

29 April 2020

QUARTERLY REPORT FOR THE PERIOD ENDING 31 MARCH 2020

HIGHLIGHTS

- **Change of name to Ionic Rare Earths Limited (previously Oro Verde Limited) and new ASX ticker of "IXR"**
 - **Maiden Mineral Resource Estimate of 47.3 Mt @ 910 ppm TREO, at a cut-off grade of 500 ppm TREO-Ce₂O₃**
 - **Metallurgical recoveries of up to 75% TREE-Ce (Total Rare Earth minus Cerium) were achieved using simple extraction techniques**
 - **Phase 2 drilling and Scoping Study commenced**
 - **Ownership of the Makuutu Rare Earths Project increased to 31%**
 - **Closed a A\$1.15 million capital raising**
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Ionic Rare Earths Limited (ASX: IXR) ("IonicRE" or "the Company") is pleased to provide its Quarterly Report for the period ending **31 March 2020**.

This quarter provided several significant milestones for IonicRE with the announcement of the maiden mineral resource for the Makuutu Rare Earths Project (**Makuutu**) followed up by excellent metallurgical results. Additionally, the Company's increased its ownership of the Makuutu project to 31%; IonicRE can add a further 29% interest, up to a total of 60%, via ownership in the Ugandan company Rwenzori Rare Metals Limited.

Makuutu comprises three licences covering approximately 132 km² located some 40 km east of the regional centre of Jinja and 120 km east of the capital city of Kampala (Figures 1 and 2). The area has excellent infrastructure and cell-phone coverage. Tarred (sealed) roads, rail, power and water are all nearby; The area is also readily accessible throughout the year irrespective of weather conditions.

The Makuutu project geology is similar to the ionic clay-type deposits of southern China where the world's cheapest and most readily accessible sources of Heavy Rare Earth Oxides (**HREO**) are extracted by rudimentary mining and processing methods.

Ionic clay-hosted Rare Earth deposits are significantly different from hard rock-hosted Rare Earth deposits. Typically, rare earths can be recovered from ionic clay mineralisation using mild salt washing / leaching conditions to produce a high-grade REO chemical precipitate concentrate and generally present practical processing advantages.



Figure 1. Makuutu Rare Earths Project Location.

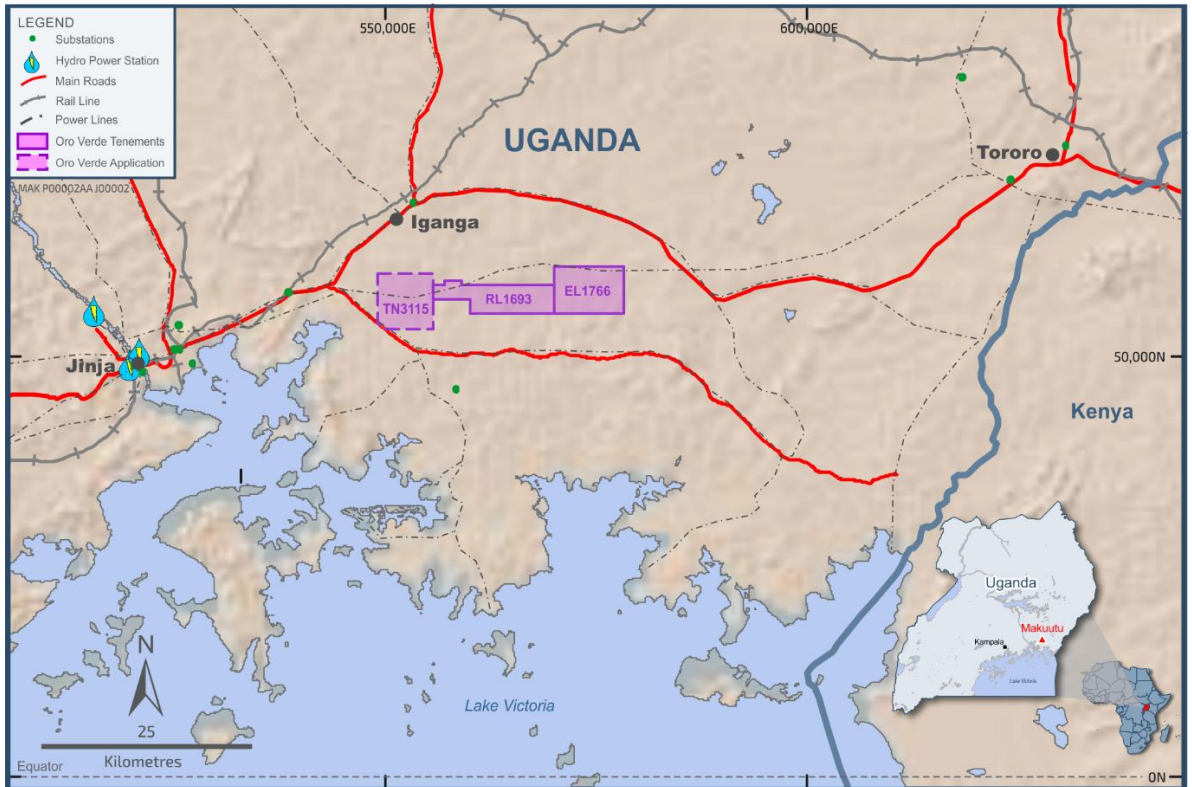


Figure 2. Makuutu Rare Earths Project Tenements and Major Infrastructure.

DRILLING UPDATE

Drilling recommenced at Makuutu on 16 March 2020 and prior to suspension on 24 March 2020, due to COVID-19 control measures, eleven diamond drill holes for 240 metres were drilled in the Makuutu central zone with the aim of increasing the confidence level and the classification, from Inferred to Indicated, of the maiden Inferred Mineral Resource Estimate of **47.3 Mt @ 910 ppm TREO, at a cut-off grade of 500 ppm TREO-Ce₂O₃** (ASX:10 March 2020). Core recovery was excellent with all core transported to Australia for assaying, which is underway.



Figure 3: Drilling the first infill drill hole RRMD0047.

MAIDEN MINERAL RESOURCES ESTIMATE

The Maiden Mineral Resource Estimate (MRE) for the Makuutu Rare Earth Project was prepared by independent specialist resource and mining consulting group, Cube Consulting Pty Ltd (“Cube”) and released to ASX on 10 March 2020. A summary of the mineral resource estimate derived is shown in Table 1.

Table 1. Mineral Resource Estimate – Makuutu Central Zone (MCZ)

| Category | Estimation Domain | Tonnes (Mt) | TREO (ppm) | TREO no Ce ₂ O ₃ (ppm) |
|-----------------|-------------------|-------------|------------|--|
| Inferred | Clay | 47.3 | 910 | 670 |

Notwithstanding this Maiden Mineral Resource, the Exploration Target for Makuutu remains at:

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

*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.

The Mineral Resource was compiled using a 500 ppm TREO minus Ce₂O₃ marginal cut-off grade. This cut-off has been selected based on published information from more advanced projects with comparable mineralisation and conceptual processing method. The grade-tonnage relationship of the resource, for various cut-off grades, is illustrated in Figure 4.

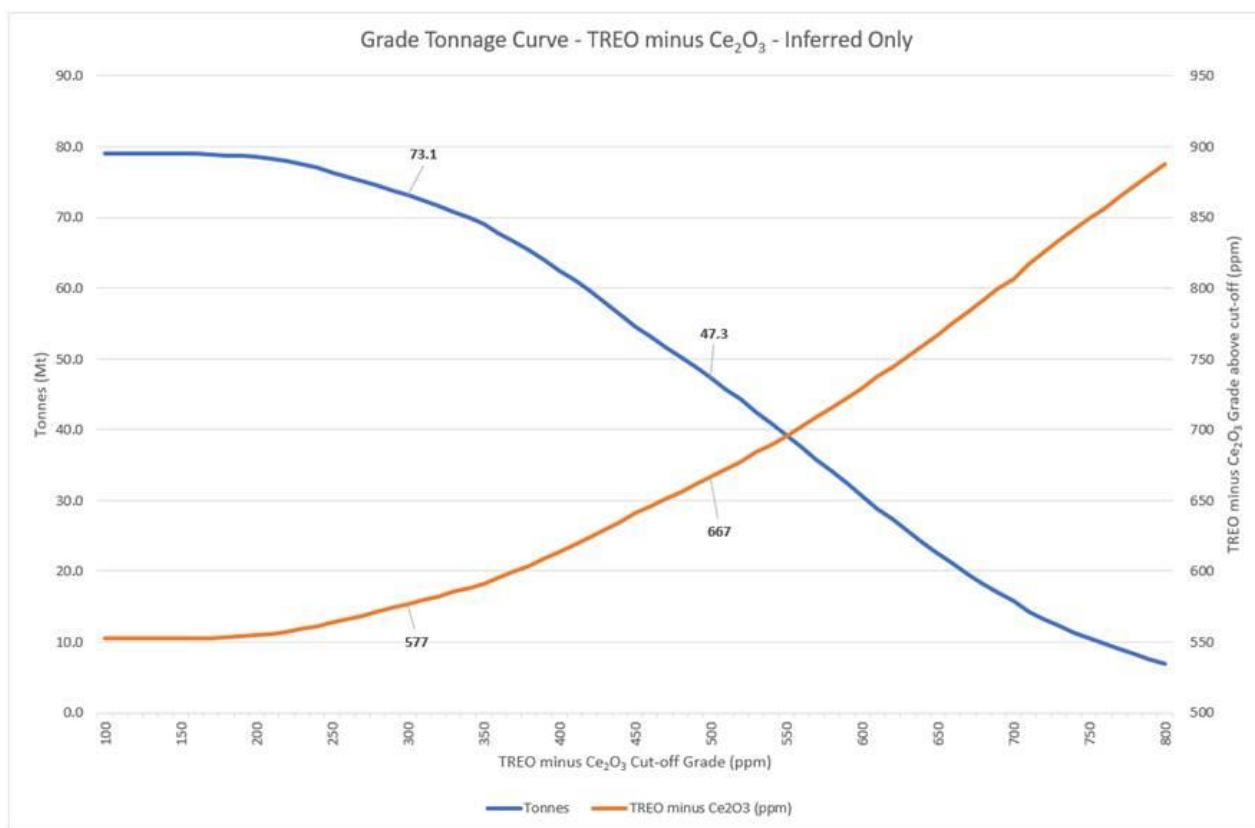


Figure 4. Grade-Tonnage Curve for the Maiden Makuutu Mineral Resource Estimate.

Estimates were also made of the uranium and thorium content, with both found to be at insignificant levels with uranium averaging 30 ppm U₃O₈ and thorium 30 ppm ThO₂.

The resource estimate has shown the REE mineralisation is distributed consistently through the clay horizon above the marginal cut-off grade. This consistency suggests an increase in resource confidence with limited infill drilling requirements.

The maiden MRE is limited to a portion of the Makuutu Central Zone (“MCZ”) which was drilled in late 2019, with 681.5 m of core drilling undertaken in the MCZ. Figure 5 depicts the Makuutu Rare Earths Project area, and the maiden MRE covers the area demarcated in green. Further clay-hosted REE mineralisation has been identified on the Project licence by core drilling¹ located between 6 and 12km east of the MRE and by historic RAB drilling² up to 10km west of the MRE. This represents a 26km long mineralisation corridor in total.

¹ ASX Announcement OVL, 23 December 2019; “Exploration Drilling Shows Significant Extension to REE Mineralisation”

² ASX Announcement OVL, 28 August 2019; “Due Diligence Confirmation of Makuutu Mineralisation Bearing Rare Earths”

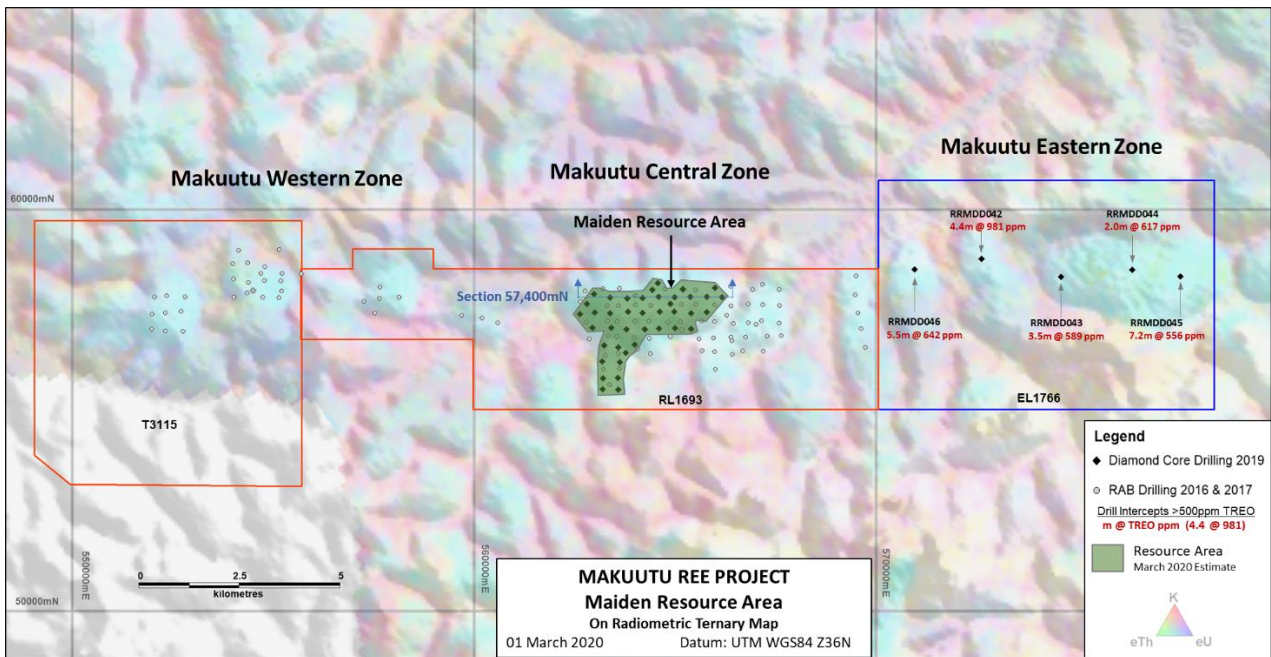


Figure 5. Makuutu Rare Earth Project Area with maiden Mineral Resource Estimate area highlighted (green).

The resource estimate covers the clay zone of the regolith hosted deposit and does not include the hardcap above and the basement sediments below the clay mineralisation, both of which also contain Rare Earth Mineralisation. The clay has an average thickness of 11.9 metres and is overlain by soil and hardcap with an average thickness of 3 metres. A cross-section of the resource block model, shown in Figure 6, shows the large continuous nature of the mineral resource and the presence of large higher-grade zones of resource.

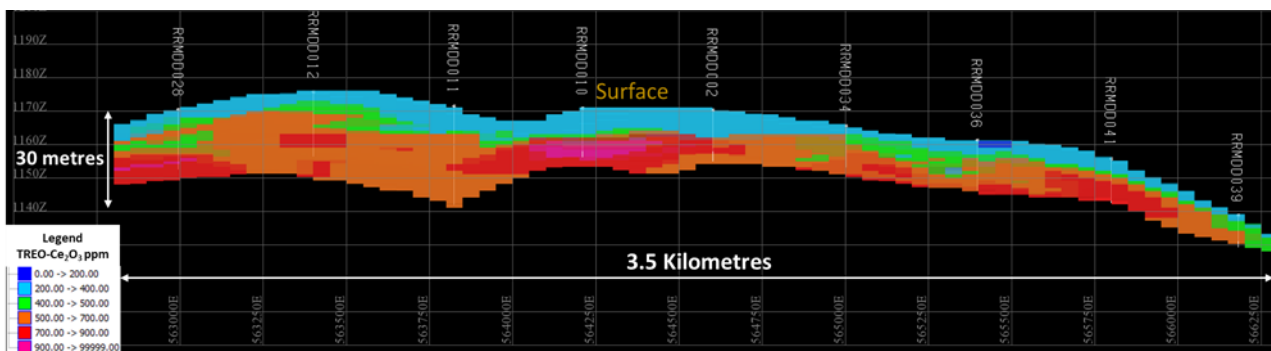


Figure 6. Cross section 57,400mN (looking north) with TREO no Ce_2O_3 block grades. Section width 3.5 kilometres (10x vertical exaggeration)

METALLURGICAL PROCESS DEVELOPMENT

An initial phase of metallurgical test-work and engineering analysis was completed to broadly gauge the metallurgical and process requirements to recover rare earths from Makuutu mineralisation. The key findings of this work are summarised in Table 2 (ASX: 18 February 2020).

Collectively the findings demonstrate the potential for processing ionic clay rare earth mineralisation with low reagent consumptions, and also highlight potential to develop a simple recovery process. The results are preliminary and substantive further testing and development work is necessary to adequately define and optimise the appropriate processing scheme for Makuutu mineralisation, however the initial results are highly encouraging and provide a substantive base for a rigorous process development program.

Table 2. Summary of Key Outcomes from Process Development Testwork and Analysis.

| Parameter | Result | Significance |
|------------------------------------|---|--|
| Desorption Salts (leaching) | Demonstrated desorption of rare earths using ammonium sulfate (a common fertiliser) and sodium chloride (table salt). | Cheap reagents and low consumption. Low-cost natural salt sources located near may be suitable. |
| Salt requirement | Demonstrated that low salt concentrations (~13-70 g/L ammonium sulfate) are effective in desorbing rare earths. | Recycling of salt solution expected to be a part of the process, reducing impact on fresh reagent requirement. |
| Desorption pH | Demonstrated desorption of ionic clay rare earths can occur at pH between 3.0 – 5.0. Diagnostic tests indicate some mineralisation may require lower pH for higher rare earth extraction. | Natural pH of solutions is ~pH 5, thus anticipated acid requirement is low. |
| Desorption kinetics | Desorption kinetics are rapid, with agitation assisted desorption complete within 15 minutes. | Suggests smaller process footprint and equipment required (low residence times). |
| Beneficiation | Potential to beneficiate mineralisation by screening. | Potential to upgrade the process plant feed grades. |
| Viability of Static Leach | Demonstrated desorption of rare earths without any agitation applied (static leach). | Indicates that static leach options may be viable and should be examined further. |
| Reagent recycle | Preliminary analysis of solution chemistries indicates that reagent can be recycled using membrane systems. | Availability of low-cost power at project site to allow effective washing and recycling of salt reagent to reduce fresh reagent requirement. |

High-level metallurgical tests were undertaken on select intervals of core with the aim of broadly identifying areas to target initial project development efforts and also to gain insights for further testwork and optimisation.

Given the aims of this work are high-level in nature, simple bottle-roll leaching tests were undertaken using ammonium sulfate as the lixiviant at pH 3.5. The results of the tests on various clay intervals were used to calculate interval-weighted average extractions in the clay mineralisation in each hole. From these tests it was found that:

- Testing demonstrated high rare earth recoveries of up to 45 – 75% TREE-Ce³ even with very low acid addition in 3 holes, which trended towards the Western side of the drilled area,
- A recovery greater than 30% TREE-Ce with very low acid addition was achieved in 16 holes,
- Only 3 holes returned REE recovery of less than 10% TREE-Ce, demonstrating that only a small amount was generally not responsive,

³ Metallurgical recovery has been calculated using the assayed TREE-Ce in solutions and residues after leaching/desorption, not the extraction efficiency of the 'recoverable' portion, as is reported by owners of other ionic clay projects. The latter method of reporting inflates actual recovery values by discounting the non-desorbable (mineral) component in the head sample.

- Importantly, testwork that was undertaken in parallel to these preliminary results, owing to the short timeframe in which the testing program was undertaken, has indicated that using a lower pH and allowing a longer leach time will allow markedly improved recoveries by capturing rare earths present in a colloidal phase. This optimisation will be pursued in future test-work, and with results up to 75% recoveries already, the outlook for further improvement is highly encouraging,
- Heavy rare earth elements (HREE) generally and consistently achieve higher recovery compared to the Light rare earth elements (LREE), with average HREE recovery typically being double the average LREE recovery. With HREE typically higher value than LREE, this will equate to a higher value finished product.

These collective results demonstrate the metallurgical potential and justify the further pursuit of defining the Makuutu Rare Earth Project. The results also provide insight to processing requirements, which will be used as a foundation for further, more expansive, metallurgical testwork planned for 2020.

Anticipated Project Configuration

The preliminary metallurgical results are highly promising, with the majority high recoveries from low reagent (salt and acid) use enabling the consideration of a very low-CAPEX leaching operation to liberate the rare earth elements for precipitation and sale. The company is currently exploring a project configuration that consists of several low-CAPEX satellite leaching/desorption plants from which concentrated rare earth streams will be transferred to a central plant for finishing and packaging. A conceptual arrangement of this configuration is presented in Figure 7.

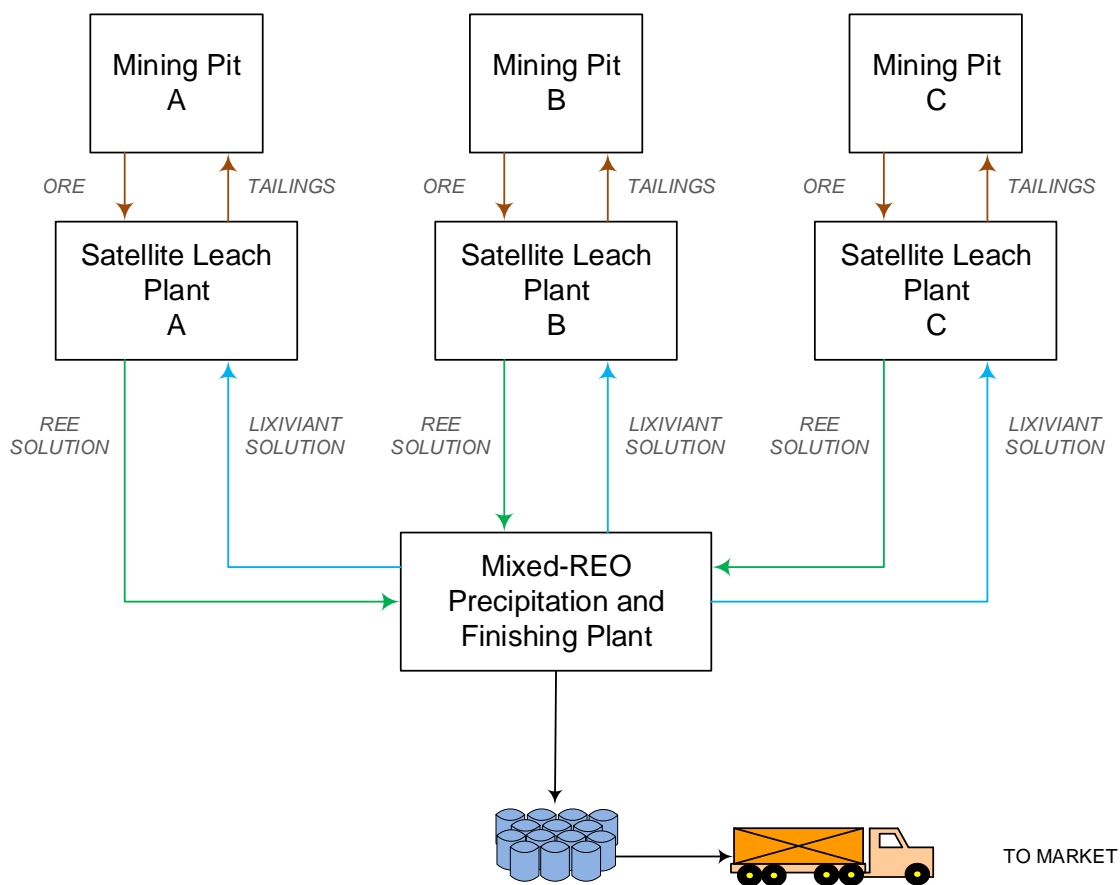


Figure 7. Conceptual Arrangement of the envisaged Makuutu Rare Earths Project.

SCOPING STUDY

On 14 February 2020 the Company announced the commencement a Scoping Study for Makuutu which would involve a significant body of work over the next six to nine months, including the following activities:

- In-fill drilling of already drilled areas to provide further resource definition and also provide sample for additional metallurgical testing;
- Exploration drilling in areas that are only sparsely drilled or are yet to be drilled;
- Metallurgical process development test work to support preliminary engineering;
- Resource development and mining studies;
- Preliminary Environmental and Social Impact Assessments (ESIA);
- Preliminary mining, tailings and infrastructure assessments; and
- Product marketing and engagement with potential off-take partners.

Elements of this scoping study may be delayed due to the COVID-19 pandemic

CORPORATE

Following shareholder approval at a General Meeting held on 19 March 2020, the Company's name change to Ionic Rare Earths Limited became effective on 19 March 2020 and trading on ASX under the new name and ticker of "IXR" commenced on Tuesday, 24 March 2020.

On 6 March 2020 the Company issued 143,750,000 shares at \$0.008 each to raise \$1,150,000. The shares were issued to professional and sophisticated investors with Canaccord Genuity (Australia) Limited and Sixty Two Capital Pty Ltd acting as joint lead managers.

At the same time as the announcement of the share placement the Company also announced a Share Purchase Plan (**SPP**) to enable shareholders to purchase shares in the Company at the same price as the shares that had been placed with sophisticated and professional investors. However, primarily as a result of the COVID-19 pandemic, market conditions deteriorated and the SPP was terminated on 17 March 2020. All funds that had been received were returned.

During the quarter the company expensed some \$529,000 on the exploration activities reported above.

Payments to related parties of the entity and their associates totaled \$69,000 and consisted of \$33,000 Director fees and \$36,000 Executive Service fees.

***** ENDS *****

Authorised for release by Brett Dickson, Company Secretary.

For enquiries, contact: Brett Dickson
Company Secretary
+61 8 9481 2555

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. Oro Verde 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 10 March 2020 and is available to view on www.asx.com.au. Oro Verde 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.

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 MARCH 2020 |
|----------------------|

| Consolidated statement of cash flows | Current quarter \$A'000 | Year to date (9 months) \$A'000 |
|---|------------------------------------|--|
| 1. Cash flows from operating activities | | |
| 1.1 Receipts from customers | - | - |
| 1.2 Payments for | | |
| (a) exploration & evaluation (if expensed) | (529) | (1,217) |
| (b) development | - | - |
| (c) production | - | - |
| (d) staff costs | (69) | (256) |
| (e) administration and corporate costs | (91) | (324) |
| 1.3 Dividends received (see note 3) | - | - |
| 1.4 Interest received | - | 1 |
| 1.5 Interest and other costs of finance paid | - | - |
| 1.6 Income taxes paid | - | - |
| 1.7 Government grants and tax incentives | - | - |
| 1.8 Other (provide details if material) | - | - |
| 1.9 Net cash from / (used in) operating activities | (689) | (1,796) |
| 2. Cash flows from investing activities | | |
| 2.1 Payments to acquire: | | |
| (a) entities | - | - |
| (b) tenements | - | - |
| (c) property, plant and equipment | - | - |
| (d) exploration & evaluation (if capitalised) | - | - |
| (e) investments | - | - |
| (f) other non-current assets | - | - |

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 (9 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 – Makuutu acquisition facilitation fee | - | (148) |
| 2.6 | Net cash from / (used in) investing activities | - | (148) |
| 3. | Cash flows from financing activities | | |
| 3.1 | Proceeds from issues of equity securities (excluding convertible debt securities) | 1,150 | 2,459 |
| 3.2 | Proceeds from issue of convertible debt securities | - | - |
| 3.3 | Proceeds from exercise of options | - | - |
| 3.4 | Transaction costs related to issues of equity securities or convertible debt securities | (81) | (159) |
| 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 (provide details if material) | - | - |
| 3.10 | Net cash from / (used in) financing activities | 1,069 | 2,297 |
| 4. | Net increase / (decrease) in cash and cash equivalents for the period | | |
| 4.1 | Cash and cash equivalents at beginning of period | 664 | 691 |
| 4.2 | Net cash from / (used in) operating activities (item 1.9 above) | (689) | (1,796) |
| 4.3 | Net cash from / (used in) investing activities (item 2.6 above) | - | (148) |
| 4.4 | Net cash from / (used in) financing activities (item 3.10 above) | 1,069 | 2,297 |
| 4.5 | Effect of movement in exchange rates on cash held | - | - |
| 4.6 | Cash and cash equivalents at end of period | 1,044 | 1,044 |

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

| 5. Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts | Current quarter \$A'000 | Previous quarter \$A'000 |
|--|------------------------------------|-------------------------------------|
| 5.1 Bank balances | 1,011 | 631 |
| 5.2 Call deposits | 33 | 33 |
| 5.3 Bank overdrafts | - | - |
| 5.4 Other (provide details) | - | - |
| 5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above) | 1,044 | 664 |

6. Payments to related parties of the entity and their associates

- 6.1 Aggregate amount of payments to related parties and their associates included in item 1
- 6.2 Aggregate amount of payments to related parties and their associates included in item 2

**Current quarter
\$A'000**

69

-

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

7. Financing facilities

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.

- 7.1 Loan facilities
- 7.2 Credit standby arrangements
- 7.3 Other (please specify)
- 7.4 **Total financing facilities**

**Total facility
amount at quarter
end
\$A'000**

**Amount drawn at
quarter end
\$A'000**

-

-

-

-

7.5 Unused financing facilities available at quarter end

-

- 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.

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

| 8. | Estimated cash available for future operating activities | \$A'000 |
|-----|---|---------|
| 8.1 | Net cash from / (used in) operating activities (Item 1.9) | (689) |
| 8.2 | Capitalised exploration & evaluation (Item 2.1(d)) | - |
| 8.3 | Total relevant outgoings (Item 8.1 + Item 8.2) | (689) |
| 8.4 | Cash and cash equivalents at quarter end (Item 4.6) | 1,044 |
| 8.5 | Unused finance facilities available at quarter end (Item 7.5) | - |
| 8.6 | Total available funding (Item 8.4 + Item 8.5) | 1,044 |
| 8.7 | Estimated quarters of funding available (Item 8.6 divided by Item 8.3) | 1.52 |

8.8 If Item 8.7 is less than 2 quarters, please provide answers to the following questions:

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: **No. Expenditure will be significantly reduced as drilling programs at the Makuutu project have been suspended due to COVID-19. In addition, all discretionary expenditure has been reviewed and significantly reduced, in response to COVID-19**

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: **Not at this stage**

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: **Yes. cash at the end of the quarter was \$1.04 million and as set out in 8.8(1) above steps have been taken to significantly reduce expenditure**

Compliance statement

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

Date: 29 April 2020

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.