23 January 2025

ASX: CRI

FIRST PASS METALLURGICAL TESTWORK DELIVERS 830% RARE EARTH UPGRADE

The Board of Critica Limited (**Critica** or the **Company**) is pleased to announce results from initial metallurgical test work undertaken on its flagship Jupiter Project, which is part of the Brothers Clay-Hosted Rare Earth Project in Western Australia. This initial program focused on beneficiation techniques to upgrade the already high-grade clay-hosted rare earth element (**REE**) mineralisation at Jupiter.

Preliminary results have significantly exceeded expectations, with Critica achieving an upgrade factor of approximately 830%* (9.3x). This was achieved by subjecting a composite sample of Jupiter of representative mineralisation to a simple flotation process at ambient (room) temperature to produce a beneficiated product grading 13,310 ppm (or 1.331%) TREO.

HIGHLIGHTS

- **Initial metallurgical testwork delivers excellent beneficiation outcomes using composite sample of typical Jupiter mineralisation (including low in-situ thorium and uranium).**
- **Preliminary results confirm potential to produce a high-grade concentrate through a simple flotation process at room temperature.**
- **Composite Jupiter sample grading 1,430 ppm TREO upgraded to beneficiated concentrate product grading 13,310 ppm TREO, an effective upgrade factor of over 9.3x.**
- **94.5% Reduction in mass was achieved to produce the beneficiated concentrate.**
- **Importantly this early stage, unoptimised met work has delivered impressive REE recoveries exceeding 50%.**
- **Comprehensive metallurgical testwork ongoing with further results expected over coming months.**

Managing Director, Philippa Leggat, commented:

"We identified early on that Jupiter holds significant economic and development potential given its high in-situ grades, large scale and premier location within a key Western Australian mining hub, enjoying access to significant infrastructure and associated support. With those very real dynamics in mind, we are treating this significant project with the respect it deserves. This means building a strong foundation of robust geological and metallurgical data via rigorous technical work, targeting the establishment and derisking of a valuable, intergenerational development opportunity.

"This initial metallurgical testwork is deliberately focused on the ability to upgrade our already-impressive in-situ REE head grade to a first-pass beneficiated concentrate. The impressive early results deliver a near ten-fold increase in grade through a simple flotation at ambient temperature. Combined with impressive unoptimised first-pass rare earth recoveries of over 50%, these results have hugely exceeded our initial beneficiation ambitions. While only the first process stage under consideration, this places Critica in an excellent position to continue our comprehensive metallurgical programs. These programs are designed to construct a technically robust and economically efficient process pathway for this large-scale commercial and strategic REE opportunity.

"The maiden Mineral Resource Estimate for Jupiter is presently in the advanced stages of preparation, driven by leading geological house, SRK Consulting. We look forward to its completion and release in coming weeks."

METALLURGICAL PROGRAM

Metallurgical work to date has been focused on beneficiation techniques designed to remove non-mineralised material and concentrate rare earth mineralisation. Several independent Australian based and international laboratories have been engaged to test a number of techniques. As part of this initial program Critica engaged Vietnamese based GAVAQ Solution to target gangue removal and flotation.

** 1,430ppm TREO x 9.3x = 13, 310ppm TREO (Upgrade equates to 100% original plus 830% upgrade).*

GAVAQ were provided with a 51kg sample composited from seven representative drill holes, with an overall head assay grade of 1,430ppm TREO (refer to Table 1 and 2). The sample was initially screened to determine size fraction distribution with results concluding that the REE's occurred predominantly in the fine fraction (less than 30µm) and as hydrated phosphate minerals. The sample was ground to a 100% passing 0.2mm and scrubbed (attrition) before undergoing wet, low intensity magnetic separation to remove iron minerals (hematite and magnetite). This work was followed by several flotation tests completed at ambient (room) temperature and in a mildly alkaline solution (pH 8.5) to assess the efficiency of a number of REE collectors. The collectors utilised achieved a concentrate grade of 13,310ppm TREO which represents a 9.3x upgrade in rare earths, with 51% of the rare earths recovered and reporting to the concentrate. In addition, an overall reduction in mass of 94.5% was achieved with the concentrate being reduced to only 5.5% of the original sample mass.

NEXT STEPS

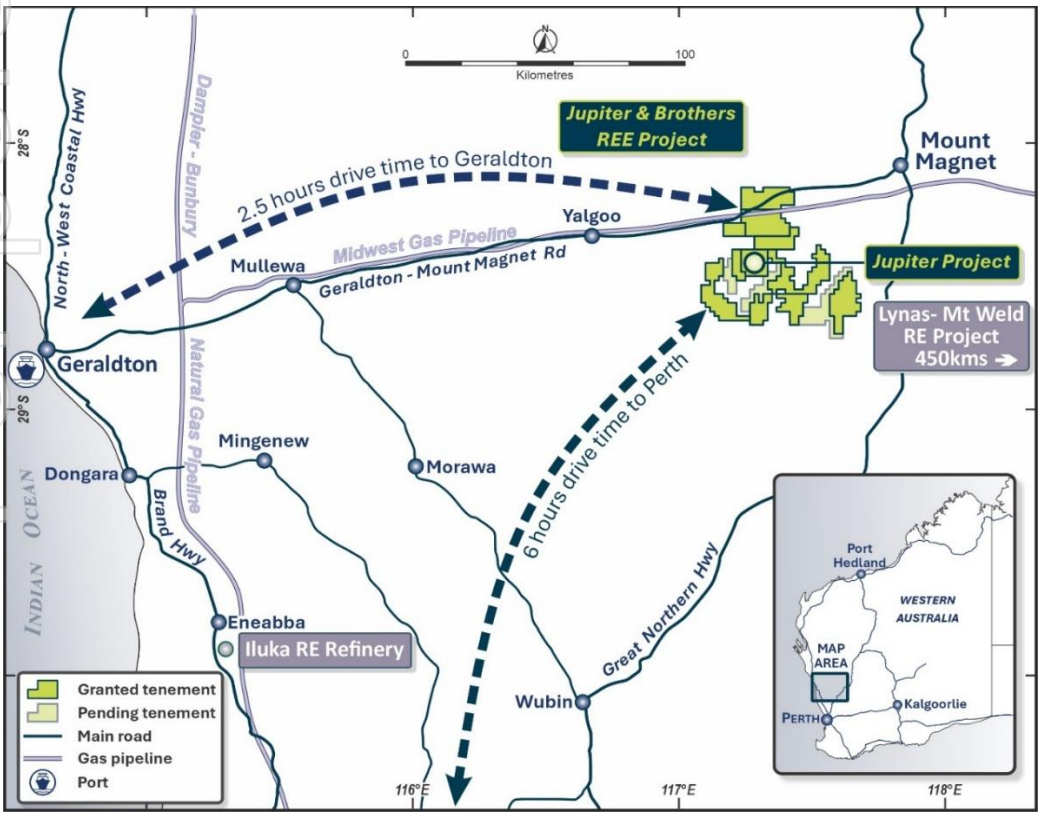
Critica's comprehensive metallurgical testwork programs continue, with the aim of producing high grade concentrates and maximising recoveries.

ABOUT BROTHERS AND JUPITER

Jupiter is a high-grade, clay-hosted rare earth deposit and part of the broader Brothers Project, which was discovered in late 2023. It is strategically located within the Mt Magnet and Yalgoo mining precinct of Western Australia. The terrain at Jupiter is flat, sparsely vegetated, facilitating year-round access.

Jupiter enjoys a myriad of benefits on account of the significant surrounding infrastructure. It is less than 10 km from the bitumen highway that runs between Mount Magnet and Geraldton, providing easy access to local labour centres, the Port of Geraldton and the mid-west gas pipeline that runs parallel to the highway. A unique benefit is that the project is in proximity to Lynas' Mt Weld project and their rare earths concentrator which is currently under construction. Iluka is also planning a rare earth refinery at Eneabba which is within easy driving distance of the site. The driving time from site to Perth is just six hours, and a short two-and-a-half hours to Geraldton.

Figure 1 | Location Map



Jupiter was originally identified by geophysics, then cost-effective air core drilling quickly enabled Critica to advance the project. With Critica's strong cash position, the Company has been able to complete over 38,000 metres of drilling in less than 18 months. Work is underway on metallurgical testwork and the maiden mineral resource estimate.

Jupiter boasts remarkably consistent, rare earth mineralisation over the entire 40 square km^2 project area. Broad, high-grade zones of 20 to 30 metre widths possess grade over 2,000 ppm of Total Rare Earth Oxides (TREO) and these typically occur within circa 80 metre zones of mineralisation that grade over 1,000 ppm TREO. The valuable magnet rare earths (MREO) make up an average of 23 percent of the material which grades over 1,000 ppm TREO. A stand-out feature of the project is the very, low prevalence of thorium and uranium.

In September and October 2024, Critica announced the discovery of five satellite targets at the Brothers Project, situated to the east of Jupiter, and indicate the provincial scale nature of the Brothers Project.

Authorised by the Board of Critica Limited.

Philippa Leggat
Managing Director

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COMPETENT PERSONS STATEMENT

Competent Persons Statement The information in this report that relates to Exploration Results and Exploration Targets is based on information compiled by Dr. Stuart Owen who is a Member of the Australian Institute of Geoscientists. Dr. Owen is a permanent employee of Critica Limited and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr. Owen consents to the inclusion in the report of the matters based on his information in the form and context in which they appear.

The Information in this announcement that relates to previous exploration results for the Projects is extracted from the following ASX announcement:

- Excellent High Grade Continuity at Jupiter and MRE Underway – 27 November 2024
- Best Intersection – 67m @3,074ppm TREO from Latest Jupiter Drilling – 6 November 2024
- Multiple Rare Earth Discoveries Near Jupiter – 17 October 2024
- New Rare Earth Discovery Jupiter Satellite – 17 September 2024
- Another Record Drilling Result – 57m @ 3,430ppm TREO – 17 July 2024
- Best Drill Intersection to date – 58m @ 2,723ppm TREO – 17 June 2024
- 8m @ 5,716ppm TREO- Jupiter Drilling Continues to Outperform – 5 June 2024
- Drilling Delivers More Record REE Intersections at Jupiter – 23 May 2024
- Jupiter-more outstanding REE hits up to 60 m over 2000 ppm – 16 April 2024
- Strategic Acquisition Adjacent to Jupiter REE Discovery – 22 March 2024
- 300 Drillhole Program Commences at Jupiter – 15 March 2024
- Jupiter Continues to Deliver with Record NdPr over 5,000 ppm – 8 March 2024
- Jupiter delivers record drill hit of 48 m @ 3,025 ppm TREO – 9 February 2024
- Jupiter Delivers over 7,000 ppm TREO from Maiden RC Drilling – 29 November 2023
- Massive new REE Target at Brothers with up to 3,969 ppm TREO – 9 November 2023
- VMS makes High Grade clay hosted REE discover at Brothers – 1 August 2023
- Venture set to drill at the Iron Duke High Grade REE Project –18 May 2023
- JV into Neighbouring REE project with 49m @ 1313ppm TREO – 9 May 2023

Notes

1.TREO represents the sum of 14 Rare Earth Elements excluding Promethium plus Yttrium expressed as oxides.

2.MREO represents the sum of the Neodymium, Praseodymium, Dysprosium and Terbium expressed as oxide

Glossary

RE – Rare earth(s)

REE – Rare earth elements

TREO – Total rare earth oxides

MREO – Magnet rare earth oxides

Table 1| Results for Jupiter RE Flotation

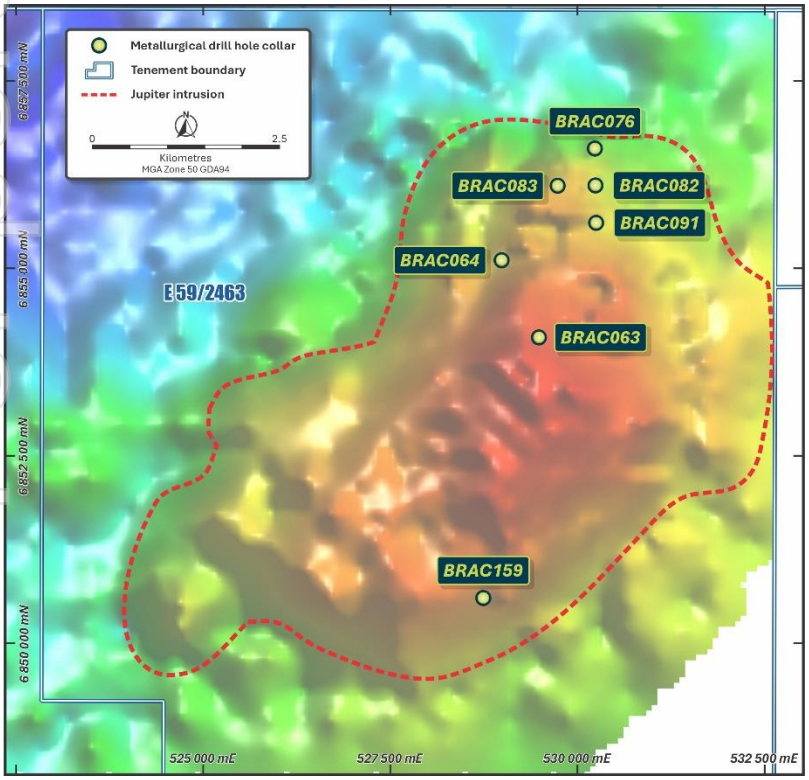
Fraction	Mass %	TREO %	TREO Mass %	Fe%	Fe Mass Recovery %
800 gauss magnetic fraction	7.52	0.012	0.63	64.18	34.95
float concentrate 1	3.33	1.755	40.87	5.82	1.4
float concentrate 2	2.14	0.672	10.05	-	-
Middle	9.39	0.166	10.9	-	-
Tailings	77.61	0.069	37.54	-	-
TOTAL	100	0.143	100		

* Note: Assayed Fe and TREO. Other samples not assayed for Fe.

Table 2 | Collar locations drillholes used in samples

Hole	East MGA Zone 50 GDA94	North MGA Zone 50 GDA94	Interval
BRAC076	530244	6856602	12-16m
BRAC082	530247	6856107	8-28m
BRAC091	530253	6855601	16-24m
BRAC063	529494	6854087	40-44m
BRAC064	529000	6855102	42-44m
BRAC083	529745	6856102	4-16m
BRAC159	528749	6850601	48-56m

Figure 2 | Drillhole Location Map



APPENDIX ONE: JORC CODE, 2012 EDITION | 'TABLE 1' REPORT

Section 1 Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Table Sampling techniques	• Nature and quality of sampling (e.g.: cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. • Measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g.: 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g.: submarine nodules) may warrant disclosure of detailed information.	• The Jupiter metallurgical composite tested by GAVAQ was selected from the seven (7) AC exploration and resource definition drill holes as listed in Section 2 below. • The selected intervals represent iron-rich clay and saprolite zones, grades as previously announced to the ASX. • Sampling was supervised by a suitably qualified Critica geologist.
Drilling techniques	• Drill type (e.g.: core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc..) and details (e.g.: core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc..).	• This metallurgical composite sample subject of this report was selected from seven (7) AC holes drilled with a KL 150 AC rig operated by KTE Mining Services Pty Ltd. • The AC drilling was conducted with a 90mm blade and holes were drilled to blade refusal in near fresh rock.
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.	• The bulk AC samples were visually assessed, weighed and considered representative with overall good recovery.
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.	• All holes were qualitatively geologically logged by suitably qualified Critica geologists. • Mineral Resources have not been estimated. • The detail of geological logging is considered sufficient for exploration and resource definition drilling.
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.	• The metallurgical composite covered 58 m from the 7 listed drill holes • Composited intervals within each drill hole ranged from 2 to 20 m and were collected by sampling spear from the bulk 1 m sample bags, then homogenized by mat rolling, bagged and weighed for supply to GAVAQ. • Total composite weight was c. 51 kg

Criteria	JORC Code explanation	Commentary
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.	• Assaying of the metallurgical composite and products was conducted by GAVAQ and the Vietnam National Institute of Mining – Metallurgy Science and Technology (VIMLUKI).
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.	• The use of twinned holes is not applicable at this stage. • The metallurgical results are compatible with observed mineralogy. • Primary data is stored and documented in industry standard ways. • Critica assay and metallurgical data is as reported by GAVAQ and has not been adjusted in any way.
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.	• Drill hole locations were determined by handheld GPS with a nominal accuracy of +/- 5 metres. • All coordinates and maps presented here are in the MGA Zone 50 GDA94 system. • Topographic control is provided by Worldwide 3 arc second SRTM spot height data.
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.	• The drill holes selected for the GAVAQ metallurgical composite were part of Jupiter exploration and resource definition programs as previously reported to the ASX.
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.	• The AC holes were drilled vertically along E-W drill lines • The intersected clay and saprolite zones blanket weathered syenite-monzonite basement such that downhole thickness approximates true thickness.
Sample security	• The measures taken to ensure sample security.	• The chain of custody for the metallurgical composite from collection to submission to GAVAQ was managed by Critica personnel. and the level of security is considered appropriate.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• The GAVAQ test work was monitored and reviewed by suitably qualified Critica Limited's Senior Metallurgist Dr Dinh Hien.

Section 2 Reporting of Exploration Results
(Criteria listed in the preceding section also apply to this section)

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.	• The Brothers REE Project currently consists of granted Exploration Licences E59/2421, E59/2463, E59/2710, E59/2711, E59/2819, E59/2820, E59/2821, E59/2827, E59/2889, E59/2890, E59/2907, E59/2927, E59/2928, E59/2930, and applications E59/2929 and E21/232. All are 100% held by Tasmanian Rare Earth Pty Ltd a wholly owned subsidiary of Critica Limited.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	• Documented previous explorers within the area now covered by the Brothers Project include North Flinders Mines Ltd, CRA Exploration Pty Ltd, Spark Energy Pty Ltd, Arcadia Minerals Ltd, Babalya Gold Pty Ltd, Burmine Ltd, Equigold NL, Equinox Resources NL, Jervois Mining Ltd, Minjar Gold Pty Ltd, Mount Magnet South NL, Sons of Gwalia Ltd and David Ross. • Refer to previous Critica announcements to the ASX and also available from http://critica.limited
Geology	• Deposit type, geological setting and style of mineralisation.	• The Brothers REE exploration area is situated within the Western Australian Archean Yilgarn Craton and mostly comprises Cenozoic cover sequence overlying an extensive Archaean monzogranite complex (the Big Bell Suite).
Drill hole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: -easting and northing of the drill hole collar -elevation or RL 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.	• Locations and composited intervals for the GAVAQ metallurgical composite are as listed below: Hole | East MGA Zone 50 GDA94 | North MGA Zone 50 GDA94 | Interval BRAC076 | 530244 | 6856602 | 12-16m BRAC082 | 530247 | 6856107 | 8-28m BRAC091 | 530253 | 6855601 | 16-24m BRAC063 | 529494 | 6854087 | 40-44m BRAC064 | 529000 | 6855102 | 42-44m BRAC083 | 529745 | 6856102 | 4-16m BRAC159 | 528749 | 6850601 | 48-56m • All holes were vertical and collar location was determined by handheld Garmin GPS64sx considered accurate to ±5m. • All coordinates and maps presented here are in the MGA Zone 50 GDA94 system. • Topographic control is provided by Worldwide 3 arc second SRTM spot height data. • Refer to previous ASX announcements for relevant intersections and assay results.
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	• Metal equivalents have not been applied. • Refer to previous ASX announcements for relevant Jupiter project intersections and assay results. • Standard element to oxide conversion factors have been used and TREO was calculated on an unrounded basis.

Criteria	JORC Code explanation	Commentary
	should be clearly stated.	
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 (e.g. 'down hole length, true width not known').	• The intersected clay and saprolite zones blanket weathered granitoid basement such that downhole thickness approximate true thickness.
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.	• Appropriate project location maps are included in this release.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	• Refer to previous ASX announcements for relevant Jupiter project intersections and assay results.
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.	• GAVAQ Solution Metallurgical Equipment and Technology Consulting Joint Stock Company, Hanoi, Vietnam was engaged by Critica Limited to undertake beneficiation test work on a c. 51 kg composite of Jupiter clay-hosted REE mineralization as selected by Critica Limited geometallurgist. • The head grade of the composite sample as supplied and determined by GAVAQ was 0.143% TREO. • GAVAQ conducted particle size analysis, multi-element geochemistry, XRD mineralogy, and gravity and magnetic separation work to identify potential process flowsheets. • The process flowsheet used to produce the results reported here comprised grinding to 100% passing 0.2 mm, scrubbing (attrition), then low intensity (800 gauss) magnetic separation to remove the magnetic iron minerals (mainly hematite and magnetite. The non-magnetic fraction was then subject to an open circuit flotation test using combined carboxylate and amine collector, sodium silicate depressant and dextrin dispersant at pH 8.5 and ambient temperatures. • Open circuit flotation concentrate 1 returned 1.8 % TREO, 97% mass reduction and 41% recovery from a feed grade of 1,430 ppm TREO. • Open circuit flotation combined concentrates 1 and 2 returned 1.3 % TREO, 95 % mass reduction and 51 % recovery from a feed grade of 1.430 ppm TREO. • XRD shows hydrated phosphates including fluorapatite/rhabdophane and gorceixite to be the main REE phases, and magnetite and hematite the main magnetic iron phases
Further work	• The nature and scale of planned	• Critica is currently conducting ongoing mineralogy and metallurgical

Fraction	Mass %	TREO %	TREO Mass Recovery %	Fe %	Fe mass recovery %
800gauss magnetic fraction	7.52	0.012	0.63	64.18	34.95
float concentrate 1	3.33	1.755	40.87	5.82	1.4
float concentrate 2	2.14	0.672	10.05	-	-
Middle	9.39	0.166	10.9	-	-
Tailings	77.61	0.069	37.54	-	-
TOTAL	100	0.143	100		-

Criteria	JORC Code explanation	Commentary
	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.	test work, including upgrading of REEs via physical rejection of quartz, feldspar and iron oxides (including potential by-products), other flotation collectors and conditions, closed circuit flotation, and leach testing.