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# QUARTERLY ACTIVITIES REPORT

## 31 March 2024

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### Highlights:

- \* Latrobe Magnesium's (LMG) Demonstration Plant Project (Demonstration Plant) maintains a Total Recordable Injury Frequency Rate (TRIFR) of zero.
- \* Magnesium Oxide (MgO) production strategy ready for ore commissioning, allowing LMG to initially prove its unique low emission hydromet process.
- \* Fly ash processing through the Demonstration Plant scheduled to commence in the week starting 29 April, followed by MgO production in the subsequent week.
- \* The Australian Taxation Office (ATO) continues to review LMG's Research and Development tax rebate for the fiscal year ended June 30, 2023, following the submission of additional information submitted on April 17, 2024, with a potential rebate amounting to \$12.6 million.
- \* Appointment of Société Générale as Sole Coordinator, Structuring Bank for the development and construction of Stage 2 Commercial 10,000tpa magnesium plant.
- \* LMG's Strategic Supplier Program (SSP) for its Stage 2 Commercial Plant, designed to fast track its development ahead of production in 2026.

## 1. Stage 1 Demonstration Plant Progress Update

### 1.1 Engineering

As detailed in the previous monthly progress reports, vendor closeout and commissioning handover documentation has progressed and is nearing completion. LMG has started implementing a document library system for operations staff, enabling swift identification and access to a wide range of documentation. This system aims to ensure rapid familiarisation with equipment documentation, including manuals, drawings, parts lists, and more.

### 1.2 Construction

#### Magnesium Oxide Strategy

The project and construction teams have completed the fast-tracked construction of the plant areas required to produce one-ton bulk bags of MgO. With the bagging plant fully commissioned, LMG will be able to demonstrate its patented, world-first hydromet process can be operated successfully and prove to all stakeholders the true value of LMG's intellectual property.

LMG intends to sell the MgO produced in the initial phase to Rainstorm Dust Control Pty Ltd under its existing Memorandum of Understanding (MoU), prior to the production of magnesium metal.

The construction and commissioning of the briquetting system, reduction furnace area, the furnace automation and vacuum system is the second phase of the plant to be completed and commissioned. Magnesium metal is targeted for Q3 2024. More information will be provided in subsequent project updates.



**Figure: Magnesium Bagging Plant**

### Site

Over the last quarter, the site team reached a maximum daily workforce of over 60 local trades, from three major local contractors, Mechanical Maintenance Services (MMS), Operations and Maintenance (O&M) and GEM Industrial Services. Trades have been actively managed and mobilised as the works transition from construction completion to commissioning.

### Civil

All major civil and concrete works have been completed.

### Structural, Mechanical and Piping

The Spray Roaster has continued to be the project's critical path. The construction team have successfully completed the installation of the Spray Roaster including all mechanical, piping, and electrical & instrumentation items, such as tanks, burners, absorption towers, stacks, pumps, fans, blowers, transmitters, indicators, piping, junction boxes, control valves, and electrical & instrumentation cabling. Tenova's supervisors mobilised in February to progress the commissioning of the Spray Roaster. These four dedicated supervisors, responsible for mechanical, electrical and automation, have assisted the construction team expedite construction and commissioning the system.



**Figure: Spray Roaster construction complete**



*Figure: Spray Roaster's equipment installed and ready for final commissioning*

Given its criticality to the production of MgO, the Magnesite Hopper Bag Breaker and Ash Handling area have been successfully commissioned, ready for operations.



**Figure:** Magnesite Hopper, Bag Breaker, and Fly Ash areas ready for operations

The construction of the hydromet area is completed with all major mechanical, piping, and electrical equipment completely installed and commissioned. With only minor punch list items remaining, thickeners, tanks, pumps, agitators, heat exchangers, piping, valves, cabling, instrumentation, junction boxes and all terminations to Motor Control Centres (MCCs) are ready for final ore commissioning.

Traralgon Industries, another local Latrobe Valley company has completed the installation of Personal Protection (PP) insulation and cladding of certain piping and tanks, for operator safety.



*Figure: Hydromet area construction complete and commissioned*

The steam boiler, air compressor system and acid area scrubber areas have been fully commissioned with flow and commissioning gas tests all completed at the end of March.

The filtration area, designated for processing and storing LMG's saleable by-products, was fully constructed and prepared for pre-commissioning by the end of February. Regrettably, the Programmable Logic Controllers (PLC's) for the filters arrived from the vendor lacking any operational code. Additionally, the PLC cabinet required complete rewiring to ensure all equipment functioned properly. The vendor admitted to not undertaking Factory Acceptance Testing, despite being required to and promising to, resulting in a nonoperational equipment sequence that only became evident once final commissioning of the equipment started. The commissioning team attempted to resolve these issues with the vendor with little success and the decision was taken to resolve the issues internally to avoid any more time lost in dealing with the vendor.

The commissioning team took on the task of rewriting the code themselves to enable testing of the filter sequence, ensuring full functionality and operability. This requirement has caused minor delays in the commissioning process, compounded by tasks such as repairing minor leaks, replacing faulty

valves, rewiring control hardware, and updating control logic sequencing. This considerable effort by the team is very close to completion and the first of three filters is now fully operational and ready.



**Figure:** Hydromet piping, and insulation completed and commissioned.

The utilities areas including Process Water, Raw Water, Potable Water, Cooling Tower, and Water Treatment are fully operational. The water system has been actively used by the commissioning team for tasks such as tank filling and hydrotesting piping, ensuring system integrity.



**Figure:** Filtration area complete with all piping, hydraulics and electrics installed





**Figure: RO Plant and Raw Water equipment operational**

With the conclusion of the remaining construction tasks, notably the resolution of major punch list items, construction resources have now been allocated to the commissioning team. Construction efforts will continue, focusing on the completion of minor punch list closeout activities and initiating planning for transitioning to the next phase of the project, which involves the completion of magnesium metal.

The Origin team achieved a significant milestone by completing the installation and commissioning of the LPG tank's above-ground piping, including supports and condenser traps. This piping spans from the exterior to the interior of the fabrication sheds, connecting to crucial components such as the Spray Roaster, Steam Boiler, and Reduction Furnace.

Origin also secured approval from ESV for LPG operations in the end of March, whereby LMG received its inaugural LPG delivery, ready for the commencement of operations.

In parallel, the Coregas team successfully commissioned both Oxygen and Carbon Dioxide tanks. These tanks filled with gases ready for operational activities.



**Figure:** Origin team successfully commissioning LPG tank and receipt of the first LPG delivery



**Figure:** Coregas Oxygen and Carbon Dioxide tanks operational

### Commissioning

The commissioning team dramatically increased, with up to 20 personnel assigned to complete all commissioning checks in preparation for the first magnesium oxide production.

During the quarter, the Spray Roaster has completed final commissioning in parallel with the remaining construction. Daily management effectively coordinated interactions and simultaneous operations between multiple teams in the heavily dense area. The spray roaster burners were activated and is planned on being heated, as part of its final commissioning step, ahead of magnesium oxide production towards the end of April. Heating of the Spray Roaster was delayed due to resourcing impacts in obtaining final regulatory approval.

The hydromet areas progressively moved through Stage 1 and Stage 2 commissioning, with water runs and hydrotesting completed. All key areas including ash handling, hydromet, magnesite, power, air, and utilities systems, are all commissioned and operational.

Stringent procedures have been implemented to ensure the safety of construction personnel entering areas under commissioning control, making them aware of live equipment and pressurised piping hazards.

A significant amount of commissioning documentation is being generated to ensure traceability and control. The commissioning team have successfully addressed minor issues throughout the commissioning process, with the introduction of fly ash, acid, and LPG gas as part of the final ore commissioning stage next for first MgO production.



**Figure:** SCADA system commissioning ensuring signals to equipment is correctly received and controlled

## Operations

Process and procedure writing has commenced ahead of a planning operational workforce recruitment drive. Sourcing of operational equipment is nearing completion with the warehouse being established with payroll and supply systems in place. Review of CV's and resumes for operational staff has commenced and recruitment is expected to be finalised over the next month, following the commissioning completion. The permit to work and safety management systems are being established ready to move away from the commissioning teams systems. The operational cyber security system is being implemented and will be available once the plant is in operation 24/7 to allow remote support to be provided by LMG's control automation partner, Rockwell.

## Schedule

There has been a constant focus on addressing the typical challenges that occur during the final stages of construction and commissioning that can delay plant startup. Labour availability remained a constant concern but was closely monitored and mitigated with our construction partners. Commissioning expertise was difficult to source locally and partners such as Rockwell and Tenova added additional personnel to resolve issues and expedite commissioning progress.

Inclement weather impacted the construction progress, especially for the Spray Roaster activities outdoors. Timely approvals from regulatory bodies to allow continuous operation of gas has been closely monitored with the team working to ensure ore commissioning started on time with loading of ash into the plant, followed by first MgO being produced in early May.

## **2. Project Funding**

On 26 February 2024, LMG completed a Share Placement of 22 million shares at 5 cents per share raising \$1.1 million. On 22 March 2024, LMG closed its Share Purchase Plan which raised \$1.93 million. The total number of shares issued was 38.6 million at 5 cents per share. These shares are issued within the company's existing capacity under ASX listing rule 7.1. Funds raised provided funding for the 1,000tpa Demonstration Plant.

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

The Company's Research and Development rebate has been calculated as being \$12.6 million 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 requested further information on 17<sup>th</sup> April 2024. LMG awaits a decision to release the amount. This has impacted upon LMG's ability to fund the costs to complete the Demonstration Plant. To mitigate this funding restriction, LMG completed the equity raisings in February and March 2024. LMG's cash position is being monitored to ensure that the progress of the development plant is not impacted, and that cash flow is managed until the end of May 2024, whilst MgO is being produced.

## **4. 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 was 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. We have completed and submitted documentation for the payment of the final instalment of \$500,000. Regional Development Victoria is processing our application for payment.

## **5. Stage 2 Project Update**

On 18 April 2024 LMG made an ASX announcement in relation to (i) the appointment of Société Générale as our structuring bank for Stage 2 (ii) the finalisation of LMG's scope with GHD to carry out the work required on the Yallourn ash deposit and (iii) our Strategic Supplier Program (SPP).

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, for this production capacity, by the time the Yallourn power station closes in 2028.

GHD's scope will include the assessment of the ash deposit, with a focus on hydrogeology, geotechnical, mine closure and mine planning. This work will provide the necessary scope and cost inputs into the upcoming bankable feasibility study (BFS) to ensure a final investment decision can be made on the commercial plant, which is targeted for this year. 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.

Under the SPP, LMG has carefully selected a range of strategic suppliers across equipment, technology, construction, freight, and automation, which is set to dramatically improve project efficiency, supply chain efficiency and transparent equipment and services costings.

## **6. 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% of the 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 over 15 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 but non-binding MoUs with equity partners are now expected to be signed by the end of the second quarter of 2024.

## **7. 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 that no cash payments were 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 April 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 in early May 2024 with the full plant being commissioned in Q3 2024.

A commercial plant will then be developed, with a capacity of 10,000tpa magnesium, shortly thereafter with completion targeted for Q1 2026. 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 8,000tpa 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 March 2024

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (9 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers		
1.2 Payments for		
(a) exploration & evaluation	0	(25)
(b) development		
(c) production		
(d) staff costs	(227)	(823)
(e) administration and corporate costs	(797)	(1,767)
1.3 Dividends received (see note 3)		
1.4 Interest received	3	18
1.5 Interest and other costs of finance paid	0	(11)
1.6 Income taxes paid		
1.7 Government grants and tax incentives	0	500
1.8 Other (provide details if material)		
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(1,021)</b>	<b>(2,108)</b>
<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire or for:		
(a) entities	(100)	(100)
(b) tenements		
(c) property, plant and equipment	(4,305)	(17,827)
(d) exploration & evaluation		
(e) Investment		
(f) other non-current assets (patents)	0	(43)

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

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (9 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities		
	(b) tenements		
	(c) property, plant and equipment	0	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</b>	<b>Net cash from / (used in) investing activities</b>	<b>(4,405)</b>	<b>(6,553)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	3,085	5,491
3.2	Proceeds from issue of convertible debt securities		
3.3	Proceeds from exercise of options	0	3,980
3.4	Transaction costs related to issues of equity securities or convertible debt securities	(50)	(248)
3.5	Proceeds from borrowings	0	2,000
3.6	Repayment of borrowings	0	(9,400)
3.7	Transaction costs related to loans and borrowings		
3.8	Dividends paid		
3.9	Other (payment of lease liabilities)	(8)	(22)
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>3,027</b>	<b>1,801</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	2,431	6,892
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,021)	(2,108)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(4,405)	(6,553)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	3,027	1,801



## 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 (9 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>32</b>	<b>32</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	31	55
5.2	Call deposits	1	2,376
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>32</b>	<b>2,431</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	0
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	1,423	-
7.4	<b>Total financing facilities</b>	<b>26,423</b>	<b>22,000</b>
7.5	<b>Unused financing facilities available at quarter end</b>		<b>4,423</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	\$25,000,000 - 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

<b>8. Estimated cash available for future operating activities</b>		<b>\$A'000</b>
8.1	Net cash from / (used in) operating activities (Item 1.9)	(1,021)
8.2	Capitalised exploration & evaluation (Item 2.1(d))	-
8.3	Total relevant outgoings (Item 8.1 + Item 8.2)	(1,021)
8.4	Cash and cash equivalents at quarter end (Item 4.6)	32
8.5	Unused finance facilities available at quarter end (Item 7.5)	4,423
8.6	Total available funding (Item 8.4 + Item 8.5)	4,455
8.7	<b>Estimated quarters of funding available (Item 8.6 divided by Item 8.3)</b>	4.36

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

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

30 April 2024

Date: .....

Audit and Risk Committee

Authorised by: .....  
(Name of body or officer authorising release – see note 4)

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

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**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.