OD6 METALS LTD

ASX Announcement

7 August 2025

ASX: OD6

ION EXCHANGE TECHNOLOGY IMPROVES PROCESSING FLOWSHEET AT THE SPLINTER ROCK RARE EARTH PROJECT

Major improvements in Impurity Removal and Product Quality at Splinter Rock REE deposit – JORC Mineral Resource of 682Mt @ 1,338ppm TREO

Highlights:

- **Ion Exchange (IX) resin technology enhances removal of iron (Fe) and aluminium (Al), improving product purity and reducing downstream processing risk**
- **Excellent overall Nd and Pr recovery of ~75% post-impurity removal**
- Successful development of uranium (U) and thorium (Th) removal circuit **improves product payability and expands potential global offtake markets**
- **Minimal Rare Earth Element (REE) loss (<1%) during IX process**
- IX further improves the downstream scale of the IR Circuit which is **expected to further optimise both capital and operating costs**
- **Optimised Impurity Removal (IR)** Precipitation and Mixed Rare Earth Carbonate (MREC) separation processes
- **Enhanced process efficiency and product quality expected to materially improve project economics**
- **Mixed Rare Earth Carbonate (MREC) product test results expected shortly**
- CPC Engineering is undertaking an Optioneering Study in conjunction with ANSTO to assess and select the preferred development pathway.

Managing Director Brett Hazelden, commented:

"Our flowsheet development has been led by a clear vision—delivering a high-quality product that meets the needs of global customers. We've focused not only on product purity and recovery but also on reducing capital and operating costs to ensure robust project economics.

Integrating Ion Exchange into our flowsheet allows us to de-risk and improve the impurity removal process, specifically targeting aluminium, iron, uranium and thorium—key drivers of product payability.

The combined heap leaching and impurity removal process flowsheets that we have tested in conjunction with ANSTO, are currently being assessed by CPC Engineering to determine the optimal development pathway.

It is also pleasing to see the Hon Madeleine King MP discussing Rare Earths at the Diggers and Dealers Mining forum this week. The innovations of heap leach, nano filtration and ion exchange strongly position the Splinter Rock Rare Earth Project for potential government support moving forward."

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.

OD6 Metals Limited (OD6 or the Company) is pleased to report highly encouraging results from Ion Exchange (IX) and Impurity Removal (IR) metallurgical testing conducted by the Australian Nuclear Science and Technology Organisation (ANSTO). This work has significantly enhanced the processing efficiency and rare earth product quality at the Splinter Rock Rare Earth Project

What is Ion Exchange?

Ion Exchange (IX) is a chemical process where ions are swapped between a solution and a solid material (usually a resin). In rare earth processing, ion exchange is used to concentrate rare earth elements from complex mixtures. In our case we are looking to decrease Aluminium (Al) and Iron (Fe) content to improve downstream Impurity Removal (IR) and Mixed Rare Earth Carbonate (MREC) quality. Further Uranium (U) and Thorium (Th) can be selectively removed from the final product to enable safe transport and refining.

An analogous process is the use of carbon in gold leaching, whereby gold in liquid is absorbed onto carbon, then eluted into solution for electrowinning.

Advantages of IX in Mining

- **Can be highly selective for removal of impurities eg Fe, Al, U and Th**
- **IX concentrates REEs requiring a smaller IR circuit**
- **<1% rare earth losses during the IX process**
- **Low temperature and energy requirements**
- **Scalable and widely used in existing commercial applications**

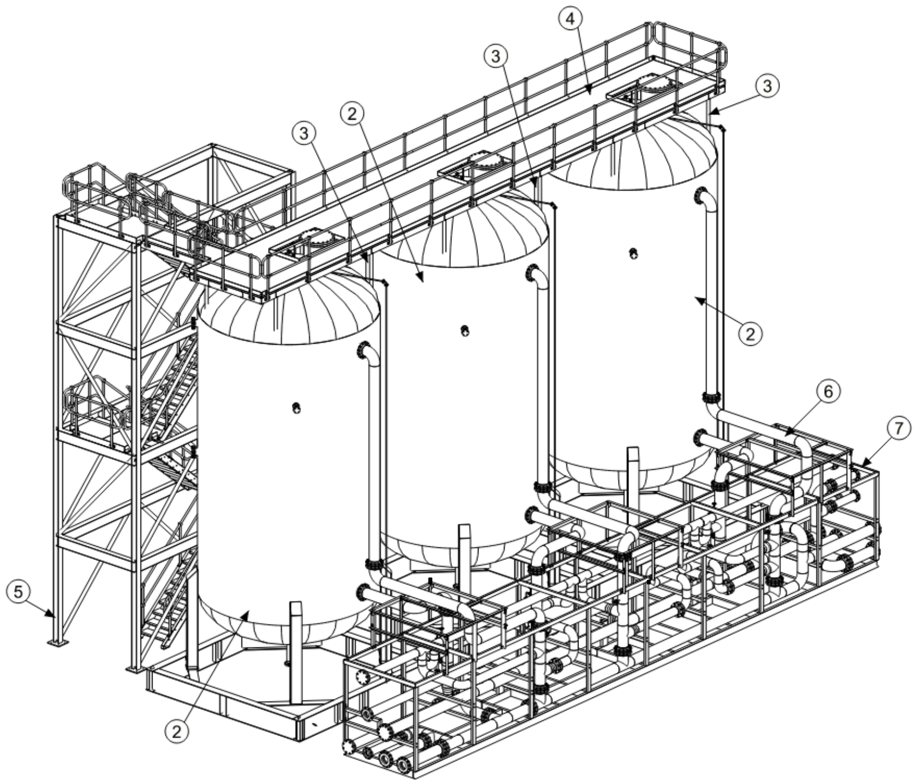

Figure 1: Example of an Ion Exchange system

Updated Splinter Rock Processing Flowsheet

OD6 has identified the following simplified Heap Leach, Nanofiltration (NF), Ion Exchange (IX) and Impurity Removal (IR) 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

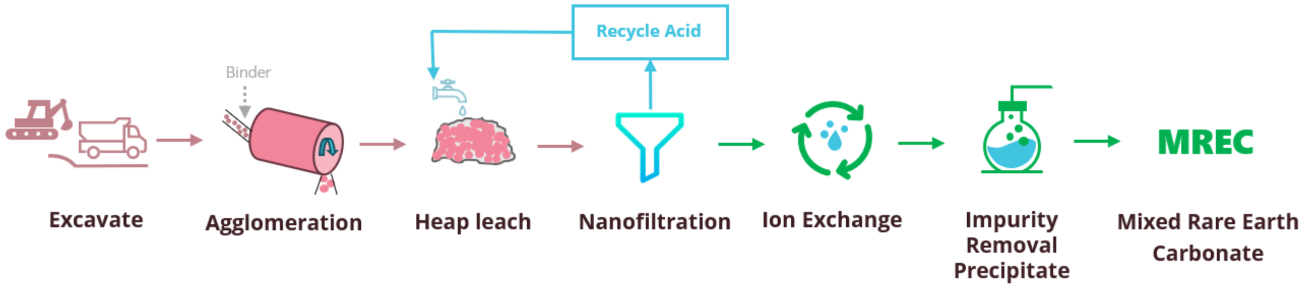

Figure 2: Indicative processing steps including Heap Leach, Nanofiltration plus Ion Exchange &Impurity Removal

Inside Centre Deposit Heap Leach Results

OD6 intends to focus ongoing works around the Inside Centre Prospect at Splinter Rock which currently has achieved high heap leach recoveries as previously reported (refer ASX announcement 16-10-2024) which is summarised in the following.

- **Indicated Resource of 119Mt @ 1,632ppm TREO** (refer to ASX announcement 29-5-2024).
- **Column Leach recoveries of:**
  - **79% for Magnetic Rare Earth Elements (MagREE)**
  - **~80% for Nd & Pr**
  - **~60-70% for Dy & Tb**
- **Acid consumption Reduced from 37.2 kg/t. to ~7.5kg/t using nanofiltration**
- **Column leach recoveries continue to increase over 80+ days, suggesting further potential with extended leach duration.**

Nanofiltration (NF) Results

The Inside Centre Prospect has achieved outstanding Nanofiltration acid recovery results as previously reported (refer ASX announcement 4-8-2025) which is summarised in the following. ANSTO has undertaken the test work using actual and synthetic heap leach solutions at 38 bar pressure and commercially available membranes.

- **84.5% of HCl recovered to permeate (recycled)**
- **94% of REEs retained in retentate (processed further)**
- **69% reduction in liquor volume processed in downstream circuit**
- **Significant reductions in both downstream reagent use and plant size**

Ion Exchange (IX) Results

ANSTO has undertaken the test work using actual and synthetic heap leach solutions. The Heap leach liquor post nanofiltration is passed through a column filled with commercially available resin at a temperature of 23ºC over a time period. During this period the resin selectively binds rare earth elements (REEs) ions based on size and charge differences. The barren liquor after that period is then treated and recycled to the Heap Leach pads for further use.

Table 1: Ion Exchange Barren solution over time

Sample	Time	Bed Vol.	Barren Solution (mg/L)		
	h	BV	TRE+Y	Al	Fe
Feed	0	0	1,279	1,711	20,942
1	1.0	1.4	7	98	344
2	2.0	2.8	0	1201	11,733
3	3.0	4.3	0	1654	18,732
4	4.0	5.7	1	1696	20,728
5	5.0	7.1	3	1762	20,738
6	6.0	8.5	4	1741	21,243
7	7.0	9.9	9	1817	20,378
8	8.0	11.4	13	1791	22,069
9	9.0	12.8	24	1755	21,568
10	10.0	14.2	40	1748	21,824
11	11.0	15.6	57	1754	21,360
12	12.0	17.0	80	1720	21,486
13	13.0	18.5	109	1746	20,781
14	14.0	19.9	138	1624	21,299
15	15.0	21.3	175	1736	20,636
16	16.0	22.7	212	1685	21,576
17	17.0	24.1	255	1714	20,980
18	18.0	25.6	310	1690	20,292
19	19.0	27.0	349	1708	20,945
20	20.0	28.4	396	1689	20,949
Rinse	-	5.0	51	168	2,207

After REEs are captured (adsorbed) onto the ion exchange resin, they need to be recovered. This is done by passing a chosen liquid (eluent) through the resin, which displaces the REEs and washes them off the resin and into a solution. This process is called elution, and the REEs are said to be eluted.

The REE loaded resin is “eluted” by utilising a NaCl solution acidified to pH 2 using HCl at a temperature of 23ºC over 21 hours at a rate of 0,5 Bed Volume per hour. This puts the REEs back into solution for downstream Impurity Removal (IR) and future MREC precipitation.

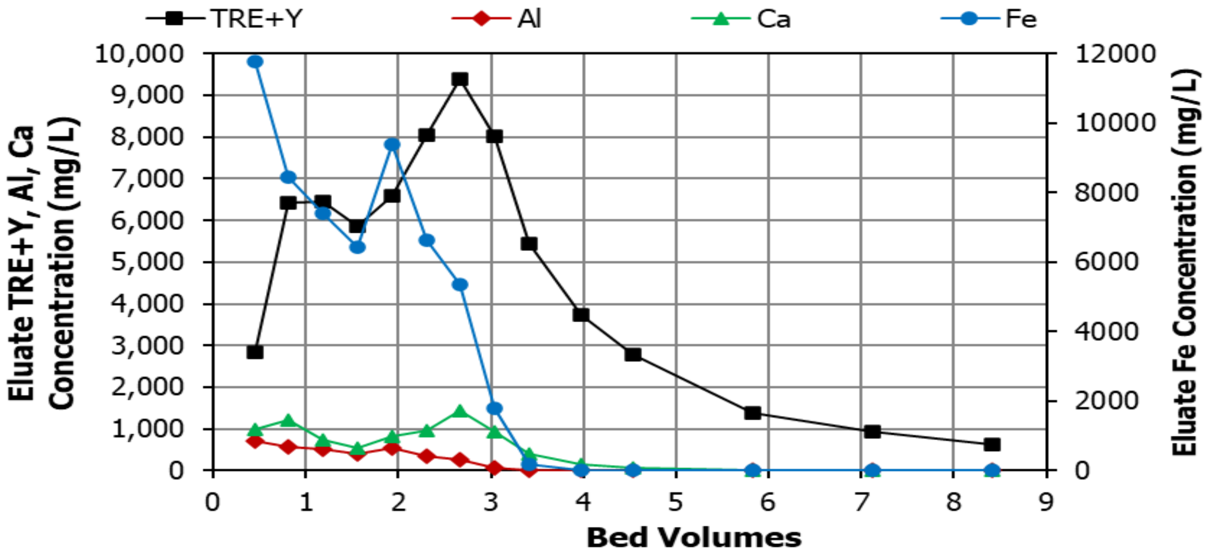

Figure 3: Eluate Concentration over time (number of bed volumes

From Table 1 it can be observed that:

- **The barren IX solution rejects a significant amount of Fe and to a lesser extent Al**
- **REE losses to the barren solution increase after around 10 hours providing an upper limit on loading times**

From Figure 3 it can be observed that:

- **Approximately 10 Bed Volumes is required to elute the REEs back into solution sufficiently**
- **A comparatively small amount of Fe is adsorbed onto the Resin vs the Barron Solution**
- **Aluminium is readily adsorbed onto the resin and will need to be addressed during downstream Impurity Removal (IR) precipitation**

Uranium and Thorium Removal Results

For context, there is a wide variety of acceptable Uranium (U) and Thorium (Th) levels in the final saleable MREC product. Lower U and Th content generally results in an increase in product payability and broadens potential worldwide offtake parties.

Specifications for U/Th in MREC vary by customer, but lower values improve payability:

- Typical: U < 5–20 ppm; Th < 10–50 ppm
- Stringent: U < 2 ppm; Th < 5 ppm

ANSTO testing confirms post IX and IR levels of both U and Th are <0.001 wt%.

Further follow up testwork utilising Heap leach liquor, Nanofiltration (NF), Ion Exchange (IX) and Impurity Removal (IR) to produce a final Mixed Rare Earth Carbonate (MREC) or Hydroxide (MREH) has been undertaken with final results pending.

Impurity Removal (IR) Results

Incorporation of an IX circuit prior to the two stage Impurity Removal (IR) precipitation process has significantly reduced REE co-precipitation during IR improving overall REE recovery - refer to Figure 4 below

A number of different pH adjusting Alkali have been utilised in previous testwork including Lime, MgO and NaOH. **NaOH is the current preferred Alkali when increasing pH during IR Stage 1 and 2**

- **Stage 1: ~pH 3.5**
- **Stage 2: ~pH 4.1 – 4.4**

Sodium Carbonate (Na_2CO_3) or Sodium Hydroxide (NaOH) has been utilised to produce a Mixed Rare Earth Carbonate (MREC) or Mixed Rare Earth Hydroxide (MREH) respectively.

Final MREC/H precipitation occurs from a starting point of ~4.1 to 4.4 pH to a finish pH of between 7.1 to 7.5.

Nd and Pr losses are approximately 5% during the IR and MREC process step. This results in an overall recovery of ~75% from mine through to final MREC Product.

Dy and Tb are more readily precipitated at a lower pH which will be important to optimise in future testwork.

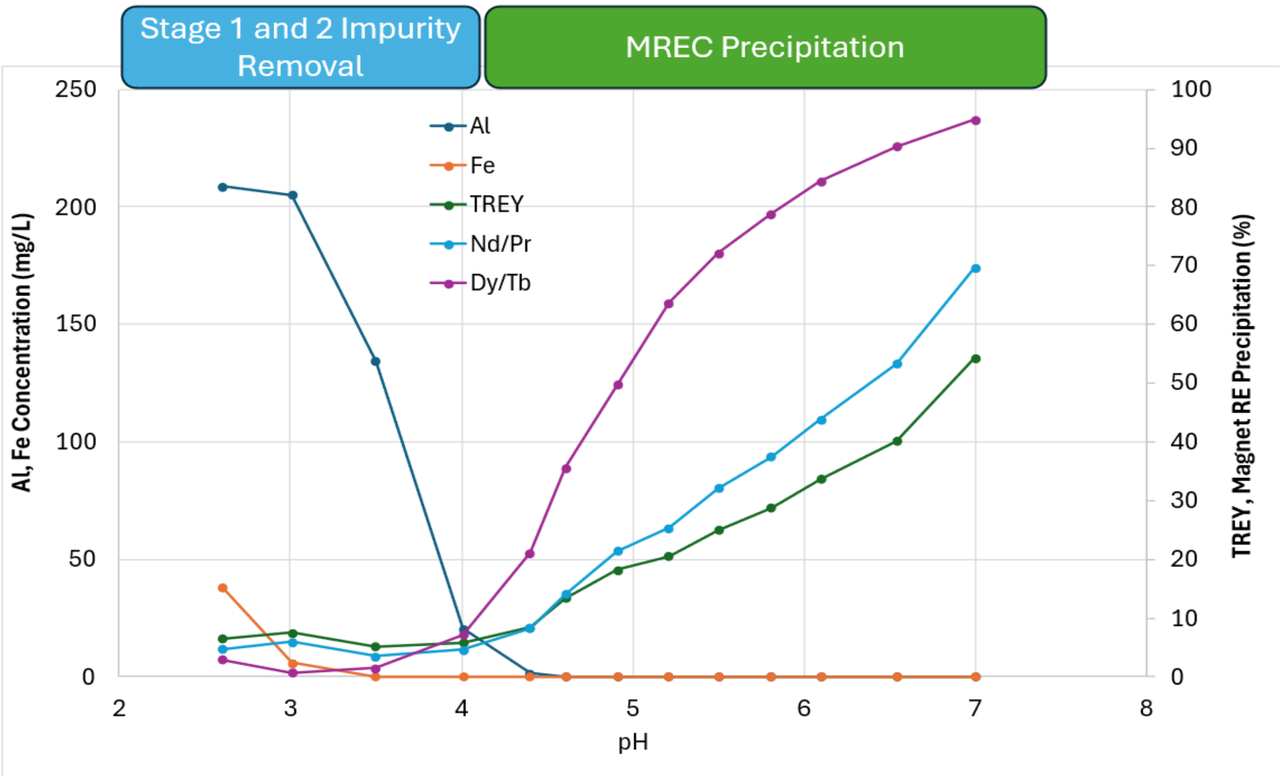

Figure 3: Impurity Removal Curve showing decreasing Al and Fe concentration as pH is increased

Further follow up testwork utilising actual Heap Leach liquor, Nanofiltration (NF), Ion Exchange (IX) and Impurity Removal (IR) to produce a final Mixed Rare Earth Carbonate (MREC) or Hydroxide (MREH) has been undertaken with final results pending.

Next Steps

Mixed Rare Earth Product Precipitation: Utilising Heap leach liquor, Nanofiltration (NF), Ion Exchange (IX) and Impurity Removal (IR) to produce a final Mixed Rare Earth Carbonate (MREC) or Hydroxide (MREH). Testwork has been undertaken with final results pending.

Optioneering Study: As a result of the testwork performed over the last 9 months OD6 has engaged CPC Engineering (CPC) to undertake and Optioneering Study to evaluate the multiple technically viable flowsheets, to enable the techno economic assessment of each flowsheet. This study will identify a preferred flowsheet based on cost, recovery, scalability, and product quality, and is expected to be completed this quarter.

Testwork Scale Up: Heap Leach and Impurity Removal testwork would be scaled up by utilising twin holed diamond core material of the original 6 holes. 6 PQ drill holes would provide about 1 tonne of REE bearing material, which can be utilised to conduct multiple optimisation and validation tests findings from the current reported testwork. This volume would also produce ~1kg of MREC which would enable multiple samples to be produced for testing and offtake discussions.

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, 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).

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 developmen
which utilises the large and high-grade Splinter Rock resource to support a long-life REE operation supported by a low strip rat

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

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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

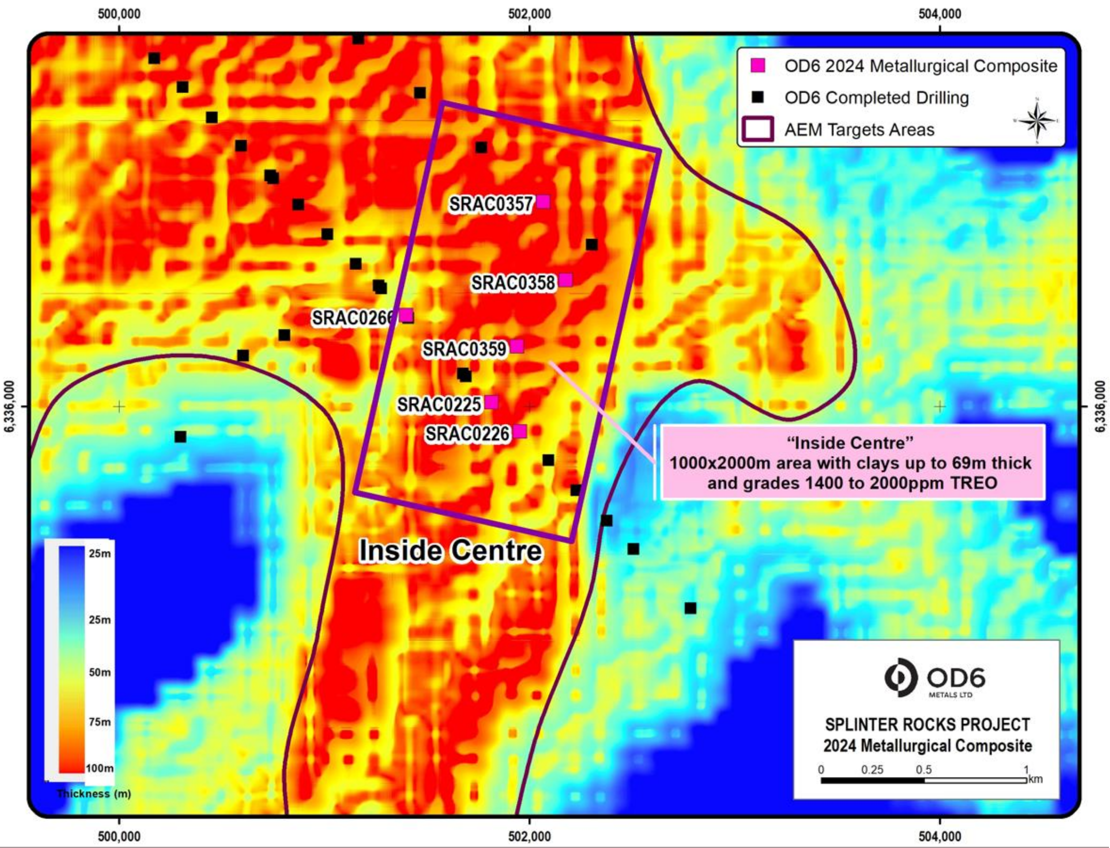

Figure 6: Inside Centre Composite Sample Locations overlain on airborne electromagnetic survey interpretation

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

<table>
<tr><th>Criteria</th><th>JORC Code explanation</th><th>Commentary</th></tr>
<tr><td></td><td>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.</td><td>maintain representativity and minimise any bias</td></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>
</table>

Criteria	JORC Code explanation	Commentary
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 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 • 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 used for crop and livestock farming to the south. • The Company has Native Title Land Access agreements with Ngadju Native Title Aboriginal

Criteria	JORC Code explanation	Commentary
	to obtaining a licence to operate in the area.	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 an 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

Criteria	JORC Code explanation	Commentary
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.
		• Nanofiltration (NF) Tests used both actual and synthetic heap leach solutions at 38 bar pressure and commercially available membranes
		• ion Exchange (IX) Tests used both actual and synthetic heap leach solutions at 23°C over a time period utilising a commercially available membranes. The Resin was then "eluted" by utilising a NaCl solution acidified to pH 2 using HCl at a temperature of 23°C over 21 hours at a rate of 0,5 Bed Volume per hour.
		• Impurity Removal (IR) Tested Tests used both actual and synthetic heap leach solutions at ambient temperatures. NaOH is the current preferred Alkali when increasing pH during IR Stage 1 and 2
		  ○ Stage 1: ~pH 3.5
		  ○ Stage 2: ~pH 4.1 – 4.4
		• Sodium Carbonate (Na_2CO_3) or Sodium Hydroxide (NaOH) has been utilised to produce a Mixed Rare Earth Carbonate (MREC) or Mixed Rare Earth Hydroxide (MREH) respectively.
		• Final MREC/H precipitation occurs from a starting point of ~4.1 to 4.4 pH to a finish pH of between 7.1 to 7.5.
		• 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 under the same conditions as the initial heap leach tests.
		  • Mixed Rare Earth Precipitation: Investigate mixed rare earth precipitation methods, including carbonates and hydroxides.
		  • Process Modelling and Techno-Economic Comparison: Develop process models and

Criteria	JORC Code explanation	Commentary
		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