

QUARTERLY ACTIVITIES REPORT for the period ending 31 December 2023

Highlights

- **Permitting**
 - Key milestone achieved with completion by BLM of the administrative draft EIS.
 - The draft EIS will be made available to the public once BLM management and cooperating agency reviews are complete.
 - Commencement of the 45-day public comment period expected this quarter (Q1 2024).
- **Project Advancement and Operational Readiness**
 - Successful geotechnical drilling program completed on time and on budget.
 - Drilling program completes coverage of the southern and southeastern sections of the South Basin and provides valuable information for the NEPA evaluation that will also feed into the updated resource and quarry design.
 - Work continues on updates for resource/reserve, capital and operating cost estimates and financial model.
 - Engineering design now at a mature stage requiring only minimal spend ahead of FID and commencement of construction.
- **Growth Opportunities**
 - Ioneer and Eco Pro expand existing partnership with MOU covering potential future development of the Rhyolite Ridge lithium clay resource (currently excluded from Project design and economics).

Tuesday, 30 January 2024 – Ioneer Ltd (“Ioneer” or “the Company”) (ASX: INR, Nasdaq: IONR), an emerging lithium-boron supplier, is pleased to report on its activities for the quarter ending 31 December 2023 and provide an update on the development of its 100%-owned Rhyolite Ridge Lithium-Boron Project in Esmeralda County, Nevada (“Rhyolite Ridge Project” or “the Project”).

Ioneer Managing Director, Bernard Rowe noted:

“Ioneer made considerable progress toward a Final Investment Decision and commencement of construction at Rhyolite Ridge this past quarter. We are financially well-positioned as we approach being fully permitted with conditional debt and equity commitments of nearly US\$1.2 billion.

We have largely completed the capital-intensive heavy lifting work required to meet our commitments to Sibanye Stillwater (conditional equity) and the US Department of Energy (conditional debt) and make an informed FID decision later this year. We recently completed an extensive drilling campaign to gain the geotechnical and geological data required to finalize a long-life mine plan that avoids direct impact of Tiehm’s buckwheat. We are working with Fluor and our other consultants to finish the Class II CAPEX and OPEX estimates, and requisite technical and financial reports required by Sibanye and the DOE.

We are pleased to have completed the work to allow the BLM to complete and release the draft EIS for governmental review followed by public comment.”

We are excited to be the cornerstone, globally significant Tier 1 lithium project in the United States. We are confident that as the market recognises the continuing reduction in permitting risk as the project advances through the NEPA process, and the major advantages in producing refined lithium and boron chemicals in the United States, compared to spodumene concentrate producers dependent upon Chinese converters, ioneer’s Rhyolite Ridge will be seen as the unique global asset we are confident it is.

Executive Chairman, James Calaway concluded:

“2024 promises to be a momentous year for Ioneer, including the expected conclusion of the federal permitting process and the commencement of construction at Rhyolite Ridge.

We look forward to delivering these critical and valuable materials and strengthening domestic EV supply chains.”

Rhyolite Ridge Permitting

National Environmental Policy Act (NEPA) Permitting Process

A major milestone was reached in mid-January with completion of the administrative draft Environmental Impact Statement (ADEIS). The Draft EIS will be made public upon completion of review by BLM management and cooperating agencies. This review is expected to be completed during February and the draft EIS to be published in the Federal Register later in Q1.

Ioneer continues to work closely with the U.S. Bureau of Land Management (BLM) and U.S. Fish and Wildlife Service (FWS) to keep both the NEPA and the Section 7 Endangered Species Act (ESA) processes progressing in parallel. Ioneer is confident the process can be completed in a timely fashion given the amount of preparation and cooperation that has taken place over the past several years.

Construction Water Rights

Ioneer’s Construction Water Rights Application Package was approved by the Nevada Department of Water Resources (NDWR) on 15 December 2023. This approved water right allows Ioneer the ability to pump 474-acre feet

per year through the construction period and will also be used to supplement operational water needs once operations commence. We are pleased to have worked with community members and state officials to complete this process in a timely manner.

Project Advancement and Operational Readiness

Focus areas for Project advancement during Q3 have been:

- Geotechnical drilling (complete)
- Updated geological model
- Updated resource/reserves including SK1300 technical report
- Updated capex/opex estimates
- Construction strategy and schedule

In November, Ioneer received its third drilling program approval from the BLM to collect additional geotechnical data to support the NEPA analysis of the Mine Plan of Operations.

The drilling targeted the proposed quarry wall locations on the southwestern, southern, and southeastern margins of the deposit. The drilling was completed in mid-January 2024

and the data is being integrated into geological, geotechnical as resource models.

Ioneer also completed development of a 3D magnetic susceptibility model and 3D gravity density-contrast model for the South Basin which was subsequently used in the design of the drill program.

Engineering design is now at a maturity that requires only minimal spend ahead of Final Investment Decision (FID) and commencement of construction. An updated Reliability, Availability, and Maintainability (RAM) analysis was issued following vendors' engineering updates.

Sales & Marketing

Lithium Market and Price

Lithium demand from cathode showed a marginal increase this month and improved by 19% year-on-year. Demand from cathode chemistries rose 4% month-on-month driven by growth in LFP and high-nickel cathode demand. Overall, demand is forecast to grow 16% annually to 2027.

In the medium term, we expect supply growth to be strong with a compound annual growth rate of ~25% between 2023 to 2027. Robust growth will come from both spodumene concentrate and lepidolite, but other raw materials and recycling will also contribute towards the strong growth. According to Benchmark Minerals, the lithium market is expected to be in deficit from 2029 onwards, based on the current project pipeline.

Prices for lithium chemicals and spodumene concentrate continue to decline. The drop is being facilitated by increased supply and supply chain destocking even though demand is still relatively strong. We expect prices for spodumene concentrate will be more closely correlated with those of lithium chemicals and less dependent on supply and demand dynamics going forward.

Electric vehicle sales growth slowed in 2023, largely due to lower growth in China. This was

largely due to China's EV purchase subsidy coming to an end, together with a slowdown in the wider Chinese economy. There is also a natural drop-off in growth rates as EV adoption rises.

Despite this slow down, according to Wood Mackenzie, global BEV and PHEV sales increased 13% year-on-year in November.

Boric Acid Market and Price

Global boric acid demand and supply levels are balanced with prices remaining well above pre-COVID levels and steady during Q4 versus Q3 2023. The sodium borate market is in slight oversupply creating downward price pressure; however, prices are holding Q3 levels and remain well above pre-COVID levels. Demand from the consumer electronic market continues to be depressed.

These conditions do not change Rhyolite Ridge's unique economics or pose any material business risks in the coming years. All current pricing is in excess of boric acid prices assumed in the DFS economic model. Boric acid accounts for approximately one-third of the revenue the project will generate (with two-thirds coming from lithium carbonate).

ESG/EHS Program

ISO 14001 Implementation

The Company is working on incorporating aspects and impacts of the ISO 14001 system into the company risk registers as discussed last quarter.

Sustainability Road Mapping /External Disclosure Alignment

Ioneer has completed reporting and/or report feedback to ISS-ESG, Sustainalytics, and S&P to demonstrate transparency in our sustainability practices. This work has already delivered a marked improvement in our ESG risk ratings.

We anticipate continued improvements in our ESG risk rating scores due to our ongoing commitment and implementation of a comprehensive ESG strategy, which includes sustainable practices, responsible governance,

community engagement.

Ioneer developed a three-year Sustainability Plan which was approved by the Board Committee in November 2023. The Plan reflects a concerted effort to establish long-term sustainability goals and strategies.

Ioneer is participating in the International Lithium Association's working group to standardize life cycle analysis for carbon across the various extraction methods including sedimentary, spodumene, and brines.

Towards Sustainable Mining (TSM) Implementation

Work is ongoing to develop document registers for the TSM Action Plans and to complete self-assessments to gauge readiness of the programs for a TSM audit.

Environmental Regulatory Compliance

Ioneer continues to maintain compliance with the issued State of Nevada Water Pollution Control and Class II Air Permits. No compliance issues were noted during the quarter and Ioneer continues to report ongoing monitoring and compliance related activities as required under these obligations.

Health & Safety

During the quarter, no lost time incidents, first aid incidents, or fatalities were reported for Ioneer staff. However, two drilling contractors were involved in a driving accident resulting in property damage.

Ioneer has worked on the following H&S activities this quarter:

1. Bloodborne Pathogens Training
2. Safety Culture Training
3. Workplace Violence Training
4. MSHA/OSHA Program & Training Development

Tiehm's Buckwheat Conservation Center Propagation

Ioneer marked the close of a successful year at the Tiehm's Buckwheat Conservation Center, which opened in May 2023. Ioneer's full-time botanist concluded seed cleaning efforts yielding a total of 3,600 seeds from the plants at the greenhouse. These seeds are currently under refrigeration until their designated germination period (March–April 2024).

In addition, we worked with the Rae Selling Berry Seed Bank to complete its seed collection work at Rhyolite Ridge, with a total of 8,000 seeds collected.

We anticipate further increasing the overall number of plants housed in the greenhouse for the coming year due to higher seed production success in 2023.

In 2024, Ioneer hopes to raise the germination rate due to improved conditions resulting from the greenhouse construction and the wet winter at Rhyolite Ridge in 2023.

Organic Growth Projects

Ioneer continues to evaluate future growth potential at the Rhyolite Ridge project with concept-level studies of both the South Basin, where mine permitting is in progress, and the North Basin (located 5km north), which is at a pre-resource stage.

The Rhyolite Ridge deposit hosts three main types of mineralisation, however, only one of these (high-boron) is included in the current project design and DFS economics.

The three distinct styles of mineralisation are described in the April 2023 Mineral Resource Estimate (MRE)¹. They are:

- **Type 1 Mineralisation: Lithium with high boron and low clay content**
152Mt Mineral Resource containing

¹ See ASX announcement titled "Mineral Resource increases by 168% to 3.4 Mt lithium carbonate - Underscores growth potential for U.S. supply chain" dated 26 April 2023.

1.2Mt of lithium carbonate equivalent (LCE).

- **Type 2 Mineralisation: Lithium with high clay content**
75Mt Mineral Resource containing 1.0Mt of LCE.
- **Type 3 Mineralisation: Lithium with low boron and low clay content**
128Mt Mineral Resource containing 1.1Mt of LCE.

On 31 October 2023 Ioneer announced a Research and Development (“R&D”) Memorandum of Understanding (“MOU”) with EcoPro Innovation Co Ltd (“EcoPro”), a global leader in battery grade high purity lithium hydroxide conversion.

Under the MOU, EcoPro will conduct research and development on the lithium clay resource. The lithium-clay type mineralisation is currently excluded from the project design and economics. The goal is to develop a process to commercialise Rhyolite Ridge lithium clay to produce refined lithium materials for the U.S. EV battery supply chain.

EcoPro will endeavour to develop a commercially feasible process for the extraction of lithium from lithium clays at Rhyolite Ridge considering location constraints provided by Ioneer. If a commercially feasible process is developed by EcoPro, EcoPro intends to develop a commercial-scale refining plant to process lithium clay supplied from Rhyolite Ridge and produce Battery Grade Lithium Hydroxide (the "Product"). Subject to Ioneer's financing and contractual arrangements the lithium clay raw material would be supplied at no cost by Ioneer to EcoPro, but the profits referable to the sale of the Product produced by the commercial scale refining plant will be equally shared between EcoPro and Ioneer based on an index price formula to be agreed, less costs.

² A conditional commitment is offered by DOE prior to issuing a loan and indicates that DOE expects to support the Rhyolite Ridge Project, subject to the satisfaction of certain conditions including fulfilling remaining legal, contractual, and financial requirements.

The R&D project will be managed by a jointly developed Project Committee, which will meet quarterly to evaluate progress of the project and to determine in good faith if progress justifies continuation of the agreement.

North Basin Growth Project

The North Basin is located 5km north of the South Basin. No work was undertaken at North Basin during the quarter.

Project Debt Funding

The end of 2023 allowed Ioneer to reflect on its important conditional financing commitment that began the year. Following 18 months of work and a rigorous application process, the U.S. Department of Energy Loan Programs Office (DOE LPO)² and Ioneer announced finalisation of a term sheet and offer of a Conditional Commitment for a loan from the DOE for financing the construction of the Rhyolite Ridge processing facility.

Under the term sheet, the proposed loan is up to US\$700 million³ with a term of approximately 10 years. The loan will be at interest rates fixed from the date of each advance for the term of the loan at applicable U.S. Treasury rates.

The proposed loan amount remains subject to negotiation and documentation of long-form agreements and various conditions and may be subsequently revised to appropriately match updated project economics leading up to financial close and upon satisfaction of several conditions outlined in the market release⁴.

During the quarter, Ioneer continued to work to progress satisfaction of conditions for the DOE loan.

³ Excludes estimated capitalised interest costs. Approximately US\$700 million in advances from DOE loan is proposed to be available to fund eligible costs of the Rhyolite Ridge Project including reserve accounts.

⁴ See ASX release dated 16 January 2023 titled, “US Dept of Energy Loan Offer of US\$700m for Rhyolite Ridge.”

Upcoming Work Program

The work program over the coming months includes:

- Advancing federal permitting through participation in the NEPA process in concurrence with the Section 7 ESA Consultation.
- Preparing for the DEIS public comments.
- Updated resource/reserve estimate including SK1300 technical report
- Updated Class II capex and opex estimates
- Continuing to close CP's required for Sibanye's FID and the DOE loan
- Evaluation of growth opportunities including leach testwork on low-boron non-clay mineralisation.

Estimated Project Timeline

Our current best estimate for timing of key milestones is as follows:

Milestone	Targeted timing ⁵
Anticipated ROD	3Q 2024
Construction Period	24 Months
First Production	2026

Corporate Activities

The Annual General Meeting was held on Friday, 3 November 2023. Shareholders were able to attend either in person or virtually. All resolutions were carried without amendment.

During the quarter, Ioneer participated in several industry and investor events, including:

- LME Week, 9-12 October.
- IMARC conference 2023, 31 October – 2 November.
- Bell Potter non-deal roadshow with institutional investors in Sydney, 23

November.

- Canaccord Genuity non-deal roadshow with institutional investors in Sydney, 6 November & New York 6 December.

ASX Additional Information

The Company provides the following information pursuant to ASX Listing Rule requirements.

1. **ASX LR 5.3.1:** Exploration and Evaluation Expenditure during the quarter was US\$8.2 million. Details of the exploration activity are set out in this report. A breakdown of the expenditure is shown below:

Expenditure	US\$'000
Exploration	-
Engineering	5,322
Environmental	1,662
Sales & Marketing	160
Other	1,026
Total	8,171

2. **ASX LR 5.3.2:** The Company confirms there were no production or development activities during the quarter.
3. **ASX LR 5.3.5:** Related party payments for the quarter totalled US\$272,000, comprising salaries and fees for the Company's executive and non-executive directors. No other payments were made to any related parties of the entity or their associates.
4. **ASX LR 5.3.3:** INR confirms that it has not acquired tenements during the quarter (see appendix 1).

Capital Structure

Total cash and cash equivalents as of 31 December 2023 was US\$28.0 million of which 60.9% was held in USD with the balance held in AUD. There was a planned significant

⁵ Note: all dates are estimates only and are subject to change.

reduction in Exploration and Evaluation expenditure compared to the previous quarter (US\$8.2 million this quarter compared to US\$16.3 million in the September quarter). This planned reduction reflects the maturity of the project particularly around engineering and mine design. Further reductions in expenditure are anticipated in the March quarter as geotechnical drilling was completed in January 2024.

At the end of the quarter, Ioneer had on issue:

- 2.1 billion ordinary shares
- 2.9 million options, and
- 34.5 million performance rights.

This ASX release has been authorised by Ioneer Managing Director, Bernard Rowe.

--ENDS--

Media Contact

Chad Yeftich
Ioneer USA Corporation

Investor Relations (USA)

T: +1 775 993 8563

E: ir@ioneer.com

Ian Bucknell
Ioneer Limited

Investor Relations (AUS)

T: +61 434 567 155

E: ibucknell@ioneer.com

About Ioneer

Ioneer Ltd is an emerging lithium–boron producer and the 100% owner of the Rhyolite Ridge Lithium-Boron Project located in Nevada, USA. Rhyolite Ridge is the only known lithium-boron deposit in North America and one of only two known such deposits in the world. Once operational, the low-cost, world-class project is expected to power upward of 50 million electric vehicles and will instantly become a globally significant source of critical materials vital to the clean energy transition.

Upon anticipated completion of the U.S. federal permitting process, construction at Rhyolite Ridge, largely funded through the combination of \$490 million USD in equity from Sibanye-Stillwater and a \$700 million USD in debt from the U.S. Department of Energy's Loan Programs Office, will begin in 2024. Production and on-site processing are expected to follow in 2026.

To date, Ioneer has major offtake agreements with Ford Motor Company, Prime Planet Energy & Solutions (PPES), a joint venture between Toyota Motor Company and Panasonic, and EcoPro Innovation.

Recent Announcements

The table below lists announcements made by the Company during the quarter.

Date Released	Title
03/10/2023	Notification regarding unquoted securities - INR
03/10/2023	Application for quotation of securities - INR
30/10/2023	September 2023 – Quarterly Activities Report
30/10/2023	September 2023 – Quarterly Cash Flow Report
31/10/2023	Investor Presentation – IMARC Conference
01/11/2023	Partnership with EcoPro to bolster U.S. lithium production
02/11/2023	Expanded EcoPro partnership _ Further details
03/11/2023	2023 AGM – Chairman’s Address
03/11/2023	2023 AGM – Managing Director Presentation
03/11/2023	2023 AGM – Results of Meeting
13/11/2023	Application for quotation of securities - INR
13/11/2023	Notification of cessation of securities - INR
13/11/2023	Proposed issue of securities - INR
14/11/2023	Notification regarding unquoted securities - INR
14/11/2023	Notification regarding unquoted securities - INR
14/11/2023	Change of Director’s Interest Notice – Bernard Rowe
14/11/2023	Change of Director’s Interest Notice – Alan Davies
14/11/2023	Change of Director’s Interest Notice – James Calaway
14/11/2023	Change of Director’s Interest Notice – Margaret Walker
14/11/2023	Change of Director’s Interest Notice – Rose McKinney-James
14/11/2023	Change of Director’s Interest Notice – Stephen Gardiner
15/11/2023	Notification of cessation of securities - INR
20/11/2023	Response to ASX Query Letter
08/12/2023	Change of Director’s Interest Notice – Alan Davies

Appendix 1 - Schedule of Tenements

ASX listing rule 5.3.3

Country	Project	Tenement ID	Tenement Name	Area (km ²)	Interest at beginning of quarter	Interest at end of quarter	Note
USA	Rhyolite Ridge	NMC1118666	NLB claims (160)	13	100%	100%	No change
USA	Rhyolite Ridge	NV106310781	NLB claims (41)	1.2	100%	100%	No change
USA	Rhyolite Ridge	NMC1117360	SLB claims (199)	16.5	100%	100%	No change
USA	Rhyolite Ridge	NMC1117360	SLB claims (18)	1.5	100%	100%	No change
USA	Rhyolite Ridge	NMC1171536	SLM claims (122)	9.7	100%	100%	No change
USA	Rhyolite Ridge	NMC 1179516	RR claims (65)	5.4	100%	100%	No change
USA	Rhyolite Ridge	NMC 1179516	RR claims (14)	1.1	100%	100%	No change
USA	Rhyolite Ridge	NMC 1129523	BH claims (81)	7	100%	100%	No change
USA	Rhyolite Ridge	NV105272779	RMS claims (23)	0.5	100%	100%	No change
USA	Rhyolite Ridge	NMC1147932	SLP claims (120)	9.7	100%	100%	No change
USA	Rhyolite Ridge	NV105272053	PR claims (11)	0.9	100%	100%	No change
USA	SM	NMC1166813	SM claims (96)	7.7	100%	100%	No change
USA	GD	NMC1166909	GD claims (13)	1.1	100%	100%	No change
USA	CLD	NMC1167799	CLD claims (65)	5.2	100%	100%	No change

On 16 September 2021, the Company announced a strategic investment by Sibanye-Stillwater⁶ in the Rhyolite Ridge Project. Under the terms of the agreement, Sibanye-Stillwater will contribute US\$490 million for a 50% interest in the Joint Venture, with Ioneer to maintain a 50% interest and retain operatorship. Ioneer has also agreed to provide Sibanye-Stillwater with an option to participate in 50% of the North Basin, upon the election of Sibanye-Stillwater to contribute up to an additional US\$50 million, subject to certain terms and conditions. Establishment of the Joint Venture and Sibanye-Stillwater's funding commitment is subject to certain terms and conditions precedent, including receipt of final permits, commitments for remaining debt financing, and other customary approvals.

⁶ Refer ASX release titles 'Sibanye-Stillwater to invest US\$490M in Rhyolite Ridge' announced on 16 September 2021.