

# KANGANKUNDE RARE EARTHS DRILL PROGRAM ADVANCING WELL

- Phase 1 drill program progressing well with 2 Reverse Circulation rigs and 1 Core rig now on site.
- 5 holes drilled to date with 4 RC holes totalling 581 metres and 1 Core hole currently at 88 metres
- All drill samples contain extensive visible monazite from surface to current hole depths with monazite being the rare-earths-bearing mineral at the Kangankunde deposit
- Samples from first drill hole have arrived in South Africa for preparation ahead of despatch to
   Western Australia for assay; next batch of samples to leave project site this week

#### **RECAP**

- Kangankunde is a rare earth project of globally significance. The carbonatite host has outstanding grades of up to 237,000 ppm<sup>i</sup> (23.7%) TREO
- Phase 1 drill program consists of 44 holes for a total 12,500 metres, comprising 10,000 metres
  of RC and 2,500 metres of core drilling. These are designed to provide geometric definition and
  the tenor of mineralisation in the upper 300 metres from surface
- Phase 2 drill program consisting of two deep drill holes, each 1,000 metres in length, aims to test the extent and tenor of mineralisation down to 800 metres
- The project is held within a granted mining licence MML0290 and is close to logistical infrastructure

Commenting on progress to date, **Lindian's Chief Executive Officer**, **Mr Alistair Stephens commented:** "Observations of extensive green monazite from surface to depth in all drill samples is consistent with our expectations and we look forward to receipt of the first assay results in due course. We are very pleased with how the program is progressing. The project teams are pushing hard to complete as much of the the program while weather conditions permit. With three rigs now on site, we have the necessary equipment to now add significant metres and thus better demonstrate Kangankunde's compelling potential. With drilling ongoing, we expect to report a steady stream of assay results from mid-December through to the end of February barring any unforeseen delays. I reiterate that the Kangankunde Rare Earths Project is globally significant and the drilling program now underway can be expected to confirm and build on previous historical work."





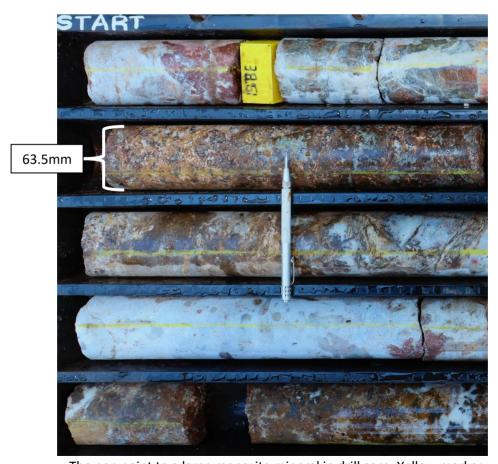
Lindian Resources Limited (ASX:LIN) ("Lindian" or "the Company") is pleased to provide an update with respect to the Phase 1 drilling program at the Kangankunde Rare Earths Project.

The Company is pleased to report that drilling is progressing well and that visual observations of monazite mineralisation are consistent with expectations from surface mapping. The Company's geologists report that all drill samples contain extensive visible mozanite and is typically continuous from surface to the end of each hole. Monazite is the rare earths bearing mineral at Kangankunde.

At the time of writing, the Company has completed 669 metres and is drilling the second and third RC holes and the first Core hole. Depths of each hole are set out in the table below.

Reference	Current Depth	Comments
	(metres)	
RC001	112	RC pre-collar, core tail to be completed to 300m
RC002	251	RC pre-collar completed. Core tail to be completed to 300m
RC003	184	RC pre-collar completed. Core tail to be completed to 300m
RC004	34	Target 300m
DD001	88	Target depth of 300m

The Company is pleased to report that monazite is visible in the Core hole DD001 from surface to current depth, refer images below.



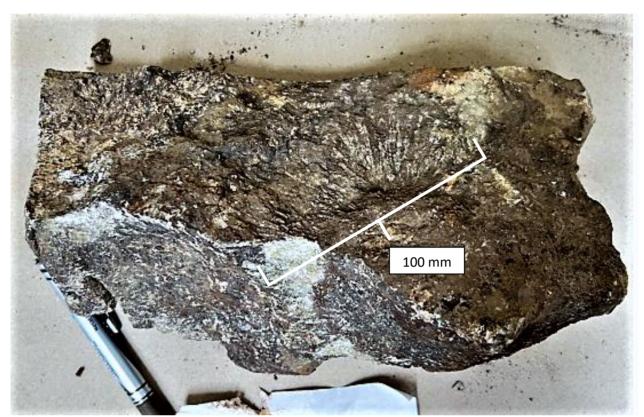
The pen point to a large monazite mineral in drill core. Yellow marker 38.61 metre down hole



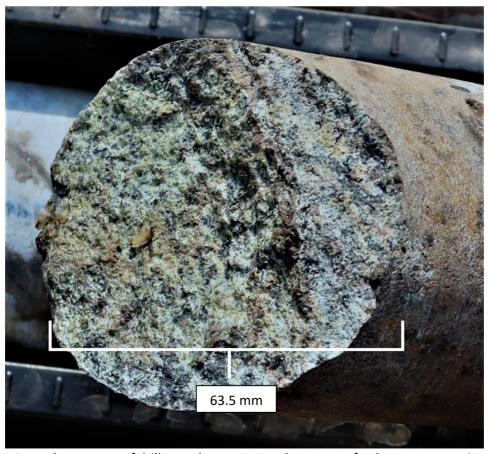


Extensive pale green monazite seen in drill core. The radial pattern above the pen (and below the scale bar) is a large radial cluster of monazite minerals. This drill core specimen has similarities to radial monazite mineralisation in the image below. The blue line is the marker for core cutting and sampling. Yellow marker is 77.61m down hole.





Radial monazite mineralisation sampled from surface.



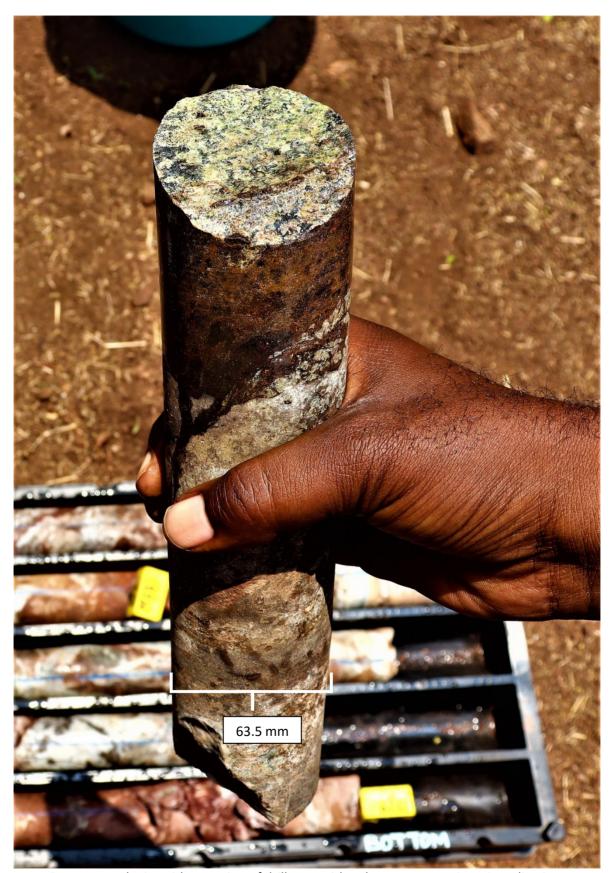
A rough exposure of drill core demonstrates the extent of pale green monazite mineral occurrence.





Pale green monazite mineralisation in drill core





Program geologist with a portion of drill core with pale green monazite mineralisation.









Image A: RC Rig No. 1

Image B: Core Rig No. 1

Image C: Second RC rig arrives on site

Samples from RC001 have arrived in South Africa where they are being prepped ahead of despatch to Australia where they will be assayed. Sample despatches from site should occur on a weekly basis, with the next set of samples expected to be despatched from site this week.

As previously indicated, samples from all works will undergo sample preparation at an internationally accredited laboratory in Africa with subsamples then shipped to Australia for assay. Testwork will be undertaken on-site to determine bulk density of the mineralisation and surrounding rock types which will be applicable to future resource modelling and mine planning.

#### **PHASE 1 DRILL PROGRAM**

The Phase 1 program consists of 44 drill holes for 10,000 metres of RC drilling and 2,500 metres of core drilling on the Kangankunde hill top. The drill pattern is based on 50 metre east-west sections, and as radial fans perpendicular to the interpreted carbonatite boundary where topography provides access (Figure 1).



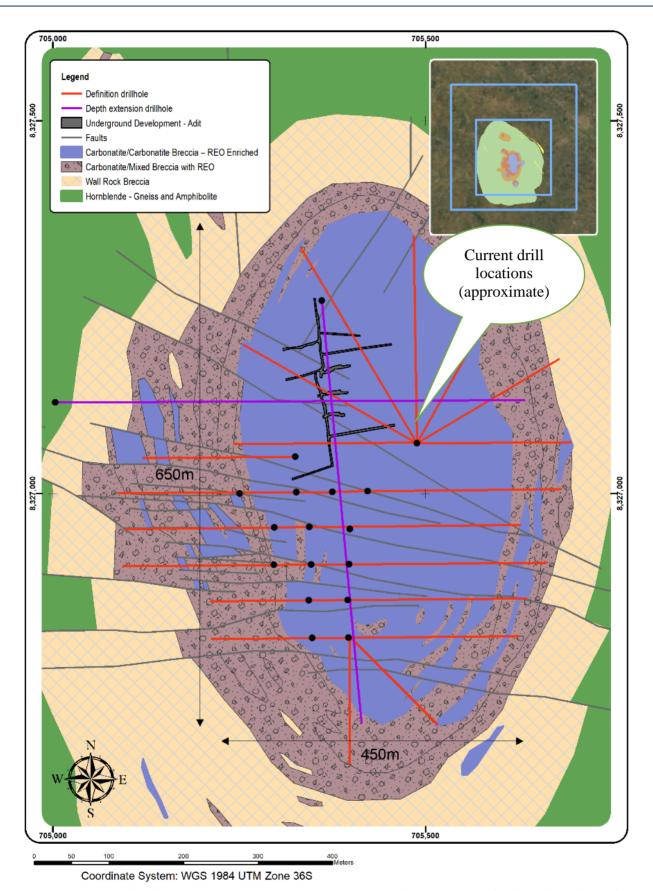


Figure 1: Interpreted geology with Phase 1 drill program hole location and planned drill traces (red) and Phase 2 (purple)



The objective of this program is to provide initial definition of the mineralised carbonatite and surrounding carbonatite breccia rocks within an area of 800m long and 800m wide. Monazite mineralisation hosting rare earth elements is clearly visible in the rocks that crop out in this area. Phase 1 drilling will be limited to the Kangankunde hill top using two RC rigs and one core rig to complete as many holes as possible until the wet season, typically from December to March, limits access.

#### **PHASE 2 DRILL PROGRAM**

Two additional deep drill holes are planned from drill pads near the base of the Kangankunde hill (Figures 1 and 2) and are designed to allow drilling to continue during the early stages of the wet season. These two drill holes, each planned to be 1,000 metres in length, are designed to test the N-S and E-W axies of the carbonatite between 300 metres and 800 metres below the hill top.

A cross section with the Phase 1 drilling plan from the hill top and (one of) the Phase 2 deep holes from the base of the hill on simplified interpreted geology is shown in Figure 2 below.

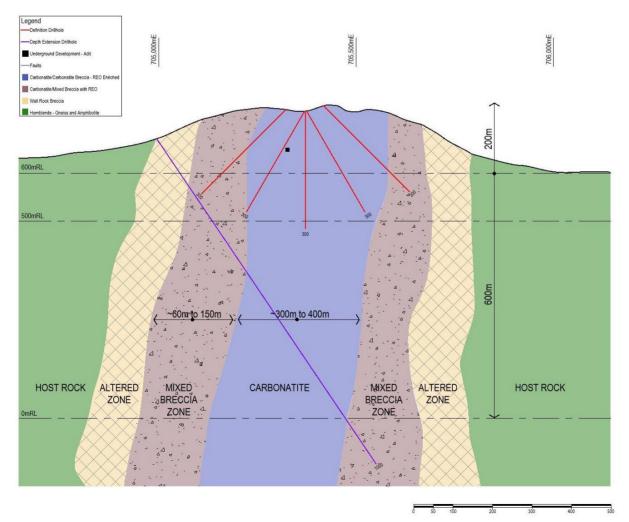


Figure 2: Cross section 8327100mN showing simplified expected geological units and planned drill traces



This ASX announcement was authorised for release by the Lindian Board.

#### For further information, please contact:

Asimwe Kabunga (Chairman) Alistair Stephens (CEO)
Phone: +61 8 6557 8838 Phone: +61 488 992 544

Email: info@lindianresources.com.au Email: info@lindianresources.com.au

#### **About Lindian**

#### **RARE EARTHS**

Lindian Resources Limited has a Malawi Court Consent Order for a share subscription agreement with Rift Valley Resource Developments Limited ("Rift Valley") a Malawian registered company. Under the Agreement Lindian will acquire 100% of Rift Valley and its 100% owned title to Exploration Licence EPL0514/18R and Mining Licence MML0290/22 (refer ASX announcement ASX:LIN dated 1 August 2022) issued under the Mines and Minerals Act 2018. The project has an Environmental and Social Impact Assessment Licence No.2:10:16 issued under the Environmental Management Act (No. 19 of 2017). The Kangankunde Project has been subject to significant historic exploration by Lonrho Plc (Lonrho) in the 1970's and the French geoscience Bureau de Récherches Géologiques et Minières (BRGM) in the 1990's. The project has an underground adit (a horizontal drive with cross cuts extending at least 300 metre underground) and exploration sampling by trenching and drilling has identified significant non-radioactive monazite mineralisation over a footprint of 800m by 800m. Metallurgical testwork by Lonrho and BRGM has identified a process flowsheet that achieved a 60% recovery to a 60% concentrate grade using gravity separation (water only) (refer ASX announcement ASX:LIN 1 August 2022).

#### **BAUXITE**

**Lindian Resources Limited** has over 1 billion tonnes of **Bauxite** resources (refer company website for access to resources statements and competent persons statements) in Guinea with the Gaoual, Lelouma and Woula projects. Guinean bauxite is known as the premier bauxite location in the world, having high grade and low impurities premium quality bauxite.

#### **COMPETENT PERSONS' STATEMENT**

The information in this announcement that relates to the Kangankunde Rare Earths Project is based on and fairly represents information compiled by Mr Alistair Stephens or is taken from ASX announcement dated 30 August 2022. Mr Stephens is the Chief Executive Officer of Lindian Resources Limited. Mr Stephens is a Competent Person who is a Fellow of the Australian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the December 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mr Stephens consents to the inclusion in the announcement of the matters based on his information in the form and context in which it appears.

Lindian confirms that it is not aware of any new information or data that materially affects the information included in the original ASX announcement and the form and content in which the relevant Competent Persons' findings are presented in this report have not been materially modified from the original ASX announcement

#### FORWARD LOOKING STATEMENTS

This announcement may include forward-looking statements, based on Lindian's expectations and beliefs concerning future events. Forward-looking statements are necessarily subject to risks, uncertainties and other factors, many of which are outside the control of Lindian, which could cause actual results to differ materially from such statements. Lindian makes no undertaking to subsequently update or revise the forward-looking statements made in this announcement, to reflect the circumstances or events after the date of the announcement.

<sup>&</sup>lt;sup>i</sup> Refer ASX:LIN announcements dated 1 August 2022 and 13<sup>th</sup> October 2022



HOLE ID	EAST (WGS84)	NORTH (WGS84)	RL	DIP	AZIMUTH	Drill Type
22KKDD001	705320	8327050	791	-55	90	Core
22KKRC001	705489	8327067	795	-65	300	RC
22KKRC002	705489	8327067	795	-65	270	RC
22KKRC003	705489	8327067	795	-45	270	RC

UTM WGS84 Zone 36 South (UTM WGS84 Z36S)

## JORC Code, 2012 Edition - Table 1 report template

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	Drill sampling
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	Core and reverse circulation



Drill sample recovery	<ul> <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>	Top 10 metres has broken ground with estimations of 50% recovery. Below 10m sample recovery improves to greater than 80%. These are preliminary estimates and requires validation and final assessment.
Logging	<ul> <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>	Logging is appropriate to carbonatite mineralisation by experienced and qualified geologists
Sub-sampling techniques and sample preparation	<ul> <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 to maximise representivity of samples.</li> <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>	For visual identification of monazite and no sub sampling has occurred.
Quality of assay data and laboratory tests	<ul> <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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</li> </ul>	Not applicable – visual inspection



Verification of sampling and assaying	<ul> <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>	Not applicable – several geologists have reviewed the visual identification for collaborative verification
Location of data points	<ul> <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>	GPS units used to locate drill holes that require accurate survey at the end of the programme.
Data spacing and distribution	<ul> <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>	Visual inspection of drill core and chips by qualified geologists
Orientation of data in relation to geological structure	<ul> <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>	na
Sample security	The measures taken to ensure sample security.	na
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	In progress

## **Section 2 Reporting of Exploration Results**

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

Criteria .	JORC Code explanation	Commentary
and land tenure	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures,	MML0290/22 owned by Rift Valley Resource Developments Limited



	interests, historical sites, wilderness or national	
	park and environmental settings.	
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Lonrho Plc 1970's BRGM 1990's
Geology	Deposit type, geological setting and style of mineralisation.	Carbonatite intrusive with monazite mineralisation surrounded by monazite bearing carbonatite host rock breccia.
Drillhole information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:  • easting and northing of the drillhole collar  • elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar  • dip and azimuth of the hole  • downhole length and interception depth  • hole length.  If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	Refer table
Data aggregation methods	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.  Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.  The assumptions used for any reporting of metal equivalent values should be clearly stated.	Not applicable to visual inspection
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.  If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.  If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').	Monazite mineralisation is variable in proportion but visible in drill core and chips.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.	Refer text



Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	Visual estimates of proportions of monazite in samples by geologists has been excluded.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	na
Further work	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.	Continue drilling, sampling, assaying, and logging.