ASX Release
22 July 2024

Magnum Mining and Exploration Limited
ABN 70 003 170 376

ASX Code
MGU

Chief Executive Officer and Managing Director
Neil Goodman

Non-Executive Chairman
Luke Martino

Non-Executive Director
Athan Lekkas

Company Secretary
John O'Gorman

Issued Shares
809,361,403

Listed Options
193,996,767

Unlisted Securities (Options & Performance Rights)
18,000,000

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QUARTERLY ACTIVITIES REPORT

For the Period Ending 30 June, 2024

Magnum Mining & Exploration Limited (ASX: **MGU**) (**Magnum** or the **Company**) is pleased to provide a summary of its activities on the Buena Vista Magnetite Project in Nevada, USA.

HIGHLIGHTS

- Magnum announced that it has entered into an agreement with V Capital Consulting Limited (VCCL) and 2x1.Digital Private Limited (2x1.Digital) to undertake a capital raising of no less than US$210M for a green pig iron plant in Saudi Arabia.

- Magnum completed metallurgical test work on a bulk magnetite sample from its Buena Vista Iron Project that showed that 68.3% Fe grade magnetite concentrate is readily achievable.

SAUDI GREEN PIG IRON PROJECT

Magnum Mining & Exploration Limited announced that it has entered into an agreement with V Capital Consulting Limited (VCCL) and 2x1.Digital Private Limited (2x1.Digital) to undertake a capital raising of no less than US$210M (Capital Raising) to advance its Green Pig Iron Project in Saudi Arabia (see ASX announcement May 13, 2024).

Magnum and Middle East for Metallic Industrial (Midmetal) have entered into a project funding agreement (PFA) with VCCL and 2x1.Digital under which VCCL and 2x1.Digital will use their best endeavours to complete a Capital Raising to fund the building of a HIsmelt plant in the Kingdom of Saudi Arabia (KSA) that will see the planned production of Green High Purity Pig Iron (the Project) by Midmetal. Midmetal, the vehicle for the Project, is currently 50% owned by Magnum1 and 50% owned by its original Saudi investors. Midmetal has secured a certification for funding of up to 50% of the costs of the Project1 from the KSA Government, through the Saudi Investment Development Fund (SIDF). VCCL and 2x1.Digital will seek to raise US$210M for the Project. Investors who participate in the Capital Raising shall receive fully paid ordinary shares in Midmetal in proportion to their participation in the Capital Raising up to a total aggregate interest in Midmetal of 50%; and fully paid ordinary shares in Magnum in proportion to their participation in the Capital Raising up to a total aggregate interest in Magnum of 19.99% subject to Magnum's shareholder approval currently anticipated to be in Q4 of calendar year 2024.

A minimum of US$10M will be retained by Magnum as working capital for its Buena Vista Project in return for the 19.99% total aggregate interest in Magnum to investors in the Capital Raising. Based on the current fully paid shares on issue in Magnum of circa 809M, then this would require the issue of an additional circa 202M fully paid shares in Magnum at an indicative issue price of A$0.074 (based on US$1 = A$1.5 exchange rate). Under the PFA, and on its successful completion, VCCL and 2x1.Digital will receive 10% each in Midmetal's ordinary shares. 2x1.Digital will also have the right to receive a position on the Board of Magnum. These shares to VCCL and 2x1.Digital will be allocated from the shares of the current shareholders of Midmetal prior to the proposed capital raising. Hence as a result, and on successful completion of the PFA, the shareholders in Midmetal will be Midmetal's original Saudi investors 15%, Magnum 15%, VCCL 10%, 2x1.Digital 10% and Investors who participate in the Capital Raising 50%.

BUENA VISTA PROJECT

Magnum appointed industry-leader Australian Laboratory Services (ALS) to utilise its metallurgy laboratory in Perth, Western Australia to process a 200kg sample of magnetite concentrate collected from the Initial Mining Area (IMA) at the Buena Vista Iron Project, Nevada, USA. The sample was constructed to mimic the long run head grade based on the five year mine schedule1 for the IMA. The Buena Vista Iron Project is based on a magnetite ore body that has had a successful Scoping Study completed in 2023. 2 The magnetite ore can be concentrated using standard mining industry methods of crushing, grinding, and Low Intensity Magnetic Separation (LIMS). Previous test work has been sample specific. The current test work was undertaken to determine the recoveries and grade of magnetite concentrate derived from the wide spectrum of mineralisation styles found at Buena Vista.

These styles range from massive magnetite ore, often grading at more than 60% Fe, to sparsely disseminated magnetite ore grading as low as 10% Fe, the cutoff used in both the Scoping and the pit optimisation studies. Sampling was undertaken by Magnum personnel using a magnetic susceptibility meter and a Portable XRF (pXRF) analyser to ensure the full range of expected ore grades and styles were collected and that the average grade reflected of the samples simulated that used in the five year mine plan schedule. The samples were crushed to -6mm before dispatching to ALS' Perth laboratory. More than 736kg magnetite ore was collected and dispatched.

ALS homogenised the crushed ore and took a 200kg subsample to process. The aims of the processing were to:

- confirm the grade vs grind data from previous test work;
- provide a sample for testing the regrind power (Metso Jar Mill test); and
- conduct five reverse float tests to indicate likely float conditions.

Grinding Buena Vista ore to eight sizes shows a saleable product of 63.7% Fe can be produced at 125µm (0.125mm). The industry standard grade of iron "fines" is 62% Fe. However, Magnum is pursuing the production of a premium product by grinding the ore to 38µm to attain a grade of 68.3% Fe. Crucially, at this sizing, alumina plus silica is 2.56%, well below the 3% cut-off required for a Direct Reduction Iron (DRI) feed.

Extension of the grinding test work to 5mm indicated that over 60% of the nonmagnetic component of the ore can be rejected at that sizing. This has important economic implications for the project:

1. Dry magnetic separation significantly reduces the water required.
2. Less material is presented for the final grind, reducing power requirements.
3. The majority of the tailings will be dry, reducing the costs of tailings storage, simplifying the tailings storage facility design, and reducing its footprint.

Extension of the test work to explore the use of flotation is now underway. This work is designed to deliver a premium grade product with lower contaminants. It is expected that this work will be reported on in the near future.

It is expected that the remaining 536kg of sample magnetite concentrate will be bulk processed at the final processing specifications to make a bulk magnetite concentrate. This will validate the proposed flow sheet for the benefaction plant through a "batch" processing test. This material may be provided to specific potential customers for their own in-house test work requirements. (See ASX announcement June 7 2024).

CORPORATE / BOARD UPDATE

On 17th April, Mr Anoosh Manzoori stepped down in his role as Company Chairman and Mr Luke Martino was appointed to the role as Executive Chair. Mr Martino's former role as Company Secretary was replaced my Mr John O'Gorman.

APPENDIX 5B

In accordance with ASX Listing Rule 5.3.2, the Company advises that no mining development or production activities were conducted during the June 2024 Quarter.

As set out in the attached Appendix 5B, exploration expenditure during the quarter totaled A$103,880. Payments to related parties totalling A$302,840 consisted of remuneration paid to executive and non-executive directors and an associate of a director under respective service agreements.

This document has been authorised for release to the ASX by the Company's Board of Directors.

Further information please contact:

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Company Secretary

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