

NANOFILTRATION TECHNOLOGY REDUCES ACID REQUIREMENTS BY OVER 80% AT THE SPLINTER ROCK RARE-EARTH PROJECT

Major improvements in project economics at the high-grade and large scale Splinter Rock REE deposit – JORC Mineral Resource of 682Mt @ 1,338ppm TREO

Highlights:

- **Outstanding 84.5% acid recovery achieved utilising Nanofiltration (NF) technology**
- Significantly lower acid requirements set to **drive major decrease in processing costs and improve project economics**
- **No loss of Rare Earth during acid recovery process**
- **69% reduction in liquid volume sent to Impurity Removal (IR) Circuit**
- Smaller IR circuit size **expected to materially reduce both capital and operating costs**
- **Inside Centre area to be the Cornerstone Deposit**, with an **Indicated Resource of 119Mt @ 1,632ppm TREO** and **79% MagREE heap leach recoveries**
- **Nd & Pr recoveries are consistently high at ~80%**, exceeding benchmarks from leading clay-hosted REE projects.
- **Current near-surface resource covers <10% of the tenement area**, with strong growth potential from further exploration
- **Impurity Removal test results pending**, with strong potential to further reduce processing costs and enhance project economics

Managing Director Brett Hazelden, commented:

"Incorporating nanofiltration into our rare earth heap leach flowsheet is a pivotal advancement for OD6. Acid was anticipated to be one of our top three operating costs, alongside power and labour. Achieving an +80% reduction in acid consumption dramatically improves the project's cost structure.

With our switch from tank – which is being implemented by some Brazilian-based peers – to heap leaching, we've already eliminated the need for leach tanks, thickeners, and complex solid-liquid separation infrastructure. This simplification reduces both capital and operating costs significantly.

Heap leaching produces a relatively clear liquor from the leach pad and addition of a nanofiltration step not only recycles over 80% of the acid, but also decreases the volume of water flowing to the Impurity Removal circuit by over 65%. This reduces the scale and quantity of downstream equipment required, further optimising the capital and operating cost reductions.

As we await further results from impurity removal testwork, we are excited to continue showcasing innovation that cements Splinter Rock's position as Australia's premier clay-hosted rare earth project."

MagREE (Magnet Rare Earths) = Nd + Pr + Tb + Dy

MagREO (Magnet Rare Earth Oxide) = Nd₂O₃ + Pr₆O₁₁ + Tb₄O₇ + Dy₂O₃

TREO (Total Rare Earth Oxide) = La₂O₃ + Ce₂O₃ + Pr₆O₁₁ + Nd₂O₃ + Sm₂O₃ + Eu₂O₃ + Gd₂O₃ + Tb₄O₇ + Dy₂O₃ + Ho₂O₃ + Er₂O₃ + Tm₂O₃ + Yb₂O₃ + Lu₂O₃ + Y₂O₃.

OD6 Metals Limited (OD6 or the Company) is pleased to report highly encouraging results from Nanofiltration (NF) metallurgical testing conducted by the Australian Nuclear Science and Technology Organisation (ANSTO), demonstrating a step-change in the processing efficiency of the Splinter Rock Rare Earth Project.

What is Nanofiltration?

Nanofiltration (NF) is a pressure driven membrane filtration process that uses liquids to selectively separate substances based on size and charge. Its primarily used for water purification, for example to remove hardness (calcium and magnesium), sulphates and organic compounds (Figure 1). It sits between reverse osmosis and ultrafiltration in terms of pore size, pressure requirement and selectivity.

Advantages of NF in Mining

- **Selective HCl recovery with specialised membranes**
- **Lower energy consumption through decreased downstream circuit size**
- **Membranes are low-maintenance and potentially recyclable**
- **Robust systems suitable for remote operations**
- **Can be built in multiple modules for ease of use and expansion**



Figure 1: Example of a Nanofiltration system and the membrane utilised

Updated Splinter Rock Processing Flowsheet

OD6 has identified the following simplified Heap Leach and NF processing steps (Figure 2).

The Heap process, when compared to the Tank Leach process, has the potential to remove several expensive processing steps, namely: leach tanks, thickening, clay washing, solid liquid separation and reducing total power requirements and total water requirements. This is expected to significantly reduce capital and operating costs

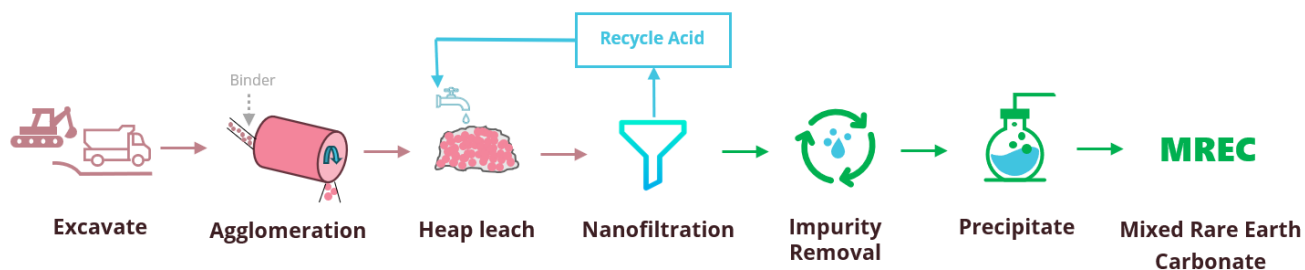


Figure 2: Indicative processing steps Heap Leach with Nanofiltration

Testwork Results

ANSTO has undertaken the test work using actual and synthetic heap leach solutions at 38 bar pressure and commercially available membranes yielded the following summary results (Table 1):

Permeate and Retentate:

- **Permeate:** The filtered liquid that passes through the membrane which then recycles acid to the heap leach pads
- **Retentate:** The concentrated substances that would be used in downstream Impurity Removal

Table 1: Nanofiltration Test Results

Parameter	Permeate	Concentrated Retentate
Volume Distribution %	69	31
HCl Concentration (g/L)	18.8	7.5
HCl Distribution (%)	84.5	15.5
Fe Concentration (mg/L)	394	20,041
Al Concentration (mg/L)	20	1,725
REE Concentration (mg/L)	16	1,101
REE Distribution (%)	6	94

From Table 1 it can be observed that

- **84.5% of HCl Acid is recovered** to the permeate and thus recycled to the heap leach pads
- 94% of the Rare Earth Elements (REE) are concentrated to the retentate which would be processed further in the Impurity Removal (IR) circuit and then onto a final MREC precipitation. **No Rare Earth losses** are associated with the process, as the permeate is recycled to the heap leach pad
- **The concentrated retentate makes up 31% of the liquid volume** which would be processed further in the Impurity Removal circuit
- Reduced liquid volume flowing to the Impurity removal circuit allows for a significant decrease in downstream circuit size, reducing capital and operating costs

Inside Centre Deposit Heap Leach Results

OD6 intends to focus ongoing works around the Inside Centre Prospect at Splinter Rock which currently has an **Indicated Resource of 119Mt @ 1,632ppm TREO** (refer to [ASX announcement 29-5-2024](#)).

The Inside Centre Prospect also has achieved high heap leach recoveries as previously reported (refer [ASX announcement 16-10-2024](#)) which is summarised in the following.

- **Column Leach recoveries of 79% MagREE** - in comparison to the diagnostic stirred tank leach of 56%
- **Nd & Pr have very high recoveries at ~80%**
- **Dy & Tb also comparatively high at 60 and 70% respectively.**
- **Acid Usage** prior to implementing Nanofiltration was 37.2 kg/t. **This would potentially reduce to around 7.5kg/t with nanofiltration recovery and recycling**
- **Column leach recoveries continue to increase over the 80 days** - and are still leaching, meaning recoveries can be further optimised with a longer duration heap leach time frame

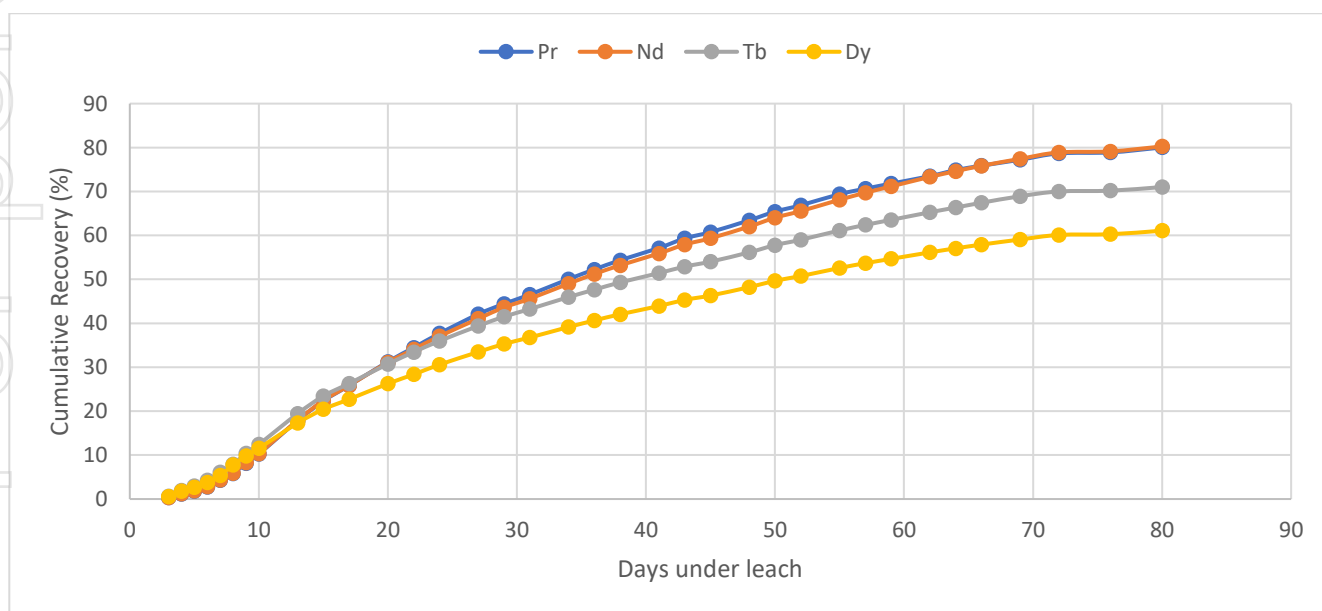


Figure 3: Inside Centre Composite Heap Leaching Results – Cumulative Recovery by Day

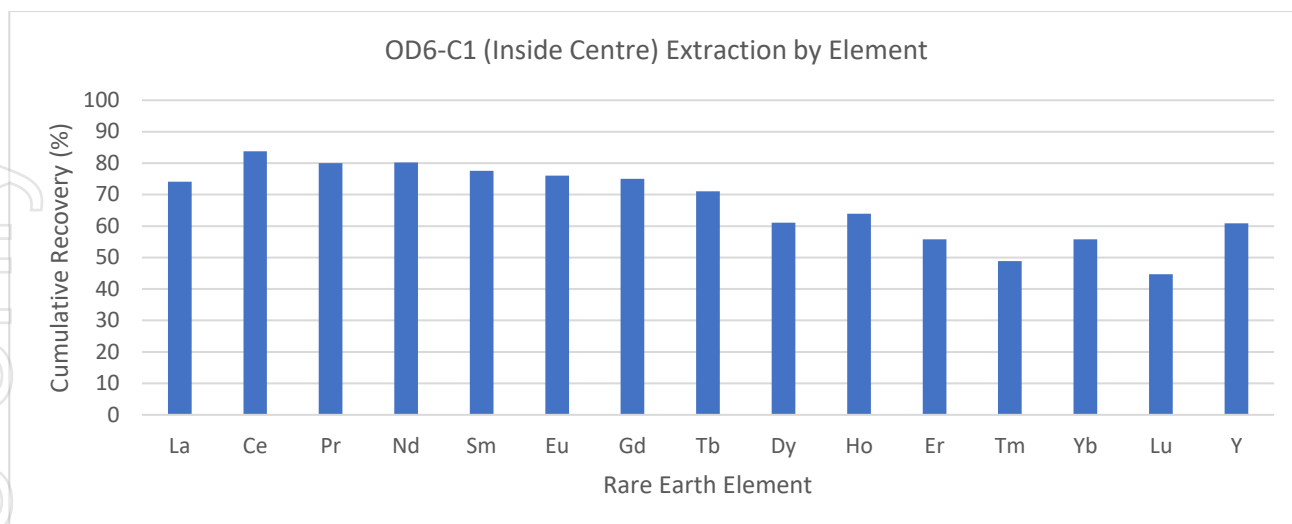


Figure 4: Inside Centre Column Leach REE Recovery by Element

Next Steps

OD6 will shortly be finalising testwork being conducted by ANSTO associated with the following key trials:

- **Impurity Removal:** trials under various pH conditions, temperatures, and reagents.
- **Ion Exchange Assessment:** selective elution of REE versus impurities such as Al and Fe.
- **Mixed Rare Earth Precipitation:** testing carbonate and hydroxide options.

An **Optioneering Study** is also being conducted by CPC Engineering to integrate these results into a preferred flowsheet. This work is anticipated to be finalised this quarter.

Competent Persons Statement

The scientific and technical information that relates to process metallurgy is based on information reviewed by Mr Brett Hazelden (Managing Director and CEO) of OD6 Metals Limited. Mr Hazelden is a Member of the AusIMM and has sufficient experience relevant to hydrometallurgical processes to qualify as a Competent Person as defined by the JORC Code. Mr Hazelden owns shares in the Company and participates in the Company's employee securities incentive plan. Mr Hazelden consents to the inclusion in this announcement of the matters based on their information in the form and context in which it appears.

Information in this report relating to Mineral Resource estimation and Exploration Results is based on information reviewed by Mr Jeremy Peters who is a Fellow of the Australasian Institute of Mining and Metallurgy and a Chartered Professional Geologist and Mining Engineer of that organisation. Mr Peters is a Director of Burnt Shirt Pty Ltd, consulting to OD6 and has sufficient experience which is relevant to clay-hosted rare earth mineralisation to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Peters consents to the inclusion of the data in the form and context in which it appears.

Forward Looking Statements

Certain information in this document refers to the intentions of OD6 Metals, however these are not intended to be forecasts, forward looking statements, or statements about the future matters for the purposes of the Corporations Act or any other applicable law. Statements regarding plans with respect to OD6 Metals projects are forward looking statements and can generally be identified by the use of words such as 'project', 'foresee', 'plan', 'expect', 'aim', 'intend', 'anticipate', 'believe', 'estimate', 'may', 'should', 'will' or similar expressions. There can be no assurance that the OD6 Metals plans for its projects will proceed as expected and there can be no assurance of future events which are subject to risk, uncertainties and other actions that may cause OD6 Metals actual results, performance, or achievements to differ from those referred to in this document. While the information contained in this document has been prepared in good faith, there can be given no assurance or guarantee that the occurrence of these events referred to in the document will occur as contemplated. Accordingly, to the maximum extent permitted by law, OD6 Metals and any of its affiliates and their directors, officers, employees, agents and advisors disclaim any liability whether direct or indirect, express or limited, contractual, tortious, statutory or otherwise, in respect of, the accuracy, reliability or completeness of the information in this document, or likelihood of fulfilment of any forward-looking statement or any event or results expressed or implied in any forward-looking statement; and do not make any representation or warranty, express or implied, as to the accuracy, reliability or completeness of the information in this document, or likelihood of fulfilment of any forward-looking statement or any event or results expressed or implied in any forward-looking statement; and disclaim all responsibility and liability for these forward-looking statements (including, without limitation, liability for negligence).

No new information

Except where explicitly stated, this announcement contains references to prior exploration results, all of which have been cross-referenced to previous market announcements made by the Company. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements.

The information in this report relating to the Mineral Resource estimate for the Splinter Rock Project is extracted from the Company's ASX announcements dated 18 July 2024. OD6 confirms that it is not aware of any new information or data that materially affects the information included in the original announcement and that all material assumptions and technical parameters underpinning the Mineral Resource estimate continue to apply.

This announcement has been authorised for release by the Board of OD6 Metals Limited

About OD6 Metals

OD6 Metals is an Australian public company pursuing exploration and development opportunities within the critical minerals sector, namely rare earths and copper.

Copper

The Company is advancing the **Gulf Creek Copper-Zinc VMS Project** located near the town of Barraba in NSW, Australia.

Gulf Creek was mined at around the turn of the 20th century and was once regarded as the highest grade copper mine (2% to 6.5% Cu) in NSW until its closure due to weak copper prices in 1912. Very little exploration has occurred at the project in over 100 years, with OD6 aiming to apply modern day exploration technologies.

The 2025 maiden drilling program successfully defined high grade copper below the historical mine plus confirmed the strong relationship between magnetism and massive sulphide mineralisation. Geophysical modelling has identified multiple, high priority and untested targets ready for drilling providing over >3km of untested strike in the immediate mine-stratigraphy, and over >10km across the tenement.

Rare Earth Elements

OD6 Metals has successfully identified clay hosted rare earths at its 100% owned **Splinter Rock Project** which is located in the Esperance-Goldfields region of Western Australia.

The Company released a Mineral Resource Estimate (MRE) for Splinter Rock in May 2024, confirming that the project hosts the largest and highest-grade clay-hosted rare earths deposit in Australia with an Indicated Resource of 119Mt @ 1,632ppm TREO and an Inferred Resource of 563Mt @ 1,275ppm TREO with an overall ratio of ~23% high-value Magnetic Rare Earths (MagREE).

OD6 Metals believes that Splinter Rock has all the hallmarks of a world class rare earths project with a conceptual development which utilises the large and high-grade Splinter Rock resource to support a long-life REE operation supported by a low strip ratio.

Corporate Directory

Managing Director	Mr Brett Hazelden
Non-Executive Chairman	Mr Piers Lewis
Non-Executive Director	Dr Mitch Loan
Financial Controller/ Joint Company Secretary	Mr Troy Cavanagh
Joint Company Secretary	Mr Joel Ives

Contact

OD6 Metals Ltd
ACN 654 839 602
www.od6metals.com.au
Mail to: info@od6metals.com.au
Phone: +61 8 6189 8515
Level 1, 50 Kings Park Road, West Perth, WA 6005
PO Box 277, North Beach, WA 6920
PO Box 2009, Esperance, WA 6450

Investor Relations

Lucas Robinson
Corporate Storytime
lucas@corporatestorytime.com
Phone: +61 408 228 889

Metallurgical Sample Selection and Testing Approach

The Company has created a composite sample for the Inside Centre that represent an area of consistent geology, prior metallurgical outcomes, low striping ratios and significant grades.

A total 6 holes were selected (see table below) to composite at Inside Centre with samples combined by weight to reflect the intercept length to maintain representativity and minimise any bias.

Column (Heap) Leach tests agglomerated the samples with a small amount of flocculant (~300g/t) to wet the ore and bind the fines together. They are then irrigated with 25 g/l HCl lixiviant and run at ANSTO's standard column operating conditions for the duration of the tests. The column tests were conducted over an 80 day period with samples still extracting rare earths at the end of this period.

Metallurgical Composite Drill Hole Location Details – Inside Centre Deposit

Hole ID	Type	Easting	Northing	RL (m)	Dip (degrees)	Depth(s)
SRAC0225	Aircore	501815	6336021	204.1	-90	33-86
SRAC0226	Aircore	501953	6335879	204.4	-90	21-81
SRAC0266	Aircore	501399	6336445	205.4	-90	21-58
SRAC0357	Aircore	502068	6336999	204.9	-90	39-90
SRAC0358	Aircore	502177	6336615	204.0	-90	36-84
SRAC0359	Aircore	501939	6336293	203.5	-90	27-87

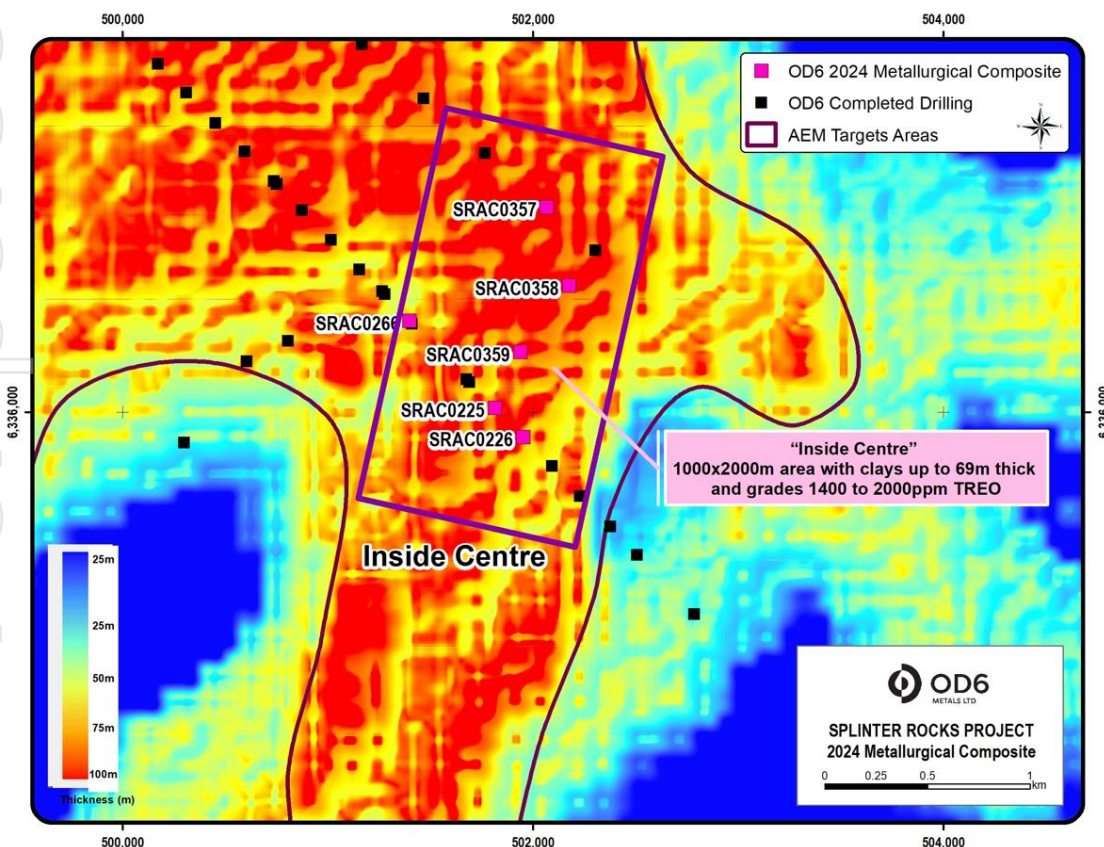


Figure 6: Inside Centre Composite Sample Locations overlain on airborne electromagnetic survey interpretation

JORC 2012 – Table1: Splinter Rock

Section 1 Sampling Techniques and Data

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

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.	- Geochemical sampling was undertaken by sampling of metre interval samples returned from the cyclone of a conventional air core drilling rig. - Certified reference samples, duplicates and blank samples were inserted into the drill sample stream such as to represent approximately 5% of the samples submitted to the laboratory for analysis - Two composite samples were collected over three metre intervals – the first (the A sample) being submitted for laboratory analysis and the second (the B sample) being retained as a reference. A sample from each metre was collected and stored in a chip tray for logging and x-ray diffraction analysis. - Drill intercept samples for the two heap leaching metallurgical composites were obtained from the 'B' samples located on the company's Exploration Licenses. Samples were sent to ANSTO for making up the composites and completing the testwork.
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).	- Air core drilling was completed by hammer and blade industry standard drilling techniques - Aircore is considered to be an appropriate drilling technique for saprolite clay - Drilling used blade bits of 87mmØ with 3m length drill rods to blade refusal.
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.	- Air core recoveries were not recorded but are not considered to be materially biased, given the nature of the geology and samples. - The assay data will be analysed against control samples and historical assays for any indications of bias
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 chips were logged qualitatively and quantitatively. - A sample from each metre was collected and stored in a chip tray for logging - Geological logs recorded lithology, colour and weathering.
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	- A composite sample of ~ 3kg for analysis was taken using a scoop from each metre pile to subsample 1 to 1.5kg sample. This was then dispatched to the laboratory. - A second composite sample was similarly taken and stored on site as a reference - Air core samples were a mix of wet and dry - Certified reference samples, duplicates and blank samples were inserted into the sample stream such as to represent approximately 5% of the samples submitted to the laboratory for analysis - Heap Leach test samples were composited from the B samples by weight to reflect the intercept length to

Criteria	JORC Code explanation	Commentary																																																
	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.	maintain representativity and minimise any bias																																																
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.	"A Samples" were submitted for chemical analysis using industry standard sample preparation and analytical techniques including: - Riffle split all "A samples" to 50:50 bagging one half as a coarse reject for storage - Pulverise the balance of the material via LM-5 - Generate a standard 300g master pulp packet - Bag the balance as a bulk pulp master for storage - Multi-Element Ultra Trace method ME-MS61r for exploration in soils or sediments. 4-Acid digest on 0.25g sample analysed via ICP-MS and ICP-AES. REEs included. - The final column residues were also analysed. The following techniques were used: - XRF at ANSTO for major gangue elements (Al, Ca, Cu, Fe, K, Mg, Mn, Na, Ni, P, Si, Sr, Zn) and a range of minor elements - The REEs along with Y, U, Th and Sc in the samples will be analysed by tetraborate fusion digest/ICP-MS (lithium tetraborate method) and four acid digest/ICP-MS at ALS Geochemistry Laboratory, Brisbane																																																
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.	- Certified reference samples, duplicates and blank samples were inserted into the drill sample stream such as to represent approximately 5% of the samples submitted to the laboratory for analysis - No holes were twinned (duplicated). - Data stored in a database, with auto-validation of logging data, - Multielement results (REE) are converted to stoichiometric oxide (REO) using element-to-stoichiometric conversion factors. <table border="1"> <thead> <tr> <th>Element ppm</th><th>Conversion Factor</th><th>Oxide Form</th></tr> </thead> <tbody> <tr><td>Ce</td><td>1.2284</td><td>CeO₂</td></tr> <tr><td>Dy</td><td>1.1477</td><td>Dy₂O₃</td></tr> <tr><td>Er</td><td>1.1435</td><td>Er₂O₃</td></tr> <tr><td>Eu</td><td>1.1579</td><td>Eu₂O₃</td></tr> <tr><td>Gd</td><td>1.1526</td><td>Gd₂O₃</td></tr> <tr><td>Ho</td><td>1.1455</td><td>Ho₂O₃</td></tr> <tr><td>La</td><td>1.1728</td><td>La₂O₃</td></tr> <tr><td>Lu</td><td>1.1371</td><td>Lu₂O₃</td></tr> <tr><td>Nd</td><td>1.1664</td><td>Nd₂O₃</td></tr> <tr><td>Pr</td><td>1.2082</td><td>Pr₆O₁₁</td></tr> <tr><td>Sm</td><td>1.1596</td><td>Sm₂O₃</td></tr> <tr><td>Tb</td><td>1.1510</td><td>Tb₄O₇</td></tr> <tr><td>Tm</td><td>1.1421</td><td>Tm₂O₃</td></tr> <tr><td>Y</td><td>1.2699</td><td>Y₂O₃</td></tr> <tr><td>Yb</td><td>1.1387</td><td>Yb₂O₃</td></tr> </tbody> </table> - Rare earth oxide is the industry accepted form for reporting rare earths. The following calculations are used for compiling REO into their reporting and evaluation groups: - TREO (Total Rare Earth Oxide) = La₂O₃ + CeO₂ + Pr₆O₁₁ + Nd₂O₃ + Sm₂O₃ + Eu₂O₃ + Gd₂O₃ + Tb₄O₇ + Dy₂O₃ + Ho₂O₃ + Er₂O₃ + Tm₂O₃ + Yb₂O₃ + Lu₂O₃ + Y₂O₃. Note that Y₂O₃ is included in the TREO calculation.	Element ppm	Conversion Factor	Oxide Form	Ce	1.2284	CeO ₂	Dy	1.1477	Dy ₂ O ₃	Er	1.1435	Er ₂ O ₃	Eu	1.1579	Eu ₂ O ₃	Gd	1.1526	Gd ₂ O ₃	Ho	1.1455	Ho ₂ O ₃	La	1.1728	La ₂ O ₃	Lu	1.1371	Lu ₂ O ₃	Nd	1.1664	Nd ₂ O ₃	Pr	1.2082	Pr ₆ O ₁₁	Sm	1.1596	Sm ₂ O ₃	Tb	1.1510	Tb ₄ O ₇	Tm	1.1421	Tm ₂ O ₃	Y	1.2699	Y ₂ O ₃	Yb	1.1387	Yb ₂ O ₃
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Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole	Drill hole collars were located using a handheld GPS to +/-5m accuracy																																																

Criteria	JORC Code explanation	Commentary
	surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control.	• Grid system was MGA 94 Zone 51 • Downhole survey was not undertaken, the holes being vertical • No topography control was used, given the relatively flat topography
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.	• Drilling intervals were closed to approximately 200m centres where historic drilling returned elevated REE assays • Downhole samples were taken on 1m intervals • This drilling indicated excellent continuity, particularly when supported by the results of the Tempest Airborne Aeromagnetic Survey, which was used to define basin limits. • Tempest Airborne Electromagnetic Survey (AEM), undertaken by Xcalibur Multiphysics • Data collected using the TEMPEST EM system (50Hz) using fixed wing aircraft. • Nominal flight height of 120 m above ground level. • GPS cycle rate of 1 second, accuracy 0.5m • Altimeter accuracy of 0.05m • Flight line spacing 400 to 800m. • Conductivity measurements and sampling interval at approximately 11 to 12 metres along line. • This data when combined with further drilling will be utilised to guide future mineral resource estimation
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.	• Drillholes were vertical and approximately perpendicular to mineralisation hosted in flat lying clay-beds • This orientation is not considered by the Competent Person to have introduced material sampling bias. • For AEM data: Flight lines are North West- South East drainage and regolith patterns show a regional slope down from NW to SE, whereas geological structure is dominantly NE-SW. • The thickness of regolith presented in the cross-sections is based on geophysical inversion modelling conducted by the CSIRO. This inversion modelling used Monte Carlo simulation known as RJMCMC regression based on Bodin and Sambridge (2009) https://doi.org/10.1111/j.1365-246X.2009.04226.x & Minsley (2011) https://doi.org/10.1111/j.1365-246X.2011.05165.x with modifying parameters by CSIRO. refer ASX Announcement 5 October 2022 • The RJMCMC method uses a comparison method to estimate the conductivity.
Sample security	• The measures taken to ensure sample security.	• Samples were taken and dispatched by road freight direct to the analytical laboratory
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• The Independent Competent Person (Jeremy Peters) reviewed the sampling techniques and data collection. The Independent Competent Person has previously completed a site visit during drilling to verify sampling techniques and data collection.

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 Splinter Rock Project is held by Odette Six Pty Ltd which is a 100% owned subsidiary of OD6 Metals Ltd. • Granted exploration Licences include E63/2115, E69/3904, E69/3905, E69/3907, E69/3893, E69/3894. • The ELs predominantly overly vacant crown land with a small portion of freehold agricultural land used for crop and livestock farming to the south. • The Company has Native Title Land Access agreements with Ngadju Native Title Aboriginal Corporate and Esperance Tjaltjraak Native Title Aboriginal Corporation. The tenements are in good standing with no known impediments outside the usual

Criteria	JORC Code explanation	Commentary
		course of exploration licenses.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	- An Independent Geological Report was completed by of Sahara Natural Resources and included in the Company's Prospectus dated 10 May 2022. - Historic exploration for REE's was conducted by Salazar Gold Pty Ltd - The historical data has been assessed and is considered of good quality
Geology	Deposit type, geological setting and style of mineralisation.	- The rare earth mineralisation at the Splinter Rock project occurs in the weathered profile (in-situ regolith clays) adjacent to and above Booanya Granite of the East Nornalup Zone of the Albany-Fraser Orogen. - The Booanya granites are enriched in REEs. Factors such as groundwater dispersion and paleo-weathering environments may mobilise REEs away from the granite sources.
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 (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.	- All drill results are reported to the ASX in line with ASIC requirements. - A summary of material drill hole information ins included in the Drill Hole Data table included below. - Some results occur outside the mineralised area of interest and have been excluded as not being of material interest. - Internal waste results have been included in the mineralised intercepts. - Mineralised intersections have been publicly reported by OD6 in accordance with the JORC Code and ASX Listing Rules and are not repeated here.
Data aggregation methods	- 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.	- No cutting of grades has been engaged in - Data has been aggregated according to downhole intercept length above the cut-off grade and internal sub-grade material has been included. - A lower cut-off grade of 300ppm TREO has been applied. OD6 considers this to be an appropriate cut-off grade for exploration data in a clay-hosted REE project - A 1,000ppm cut off grade has been applied to the Mineral Resource - Multielement results (REE) are converted to stoichiometric oxide (REO) using element-to-stoichiometric conversion factors. - These stoichiometric conversion factors are stated in the 'verification of sampling and assaying' table above and can be referenced in appropriate publicly available technical data.
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').	- Drillholes drilled vertical and orthogonal to generally flat to shallow dipping clay mineralisation. - Drilled width is approximately true width.
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.	Diagrams are included at relevant sections in this Report
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	- All drillhole results have been reported including those drill holes where no significant intersection was recorded. - Electromagnetic data processing presented in this

Criteria	JORC Code explanation	Commentary
	<i>avoid misleading reporting of Exploration Results.</i>	release is across all tenure at Splinter Rock. Mineralisation has been reported at a variety of cut-off grades
<i>Other substantive exploration data</i>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	- All material exploration data available is reported. - There have been various photogrammetric and geophysical surveys at Splinter Rock at various times that have contributed to understanding of the geology of the deposit. - Airborne Electromagnetics modelling used to assess clay thickness and depth to basement. - ANSTO conducted hydrochloric acid tank leaching tests with samples at 25g/L hydrochloric acid concentration, at 30°C, under ambient pressure and 4 wt% solids for 24 hours. Liquor samples were taken every 6 hours and assayed for rare earths and major impurities. The residue sample was assayed after the conclusion of the test. - ANSTO's heap leaching involved samples undergoing a 25g/L hydrochloric acid leach at a 5 L/m²/hr irrigation rate, at 22 °C for 80 days in a 50mm diameter column of ~1m bed height of 2.18 m³ volume. Liquor samples were taken every 2-4 days for the duration of the tests and assayed for rare earths and major impurities. - The recoverability of rare earths are indicative only and do not currently account for additional losses that may occur during downstream processing. - Nanofiltration (NF) Tests used both actual and synthetic heap leach solutions at 38 bar pressure and commercially available membranes - The metallurgical samples that have been provided to the laboratory for leaching assessment are detailed within this report.
<i>Further work</i>	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	- Mineralisation is open in multiple directions. - Further work will include additional air core drilling, core drilling (e.g sonic or push-tube drilling, mineralogy, metallurgical test work and study work. Further work will include additional air core drilling, core drilling (e.g sonic or push-tube drilling, mineralogy, metallurgical testwork and study work - Further Metallurgical work is detailed below - Diamond core heap leaching: Conduct column leach tests on splinter rock diamond core clay samples with hydrochloric under the same conditions as the initial heap leach tests. - Impurity Removal Trials: Conduct impurity removal trials under various pH conditions, temperatures, and with different reagents. - Ion Exchange Assessment: Assess ion exchange processes on "leach" liquor and investigate selective elution of REE versus impurities such as Al and Fe. - Mixed Rare Earth Precipitation: Investigate mixed rare earth precipitation methods, including carbonates and hydroxides. - Process Modelling and Techno-Economic Comparison: Develop process models and conduct techno-economic comparisons of various flowsheet options. - Mini Pilot Scale Testing: Conduct mini pilot scale testing using composited bulk samples to validate findings on a smaller scale. - Conversion of Rare Earth Carbonate/Hydroxide: Apply process models to assess options for converting mixed rare earth carbonate/hydroxide in a downstream refinery to multiple potential rare earth oxides