREO	
KM0761	3	4	1	2077	96	4.6	356	17.1	7	0.4	35	1.7	
KM0769	2	5	3	1367	58	3.9	215	14.7	6	0.4	29	2.2	
KM0788	4	7	3	1377	62	4.3	231	16.6	6	0.4	29	2.4	
KM0790	1	4	3	1451	39	2.7	147	10.3	4	0.3	25	1.8	
KM0802	2	9	7	879	45	5.0	195	21.7	4	0.5	24	2.8	
KM0807	2	3	1	1292	58	4.5	272	21.0	7	0.6	49	3.8	
KM0819	9	13	4	1319	81	5.2	296	18.9	7	0.6	36	3.1	
KM0879	1	4	3	1610	88	5.1	307	18.8	5	0.4	26	1.9	
KM0882	0	1	1	1035	45	4.4	189	18.3	6	0.6	32	3.1	
KM0884	1	10	9	908	43	4.5	168	18.0	5	0.5	22	2.4	
KM0907	1	2	1	1202	85	7.0	336	27.9	5	0.5	29	2.4	
KM0917	2	3	1	1367	84	6.2	322	23.6	6	0.4	30	2.2	
KM0933	5	8	3	1545	83	4.8	294	17.0	4	0.4	22	2.0	
KM0938	1	4	3	1681	86	5.3	341	20.7	8	0.5	40	2.4	
KM0951	5	8	3	1403	52	4.0	216	16.9	5	0.4	31	2.5	
KM0958	1	6	5	911	39	4.1	165	17.4	5	0.5	27	3.0	
KM0972	4	7	3	2300	152	6.7	541	24.1	8	0.4	33	1.6	
KM0974	3	5	2	1266	52	4.2	206	16.5	7	0.5	33	2.7	
KM0976	6	14	8	1072	58	4.9	230	19.3	5	0.5	25	2.4	
KM0981	4	8	4	1018	53	4.8	187	16.8	5	0.5	29	2.9	
KM0982	3	5	2	1313	56	4.0	210	14.9	7	0.5	43	3.1	

For personal use only



For personal use only

Koppamurra – Resource Definition – Drilling Program Highlights – April 2022													
KM1014	4	6	2	1542	92	5.9	323	19.9	7	0.4	36	2.2	
KM1056	2	8	6	693	28	3.8	105	15.2	3	0.4	16	2.3	
KM1057	1	3	2	1058	61	4.9	251	20.6	3	0.4	18	1.9	
KM1062	5	8	3	1047	39	4.0	126	12.6	3	0.3	18	1.7	
KM1079	4	7	3	1428	76	4.8	288	18.1	6	0.4	33	2.0	
KM1085	5	9	4	1003	47	4.4	173	16.3	4	0.4	23	2.4	
KM1096	1	6	5	920	45	4.8	172	18.2	4	0.4	22	2.5	
KM1099	1	3	2	1675	83	5.0	334	20.1	8	0.5	46	2.8	
KM1103	9	16	7	915	55	5.7	213	21.8	4	0.5	24	2.7	
KM1108	0	5	5	742	33	4.1	134	17.1	3	0.4	19	2.5	
KM1111	1	7	6	649	30	4.5	123	18.8	3	0.4	16	2.5	
KM1122	1	6	5	971	45	4.3	173	17.1	5	0.5	28	3.1	
KM1125	1	4	3	1334	75	5.0	285	19.4	5	0.4	29	2.5	
KM1157	1	3	2	1092	38	3.7	162	15.4	5	0.5	31	2.9	
KM1171	3	4	1	1621	68	4.2	280	17.3	8	0.5	48	3.0	

**Bulk Density Testing**

During a recent program of push tube core drilling there was a particular focus on the collection of samples for density measurements from locations across the resource definition drilling areas. Suitable intervals of core, roughly 10 – 15cm long, were chosen from competent zones at roughly one sample per metre unless core was broken or friable. The location of push tube core samples is illustrated in Figure 7.

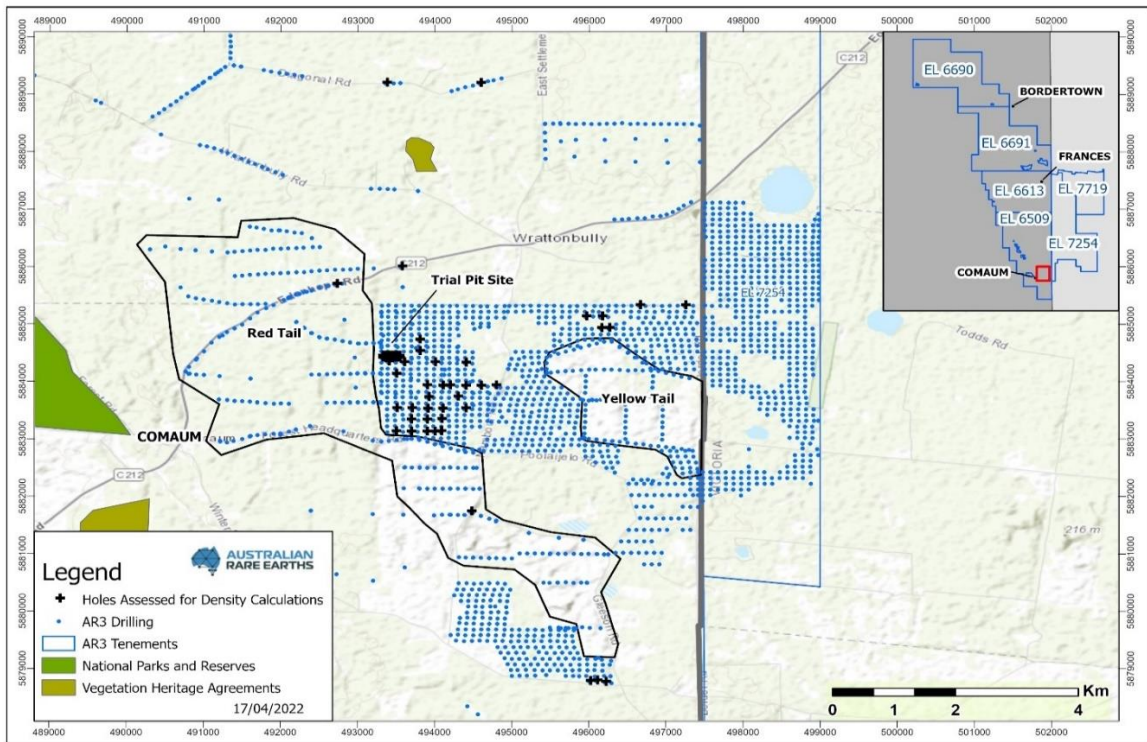


Figure 7 – Location Plan – push tube core hole sample locations for density measurements



The previous density value applied to the Mineral Resource estimate for Red Tail and Yellow Tail was a conservative figure of 1.40t/m<sup>3</sup>, based on desktop research. Subsequently, 61 density measurements were determined from targeted mineralised clay rich samples, resulting in a dry density range of 1.52 to 1.98t/m<sup>3</sup>, with an average density of 1.78t/m<sup>3</sup>. This will inform the updated mineral resource estimate.

Rick Pobjoy, the Technical Director of AR3, said:

*“The recent assay results received from the locations being added to the Red Tail and Yellow Tail Resource areas are very pleasing indeed. They identify additional thicknesses and continue to define the shallow rare earth mineralisation previously seen at Red Tail and Yellow Tail; this bodes particularly well for the planned Mineral Resource Estimate update scheduled for June 2022.”*

The Board of AR3 authorised this announcement to be released to the ASX.

**For further information please contact:**

Mr Rick Pobjoy  
Technical Director  
Tel: 1300 646 100  
E: [hello@ar3.com.au](mailto:hello@ar3.com.au)

---

**Competent Person 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 Technical Director 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.*

*The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement (Prospectus dated 7 May 2021) and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement (Prospectus dated 7 May 2021) continue to apply and have not materially changed. The company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement (Prospectus dated 7 May 2021).*

**About Australian Rare Earths Limited**

Australian Rare Earths (AR3) is committed to the timely exploration and development of its 100% owned, flagship Koppamurra Project, located in South Australia and Victoria. Koppamurra is a prospective ionic clay hosted rare earth element (REE) deposit; uniquely rich in all the REEs required in the manufacture of rare earth permanent magnets which are essential components in energy efficient motors.

The Company is focused on executing a growth strategy that will ensure AR3 is positioned to become an independent and sustainable source of REEs, playing a pivotal role in the global transition to a green economy.

For personal use only





# JORC Table 1

## Section 1 Sampling Techniques and Data

Criteria	Explanation	Comment
Sampling techniques	<p>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.</p> <p>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</p> <p>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</p>	<p>RC Aircore drilling methods were used obtain samples from the October / December 2021 and February /April 2022 drilling programmes.</p> <p>The following information covers the sampling process:</p> <ul style="list-style-type: none"> <li>All air core samples were collected from the rotary splitter rotary splitter mounted at the bottom of the cyclone using a pre-numbered calico bag. The samples were geologically logged at 1 m interval. The aircore sample averaged ~1.5 kg in mass. The samples were then placed in marked calico bags maintaining their appropriate depths</li> <li>A handheld Olympus Delta XFR Analyser was used to assess the geochemistry of the core in field samples. The XRF analysis provided a full suite of mineral elements for characterising the lithological units.</li> <li>XRF readings were downloaded from the XRF Analyser at the end of each day and saved onto an Excel spreadsheet.</li> <li>Field duplicates were taken at a rate of ~ 1:15 and inserted blindly into the sample batches</li> <li>At the laboratory, the samples were oven dried at 105 degrees for a minimum of 24 hours and 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 the XRF-ICP-MS method (BV Adelaide)</li> <li>A laboratory repeat was taken at ~ 1 in 20 samples.</li> <li>Commercially obtained standards were inserted by the laboratories at a rate of ~ 1 in 15 into the sample.</li> </ul>

For personal use only



For personal use only

Criteria	Explanation	Comment
	<p><i>problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed information.</i></p>	<p><i>Push Tube Core drilling methods were used obtain samples from the January and February 2022 drilling programmes.</i></p> <p><i>The following information covers the sampling process:</i></p> <ul style="list-style-type: none"> <li><i>This drilling technique reaches a maximum depth of ~7m which occasionally intersected weathered limestone. Following the removal of each drill tube, samples were placed in core trays. The core trays have five channels of 1m, representing individual metres from the drillhole. As such, each tray can accommodate a core capacity of up to 5m. Progressively smaller diameter drill tubes are used to push the drillhole to depth, resulting in a decreasing core diameter with downhole depth.</i></li> <li><i>A handheld Olympus Delta XRF Analyser was used to assess the geochemistry of the core in field samples. The XRF analysis provided a full suite of mineral elements for characterising the lithological units.</i></li> <li><i>XRF readings were downloaded from the XRF Analyser at the end of each day and saved onto an Excel spreadsheet.</i></li> <li><i>Samples were taken by cutting the core in half along its length at intervals defined by geological continuity and assessment of handheld XRF data</i></li> <li><i>Duplicates (the other half of the core) were taken at a rate of ~ 1:25 and inserted blindly into the sample batches</i></li> </ul>
<p><i>Drilling techniques</i></p>	<p><i>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).</i></p>	<ul style="list-style-type: none"> <li><i>McLeod Drilling used a Toyota Land air core rig and support vehicle for the aircore drilling.</i></li> <li><i>Aircore drilling is a form of reverse circulation drilling where the sample is 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.</i></li> <li><i>Aircore drill rods used were 3 m long.</i></li> <li><i>NQ diameter (76 mm) drill bits and rods were used.</i></li> </ul>



For personal use only

Criteria	Explanation	Comment
		<ul style="list-style-type: none"> <li>All aircore drill holes were vertical with depths varying between 2 m and 30 m.</li> <li>In-Depth Drilling completed the Push Tube Core drilling.</li> <li>Push Tube Core drilling technique reaches a maximum depth of ~7m</li> <li>Each push tube core drillhole commenced with a short tube that is initially pushed into the ground. The tube is then removed, and the sample collected removed from the tube and placed into the first metre channel of the core tray. A second longer drill tube of known length with a slightly smaller external diameter is then inserted into the drillhole and is pushed to further extend the drillhole. This second tube is removed and again the sample is deposited in its appropriate downhole depth position in the core tray. This procedure continues with progressively longer drill tubes utilised to extend the drillhole. Drilling in this manner was found to be quite effective producing generally good quality core samples which were representative of the intervals intersected. The clay target zone produced excellent samples and the push tube technique was quick pushing through unconsolidated and highly weathered intervals. Recoveries were generally very good</li> </ul>
Drill sample recovery	<p>Method of recording and assessing core and chip sample recoveries and results assessed.</p> <p>Measures taken to maximise sample recovery and ensure representative nature of the samples.</p> <p>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.</p>	<ul style="list-style-type: none"> <li>Drill sample recovery for aircore 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.</li> <li>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 and very little water injection was required during this drilling programme.</li> <li>No significant loses of samples were observed due to the shallow drilling depths (<math>\leq 30</math> m).</li> <li>The rotary splitter was set to an approximate 20% split, which produced approximately 1.5 kg sample for each meter interval.</li> <li>The 1.5 kg sample was collected in a pre-numbered calico bags and the remaining 80% (5 kg to 8 kg) was collected in plastic UV bags</li> </ul>



For personal use only

Criteria	Explanation	Comment
		<p><i>labelled with the hole number and sample interval.</i></p> <ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>No relationship exists between sample recovery and grade.</i></li> <li>• <i>Push Tube Core drilling Recoveries were generally very good.</i></li> </ul>
Logging	<p><i>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.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<ul style="list-style-type: none"> <li>• <i>All aircore 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, or vegetation.</i></li> <li>• <i>Geological logging data for all drill holes was qualitatively logged onto Microsoft Excel spreadsheet using a Panasonic Toughbook with validation rules built into the spreadsheet including specific drop-down menus for each variable or written into a notebook and later transferred to Excel. The data was uploaded to the Azure Data Studio database and subjected to numerous validation queries.</i></li> <li>• <i>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</i></li> </ul>
Sub-sampling techniques and sample preparation	<p><i>If core, whether cut or sawn and whether quarter, half or all cores taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality, and appropriateness of the sample preparation technique.</i></p>	<ul style="list-style-type: none"> <li>• <i>1 m aircore sample interval were homogenised within the cyclone and the rotary splitter was set to an approximate 20% split producing around 1.5 kg sample for each metre interval.</i></li> <li>• <i>The 1.5 kg sample was collected in a pre-numbered calico bag and the 80% (5 kg to 8 kg) portion was collected in plastic UV bags labelled with hole identity and interval.</i></li> <li>• <i>Duplicates were generally taken within the clay lithologies above the basement as this is the likely zone of REE enrichment. These duplicate samples were normally collected by using a second calico bag and placing it under the rotary splitter collecting a 20% split but due to the difficulties of placing a second calico bag under the rotary splitter during sample collection, duplicates were collected by hand from the plastic UV bags which captured the other 80% of the material recovered from any interval.</i></li> </ul>



For personal use only

Criteria	Explanation	Comment
	<p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><i>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.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	<ul style="list-style-type: none"> <li><i>The material in the plastic UV bags was mixed up and every attempt to take as representative sample of the material as possible by hand was made and then placed in a pre-numbered calico bag.</i></li> <li><i>The 1.5 kg sample collected in the calico bag was logged by the geologist onsite. The logged samples were placed in polyweave bags and sent to Naracoorte base at the end of each day. The polyweave bags were then placed on pallets and dispatched to Bureau Veritas laboratories in Adelaide and Perth in Bulka Bags.</i></li> <li><i>The remaining 80% split from the aircore interval was stored for future reference only if it contained the clay component. Samples without the clay component were discarded at the drill site by pouring the samples back into the drilled hole.</i></li> <li><i>Field duplicates of all the samples were completed at a frequency of ~1 per 40 samples. Standard reference Material (SRM) samples were inserted into the sample batches at a frequency rate of ~1 per 15 samples by the laboratory and a repeat sample was taken at a rate of ~1 per 20 samples.</i></li> <li><i>A geologist oversaw the sampling and logging process and selected samples for analysis based on the logging descriptions and handheld XRF response. Clay rich samples and those adjacent to the limestone basement contact were selected for assay. REEs are known to be contained within the clay component of the sediment package based on analysis of XRF data and of previous exploration results.</i></li> </ul>
<p><i>Quality of assay data and laboratory tests</i></p>	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>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.</i></p>	<ul style="list-style-type: none"> <li><i>The detailed geological logging of samples provides lithology (clay component) and proximity to the limestone basement which is sufficient for the purpose of determining the potentially mineralised zone.</i></li> <li><i>The roughly 1.5 kg aircore samples were assayed by Bureau Veritas' laboratories in Wingfield, Adelaide, South Australia. The Push Tube core samples were also assayed by Bureau Veritas' laboratories in Wingfield, Adelaide, South Australia</i></li> <li><i>The samples were initially oven dried at 105 degrees Celsius for 24 hours. Samples were secondary crushed to 3 mm fraction and the weight recorded. The sample was 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.</i></li> </ul>



For personal use only

Criteria	Explanation	Comment
	<p><i>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.</i></p>	<ul style="list-style-type: none"> <li>• <i>Samples were analysed using Multiple Elements Fusion/Mixed Acid Digest analytical method (Adelaide BV);</i></li> <li>• <i>ICP Scan (Mixed Acid Digest – Lithium Borate Fusion) Samples are digested using a mixed acid digest and fused with Lithium Borate to ensure all elements are brought into solution. The digests are then analysed for the following elements (detection Limits shown): 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).</i></li> <li>• <i>Field duplicates were collected and submitted at a frequency of ~1 per 15 samples.</i></li> <li>• <i>Bureau Veritas completed its own internal QA/QC checks that included a Laboratory repeat roughly every 20<sup>th</sup> sample and a standard reference sample roughly every 15<sup>th</sup> sample prior to the results being released.</i></li> <li>• <i>Analysis of QA/QC samples show the laboratory data to be of acceptable accuracy and precision.</i></li> <li>• <i>No standards or blanks were submitted by Australian Rare Earths.</i></li> </ul> <p><i>The adopted QA/QC protocols are acceptable for this stage of test work.</i></p> <p><i>The sample preparation and assay techniques used are industry standard and provide a total analysis.</i></p>



For personal use only

Criteria	Explanation	Comment
Verification of sampling and assaying	<p>The verification of significant intersections by either independent or alternative company personnel.</p> <p>The use of twinned holes.</p> <p>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</p> <p>Discuss any adjustment to assay data.</p>	<ul style="list-style-type: none"> <li>All results are checked by the company's Technical Director.</li> <li>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 directly to the database.</li> <li>Assay data was received in digital format from the laboratory and was uploaded directly to the database</li> <li>Field and laboratory duplicate data pairs of each batch are plotted to identify potential quality control issues.</li> <li>Standard Reference Material sample results are checked from each sample batch to ensure they are within tolerance (&lt;3SD) and that there is no bias.</li> <li>Data validation criteria within the Australian Rare Earths Limited database are included to check for overlapping sample intervals, end of hole match between 'Lithology', 'Sample', 'Survey' files and other common errors.</li> <li>Assay data yielding elemental concentrations for rare earths (REE) within the sample are converted to their stoichiometric oxides (REO) in a calculation performed within the database using the conversion factors in the below table.</li> </ul> <p>Rare earth oxide is the industry accepted form for reporting rare earths. The following calculations have been used for reporting throughout this report: Note that Y<sub>2</sub>O<sub>3</sub> is included in the TREO, HREO and CREO calculation.</p> <p>TREO = La<sub>2</sub>O<sub>3</sub> + CeO<sub>2</sub> + Pr<sub>6</sub>O<sub>11</sub> + Nd<sub>2</sub>O<sub>3</sub> + Sm<sub>2</sub>O<sub>3</sub> + Eu<sub>2</sub>O<sub>3</sub> + Gd<sub>2</sub>O<sub>3</sub> + Tb<sub>4</sub>O<sub>7</sub> + Dy<sub>2</sub>O<sub>3</sub> + Ho<sub>2</sub>O<sub>3</sub> + Er<sub>2</sub>O<sub>3</sub> + Tm<sub>2</sub>O<sub>3</sub> + Yb<sub>2</sub>O<sub>3</sub> + Lu<sub>2</sub>O<sub>3</sub> + Y<sub>2</sub>O<sub>3</sub></p> <p>CREO = Nd<sub>2</sub>O<sub>3</sub> + Eu<sub>2</sub>O<sub>3</sub> + Tb<sub>4</sub>O<sub>7</sub> + Dy<sub>2</sub>O<sub>3</sub> + Y<sub>2</sub>O<sub>3</sub></p> <p>LREO = La<sub>2</sub>O<sub>3</sub> + CeO<sub>2</sub> + Pr<sub>6</sub>O<sub>11</sub> + Nd<sub>2</sub>O<sub>3</sub></p>



For personal use only

Criteria	Explanation	Comment																																																									
		<p>HREO = <math>\text{Sm}_2\text{O}_3 + \text{Eu}_2\text{O}_3 + \text{Gd}_2\text{O}_3 + \text{Tb}_4\text{O}_7 + \text{Dy}_2\text{O}_3 + \text{Ho}_2\text{O}_3 + \text{Er}_2\text{O}_3 + \text{Tm}_2\text{O}_3 + \text{Yb}_2\text{O}_3 + \text{Lu}_2\text{O}_3 + \text{Y}_2\text{O}_3</math></p> <p>Nd/Pr = <math>\text{Nd}_2\text{O}_3 + \text{Pr}_6\text{O}_{11}</math></p> <p>TREO-Ce = TREO - <math>\text{CeO}_2</math></p> <ul style="list-style-type: none"> <li>% NdPr = NdPr/ TREO</li> </ul> <table border="1"> <thead> <tr> <th>Element Name</th> <th>Element Oxide</th> <th>Oxide Factor</th> </tr> </thead> <tbody> <tr><td>Ce</td><td>CeO2</td><td>1.2284</td></tr> <tr><td>Dy</td><td>Dy2O3</td><td>1.1477</td></tr> <tr><td>Er</td><td>Er2O3</td><td>1.1435</td></tr> <tr><td>Eu</td><td>Eu2O3</td><td>1.1579</td></tr> <tr><td>Gd</td><td>Gd2O3</td><td>1.1526</td></tr> <tr><td>Ho</td><td>Ho2O3</td><td>1.1455</td></tr> <tr><td>La</td><td>La2O3</td><td>1.1728</td></tr> <tr><td>Lu</td><td>Lu2O3</td><td>1.1371</td></tr> <tr><td>Nd</td><td>Nd2O3</td><td>1.1664</td></tr> <tr><td>Pr</td><td>Pr6O11</td><td>1.2082</td></tr> <tr><td>Sc</td><td>Sc2O3</td><td>1.5338</td></tr> <tr><td>Sm</td><td>Sm2O3</td><td>1.1596</td></tr> <tr><td>Tb</td><td>Tb4O7</td><td>1.1762</td></tr> <tr><td>Th</td><td>ThO2</td><td>1.1379</td></tr> <tr><td>Tm</td><td>Tm2O3</td><td>1.1421</td></tr> <tr><td>U</td><td>U3O8</td><td>1.1793</td></tr> <tr><td>Y</td><td>Y2O3</td><td>1.2699</td></tr> <tr><td>Yb</td><td>Yb2O3</td><td>1.1387</td></tr> </tbody> </table>	Element Name	Element Oxide	Oxide Factor	Ce	CeO2	1.2284	Dy	Dy2O3	1.1477	Er	Er2O3	1.1435	Eu	Eu2O3	1.1579	Gd	Gd2O3	1.1526	Ho	Ho2O3	1.1455	La	La2O3	1.1728	Lu	Lu2O3	1.1371	Nd	Nd2O3	1.1664	Pr	Pr6O11	1.2082	Sc	Sc2O3	1.5338	Sm	Sm2O3	1.1596	Tb	Tb4O7	1.1762	Th	ThO2	1.1379	Tm	Tm2O3	1.1421	U	U3O8	1.1793	Y	Y2O3	1.2699	Yb	Yb2O3	1.1387
Element Name	Element Oxide	Oxide Factor																																																									
Ce	CeO2	1.2284																																																									
Dy	Dy2O3	1.1477																																																									
Er	Er2O3	1.1435																																																									
Eu	Eu2O3	1.1579																																																									
Gd	Gd2O3	1.1526																																																									
Ho	Ho2O3	1.1455																																																									
La	La2O3	1.1728																																																									
Lu	Lu2O3	1.1371																																																									
Nd	Nd2O3	1.1664																																																									
Pr	Pr6O11	1.2082																																																									
Sc	Sc2O3	1.5338																																																									
Sm	Sm2O3	1.1596																																																									
Tb	Tb4O7	1.1762																																																									
Th	ThO2	1.1379																																																									
Tm	Tm2O3	1.1421																																																									
U	U3O8	1.1793																																																									
Y	Y2O3	1.2699																																																									
Yb	Yb2O3	1.1387																																																									
Location of data points	<p>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.</p> <p>Specification of the grid system used.</p> <p>Quality and adequacy of topographic control.</p>	<ul style="list-style-type: none"> <li>Down hole surveys for shallow vertical aircore and push tube drillholes are not required.</li> <li>The drill hole collars were located using a GPS unit to identify the positions of the drill holes in the field. The handheld GPS has an accuracy of +/-5m in the horizontal. The Push Tube collars in the Trial Pit area, at a nominally 10m spacing, were surveyed by licenced professional surveyors to within cm accuracy.</li> <li>The datum used is GDA94/MGA Zone 54.</li> <li>Topographic data is derived from hand held GPS readings with limited accuracy.</li> </ul> <p>The accuracy of the locations is sufficient for this stage of exploration.</p>																																																									





For personal use only

Criteria	Explanation	Comment
<i>Data spacing and distribution</i>	<p><i>Data spacing for reporting of Exploration Results.</i></p> <p><i>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.</i></p> <p><i>Whether sample compositing has been applied.</i></p>	<ul style="list-style-type: none"> <li><i>The air core drillholes were largely drilled at between 100 m and 400 m spacings along accessible road verges and within paddocks of private land holdings.</i></li> <li><i>The push tube drillholes at the Trial Pit site were drilled at a nominal 10m pattern grid, and elsewhere twinned the air core holes</i></li> <li><i>The drilling program of aircore holes was conducted to determine the regional prospectivity of the wider Koppamurra Project area, and to explore for extensions of the Red Tail and Yellow Tail Resource areas.</i></li> </ul> <p><i>No sample compositing has been applied.</i></p>
<i>Orientation of data in relation to geological structure</i>	<p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></p> <p><i>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.</i></p>	<p><i>The Koppamurra mineralisation is interpreted to be hosted in shallow deposited clayey sediments that are horizontal.</i></p> <p><i>All drill holes are vertical which is appropriate for horizontal bedding and regolith profile.</i></p> <ul style="list-style-type: none"> <li><i>The Koppamurra drilling was oriented perpendicular to the strike of mineralisation defined by previous exploration and current geological interpretation.</i></li> <li><i>The strike of the mineralisation is roughly north south, and the high grades follow a northwest-southeast trend.</i></li> <li><i>All drill holes were vertical, and the orientation of the mineralisation is relatively horizontal.</i></li> <li><i>The orientation of the drilling is considered appropriate for testing the lateral and vertical extent of mineralisation without any bias.</i></li> </ul>
<i>Sample security</i>	<p><i>The measures taken to ensure sample security.</i></p>	<ul style="list-style-type: none"> <li><i>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 base of operations, Naracoorte, at the end of each day.</i></li> <li><i>The samples were then placed on pallets ready for transport and remained in a secure compound until transport had been arranged. Pallets were labelled and then 'shrink-wrapped'</i></li> </ul>



Criteria	Explanation	Comment
		<p><i>by the transport contractor prior to departure from the Naracoorte base to the analytical laboratory.</i></p> <ul style="list-style-type: none"><li>• <i>Samples for analysis were logged against pallet identifiers and a chain of custody form created.</i></li><li>• <i>Transport to the analytical laboratory was undertaken by an agent for the TOLL Logistics Group, and consignment numbers were logged against the chain of custody forms.</i></li><li>• <i>The laboratory inspected the packages and did not report tampering of the samples.</i></li></ul>
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	<p><i>Internal reviews were undertaken by Aussie Geologic Pty Ltd during the drilling, sampling, and geological logging process and throughout the sample collection and dispatch process.</i></p> <p><i>A review of the database was also undertaken by Inception Group – Consulting Engineers.</i></p>

For personal use only



**Section 2 Reporting of Exploration Results**

Criteria	Explanation	Comment
Mineral tenement and land tenure status	<p>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.</p> <p>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.</p>	<ul style="list-style-type: none"> <li>• Koppamurra Project comprises of a granted South Australian Exploration Licenses (EL), EL6509, EL6613, EL6690, EL6691 and Victorian EL7254 covering a combined area of greater than 4,000 km<sup>2</sup> - which are in good standing.</li> <li>• EL6509 is within 100m of a Glen Roy Conservation Park and the Naracoorte Caves National Park, the latter of which is excised from the tenement. The License area contains several small Extractive Mineral Leases (EML) held by others, Native Vegetation Heritage Agreement areas, as well as the Deadman's Swamp Wetlands which are wetlands of national importance.</li> <li>• A Native Title Claim by the First Nations of the Southeast #1 has been registered but is yet to be determined. The claim area includes the areas covered by EL's 6509 and 6613.</li> <li>• The exploration work was completed on the tenements (EL6509 and EL6613) in South Australia and EL007254 in Victoria, which are 100% owned by the company Australian Rare Earths Ltd.</li> <li>• The Exploration License EL6509 original date of grant was 15/09/2020 with an expiry date of 14/09/2022.</li> <li>• The Exploration License EL6613 original date of grant was 07/07/2021 with an expiry date of 06/07/2027.</li> <li>• The Exploration License EL007254 original date of grant was 29/04/2021 with an expiry date of 28/04/2024.</li> <li>• Details regarding royalties are discussed in chapter 3.4 of Australian Rare Earths Prospectus dated 7 May 2021.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul style="list-style-type: none"> <li>• Exploration activities by other exploration companies in the area have not previously targeted or identified REE mineralisation.</li> <li>• Historical exploration activities in the vicinity of Koppamurra include investigations for coal, gold and base metals, uranium, and heavy mineral sands.</li> <li>• Historical exploration by other parties is detailed in the Australian Rare Earths Prospectus dated 7 May 2021.</li> </ul>

For personal use only



Criteria	Explanation	Comment
Geology	<i>Deposit type, geological setting, and style of mineralisation.</i>	<p><i>The Koppamurra deposit is interpreted to contain analogies to ion adsorption ionic clay REE deposits.</i></p> <p><i>REE mineralisation at Koppamurra is hosted by clayey sediments interpreted to have been deposited onto a limestone base (Gambier Limestone) and accumulated in an interdunal, lagoonal or estuarine environment and the source of the REE at Koppamurra is most likely basalt associated alkali volcanics of the Newer Volcanics Province in south-eastern Australia. Mineralogy of the clay is indicative of formation under mildly alkaline conditions in a marine or coastal environment from fine-grained sediments either river transported or windblown thereby supporting this interpretation.</i></p> <p><i>Mineralogical test work conducted on clay sample from the project area established that the dominant clay minerals are smectite and kaolin, and the few REE-rich minerals detected during the SEM investigation are not considered inconsistent with the suggestion that a significant proportion of REE are distributed in the sample as adsorbed elements on clay and iron oxide surfaces.</i></p> <p><i>There are several known types of regolith hosted REE deposits including, ion adsorption clay deposits, alluvial and placer deposits. Whilst Koppamurra shares similarities with both ion adsorption clay deposits and volcanic ash fall placer deposits, there are also several differences, highlighting the need for further work before a genetic model for REE mineralisation at Koppamurra can be confirmed.</i></p> <p><i>The extensive drilling and geological work undertaken by AR3 to date in the region has not identified any geological disruptions, such as faults or dykes, that may cause variability in the mineralisation.</i></p>

For personal use only



Criteria	Explanation	Comment
<i>Drill hole Information</i>	<p><i>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:</i></p> <ul style="list-style-type: none"><li><i>easting and northing of the drill hole collar</i></li><li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li><li><i>dip and azimuth of the hole</i></li><li><i>down hole length and interception depth</i></li><li><i>hole length.</i></li></ul> <p><i>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.</i></p>	<p><i>The material information for drill holes relating to this report are contained within Appendices of this report.</i></p>
<i>Data aggregation methods</i>	<p><i>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.</i></p> <p><i>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the</i></p>	<p><i>No metal equivalents have been used.</i></p> <ul style="list-style-type: none"><li><i>Significant intercepts are calculated using downhole sample length weighted averages and a lower cut-off grade of 350 ppm TREO.</i></li><li><i>A full list of drillholes with significant intercepts &gt;350ppm TREO can be found in the appendices of this report.</i></li></ul>

For personal use only



Criteria	Explanation	Comment
	<p><i>procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	
<i>Relationship between mineralisation widths and intercept lengths</i>	<p><i>These relationships are particularly important in the reporting of Exploration Results.</i></p> <p><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></p> <p><i>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').</i></p>	<p><i>All intercepts reported are down hole lengths.</i></p> <p><i>The mineralisation is interpreted to be flat lying and drilling is vertical perpendicular to mineralisation. Any internal variations to REE distribution within the horizontal layering was not defined, therefore the true width is considered not known.</i></p>
<i>Diagrams</i>	<p><i>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.</i></p>	<p><i>Diagrams are included in the body of this report.</i></p>

For personal use only



Criteria	Explanation	Comment
<i>Balanced reporting</i>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.</i>	<i>This report contains all drilling results that are consistent with the JORC guidelines. Where data may have been excluded, it is considered not material.</i>
<i>Other substantive exploration data</i>	<i>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.</i>	<i>All known relevant exploration data has been reported in this report.</i>
<i>Further work</i>	<i>The nature and scale of planned further work (e.g., 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.</i>	<i>The proposed ongoing exploration program is detailed in Chapter <b>Error! Reference source not found.</b> of Australian Rare Earths Prospectus dated 7 May 2021 and includes drilling, assay, ground based geophysical surveys and further metallurgical testwork.</i>

For personal use only



## Appendix I: Drill Hole Collars

Hole ID	East (m)	North (m)	RL (m ASL)	Drill Method	Down Hole Width (mm)	Total Depth EOH (m)	Azimuth	Dip Direction
KM1139	494195	5885317	99.2	Aircore	76	6	0	-90
KM1140	494288	5885321	99.3	Aircore	76	6	0	-90
KM1141	494398	5885316	100	Aircore	76	5	0	-90
KM1142	494401	5885219	100	Aircore	76	12	0	-90
KM1143	494397	5885113	100	Aircore	76	12	0	-90
KM1144	495547	5884723	104	Aircore	76	17	0	-90
KM1145	495749	5884727	108	Aircore	76	16	0	-90
KM1146	495850	5884713	109	Aircore	76	13	0	-90
KM1147	495653	5884922	107	Aircore	76	17	0	-90
KM1148	495751	5884919	108	Aircore	76	10	0	-90
KM1149	495850	5884917	109	Aircore	76	9	0	-90
KM1150	495852	5884822	110	Aircore	76	9	0	-90
KM1151	495747	5884821	108	Aircore	76	6	0	-90
KM1152	495639	5884825	106	Aircore	76	10	0	-90
KM1153	495545	5884822	104	Aircore	76	15	0	-90
KM1154	495945	5884727	111	Aircore	76	6	0	-90
KM1155	496047	5884730	112	Aircore	76	9	0	-90
KM1156	496146	5884731	113	Aircore	76	6	0	-90
KM1157	496251	5884825	115	Aircore	76	14	0	-90
KM1158	496152	5884820	113	Aircore	76	8	0	-90
KM1159	496048	5884823	112	Aircore	76	9	0	-90
KM1160	495946	5884820	111	Aircore	76	7	0	-90
KM1161	495952	5884915	110	Aircore	76	6	0	-90
KM1162	496349	5884824	114	Aircore	76	6	0	-90
KM1163	496453	5884821	114	Aircore	76	12	0	-90
KM1164	496550	5884821	113	Aircore	76	17	0	-90
KM1165	496650	5884832	112	Aircore	76	12	0	-90
KM1166	496749	5884836	113	Aircore	76	15	0	-90
KM1167	496856	5884822	113	Aircore	76	8	0	-90
KM1168	496945	5884820	110	Aircore	76	9	0	-90
KM1169	497047	5884829	110	Aircore	76	12	0	-90
KM1170	497151	5884827	116	Aircore	76	9	0	-90
KM1171	497256	5884824	117	Aircore	76	6	0	-90
KM1172	497352	5884823	118	Aircore	76	8	0	-90
KM1173	497403	5884623	120	Aircore	76	11	0	-90
KM1174	497302	5884621	119	Aircore	76	12	0	-90
KM1175	497205	5884622	119	Aircore	76	6	0	-90
KM1176	497106	5884630	117	Aircore	76	12	0	-90

For personal use only





# AUSTRALIAN RARE EARTHS

KM1177	496999	5884620	117	Aircore	76	5	0	-90
KM1178	496904	5884628	117	Aircore	76	5	0	-90
KM1179	489194	5913598	92.3	Aircore	76	14	0	-90
KM1180	489583	5913724	93.8	Aircore	76	13	0	-90
KM1181	489976	5913634	92.9	Aircore	76	15	0	-90
KM1182	490339	5913636	96.8	Aircore	76	16	0	-90
KM1183	490673	5913443	95.5	Aircore	76	14	0	-90
KM1184	491030	5913261	97.3	Aircore	76	15	0	-90
KM1185	491608	5913225	96.3	Aircore	76	12	0	-90
KM1186	492003	5913146	98.4	Aircore	76	12	0	-90
KM1187	492389	5913060	100	Aircore	76	15	0	-90
KM1188	492774	5912973	102	Aircore	76	12	0	-90
KM1189	493170	5912885	106	Aircore	76	20	0	-90
KM1190	493548	5912854	104	Aircore	76	15	0	-90
KM1191	494160	5912854	105	Aircore	76	6	0	-90
KM1192	494661	5912851	107	Aircore	76	15	0	-90
KM1193	496755	5912851	111	Aircore	76	12	0	-90
KM1194	496652	5912849	111	Aircore	76	12	0	-90
KM1195	496163	5912846	108	Aircore	76	21	0	-90
KM1196	494452	5912853	106	Aircore	76	15	0	-90
KM1197	493748	5912855	105	Aircore	76	18	0	-90
KM1198	493794	5885321	100	Aircore	76	8	0	-90
KM1199	493895	5885319	99.8	Aircore	76	12	0	-90
KM1200	493996	5885318	99.7	Aircore	76	18	0	-90
KM1201	493995	5885213	100	Aircore	76	8	0	-90
KM1202	493892	5885219	101	Aircore	76	9	0	-90
KM1203	493795	5885220	100	Aircore	76	6	0	-90
KM1204	493798	5885118	101	Aircore	76	6	0	-90
KM1205	493895	5885117	101	Aircore	76	9	0	-90
KM1206	493994	5885115	101	Aircore	76	9	0	-90
KM1207	493994	5885017	102	Aircore	76	9	0	-90
KM1208	493890	5885019	102	Aircore	76	13	0	-90
KM1209	493799	5885020	99.9	Aircore	76	6	0	-90
KM1210	493795	5884921	102	Aircore	76	8	0	-90
KM1211	493891	5884919	105	Aircore	76	6	0	-90
KM1212	493993	5884920	104	Aircore	76	14	0	-90
KM1213	493894	5884816	105	Aircore	76	9	0	-90
KM1214	493992	5884819	104	Aircore	76	11	0	-90
KM1215	494099	5884819	104	Aircore	76	15	0	-90

For personal use only



## Appendix II: Significant Intersections at 350ppm cut-off

Hole ID	Depth		Thickness m	TREO ppm	Pr <sub>6</sub> O <sub>11</sub>		Nd <sub>2</sub> O <sub>3</sub>		Tb <sub>4</sub> O <sub>7</sub>		Dy <sub>2</sub> O <sub>3</sub>	
	From	To			ppm	% TREO	ppm	% TREO	ppm	% TREO	ppm	% TREO
KM0749	6	8	2	1540	66	4.3	253	16.4	6	0.4	32	2.1
KM0750	3	5	2	874	33	3.7	145	16.6	6	0.7	31	3.7
KM0751	10	12	2	562	23	4.0	91.5	16.3	3	0.6	17	3.1
KM0751	0	1	1	521	21	4.0	86.1	16.5	3	0.5	15	2.9
KM0752	6	9	3	868	35	4.1	141	16.5	5	0.5	25	2.9
KM0753	3	6	3	845	34	3.8	139	15.3	5	0.5	24	2.7
KM0754	6	7	1	1814	84	4.6	346	19.1	10	0.5	49	2.7
KM0755	12	15	3	606	24	3.9	107	17.5	4	0.7	23	4.0
KM0756	10	12	2	767	31	4.1	126	16.9	4	0.6	23	3.0
KM0757	7	10	3	1886	76	4.0	291	15.4	10	0.5	52	2.8
KM0757	11	12	1	399	15	3.7	61.4	15.4	2	0.6	13	3.2
KM0758	10	11	1	498	19	3.9	81.2	16.3	2	0.5	14	2.8
KM0759	1	3	2	517	19	3.7	77.2	15.0	2	0.4	12	2.2
KM0760	1	3	2	923	36	3.9	151	16.4	5	0.5	27	2.9
KM0761	3	4	1	2077	96	4.6	356	17.1	7	0.4	35	1.7
KM0762	12	19	7	872	38	4.3	151	17.2	5	0.5	24	2.8
KM0763	3	5	2	791	30	3.8	123	15.6	4	0.6	24	3.2
KM0763	6	7	1	356	15	4.3	63.3	17.8	2	0.5	10	2.8
KM0764	6	8	2	718	28	3.7	114	15.2	4	0.5	20	2.8
KM0765	7	9	2	767	38	4.9	147	18.9	3	0.5	18	2.4
KM0767	3	6	3	446	21	4.8	82.4	18.3	2	0.5	11	2.4
KM0768	6	10	4	653	24	3.5	93.6	13.8	3	0.5	17	2.6
KM0769	2	5	3	1367	58	3.9	215	14.7	6	0.4	29	2.2
KM0770	7	9	2	1132	52	4.4	220	18.4	7	0.7	39	3.9
KM0771	4	6	2	1055	44	4.2	185	17.3	5	0.5	26	2.4
KM0771	1	2	1	386	18	4.6	65.8	17.0	2	0.5	10	2.5
KM0772	0	3	3	427	17	4.0	67.2	15.7	2	0.5	11	2.5
KM0774	10	11	1	444	25	5.7	102	23.0	4	0.8	19	4.3
KM0775	2	3	1	431	16	3.6	60.8	14.1	2	0.6	15	3.4
KM0776	8	10	2	1058	41	3.8	157	14.8	6	0.5	33	3.1
KM0777	0	4	4	612	24	3.9	92.4	15.0	3	0.4	16	2.5
KM0778	4	7	3	873	41	4.8	155	17.7	4	0.4	20	2.3
KM0779	3	6	3	639	27	4.3	105	16.4	3	0.5	17	2.7
KM0779	0	2	2	411	19	4.5	69.9	16.9	2	0.5	11	2.6
KM0780	1	3	2	483	22	4.6	82.7	17.1	3	0.5	14	2.9
KM0780	6	7	1	395	19	4.7	68.8	17.4	2	0.4	9	2.3
KM0781	7	9	2	677	25	4.0	94	14.6	3	0.4	17	2.4
KM0783	13	18	5	1004	50	5.0	188	18.8	4	0.4	19	2.1
KM0784	10	15	5	993	46	4.8	159	16.8	3	0.3	14	1.4

For personal use only



KM0785	7	10	3	700	30	4.1	117	16.4	4	0.6	22	3.3
KM0786	2	4	2	569	19	3.4	76.1	13.4	3	0.5	18	3.1
KM0787	9	10	1	368	16	4.2	56.9	15.5	2	0.4	9	2.4
KM0788	4	7	3	1377	62	4.3	231	16.6	6	0.4	29	2.4
KM0789	14	19	5	1925	95	4.9	375	18.8	10	0.4	51	2.3
KM0790	1	4	3	1451	39	2.7	147	10.3	4	0.3	25	1.8
KM0791	0	1	1	777	37	4.8	147	18.9	4	0.5	22	2.8
KM0792	0	1	1	447	18	4.0	74.1	16.6	2	0.5	13	3.0
KM0793	13	18	5	752	30	3.9	123	16.0	5	0.6	28	3.8
KM0794	13	14	1	468	17	3.6	70.6	15.1	3	0.7	20	4.2
KM0794	15	16	1	372	13	3.5	51.4	13.8	2	0.6	13	3.6
KM0796	1	3	2	773	33	4.1	143	17.9	4	0.5	23	2.9
KM0797	7	14	7	645	26	4.0	108	16.8	3	0.5	18	2.9
KM0798	17	18	1	390	17	4.3	62.6	16.1	2	0.5	10	2.7
KM0799	6	9	3	484	22	4.5	86.3	17.8	2	0.4	10	2.0
KM0800	2	9	7	486	22	4.5	92.8	19.2	3	0.5	15	3.0
KM0801	5	9	4	493	18	3.7	79.2	15.9	2	0.4	12	2.4
KM0802	2	9	7	879	45	5.0	195	21.7	4	0.5	24	2.8
KM0803	15	18	3	524	26	4.9	110	21.0	2	0.4	12	2.2
KM0804	5	6	1	407	18	4.3	63.7	15.7	2	0.5	11	2.6
KM0805	2	4	2	542	21	3.9	93.3	17.2	2	0.4	13	2.4
KM0806	0	4	4	538	22	4.1	91.2	16.5	2	0.5	14	2.6
KM0807	2	3	1	1292	58	4.5	272	21.0	7	0.6	49	3.8
KM0808	13	18	5	1464	61	4.1	285	18.5	9	0.5	54	3.0
KM0808	20	21	1	353	16	4.5	54.9	15.6	1	0.4	8	2.3
KM0809	5	7	2	1281	53	3.5	218	13.5	6	0.4	32	2.2
KM0810	16	17	1	684	12	1.8	42.2	6.2	1	0.2	7	1.0
KM0810	14	15	1	384	14	3.7	50.9	13.2	2	0.4	8	2.2
KM0811	13	15	2	765	36	4.1	150	16.4	4	0.4	22	2.6
KM0812	13	16	3	616	24	4.1	105	18.1	3	0.4	15	2.5
KM0814	9	12	3	687	33	4.8	140	20.0	3	0.5	22	2.9
KM0814	13	14	1	558	27	4.8	121	21.7	3	0.5	17	3.0
KM0815	6	9	3	538	16	3.1	63.2	12.0	2	0.4	12	2.3
KM0816	10	11	1	1449	61	4.2	258	17.8	5	0.4	29	2.0
KM0817	11	13	2	966	60	5.6	229	21.8	5	0.6	33	3.5
KM0818	9	11	2	497	25	5.1	92.1	18.2	2	0.5	14	2.8
KM0819	9	13	4	1319	81	5.2	296	18.9	7	0.6	36	3.1
KM0822	10	13	3	974	49	4.9	169	16.6	4	0.4	19	2.1
KM0823	11	12	1	782	30	3.8	116	14.8	4	0.4	21	2.7
KM0824	11	13	2	686	47	6.6	162	22.7	3	0.5	17	2.6
KM0825	13	15	2	1091	51	4.5	183	15.9	5	0.5	26	2.8
KM0826	14	15	1	639	23	3.6	72.9	11.4	3	0.5	19	3.0
KM0827	14	15	1	1002	50	5.0	196	19.6	4	0.4	22	2.2

For personal use only



# AUSTRALIAN RARE EARTHS

KM0828	18	21	3	1443	80	5.5	319	22.0	6	0.5	36	2.6
KM0829	16	18	2	1053	56	5.3	225	21.1	5	0.5	29	2.8
KM0830	14	17	3	802	29	3.4	109	12.1	3	0.4	18	2.2
KM0831	12	15	3	1281	66	5.1	264	20.1	6	0.5	40	2.9
KM0832	18	25	7	826	41	4.9	148	17.1	4	0.4	19	2.3
KM0833	15	18	3	1091	51	4.5	193	17.1	4	0.4	24	2.3
KM0834	17	19	2	1075	46	4.4	166	15.0	5	0.4	28	2.6
KM0836	4	7	3	829	47	5.3	170	19.1	5	0.6	27	3.5
KM0837	5	7	2	724	32	4.6	99.6	14.3	4	0.5	21	3.0
KM0838	2	5	3	664	43	6.1	150	21.2	3	0.5	19	3.0
KM0839	5	8	3	707	38	5.9	115	17.4	3	0.5	19	2.5
KM0840	3	6	3	857	43	4.5	152	15.8	4	0.4	20	2.2
KM0840	1	2	1	532	32	6.0	90.9	17.1	2	0.4	11	2.0
KM0841	4	5	1	1906	79	4.2	304	16.0	7	0.4	40	2.1
KM0842	6	8	2	698	43	5.5	149	17.9	3	0.4	16	2.4
KM0844	5	7	2	631	26	4.8	94.8	17.4	2	0.4	14	2.2
KM0845	6	8	2	803	54	7.2	196	25.7	4	0.5	21	2.6
KM0846	8	11	3	1876	114	5.5	406	20.3	9	0.5	51	2.7
KM0847	7	8	1	1069	61	5.7	219	20.5	4	0.3	19	1.8
KM0848	0	1	1	395	22	5.6	81.5	20.6	2	0.4	9	2.4
KM0853	1	2	1	620	36	5.9	135	21.8	3	0.4	15	2.4
KM0854	9	13	4	482	26	5.6	90.2	19.2	2	0.4	9	2.0
KM0856	2	4	2	664	43	6.5	164	24.8	3	0.5	18	2.6
KM0858	3	5	2	610	30	4.9	107	16.1	3	0.4	15	2.4
KM0859	3	4	1	364	14	3.8	36.6	10.1	1	0.4	8	2.1
KM0860	3	4	1	429	20	4.7	53.8	12.5	2	0.4	9	2.2
KM0861	3	4	1	404	21	5.2	55.4	13.7	2	0.4	10	2.4
KM0862	1	3	2	374	25	6.8	92	24.6	1	0.4	8	2.2
KM0863	1	3	2	422	26	6.1	100	23.8	2	0.5	11	2.7
KM0864	4	5	1	525	27	5.2	106	20.1	2	0.4	10	2.0
KM0865	6	9	3	703	38	5.7	142	21.3	3	0.4	16	2.2
KM0866	4	5	1	394	21	5.4	81.4	20.7	2	0.5	10	2.5
KM0867	2	6	4	532	32	6.1	119	22.5	2	0.4	11	2.1
KM0868	1	2	1	375	24	6.4	88.7	23.6	2	0.4	8	2.1
KM0868	3	4	1	367	13	3.7	37.6	10.2	1	0.4	8	2.1
KM0869	7	9	2	538	26	5.0	101	19.0	2	0.4	12	2.2
KM0870	7	8	1	1107	63	5.7	229	20.7	4	0.3	19	1.7
KM0871	2	4	2	474	22	4.8	84	17.9	2	0.4	11	2.2
KM0872	11	13	2	749	36	4.8	147	19.7	3	0.4	15	2.0
KM0873	10	11	1	452	22	4.8	83.5	18.5	2	0.3	8	1.8
KM0874	5	8	3	583	29	5.0	114	19.4	3	0.5	15	2.5
KM0874	1	2	1	373	21	5.5	75.5	20.2	2	0.5	10	2.6
KM0875	11	12	1	1831	99	5.4	360	19.7	6	0.3	34	1.9

**Australian Rare Earths Limited**

ABN 73 632 645 302  
Level 10, 111 Gawler Place  
Adelaide, SA 5000

Phone: 1300 646 100

Email: [hello@ar3.com.au](mailto:hello@ar3.com.au)

Website: [www.ar3.com.au](http://www.ar3.com.au)

ASX Code: **AR3**

For personal use only



# AUSTRALIAN RARE EARTHS

KM0876	1	3	2	636	36	5.8	143	23.1	3	0.4	13	2.1
KM0877	4	7	3	521	17	3.3	55.2	10.0	2	0.3	9	1.8
KM0877	1	3	2	474	19	4.0	69.1	14.6	2	0.4	11	2.4
KM0878	1	4	3	724	27	3.9	105	14.9	2	0.3	12	1.6
KM0879	1	4	3	1610	88	5.1	307	18.8	5	0.4	26	1.9
KM0881	5	10	5	501	26	5.1	89	16.9	2	0.3	8	1.6
KM0882	0	1	1	1035	45	4.4	189	18.3	6	0.6	32	3.1
KM0883	1	3	2	989	43	4.3	165	16.6	5	0.5	20	2.0
KM0884	1	10	9	908	43	4.5	168	18.0	5	0.5	22	2.4
KM0885	0	1	1	471	23	4.9	90.6	19.2	3	0.5	12	2.4
KM0886	0	1	1	653	33	5.0	133	20.4	3	0.5	18	2.7
KM0887	1	2	1	445	22	4.9	85.7	19.3	2	0.5	11	2.4
KM0888	2	4	2	589	24	4.3	97.3	17.0	3	0.5	13	2.2
KM0889	1	3	2	458	21	4.4	75.5	16.1	2	0.5	11	2.3
KM0890	4	5	1	463	24	5.2	101	21.8	3	0.7	17	3.6
KM0891	0	3	3	652	30	4.5	119	18.0	4	0.6	18	2.7
KM0892	4	5	1	451	29	6.3	77	17.1	3	0.6	16	3.6
KM0892	6	7	1	449	25	5.5	65.4	14.6	2	0.4	11	2.5
KM0893	0	2	2	782	49	5.3	162	17.9	4	0.5	20	2.6
KM0894	0	3	3	459	22	4.8	66.8	14.4	2	0.4	12	2.5
KM0895	1	9	8	566	33	5.8	107	18.1	3	0.5	15	2.7
KM0896	1	4	3	497	27	5.4	78.4	15.8	2	0.5	14	2.7
KM0897	1	3	2	656	36	5.5	123	18.3	3	0.4	17	2.6
KM0898	1	4	3	929	47	4.9	187	19.3	5	0.5	27	2.9
KM0898	5	6	1	937	54	5.8	233	24.9	5	0.6	31	3.3
KM0900	1	3	2	471	23	4.7	80.1	16.9	2	0.5	14	2.9
KM0901	0	3	3	914	50	5.1	201	20.4	5	0.5	26	2.9
KM0902	0	2	2	716	38	5.1	146	19.4	4	0.5	22	3.1
KM0903	1	6	5	609	30	4.9	103	16.6	3	0.5	17	2.7
KM0903	9	10	1	435	21	4.9	73.7	16.9	2	0.4	10	2.2
KM0904	23	24	1	618	35	5.6	119	19.3	3	0.5	17	2.8
KM0905	4	5	1	462	29	6.2	92.4	20.0	3	0.6	14	3.0
KM0905	0	1	1	356	17	4.8	69.5	19.5	2	0.5	10	2.9
KM0906	2	4	2	388	21	5.3	72.5	18.5	2	0.5	12	3.0
KM0907	1	2	1	1202	85	7.0	336	27.9	5	0.5	29	2.4
KM0908	1	2	1	387	17	4.3	66.3	17.1	2	0.5	10	2.6
KM0909	0	3	3	628	33	5.3	112	17.8	2	0.4	12	2.0
KM0910	0	1	1	552	28	5.1	96.8	17.5	3	0.5	18	3.2
KM0911	1	5	4	916	52	6.0	198	22.0	4	0.4	20	2.1
KM0912	5	8	3	795	43	5.0	161	18.8	4	0.5	20	2.9
KM0913	2	5	3	631	30	4.7	103	16.3	3	0.5	18	2.9
KM0914	1	3	2	567	30	5.2	97.1	17.0	3	0.5	15	2.7
KM0915	1	3	2	668	38	5.6	142	20.3	4	0.6	20	3.0

**Australian Rare Earths Limited**

ABN 73 632 645 302  
Level 10, 111 Gawler Place  
Adelaide, SA 5000

Phone: 1300 646 100

Email: [hello@ar3.com.au](mailto:hello@ar3.com.au)

Website: [www.ar3.com.au](http://www.ar3.com.au)

ASX Code: **AR3**

For personal use only



KM0917	2	3	1	1367	84	6.2	322	23.6	6	0.4	30	2.2
KM0917	0	1	1	488	25	5.1	81	16.6	3	0.6	15	3.1
KM0919	1	3	2	529	24	4.4	83.2	15.7	3	0.5	15	2.9
KM0920	0	3	3	731	36	5.0	132	18.1	3	0.5	17	2.5
KM0921	0	4	4	588	30	5.1	102	17.5	3	0.5	16	2.7
KM0922	0	3	3	720	39	5.1	145	18.7	3	0.4	15	2.1
KM0924	1	3	2	932	34	3.5	137	14.4	4	0.5	24	2.8
KM0925	7	8	1	637	36	5.7	116	18.2	3	0.5	18	2.8
KM0925	11	12	1	479	21	4.4	67.8	14.2	2	0.5	13	2.7
KM0926	1	3	2	699	38	5.5	117	16.8	3	0.4	15	2.2
KM0927	1	2	1	662	31	4.7	102	15.4	4	0.6	22	3.3
KM0928	1	2	1	645	36	5.6	118	18.3	4	0.6	20	3.1
KM0929	7	11	4	419	21	5.0	78.6	18.7	2	0.5	12	2.7
KM0930	6	7	1	449	19	4.2	75.4	16.8	2	0.5	13	2.8
KM0931	5	9	4	428	20	4.5	69.3	16.1	2	0.5	11	2.6
KM0932	8	10	2	879	47	5.6	156	18.0	3	0.4	17	2.0
KM0933	5	8	3	1545	83	4.8	294	17.0	4	0.4	22	2.0
KM0934	5	8	3	480	24	4.9	80.6	16.7	3	0.6	14	3.0
KM0935	2	5	3	613	33	5.3	120	18.8	3	0.4	13	2.3
KM0936	3	4	1	1211	63	5.2	240	19.8	6	0.5	31	2.5
KM0937	6	9	3	400	15	3.7	60.6	15.1	2	0.5	12	2.9
KM0938	1	4	3	1681	86	5.3	341	20.7	8	0.5	40	2.4
KM0939	0	4	4	680	32	4.7	131	19.2	3	0.5	20	2.8
KM0940	1	2	1	564	27	4.7	107	19.0	3	0.5	15	2.6
KM0941	1	2	1	709	32	4.5	129	18.3	4	0.5	21	3.0
KM0942	1	2	1	605	28	4.6	114	18.7	3	0.5	18	3.0
KM0943	1	3	2	441	22	5.0	86.2	19.6	2	0.5	11	2.5
KM0944	1	3	2	509	22	4.3	89	17.6	3	0.5	14	2.8
KM0945	7	9	2	592	21	3.5	87.7	14.8	3	0.5	19	3.2
KM0946	6	9	3	545	20	3.4	86.2	14.8	3	0.5	17	3.1
KM0947	9	11	2	961	40	4.1	163	16.9	4	0.5	26	2.8
KM0948	14	19	5	461	18	3.9	68.7	15.0	2	0.4	12	2.5
KM0950	7	8	1	625	29	4.7	119	19.0	3	0.5	18	2.9
KM0951	5	8	3	1403	52	4.0	216	16.9	5	0.4	31	2.5
KM0952	3	5	2	666	25	3.8	111	16.6	4	0.6	24	3.6
KM0953	1	3	2	672	34	4.6	142	19.4	4	0.5	20	3.0
KM0954	17	20	3	664	26	3.9	112	16.8	3	0.5	21	3.1
KM0954	13	15	2	881	47	5.3	182	20.5	3	0.4	16	2.0
KM0955	4	7	3	710	28	3.9	120	16.7	4	0.5	21	3.0
KM0956	1	2	1	490	19	3.9	79.6	16.2	3	0.5	16	3.2
KM0957	10	11	1	873	45	5.1	183	21.0	4	0.5	25	2.9
KM0958	1	6	5	911	39	4.1	165	17.4	5	0.5	27	3.0
KM0958	8	9	1	414	18	4.3	67.7	16.3	2	0.4	9	2.2

For personal use only



KM0959	0	1	1	463	20	4.4	80.4	17.3	2	0.5	12	2.7
KM0963	7	9	2	423	22	5.2	83.3	19.7	2	0.5	10	2.4
KM0963	4	5	1	502	29	5.7	103	20.5	2	0.4	10	1.9
KM0964	3	5	2	402	21	5.1	80.1	20.0	2	0.5	9	2.3
KM0964	1	2	1	467	24	5.1	97.1	20.8	3	0.6	14	2.9
KM0965	0	1	1	427	17	4.1	68.9	16.2	2	0.5	11	2.5
KM0966	8	10	2	431	14	3.2	52.9	12.5	2	0.4	8	2.0
KM0967	10	11	1	351	15	4.2	56.7	16.2	1	0.4	7	2.1
KM0968	2	3	1	406	16	4.0	62.3	15.4	2	0.5	10	2.6
KM0968	5	6	1	393	16	4.1	59.7	15.2	2	0.4	8	2.1
KM0969	7	9	2	637	28	4.7	110	18.2	3	0.5	15	2.4
KM0970	1	3	2	387	19	5.0	74.7	19.3	2	0.5	9	2.3
KM0971	1	2	1	442	24	5.5	91.1	20.6	2	0.5	10	2.3
KM0972	4	7	3	2300	152	6.7	541	24.1	8	0.4	33	1.6
KM0973	0	2	2	561	33	5.7	123	21.9	3	0.5	13	2.3
KM0974	3	5	2	1266	52	4.2	206	16.5	7	0.5	33	2.7
KM0975	6	9	3	830	46	5.3	177	20.3	4	0.5	21	2.4
KM0976	6	14	8	1072	58	4.9	230	19.3	5	0.5	25	2.4
KM0978	2	4	2	554	23	4.2	90.6	16.4	3	0.5	15	2.7
KM0979	5	9	4	546	27	4.7	77	14.0	3	0.5	14	2.6
KM0980	1	3	2	621	26	4.0	77.9	12.4	3	0.6	20	3.2
KM0981	4	8	4	1018	53	4.8	187	16.8	5	0.5	29	2.9
KM0982	3	5	2	1313	56	4.0	210	14.9	7	0.5	43	3.1
KM0983	3	9	6	631	25	3.9	91	14.3	3	0.5	19	3.0
KM0984	3	4	1	377	13	3.4	53	14.1	2	0.5	11	3.0
KM0985	1	3	2	485	19	4.1	77.9	16.4	2	0.4	14	2.8
KM0986	3	5	2	976	48	4.8	165	17.3	5	0.5	30	3.0
KM0987	2	4	2	489	21	4.4	85.5	17.7	2	0.5	15	3.0
KM0988	3	4	1	567	15	2.7	60.7	10.7	2	0.3	9	1.6
KM0989	5	7	2	1069	53	4.6	227	20.1	7	0.7	40	4.0
KM0990	1	4	3	871	32	3.6	107	12.3	4	0.4	22	2.5
KM0991	3	6	3	564	21	3.8	87.6	15.6	3	0.5	14	2.5
KM0992	0	4	4	723	38	4.6	156	19.2	4	0.5	19	2.8
KM0993	1	2	1	819	26	3.2	107	13.1	4	0.5	21	2.6
KM0994	1	2	1	370	17	4.5	60.9	16.4	2	0.5	10	2.6
KM0995	0	2	2	477	19	4.0	75.5	15.7	2	0.5	11	2.4
KM0997	3	5	2	611	23	3.8	88.4	14.8	3	0.4	14	2.3
KM0998	0	1	1	583	36	6.2	109	18.7	3	0.4	12	2.0
KM0999	4	5	1	476	21	4.4	81.7	17.2	2	0.5	11	2.3
KM1000	0	3	3	760	37	4.6	121	15.7	4	0.5	19	2.5
KM1001	1	2	1	995	61	6.1	198	19.9	6	0.6	33	3.3
KM1002	1	5	4	475	18	3.7	71.4	15.1	2	0.5	13	2.7
KM1003	0	3	3	654	35	4.5	108	15.0	3	0.4	17	2.4

For personal use only



KM1004	6	7	1	493	20	3.9	76.4	15.5	2	0.5	12	2.5
KM1005	1	2	1	777	53	6.8	142	18.3	4	0.5	21	2.7
KM1006	1	2	1	889	63	7.1	176	19.8	4	0.5	24	2.7
KM1007	3	5	2	750	32	4.3	128	17.4	4	0.5	21	2.9
KM1008	4	6	2	863	37	4.1	134	15.4	4	0.4	20	2.3
KM1009	7	8	1	887	20	2.3	82.7	9.3	3	0.4	18	2.0
KM1009	5	6	1	618	19	3.1	75.8	12.3	3	0.4	16	2.7
KM1012	1	2	1	543	25	4.6	100	18.5	3	0.5	15	2.7
KM1013	4	5	1	464	20	4.4	79.4	17.1	2	0.4	12	2.6
KM1014	4	6	2	1542	92	5.9	323	19.9	7	0.4	36	2.2
KM1015	1	2	1	467	20	4.2	77.3	16.6	2	0.5	12	2.6
KM1016	0	1	1	420	20	4.7	76.5	18.2	2	0.4	10	2.5
KM1017	0	1	1	975	79	8.1	209	21.4	4	0.5	24	2.4
KM1018	0	4	4	506	16	3.3	63.3	13.0	2	0.4	10	2.1
KM1019	2	3	1	702	49	7.0	139	19.8	4	0.6	22	3.2
KM1020	2	5	3	709	32	4.4	110	15.9	4	0.5	23	3.3
KM1021	7	11	4	553	25	4.6	92.9	16.8	3	0.5	17	3.0
KM1022	0	2	2	511	29	5.6	104	20.3	3	0.5	15	2.8
KM1023	1	3	2	764	39	4.8	117	14.9	4	0.5	22	2.9
KM1024	11	12	1	432	28	6.4	103	23.9	2	0.5	11	2.5
KM1025	5	6	1	934	61	6.5	167	17.9	6	0.6	32	3.4
KM1026	5	9	4	580	30	4.9	95.3	15.9	3	0.5	16	3.0
KM1027	7	9	2	797	38	4.6	138	17.1	5	0.6	26	3.3
KM1029	4	6	2	1386	72	5.5	253	17.9	4	0.3	18	1.4
KM1030	6	7	1	779	21	2.7	91.8	11.8	4	0.5	22	2.8
KM1032	10	12	2	1586	76	5.0	324	21.3	7	0.5	38	2.4
KM1033	6	9	3	925	44	4.7	149	16.1	4	0.5	23	2.4
KM1034	6	9	3	934	40	4.2	179	18.8	5	0.6	31	3.5
KM1035	10	11	1	388	13	3.3	52.1	13.4	2	0.4	8	2.1
KM1036	3	6	3	543	19	3.6	80.3	15.2	2	0.5	13	2.4
KM1037	0	1	1	722	43	5.9	135	18.7	4	0.5	19	2.7
KM1038	1	2	1	353	15	4.2	63.3	18.0	2	0.6	11	3.1
KM1039	0	2	2	671	36	5.1	126	18.4	4	0.6	22	3.3
KM1040	3	4	1	1195	65	5.5	208	17.4	6	0.5	29	2.4
KM1041	7	9	2	1155	61	5.3	195	16.9	7	0.6	37	3.2
KM1042	4	6	2	671	26	3.9	114	16.9	4	0.5	20	2.9
KM1043	8	12	4	627	28	4.4	105	16.9	3	0.5	15	2.5
KM1044	3	6	3	578	27	4.7	97.9	17.8	2	0.4	12	2.1
KM1045	4	6	2	637	21	3.4	96.3	15.1	3	0.4	14	2.2
KM1046	3	5	2	958	40	3.8	134	14.3	4	0.4	20	2.2
KM1047	5	7	2	1013	57	5.9	183	18.7	5	0.5	27	2.6
KM1048	4	6	2	757	33	4.3	117	15.4	3	0.4	16	2.1
KM1050	5	9	4	656	35	5.0	117	17.9	3	0.4	14	2.2

For personal use only





# AUSTRALIAN RARE EARTHS

KM1051	1	3	2	665	35	5.4	115	17.3	3	0.4	14	2.1
KM1052	2	4	2	770	35	4.5	118	15.7	3	0.3	14	1.8
KM1053	2	4	2	1015	58	5.8	173	17.1	5	0.4	24	2.4
KM1054	1	6	5	544	22	3.9	85.9	15.9	2	0.5	13	2.5
KM1055	5	7	2	720	18	2.5	85.9	11.8	3	0.4	18	2.4
KM1056	2	8	6	693	28	3.8	105	15.2	3	0.4	16	2.3
KM1057	1	3	2	1058	61	4.9	251	20.6	3	0.4	18	1.9
KM1058	3	5	2	521	17	3.1	74.4	13.8	2	0.5	14	2.6
KM1059	1	3	2	525	22	4.2	95.6	18.0	2	0.5	12	2.4
KM1061	4	7	3	678	23	3.4	97.5	14.6	3	0.4	15	2.2
KM1062	5	8	3	1047	39	4.0	126	12.6	3	0.3	18	1.7
KM1063	3	5	2	729	29	3.9	99.3	13.5	3	0.4	18	2.4
KM1064	1	3	2	538	23	4.4	79.4	14.8	3	0.5	13	2.5
KM1065	0	2	2	718	40	5.2	152	20.0	4	0.5	19	2.7
KM1067	14	15	1	414	12	2.9	45.4	11.0	1	0.4	8	1.9
KM1069	4	5	1	425	17	4.0	69.8	16.4	2	0.5	13	3.0
KM1070	1	5	4	484	21	3.9	72.9	14.5	2	0.5	12	2.6
KM1071	1	3	2	934	55	5.8	191	19.4	4	0.5	22	2.4
KM1072	2	4	2	872	43	4.9	149	16.8	4	0.5	20	2.5
KM1074	1	4	3	492	24	4.6	75	15.1	2	0.5	14	2.8
KM1075	4	7	3	911	51	5.7	168	17.9	5	0.5	26	3.0
KM1075	9	12	3	449	26	5.5	78.6	17.3	2	0.5	12	2.6
KM1076	9	12	3	1035	53	4.7	190	16.7	5	0.5	30	2.9
KM1077	8	10	2	1028	52	5.1	184	17.8	6	0.5	32	3.1
KM1078	4	6	2	486	16	3.4	66.1	13.7	3	0.6	16	3.3
KM1079	4	7	3	1428	76	4.8	288	18.1	6	0.4	33	2.0
KM1079	8	9	1	656	39	6.0	122	18.7	4	0.6	21	3.2
KM1080	7	9	2	1281	86	6.4	289	20.8	5	0.4	23	1.9
KM1081	3	7	4	605	26	4.1	93.7	15.4	3	0.5	15	2.5
KM1082	6	8	2	1089	62	5.8	211	19.1	5	0.5	28	2.7
KM1083	2	4	2	984	39	3.6	150	14.4	4	0.4	25	2.6
KM1085	5	9	4	1003	47	4.4	173	16.3	4	0.4	23	2.4
KM1086	15	16	1	491	16	3.3	69.4	14.1	3	0.6	16	3.2
KM1087	3	6	3	744	35	4.7	131	17.4	4	0.6	23	3.2
KM1088	1	4	3	716	31	4.0	116	15.3	3	0.5	19	3.0
KM1089	5	8	3	588	22	3.8	89.3	15.0	3	0.5	18	3.0
KM1090	5	6	1	1198	55	4.6	209	17.4	5	0.4	28	2.4
KM1091	7	8	1	1051	46	4.4	177	16.9	4	0.4	25	2.3
KM1092	6	7	1	583	20	3.3	74.9	12.8	3	0.4	15	2.5
KM1092	4	5	1	435	14	3.1	51.9	11.9	2	0.4	11	2.5
KM1093	3	4	1	600	24	4.0	90.3	15.0	3	0.5	17	2.8
KM1094	6	10	4	932	43	4.3	167	17.0	5	0.5	26	3.0
KM1095	0	2	2	405	18	4.3	68.1	16.8	2	0.4	10	2.5

**Australian Rare Earths Limited**

ABN 73 632 645 302  
Level 10, 111 Gawler Place  
Adelaide, SA 5000

Phone: 1300 646 100

Email: [hello@ar3.com.au](mailto:hello@ar3.com.au)

Website: [www.ar3.com.au](http://www.ar3.com.au)

ASX Code: **AR3**

For personal use only



KM1096	1	6	5	920	45	4.8	172	18.2	4	0.4	22	2.5
KM1097	11	15	4	1226	56	4.6	225	18.3	5	0.4	27	2.2
KM1098	6	9	3	932	40	4.2	164	17.2	5	0.5	30	3.3
KM1098	4	5	1	369	12	3.4	53	14.3	2	0.6	14	3.7
KM1099	1	3	2	1675	83	5.0	334	20.1	8	0.5	46	2.8
KM1100	2	3	1	1070	35	3.3	140	13.1	5	0.5	33	3.0
KM1100	4	5	1	370	13	3.5	54.4	14.7	2	0.5	11	3.1
KM1102	2	3	1	532	23	4.4	88.2	16.6	3	0.5	15	2.7
KM1103	9	16	7	915	55	5.7	213	21.8	4	0.5	24	2.7
KM1104	4	8	4	669	28	4.2	112	17.0	3	0.5	21	3.1
KM1105	2	5	3	677	27	3.9	106	15.4	3	0.5	18	2.8
KM1106	2	4	2	739	25	3.4	104	13.9	3	0.4	19	2.6
KM1107	17	19	2	489	19	3.9	81.1	16.6	2	0.4	12	2.5
KM1108	0	5	5	742	33	4.1	134	17.1	3	0.4	19	2.5
KM1109	2	6	4	510	22	4.4	89.8	17.7	2	0.4	10	2.1
KM1110	1	3	2	856	46	5.0	184	20.5	3	0.4	19	2.2
KM1111	1	7	6	649	30	4.5	123	18.8	3	0.4	16	2.5
KM1113	0	3	3	927	40	4.3	165	18.1	4	0.4	22	2.4
KM1114	9	10	1	659	32	4.8	141	21.4	3	0.4	16	2.4
KM1115	5	6	1	378	15	3.9	64.2	17.0	2	0.5	10	2.6
KM1116	6	9	3	920	44	4.6	187	19.6	4	0.5	23	2.6
KM1117	3	7	4	899	39	4.4	163	18.4	4	0.4	20	2.3
KM1117	9	10	1	452	20	4.4	82.7	18.3	2	0.4	10	2.2
KM1118	7	8	1	414	17	4.1	75.5	18.2	2	0.5	11	2.6
KM1119	6	8	2	527	22	4.1	91	17.2	2	0.4	12	2.1
KM1120	1	3	2	473	21	4.5	92.2	19.4	2	0.4	12	2.5
KM1122	1	6	5	971	45	4.3	173	17.1	5	0.5	28	3.1
KM1123	3	5	2	1251	64	4.7	230	17.7	5	0.5	31	2.8
KM1124	3	6	3	1158	52	4.3	197	16.5	5	0.4	31	2.7
KM1125	1	4	3	1334	75	5.0	285	19.4	5	0.4	29	2.5
KM1126	3	6	3	560	23	4.2	92.3	16.6	3	0.5	16	3.0
KM1127	4	6	2	887	35	3.9	142	15.7	4	0.4	24	2.6
KM1129	8	11	3	414	16	3.9	62.1	15.0	2	0.4	11	2.6
KM1129	5	6	1	366	12	3.1	45	12.3	1	0.4	8	2.1
KM1132	1	2	1	524	28	5.3	113	21.5	3	0.6	17	3.3
KM1133	3	5	2	449	19	4.2	72.8	16.2	2	0.4	12	2.7
KM1134	2	3	1	458	21	4.5	80.3	17.5	2	0.5	14	3.0
KM1135	1	4	3	637	27	4.4	112	17.8	4	0.6	23	3.4
KM1136	5	7	2	556	26	4.7	101	18.1	2	0.4	15	2.5
KM1136	11	12	1	423	21	4.9	81.2	19.2	2	0.5	13	3.0
KM1137	4	7	3	895	41	4.6	161	18.2	4	0.5	26	2.9
KM1138	1	3	2	862	37	4.3	148	17.2	4	0.5	25	2.9
KM1139	0	2	2	648	28	4.2	113	16.9	3	0.5	21	3.2

For personal use only



KM1140	3	5	2	557	21	3.8	85.2	15.4	3	0.5	16	2.9
KM1140	1	2	1	415	17	4.2	67.9	16.4	2	0.5	13	3.0
KM1141	0	2	2	600	26	4.3	105	17.0	3	0.5	18	2.9
KM1142	3	7	4	800	38	4.7	150	18.4	4	0.5	20	2.5
KM1142	1	2	1	413	16	3.8	60	14.5	2	0.4	11	2.8
KM1143	1	3	2	662	29	4.4	118	18.0	4	0.6	22	3.3
KM1143	5	6	1	354	14	3.9	57	16.1	2	0.6	11	3.2
KM1144	12	14	2	885	33	3.9	134	16.0	5	0.6	31	3.1
KM1145	8	11	3	516	22	4.3	89	17.0	3	0.5	14	2.7
KM1146	5	11	6	446	15	3.3	60.3	13.7	2	0.5	12	2.8
KM1146	2	4	2	560	22	3.9	90.1	16.1	3	0.6	18	3.2
KM1148	5	6	1	365	14	3.7	53.5	14.7	2	0.4	9	2.4
KM1149	5	7	2	962	41	4.4	162	17.4	4	0.4	22	2.3
KM1150	0	2	2	577	25	4.4	101	17.7	3	0.5	16	2.8
KM1151	0	1	1	367	17	4.5	66.4	18.1	2	0.5	10	2.6
KM1152	1	6	5	602	26	4.2	106	17.0	3	0.5	17	2.7
KM1152	9	10	1	439	23	5.1	89.1	20.3	2	0.5	10	2.2
KM1153	11	12	1	950	45	4.7	178	18.8	5	0.5	23	2.4
KM1154	0	3	3	433	17	3.9	68.2	15.8	2	0.6	14	3.2
KM1155	1	4	3	594	21	3.7	87.9	15.2	3	0.6	20	3.6
KM1156	1	2	1	908	43	4.8	164	18.1	4	0.4	21	2.4
KM1157	1	3	2	1092	38	3.7	162	15.4	5	0.5	31	2.9
KM1158	1	3	2	603	24	4.0	98.6	16.2	4	0.6	21	3.4
KM1159	1	4	3	821	31	3.7	126	15.2	4	0.5	26	3.3
KM1161	1	4	3	724	38	5.2	150	20.7	4	0.5	20	2.7
KM1162	2	4	2	1177	47	4.1	185	16.0	6	0.5	36	3.0
KM1163	6	8	2	1954	69	3.8	303	16.2	12	0.6	76	3.6
KM1164	11	12	1	416	15	3.6	57.9	13.9	2	0.5	13	3.2
KM1165	7	9	2	558	19	3.4	78.2	14.3	3	0.6	21	3.6
KM1166	7	10	3	1154	45	3.8	193	15.6	6	0.5	35	2.8
KM1168	5	9	4	778	34	4.1	141	17.1	4	0.6	25	3.5
KM1169	7	9	2	488	21	4.2	81.2	16.4	2	0.4	12	2.5
KM1170	3	6	3	627	29	4.4	120	18.1	3	0.5	18	2.8
KM1171	3	4	1	1621	68	4.2	280	17.3	8	0.5	48	3.0
KM1171	1	2	1	415	15	3.7	57.5	13.9	2	0.4	9	2.2
KM1172	3	6	3	632	25	4.2	102	16.8	3	0.5	17	2.7
KM1173	8	9	1	1664	53	3.2	223	13.4	9	0.5	56	3.4
KM1174	5	7	2	425	17	4.0	70.3	16.7	2	0.5	12	2.8
KM1175	2	4	2	479	23	4.7	89.7	18.7	2	0.4	9	2.0
KM1176	10	11	1	551	19	3.5	77.9	14.1	3	0.5	17	3.2
KM1177	1	3	2	880	39	4.4	155	17.6	4	0.5	28	3.2
KM1178	1	2	1	632	35	5.6	132	20.9	3	0.4	17	2.7
KM1180	9	10	1	810	42	5.2	162	20.0	4	0.5	26	3.2

For personal use only



KM1180	11	12	1	638	28	4.4	114	17.8	4	0.6	23	3.6
KM1181	12	14	2	887	47	5.2	156	17.8	3	0.3	16	1.8
KM1182	13	14	1	1221	66	5.4	222	18.2	5	0.4	33	2.7
KM1183	10	13	3	949	42	4.3	149	16.0	4	0.5	27	2.9
KM1184	11	14	3	735	40	5.3	137	18.5	4	0.5	20	2.7
KM1185	9	10	1	1206	65	5.4	223	18.5	6	0.5	35	2.9
KM1186	9	10	1	1051	67	6.4	217	20.6	5	0.5	25	2.4
KM1187	9	10	1	1498	78	5.2	300	20.0	7	0.5	43	2.8
KM1188	9	11	2	1074	41	3.9	171	15.7	6	0.5	32	2.7
KM1189	16	17	1	566	23	4.0	87.6	15.5	2	0.3	10	1.8
KM1189	13	14	1	350	10	2.9	36.7	10.5	1	0.3	6	1.9
KM1190	11	13	2	628	30	4.9	116	18.8	3	0.5	13	2.3
KM1191	4	5	1	633	23	3.7	92.2	14.6	3	0.4	15	2.4
KM1192	11	14	3	1242	45	3.5	179	13.9	5	0.4	28	2.2
KM1193	9	11	2	564	22	3.8	86.3	14.8	2	0.4	12	2.1
KM1194	9	10	1	870	31	3.6	126	14.5	4	0.4	21	2.4
KM1195	15	18	3	666	15	2.2	58.1	8.7	2	0.3	12	1.8
KM1196	11	12	1	589	21	3.6	84.2	14.3	2	0.4	14	2.3
KM1197	14	16	2	1804	100	5.4	365	19.6	8	0.5	41	2.3
KM1197	1	2	1	540	24	4.5	92.5	17.1	2	0.4	12	2.2
KM1198	1	8	7	1001	44	4.3	162	16.4	5	0.5	25	2.7
KM1199	1	3	2	641	29	4.5	114	17.7	4	0.6	19	3.0
KM1200	4	8	4	1040	61	5.3	211	19.4	5	0.5	26	2.6
KM1200	13	14	1	403	16	4.0	60.2	14.9	2	0.5	12	2.9
KM1201	3	8	5	646	31	4.6	118	17.9	4	0.6	19	3.0
KM1202	0	2	2	647	31	4.8	126	19.4	4	0.6	20	3.1
KM1203	2	4	2	494	18	3.7	73.8	15.2	3	0.5	15	3.1
KM1204	0	4	4	970	48	4.6	188	18.1	5	0.6	29	3.2
KM1205	1	4	3	800	41	5.0	148	18.3	4	0.5	19	2.4
KM1206	0	4	4	401	16	4.1	64.7	16.1	2	0.5	11	2.7
KM1208	9	10	1	369	15	4.0	58.9	16.0	2	0.5	9	2.6
KM1209	4	6	2	864	32	3.8	126	15.1	4	0.4	21	2.4
KM1210	1	3	2	732	24	3.4	97.9	13.4	4	0.5	20	2.7
KM1211	2	4	2	2050	96	4.5	370	17.8	10	0.6	52	3.0
KM1212	2	6	4	645	23	3.7	92	14.9	4	0.6	20	3.1
KM1213	5	7	2	566	21	3.5	82.2	14.1	3	0.4	14	2.3
KM1214	7	8	1	867	32	3.7	135	15.6	5	0.6	30	3.4
KM1215	4	8	4	580	25	4.2	95	15.9	3	0.5	15	2.5

For personal use only