

#### 28 July 2023

# **QUARTERLY ACTIVITIES REPORT TO 30 JUNE 2023**

- Activities during the quarter were focused on exploration and evaluation at the Myall Project, with fourteen diamond holes totalling more than 11,000 metres recently completed in the Corvette/Kingswood area
- An initial Inferred Mineral Resource Estimate (MRE) for Corvette and Kingswood was reported, comprising **110Mt at 0.33% CuEq (110Mt at 0.27% Cu, 0.07g/t Au & 0.8g/t Ag)** at a 0.20% CuEq cut-off
- The initial MRE has contained metal of 293kt copper, 237koz gold & 2.8Moz silver, equating to 354Kt copper metal-equivalent
- Completion of the MRE was aided by the receipt of assay results for four diamond holes completed at the northern end of the Corvette prospect during the period, including:

23MYDD423	130.0 metres at 0.19% CuEq, 0.18% Cu, 0.01g/t Au & 25ppm Mo from 301m incl. 18.0 metres at 0.62% CuEq, 0.59% Cu, 0.02g/t Au & 97ppm Mo from 342m
23MYDD425	<b>202.0 metres at 0.27% CuEq</b> , 0.23% Cu, 0.04g/t Au & 4ppm Mo from 332m incl. <b>35.0 metres at 0.41% CuEq</b> , 0.35% Cu, 0.07g/t Au & 5ppm Mo from 359m and <b>22.0 metres at 0.54% CuEq</b> , 0.39% Cu, 0.17g/t Au & 2ppm Mo from 446m
23MYDD426	<b>116.1 metres at 0.20% CuEq</b> , 0.16% Cu, 0.05g/t Au & 5ppm Mo from 292.9m incl. <b>10.0 metres at 0.35% CuEq</b> , 0.31% Cu, 0.04g/t Au & 3ppm Mo from 323m
23MYDD427	<b>123.0 metres at 0.31% CuEq</b> , 0.25% Cu, 0.07g/t Au & 7ppm Mo from 474m incl. <b>16.0 metres at 0.53% CuEq</b> , 0.46% Cu, 0.07g/t Au & 2ppm Mo from 503m and <b>24.0 metres at 0.46% CuEq</b> , 0.35% Cu, 0.13g/t Au & 2ppm Mo from 543m

- Design of follow-up exploration is currently underway, with multiple targets areas identified to expand the near-surface footprint and also test vectors towards higher-grade mineralised zones
- Analysis of regional datasets at Myall have also highlighted multiple large-scale targets with similar geochemical and geophysical signatures to Corvette, consistent with other mines in the region that occur in clusters of deposits
- Initial metallurgical test work was conducted on samples from the Corvette Prospect during the quarter, including grind establishment, mineralogical characterisation and rougher and cleaner flotation tests
- Results indicate sulphide mineralisation from Corvette is amenable to treatment by industry standard grinding and flotation techniques and that gold and silver upgrade with the copper
- The Company ended the quarter with **\$2.855M** cash at hand
- Subsequent to the end of the quarter the Company was notified it had been allocated **\$715,500 of exploration credits** as a part of a successful application to the Australian Federal Government's Junior Minerals Exploration Incentive (JMEI) Scheme for the 2023/2024 financial year

The equivalent calculation formula is CuEq (%) = Cu (%) + 0.784\*Au (g/t) + 0.008\*Ag (g/t). Prices used were US\$8,000/t for copper, US\$1,950/oz for gold and US\$23/oz for silver. Recoveries are assumed at 85% for copper and gold and 75% for silver, based on preliminary metallurgical test work (see ASX MAG 30 May 2023). Metallurgical test work has not been completed to date on molybdenum and is therefore not included in the equivalency. In Magmatic Resources' opinion all elements that are included in the metal equivalency calculation have reasonable potential to be recovered and sold.

## **Myall Project (Copper-Gold)**

#### Magmatic Resources Limited 100%

The Myall Project (245km<sup>2</sup>) covers the northern extension of the Junee-Narromine Volcanic Belt and is located approximately 60km north along strike of the Northparkes Mine (owned by China Molybdenum/Sumitomo, **Figure 1**), a world-class porphyry copper-gold operation with current combined Resource and Reserves of **607Mt at 0.55% Cu & 0.21g/t Au** (CMOC, 2022). The mineralisation at Northparkes occurs in a cluster of deposits, with at least 22 porphyry copper-gold systems discovered in the mining district to date (Hoye, 2022). The deposits are associated with coherent, multi-kilometre scale basement copper anomalism, with Myall hosting copper anomalism at a similar grade and over a similar area (see comparison in **Figure 2**).

**Porphyry copper deposits provide 60 to 70% of global copper supply and are typically low grade** (0.24 – 0.75% copper and 0.0 – 0.5g/t gold) **and large tonnage**, ranging from from 100 million to several billion metric tonnes (Singer *et al.*, 2008). Magmatic Resources has been actively targeting Northparkes-style porphyry mineralisation and has now drilled fourteen diamond holes for over 11,000 metres at the Myall Project, culminating in the recent completion of a maiden Inferred Mineral Resource Estimate for the Corvette and Kingswood Prospects.



*Figure 1.* Location of the Myall Project showing selected tenement holdings from other major explorers and miners in the region, along with road and rail infrastructure and major towns (ASX MAG 11 July 2023).



*Figure 2.* Comparative image showing the tenor and scale of basement copper anomalism in the Northparkes mining area and at the Myall Project (Northparkes data after Phillips, 2017).

Results finalised during the quarter were used to report a maiden Inferred Mineral Resource Estimate (MRE) for the Corvette and Kingswood deposits (ASX MAG 11 July 2023). Modelling for the MRE was restricted to two zones of higher density drilling associated with the Corvette and Kingswood deposits (**Figures 3 & 4**) and contains total Inferred Resources of **110Mt at 0.27% Cu**, **0.07g/t Au**, **0.8g/t Ag & 10ppm Mo**. The Inferred Resources have a contained metal content of **293kt copper**, **237koz gold & 2.8Moz silver**, equating to **354Kt copper metal-equivalent**. Indicative grade tonnage figures associated with the Corvette-Kingswood model are given in **Table 1**, with the corresponding grade-tonnage curves shown in **Figure 5**.



*Figure 3.* Plan view showing the relationship between drilling and the Corvette and Kingswood MRE model (ASX MAG 11 July 2023).



*Figure 4.* Cross-sectional view (looking north) showing the relationship between drilling and the Corvette and Kingswood MRE model (ASX MAG 11 July 2023).

**Table 1.** Indicative grade-tonnage figures associated with Corvette-Kingswood Resource model. The MRE is reported at a 0.20% copper-equivalent cut-off grade (highlighted in orange).

Cut-off (CuEq%)	Tonnage (Mt)	Grade					Contained Metal				
		CuEq (%)	Cu (%)	Au (g/t)	Ag (g/t)	Mo (ppm)	CuEq (kt)	Cu (kt)	Au (koz)	Ag (Moz)	Mo (kt)
0.00	740	0.11	0.09	0.02	0.3	6	822	696	433	8.2	4.2
0.05	490	0.15	0.13	0.02	0.5	7	750	636	391	7.2	3.5
0.10	280	0.21	0.18	0.04	0.6	8	594	500	333	5.2	2.4
0.15	170	0.27	0.22	0.05	0.7	9	459	381	282	3.7	1.6
0.20	110	0.33	0.27	0.07	0.8	10	358	293	237	2.8	1.1
0.25	73	0.38	0.31	0.08	0.9	12	274	223	189	2.1	0.9
0.30	49	0.42	0.34	0.09	1.0	14	209	169	150	1.5	0.7
0.35	34	0.47	0.38	0.11	1.0	17	159	127	119	1.1	0.6
0.40	22	0.52	0.41	0.12	1.1	19	116	92	89	0.8	0.4
0.45	15	0.57	0.45	0.14	1.2	20	85	67	68	0.6	0.3
0.50	10	0.61	0.48	0.16	1.2	22	63	49	52	0.4	0.2
0.60	4	0.70	0.53	0.21	1.3	21	31	24	30	0.2	0.1



Figure 5. Indicative grade-tonnage curve for the Corvette and Kingswood deposits (ASX MAG 11 July 2023).

The MRE was reported at a 0.20% copper-equivalent cut-off, with the equivalency being derived from initial metallurgical test work conducted during the quarter (ASX MAG 30 May 2023). This test work showed that sulphide mineralisation at Corvette could be treated by conventional froth flotation to produce a bulk Cu-Au-Ag sulphide concentrate. The test work comprised grind establishment, mineralogical characterisation and rougher and cleaner flotation tests. Results indicate sulphide mineralisation from Corvette gold and silver upgrade with the copper. Future metallurgical work may look to produce a separate molybdenum concentrate, with high Mo grades previously noted from multiple holes.

Completion of the MRE was aided by the receipt of assay results for four diamond holes completed at the northern end of the Corvette prospect during the period (**Figure 6**, ASX MAG 30 May 2023 & 11 July 2023), including:

23MYDD423	130.0 metres at 0.19% CuEq, 0.18% Cu, 0.01g/t Au & 25ppm Mo from 301m
	incl. <b>18.0 metres at 0.62% CuEq</b> , 0.59% Cu, 0.02g/t Au & 97ppm Mo from 342m
23MYDD425	<b>202.0 metres at 0.27% CuEq</b> , 0.23% Cu, 0.04g/t Au & 4ppm Mo from 332m
	incl. <b>35.0 metres at 0.41% CuEq</b> , 0.35% Cu, 0.07g/t Au & 5ppm Mo from 359m
	and <b>22.0 metres at 0.54% CuEq</b> , 0.39% Cu, 0.17g/t Au & 2ppm Mo from 446m
23MYDD426	<b>116.1 metres at 0.20% CuEq</b> , 0.16% Cu, 0.05g/t Au & 5ppm Mo from 292.9m
	incl. <b>10.0 metres at 0.35% CuEq</b> , 0.31% Cu, 0.04g/t Au & 3ppm Mo from 323m
23MYDD427	<b>123.0 metres at 0.31% CuEq</b> , 0.25% Cu, 0.07g/t Au & 7ppm Mo from 474m
	incl. <b>16.0 metres at 0.53% CuEq</b> , 0.46% Cu, 0.07g/t Au & 2ppm Mo from 503m
	and <b>24.0 metres at 0.46% CuEq</b> , 0.35% Cu, 0.13g/t Au & 2ppm Mo from 543m



*Figure 6.* Plan of the Corvette Prospect over airborne magnetics (RTP) showing previous (ASX MAG 4 June 2017) and recent diamond drilling with down hole copper mineralisation (ASX MAG 11 July 2023). Vertical air core holes <150 metres depth are omitted for clarity.

Magmatic considers the maiden MRE to be very encouraging for the prospectivity of the broader Myall Project, demonstrating the potentially exceptional copper, gold and silver metal endowment of the area. Design of follow-up drilling programs are underway, with a focus on expanding the near-surface footprint of the deposits. Key target areas include the monzodiorite contact zone to the immediate west, south and northeast of the Corvette deposit, along with the area to the immediate east of Kingswood around recently completed hole 23MYDD424.

The Company's technical team is also utilising the multi-element geochemical dataset collected from recent drilling to test vectors useful in targeting higher grade zones. This analysis has a particular focus on element zonation and variations in alteration signatures associated with potential mineralising intrusives.

A recent re-analysis of the basement copper and gold geochemistry has defined multiple large scale targets with similar geochemical and geophysical signatures to Corvette (see **Figures 7 & 8**). It is noteworthy that follow-up diamond coring (totaling ~26,000 metres) is almost entirely limited to the Kingswood/Corvette/Barina prospect area on the central western edge of the tenement (defined by the dashed red square in **Figure 7**). In spite of the multi-kilometre scale copper-gold anomalous trends - particularly to the east – the remainder of the tenement is still largely under-explored, with less than 450 metres of follow-up diamond coring.



*Figure 7.* Plan of the Myall project area over satellite imagery showing existing prospects, road and rail infrastructure and basement copper and gold geochemistry (ASX MAG 11 July 2023).



*Figure 8.* Plan of the Myall project area over airborne magnetics (RTP) showing existing prospects, all historic (ASX MAG 17 May 2017) and recent aircore and diamond drilling collars and basement copper geochemistry (ASX MAG 11 July 2023).

## Wellington North Project (Gold-Copper)

## Magmatic Resources Limited 100%

Magmatic's 100%-owned Wellington North Project covers the northern extension of the Molong Volcanic Belt, located north of Australia's largest gold producer at Cadia (ASX:NCM) and **immediately adjacent to and 2km** from Alkane's recent Boda porphyry gold-copper discovery (ASX:ALK).

The Wellington North Project includes the historic Bodangora Gold Field, where 230,000 ounces at ~26g/t Au were produced between 1869-1917 (ASX MAG 17 May 2017) alongside an extensive portfolio of Boda-style porphyry gold-copper and Bodangora-style high grade gold targets (**Figure 9**). Encouraging porphyry-style mineralisation has been intercepted in drilling at multiple locations at Wellington North, including:

- 71m at 0.43% Cu, 0.30g/t Au & 59ppm Mo from surface at Rosehill (ASX MAG 17 May 2017)
- 41m at 0.25 g/t Au & 0.11% Cu at Lady Ilse (ASX MAG 10 September 2020)
- 13m at 0.72 g/t Au & 0.36% Cu at Lady Ilse (ASX MAG 10 September 2020)
- 45m at 0.44g/t Au at Lady Ilse (ASX MAG 24 December 2020)



*Figure 9.* Aeromagnetic imagery (RTP) showing the Magmatic's target portfolio in the Wellington North Project area and highlighting the proximity to the 14.8Moz AuEq Boda-Kaiser discovery (ASX ALK 27 February 2023).

No significant on-ground activities were completed at the Wellington North Project during the March quarter while the focus remains on the high-impact diamond program at Myall. The Company's technical team continues to review the potential for Boda-style gold-copper mineralisation at a number of key prospects in the Wellington North area, with further on-ground exploration currently being considered.

## Parkes Project (Gold)

#### Magmatic Resources Limited 100%

The Parkes Project comprises two exploration licences located within the Parkes Fault Zone, **approximately 25 kilometres south from Alkane's Tomingley Gold Operations** and recently defined resources at Roswell of 904,000oz of gold and 406,000oz of gold at San Antonio (ASX ALK 2 May 2022). Several existing gold intersections are equivalent to early-stage exploration results at Alkane's Tomingley deposits, including:

- 16m at 1.22 g/t Au from 13m (MM33) McGregors (ASX MAG 17 May 2017)
- **18m at 0.72 g/t Au** from 33m (MM33) McGregors (ASX MAG 17 May 2017)
- 26m at 0.55 g/t Au from 34m (MM32) McGregors (ASX MAG 17 May 2017)
- 22m at 0.79g/t Au from 45m (S1) Stockmans (ASX MAG 17 May 2017
- 12m at 1.42g/t Au from 7m (S2) Stockmans (ASX MAG 17 May 2017)

No on-ground exploration activities were undertaken at the Parkes Project during the current quarter, with the focus remaining on the high impact drilling program at the Myall Project to the North.

## **Magmatic Tenure**

**Table 2:** Tenement listing as at 31 December 2022. Note all tenements are held by Modeling Resources Pty Ltd which is a 100% owned subsidiary of Magmatic Resources Limited.

State	Project	Lease No	Lease name	Status	Holder	Magmatic interest	Area (km²)	Expiry
NSW	Myall	EL6913	Myall	Granted	Modeling Resources	100%	243.7	18/10/2026
NSW	Parkes	EL7424	Alectown	Granted	Modeling Resources	100%	56.0	30/11/2026
NSW	Parkes	EL7676	Parkes East	Granted	Modeling Resources	100%	95.0	11/1/2027
NSW	Wellington North	EL6178	Duke	Granted	Modeling Resources	100%	113.0	19/1/2027
NSW	Wellington North	EL7440	Bodangora	Granted	Modeling Resources	100%	17.4	8/1/2027
NSW	Wellington North	EL8357	Combo	Granted	Modeling Resources	100%	46.4	8/4/2027

There were no tenements acquired or disposed of during the period.

## Corporate

#### Myall Project

With the recent strong results from the Myall project, a range of options are currently being considered by the Company to facilitate and accelerate exploration and evaluation of Magmatic's advanced copper-gold portfolio. Across the June quarter, the Company notes it has received unsolicited interest in Myall from a range of large, well-capitalised participants in the global mining sector. Discussions with these parties include possible joint venture involvement in the progression of the Myall Project. The Company considers this to be a strong endorsement of the progress achieved to date and the material upside in the asset and its relatively rare positioning as a large-scale copper project located in a well-established and low sovereign risk jurisdiction.

The Company notes that the interest expressed is at a relatively early stage and that there can be no certainty that a sufficiently attractive proposal will eventuate. The Company is conscious of the strong potential that its assets may deliver if retained at the 100% level and will carefully assess this potential outcome against the benefits that any joint venture arrangement may bring to shareholders in the Company.

#### Successful Junior Minerals Exploration Incentive (JMEI) Scheme Application

Subsequent to the end of the quarter the Company was notified it had been allocated \$715,500 of exploration credits as a part of a successful application to the Australian Federal Government's Junior Minerals Exploration Incentive (JMEI) Scheme for the 2023/2024 financial year. The JMEI scheme has been put in place by the Federal Government to encourage investment in small minerals exploration companies that carry out greenfields mineral exploration in Australia.

The JMEI scheme provides credits that allows greenfields mineral exploration companies to generate a tax incentive by allowing companies to give up a portion of their tax losses from eligible greenfields mineral exploration expenditure for distribution to investors. Eligible investors must be Australian resident shareholders who apply for and are issued new shares in the Company's capital raising activities between 1 July 2023 and 30 June 2024.

#### Securities issued during the quarter

No additional securities were issued in the Company during the period.

#### **ASX Additional Information**

- 1. ASX Listing Rule 5.3.1: Exploration and Evaluation Expenditure during the Quarter was \$1,647,000. Full details of exploration activity during the Quarter are set out in this report.
- 2. ASX Listing Rule 5.3.2: There were no substantive mining production and development activities during the Quarter.
- 3. ASX Listing Rule 5.3.5: Payments to related parties of the Company and their associates during the Quarter was \$202,000: The Company advises that this relates to non-executive director's fees and executive directors' salaries only.

#### For further information:

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#### Authorised for release by the Board of Directors of Magmatic Resources Limited.

#### About Magmatic Resources (ASX:MAG)

Magmatic Resources Limited (ASX: MAG) is a New South Wales-focused gold and copper explorer.

In 2014, Magmatic completed the acquisition of an advanced gold-copper portfolio in the East Lachlan from Gold Fields Limited. Gold Fields had completed a major phase of target generation across four main projects (Wellington North, Parkes, Myall, Moorefield), identifying over 60 targets.

The East Lachlan has an endowment of more than 80 million ounces of gold and 13 million tonnes of copper. It is home to Newcrest Mining's Cadia Valley District, which includes the Cadia East Mine, Australia's largest gold mine and one of the world's most profitable gold mines. The Northparkes copper-gold mine (China Molybdenum/Sumitomo) and Cowal Mine (Evolution Mining) are also significant long-life gold-copper mining operations in the region.

Magmatic's three Wellington North tenements effectively surround the recent 14.8Moz AuEq Boda discovery (ASX ALK 27 Feb 2023). The Bodangora tenement is located ~2km from Boda and encompasses the historic Bodangora Gold Field, where high grade gold mining occurred with recorded production of 230,000 ounces @ 26g/t Au between 1869-1917.

The Company also holds a strategic position in the Parkes Fault Zone (Parkes Project), immediately south from Alkane's Tomingley Gold Mine and recent Roswell and San Antonio gold discoveries.

The Myall Copper-Gold Project covers the northern extension of the Junee – Narromine Volcanic Belt, located ~50km north and along strike from the Northparkes copper-gold mining district (China Molybdenum/ Sumitomo). In July 2023 the Company released a maiden Inferred Mineral Resource Estimate for the Corvette and Kingswood Prospects of 110Mt at 0.33% CuEq, containing 293kt of copper, 237koz of gold and 2.8Moz of silver, equating to 354kt of copper metal-equivalent.

In 2021 MAG demerged its wholly owned subsidiary Australian Gold and Copper Limited (AGC) along with its Moorefield orogenic gold project. AGC also acquired two other NSW gold-base metals projects and listed on the ASX in January 2021. Magmatic is a major shareholder in AGC.



## **Competent Persons Statement**

Compilation of exploration and drilling data, along with assay validation and geological interpretations for the Mineral Resource Estimate was coordinated by Adam McKinnon, BSc (Hons), PhD, MAusIMM, who is Managing Director and a full-time employee of Magmatic Resources Limited. Dr McKinnon has sufficient experience which is 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". Dr McKinnon consents to the inclusion in this release of the matters based on his information in the form and context in which it appears. Additionally, Dr McKinnon confirms that the entity is not aware of any new information or data that materially affects the information contained in the ASX releases referred to in this report.

The information in this ASX release that relates to the Mineral Resource Estimate is based on information compiled by Arnold van der Heyden, a Member and Chartered Professional (Geology) of the AusIMM. Mr van der Heyden is a fulltime employee of H&S Consultants Pty Ltd. Mr van der Heyden has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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". Mr van der Heyden consents to the inclusion in this Announcement of the matters based on his information in the form and context in which it appears.

#### **Previously Reported Information**

The information in this report that references previously reported exploration results is extracted from the Company's ASX market announcements released on the date noted in the body of the text where that reference appears. The previous market announcements are available to view on the Company's website or on the ASX website (www.asx.com.au). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

#### **Disclaimer**

This report contains certain forward-looking statements and forecasts, including possible or assumed reserves and resources, production levels and rates, costs, prices, future performance or potential growth of Magmatic Resources Limited, industry growth or other trend projections. Such statements are not a guarantee of future performance and involve unknown risks and uncertainties, as well as other factors which are beyond the control of Magmatic Resources Limited. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors. Nothing in this report should be construed as either an offer to sell or a solicitation of an offer to buy or sell securities.

This document has been prepared in accordance with the requirements of Australian securities laws, which may differ from the requirements of United States and other country securities laws. Unless otherwise indicated, all ore reserve and mineral resource estimates included or incorporated by reference in this document have been, and will be, prepared in accordance with the JORC classification system of the Australasian Institute of Mining, and Metallurgy and Australian Institute of Geoscientists.

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