

30<sup>th</sup> OCTOBER 2024

CORPORATE ANNOUNCEMENT

## SEPTEMBER 2024 QUARTERLY REPORT

### HIGHLIGHTS

#### 1. Lake Hope High Purity Alumina (HPA) Project, WA (IPT earning 80%)

- The Mine at Lake Hope:
  - A negotiation protocol for Land Access and Cultural Heritage agreements with the Ngadju peoples reviewed and signed.
  - Applications for a Mining Lease and associated Miscellaneous licence lodged.
  - Infill drilling to define a maiden Measured Resource and Proven Reserve completed with resource calculations and economic studies in progress.
  - Mining studies underway to provide mining schedules, proposed equipment, site logistics and costs of mining and transport of ore to Kwinana.
  - Further flora fauna and heritage surveys are being planned for the mine haul road.
- The Process Plant:
  - Kwinana selected as the location for process plant to produce a benchmark 10,000 tonnes per annum of HPA due to access to providers of the required input chemical reagents, buyers of the fertiliser and acid by-products and access to suitable land. Combined, these provide substantial strategic advantages for the project with savings on capex and opex.
  - The Low-Temperature Leach process selected as the most straightforward processing method to produce HPA at scale.
  - CPC Engineering selected to provide a design and engineering study for the full-scale plant that is underway.
- Product development, offtake and marketing
  - Further test work on HPA and fertiliser by-products continues.
  - Experimental work has produced a hydrated alumina product that may have major applications in the catalyst and flame retardant industries.
  - Early-stage discussions are underway for potential synergies with existing alumina businesses in Europe and the USA.
  - A marketing and product development team is being assembled.

#### COMPANY DETAILS

Market Cap: A\$39.8m (0.013 p/s)

Issued Capital: 3,059,433,718

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#### DIRECTORS

Mr Peter Unsworth  
Chairman

Dr Michael Jones  
Managing Director

Mr Paul Ingram  
Non-Executive Director

Dr Frank Bierlein  
Non-Executive Director

Mr Arron Canicais  
Company Secretary



## **2. Arkun-Beau, WA (IPT 100%)**

- No major activity occurred this quarter, though efforts remain on track to resume exploration after the cropping season ends in the wheatbelt in December.
- 413 soil samples were re-assayed to refine drill targets at Beau and Caligula prospects
- Land access agreements and statutory approvals are being finalised ahead of planned drill programme in Q1 2025
- Previous geochemical and MME survey data at Caligula support the project potential, with \$180,000 co funding awarded under the WA Government' EIS scheme for drilling.

## **3. Corporate/Finance**

- A FY23 Research and Development Rebate of \$395,000 was received during the Quarter.

## PROJECT REPORTS

### 1. LAKE HOPE HIGH PURITY ALUMINA PROJECT, WA (IPT earning 80%)



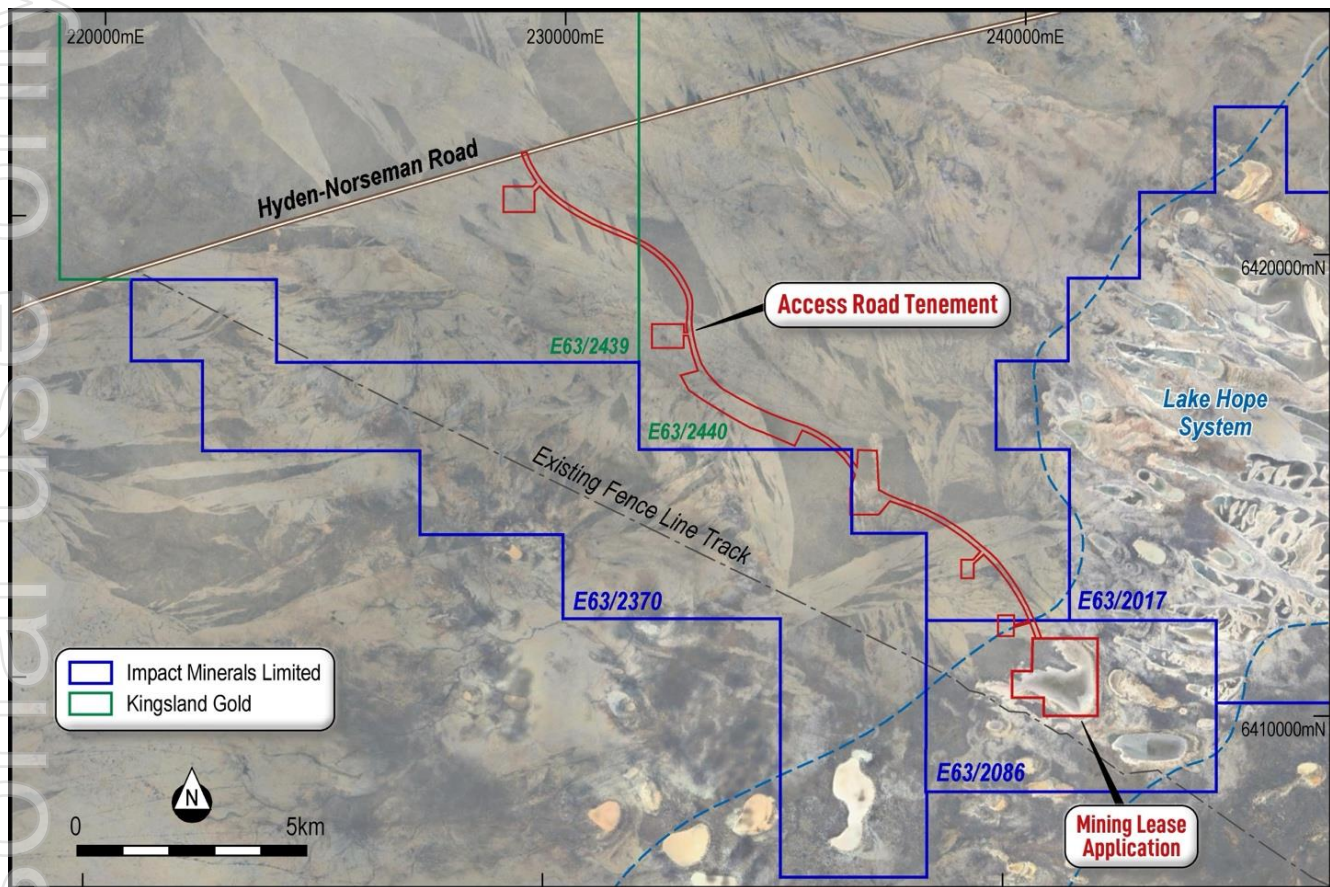
**Figure 1.** Location of the Lake Hope Project and proposed haul route to Kwinana.

During the Quarter Impact Minerals announced that it had lodged a Mining Lease Application (MLA63/684) and associated Miscellaneous Licence (L63/99) for the Lake Hope High Purity Alumina (HPA) Project located 500 km east of Perth in Western Australia, (Figures 1 and 2). This is a crucial step in advancing the project towards production as it defines the work required to obtain the statutory approvals needed for the grant of the Mining Lease.

The approvals process, together with the logistics and estimated costs of mining and transporting the Lake Hope mud to the process plant, form one of the four key parts of a Pre-Feasibility Study (PFS) on Lake Hope, which is in progress (Figure 3 and ASX Release July 10<sup>th</sup>, 2024). Impact can take an 80% interest in Playa One Pty Limited, which owns the Lake Hope Project and associated intellectual property, by completing the PFS (ASX Releases March 21<sup>st</sup> 2023 and July 10<sup>th</sup> 2024).

The PFS followed on from a positive Scoping Study, which showed that for a benchmark production of 10,000 tonnes per annum of HPA, the Project has an estimated post-tax Net Present Value (NPV<sub>8</sub>) of about A\$1.3 billion and would potentially be one of the lowest-cost producers of HPA globally (ASX Release November 9<sup>th</sup> 2023).

All material assumptions underpinning the production target and the forecast financial information derived from it in the Scoping Study continue to apply and have not materially changed within the +/-30% parameters (ASX November 9th, 2023).



**Figure 2.** Location of the Mining Lease and Miscellaneous Licence Applications at Lake Hope.

Exploration licences under Impact's control are shown in blue. An access agreement will be required with Kingsland Minerals Limited who the green tenements. Initial discussions for this have been very positive.

## The Mine

As part of the Pre-Feasibility Study the following work has been completed or is in progress.

1. Discussions were held with the Prescribed Body Corporate (PBC) for the Ngadju Aboriginal people to inform them of Impact's intention to develop the Project and to lodge a Mining Lease Application. A Negotiation Protocol was received from the PBC for Impact's review, which set's the framework for negotiations to achieve a Land Access Agreement and a Cultural Heritage Management Plan for the mine and the potential benefits to the Ngadju community from the development of the Lake Hope mine.
2. A mineralisation report, a Mining Lease layout, and a Miscellaneous Licence for haul road access and site logistics were finalised for the Mining Lease application (Figure 2). Areas of gravel and construction materials for the haul road have been identified and mapped as part of this work. The haul road location offers considerable savings in the capital expenditure required for road construction compared to upgrading existing tracks.

3. Infill drilling on the West Lake was completed to convert a significant portion of the previously defined Indicated Resource to a Measured Resource and sufficient to provide a minimum 15-year mine life. This will allow a maiden Proven Reserve to be declared with further mining and economic studies. H and S Resource Consultants are preparing the resource upgrade.
4. Quotes are being sought for follow-up seasonal flora and fauna surveys that will be required along the haul road and proposed gravel pits. In addition, further Heritage Surveys will be needed along the same infrastructure and will likely occur next year as discussions with the Ngadju peoples and the statutory approvals process progress.

### **The Process Plant**

1. Kwinana has been selected as the best location for the processing plant following a rigorous study of the available options. This is a key outcome of the PFS, and the decision was driven by the ready availability of the various chemical reagents needed for the process plant compared to the transport cost to get reagents to Kalgoorlie, which was the basis of the Scoping Study (ASX Release November 9<sup>th</sup> 2023). The savings in operating costs far outweigh the marginal extra cost of transporting ore to Kwinana rather than Kalgoorlie.
2. Another key outcome of the PFS is selecting the Low-Temperature Leach (LTL) process as the most effective process for producing HPA at scale (ASX Release February 27<sup>th</sup> 2024). This follows ongoing test work and financial modelling for the LTL and Sulphate Processes.
3. Discussions are underway with potential suppliers of the input reagents required for the LTL process and potential buyers of the associated fertiliser and acid by-products. Indications are that both the required inputs and by-product outputs can be provided “at the gate” in Kwinana. This is a significant strategic advantage for the project, minimises the requirement for many minor capital items, and leads to savings in operating costs.
4. A block of land has been identified as suitable for the plant, and discussions are underway to secure it when appropriate.
5. CPC Engineering was commissioned to undertake design engineering studies and provide estimates of the capital and operating costs for a process plant to produce 10,000 tonnes per annum of HPA. These costs will be used in the PFS. CPC’s work will build on extensive Process Flow Design and Mass Flow Balance calculations recently completed by Strategic Metallurgy.

### **Test Work**

1. Metallurgical test work is progressing well, and production of HPA samples is underway. Work is progressing on both the sulphate process and low temperature leach process (LTL) and now includes further mass flow balance and process flow design work with a particular focus on acid usage and regeneration at the back end of the processes (ASX Releases 19<sup>th</sup> February 2024 and 27<sup>th</sup> February 2024). In addition, further test work is underway on the fertiliser by-product to help determine likely demand and pricing.



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1. Detailed discussions are in progress regarding the design and construction of a pilot plant that will produce HPA of consistent quality for potential offtake partners. On October 22<sup>nd</sup> 2024, Impact announced that it had been awarded a grant of \$2.87 million grant in collaboration with CPC Engineering and the Mineral Recovery Research Centre (MRRC) at Edith Cowan University, towards the commercialisation of the company's innovative process to produce High Purity Alumina (HPA) from the Lake Hope deposit.
  2. Early-stage discussions have been held with existing ceramic and alumina producers in Europe and the USA with a view to potential synergies.
  3. Impact is assembling a marketing team to engage with potential customers further and provide feedback on the specifications required for end-user products.



**Figure 3.** The four pieces of the Lake Hope Pre-Feasibility Study Jigsaw Puzzle.

Recent ASX releases by Alpha HPA Limited (ASX:A4N), a leader in the HPA industry, show there is significant global demand for a wide range of HPA products of much more than the 10,000 tonnes per annum Alpha plans to produce from their full-scale plant to be built over the next two years. Alpha recently received significant funding of \$400 million, a total capex of \$500 million, for building this plant from the Australian government. The funding comprises low-interest loans and demonstrates the ongoing federal (and state) support for critical minerals and downstream processing, in which Impact intends to participate. The Lake Hope Scoping study had an estimated capital cost of \$250 million (+/- 30%) (ASX Release November 9<sup>th</sup> 2023).

## **2. ARKUN-BEAU-JUMBO Ni-Cu-PGM-REE PROJECT, WA (IPT 100% and 80%)**

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As highlighted in the previous quarter's report, significant progress was made on the Caligula copper prospect. However, during this quarter, there has been no major new activity at the Arkun Project.

During the quarter, 413 soil samples previously assayed for ionic leach have been re-assayed to refine drill target at Beau and Caligula. Of these:

- 238 samples from Beau were re-assayed for four acid digest.
- 175 soils from the northern part of Caligula were submitted for aqua regia digest analysis

Although no additional fieldwork has taken place this quarter, Impact remains committed to advancing the Arkun Project as soon as the cropping season in the wheatbelt has finalised in December. Preparations are also underway to finalise land access agreements and necessary statutory approvals ahead of a planned drill programme in Q1 2025.

Previous geochemical surveys and data from the Mobile Magneto-Telluric (MMT) survey at the Caligula prospect continue to support a promising outlook for the project. Co funding of up to \$180,000 has been awarded under the WA Government's EIS Scheme to drill the Caligula copper target.

We remain optimistic about the project's potential and will provide further updates as developments occur.

## **3. COMMONWEALTH PROJECT (IPT 100%)**

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During the Quarter, Burrendong Minerals Ltd, who have an option to earn a 75% interest in the Commonwealth project, made significant strides towards completing its prospectus for an IPO. The prospectus is expected to be lodged with ASIC early in Q4 CY2024.

## **OTHER PROJECTS**

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No significant work was done on Impact's other projects.

## 4. CORPORATE

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### Financial Commentary

The Quarterly Cashflow Report (Appendix 5B) for the current period provides an overview of the Company's financial activities.

Cash exploration expenditure for the period was \$841,000. Corporate and administration expenses amounted to \$592,000. The total amount paid to directors of the entity and their associates in the period (item 6 of Appendix 5B) was \$105,000, including salary, directors' fees and superannuation.

Cash at September 30<sup>th</sup> was \$1.98 million.



**Dr Michael G Jones**

**Managing Director**

**Competent Person's Statement**

*The review of exploration activities and results contained in this report, except the Lake Hope Project, is based on information compiled by Dr Mike Jones, a Member of the Australian Institute of Geoscientists. He is a director of the company and works for Impact Minerals Limited. He has sufficient experience relevant to the style of mineralisation and types of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Mike Jones has consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*The review of exploration activities and results about the Lake Hope Project and the metallurgical test work contained in this report is based on information compiled by Roland Gotthard, a Member of the Australian Institute of Mining and Metallurgists. He is an employee of Impact Minerals Limited. He has sufficient experience relevant to the style of mineralisation and types of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Mr Gotthard has consented to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*The data in this report that relates to Mineral Resource Estimates are based on information evaluated by Mr Simon Tear, who is a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM) and who has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code"). Mr Tear is a Director of H&S Consultants Pty Ltd and consents to the inclusion in the report of the Mineral Resource in the form and context in which they appear.*



### Tenement Information by Listing Rule 5.3.3

Project / Tenement	Location	Status	IPT Interest at start of	IPT Interest at end of
<b>Commonwealth</b>	<b>New South Wales</b>			
EL5874		Granted	100%	100%
EL8212		Granted	100%	100%
EL8252		Granted	100%	100%
EL8504		Granted	100%	100%
EL8505		Granted	100%	100%
<b>Broken Hill</b>	<b>New South Wales</b>			
EL7390		Granted	100%	100%
EL8234		Granted	100%	100%
EL8636		Granted	100%	100%
EL8674		Granted	100%	100%
EL8609		Granted	100%	100%
EL9036		Granted	100%	100%
EL9037		Granted	100%	100%
EL9115		Granted	100%	100%
EL9294		Granted	100%	100%
EL9384		Granted	100%	100%
EL9481		Granted	-	100%
<b>Blackridge</b>	<b>Queensland</b>			
EPM26806		Granted	100%	100%
EPM27571		Granted	100%	100%
EPM27410		Granted	100%	100%
<b>Lake Hope</b>	<b>Western Australia</b>			
E74/763		Granted	Earning in	-
E74/764		Granted	Earning in	-
E63/2317		Granted	Earning in	-
E63/2318		Granted	Earning in	-
E63/2319		Granted	Earning in	-
E63/2086		Granted	Earning in	-

Project / Tenement	Location	Status	IPT Interest at start of	IPT Interest at end of
E74/779		Granted	Earning in	-
E63/2370		Application	Earning in	
<b>Arkun</b>	<b>Western Australia</b>			
E70/5424		Granted	100%	100%
E70/5430		Granted	100%	100%
E70/5431		Granted	100%	100%
E70/5432		Granted	100%	100%
E70/5433		Granted	100%	100%
E70/5434		Granted	100%	100%
E70/5490		Granted	100%	100%
E70/5504		Granted	100%	100%
E70/5505		Granted	100%	100%
E70/6598		Granted	100%	100%
E70/6595		Application	-	-
E70/6604		Granted	-	100%
<b>Doonia</b>	<b>Western Australia</b>			
E15/1790		Granted	80%	80%
<b>Jumbo</b>	<b>Western Australia</b>			
E70/5852		Granted	80%	80%
<b>Dalgaranga</b>	<b>Western Australia</b>			
E59/2620		Granted	80%	80%
<b>Narryer</b>	<b>Western Australia</b>			
E52/3967		Granted	80%	80%
E52/3985		Granted	80%	80%
<b>Gascoyne</b>	<b>Western Australia</b>			
E52/4114		Surrendered	100%	0%