

---

# QUARTERLY ACTIVITIES REPORT

## 31 December 2023

---

### Highlights:

- **The Stage 1 Demonstration Plant Project continues to progress with no reportable Health, Safety, or Environmental (HSE) incidents to date.**
- **Magnesium Oxide (MgO) production strategy is on track, allowing LMG to initially prove its patented process and to generate early revenue. Focus will then target completion of remaining works with Magnesium metal production starting H2.**
- **Engineering and Procurement practically complete. Construction labour expanded to 50+ local trade workers engaged onsite.**
- **Erection of structural steel related to MgO production completed with installation of mechanical equipment practically completed. Focus now shifts to completing piping, electrical and control.**
- **Fly Ash Beneficiation area construction fully completed, ready for commissioning.**
- **Stage 2 initial project size set to bring forward project development.**
- **LMG is actively engaged in discussions and moving to the writing phase with a number of various international investors who have expressed interest in partnering in its Stage 3 project.**

### **1. Stage 1 Demonstration Plant Progress Update**

#### **1.1 Engineering**

Following the demobilisation plan, the core EPCM engineering team, consisting of 4 – 6 personnel, have continued providing support to the site construction team and progressed vendor closeout and commissioning handover documentation to LMG. Procurement personnel supported the construction and commissioning phases by procurement of any necessary site consumables and local hire of mobile equipment.

#### **1.2 Construction**

##### **Magnesium Oxide Strategy**

As outlined in the project monthly updates, the project team have focused on fast-tracking the construction of the plant areas required to produce one-ton bulk bags of MgO, an intermediate product, for customer sales, prior to the production of magnesium metal. LMG has a Memorandum of Understanding (MoU) with Rainstorm Dust Control Pty Ltd for the sale of MgO in the initial phase, as well as any excess MgO produced. LMG will now look to finalise a sales agreement with Rainstorm.

The EPCM engineering team have completed the modifications to existing engineering deliverables to install piping and a bagging plant to produce one tonne bulk bags of MgO, with the MgO Bagging Plant fabricated, factory-tested, and in transit to Demonstration Plant Project site for installation.

The sub system commissioning methodology will allow the EPCM construction team to transition to other areas of the plant as sub systems are completed and handed over to LMG Operations, ensuring a seamless transition to the remainder of the project.

The construction and commissioning of the briquetting system, reduction furnace area, the furnace automation and vacuum system will then be the second phase of the plant to be fully commissioned, allowing operations personnel to familiarise themselves with the flowsheet whilst at the same time generating revenue.

This strategy will demonstrate LMG's patented, world-first hydromet process can be operated successfully and prove to all stakeholders the true value of LMG's intellectual property.



**Figure: MgO Bagging Plant Shipped**

Site

The site team have mobilised a daily workforce of over 50 local trades, from our three major local contractors, Mechanical Maintenance Services (MMS), Operations and Maintenance (O&M) and GEM Industrial Services who are responsible for Structural & Mechanical installation, Electrical & Instrumentation installation, and Piping fabrication & installation, respectively. The local trades on site comprise of fitters, welders, riggers, scaffolders, electricians, instrument technicians, supervisors, technical assistance, completions work pack engineers and QA/QC inspectors.



**Figure: Site Construction Team – December 2023 Pre-Start**

Civil

All major civil and concrete works have been completed. This has included civil work required for the installation of the LPG & Gas tanks and minor localised miscellaneous contract foundation and pedestals.



*Figure: Civil work completed for LPG Tank and Gases Facility*

Structural, Mechanical and Piping

The Spray Roaster has continued to be the project's critical path with the following major milestones achieved, to remain on schedule:

- Complete fabrication and assembly of the Spray Roaster's reactor vessel and oxide bin by local contractor, Stable Engineering
- Installation of the Spray Roaster's reactor vessel and oxide bin into the structure, including ancillary components
- Complete erection and installation of all major Spray Roaster structural steel
- Complete internal refractory lining of the reactor vessel by specialised refractory contractor, Steuler.



*Figure: Spray Roaster reactor vessel transported to site and dual crane lift.*



*Figure: Installation of modularised Spray Roaster structural steel platforms*



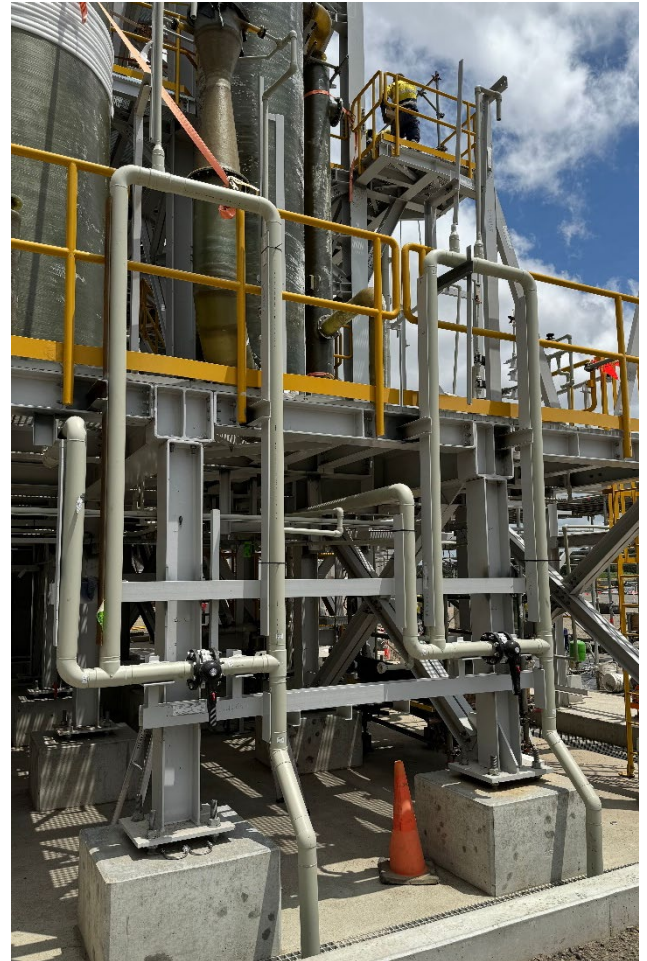
*Figure: Spray Roaster reactor vessel refractory lining completed.*

The completion of the refractory works, which included the installation of insulating refractory castable for the lower cone, fireclay brick & mortar for the shell and a mouldable refractory mix for the three (3) burner chambers, has allowed the SMP and E&I contractors to continue to progress with the installation of the mechanical equipment, including tanks and burners, absorption towers, stacks, pumps, fans, blowers, instrumentation, pipe & cable supports.



*Figure: Spray Roaster's reactor vessel & oxide bin installed along with structural steelwork erection complete.*





**Figure:** Spray Roaster tanks, piping, valves, and instrumentation installation progressing



*Figure: Mechanical and piping installation progressing*

The erection of both the Ferrosilicon and Magnesite Hopper and Bag Breaker units are complete.

Given its criticality to the production of MgO, the Magnesite Hopper Bag Breaker has progressed significantly with most of the mechanical equipment, pneumatic piping, electrical and instrumentation equipment installed, ready for commissioning.



**Figure:** Magnesite Hopper & Bag Breaker unit E&I and Mechanical equipment installation completed.

The EPCM construction team continues to progress in the hydromet areas with all the major mechanical equipment installed, including the thickeners and filter presses, tanks, pumps, agitators, and compressors and the area where LMG's saleable by-products will be processed and stored.

Additionally, the Steam Boiler and Acid Area Scrubber have had their 12m exhaust stacks successfully installed.

Pipe welding, spooling, and installation for the plants PVDF, HDPE & PVC and carbon steel piping and valves is progressing steadily as construction completion nears for each area and transfers to commissioning sub-systems.



**Figure:** Filter Presses installed over Filter bunkers and all major mechanical equipment



**Figure: Filter area FRP tanks and air compressors installed**



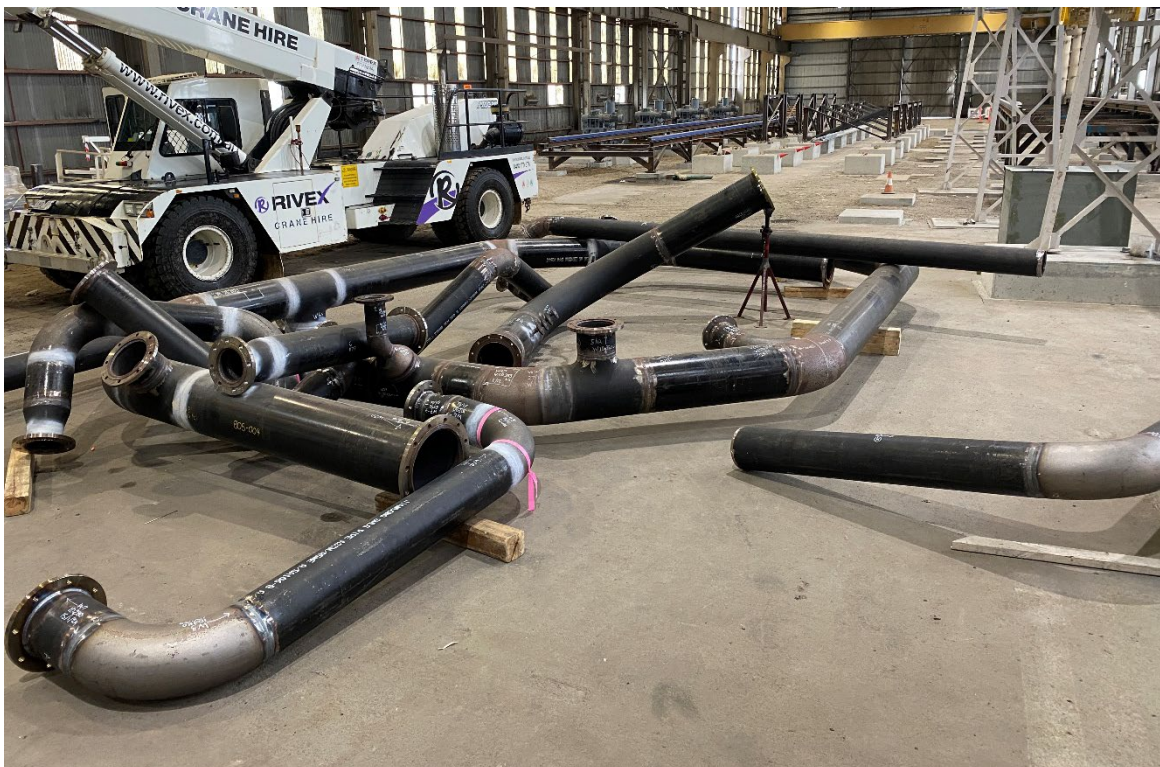
**Figure: Erection of Acid Area Scrubber exhaust stack**

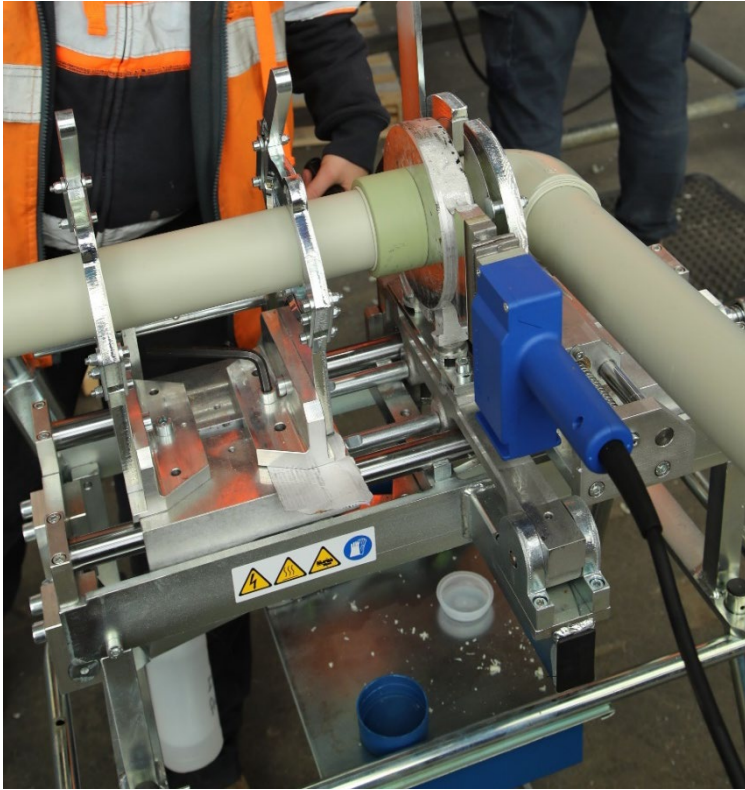


**Figure: Erection completion for Acid Area Scrubber exhaust stack**



*Figure: Thickeners with internal rakes installed (top) and carbon steel spoils welded ready for install (bottom)*

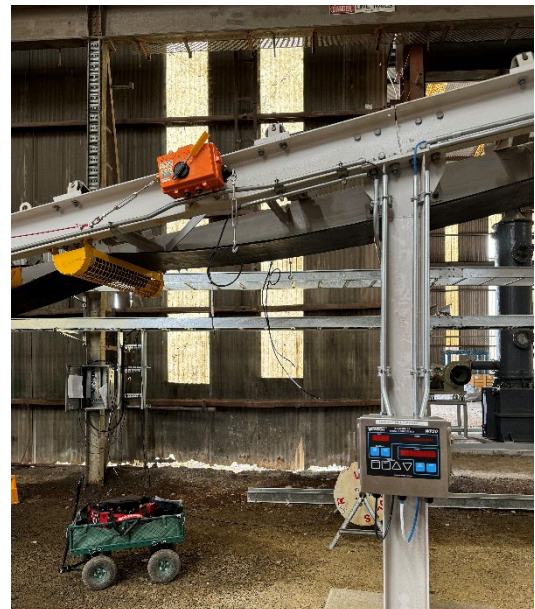
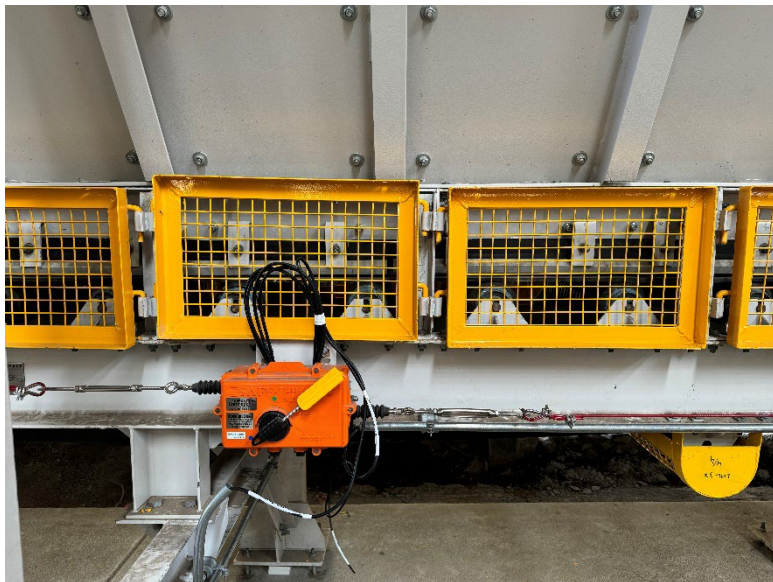




**Figure: PVC & PVDF piping installation in progress**



The Fly Ash Beneficiation area is 100% construction complete with minor punch list items outstanding. This area marks the first area to achieve this construction milestone and will be ready for handover to commissioning.



**Figure: Fly Ash Beneficiation construction complete**

The Coregas team have completed the installation of the equipment required for the supply of industrial gases for the plant, which include the Oxygen and Carbon Dioxide tanks, along with Argon cylinder man-pack facility, ready for commissioning.

In addition, the Origin team have successfully completed the LPG storage facility, ready for supply of LPG, including the installation of the 120,000 litre LPG bullet, designated fill point and underground portion of the LPG pipeline.

The origin team have continued to progress with the above ground piping supports along the sheds to the Spray Roaster and Reduction Furnace, with a target construction completion by early February.



Figure: Origin LPG pipeline complete

Electrical and Instrumentation

As outlined in the monthly updates, the electrical and instrumentation (EI) cabling is complete for all three main switch rooms and the main switchboard. The EI contractor team continues to progress the construction and installation of local junction boxes, local control stations, instrumentation, and cable terminations locally with a large focus in the Spray Roaster area.



**Figure:** Installation of local control stations, electrical cabinets and instrumentation and cabling.



**Figure:** Electrical and instrumentation cable installation in cable trays & local junction boxes

The removal and installation of the new Main Switchboard (MSB) is complete, with great assistance obtained from contractor Pro-Built, who was responsible for removing and installing the switchboards and AusNet, who performed necessary maintenance to the grid prior to reestablishing power to site.



**Figure:** New Main Switchboard (MSB) installed and powered.

The Control Room fabrication is complete and was delivered to Site late in December 2023. The EI contractors' team have begun cable pulls and installation of equipment necessary for the control systems. Installation of control hardware has commenced and programmed of the control system underway.

### Commissioning

Commissioning documentation, which was complete up to Stage 2 dry commissioning by 30<sup>th</sup> Jun, is being further progressed to Stage 3 wet commissioning with preparations underway for water runs, filling equipment etc. Sub-system commissioning walkdowns between the commissioning and construction teams are now starting to be held to identify any issues preventing construction handover to commissioning. A formal handover process is being undertaken within the project team to ensure the sub-system scope is fully completed and that commissioning is undertaken in a timely manner ready for handover to LMG Operations.

### Schedule

The schedule remains on track, with efforts to address persistent challenges being addressed daily. Labor availability remains a concern but is closely monitored with construction partners. Unseasonal weather patterns have moderately impacted the project, particularly affecting continuous activity in the spray roaster construction. The focus is now on interim MgO production, with a priority on installing the critical path element, the Spray Roaster. Our target for the **first MgO production after March 2024 remains unchanged.**

## 2. Operations

Efforts have been focused on refining and optimising budgets in advance of ramping up the operational readiness.

Dangerous goods permits are being obtained from WorkSafe Victoria and documentation is being developed and submitted to the EPA as per plan for the operational phase.

Policies and procedures are starting to be developed and the operational document management system is being built. Nearly 5000 individual articles, from drawings to manuals, will be stored in the document management system for operations personnel to use in operating and understanding the process and plant equipment.

Maintenance and safety management systems are being evaluated with orders with vendors to be placed soon. LMG's ERP system is being updated with additional modules for enhanced payroll and workforce management.

Discussions are underway for leasing, to reduce capital cost, site vehicles such as forklifts, cranes, EWP, loaders etc.

First fills are being procured and placed into equipment as part of the commissioning process. Operations consumable lists are being developed for tooling, lubricants, equipment, along with safety equipment such as signs, fire extinguishers, hose reels, PPE etc. The operational readiness procurement will commence shortly.

Supply agreements are in place for the following reagents:

- Magnesite
- Hydrochloric Acid
- LPG
- Oxygen
- Carbon Dioxide
- Argon

- Ferrosilicon
- Quicklime
- Flocculant
- Sodium Hydroxide

Delivery has been taken for the first batch of Ferrosilicon (stored off site in a specialised location until Stage 4 commissioning and the first batch of Magnesite is being shipped. The first batch of reagents will be in place prior to Stage 4 commissioning.

Contracts are in place for waste removal, gardening, cleaning, fuel provision, power, water and specialised goods storage. Contract development is underway for establishing mining services with our mining partner RTL and discussions are occurring with laboratory service providers.

Recruitment campaigns have yet to be started whilst an understanding of government supported programs is developed. The Latrobe Valley has government programs in place to help workers from industries facing closure such as paper production and forestry. It's anticipated that these campaigns will commence soon.

### **3. Project Funding**

The listed options exercisable at 4 cents, expired on 26 October 2023, the proceeds from the option exercise from 1 July 2023 to 26 October 2023 was \$3.98 million.

On 21 November 2023, LMG signed an agreement to lease finance \$10.4M of its demonstration plant equipment for the life of its project. There is no obligation to buy the equipment at the end of the lease. The lease finance is projected to result in a reduction in LMG's ongoing debt levels to circa \$5.1M from 1 January 2024, after taking into account repayment of debt of circa \$12.6M from LMG's R&D tax rebate relating to the year ended 30 June 2023. The lease finance has a lower effective cost of funds compared to the cost of LMG's existing project finance facility and other funding options LMG has considered.

On 21 December 2023, LMG completed a placement of 61 million shares at 5 cents per share raising \$3.06 million.

### **4. R&D Tax Incentive Rebate**

The Company's Research and Development rebate has been calculated as being \$12.6M for the year ended 30 June 2023. The Company has its activities registered with AusIndustry and has lodged its 2023 income tax return with the ATO.

The ATO continues to review our rebate claim and we await a decision to release the amount. This has impacted upon LMG ability to fund the costs to complete the demonstration plant as the agreement with RnD Funding is that they provide the last \$3M of funding when the project is fully funded through to October 2024.

To mitigate this funding restriction, LMG completed the \$3M equity raising in December 2023. LMG's cash position is being monitored to ensure that the progress of the development plant is not impacted, and the cash flow is managed till MgO is produced in March 2024.

### **5. Regional Development Grant**

The Regional Development Grant Agreement with the State of Victoria was signed for the provision of funding to support the demonstration plant. The grant of \$1 million payable in three instalments, the first instalment of \$250,000 was paid on 30 August 2023 and the second grant was paid on 28 November 2023.

## **6. Stage 2 Project Update**

Whilst LMG's focus remains on completion of Stage 1, limited planning work has commenced in preparation for ramping up activities on Stage 2 once the demonstration plant is in operation. In order to speed up development of Stage 2, the project size has initially been set at a production capacity of 10,000 tpa of Magnesium metal. LMG believes there is sufficient supply in the ash being generated, by the time the Yallourn power station closes in 2028, for this production capacity for the projected mine life. This negates the need for a resource drilling campaign this year.

The project will be designed to grow in trains of 10,000 tpa capacity over time as the resource is further proven. This strategy has the advantage of bringing commercial production forward yet allowing flexibility for a future increase in production capacity.

The work scope for the mine planning stage is being revised to incorporate only the work needed to commence the project faster by focusing on what is needed to get to a final investment decision sooner namely mine scheduling, geotechnical assessment, mining lease determination and rehabilitation planning. LMG will complete the resource determination work post commencement of the Stage 2 project. LMG believes this strategy will bring forward financial returns to offset the delays from the Stage 1 project. A more detailed work program will be developed and released in the next quarterly update

## **7. Stage 3 Project Update**

LMG is actively engaged in discussions with a number of international investors who have expressed interest in partnering with LMG in its Stage 3 project. LMG anticipates third party participation will amount to 45% equity in the project and will also provide significant magnesium offtake agreements, which will allow LMG to secure debt funding from government backed institutions.

These negotiations have been in discussion for up to 12 months and have progressed to the writing stage. LMG has been steadily providing information to partners to demonstrate the robustness of the investment. Delays were unexpectedly experienced due to the non-availability of key partner personnel but non-binding Memorandum of Understandings (MoU's) with equity partners are now expected to be signed by the end of the first quarter of 2024.

## **8. Listing Rule 5.3.5**

ASX Listing Rule 5.3.5 requires quarterly activity reports to describe any payments made to related parties or their associates as disclosed in Appendix 5B for the same quarter. LMG advises the amount of \$128,333 (rounded up \$128k in Appendix 5B at Item 6.1) being payments made to Directors or companies associated with Directors for their services as Directors' fees.

Should you have any queries in relation to this announcement please do not hesitate to contact the CEO on his mobile 0421 234 688.



**David Paterson**  
**Chief Executive Officer**

30 January 2024



## About Latrobe Magnesium

Latrobe Magnesium is developing a magnesium production plant in Victoria's Latrobe Valley using its world first patented extraction process. LMG intends to extract and sell magnesium metal and cementitious material from industrial fly ash, which is currently a waste resource from Yallourn brown coal power generation.

LMG has completed a feasibility study validating its combined hydrometallurgical / thermal reduction process that extracts the metal. The demonstration plant will produce MgO by the end of March 2024 with the full plant being commissioned by end of Q2 2024.

A commercial plant will then be developed, with a capacity of +10,000 tonne per annum magnesium, shortly thereafter with completion targeted for December 2025. The plant will be in the heart of Victoria's coal power generation precinct, providing immediate access to feedstock, infrastructure, and labour.

LMG plans to sell its 10,000 tpa of refined magnesium production under long-term contracts to USA customers. Currently, Australia imports 100% of the 8,000 tonnes annually consumed.

Magnesium has the best strength-to-weight ratio of all common structural metals and is increasingly used in the manufacture of car parts, laptop computers, mobile phones, and power tools.

The LMG project is at the forefront of environmental benefit – by recycling power plant waste, avoiding landfill and is a low CO2 emitter. LMG adopts the principles of an industrial ecology system.

## Appendix 5B

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

Name of entity

Latrobe Magnesium Limited

ABN

55 009 173 611

Quarter ended ("current quarter")

31 December 2023

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	(12)	(25)
(b) development		
(c) production		
(d) staff costs	(287)	(596)
(e) administration and corporate costs	(687)	(970)
1.3 Dividends received (see note 3)		
1.4 Interest received	5	15
1.5 Interest and other costs of finance paid		(11)
1.6 Income taxes paid		
1.7 Government grants and tax incentives	250	500
1.8 Other (provide details if material)		
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(731)</b>	<b>(1,087)</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	(6,801)	(13,522)
(d) exploration & evaluation		
(e) Investment		
(f) other non-current assets (patents)	(13)	(43)

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	11,417	11,417
(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		
<b>2.6 Net cash from / (used in) investing activities</b>	<b>4,603</b>	<b>(2,148)</b>

<b>3. Cash flows from financing activities</b>		
3.1 Proceeds from issues of equity securities (excluding convertible debt securities)	2,406	2,406
3.2 Proceeds from issue of convertible debt securities		
3.3 Proceeds from exercise of options	3,808	3,980
3.4 Transaction costs related to issues of equity securities or convertible debt securities	(198)	(198)
3.5 Proceeds from borrowings	1,000	2,000
3.6 Repayment of borrowings	(9,400)	(9,400)
3.7 Transaction costs related to loans and borrowings		
3.8 Dividends paid		
3.9 Other (payment of lease liabilities)	(9)	(14)
<b>3.10 Net cash from / (used in) financing activities</b>	<b>(2,393)</b>	<b>(1,226)</b>

<b>4. Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1 Cash and cash equivalents at beginning of period	952	6,892
4.2 Net cash from / (used in) operating activities (item 1.9 above)	(731)	(1,087)
4.3 Net cash from / (used in) investing activities (item 2.6 above)	4,603	(2,148)
4.4 Net cash from / (used in) financing activities (item 3.10 above)	(2,393)	(1,226)

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

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	-	-
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>2,431</b>	<b>2,431</b>

<b>5.</b>	<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	55	27
5.2	Call deposits	2,376	925
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>2,431</b>	<b>952</b>

<b>6.</b>	<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 Payments for directors' services	128
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

*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.*

<b>7.</b>	<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	25,000	22,000
7.2	Credit standby arrangements	-	-
7.3	Other	-	-
7.4	<b>Total financing facilities</b>	<b>25,000</b>	<b>22,000</b>
7.5	<b>Unused financing facilities available at quarter end</b>		<b>3,000</b>

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

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.

Facility	\$26,000,000 - Secured
Lender	RnD Funding Pty Ltd
Interest Rate	12% pa. to 31 October 2023, and 14% pa. the remaining of the term
Maturity Date	30 June 2027

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (Item 1.9)	(731)
8.2	Capitalised exploration & evaluation (Item 2.1(d))	-
8.3	Total relevant outgoings (Item 8.1 + Item 8.2)	(731)
8.4	Cash and cash equivalents at quarter end (Item 4.6)	2,431
8.5	Unused finance facilities available at quarter end (Item 7.5)	3,000
8.6	Total available funding (Item 8.4 + Item 8.5)	5,431
8.7	<b>Estimated quarters of funding available (Item 8.6 divided by Item 8.3)</b>	7.43

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?

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?

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?

## 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.

29 January 2024

Date: .....

Audit and Risk Committee

Authorised by: .....  
(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.