

## QUARTERLY ACTIVITIES REPORT for the period ending 31 December 2024

### Highlights

- **Ioneer closes upsized US\$996 million loan in January 2025 from U.S. Department of Energy to accelerate domestic critical mineral production.** Demonstrating the strategic importance in developing a domestic critical mineral supply chain.
- **Ioneer's Rhyolite Ridge Lithium-Boron Project completes major US Federal permitting step and advances toward a construction decision.** The BLM issued a favourable Record of Decision on 24 October 2024, marking the completion of the NEPA Process.
- **The State of Nevada Reclamation Permit was issued by the Department of Environmental Protection,** Bureau of Mining Regulation approving the Plan of Operations and Phase I Reclamation Plan.

**Thursday, 30 January 2025** – 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 2024 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** commented:

*“The December quarter continued the Company’s advancement toward a Final Investment Decision following receipt in October of the federal permit for the Rhyolite Ridge Project from the Bureau of Land Management. Ioneer is now licensed to commence construction in 2025 and begin our work in creating hundreds of good-paying rural jobs, generating millions in tax revenue for Esmeralda County, and bolstering the domestic production of critical minerals.”*

Ioneer Executive Chairman, **James D. Calaway** in commenting on the close of the U.S Department of Energy loan noted:

*“The need for domestically sourced and processed lithium and boron has never been greater. The United States requires Rhyolite Ridge and more projects like it if we want secure domestic critical mineral production. It’s as simple as that. We’re thrilled to provide these critical battery components to the American manufacturing supply chain.”*

*“Rhyolite Ridge is fully permitted and construction ready. This loan demonstrates the United States’ confidence in and importance of our lithium-boron mine project.”*

## Close of upsized US\$996 million loan from U.S. Department of Energy

On 20 January 2025, shortly after the quarter's end, Ioneer announced the closing of a US\$996 million loan from the U.S. Department of Energy (DOE) Loan Programs Office (LPO) under the Advanced Technology Vehicles Manufacturing (ATVM) program to support the development of an on-site processing facility at the Rhyolite Ridge Lithium-Boron Project in Esmeralda County, Nevada.

The investment, part of the LPO's efforts to strengthen the nation's critical mineral supply chain, will create hundreds of rural jobs, support American manufacturers and help rebalance the global supply of lithium and boron production and processing currently dominated by China and Turkey, respectively. The \$996 million loan (\$968 million principal and \$28 million in capitalised interest) is a \$268 million increase in loan principal from the January 2023 conditional loan commitment.

Once operational, Rhyolite Ridge will quadruple the nation's current domestic lithium supply, power an estimated 370,000 electric vehicles per year, create an estimated 500 jobs during construction and 350 high paying jobs during its decades in operation and become the first new lithium mine in the United States in almost sixty years and first new boron mine in close to a century. The project will generate dual revenue from lithium and boron produced directly at the mine site and contribute to establishing a sustainable lithium loop in Nevada, ensuring the recycling and reuse of the critical minerals.

## Rhyolite Ridge Permitting

### National Environmental Policy Act (NEPA) Permitting Process

In October, Ioneer received its federal permit for the Rhyolite Ridge Lithium-Boron Project from the Bureau of Land Management. The positive decision advances the Esmeralda County, Nevada investment toward construction in 2025 and first production in 2028.

The Bureau of Land Management (BLM) issued a favourable Record of Decision (ROD) on 24 October 2024, authorizing the Plan of Operations and completing the National Environmental Policy Act (NEPA) process. Receiving the ROD brings the Rhyolite Ridge Project one step closer to construction which will start after receiving a Final Investment Decision (FID).

The formal ROD follows the issuance in September 2024 of the final Environmental Impact Statement (EIS) by the BLM, which incorporated public feedback received during the April-June open comment period and concludes the rigorous and comprehensive formal federal permitting process, which began in early 2020.

Ioneer's pre-permitting work began in early 2019 and, in December 2022, the company formally entered the final stages of the NEPA review, as required by all projects on federal lands.

Ioneer enacted major changes to the project throughout the permitting process resulting in a stronger, more sustainable project that incorporates the needs and concerns of all stakeholders.

In October, the Center for Biological Diversity (CBD) filed a federal lawsuit against the BLM decision. In November, Ioneer filed a motion to intervene, which the court allowed in January 2025.

## Estimated Project Timeline

Ioneer's estimated timing\* for the Rhyolite Ridge Lithium-Boron Project is as follows:

Milestone	Targeted timing	Note
Targeted FID	1Q 2025	Based on current management targets.
Construction	Circa 36 months	Includes supply of long-lead items and construction. Subject to lead times and when orders are placed.
Targeted Commercial Production and Delivery to Partners	2028	Produce and process high-grade technical lithium and boron on-site at Rhyolite Ridge.

\*As of the date of this quarterly, and subject to change.

The timing of FID is contingent upon completion of joint venture approval and financing, which includes the closing of the agreement with Sibanye-Stillwater, closing of the conditional loan from the DOE Loans Programs Office, and procurement of any additional funding requirement.

## Mineral Resource and Ore Reserve Estimates

This past quarter, Ioneer has continued to optimize the Ore Reserve to accompany the Mineral Resource Estimate for Rhyolite Ridge Project. The work included geotechnical analysis, NPV, equipment analysis and production optimization, all the while respecting environmental boundaries of the Tiehm's buckwheat. The Company finalised all geotechnical test work and assay data and is incorporating the information into a Resource and Reserve update anticipated in the March quarter.

This work went alongside supporting the due diligence efforts associated with the DOE loan agreement as well as the FID due diligence efforts that are ongoing with Sibanye-Stillwater.

## Sales & Marketing

### Lithium Market and Price

Lithium prices remain under pressure as the market navigates a large surplus of lithium chemical. Fortunately, the demand for lithium continues to be strong in the rechargeable batteries sector, led by Chinese growth, which is offset by weaker than expected EV sales in Europe and North America.

However, 2025 EV sales are forecast to achieve nearly 20 million units, reflecting 18% year-on-year growth and representing around 3 million additional vehicles sold compared to 2024.

Wood Mackenzie reported annual lithium demand in 2024 of 1.2 Mt LCE, which they forecast to increase to 3.3 Mt LCE by 2034, with a compound annual average growth rate of 11%, a slight reduction on last quarter's forecast. Their analysis forecasts the oversupply to be at its highest during 2026 and 2027, before declining from 2028 onwards.

According to Wood Mackenzie, lithium chemical prices will stabilize in 2025, led by supplier cost-driven reasons, not supply-demand fundamentals. Spot prices (nominal terms) for battery-grade chemicals, carbonate, and hydroxide are expected to reach US\$12,568/t and US\$11,885/t in 2025, respectively.

Benchmark Minerals forecast lithium chemicals to be \$10,400/t, CIF Asia in 2025, US\$12,000/t in 2026, and to peak in 2028 at US\$25,000/t for carbonate and US\$2,000/t for spodumene concentrate, as the market braces for an expanding deficit by the end of the decade.

In contrast, Benchmark Minerals forecast that the current low LCE price has prompted a shift in the projected supply deficit. Initially anticipated for 2028, they now expect the deficit to emerge in 2026. This change is attributed to production cuts by major suppliers and delays in greenfield and brownfield projects awaiting more favourable market conditions.

### **Boric Acid Market and Price**

Global boric acid demand and supply remain balanced, with prices unchanged in Q4 2024 compared to the previous quarter. China, the largest borate market with 51% global market share, reported an increase of 7.1% November YTD of boric acid imports over the full 2023 year

This growth in imports is being led by a recovery in the home electronics market ramping up LCD/OLED display demand requiring TFT glass, which is entering a replacement cycle, specifically the mobile phone replacement mandate from 2G to 4/5G in Vietnam in 2024. However, the high-end TFT display sector continues to struggle.

Ferro boron demand in EV motors (permanent magnets) and boron carbide demand in the semiconductor and defence industries remain strong.

## **Environmental, Health, Safety & Sustainability (EHSS) Program**

### **Sustainability Road Mapping /External Disclosure Alignment**

The results of Ioneer's S&P Global Corporate Sustainability Assessment report were published in late December 2024. The report confirmed Ioneer's steady sustainability performance through 2024 and our alignment with investor and stakeholder expectations for transparency and accountability.

### **Environmental Regulatory Compliance**

Ioneer continues to maintain compliance with the issued State of Nevada Water pollution Control and Class 2 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.

Ioneer submitted an application to modify the State of Nevada Water Pollution Control Permit to align it with the revised, and approved, Mine Plan of Operations. Technical comments from the State Regulatory Branch were received and responded to during the quarter. A draft permit is expected to be released for public review in early 2025.

Similarly, Ioneer submitted an application to modify the Class II Air Permit to the State in October 2024 to align it with the revised Mine Plan of Operations. The application was deemed administratively complete in November and is currently undergoing a 60-day technical review period.

The Public Utilities Commission of Nevada held a hearing and granted authorization to construct the Project's 40-megawatt electrical generating facility utilizing steam byproducts from the Processing Plant.

## Health & Safety

During the quarter no lost time incidents, first aid incidents, or fatalities were reported for Ioneer staff.

## Tiehm's Buckwheat

Ioneer grown adult plants in the company's greenhouse continued to produce flowers until mid-September. Ioneer collected seeds throughout the quarter with cold stratification germination of collected seeds planned in Q1 2025.

## Community & Tribal Nations

Ioneer continues to engage with local communities and Tribal Nations to address any environmental and social concerns and enhance local economic opportunities.

During the quarter, the Company hosted a Community Meeting in Fish Lake Valley, held listening sessions with community members and continued to work with Esmeralda County officials to further a Development Agreement between the County and Ioneer which is expected to be finalized in the coming months.

## Engineering

During the quarter, Ioneer progressed Cost Engineering (AACE) 47 R 11 Class 2 (Class 2) capital estimate for stage 1 of the Rhyolite Ridge Project, with Fluor and its other service providers across their respective fields of specialty. Preparation of the Class 2 cost estimate is a necessary precondition to the preparation of an Approved Feasibility Study (AFS) and the making of a Final Investment Decision (FID) on the Project by the Company and Sibanye-Stillwater. The making of the FID decision by the Company and Sibanye-Stillwater is the precondition for the Project to proceed from the development to the construction phase.

The Class 2 cost estimates are being developed to have an accuracy range of +15%/-10% in accordance with the applicable engineering standard based on circa 70% of engineering complete.

In addition, the engineering team continued its support of Ioneer's executive in both working with the DOE to resolve technical queries related the Project to close the loan agreement, and in responding to FID due diligence queries from Sibanye-Stillwater to assist in closing the Joint Venture Agreement.

## Organic Growth Projects

### EcoPro Lithium Clay Project

The EcoPro Lithium Clay R&D project has shown promising progress in 2024. Lithium was successfully concentrated by testing various beneficiation methods to reduce sulfuric acid consumption, with high lithium recoveries achieved. Further work is required in 2025 to optimize the processing conditions and impurity removal to enable the finalization of the process flow sheet.

The current workplan is to complete the sulfuric acid leaching process and economic assessment by the end of H1 2025 and the calcining process by November 2025.

### **North Basin Growth Project**

The North Basin is located 5km north of the South Basin. Ioneer undertook minimal work at North Basin during the quarter.

## **Corporate Activities**

### **Caterpillar's Pathway to Sustainability Program**

Ioneer continued with Caterpillar's Pathway to Sustainability Program for Energy Transition. This is a four-year educational program aimed at supporting the mining, quarry and aggregates industries through the energy transition.

Ioneer's Mine and Operations team attended the first of three collaboration seminars in November. The Ioneer team and industry peers met in Tucson, Arizona, to discuss the impacts and opportunities of the energy transition and customer demands.

During the event, Caterpillar demonstrated a variety of its surface and underground solutions and technologies, including a behind the scenes peek at their testing and development activities. Caterpillar representatives shared their vision to support their customers. Ioneer expects to continue to participate in this program throughout 2025.

### **Annual General Meeting**

The Annual General Meeting was held on Friday, 1 November 2024. Shareholders were able to attend either in person or virtually. All resolutions were carried without amendment.

## **Upcoming Work Program**

The work program over the coming months includes:

- Advancing modifications to State Permits required by the approved Plan of Operations.
- Finalising updated Resource & Reserve and financial estimate.
- Close conditional Sibanye-Stillwater JV agreement to fund \$490 million for a 50% share of the Rhyolite Ridge Project
- Procure and close additional required funding (50:50 basis with JV partner)
- Make a "Final Investment Decision"
- Construction targeted for later in 2025 and is expected to take approximately 36 months including procurement of long-lead items

## 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\$2.5 million. Details of the exploration activity are set out in this report. A breakdown of the expenditure is shown below:

Expenditure	US\$'000
Exploration	19
Engineering	1,126
Environmental	1,237
Sales & Marketing	116
Other	21
Total	2,519

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\$289,200 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 2024, was US\$21.6 million of which 56% was held in USD with the balance held in AUD.

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

- 2.36 billion ordinary shares
- 1.63 million options, and
- 56.89 million performance rights.

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

--ENDS--

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## About Ioneer

Ioneer Ltd is an emerging lithium–boron producer and the 100% owner of the Rhyolite Ridge Lithium-Boron Project. Rhyolite Ridge is the only known lithium-boron deposit in North America, one of only two known such deposits in the world and a linchpin project in Nevada’s burgeoning Lithium Loop. 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.

In October 2024, Ioneer received the final federal permit for the project from the Bureau of Land Management, concluding the formal federal permitting process which began in early 2020. Ioneer signed separate offtake agreements with Ford Motor Company and Prime Planet & Energy Solutions (joint venture between Toyota and Panasonic) in 2022 and Korea’s EcoPro Innovation in 2021.

In January 2025, Ioneer closed a \$996 million loan with the U.S. Department of Energy Loan Programs Office a part of the Advanced Technology Manufacturing Program. In September 2021, Ioneer entered into an agreement with Sibanye-Stillwater where, following the satisfaction of conditions precedent, Sibanye-Stillwater will acquire a 50% interest in the Project, with Ioneer maintaining a 50% interest and retaining the operational management responsibility for the joint venture.

To learn more about Ioneer, visit [www.ioneer.com/investors](http://www.ioneer.com/investors).



## Recent Announcements

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

Date Released	Title
25/11/2024	Notification of cessation of securities - INR
19/11/2024	Application for quotation of securities - INR
19/11/2024	Change of Director's Interest Notice – Alan Davies
19/11/2024	Change of Director's Interest Notice – James Calaway
19/11/2024	Notification of cessation of securities - INR
08/11/2024	Becoming a substantial shareholder
08/11/2024	Application for quotation of securities - INR
07/11/2024	Notification regarding unquoted securities - INR
06/11/2024	Change of Director's Interest Notice – Margaret Walker
06/11/2024	Change of Director's Interest Notice – Rose McKinney-James
06/11/2024	Change of Director's Interest Notice – Stephen Gardiner
06/11/2024	Change of Director's Interest Notice – Alan Davies
06/11/2024	Change of Director's Interest Notice – Bernard Rowe
06/11/2024	Change of Director's Interest Notice – James Calaway
06/11/2024	Notification regarding unquoted securities - INR
05/11/2024	Notification regarding unquoted securities - INR
05/11/2024	Proposed issue of securities - INR
05/11/2024	Application for quotation of securities - INR
01/11/2024	2024 AGM – Results of AGM
01/11/2024	2024 AGM – Chairs Address
31/10/2024	Ioneer investor presentation – IMARC Conference
25/10/2024	Webinar invitation to discuss receipt of Final Permit
25/10/2024	Rhyolite Ridge Project Receives Final Permit Approval
21/10/2024	September 2024 - Quarterly Cash Flow Report
21/10/2024	September 2024 – Quarterly Activities Report
15/10/2024	Correction to Notice of Annual General Meeting 2024
01/10/2024	Application for quotation of securities - INR
01/10/2024	Notice of Annual General Meeting/Proxy Form

## Appendix 1 - Schedule of Tenements

### ASX listing rule 5.3.3

Country	Project	Tenement ID	Tenement Name	Area (km <sup>2</sup> )	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	NV105809159	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	NV105810398	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 mill sites (23)	0.5	100%	100%	No change
USA	Rhyolite Ridge	NV106354216	RMS mill sites (325)	6.6	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	NMC1167700	CLD claims (65)	5.2	100%	100%	No change

On 16 September 2021, the Company announced a strategic investment by Sibanye-Stillwater<sup>1</sup> 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.

<sup>1</sup> Refer ASX release titles 'Sibanye-Stillwater to invest US\$490M in Rhyolite Ridge' announced on 16 September 2021.