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Cobra Resources PLC
16 December 2024

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16 December 2024

Cobra Resources plc
("Cobra" or the "Company")

Further Positive Metallurgy Results from Boland Project

Results further support high productivity, low extraction costs and high recoveries

Preparing to commence resource drilling

Cobra (LSE: COBR) the mineral exploration and development company advancing a potentially world-class ionic Rare Earth Elements ("REEs") discovery at its Boland Project in South Australia, is pleased to announce further results from bench scale in situ recovery ("ISR") testing that support bottom quartile recovery costs. The results are a function of Boland's unique geology where ionic rare earth mineralisation is hosted within permeable sands. These results highlighted below further support the project's potential for efficient, low-cost extraction, positioning Boland as a highly competitive asset in the global REE market.

Summary

- **High Recoveries -** Exceptional recoveries of **68%** Magnet Rare Earths ("MREOs") and **62%** Heavy Rare Earths ("HREOs")
- **Rapid Recoveries -** 22% MREOs and 31% HREOs recovered within 24 hours in the second bench scale study with further recoveries expected over increased timeframes
- **High Productivity -** Achieved by high mineralisation permeabilities, reducing recovery timeframes and reducing wellfield configuration costs
- **Low Extraction Costs -** Low acid consumption and low impurities supporting a simple flowsheet, requiring low capital intensity
- **Low-Cost Flowsheet Tests Completed -** a precursor to producing a saleable product - ambient temperature filtration and impurity removal steps completed

Preparing to drill

The Company is currently in the field preparing for upcoming resource drilling, aimed at testing the scale of the mineralisation footprint at Boland whilst forming sufficient geological confidence to support an economic evaluation through a scoping study.

Rupert Verco, CEO of Cobra, commented:

"Results from our ongoing metallurgical studies keep getting better. These latest results demonstrate the basis of our investment opportunity: high recoveries of critical rare earth metals at low-cost inputs, through a mining process that minimises environmental risk and capital expenditure.

As we prepare to commence resource drilling, we are excited to demonstrate the scale potential at Boland. We have demonstrated a significant mineralised footprint, but this drilling will enable the Company to estimate a resource that will support initial economic evaluations in the form of a scoping study."

Metallurgy Results Highlights

- Increased final rare earth recoveries demonstrated by residue assays from Bench Scale ISR Study 1:
    - Achieved over 150 days (0.14 pore volumes per day) by decreasing the pH from 7.1 to 3.0 through the addition of ammonium sulphate (AMSUL) (H_2SO_4)

- Low acid consumption of 15 kg/t H_2SO_4
- Low levels of impurities including uranium and thorium, allowing for simple ambient temperature impurity removal techniques
- Valuable MREO recoveries increased from 57% to **68%** MREO
- Strategic HREO recoveries increased from 50% to **62%** HREO
- Final head grade of sample calculated at **4,447** ppm Total Rare Earth Oxides ("TREO") including **865** ppm Nd_2O_3 + Pr_6O_{11} and **128** ppm Dy_2O_3 + Tb_2O_3

- Exceptional permeability demonstrated in Bench Scale ISR Study 2 suggesting potential for further cost reductions:
    - Valuable MREO recoveries of **22%** MREO within 24 hours
    - Strategic HREO recoveries of **31%** HREO within 24 hours
    - Study completed within 24 hours (43 pore volumes) where the pH was lowered from ~7.1 to pH 2.0
    - Total acid consumption was exceptionally low at **0.9** kg/t H_2SO_4
    - Final head grade of sample calculated at **1,103** ppm TREO including **204** ppm Nd_2O_3 + Pr_6O_{11} and **26** ppm Dy_2O_3 + Tb_2O_3
    - Low impurity levels with a TREY:Al ratio of 4.7:1
    - Further REE recoveries anticipated with increased timeframes

- The exceptional permeability achieved in the second bench scale study support higher anticipated permeabilities through Zone 3 mineralisation

- The Company has engaged the Australian Nuclear Science and Technology Organisation ("ANSTO") to determine the optimal flowsheet steps required to produce a Mixed Rare Earth Carbonate ("MREC"). The status of this work is summarised below:

    1. Upfront filtration to reduce iron (completed with assays pending)
    2. Impurity precipitation by targeted pH adjustment (completed with assays pending)
    3. Mixed Rare Earth Carbonate Precipitation (outstanding, subject to the determination of the optimal pH defined in step 2)

Boland Project

Cobra's unique and highly scalable Boland discovery is a strategically advantageous ionic rare earth discovery where high grades of valuable HREOs and MREOs occur concentrated in a permeable horizon confined by impermeable clays. Bench scale ISR testing has confirmed that mineralisation is amenable to ISR mining. ISR has been used successfully for decades within geologically similar systems to recover uranium within South Australia. Results of this metallurgical test work support that, with minor optimisation, ISR techniques should enable non-invasive and low-cost production of critical REEs from Cobra's Boland discovery.

Follow this link to watch a short video of CEO Rupert Verco explaining the results released in this announcement: https://investors.cobraplc.com/link/NPwpGy

Further information relating to Boland and these metallurgical results are presented in the appendices.

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The person who arranged for the release of this announcement was Rupert Verco, Managing Director of the Company.

Information in this announcement relates to exploration results that have been reported in the following announcements:

- Wudinna Project Update: "2nd Bench Scale ISR Study & £1.7M Placing", dated 26 November 2024
- Wudinna Project Update: "ISR Bench Scale Study Completion", dated 4 November 2024
- Wudinna Project Update: "ISR bench scale study delivers exceptional results", dated 1 October 2024
- Wudinna Project Update: "ISR bench scale update - Exceptionally high recoveries with low impurities and low acid consumption; on path to disrupt global supply of heavy rare earths", dated 28 August 2024
- Wudinna Project Update: "ISR bench scale update - Further metallurgical success at world leading ISR rare earth

project", dated 11 July 2024

- Wudinna Project Update: "ISR bench scale update - Exceptional head grades revealed", dated 18 June 2024
- Wudinna Project Update: "Re-Assay Results Confirm High Grades Over Exceptional Scale at Boland", dated 26 April 2024
- Wudinna Project Update: "Drilling results from Boland Prospect", dated 25 March 2024
- Wudinna Project Update: "Historical Drillhole Re-Assay Results", dated 27 February 2024
- Wudinna Project Update: "Ionic Rare Earth Mineralisation at Boland Prospect", dated 11 September 2023
- Wudinna Project Update: "Exceptional REE Results Defined at Boland", dated 20 June 2023

Competent Persons Statement

The information in this report that relates to metallurgical results is based on information compiled by Cobra Resources and reviewed by Mr Conrad Wilkins who is the Group Process Engineering Lead at Wallbridge Gilbert Aztec, a Fellow of the Australian Institute of Mining and Metallurgy (FAusIMM), Chartered Professional Engineer and Member of Engineers Australia (CPEng MIEAust). Mr Wilkins has sufficient experience that is relevant to the metallurgical testing which was 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 Wilkins consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

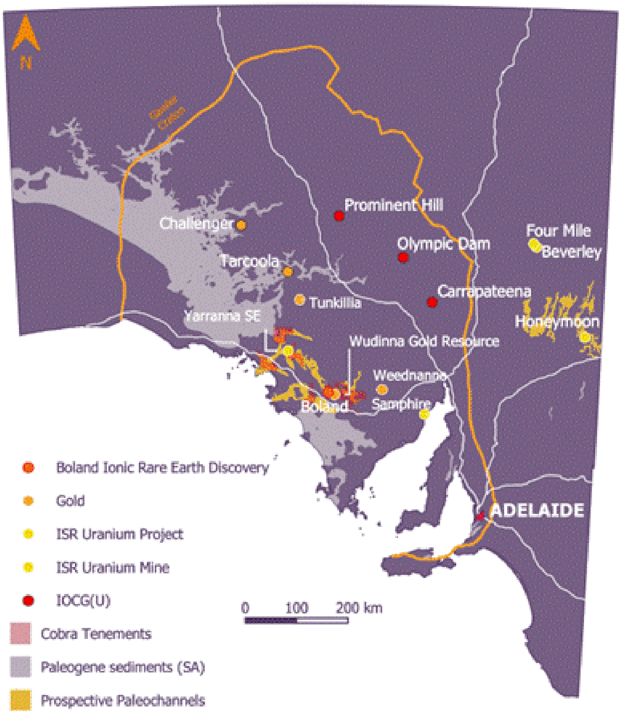
Information in this announcement has been assessed by Mr Rupert Verco, a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Verco is an employee of Cobra and has more than 16 years' industry experience which is relevant to the style of mineralisation, deposit type, and activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves of JORC. This includes 12 years of Mining, Resource Estimation and Exploration.

About Cobra

In 2023, Cobra discovered a rare earth deposit with the potential to re-define the cost of rare earth production. The highly scalable Boland ionic rare earth discovery at Cobra's Wudinna Project in South Australia's Gawler Craton is Australia's only rare earth project amenable for in situ recovery (ISR) mining - a low cost, low disturbance method enabling bottom quartile recovery costs without any need for excavation or ground disturbance. Cobra is focused on de-risking the investment value of the discovery by proving ISR as the preferred mining method and testing the scale of the mineralisation footprint through drilling.

Cobra's Wudinna tenements also contain extensive orogenic gold mineralisation, including a 279,000 Oz gold JORC Mineral Resource Estimate, characterised by low levels of over-burden, amenable to open pit mining.

Regional map showing Cobra's tenements in the heart of the Gawler Craton



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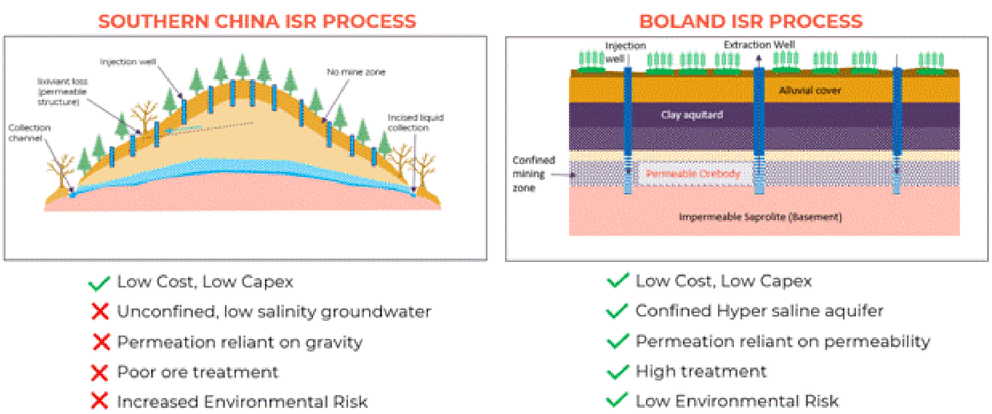
Appendix 1: Background information - the Boland Project and ISR

- The Boland Project was discovered by Cobra in 2023. Mineralisation is ionically bound to clays and organics within palaeochannel sands within the Narlaby Palaeochannel
- Mineralisation occurs within a permeable sand within an aquifer that is saltier than sea water and is confined by impermeable clays
- ISR is executed through engineered drillhole arrays that allow the injection of mildly acidic ammonium sulphate lixiviants, using the confining nature of the geology to direct and lower the acidity of the orebody. This low-cost process enables mines to operate profitably at lower grades and lower rates of recovery
- Once REEs are mobile in solution in groundwater, it is also possible, from an engineering standpoint, to recover the solution to surface via extraction drillholes, **without any need for excavation or ground disturbance**
- The capital costs of ISR mining are low as they involve no material movements and do not require traditional infrastructure to process ore **- i.e. metals are recovered in solution**
- Ionic mineralisation is highly desirable owing to its high weighting of valuable HREOs and the cost-effective method in which REEs can be desorbed
- Ionic REE mineralisation in China is mined in an in-situ manner that relies on gravity to permeate mineralisation. The style of ISR process is unconfined and cannot be controlled, increasing the risk for environmental degradation. This low-cost process has enabled China to dominate mine supply of HREOs, supplying over 90% globally
- Confined aquifer ISR is successfully executed globally within the uranium industry, accounting for more than 60% of the world's uranium production. This style of ISR has temporary ground disturbance, and the ground waters are regenerated over time
- Cobra is aiming to demonstrate the economic and environmental benefits of recovering ionic HREOs through the more environmentally aquifer controlled ISR - a world first for rare earths

Figure 1: Comparison between the Chinese and the proposed Boland process for ISR mining of REEs



Appendix 2: ISR study process and results

An initial bench scale study successfully confirmed favourable recoveries through ISR techniques and validated a 'proof of concept'. Owing to the homogenisation process applied to preparing the sample, lower than expected permeabilities were achieved. A second bench scale study was conducted on a section of Zone 3 core, with the permeability anticipated to remain unaffected by the sample preparation process.

Why have recoveries of Bench Scale ISR Study 1 changed?

Ionic REE mineralisation can contain highly variable concentrations of REEs. Through sample preparation, two estimations of sample grade were made:

1. Composite interval estimate - estimated by taking sub-samples of narrow composite intervals
2. Homogenised subsample estimate - taken from the final homogenised sample

The homogenised subsample estimate method returned a 16% higher head grade than the composite interval estimate method, and was subsequently applied throughout the study to calculate the recoveries being achieved.

At the completion of the bench scale study, samples of the remaining residue were taken. When combined with the recovered quantities of REEs in solution, a final calculated head grade can be achieved. The results of each head grade calculation are shown in Table 1 below:

Table 1: Comparative head grade estimates of Bench Scale ISR Study 1

Grade Measurement Method	Pr_6O_{11}	Nd_2O_3	Tb_2O_3	Dy_2O_3	HREO	TREO
Composite Interval	183	708	19	112	1,239	**4,506**
Homogenised Subsample	213	855	22	130	1,450	**5,252**
Final Calculated Head	184	724	19	109	1,191	**4,447**

Results of the study demonstrate:

- **Orebody characteristics are amenable to ISR mining -** a maximum permeability rate of 0.16 pore volumes per day which is comparable to permeability rates of operating uranium mines
- **High ionic REE recoveries** of 66% TREO, 68% MREO and 62% HREO achieved by lowering the sample acidity to pH 3
- **Low acid consumption** of 15.0 kg/t H_2SO_4
- **High purity REE extraction**: low impurity levels that support a simple purification process

Figure 2: Cumulative recoveries of REE to PLS plotted against PLS acidity in Bench Scale ISR Study 1 (compared to previously reported recoveries)

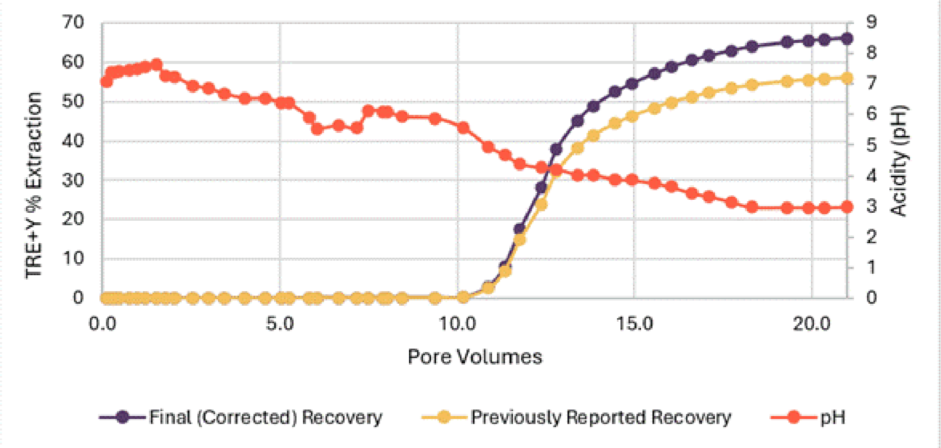


Table 2: Head grade and subsequent recoveries of Bench Scale ISR Study 1

Hole ID	Sample ID	Sample Head Grade (ppm)				
		TREO	Nd_2O_3	Pr_6O_{11}	Dy_2O_3	Tb_2O_3
CBSC0004	COBR-3	4,447	724	184	109	19
Bench Scale ISR Recoveries		66%	72%	69%	42%	44%

Results of Bench Scale ISR Study 2

To assess the potential impact the incorporation of underlying saprolite may have had on the permeabilities achieved within Bench Scale ISR Study 1, a second test was performed on a second section of Boland core retained from drillhole CBSC0002. The test was performed using AMSUL 0.5M lixiviant at pH 2. The results of this study demonstrate:

- **High Productivity -** Achieved by high mineralisation permeability, reducing recovery timeframes and reducing wellfield configuration costs:
    - A total of 43 pore volumes were achieved in less than 24 hours. This is over double the amount of pore volumes achieved in the initial study (achieved in ~150 days)
    - These increased rates support increased productivity potential through ISR
- **Rapid Recovery -** Achieved 22% MREO and 31% HREO within 24 hours:
    - Higher flow rates are thought to have impacted lixiviant contact, higher recoveries expected at lower flow rates and increased residence time
    - This is easily optimised by managing pump rates and residence times
    - HREO recoveries more rapid than LREO recoveries supporting desired ratios of valuable REEs
- **Low Acid Consumption -** Recoveries achieved with minimal sulphuric acid consumption of 0.9 kg/t

- **Low Impurities -** Impurity levels remain low despite a reduction in pH from pH 3 to pH 2 and a lower sample grade.

Residue sample assays remain outstanding.

Table 3: Head grade and subsequent recoveries of Bench Scale ISR Study 2

Hole ID	Sample ID	Sample Head Grade (ppm)				
		TREO	Nd_2O_3	Pr_6O_{11}	Dy_2O_3	Tb_2O_3
CBSC0002	141245-6	1,103	149	54	23	3.4
Bench Scale ISR Recoveries		19.5%	23%	16%	31%	35%

Figure 3: Individual Magnet REE recoveries achieved within 24 hours of Bench Scale ISR Study 2

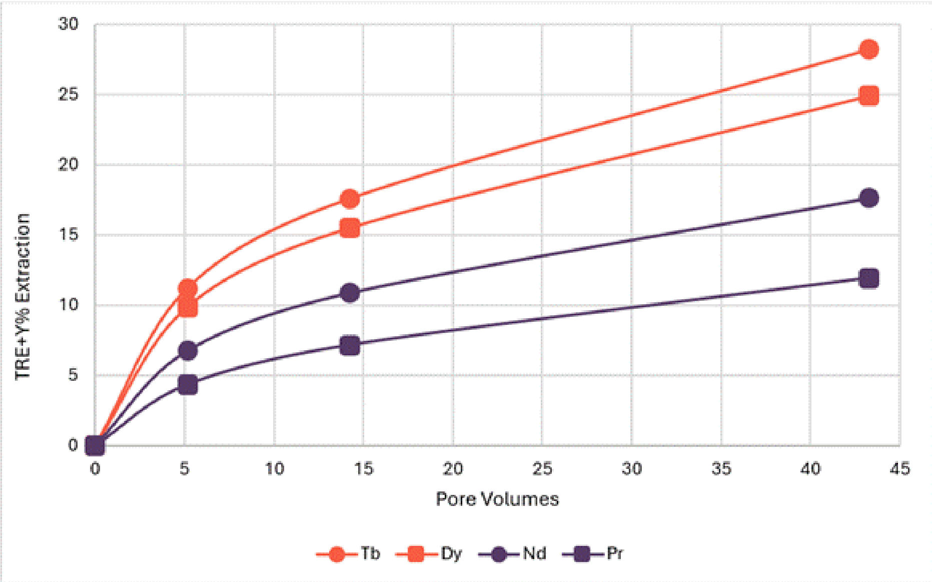


Table 4: Total Rare Earths and impurities reporting to pregnant liquor (mg/L)

TREY	Al	Fe	Si	U	Th
30.54	7.08	28.13	4.93	0.52	0.08

Appendix 3: JORC Code, 2012 Edition - Table 1

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	**2024** SONIC • Core was scanned by a SciAps X555 pXRF to determine sample intervals. Intervals through mineralized zones were taken at 10cm. Through waste, sample intervals were lengthened to 50cm. Core was halved by knife cutting. XRF scan locations were taken on an inner surface of the core to ensure readings were taken on fresh sample faces. Full core samples were submitted to Australian Nuclear Science and Technology Organisation (ANSTO), Sydney for XRF analysis and to ALS Geochemistry Laboratory (Brisbane) on behalf of ANSTO for lithium tetraborate digest ICP-MS. The core was split in half along the vertical axis, and one half further split into 10 even fractions along the length of the half-core. Additional sub-sampling, homogenisation and drying steps were performed to generate ~260 g (dry equivalent) samples for head assay according to the laboratory internal protocols.
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,*	2024 • Sonic Core drilling completed Star Drilling using 4" core with a SDR12 drill rig. Holes were reamed to 6" or 8" to enable casing

	depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	and screens to be installed
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	Aircore & RC • Sample recovery was generally good. All samples were recorded for sample type, quality and contamination potential and entered within a sample log. • In general, sample recoveries were good with 10 kg for each 1 m interval being recovered from AC drilling. • No relationships between sample recovery and grade have been identified. • RC drilling completed by Bullion Drilling Pty Ltd using 5 ¾" reverse circulation drilling techniques from a Schramm T685WS rig with an auxiliary compressor • Sample recovery for RC was generally good. All samples were recorded for sample type, quality and contamination potential and entered within a sample log. • In general, RC sample recoveries were good with 35-50 kg for each 1 m interval being recovered. • No relationships between sample recovery and grade have been identified. Sonic Core • Sample recovery is considered excellent.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	Sonic Core • Logging was carried out in detail, determining lithology and clay/ sand content. Logging intervals were lithology based with variable interval lengths. • All core drilled has been lithologically logged.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Sonic Drilling • Field duplicate samples were taken nominally every 1 in 25 samples where the sampled interval was quartered. • Blanks and Standards were submitted every 25 samples • Half core samples were taken where lab geochemistry sample were taken. • In holes where column leach test samples have been submitted, full core samples have been submitted over the test areas.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	Sample Characterisation Test Work performed by the Australian Nuclear Science and Technology Organisation (ANSTO) • Full core samples were submitted to Australian Nuclear Science and Technology Organisation (ANSTO), Sydney for preparation and analysis. The core was split in half along the vertical axis, and one half further split into 10 even fractions along the length of the half-core. Additional sub-sampling, homogenisation and drying steps were performed to generate ~260 g (dry equivalent) samples for head assay according to the laboratory internal protocols. • Multi element geochemistry of solid samples were analysed at ANSTO (Sydney) by XRF for the major gangue elements Al, Ca, Fe, K, Mg, Mn, Na, Ni, P, Si, S, and Zn. • Multi element geochemistry of solid samples were additionally analysed at ALS Geochemistry Laboratory (Brisbane) on behalf of ANSTO by lithium tetraborate digest, ICP-MS and analysed for Ce, Dy,

		digest ICP-MS and analysed for Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Nd, Pr, Sm, Tb, Th, Tm, U, Y and Yb.
		• Reported assays are to acceptable levels of accuracy and precision.
		• Internal laboratory blanks, standards and repeats for rare earths indicated acceptable assay accuracy.
		• Samples retained for metallurgical analysis were immediately vacuum packed, nitrogen purged and refrigerated.
		• These samples were refrigerated throughout transport.
		
		Metallurgical Leach Test Work performed by the Australian Nuclear Science and Technology Organisation (ANSTO)
		
		• ANSTO laboratories prepared ~80g samples for diagnostic leaches, a 443g sample for a slurry leach and a 660g sample for a column leach. Sub-samples were prepared from full cores according to the laboratory internal protocols. Diagnostic and slurry leaching were carried out in baffled leach vessels equipped with an overhead stirrer and applying a 0.5 M $(NH_4)_2SO_4$ lixiviant solution, adjusted to the select pH using H_2SO_4.
		• 0.5 M H_2SO_4 was utilised to maintain the test pH for the duration of the test, if necessary. The acid addition was measured.
		• Thief liquor samples were taken periodically.
		• At the completion of each test, the final pH was measured, the slurry was vacuum filtered to separate the primary filtrate.
		• The thief samples and primary filtrate were analysed as follows:
		  o ICP-MS for Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Mn, Nd, Pb, Pr, Sc, Sm, Tb, Th, Tm, U, Y, Yb.
		  o ICP-OES for Al, Ca, Fe, K, Mg, Mn, Na, Si.
		• The water wash was stored but not analysed.
		• Column leaching was carried out in horizontal leaching column. The column was pressurised with nitrogen to 6 bar and submerged in a temperature controlled bath.
		• A 0.5 M $(NH_4)_2SO_4$ lixiviant solution, adjusted to the select pH using H_2SO_4 was fed to the column at a controlled flowrate.
		• PLS collected from the end of the column was weighed, the SH and pH measured and the free acid concentration determined by titration. Liquor samples were taken from the collected PLS and analysed as follows:
		  o ICP-MS for Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Mn, Nd, Pb, Pr, Sc, Sm, Tb, Th, Tm, U, Y, Yb.
		  o ICP-OES for Al, Ca, Fe, K, Mg, Mn, Na, Si.
		• The column leach test has been completed. Assays of the column have adjusted head grades of the initial bench scale study. Recoveries have been adjusted accordingly.

Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Sampling data was recorded in field books, checked upon digitising and transferred to database. • Geological logging was undertaken digitally via the MX Deposit logging interface and synchronised to the database at least daily during the drill programme. • Compositing of assays was undertaken and reviewed by Cobra Resources staff. • Original copies of laboratory assay data are retained digitally on the Cobra Resources server for future reference.

		Resources server for future reference. • Samples have been spatially verified through the use of Datamine and Leapfrog geological software for pre 2021 and post 2021 samples and assays. • Twinned drillholes from pre 2021 and post 2021 drill programmes showed acceptable spatial and grade repeatability. • Physical copies of field sampling books are retained by Cobra Resources for future reference. • Elevated pXRF grades were checked and re-tested where anomalous. pXRF grades are semi quantitative.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	Pre 2021 • Collar locations were pegged using DGPS to an accuracy of +/-0.5 m. • Downhole surveys have been completed for deeper RC and diamond drillholes • Collars have been picked up in a variety of coordinate systems but have all been converted to MGA 94 Zone 53. Collars have been spatially verified in the field. • Collar elevations were historically projected to a geophysical survey DTM. This survey has been adjusted to AHD using a Leica CS20 GNSS base and rover survey with a 0.05 cm accuracy. Collar points have been re-projected to the AHD adjusted topographical surface. 2021-onward • Collar locations were initially surveyed using a mobile phone utilising the Avenza Map app. Collar points recorded with a GPS horizontal accuracy within 5 m. • RC Collar locations were picked up using a Leica CS20 base and Rover with an instrument precision of 0.05 cm accuracy. • Locations are recorded in geodetic datum GDA94 zone 53. • No downhole surveying was undertaken on AC holes. All holes were set up vertically and are assumed vertical. • RC holes have been down hole surveyed using a Reflex TN-14 true north seeking downhole survey tool or Reflex multishot • Downhole surveys were assessed for quality prior to export of data. Poor quality surveys were downgraded in the database to be excluded from export. • All surveys are corrected to MGA94 Zone 53 within the MX Deposit database. • Cased collars of sonic drilling shall be surveyed before a mineral resource estimate
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Drillhole spacing was designed on transects 50-80 m apart. Drillholes generally 50-60 m apart on these transects but up to 70 m apart. • Additional scouting holes were drilled opportunistically on existing tracks at spacings 25-150 m from previous drillholes. • Regional scouting holes are drilled at variable spacings designed to test structural concepts • Data spacing is considered adequate for a saprolite hosted rare earth Mineral Resource estimation. • No sample compositing has been applied • Sonic core holes were drilled at ~20m spacings in a wellfield configuration based on assumed permeability potential of the intersected geology.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Aircore and Sonic drill holes are vertical.
Sample security	• *The measures taken to ensure sample security.*	• Transport of samples to Adelaide was undertaken by a competent independent contractor. Samples were packaged in zip tied

		polyweave bags in bundles of 5 samples at the drill rig and transported in larger bulka bags by batch while being transported. • Refrigerated transport of samples to Sydney was undertaken by a competent independent contractor. Samples were double bagged, vacuum sealed, nitrogen purged and placed within PVC piping. • There is no suspicion of tampering of samples.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No laboratory audit or review has been undertaken. • Genalysis Intertek and BV Laboratories Adelaide are NATA (National Association of Testing Authorities) accredited laboratory, recognition of their analytical competence.

Appendix 4: Section 2 reporting of exploration results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• RC drilling occurred on EL 6131, currently owned 100% by Peninsula Resources limited, a wholly owned subsidiary of Andromeda Metals Limited. • Alcrest Royalties Australia Pty Ltd retains a 1.5% NSR royalty over future mineral production from licenses EL6001, EL5953, EL6131, EL6317 and EL6489. • Baggy Green, Clarke, Laker and the IOCG targets are located within Pinkawillinnie Conservation Park. Native Title Agreement has been negotiated with the NT Claimant and has been registered with the SA Government. • Aboriginal heritage surveys have been completed over the Baggy Green Prospect area, with no sites located in the immediate vicinity. • A Native Title Agreement is in place with the Barngarla People.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• On-ground exploration completed prior to Andromeda Metals' work was limited to 400 m spaced soil geochemistry completed by Newcrest Mining Limited over the Barns prospect. • Other than the flying of regional airborne geophysics and coarse spaced ground gravity, there has been no recorded exploration in the vicinity of the Baggy Green deposit prior to Andromeda Metals' work. • Paleochannel uranium exploration was undertaken by various parties in the 1980s and the 2010s around the Boland Prospect. Drilling was primarily rotary mud with downhole geophysical logging the primary interpretation method.

Geology	• *Deposit type, geological setting and style of mineralisation.*	• The gold and REE deposits are considered to be related to the structurally controlled basement weathering of epidote- pyrite alteration related to the 1590 Ma Hiltaba/GRV tectonothermal event.
		• Mineralisation has a spatial association with mafic intrusions/granodiorite alteration and is associated with metasomatic alteration of host rocks. Epidote alteration associated with gold mineralisation is REE enriched and believed to be the primary source.
		• Rare earth minerals occur within the saprolite horizon. XRD analysis by the CSIRO identifies kaolin and montmorillonite as the primary clay phases.
		• SEM analysis identified REE bearing mineral phases in hard rock:
		  • Zircon, titanite, apatite, andradite and epidote.
		• SEM analyses identifies the following secondary mineral phases in saprock:
		  • Monazite, bastanite, allanite and rutile.
		• Elevated phosphates at the base of saprock do not correlate to rare earth grade peaks.
		• Upper saprolite zones do not contain identifiable REE mineral phases, supporting that the REEs are adsorbed to clay particles.

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Acidity testing by Cobra Resources supports that pH chemistry may act as a catalyst for Ionic and Colloidal adsorption.
REE mineral phase change with varying saprolite acidity and REE abundances support that a component of REE bursary is adsorbed to clays.
Palaeo drainage has been interpreted from historic drilling and re-interpretation of EM data that has generated a top of basement model.
Ionic REE mineralisation is confirmed through metallurgical desorption testing where high recoveries are achieved at benign acidities (pH4-3) at ambient temperature.
Ionic REE mineralisation occurs in reduced clay intervals that contact both saprolite and permeable sand units. Mineralisation contains variable sand quantities that yield permeability and promote insitu recovery potentail

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<td>Drillhole Information</td>
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A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:

easting and northing of the drill hole collar
elevation or RL (Reduced Level - elevation above sea level in metres) of the drill hole collar
dip and azimuth of the hole
down hole length and interception depth
hole length.

If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.

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Exploration results being reported represent a small portion of the Boland target area. Coordinates for Wellfield drill holes are presented in Table 3.

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<td>Data aggregation methods</td>
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In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.
Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.
The assumptions used for any reporting of metal equivalent values should be clearly stated.

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Reported summary intercepts are weighted averages based on length.
No maximum/ minimum grade cuts have been applied.
No metal equivalent values have been calculated.
Gold results are reported to a 0.3 g/t cut-off with a maximum of 2m internal dilution with a minimum grade of 0.1 g/t Au.
Rare earth element analyses were originally reported in elemental form and have been converted to relevant oxide concentrations in line with industry standards. Conversion factors tabulated below:

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<tr><th>Element</th><th>Oxide</th><th>Factor</th></tr>
<tr><td>Cerium</td><td>CeO_2</td><td>1.2284</td></tr>
<tr><td>Dysprosium</td><td>Dy_2O_3</td><td>1.1477</td></tr>
<tr><td>Erbium</td><td>Er_2O_3</td><td>1.1435</td></tr>
<tr><td>Europium</td><td>Eu_2O_3</td><td>1.1579</td></tr>
<tr><td>Gadolinium</td><td>Gd_2O_3</td><td>1.1526</td></tr>
<tr><td>Holmium</td><td>Ho_2O_3</td><td>1.1455</td></tr>
<tr><td>Lanthanum</td><td>La_2O_3</td><td>1.1728</td></tr>
<tr><td>Lutetium</td><td>Lu_2O_3</td><td>1.1371</td></tr>
<tr><td>Neodymium</td><td>Nd_2O_3</td><td>1.1664</td></tr>
<tr><td>Praseodymium</td><td>Pr_6O_{11}</td><td>1.2082</td></tr>
<tr><td>Scandium</td><td>Sc_2O_3</td><td>1.5338</td></tr>
<tr><td>Samarium</td><td>Sm_2O_3</td><td>1.1596</td></tr>
<tr><td>Terbium</td><td>Tb_4O_7</td><td>1.1762</td></tr>
<tr><td>Thulium</td><td>Tm_2O_3</td><td>1.1421</td></tr>
<tr><td>Yttrium</td><td>Y_2O_3</td><td>1.2699</td></tr>
<tr><td>Ytterbium</td><td>Yb_2O_3</td><td>1.1387</td></tr>
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The reporting of REE oxides is done so in accordance with industry standards with the following calculations applied:

TREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$

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		• CREO = Nd_2O_3 + Eu_2O_3 + Tb_4O_7 + Dy_2O_3 + Y_2O_3 • LREO = La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 • HREO = Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3 • MREO = Nd_2O_3 + Pr_6O_{11} + Tb_4O_7 + Dy_2O_3 • NdPr = Nd_2O_3 + Pr_6O_{11} • TREO-Ce = TREO - CeO_2 • % Nd = Nd_2O_3/ TREO • % Pr = Pr_6O_{11}/TREO • % Dy = Dy_2O_3/TREO • % HREO = HREO/TREO • % LREO = LREO/TREO • XRF results are used as an indication of potential grade only. Due to detection limits only a combined content of Ce, La, Nd, Pr & Y has been used. XRF grades have not been converted to oxide.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• All reported intercepts at Boland are vertical and reflect true width intercepts. • Exploration results are not being reported for the Mineral Resource area.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Relevant diagrams have been included in the announcement. • Exploration results are not being reported for the Mineral Resources area.
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.*	• Not applicable - Mineral Resource and Exploration Target are defined. • Exploration results are not being reported for the Mineral Resource area.
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.*	• Refer to previous announcements listed in RNS for reporting of REE results and metallurgical testing
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• The metallurgical testing reported in this announcement represents the first phase of bench scale studies to test the extraction of ionic REEs via ISR processes. • ISR study 1 was performed to achieve a pH 3 whilst ISR study 2 was performed at a pH of 2. • Future metallurgical testing will focus on producing PLS under leach conditions to conduct downstream bench-scale studies for impurity removal and product precipitation. • Hydrology, permeability and mineralogy studies are being performed on core samples. • Installed wells are being used to capture hydrology base line data to support a future infield pilot study. • Trace line tests shall be performed to emulate bench scale pore volumes.

Table 3: Drillhole coordinates

Prospect	Hole number	Grid	Northing	Easting	Elevation
Boland	CBSC0001	GDA94 / MGA zone 53	6365543	534567	102.9
Boland	CBSC0002	GDA94 / MGA zone 53	6365510	534580	104.1
Boland	CBSC0003	GDA94 / MGA zone 53	6365521	534554	102.7

Boland	CBSC0003	GDA94 / MGA zone 53	6365521	534554	102.7
Boland	CBSC0004	GDA94 / MGA zone 53	6365537	534590	105
Boland	CBSC0005	GDA94 / MGA zone 53	6365528	534573	103.2

END

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