

The background of the slide is a photograph of a rural landscape. In the foreground, there is a field of green grass and some dry, yellowish-brown vegetation. In the middle ground, there is a large, mature tree with a thick, gnarled trunk and a dense, green canopy. To the right of this tree, there are several smaller trees and bushes. The sky is a pale blue with some light clouds. The top of the slide has an orange gradient background with a network of white dots and lines, resembling a molecular or atomic structure.

Investor Presentation

Makuutu – a Long Life, Low-Cost & High-Value, Critical Heavy Rare Earths Project

27 November 2020

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This presentation should be considered in its entirety. If you do not understand the material contained in this presentation, you should consult your professional advisors. The sole purpose of this presentation is to provide shareholders with an update on current activities of the Company and the current state of exploration at the Makuutu Rare Earths Project in the Uganda.

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Competent Person Statements

Information in this report that relates to previously reported Exploration Targets and Exploration Results has been cross-referenced in this report to the date that it was originally reported to ASX. Ionic Rare Earths Limited confirms that it is not aware of any new information or data that materially affects information included in the relevant market announcements.

The information in this report that relates to Mineral Resources for the Makuutu Rare Earths deposit was first released to the ASX on 23 June 2020 and is available to view on www.asx.com.au. Ionic Rare Earths Limited confirms that it is not aware of any new information or data that materially affects information included in the relevant market announcement, and that all material assumptions and technical parameters underpinning the estimates in the announcement continue to apply and have not materially changed.

A Major, Low-Cost Rare Earths Development Opportunity

IonicRE developing the Makuutu Rare Earths Project

- Makuutu is a strategically / geopolitically significant Rare Earth Elements (“REE”) project located in Uganda, at advanced exploration and development study stage
- Confirmed ionic clay rare earth mineralisation, akin to Chinese ionic clay projects, and clay-hosted deposits are currently the lowest-cost sources of critical and heavy rare earths in the world
 - Majority (>95%) of global supply of Heavy Rare Earths originating from these ionic clays
- Near-surface, high-grade ionic clay exploration results indicate low-cost mining pathway
- Existing Mineral Resource Estimate underpins initial submission to DGSM in Uganda with substantial update to MRE expected within the next 4 months
- Interim Scoping Study completed in November 2020, to be updated post MRE updated in Q1 2021
- IonicRE presently at 51% ownership via earn-in, then up to 60% on completion of Bankable Feasibility Study (BFS)
 - IonicRE has elected to move to a BFS due for completion to support Mining Licence Application before 1 November 2022

Project area well supported with excellent infrastructure

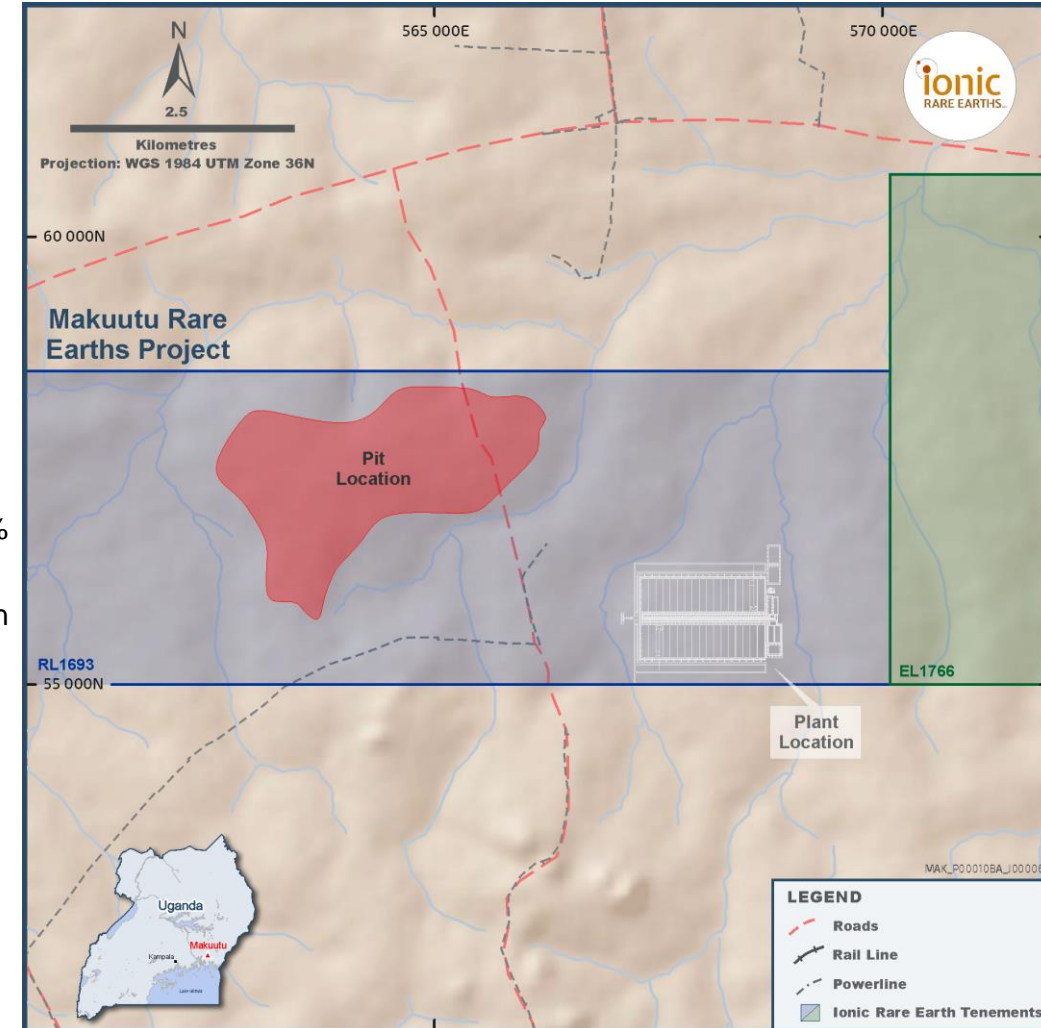
- Easy highway and road access to site, nearby power infrastructure with readily available hydropower, rail, cell phone communications and water availability



Makuutu Rare Earths Project Location

Development highlights since Acquisition (Aug 2019)

- Announced a Mineral Resource of **76.8 Mt @ 840 ppm Total Rare Earths Oxide (TREO)**¹, at a cut-off grade of 300 ppm TREO-Ce₂O₃; while maintaining its Exploration Target at:
270 - 530 million tonnes grading 0.04 – 0.1% (400 – 1,000 ppm) TREO²
This Exploration Target is conceptual in nature but is based on reasonable grounds and assumptions. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.
- Shallow, near surface orebody**, with clay layer averaging 11.9m thick under cover approximately 3m deep;
- Metallurgical recoveries of up to 75% TREE-Ce**³ (Total Rare Earth minus Cerium) achieved using simple extraction techniques – desorption/leaching and precipitation;
- Heavy rare earth elements (HREE⁴) generally achieve higher recovery compared to the Light rare earth elements (LREE⁵), with **average HREE recovery typically being double the average LREE recovery** → HREE increased content in product basket leading to higher value product;
- Rare Earth product is dominant in critical rare earth elements (CREE⁶), with Nd + Eu + Tb + Dy + Y > 50% of product mass, or > 55% when including Pr, leading to high basket price product;
- Exploring analogous low CAPEX, low OPEX modular processing options** enabling short construction lead time and ramp up to commercial production → scalable modules to increase production capacity quickly;
- Strong project support within Uganda from community and government to develop the Makuutu Rare Earths Project;
- Phase 2 drill program just completed; assays pending → **substantial Mineral Resource update expected Q1 2021**;
- Positive Interim Scoping Study submitted** to DGSM for renewal of Retention Licence 1693; and
- Scandium** co-product potential at Makuutu is very accretive for negligible additional processing.



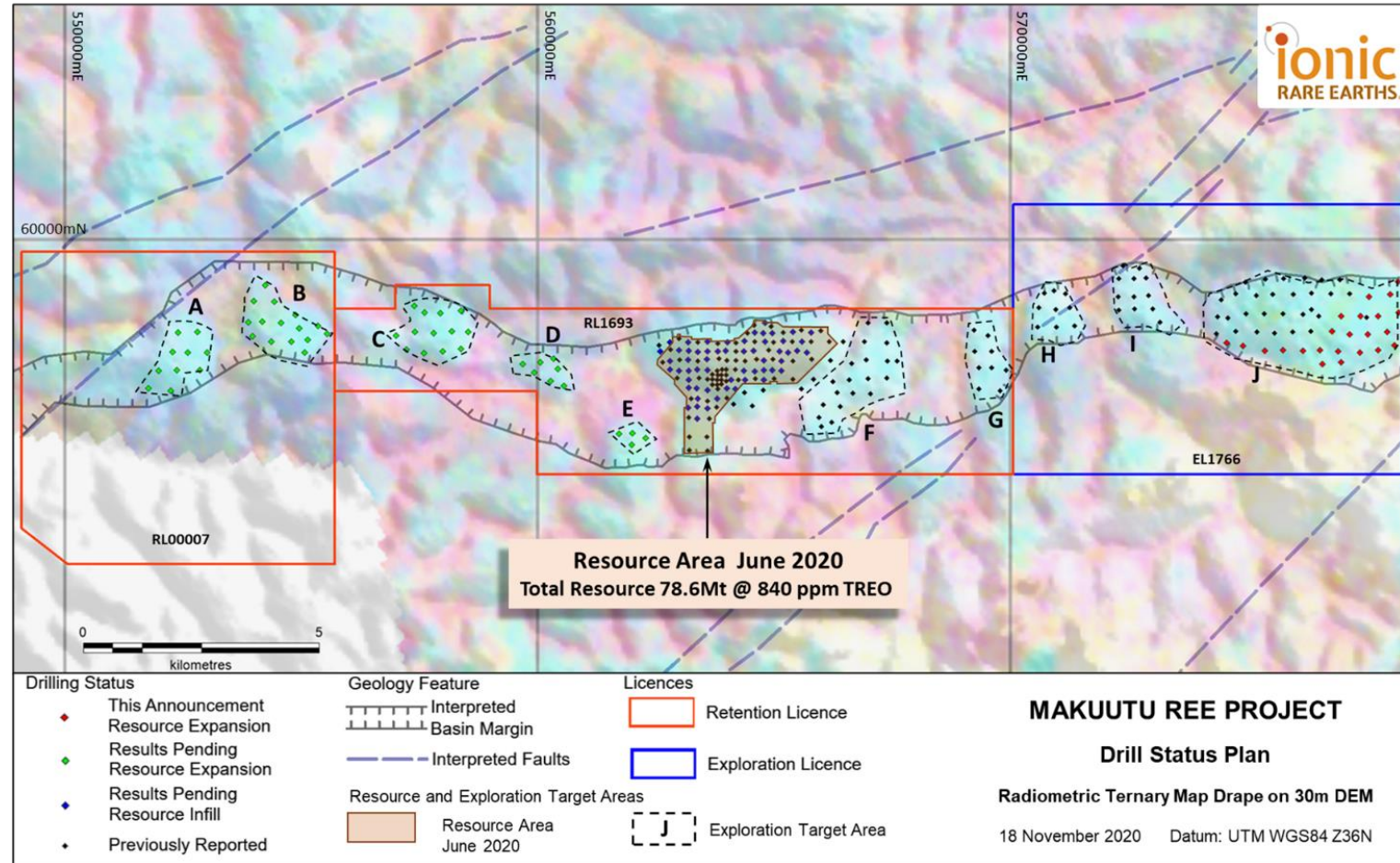
¹ ASX announcement 23rd June 2020; ² ASX announcement 4 September 2019; ³ ASX announcement 18 February 2020; ⁴ HREE = Sm + Eu + Gd + Tb + Dy + Ho + Er + Tm + Yb + Lu + Y; ⁵ LREE = La + Ce + Pr + Nd;

⁶ CREE = Nd + Eu + Tb + Dy + Y;

Pending Mineral Resource Estimate Update

Material update expected in Q1 2021 to support substantial increase in Project scale

- Recently completed Phase 2 drill program included 3,745 metres of drilling from 222 holes
- Exploration Target covers 21km² in total
- Drilling tested an area greater than 3 times the existing MRE area (16.1 km² vs 4.9km²)
- Results from resource extension drilling have returned confirmation of REE clay mineralisation in line with Exploration Target
- 26 km of mineralisation corridor confirmed
- Drill assay results continue to be reported until the end of 2020 (4 of 7 tranches reported to date)
- Material Mineral Resource Estimate update expected in Q1 2021
- Conversion of majority of current MRE from Inferred to Indicated

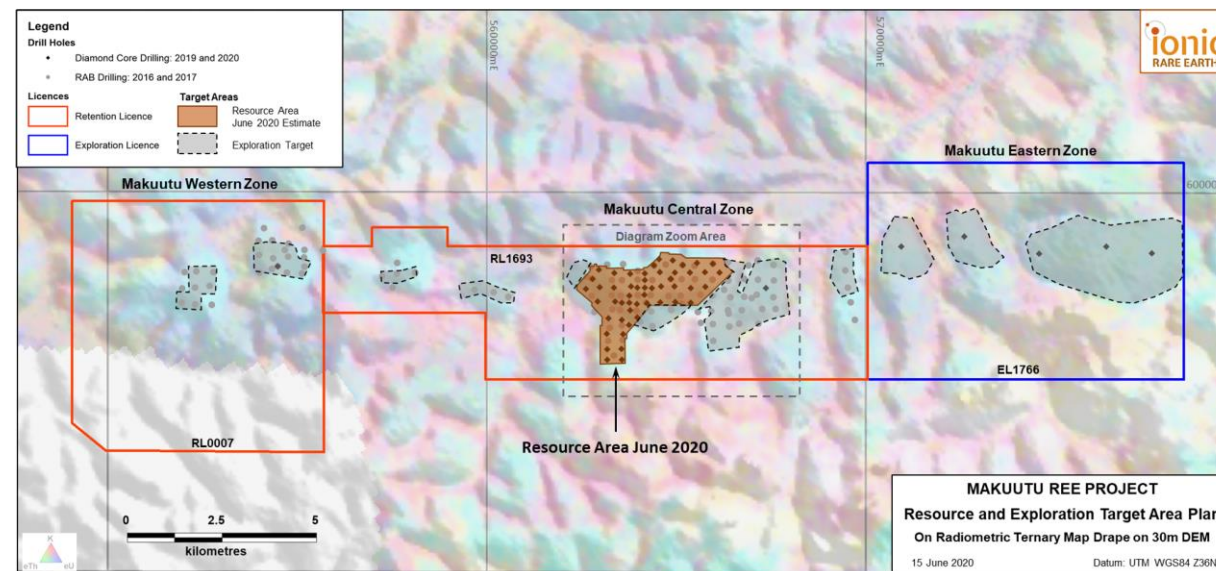


Existing Mineral Resource Estimate (MRE)

- 903m of drilling in 2019 and 2020 defining MRE, with new drilling (+3,745m) set for material increase
- Existing MRE covers less than 25% of Exploration Target area
- Makuutu Mineral Resource Estimate¹ reported above a 300 ppm TREO less Ce₂O₃ marginal cut-off grade
 - MRE contains Clay domain only
- Maintaining the Exploration Target at:

270 - 530 million tonnes grading 0.04 – 0.1% (400 – 1,000 ppm) TREO²

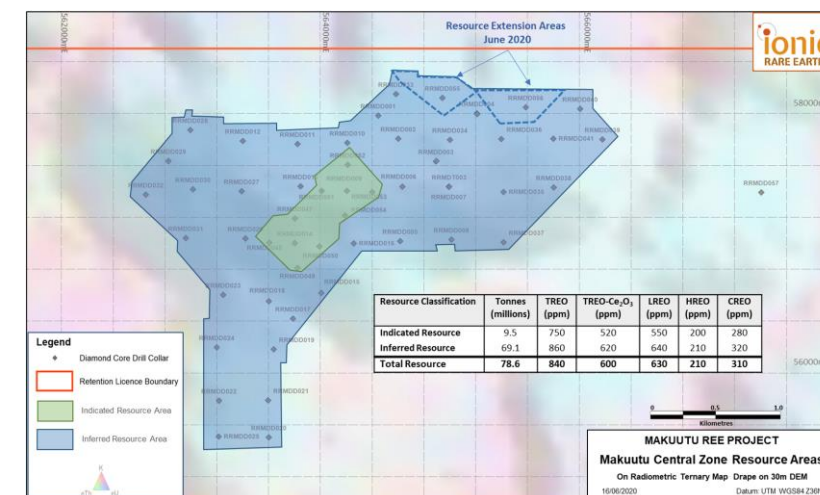
This Exploration Target is conceptual in nature but is based on reasonable grounds and assumptions. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.



Category	Estimation Domain	Tonnes (Mt)	TREO (ppm)	TREO no Ce ₂ O ₃ (ppm)	LREO (ppm)	HREO (ppm)	CREO (ppm)	Sc2O3 (ppm)
Indicated Resource	Clay	9.5	750	520	550	200	280	30
Inferred Resource	Clay	69.1	860	620	640	210	320	30
Total Resource	Clay	78.6	840	610	630	210	310	30

* Rounding has been applied to 0.1Mt and 10ppm which may influence grade average calculations.

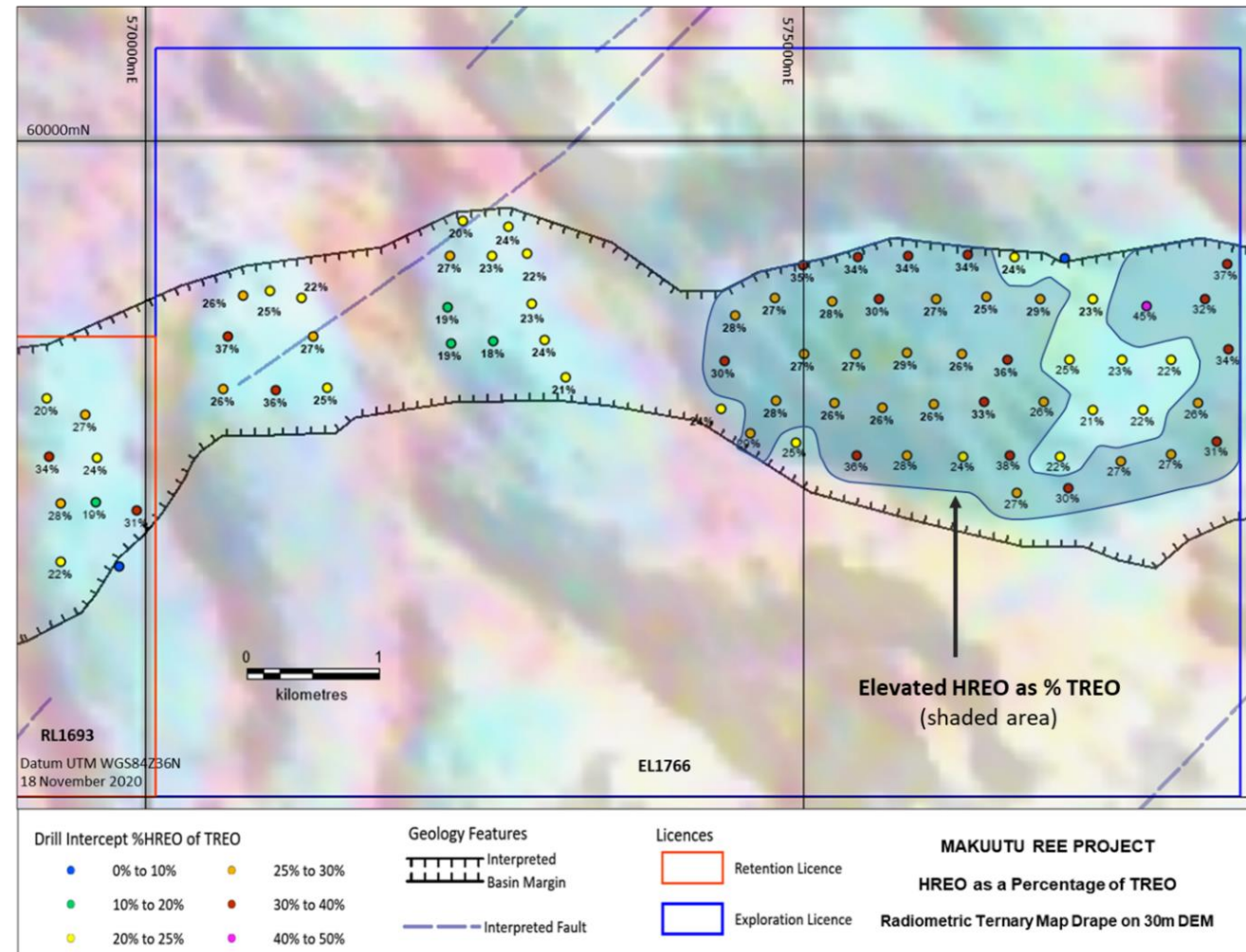
¹ ASX announcement 23rd June 2020; ² ASX announcement 4 September 2019;



Makuutu Eastern Zone – Extending the trend

Makuutu Eastern Zone (EL 1766) showing elevated Heavy Rare Earth content following basin margin east

- Radiometric anomaly and basin margin confirmed as limits of REE ionic clay mineralisation
- REOs confirmed on boundary of EL 1766 extending east
- Recent results shows more kaolin clay development visually in the drill core and supported by geochemical evaluation;
 - ✓ The potential that kaolin is the dominant clay type is a positive indicator for REE extraction at Makuutu
- A consistent zone of HREO as a percentage of TREO, that is greater than the existing MRE average of 25%. Intercepts in the eastern zone range from 21% to 45% HREO in TREO;
 - ✓ Makuutu has demonstrated higher metallurgical extraction of HREOs compared to LREOs which is likely to amplify impact on basket product value from EL 1766
 - ✓ Product likely generate from EL 1766 will be HREO dominant, i.e. > 50% of basket

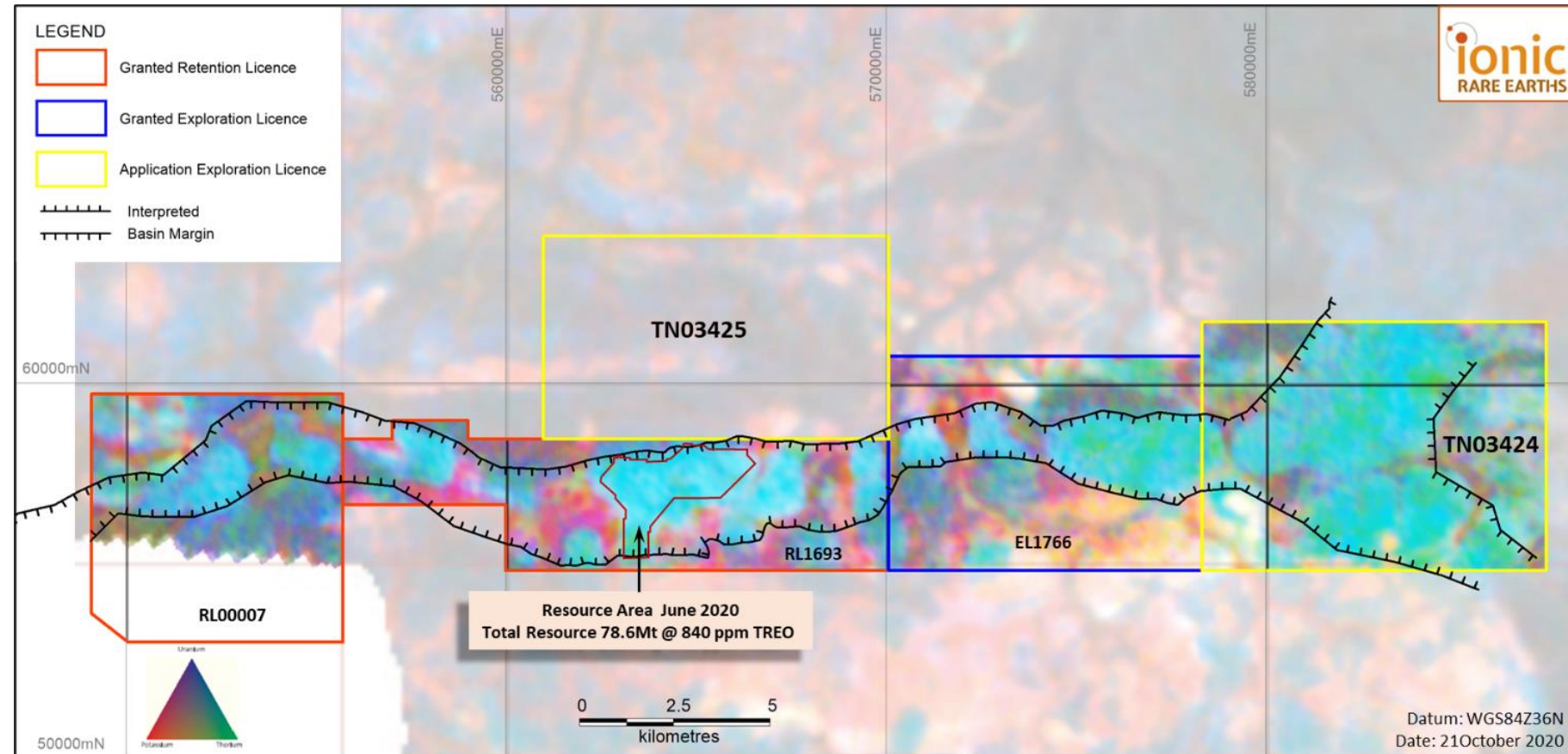


→ **VALUE MULTIPLIER**

Beyond the Eastern Zone.....

Additional footprint applied for to further increase the scale of the Makuutu Rare Earths Project

- Applications for new Exploration Licenses submitted to DGSM in Uganda in Oct 2020
- Radiometric anomaly demonstrated as very strong proxy for REE ionic clay at Makuutu
- TN03424 is highly prospective with potential to increase Exploration Target by up to 50%, following radiometric anomaly and basin margin
- Mineralisation corridor extends from 26km to 36km
- TN03425 provides scope for plant site location options, additional modules and source aggregate for the plant construction



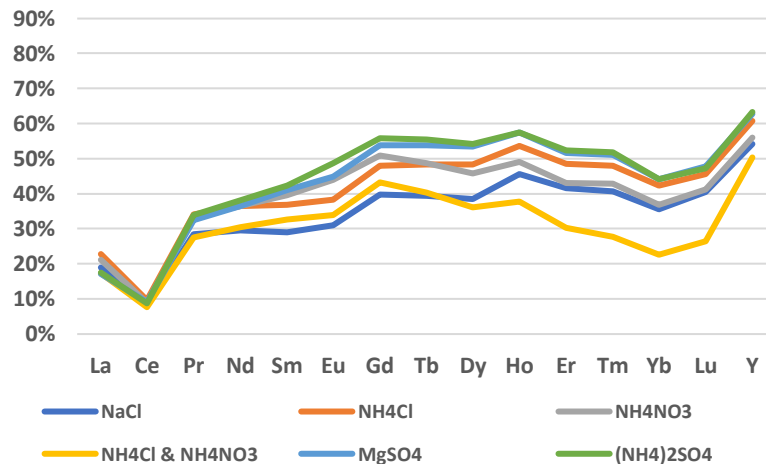
**SCOPE FOR MATERIAL INCREASE IN STRATEGIC IMPORTANCE OF MAKUUTU
→ LONG-TERM SUPPLIER OF HEAVY AND CRITICAL RARE EARTHES**

Metallurgy and Processing

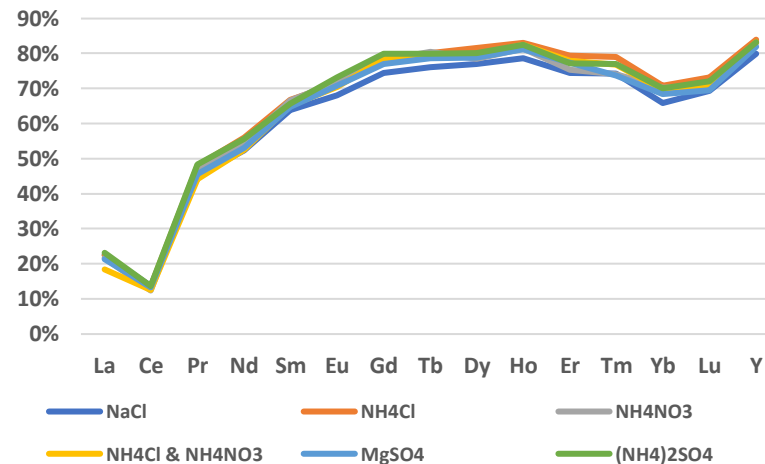
Simple Heap Leach process selected using dynamic heaps

- Sequential / Counter-Current REE extraction via salt desorption using Ammonium Sulfate ((NH₄)₂SO₄) & Sulfuric Acid (H₂SO₄)
 - Heap leaching using H₂SO₄ analogous with Cu heap leaching with 5-10 g/L H₂SO₄
 - H₂SO₄ provides step change in REE extractions specifically heavy and critical REEs
- Residues washed with reclaimed process water to recover residual REE & reagents
- Solution concentrated using membrane process technologies – permeate used for heap washing and concentrate (salts/acid) recirculated back to the process
- Mixed rare earth carbonate product with 70% payability → HREO+CREO dominant (~70-75% of product)

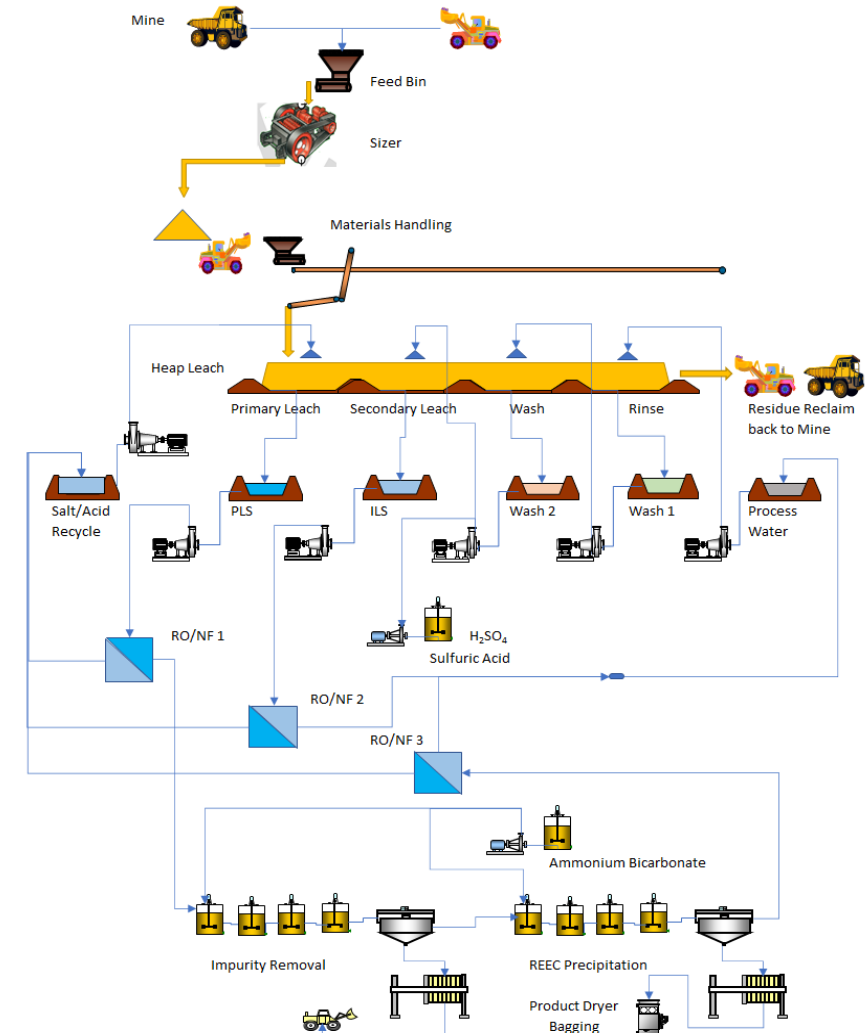
REE Extractions, salt only



REE Extractions, salt + H₂SO₄



Metallurgical extraction testwork using a clay composite from across existing MRE area evaluating alternative salts; Extractions calculated from products;



Tier-One Infrastructure already there!

Logistics

- Approximately 10 km from Highway 109, connecting Makuutu to both capital city Kampala and Port of Mombasa, Kenya
- Approximately 20 km from rail line connecting to Port of Mombasa

Power

- Large hydroelectric generation capacity within 80 km of Makuutu project area will deliver very low-cost power
- Existing electrical grid infrastructure near to site

Water

- Plentiful fresh water within and near project area

Workforce

- No camp required – low-cost professional local workforce available



Makuutu Rare Earths Project site and existing Infrastructure Access



Images; From left, Isimba hydroelectric dam with 183 MW installed capacity at Jinja, rail line connect to Kampala and Port of Mombasa, all weather access roads connecting site to highway, sealed highway running directly adjacent site, and 132 kV power lines running through site.

Advantage of Ionic Adsorption Clays (IAC)

Significant project and cost advantages with ionic clay projects like Makuutu vs hard rock REE projects

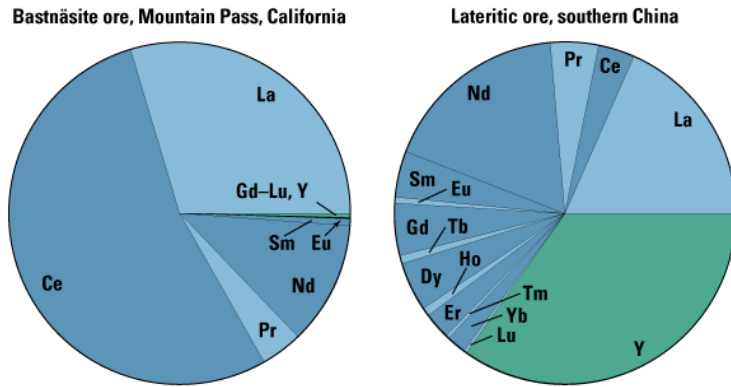


Figure 6. Proportions of individual REE in two representative ores: bastnaesite, dominated by La, Ce, and Nd, with Eu through Lu plus Y totaling only 0.4%; and lateritic ion-adsorption ore, Y-dominated. Dark blue and light blue sectors represent lanthanides of even and odd atomic number, respectively (see figs. 2, 3). Yttrium is indicated by green.

Comparison above of two baskets¹:

- Bastnaesite at Mountain Pass (USA) on left with nearly 80% made up of low value La,Ce product, basket value US\$17/kg and only 35/40% payable without significant capital expenditure to process / crack REE minerals, i.e. value received ~ US\$6-7/kg REO; and
- Ionic Adsorption Clay (IAC) from southern China, which is a far more valuable product where La,Ce only makes up approx. 23% of the basket, basket value US\$39/kg and payability exceeds 70% with no additional capex required, and no radioactivity issues with tailings, i.e. value received ~ US\$27-31/kg REO

¹ Rare Earth Elements—Critical Resources for High Technology _ USGS Fact Sheet 087-02_files;

REE HARD ROCK MINING/PROCESSING VS REE CLAY MINING/PROCESSING		
MINING/PROCESSING STAGES	REE CLAY	REE HARD ROCK
Mining	Low operating costs: <ul style="list-style-type: none"> • Surface mining (0-15m) • Soft material – free digging • Minimal stripping required • Quick back-filling of pits & rehabilitation 	High operating costs: <ul style="list-style-type: none"> • Blasting required • Could have high strip ratios • Could be underground • Long term rehabilitation provisions required
Processing - Crushing	<ul style="list-style-type: none"> • No crushing (or only very mild grinding) 	<ul style="list-style-type: none"> • Intensive crushing and grinding required (intensive power consumption)
Processing - Screening	<ul style="list-style-type: none"> • Intensive washing and screening required • Very large volumes of ores to be processed 	<ul style="list-style-type: none"> • Simple screening into several size fractions
Processing - Leaching	<ul style="list-style-type: none"> • Heap leaching or in-situ leaching • Inorganic salt solutions required • Ambient temperature (no power required) • Simple plant • Easy recycling of solvents & water 	<ul style="list-style-type: none"> • Strong acids required & in large quantities • High temperature required (intensive power consumption) • Complex plant (to withstand strong acids and high temperatures)
Processing - Environmental	<ul style="list-style-type: none"> • Non-radioactive tailings • Neutralisation of tailings (i.e. removal of acids/ solvents) required before back-filling 	<ul style="list-style-type: none"> • Tailings often radioactive (complex and costly disposal)
End-product	<ul style="list-style-type: none"> • Mixed but "liberated" REE oxalate/carbonate grading 45-50% TREO • Mixed REE oxides grading >95% TREO 	<ul style="list-style-type: none"> • Mixed REE concentrate at relative low grade (10-20% TREO) • Mixed REE oxalate/carbonate grading c.45-50% TREO • Mixed REE oxides grading >95% TREO
Plant Capex and Opex	<ul style="list-style-type: none"> • Moderate to low Capex and low Opex 	<ul style="list-style-type: none"> • Very high Capex and high Opex

Advantage of Ionic Adsorption Clays (IAC)

Significant project and cost advantages with ionic clay projects like Makuutu vs hard rock REE projects

MINING/PROCESSING STAGES	MAKUUTU IONIC ADSORPTION CLAY (IAC)	HARD ROCK-HOSTED REE
MINERALISATION	<ul style="list-style-type: none"> ✓ Soft material, negligible (if any) blasting ✓ Elevated HREO/CREO relative to TREO head grade ✗ Lower grade TREO (0.04 – 0.3 % TREO) 	<ul style="list-style-type: none"> ✗ Hard rock; Bastnaesite and Monazite (LREO dominant); Xenotime (HREO dominant) ✗ High La,Ce component of TREO head grade, ~ 5% HREO content ✓ Higher grade TREO (> 0.7% TREO)
MINING	<ul style="list-style-type: none"> ✓ Bulk Mining, low relative operating costs: <ul style="list-style-type: none"> ✓ Surface mining (0-20 m), 3 m of cover ✓ Minimal stripping of waste material (strip ratio = 0.8) ✓ Progressive rehabilitation of mined areas 	<ul style="list-style-type: none"> ✗ Selective Mining, high relative operating costs; <ul style="list-style-type: none"> ✗ Blasting required ✗ Could have high strip ratios ✗ Grade control requirements high
PROCESSING – MINING SITE	<ul style="list-style-type: none"> ✓ No milling ✓ Simple process plant, bulk process methods ✓ Potential for static or in-situ leaching ✓ Low reagent consumption at ambient temperature 	<ul style="list-style-type: none"> ✗ Comminution, Intensive crushing and grinding required to liberate REE minerals ✓ Beneficiation via simple screening a possible option ✗ Expensive (flotation) reagents and utilities required to produce mineral concentrate
MINE PRODUCT	<ul style="list-style-type: none"> ✓ Mixed high-grade rare earth carbonate, +90% TREO grade product ✓ Low La,Ce content (25-30%), high HREO/CREO content (70-75%), high basket value (US\$39/kg REO) ✓ Magnet metals ~ 33.3% (including 5% Dy+Tb) ✓ High margin product 	<ul style="list-style-type: none"> ✗ Mixed REE mineral concentrate (typically 20 – 40% TREO grade), gangue entrainment requires high product transport costs ✗ High La,Ce content (~70%), low basket value per kg of product (US\$13-20/kg REO) ✗ Requires substantial processing (i.e. cracking) before suitable for feed to rare earth separation plant ✗ Low margin product if mineral concentrate only
PRODUCT PAYABILITY	<ul style="list-style-type: none"> ✓ 70-80% payability as a mixed Rare Earth carbonate 	<ul style="list-style-type: none"> ✗ 35-40% payability as a mineral concentrate
PROCESSING - ENVIRONMENTAL	<ul style="list-style-type: none"> ✓ Non-radioactive tailings ✓ Solution treatment and reagent recovery requirements (somewhat off-set by advantageous supporting infrastructure) 	<ul style="list-style-type: none"> ✗ Tailings often radioactive (complex and costly disposal) ✗ Legacy radionuclide tailing management
PROCESSING – REFINERY (TYPICALLY NOT ON MINING SITE)	<ul style="list-style-type: none"> ✓ Mixed rare earth carbonate, +90% TREO grade product a highly desirable feedstock directly into rare earth separation plant ✓ Simple acid solubilisation followed by conventional REE separation ✗ Complex recycling of reagents and water 	<ul style="list-style-type: none"> ✗ High temperature mineral “cracking” using strong reagents to solubilise the refractory REE minerals ✗ Complex capital-intensive plant required, i.e. high capex requirement ✗ Radionuclide issues follow REE mineral concentrates to cracking plant ✗ Social licence to operate concerns re radioactive tailings

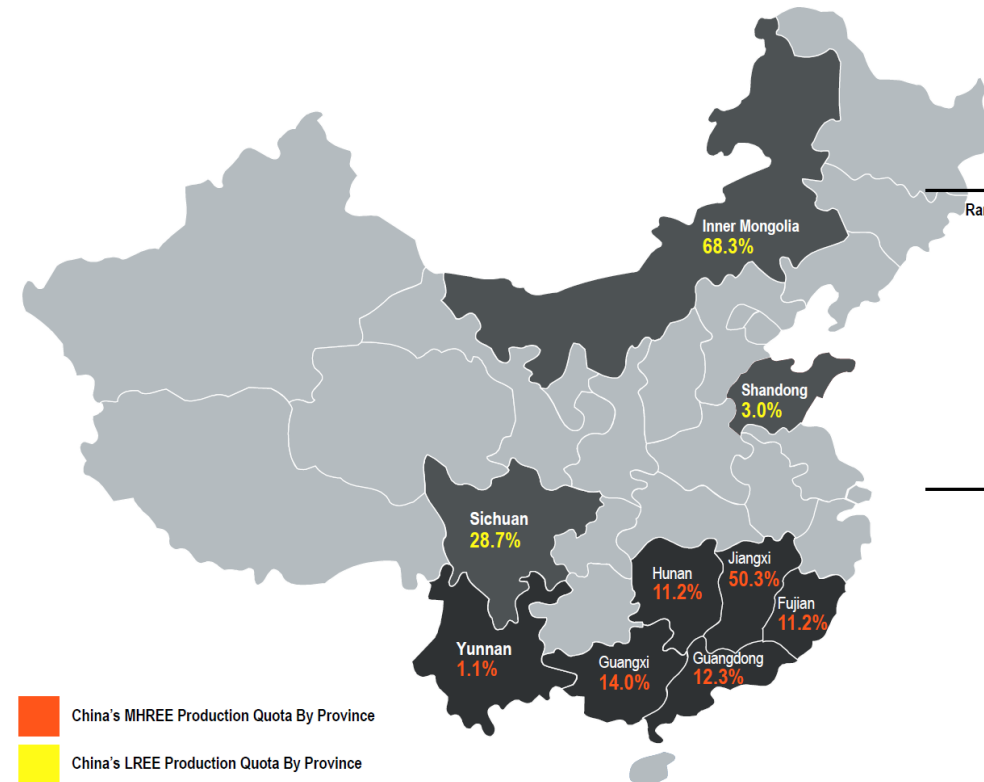
China's REE Dominance – Key Role of IACs

Handful of LREE mineral mines with numerous small scale HREE Ionic Adsorption Clay operations

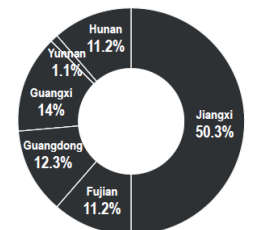
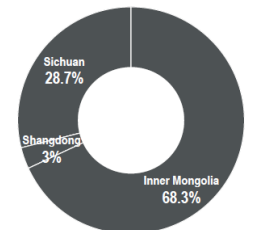
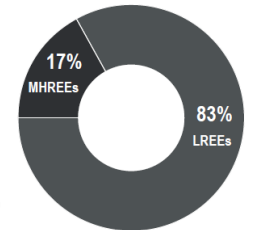
- China derives the bulk of the REE production for a handful of mineral REE mines that produce LREE mineral concentrates;
- 3 LREE mines producing mineral concentrates producing bulk of LREE supply;
 - Bayan Obo world's largest REO producer via by-product REO from iron ore tailings with REE mineral Bastnaesite
 - Reluctance in China to award quota to monazite only producers (enhanced radionuclide issues with tailings)
- Numerous smaller scale ionic adsorption clay mines, common across southern China, typically smaller production tonnages, high value products
 - Ionic clays produce >95% of the worlds HREE production
 - Low cost and simple to operate

Province (Autonomous Region)	2020 Mining Quota Rare Earth Oxides (REO, t)	
	Rock Type (LREE)	Ionic Clay (HREE)
Inner Mongolia (Bayan Obo)	73,550	-
Fujian	-	3,500
Jiangxi	-	8,500
Shandong	4,300	-
Hunan	-	1,800
Guangdong	-	2,700
Guangxi	-	2,500
Sichuan	43,000	-
Yunnan	-	150
Sub-total	120,850 (86%)	19,150 (14%)
Total	140,000	

2015 China's Rare Earth Production Quota By Type & By Province



Source: China Water Risk based on the annual production quota figures release by the Ministry of Land and Resources



© China Water Risk

Source; 2016, RARE EARTHS: SHADES OF GREY - Can China Continue To Fuel Our Global Clean & Smart Future;

China's REE Dominance – Depletion of IACs

Excessive and illegal mining of IACs depleted reserves and drove implementation of quotas → Not easily replaced

- China implemented controls in 2006 – China began to exercise total amount control over REE exploitation & put a limit on the total volume of rare-earths mined every year.
- In 2012, China white paper outlined massive depletion of IACs;

Reserves of ion-adsorption rare earth mines in China's southern provinces has declined from 50 years of supply two decades ago to 15 years at present. Most of the southern ion-adsorption rare earth deposits mines are located in remote mountainous areas. There are so many mines scattering over a large area that, it is difficult and costly to monitor their operation. As a result, illegal mining has severely depleted local resources, and mines rich in reserves and easy to exploit and are favored over the others...

- China's IAC reserves are running out which will create a major shortfall in low cost HREEs
- Makuutu one of only a handful of IACs outside of southern China not under Chinese control to fill void

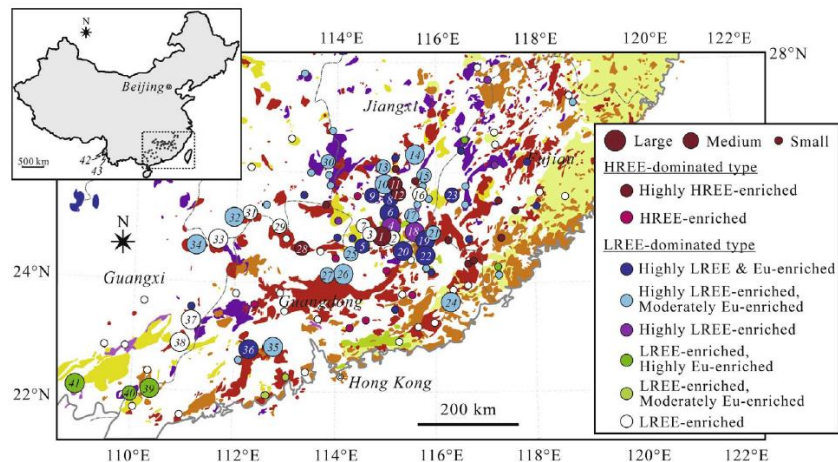


Fig. 3. Distribution of major regolith-hosted REE deposits in South China. Name of deposit (after Bai et al., 1989; Yuan et al., 2012): 1. Zudong, 2. Guanxi, 3. Fukeng, 4. Dingnan, 5. Wulitong, 6. Anxi, 7. Pitou, 8. Hanfang, 9. Yangbu (Aozixia), 10. Dabu, 11. Datian, 12. Xianwentian, 13. Dangqian, 14. Yangcun, 15. Nanshan, 16. Dafuzi, 17. Gangxia, 18. Heling, 19. Nanqiao, 20. Xiache, 21. Renju, 22. Bachi, 23. Nantang, 24. Wujingfu, 25. Xiachuang, 26. Laishi, 27. Shadan, 28. Zhaibeiding, 29. Yijiang, 30. Datang, 31. Xishan, 32. Jinjiling, 33. Guposhan, 34. Huashan, 35. Gonghe, 36. Hechang, 37. Dazhou, 38. Ancun, 39. Qinghu, 40. Majiang, 41. Xiaotung, 42. Long'an, 43. Longbazheng.

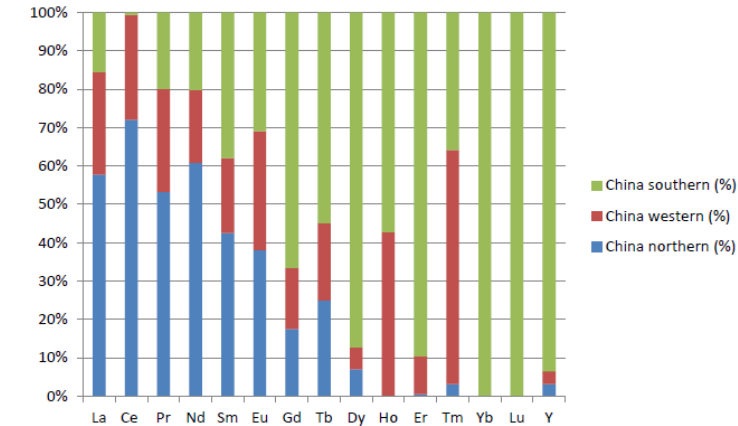
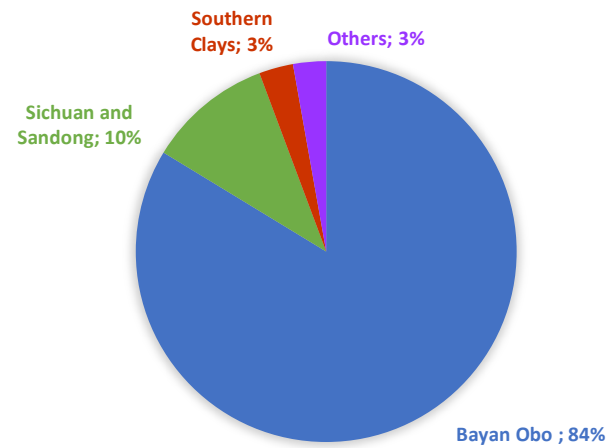
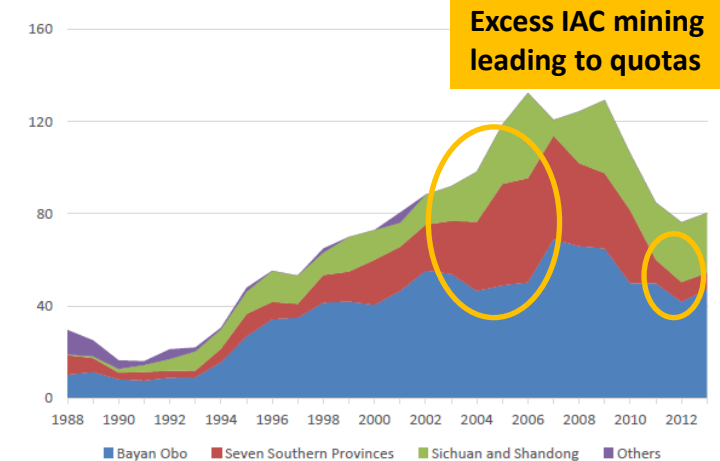


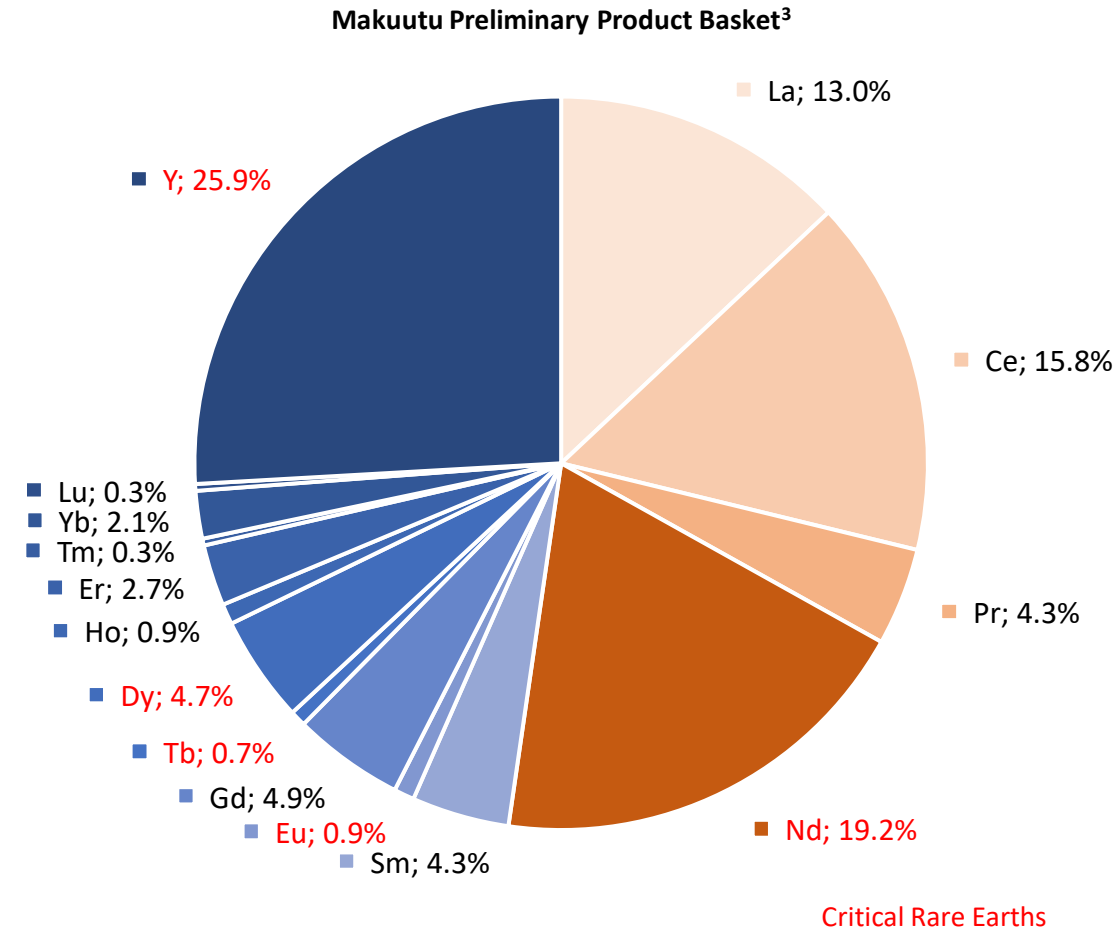
Figure 3.3. Estimated 2015 production in the three REE-regions. Source: based on data from Liu (2016) and official production quota (Rao, 2016).



Source; MIIT, Situation and Policies of China's Rare Earth Industry, 2012; Yan Hei Martin Li, et al., Nature of parent rocks, mineralization styles and ore genesis of regolith hosted REE deposits in South China : An integrated genetic model, 2017; Yang XJ, et al., China's ion-adsorption rare earth resources, mining consequences and preservation, 2013; Wübbke, Problems, Strategy and Implementation in China's Rare Earth Industry, 2016.

Makuutu Basket – Strategic Alternative for CREO/HREO

- Product generated from metallurgical optimisation testwork¹ infers basket price of approx. US\$38.70/kg REO²
- Ionic Adsorption Clay (IAC) products achieve payability of 70-80%, so received value circa US\$27.00 to US\$31.00/kg REO payable
- Product contains > 50% Critical REO, > 45-50% Heavy REO
- Strategically important supply alternative for CREO/HREO –
 - Hardrock REE mineral concentrates have only 5-10% HREE so
 - IAC product complements deficiencies of HREO spread in hardrock REE mineral concentrates
- Basket quality generated from IACs is superior to bastnaesite / monazite mineral concentrate products,
 - Circa US\$13 to US\$20 / kg REO value²
 - REE mineral concentrates only receive 35-40% payability, i.e. US\$4.50-US\$8.00/kg REO value
- Scandium product potential at Makuutu is very accretive for negligible additional processing to include in bulk mixed rare earth carbonate product
 - Opportunity to separate Scandium as a standalone product to be explored in next stage of the Project



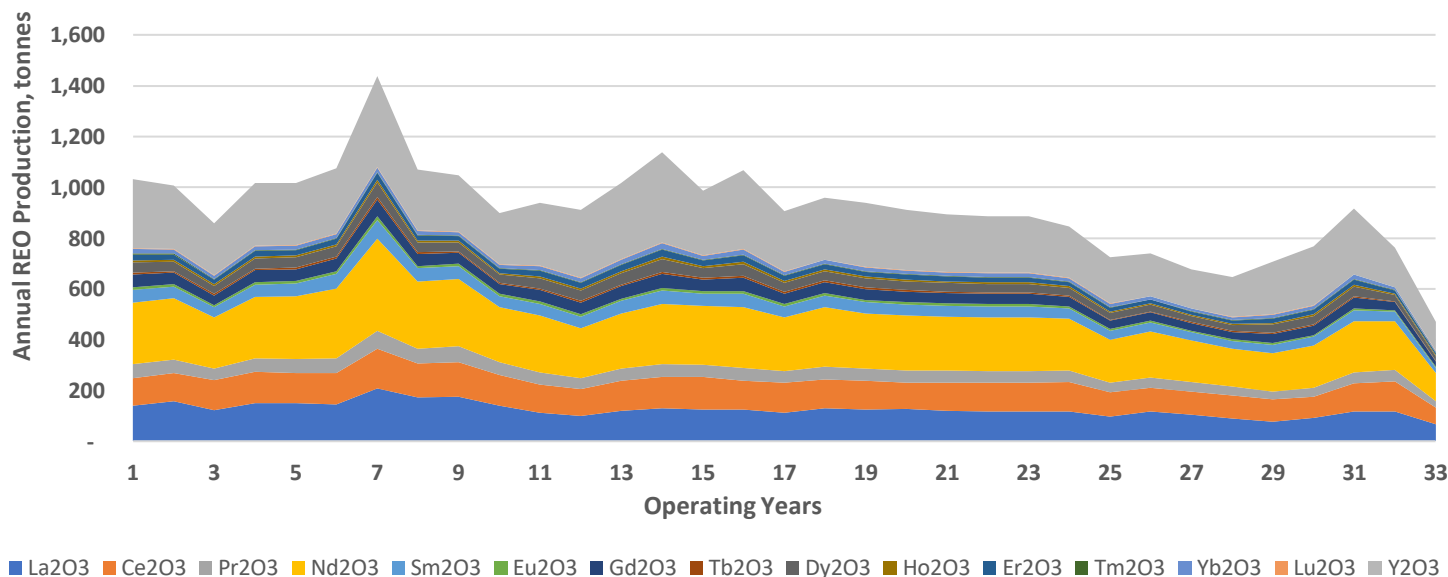
¹ ASX announcement 26th May 2020; ² REO Pricing Spot Nov 2020 - <https://institut-seltene-erden.de/unser-service-2/metall-preise/seltene-erden-preise/>; ³ Rounding has been applied; ⁴ Rare Earth Elements—Critical Resources for High Technology _ USGS Fact Sheet 087-02_files;

Conceptual REO Production Profile

Simple & Modular expansion of REO production

- Concept of one initial module rate for 2.5 million tonnes per annum would produce a 33 year Life of Mine (LOM) operation
- Potential for material Mineral Resource update plus new EL applications supports expansion plans
- Additional modules added to step production throughput capacity up from 2.5 Mtpa up to 10 Mtpa over 7 years → REO equivalent production capacity increases to ~ 3,660 tpa REO equivalent product

REOs produced from 2.5 Mtpa ROM Feed Rate (1 Module)



Average REO Production (t/a)	ROM Plant Throughput (Mtpa)			
	2.5 Mtpa (1 Module)	5.0 Mtpa (2 Modules)	7.5 Mtpa (3 Modules)	10.0 Mtpa (4 Modules)
La2O3	124	248	372	496
Ce2O3	112	224	335	447
Pr2O3	47.2	94.5	142	189
Nd2O3	216	432	648	863
Sm2O3	44.3	88.5	133	177
Eu2O3	8.6	17.1	25.7	34.3
Gd2O3	42.0	84.0	126	168
Tb4O7	6.0	12.0	18.0	24.1
Dy2O3	35.5	71.0	107	142
Ho2O3	7.0	14.0	21.1	28.1
Er2O3	19.1	38.2	57.2	76.3
Tm2O3	2.5	5.1	7.6	10.1
Yb2O3	14.4	28.8	43.3	57.7
Lu2O3	2.1	4.1	6.2	8.3
Y2O3	234	468	701	935
TOTAL REO	914	1,830	2,740	3,660
Sc2O3	21.3	42.6	63.9	85.1

Activity Completed – The past 12 months

	COMPLETED
Re-assay of selected historical samples confirms presence of Rare Earths	✓
First-pass metallurgy confirms presence of ionic-clay hosted REEs	✓
Initial Core Drilling Program	✓
Phase 1 Metallurgical Testing recovers up to 75% TREE-Ce	✓
JORC 2012 Mineral Resource Estimate (updated)	✓
Phase 2 Core Drilling Program	✓
Environmental and Social Impact Assessment (ESIA) – Terms of Reference Scoping Report	✓
Submission of Renewal of Retention Licence 1693, submission of interim Scoping Study	✓
Expenditure to earn 51% Project Interest	✓

Target Pathway to Development – Next 12-24 months

	COMMENCE BY	COMPLETE BY
Receipt of Renewal of RL 1693, EL applications awarded	In progress	Q4 2020
Mineral Resource Update	After final assays	Q1 2021
Updated Scoping Study	In progress	Q1 2021
Environmental and Social Impact Assessment (ESIA) – Commence Study	Q2 2021	Q3 2022
Phase 2 Metallurgical Variability Test Program	Q2 2021	Q3 2021
Exploration Drill Program	Q2 2021	Q2 2021
Bankable Feasibility Study	Q2 2021	Q4 2022
Demonstration Plant / Field Trials	Q3 2021	Q3 2022
Ore Reserve Estimate		Q4 2022
Submit Mining Licence Application		Q4 2022

IonicRE Value Proposition

Makuutu – a Long Life Asset to Supply Low-Cost, High-Value Critical & Heavy Rare Earths

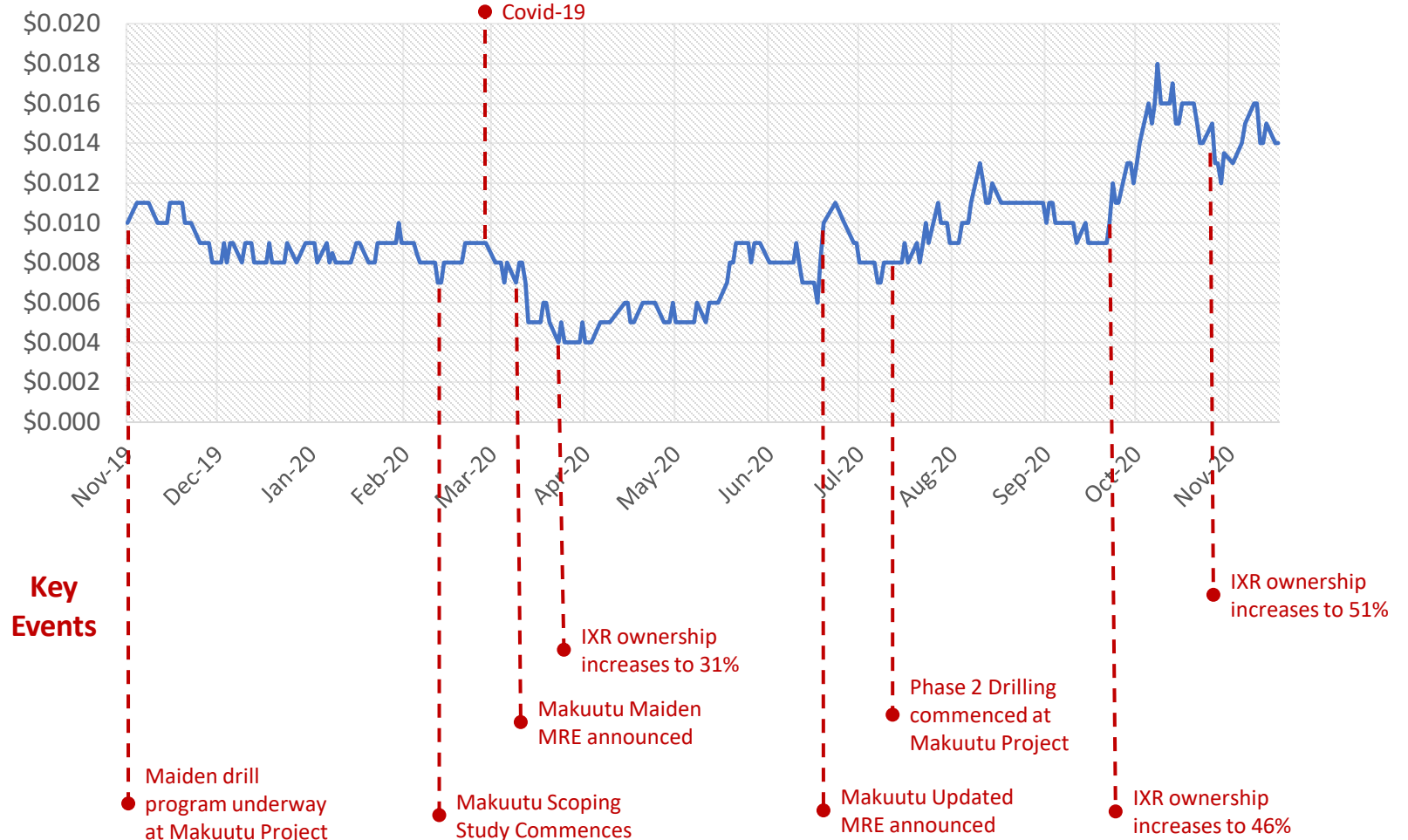
- A unique opportunity – vastly different to the numerous REE hardrock projects looking for financing
- Exploration Program has defined Mineral Resource Estimate with scope for material near term update
 - Recently completed Phase 2 drill program confirming mineralisation extends at least 26 km long with material update expected Q1 2021
 - Enhanced HREO content at EL 1766
 - Exploration Targeting using radiometrics identified large radiometric anomaly immediately adjoining existing EL 1766 and new application lodged with expected award before the end of 2020
- Metallurgical results indicate simple low-CAPEX and low-OPEX mining and processing operation potential allowing modular expansion to ramp up REO production
 - Low capex requirement to a mixed rare earth carbonate product – no cracking plant required – very simple
 - Indicative product quality suggests a CREO/HREO dominant product with a high value basket content, circa US\$39/kg REO (at today's prices) which will achieve a high payability and no radioactive content → this is a highly desirable product
 - Incremental ramp up of REO production with addition of modules potentially funded by free cash flow
 - Scandium co-product potential
- Strategically and geopolitically significant Critical / Heavy Rare Earths supply in stable jurisdiction
 - Diversified supply of CREO/HREO to offset depletion of ionic clays in southern China → China has moved to prioritise / secure their own supply of HREOs
 - Potential for a long life CREO/HREO asset (25 – 30 years +)
- Strong Third-party strategic interest in Makuutu as an ionic clay hosted REE deposits given its demonstrated simple low-cost nature
- Active development pathway leading to regular news flow over the next 6 months into Q2 2021
- Experienced, motivated and proven team in place to advance Makuutu through development to operations stage

Ionic Rare Earths Limited Corporate Snapshot

CAPITAL STRUCTURE (As At 18/11/2020)

Shares Outstanding	2,751,628,086
Total Options Outstanding	425,800,000 (exercisable at 0.75 to 1.8 cents)
Performance Rights	33,400,000
Share Price	A\$0.014
Market Capitalisation	A\$38.5 million
52 week share price range	A\$0.004 – A\$0.019
Cash Balance (30/09/2020)	A\$3.03 million
IXR MAJOR SHAREHOLDERS	
Major Shareholders	17.0%
Executives, Directors & Key Advisors	8.7%

SHARE PRICE (ASX: IXR) (Last 12 months)





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