

31 January 2023

## QUARTERLY REPORT FOR THE PERIOD ENDING 31 DECEMBER 2022

### HIGHLIGHTS

- The Makuutu Rare Earth Project's Environmental and Social Impact Assessment (ESIA) approved by Uganda's National Environmental Management Authority (NEMA)
- Mining Lease Application progressed and expected to be finalised imminently, with award expected by the end of Q1 2023
- Retention Licence 00007 (Makuutu Western Zone) Renewal Approved – lodged and approved within two weeks – by Uganda's Directorate of Geology Survey and Mines (DGSM)
- IonicRE receives ESG rating of "BB" from leading independent global platform – Digbee ESG™
- IonicRE was accepted as member participant of the United Nations Global Compact – the World's largest corporate sustainability initiative
- Ionic Technologies Belfast facility fit out progressed on schedule with magnet recycling pilot plant producing over 5kg of Nd<sub>2</sub>O<sub>3</sub> and Dy<sub>2</sub>O<sub>3</sub> products as part of verification program processing NdFeB swarf
- Downstream Refinery study progressed, expected to be finalised in Q1 2023, with the US as the preferred location for the facility
- Engagements continue with governments, government bodies, and potential strategic partners interested in the unique appeal of the Makuutu basket of magnet and heavy rare earths to feed new emerging supply chains

**Ionic Rare Earths Limited** ("IonicRE" or "The Company") (ASX: IXR) is pleased to provide its Quarterly Report for the period ending **31 December 2022**. This report includes development activities at its 51% owned Makuutu Rare Earths Project ("Makuutu" or "the Project") in Uganda and the Company's 100% owned magnet recycling subsidiary in the UK, Ionic Technologies International Limited ("IonicTech").

### Makuutu Rare Earths Project

Makuutu is one of the world's largest ionic adsorption clay (IAC) hosted Rare Earth Element (REE) deposits comprising six licenses (see Figure 1) covering approximately 300 km<sup>2</sup> located 120 km east of Kampala in Uganda. The deposit stretching 37km is situated near high quality tier one

infrastructure, and has the potential to provide western customers with a strategic alternative supply of heavy rare earth oxides to support the growth of manufacturing and industries critical to achieve net-zero carbon initiatives for 50 years and beyond.

Makuutu is being developed by Rwenzori Rare Metals Limited (“RRM”), a Ugandan private company which owns 100% of the Makuutu Project. IonicRE is a 51% owner of RRM and moving to 60% on completion of the Feasibility Study and Mining Licence Application (MLA) which is expected shortly. IonicRE also has the first right over the remaining 40% stake in RRM and Makuutu and is progressing discussions with partners on a transaction.



**Figure 1: Makuutu Rare Earths Project Location with major existing nearby infrastructure.**

During the December quarter, IonicRE announced a major corporate milestone in the development of the Makuutu Rare Earths Project, with the Environmental and Social Impact Assessment (ESIA) being granted approval by Uganda’s National Environmental Management Authority (NEMA). This vote of confidence positions Makuutu as Uganda’s next mineral development project, and is set to unlock unprecedented social and economic benefit through mineral development.

The approval follows a 9-month assessment by NEMA culminating in two large public hearings with over 3,800 registered attendees demonstrating strong governmental and local stakeholder support.

In recognition of the flagship nature of this Project and its significance to the country’s development as enshrined in Uganda’s National Development Plan NDP-III, the certificate was awarded at a ceremony held in Kampala at NEMA’s headquarters (see Figure 2).

Approval of the ESIA is a fundamental requirement for the Mining Lease approval process, expected Q1 2023.



**Figure 2: NEMA Executive presenting the Certificate of Approval for the Makuutu Rare Earth Project ESIA to the Rwenzori team in Uganda.**

Social benefits continue to accelerate across local communities in the Bugweri, Mayuge and Bugiri districts and includes employment, support programs and improved social services in one of the poorest parts of Uganda.

In September 2022, the Company initiated the early commencement of the MLA at Makuutu. During the quarter, additional documentation was submitted in support of MLA TN03834, illustrated in Figure 3, over Retention Licence (RL) 1693. Engineering was completed during the quarter and the Feasibility Study (FS) report, which focuses on a staged approach to the development at Makuutu starting on RL 1693, is now working through internal approvals for imminent submission to the DGSM in Uganda to support the MLA.

The MLA has been prepared for the Makuutu central licence RL 1693, which is host to an Indicated Resource Estimate of 259 million tonnes at 740 ppm TREO-CeO<sub>2</sub> (refer Table 2), which is a subset of the much larger, total Makuutu Rare Earths Project MRE of 532 million tonnes at 640 ppm TREO-CeO<sub>2</sub> (refer Table 1).

Work programs continued in Australia and Uganda to de-risk Makuutu, including planning activity for the Demonstration Plant, expected to be in operation H2 2023 to provide additional data and mixed rare earth carbonate (MREC) product samples for evaluation and testing by potential supply chain partners. The Demonstration Plant will consist of simple mining, material handling and scaled up metallurgical testing, including head leach columns, cribs and trial heaps, to provide additional information to assist in the scale up of the Project.

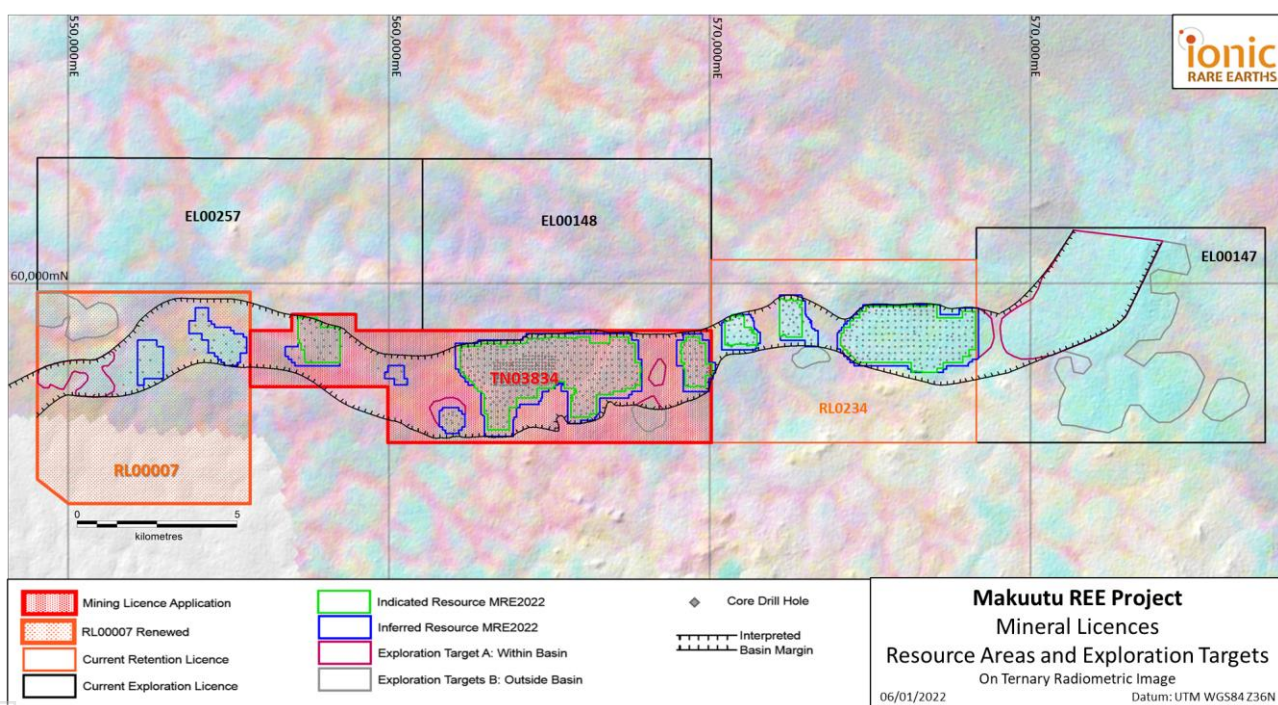
Pending the award of the MLA, expected Q1 2023, the Company, via RRM, will be working with Ugandan authorities on a Mineral Development Agreement (MDA) which will establish the fiscal terms for the mine development in Uganda.



During the Quarter, the application for renewal of RL 00007 was lodged and approved within two weeks by Uganda's Directorate of Geological Survey and Mines (DGSM). RL 00007 represents the likely next tenement to progress to MLA and is expected to be finalised late 2024, with potential for additional exploration upside planned for 2023.

RL 00007, illustrated in Figure 3, covering the Makuutu Western Zone (MWZ), contains an Inferred Resource of 39 million tonnes at 470 ppm TREO-CeO<sub>2</sub> (Table 2). RL 00007 is located immediately west of the current MLA, and we expect will provide the basis for additional capacity and organic growth at Makuutu once initial mining and processing activity commences at Makuutu.

This renewed RL is also immediately south of the prospective exploration target located at EL00257, where applications have been submitted for drilling to commence this year to further define the scale of potential ionic clay mineralisation to the west of the MLA area. Once the approvals have been received for exploration to commence, the Company intends to initiate the Phase 5 drill program at Makuutu to commence additional resource drilling in these areas to convert the Inferred Resource to an Indicated Resource classification at RL 00007.



**Figure 3: Makuutu Project resource map showing resources and exploration target areas within the MLA area (TN03834) over RL 1693, and the renewed RL 00007, or the Makuutu Western Zone, located immediately adjacent (west).**

Progress continued with the Resettlement Action Plan (RAP) during the quarter, with several studies continuing in parallel to the MLA. The RAP will document the strategy by which the land is acquired for the entire Retention Licence (RL) 1693 (focus of the initial Mining Lease application) over the life of the Project, while ensuring that Project Affected Persons (PAPs), including vulnerable people, are not financially or socially disadvantaged.

Presently, a process of stakeholder identification and engagement is in advanced stages of concluding the RAP development process. This process involves engaging directly affected PAPs,

key village, sub county and district stakeholders throughout the three districts of Bugweri, Mayuge and Bugiri, plus national stakeholders.

All PAPs have been identified and the majority of their parcels of land mapped. Now the ESIA has been approved by NEMA and the Ministry of Energy and Mineral Development (MEMD), the Project has been undertaking a due diligence process. confirming the areas mapped as well as entering into Memorandums of Understanding (MOU's) with PAPs to support land access.

### Environmental, Social and Governance (ESG) Progress

During the quarter IonicRE was accepted as a participant of the United Nations Global Compact – the World's largest corporate sustainability initiative. As part of this commitment, IonicRE will align corporate strategy and operations with the Ten Principles of the United Nations Global Compact. The Ten Principles consist of the Sustainable Development Goals (SDGs) and fall under the four pillars of human rights, labour standards, environmental protection, and anti-corruption.

IonicRE will deliver an annual Communication on Progress (CoP) to the United Nations Global Compact in the first half of 2023. The Communication of Progress (CoP) is a voluntary action plan used by UN Global Compact participants to address an organisations impact on the prosperity of all people and our planet. This is one of the many programs of reporting and assurance that IonicRE is undertaking with respect to climate and environmental responsibility, social license to operate, business innovation and ethical governance practices.

During the quarter, Digbee ESGTM (Digbee) awarded IonicRE an overall “BB” ESG score for Corporate and Operation activity relating to the Makuutu Rare Earth Project.



**Figure 4: A graphic representation of IonicRE's overall ESG risks and opportunities assessed by Digbee ESGTM.**

Digbee is considered the mining sector's leading independent assessment platform for ESG disclosure and is endorsed by leading global financiers. The Digbee platform offers companies a right-sized, future-looking set globally aligned ESG frameworks to map out ESG risks and opportunities.

The inaugural Digbee report and associated scoring system provides IonicRE with a baseline ESG risks and opportunities assessment within the rating credentials for both IonicRE Corporate (refer

Figure 5) and the Makuutu Rare Earths Project (refer Figure 6). The report has provided IonicRE visibility on improvement mechanisms in relation to ESG embedded within our entire operation, from the Makuutu Rare Earths Project in Uganda to Ionic Technologies in Belfast, and within IonicRE.

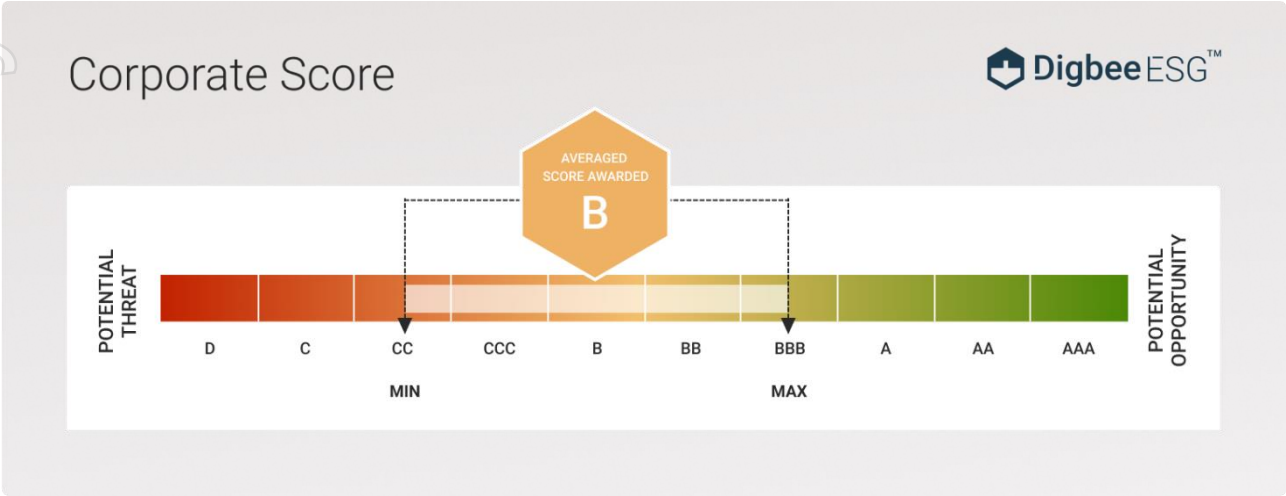


Figure 5: A graphic representation of IonicRE’s corporate ESG risks and opportunities assessed by Digbee ESG™.

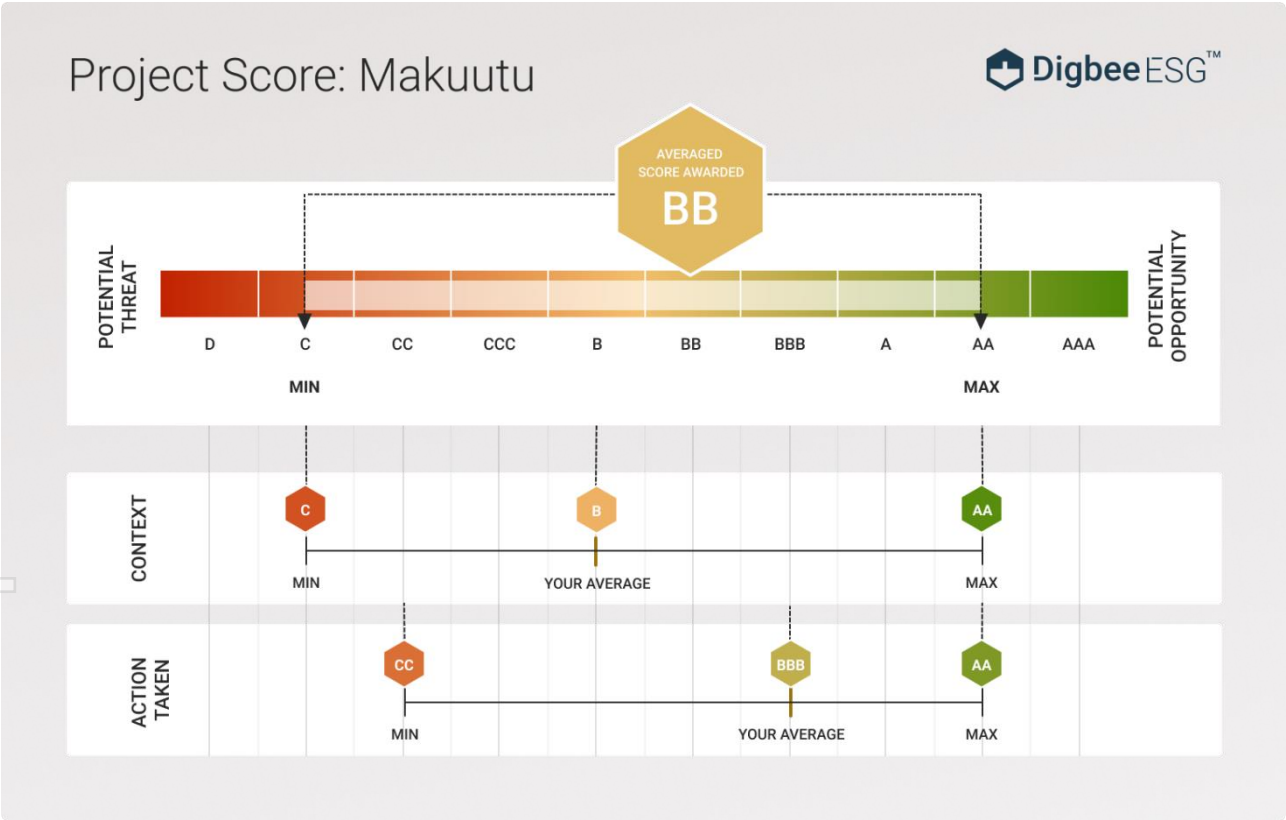


Figure 6: A graphic representation of IonicRE’s Makuutu Rare Earths Project ESG risks and opportunities assessed by Digbee ESG™.



## Ionic Technologies Belfast Facility Update

IonicTech has developed rare earth element separation and refining technology and applied this to the recycling and refining of individual magnet rare earths from spent permanent magnets and swarf.

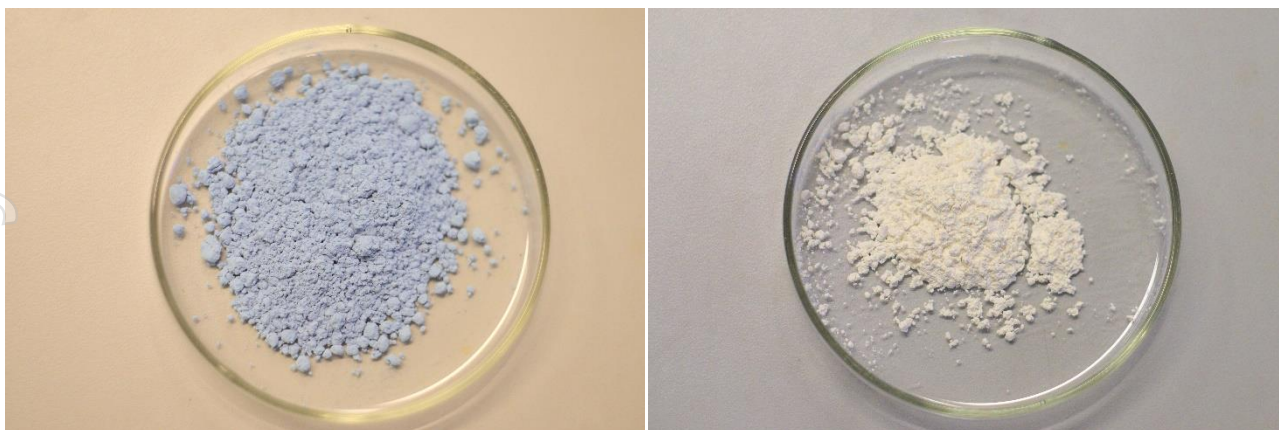
Over the December quarter significant progress was made at our newly established facility in Belfast, UK, which is progressing on schedule, with the new facility now home to the expanding team.

The new facility, located in the Titanic Quarter in Belfast, has been equipped with analytical and hydrometallurgical laboratories, plus piloting and demonstration plant bays to progress the scale-up verification of the technology. Additionally, the team is being expanded in Belfast to accelerate the work streams with current plans for commissioning of the demonstration plant expected in late Q1 2023, and first recycled rare earth oxide (REO) products produced by the end of Q2 2023.

Pilot plant operations conducted during the quarter further validated the improvements incorporated in the technology and process since the acquisition in April 2022, demonstrating hydrometallurgical extraction from Neodymium-Iron-Boron (NdFeB) swarf (see Figure 7, left), supplied by a UK metal and alloy manufacturer, treating a sample rich in magnet REEs, Neodymium (Nd) and Dysprosium (Dy). The pilot campaign successfully processed the swarf into a number of intermediary REE products (refer Figure 7 right), prior to the separation, and production of approximately 5 kgs of refined high purity rare earth oxides (REO),  $\text{Nd}_2\text{O}_3$  and  $\text{Dy}_2\text{O}_3$  (Figure 8). Internal and external analysis of the products confirms they are consistent with separated REO products produced and sourced from existing Chinese producers.



**Figure 7: Swarf feedstock on the left, sourced from NdFeB metal alloy production, rich in Nd and Dy only, prior to production of intermediate products on the right – mixed Nd/Dy oxide (brown) and mixed Nd/Dy oxalate (pink).**



**Figure 8: High purity separated oxides, showing Neodymium (Nd<sub>2</sub>O<sub>3</sub>) (left) and Dysprosium (Dy<sub>2</sub>O<sub>3</sub>) (right).**

The facility fit out was completed during the quarter with new equipment delivered and installed, and the team fully relocated from Queen University Belfast (QUB) to the new premises located in the Titanic Quarter, Belfast, shown in Figure 9.

The demonstration scale plant will hydrometallurgically extract individual high purity magnet REOs from recycling, processing 30 tonnes per annum of waste magnets and swarf, to produce in excess of 10 tonnes of separated and refined magnet REOs – Nd, Pr, Dy and Tb. With major equipment orders finalised during the quarter, IonicTech remains on track to commence commissioning by the end of Q1 2023, and production of high purity magnet REOs from recycled magnets by mid-2023.



**Figure 9: Ionic Technologies new facility located at the Titanic Quarter, Belfast, UK.**



## **Refinery Study – adding value through downstream supply chain**

Over 2022, IonicRE has completed extensive metallurgical test work and process modelling to define a process flowsheet capable of separating the Makuutu basket into the full spectrum of REOs, plus scandium. Engineering activity is now in its final stages with initial reviews conducted towards the end of the December quarter. Additional opportunities for enhancement have been identified and are being evaluated for potential inclusion in the study expected to be completed in Q1 2023.

IonicRE continued to initiate discussions and receive inputs from potential supply chain partners and other technology partners on further value addition beyond REOs, to metals, alloys and magnets plus other rare earth compounds to support the location trade-off study.

Engagements with government bodies continued over the year with very positive feedback on the unique appeal of IonicRE's basket from Makuutu. The Company has had significant interest from several government bodies, all interested in accessing sustainable and traceable supply of magnet and heavy rare earths into new emerging supply chains.

IonicRE completed the initial location trade-off study with key input from potential supply chain partners. For several reasons, including the availability of low-cost power, and strategic supply chain appeal, the US has been selected as the preferred location for a dedicated refinery, with several sites visited in the US and preferred location identified.

## **Work Plans for Q1 2023**

IonicRE is strongly focused on the development of the Makuutu Rare Earths Project in Uganda and to accelerate magnet recycling technology scale up at Ionic Technologies in Belfast. To enable these developments, we have significantly increased our skilled workforce across all divisions within Uganda and Belfast, UK.

Engagements continue with governments, government bodies, and potential strategic partners interested in the unique appeal of the Makuutu basket of magnet and heavy rare earths to feed new emerging supply chains.

The submission of the MLA for the RL1693 is nearing completion and is expected to be finalised shortly. The Company remains engaged with key stakeholders in the Ugandan government agencies, who have been working in parallel through the documents submitted to date, and expects the award of the ML by the end of Q1 2023. Planning continues for the Makuutu Demonstration Plant with activity expected to increase significantly post award of the MLA.

Given the nature of the existing supply chain monopsony, and the desire to develop alternative downstream processing capability in metal, alloy and magnet production capability, IonicRE continues to explore ways in which it can help to facilitate emerging value addition. IonicRE expects to update the market on the downstream refinery study by the end of Q1 2023, with the US as the preferred location for the facility.

Activity at IonicTech continues to ramp up with all equipment expected to be delivered over the upcoming quarter with a growing inventory of magnets and swarf feed streams now being accumulated in Belfast. Commissioning planning is progressing and is expected to commence before the end of the quarter.

## Mineral Concessions Held

IonicRE is pleased to provide the following information, pursuant to ASX Listing Rule 5.3.3, for the quarter ended 31 December 2022, and to the date of this announcement.

1. No mineral exploration tenements were acquired or disposed of during the period;
2. Mineral exploration tenements held are set out below:

Common concession name	Location	Nature of Interest	Interest at beginning of Quarter	Interest at end of Quarter
RL 1693	Uganda	Owned	51%	51%*
RL 00007	Uganda	Owned	51%	51%*
RL 00234	Uganda	Owned	51%	51%*
EL 00147	Uganda	Owned	51%	51%*
EL 00148	Uganda	Owned	51%	51%*
EL 00257	Uganda	Owned	51%	51%*

\* IonicRE may earn up to a 60% interest

3. No farm-in or farm-out agreements were entered into during the period.

## Corporate

Discussions continue with other shareholders of Rwenzori Rare Metals Limited, the holder of the Makuutu mineral concessions, for IonicRE to increase its stake in that Company.

During the quarter, the company expended approximately \$1,840,000 on the exploration and study activities reported above.

Payments to related parties of the entity and their associates totalled \$254,000 and consisted of \$32,500 Director fees, \$7,800 in superannuation related to Director fees and \$213,700 Executive Service fees.

## End Notes

The information contained in this announcement related to the Company's past announcements is extracted from, or was set out in, the following ASX announcements which are referred to in this Quarterly Activities Report:

- Announcement dated 3 October 2022; IonicRE Joins United Nations Global Compact
- Announcement dated 27 October 2022; ESIA Approval Received for Makuutu Rare Earth Project
- Announcement dated 28 October 2022; Ionic Rare Earths Completes ESG Accreditation from Independent Leading Global Platform
- Announcement dated 12 December 2022; Ionic Technologies Belfast Facilities Update
- Announcement dated 13 December 2022; Review of 2022, Outlook for 2023
- Announcement dated 11 January 2023; Retention Licence 00007 Renewal Approved for Makuutu Western Zone

Authorised for release by the Board.

**For enquiries, contact:**

Tim Harrison  
Managing Director  
+61 3 9776 3434  
[investors@ionicre.com](mailto:investors@ionicre.com)

**Table 1: Makuutu Resource above 200ppm TREO-CeO<sub>2</sub> Cut-off Grade (ASX: 3 May 2022)**

Resource Classification	Tonnes (millions)	TREO (ppm)	TREO-CeO <sub>2</sub> (ppm)	LREO (ppm)	HREO (ppm)	CREO (ppm)	Sc <sub>2</sub> O <sub>3</sub> (ppm)
Indicated Resource	404	670	450	500	170	230	30
Inferred Resource	127	540	360	400	140	180	30
<b>Total Resource</b>	<b>532</b>	<b>640</b>	<b>430</b>	<b>480</b>	<b>160</b>	<b>220</b>	<b>30</b>

Rounding has been applied to 1Mt and 10ppm which may influence averaging calculation.

All REO are tabulated in announcement 3 May 2022 with formulas defining composition of (Light Rare Earth Oxides ("LREO"), HREO and Critical Rare Earth Oxides ("CREO")).

**Table 2: Mineral Resources by Area (ASX: 3 May 2022)**

Classification	Indicated Resource			Inferred Resource			Total Resource		
Area	Tonnes (millions)	TREO (ppm)	TREO-CeO <sub>2</sub> (ppm)	Tonnes (millions)	TREO (ppm)	TREO-CeO <sub>2</sub> (ppm)	Tonnes (millions)	TREO (ppm)	TREO-CeO <sub>2</sub> (ppm)
<b>A</b>				13	580	390	13	580	390
<b>B</b>				26	410	290	26	410	290
<b>C</b>	31	580	400	3	490	350	35	570	400
<b>D</b>				6	560	400	6	560	400
<b>E</b>				18	430	280	18	430	280
<b>Central Zone</b>	151	780	540	12	670	460	163	770	530
<b>Central Zone East</b>	59	750	490	12	650	430	72	730	480
<b>F</b>	18	630	420	7	590	400	25	620	410
<b>G</b>	9	750	500	5	710	450	14	730	480
<b>H</b>	6	800	550	7	680	480	13	740	510
<b>I</b>	129	540	350	19	530	350	148	540	350
<b>Total Resource</b>	<b>404</b>	<b>670</b>	<b>450</b>	<b>127</b>	<b>540</b>	<b>360</b>	<b>532</b>	<b>640</b>	<b>430</b>

Rounding has been applied to 1Mt and 10ppm which may influence averaging calculations.

Shaded blue rows providing Indicted Resource Estimate for MLA over RL 1693 (application TN03834).

Shaded orange rows providing Inferred Resource Estimate for RL 00007.



**Table 3: Makutu Rare Earths Project Tenement Details**

Licence ID	Licence Type	Application Date	Granted Date	Expiry / Renewal Date	Area (km <sup>2</sup> )
RL00007	Retention	12/12/2022	20/12/2022	26/11/2024	43.38
RL 1693 / TN03834	Retention	02/09/2022	Pending	Pending	43.78
RL00234	Retention	26/06/2021	06/07/2021	05/07/2024	47.03
EL00257	Exploration	15/07/2021	21/10/2021	20/10/2024	55.51
EL00147	Exploration	19/10/2020	28/12/2020	27/12/2023	60.30
EL00148	Exploration	21/10/2020	28/12/2020	27/12/2023	48.15

### About Ionic Rare Earths Ltd

Ionic Rare Earths Limited (ASX: IXR or IonicRE) is set to become a miner, refiner and recycler of sustainable and traceable magnet and heavy rare earth needed to develop net-zero carbon technologies.

The flagship Makuutu Rare Earths Project in Uganda is well-supported by existing tier-one infrastructure and is on track to become a long-life, low Capex, scalable and sustainable supplier of high-value magnet and heavy rare earths oxides (REO). In May 2022, IonicRE announced a substantial, 70% increase to the Mixed Rare Earths (MRE) basket at Makuutu and the potential for a 50+ year life of mine (LOM), and is finalising the mining licence application (MLA) which it expects to be approved in 2023.

As part of an integrated strategy to create downstream supply chain value, IonicRE is also evaluating the development of its own magnet and heavy rare earth refinery, or hub, to separate the unique and high value magnet and heavy rare earths dominant Makuutu basket into the full spectrum of REOs plus scandium. A refinery Scoping Study is on target to be completed by Q1 2023, targeting the US as the preferred location, and supply chain engagement across new emerging supply chains in the US, EU and UK.

Ionic Technologies International Limited ("IonicTech"), a 100% owned UK subsidiary, acquired in H1 2022, has developed processes for the separation and recovery of REEs from mining ore concentrates and recycled permanent magnets. Post-acquisition, IonicTech is now focusing on the commercialisation of the technology to achieve near complete extraction from end of life / spent magnets and waste (swarf) to high value, separated and traceable magnet rare earth products with grades exceeding 99.9% REO. This technology provides first mover advantage in the industrial elemental extraction of REEs from recycling, enabling near term magnet REO production capability to support demand for early-stage alternative supply chains.

This three-pillar strategy completes the circular economy of sustainable and traceable magnet and heavy rare earth products needed to supply applications critical to electric vehicles, offshore wind turbines, communication and key defence initiatives.

IonicRE is a Participant of the UN Global Compact and adheres to its principles-based approach to responsible business.

## Competent Persons Statement

*The information in this report that relates to Mineral Resources for the Makuutu Rare Earths deposit was first released to the ASX on 3 May 2022 and is available to view on [www.asx.com.au](http://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.*

## Forward Looking Statements

*This announcement has been prepared by Ionic Rare Earths Limited and may include forward-looking statements. Forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of Ionic Rare Earths Limited. Actual values, results or events may be materially different to those expressed or implied in this document. Given these uncertainties, recipients are cautioned not to place reliance on forward looking statements. Any forward-looking statements in this document speak only at the date of issue of this document. Subject to any continuing obligations under applicable law and the ASX Listing Rules, Ionic Rare Earths Limited does not undertake any obligation to update or revise any information or any of the forward-looking statements in this document or any changes in events, conditions or circumstances on which any such forward looking statement is based.*

## Appendix 5B

### Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

**IONIC RARE EARTHS LIMITED**

ABN

**84 083 646 477**

Quarter ended ("current quarter")

**31 December 2022**

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	-	-
(b) development	-	-
(c) production	-	-
(d) staff costs	(203)	(482)
(e) administration and corporate costs	(1,064)	(1,894)
1.3 Dividends received (see note 3)		
1.4 Interest received	75	136
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Government grants and tax incentives	53	274
1.8 Other – IonicTech Operating	(827)	(1,205)
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(1,966)</b>	<b>(3,171)</b>
<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	-	-
(c) property, plant and equipment	(742)	(848)
(d) exploration & evaluation capitalised	(1,840)	(4,282)
(e) investments	-	-
(f) other non-current assets	(104)	(152)



## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (6 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	<b>Net cash from / (used in) investing activities</b>	<b>(2,686)</b>	<b>(5,282)</b>
<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	1,260	1,260
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other – reclassify loan to Associate	-	-
3.10	<b>Net cash from / (used in) financing activities</b>	<b>1,260</b>	<b>1,260</b>
<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	22,949	26,760
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,966)	(3,171)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(2,686)	(5,282)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	1,260	1,260
4.5	Effect of movement in exchange rates on cash held	4	(6)
4.6	<b>Cash and cash equivalents at end of period</b>	<b>19,561</b>	<b>19,561</b>

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

5.	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	19,381	22,916
5.2	Call deposits	180	33
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>19,561</b>	<b>22,949</b>

6.	<b>Payments to related parties of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1	Aggregate amount of payments to related parties and their associates included in item 1	254
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
<i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i>		

7.	<b>Financing facilities</b> <i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
7.1	Loan facilities	-	-
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	<b>Total financing facilities</b>	-	-
7.5	<b>Unused financing facilities available at quarter end</b>		-
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

	<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1	Net cash from / (used in) operating activities (item 1.9)	(1,966)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(1,840)
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(3,806)
8.4	Cash and cash equivalents at quarter end (item 4.6)	19,561
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	19,561
8.7	<b>Estimated quarters of funding available (item 8.6 divided by item 8.3)</b>	<b>5.1</b>
	<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1	Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
	Answer: <b>N/A</b>	
8.8.2	Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
	Answer: <b>N/A</b>	
8.8.3	Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?	
	Answer: <b>N/A</b>	
	<i>Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.</i>	



**Compliance statement**

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 31 January 2023

Authorised by: Brett Dickson – Company Secretary  
(Name of body or officer authorising release – see note 4)

**Notes**

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.