OD6 METALS LTD

ASX Announcement

16 October 2024

ASX: OD6

Heap Leach Testing Improves Metallurgical Recoveries

Potential to reduce capital and operating costs of Splinter Rock Project

OD6 Metals Limited (**OD6** or the **Company**) is pleased to report very encouraging results from column leach metallurgical testing conducted by the Australian Nuclear Science and Technology Organisation (**ANSTO**).

Highlights:

- Column (Heap) Leach tests achieve significant and higher leach recoveries compared to conventional tank leaching
- **Inside Centre Prospect Column Leach recoveries of 79% Magnet Rare Earth Elements** (**MagREE)** achieved **-** in comparison to the diagnostic stirred tank leach of 56%
- **Prop Prospect Column Leach recoveries of 65% MagREE achieved -** in comparison to the diagnostic stirred tank leach of 50%
- Importantly **recoveries for all MagREE's inclusive of Nd, Pr, Dy, Tb are high** - this is the key to optimising project economics for any clay hosted rare earth project.
- **Low acid consumption** shows potential for high-tonnage, low cost heap-leaching operations.
- **The simpler Heap Leach process has the potential to remove several capital intensive processing steps, which would simplify the flowsheet and reduce capital and operating costs**

Managing Director Brett Hazelden, commented:

"It is clear that the current rare earth pricing environment requires us to come up with smarter and more cost-effective solutions to ensure optimal project economics throughout the rare earths market cycle.

These initial Heap Leach results are a potential game-changer for the economics of the Splinter Rock Project, achieving superior recoveries to a conventional tank leach. OD6, now have the potential to remove several processing steps simplifying the flowsheet and materially reducing capital and operating costs.

Given these excellent results we have put the scoping study on hold until further works around heap leach testing can be completed. These results continue to affirm that Splinter Rock is Australia's premier clay-hosted rare earth deposit and that when the REE market recovers, Splinter Rock will be amongst the earliest development opportunities."

MagREE (Magnet Rare Earths) = Nd + Pr + Tb + Dy)
MagREO (Magnet Rare Earth Oxide) = Nd_2O_3 + Pr_6O_{11} + Tb_4O_7 + Dy_2O_3
TREO (Total Rare Earth Oxide) = 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.

Inside Centre Prospect Results

Inside Centre Prospect results are presented in Table 1 and Figures 1 & 2. The Inside Centre Prospect is a significant feeder channel running northeast into the main Centre Basin located within an elevated tableland, featuring multiple feeder channels and Booanya granite to the north.

Based on the recovery results for both the stirred diagnostic leaching and small-scale column tests, the following observations can be made:

- **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
- **Column Leach recoveries are superior at 79% MagREE** - in comparison to the diagnostic stirred tank leach of 56%
- **Indicative acid consumption was lower in the diagnostic test compared to the column leach**. - This is as expected due to the longer duration of the column testing.
- **It is noted that Nd & Pr have very high recoveries at ~80%,** - with Dy & Tb also comparatively high at 60 and 70% respectively.
- **The key difference between column leach and tank leach that is driving the recovery difference, is that the column leach process is continuously applying an impurity free liquor over 80 days**, - where as a tank leach is stirred constantly for 24 hours in the same solution.

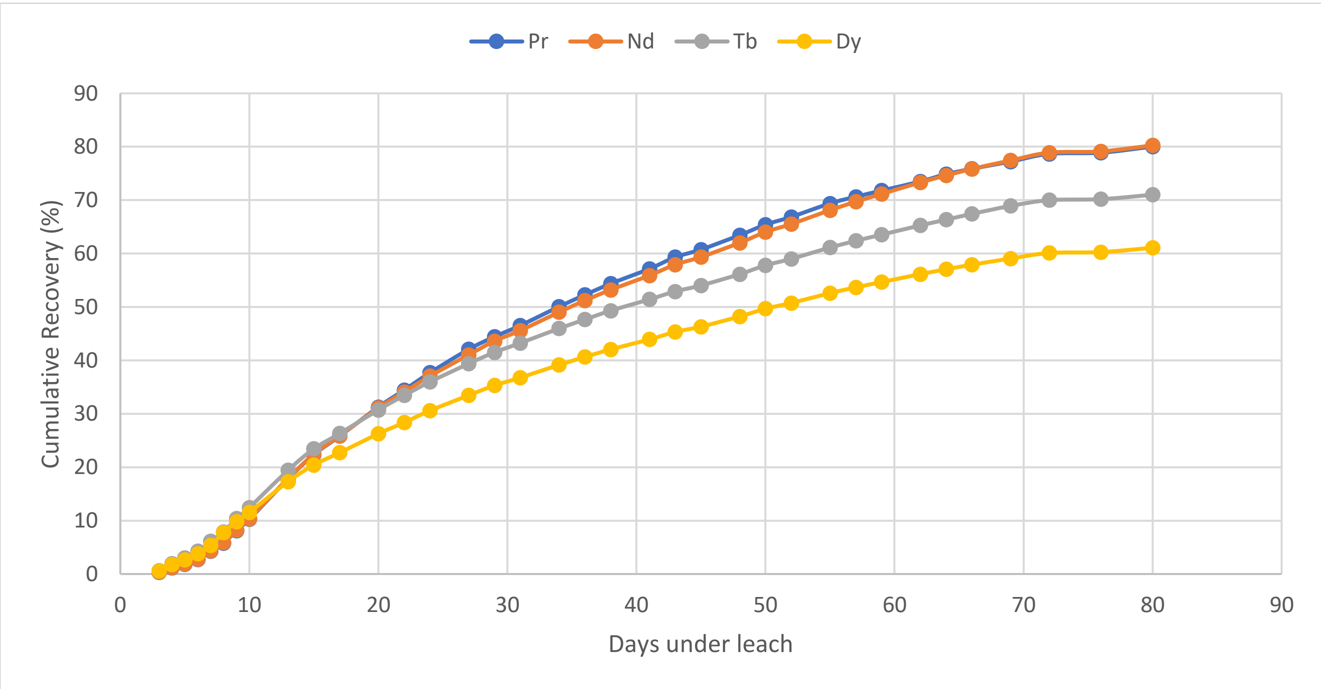


Figure 1: Inside Centre Composite Heap Leaching Results – Cumulative Recovery by Day

Table 1: Inside Centre Comparative Heap leaching and Diagnostic leaching results

Sample	Final Extraction (%) (Fusion Digest, liquids)					Average Acid Consumption
	Pr	Nd	Tb	Dy	MagREE	Kg/t
Inside Centre Column Leach	80	80	71	61	79	37.2
Inside Centre Diagnostic Leach	58	56	49	44	56	27.4

Note: Column Leach Tests carried out at 25 g/l HCl at 22°C for 80 days at an irrigation rate of 5 L/m2/h
Diagnostic Leach Tests carried out at 25 g/l HCl at 30°C for 24 hours at a slurry density of 4 wt%
There will be some variation between original head grade total assay and the sum of residual solid and liquor assays which is not accounted for. Recoveries only reflect initial rare earth leaching, with further losses expected in precipitation, impurity removal, purification and drying.

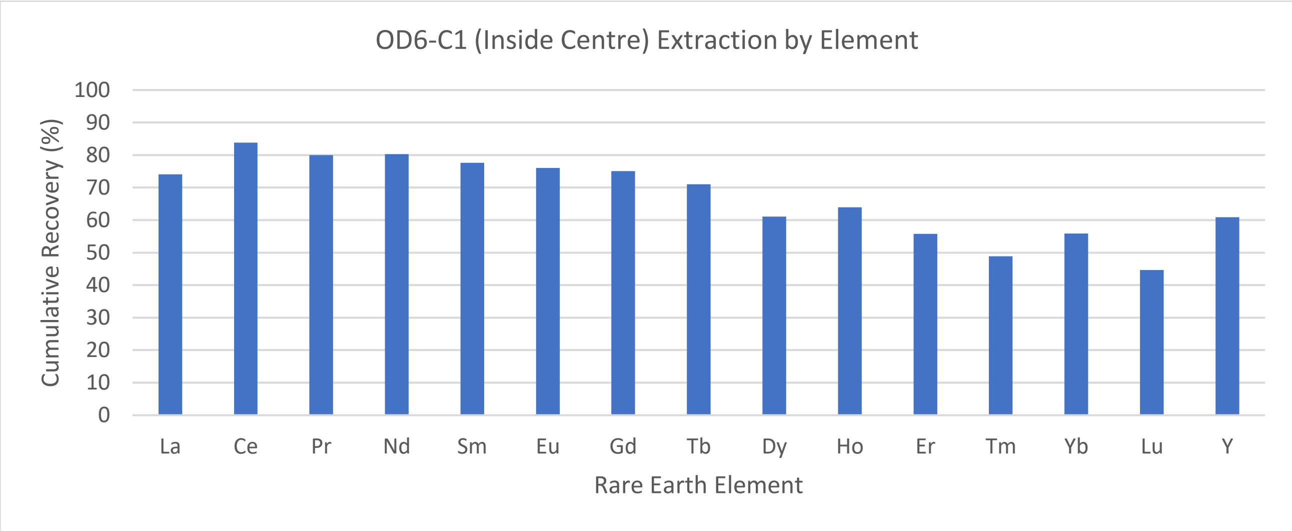


Figure 2: Inside Centre Column Leach REE Recovery by Element

Prop Prospect Results

Prop Prospect results are presented in Table 2 and Figure 3 & 4. The Prop Prospect is located at the lowest elevation at Splinter Rock and is surrounded by Booanya granite to the north and south, is interpreted to be a paleo-valley filled with clay, featuring multiple feeder channels.

Based on the recovery results for both the stirred diagnostic leaching and small-scale column tests, the following observations can be made:

- **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
- **Column Leach recoveries are superior at 65% MagREE** - in comparison to the diagnostic stirred tank leach of 50%
- **Indicative acid consumption was lower in the diagnostic test compared to the column leach**. - This is as expected due to the longer duration of the column testing.
- **It is noted that Nd & Pr have similar recoveries than Dy & Tb for both tests.**
- **The key difference between column leach and tank leach that is driving the recovery difference, is that the column leach process is continuously applying an impurity free liquor over 80 days**, - where as a tank leach is stirred constantly for 24 hours in the same solution.

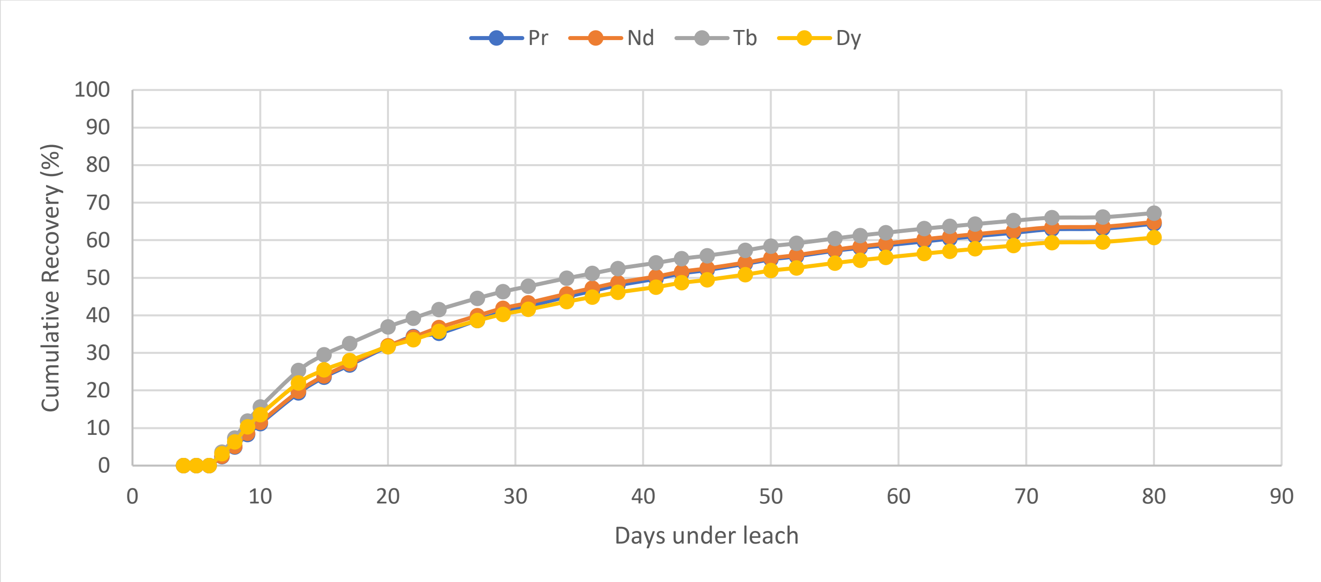


Figure 3: Prop Composite Heap Leaching Results – Cumulative Recovery by Day

Table 2: Prop Comparative Heap leaching and Diagnostic leaching results

Sample	Final Extraction (%) (Fusion Digest, liquids)					Average Acid Consumption
	Pr	Nd	Tb	Dy	MagREE	Kg/t
Prop Column Leach	64	65	67	61	65	62.5
Pro Diagnostic Leach	51	50	58	49	50	40

Note: *Column Leach Tests carried out at 25 g/l HCl at 22°C for 80 days at an irrigation rate of 5 L/m2/h*
Diagnostic Leach Tests carried out at 25 g/l HCl at 30°C for 24 hours at a slurry density of 4 wt%
There will be some variation between original head grade total assay and the sum of residual solid and liquor assays which is not accounted for. Recoveries only reflect initial rare earth leaching, with further losses expected in precipitation, impurity removal, purification and drying.

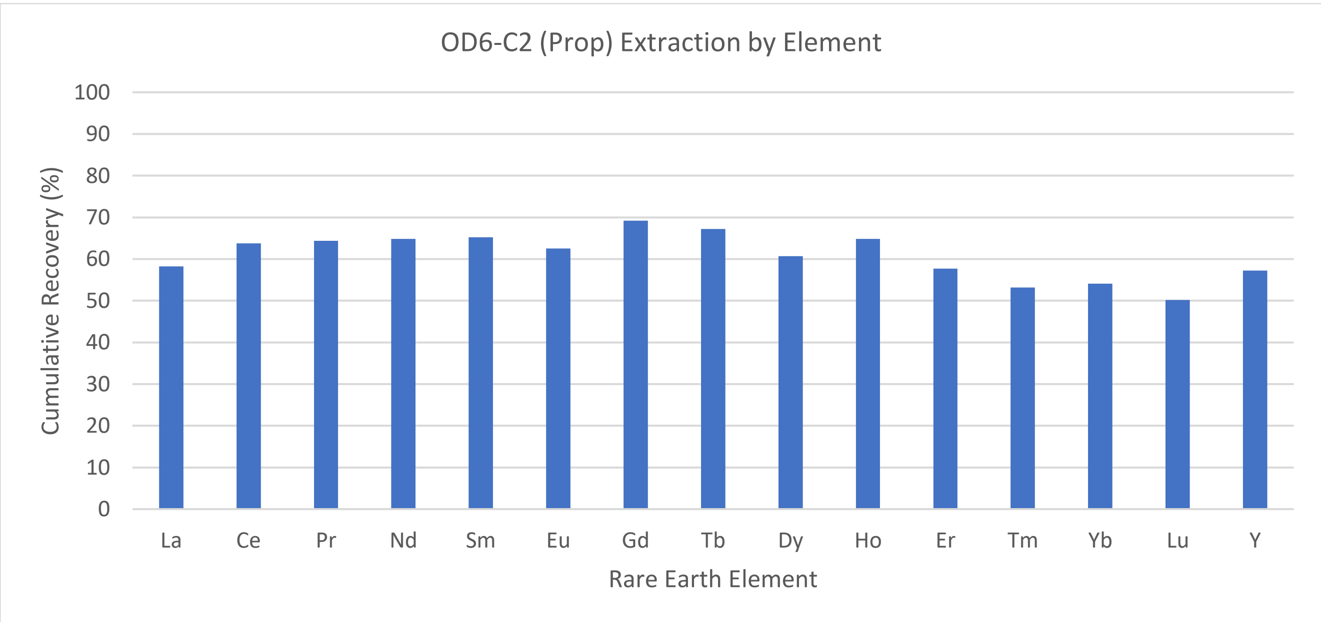


Figure 4: Prop Prospect Column Leach REE Recovery by Element

Simplified Heap Leach Processing Steps

Based on the initial small scale column leach testing, OD6 metals has identified the following simplified Heap Leach processing steps shown in Figure 5.

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, total power requirements and total water requirements, which would reduce capital and operating costs significantly

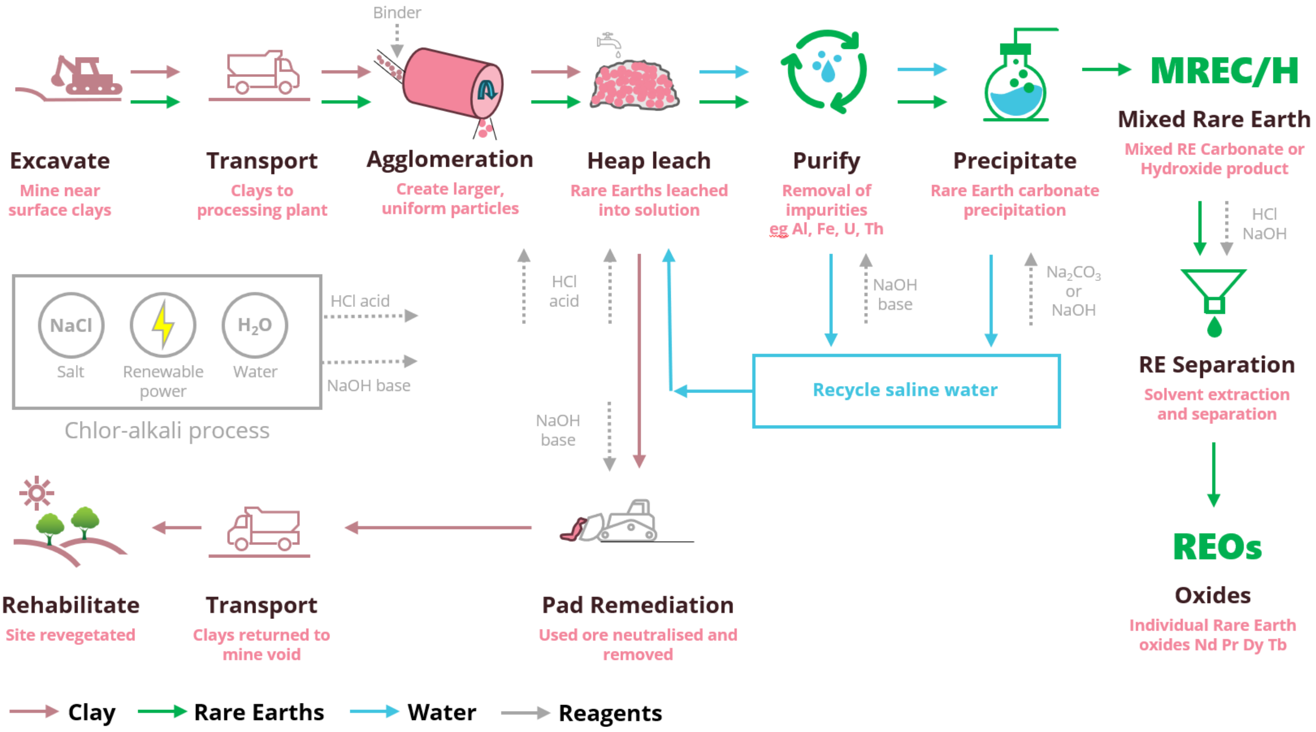


Figure 6: Indicative processing steps Heap Leach

Column Agglomerate Photos – Pre and Post Leaching

The below two photos show the Inside Centre agglomerate being prepared, inclusive of "snow ball test".


The below photo shows the agglomerated material unloaded from the column after 80 days of leaching. It is worth noting the agglomerate remained competent after unloading and had not turned into a single clay lump.

Metallurgical Sample Selection and Testing Approach

The Company has created two separate composite samples for the Inside Centre and Prop Prospects that represent an area of consistent geology, prior metallurgical outcomes, low striping ratios and significant grades.

A total 6 holes were selected to composite at Inside Centre and 8 holes at Prop - refer to Figures 6 and 7 for sample locations. The Composite samples have been combined by weight to reflect the intercept length to maintain representativity and minimise any bias.

Each Composite was subject to both stirred diagnostic leaching and small-scale column (heap leach) tests to provide:

- a direct comparison on extraction methods
- recovery of the various rare earth elements over time
- confirmation of leach conditions
- obtain indicative acid consumption figures
- provide future samples for Impurity removal, solid liquid separation and other tests (work still ongoing)

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.

Diagnostic leach tests utilised a 25 g/L hydrochloric acid, at notionally ambient conditions and pressures, over a 24-hour period. For consistency, the leach conditions were selected based on previously announced parameters.

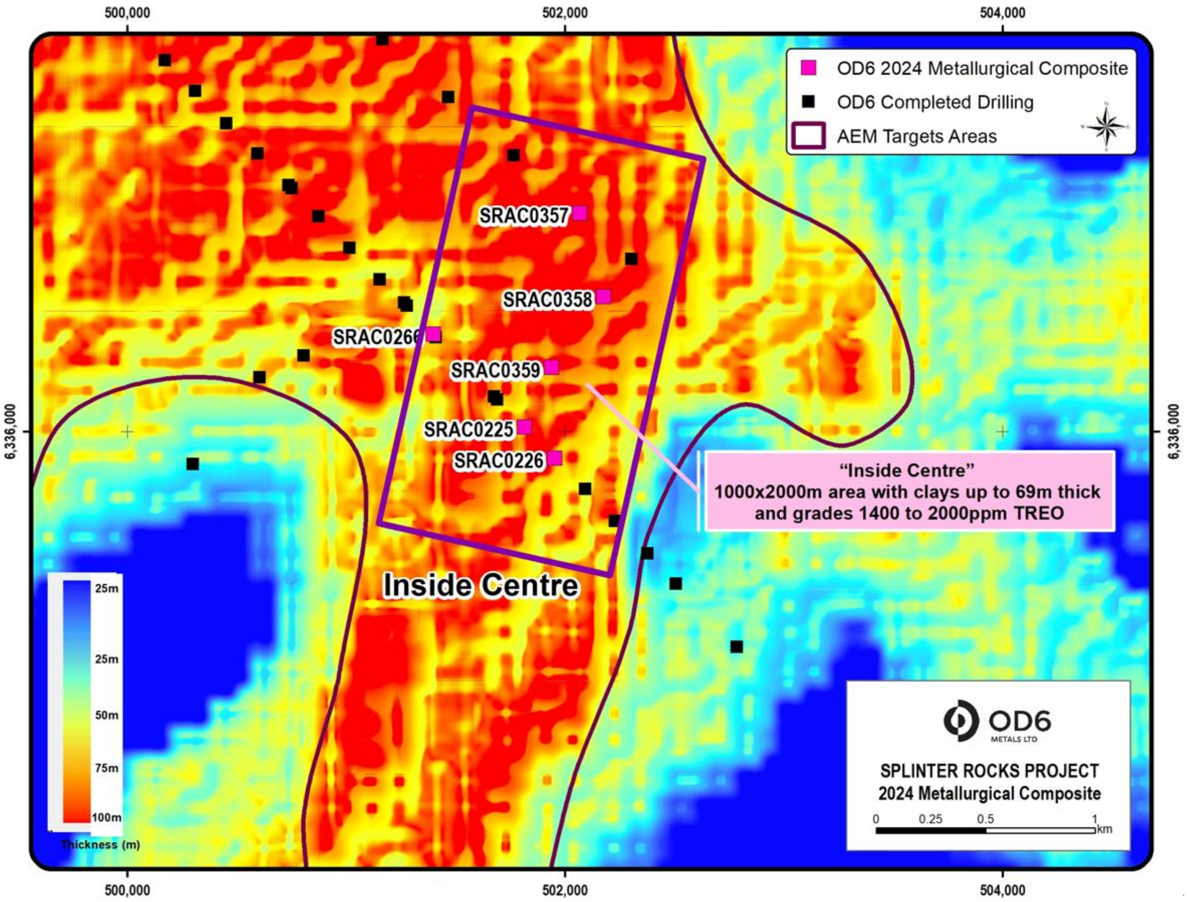


Figure 6: Inside Centre Composite Sample Locations overlain on airborne electromagnetic survey interpretation

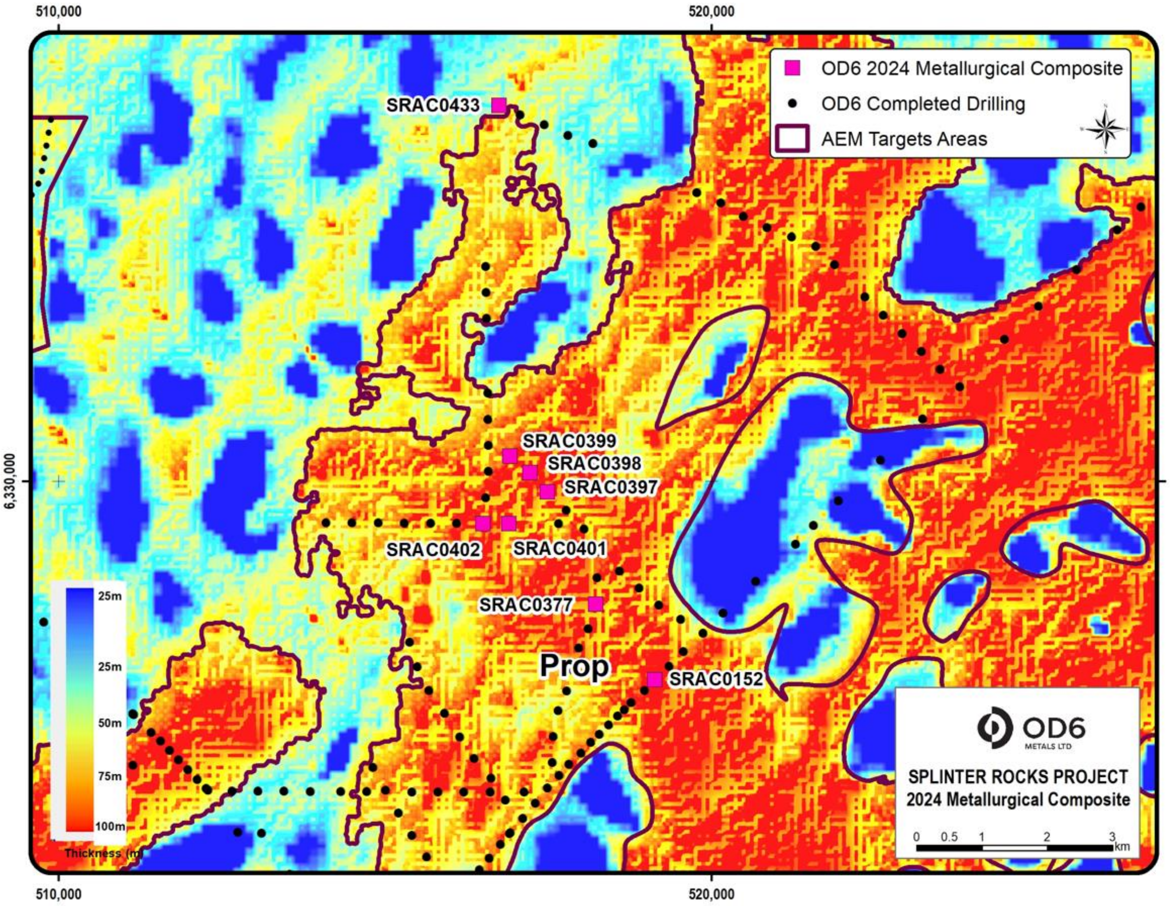


Figure 7: Prop Composite Sample Locations overlain on airborne electromagnetic survey interpretation

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 the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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.

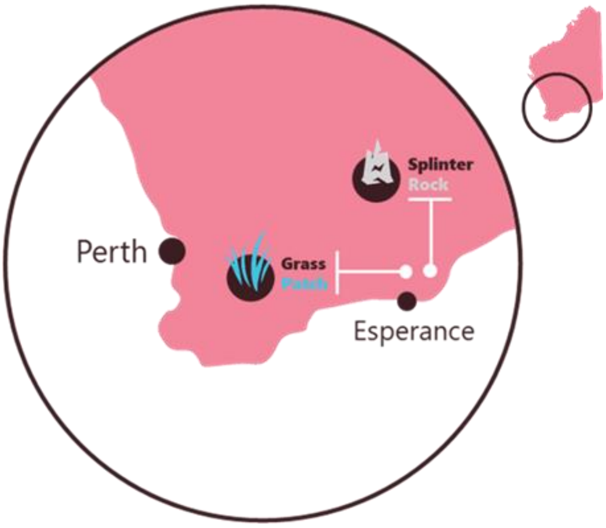
Information in this report relating to Mineral Resource estimation and Exploration Results is based on information reviewed by Mr Jeremy Peters who is a Fellow of the Australasian Institute of Mining and Metallurgy and a Chartered Professional Geologist and Mining Engineer of that organisation. Mr Peters is a Director of Burnt Shirt Pty Ltd, consulting to OD6 and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined 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, tortuous, 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).

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 mineral sector.

The Company has successfully identified clay hosted rare earths at its 100% owned Splinter Rock and Grass Patch Projects, which are located in the Esperance-Goldfields region of WA - about 30 to 150km northeast of the major port and town of Esperance.

REE are becoming increasingly important in the global economy, with uses including advanced electronics and permanent magnets electric motors in electric vehicles, wind turbines and robotics.

An updated Mineral Resource Estimate (MRE) for the flagship Splinter Rock Rare Earths Project was released in May 2024 and has confirmed that Splinter Rock hosts the largest and highest-grade clay-hosted rare earths deposit in Australia with a Resource of 682Mt @ 1,338ppm TREO.

The Splinter Rock MRE indicates that high-value Magnetic Rare Earths (MagREE) such Neodymium (Nd), Praseodymium (Pr), Dysprosium (Dy) and Terbium (Tb) represent ~23% of the deposit.

Metallurgical testing using hydrochloric acid to leach the rare earths have resulted in positive REE recoveries with optimisation ongoing. The Inside Centre Prospect is a main focus of the company given its metallurgical recoveries, high grade, low strip ratio and its considerable thickness.

As part of the exploration process the Company has entered into heritage agreements with Esperance Tjaltrjraak Native Title Aboriginal Corporation and the Ngadju Native Title Aboriginal Corporation that serves to both enable exploration and protect important cultural sites on Country.

Corporate Directory

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

Contact

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PO Box 2009, Esperance, WA 6450

Metallurgical Composite Drill Hole Location Details

Hole ID	Type	Easting	Northing	RL (m)	Dip (degrees)	Depth(s)
Inside Centre Composite						
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
Prop Composite						
SRAC0152	Aircore	519126	6326958	145.3	-90	3-21
SRAC0377	Aircore	518227	6328120	149	-90	39-61
SRAC0397	Aircore	517487	6329839	146.6	-90	24-33, 54-68
SRAC0398	Aircore	517215	6330131	143.2	-90	33-54
SRAC0399	Aircore	516907	6330385	145.6	-90	18-37
SRAC0401	Aircore	516895	6329352	148.9	-90	66-78
SRAC0402	Aircore	516495	6329353	146.3	-90	18-21
SRAC0433	Aircore	516744	6335759	153.3	-90	12-27

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 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.*	• 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 maintain representativity and minimise any bias

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td>Quality of assay data and laboratory tests</td><td>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.</td><td>“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</td></tr>
<tr><td>Verification of sampling and assaying</td><td>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.</td><td>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>
<tr><th>Element ppm</th><th>Conversion Factor</th><th>Oxide Form</th></tr>
<tr><td>Ce</td><td>1.2284</td><td>CeO_2</td></tr>
<tr><td>Dy</td><td>1.1477</td><td>Dy_2O_3</td></tr>
<tr><td>Er</td><td>1.1435</td><td>Er_2O_3</td></tr>
<tr><td>Eu</td><td>1.1579</td><td>Eu_2O_3</td></tr>
<tr><td>Gd</td><td>1.1526</td><td>Gd_2O_3</td></tr>
<tr><td>Ho</td><td>1.1455</td><td>Ho_2O_3</td></tr>
<tr><td>La</td><td>1.1728</td><td>La_2O_3</td></tr>
<tr><td>Lu</td><td>1.1371</td><td>Lu_2O_3</td></tr>
<tr><td>Nd</td><td>1.1664</td><td>Nd_2O_3</td></tr>
<tr><td>Pr</td><td>1.2082</td><td>Pr_6O_{11}</td></tr>
<tr><td>Sm</td><td>1.1596</td><td>Sm_2O_3</td></tr>
<tr><td>Tb</td><td>1.1510</td><td>Tb_4O_7</td></tr>
<tr><td>Tm</td><td>1.1421</td><td>Tm_2O_3</td></tr>
<tr><td>Y</td><td>1.2699</td><td>Y_2O_3</td></tr>
<tr><td>Yb</td><td>1.1387</td><td>Yb_2O_3</td></tr>
</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)
$= La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$.
Note that Y_2O_3 is included in the TREO calculation.</td></tr>
<tr><td>Location of data points</td><td>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.</td><td>Drill hole collars were located using a handheld GPS to +/-5m accuracy
Grid system was MGA 94 Zone 51
Downhole survey was not undertaken, the holes being vertical</td></tr>
</table>

Criteria	JORC Code explanation	Commentary
	• *Quality and adequacy of topographic control.*	• 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*	• 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

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	to obtaining a licence to operate in the area.	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 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*	• Diagrams are included at relevant sections in this Report

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	locations and appropriate sectional views.	
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.*	• All drillhole results have been reported including those drill holes where no significant intersection was recorded. • Electromagnetic data processing presented in this release is across all tenure at Splinter Rock. • Mineralisation has been reported at a variety of cut-off grades
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.*	• 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 hydrlochloric 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/m^2/hr irrigation rate, at 22 °C for 80 days in a 50mm diameter column of~1m bed height of 2.18 m^3 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. • The metallurgical samples that have been provided to the laboratory for leaching assessment are detailed within this report.

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.*
		• 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 and sulphuric acid under the same conditions as the initial heap leach tests.
		  • Heap leaching liquor impurity removal: Conduct impurity removal trials with various reagents and under different conditions on the heap leaching composite liquors.
		  • Impurity Removal Trials: Conduct impurity removal trials under various pH conditions, temperatures, and with different reagents.
		  • Assessment of Resin Use: Evaluate the potential use of resins in both pulp and liquid phases to assist in impurity removal.
		  • Ion Exchange Assessment: Assess ion exchange processes on "leach" liquor and investigate selective elution of REE versus impurities such as Al and Fe.
		  • Nanofiltration Evaluation: Evaluate nanofiltration processes to produce a retentate with increased REE concentration and a permeate containing clean acid for recycling.
		  • 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

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		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