

29 JANUARY 2020

## MIMDAS GEOPHYSICS DEFINES LARGE 'CADIA EAST-STYLE' GOLD-COPPER PORPHYRY TARGET AT LADY ILSE

- MIMDAS geophysics has confirmed a large porphyry drill target downdip from the gold and porphyry pathfinder geochemical anomaly at Lady Ilse
- The wide gold anomaly previously defined by shallow RC drilling is now interpreted to lie on the western edge of a much larger chargeability feature overlying a conductive porphyry target
- Results highlight the similarities between Lady Ilse and the nearby Boda Discovery (Alkane) and world class Cadia East Gold-Copper Porphyry Deposit (Newcrest)
- Results have refined the location of upcoming diamond drilling and aided planning for anticipated further drilling

Magmatic Resources ('MAG' or 'The Company') is very pleased to advise that it has completed an advanced MIMDAS geophysical survey at the Lady Ilse Prospect (chargeability/resistivity/conductivity) within the Wellington North Project (100% MAG). MIMDAS geophysical surveying offers greater depth penetration than conventional geophysics and allows for the efficient definition of porphyry features and effective drill targeting.

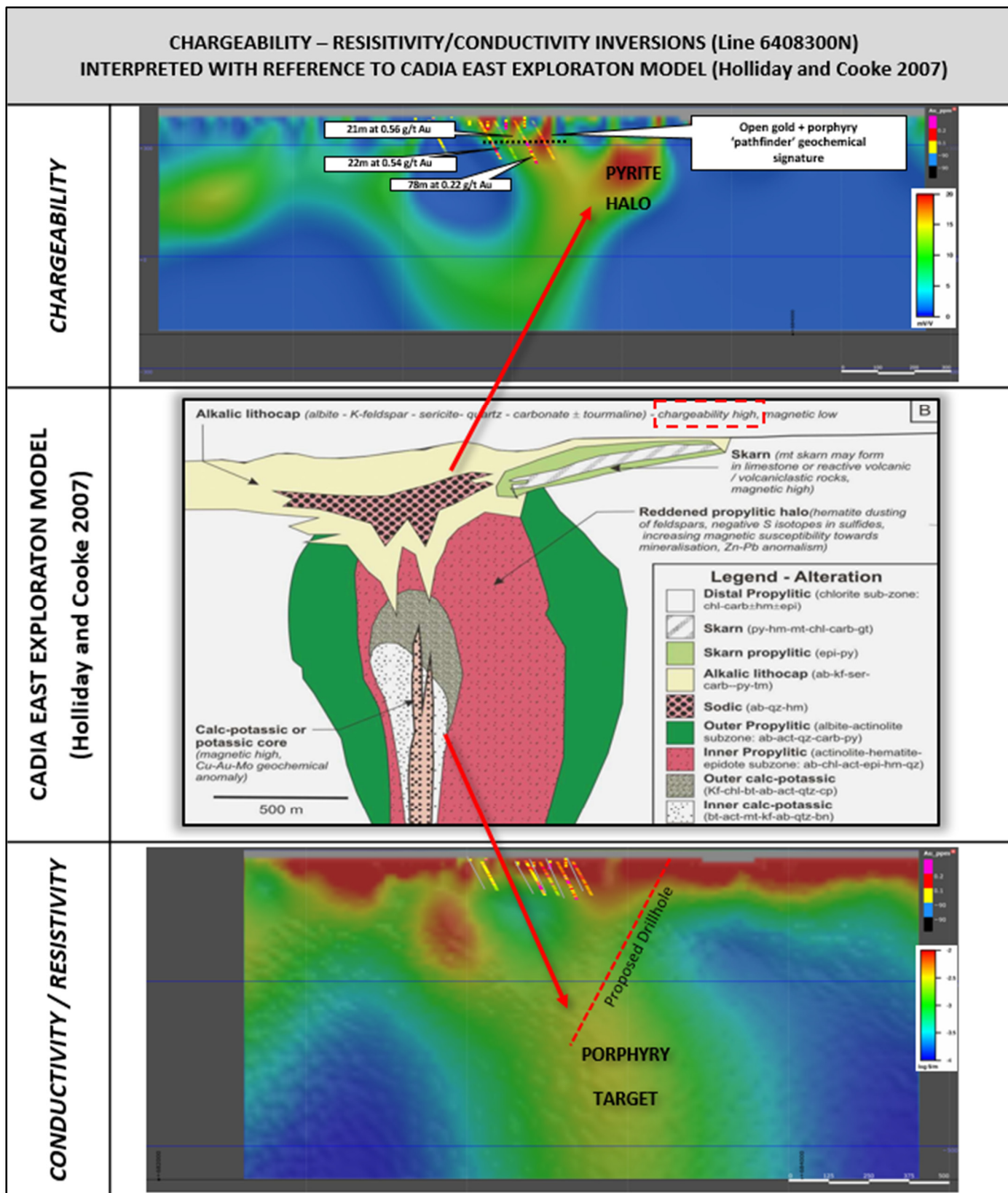
Results have been received for one of four lines completed, with the remaining results expected in early February 2020.

The geophysical survey was designed to assess for a potential porphyry system of similar style to Newcrest's world class >50 million-ounce Cadia East Project, located 100km south and Alkane's Boda porphyry discovery 6km east.

The results enhance the Company's view that the Lady Ilse prospect has the potential to host significant Cadia East-style porphyry mineralisation beneath the wide zone of shallow gold and porphyry pathfinder geochemical anomalism defined in shallow RC drilling (open ~200m wide zone at ~100m depth, ASX MAG 11 November 2019) (Figure 1).

Magmatic's Managing Director, David Richardson said:

***'We are delighted with the MIMDAS results which are potentially defining a larger porphyry system than originally identified and greatly aids the positioning of our upcoming diamond drill program, and beyond'***



**Figure 1:** Lady Ilse MIMDAS Chargeability and Resistivity/Conductivity Inversions, Line 6408300N, looking north, showing a strongly chargeable feature down-dip from zone of gold + porphyry pathfinder anomalism in drilling and overlying a conductive porphyry target. The significance of the conductive feature down-dip from a strongly chargeable zone is unconfirmed at Cadia, however high conductivity contrasts for Cadia porphyry mineralisation is described by Close et al (2001) with the usefulness of advanced DC resistivity and magnetotelluric (MT) resistivity systems (such as MIMDAS) for detecting porphyry systems also highlighted by Holliday and Cooke (2007)

## Cadia East Analogue Potential

The Lady Ilse Prospect exhibits several similarities with the Cadia East Gold-Copper Porphyry Deposit:

✓ **ROCKS / STRATIGRAPHY / GEOLOGICAL SETTING**

- Located ~100km north of Cadia within the northern Molong Belt, the prospect is hosted within Cadia-equivalent stratigraphy, being the Late Ordovician aged Bodangora Formation and Kaiser Volcanics
- Sits outboard of a Late Ordovician alkalic intrusive complex (ASX MAG 11 November 2019)

✓ **WIDE ZONE OF GOLD ASSOCIATED WITH PORPHYRY PATHFINDER GEOCHEMISTRY**

- Wide zone of anomalous gold defined in shallow RC drilling (open ~200m wide zone at ~100m depth, ASX MAG 11 November 2019), 78m at 0.22 g/t Au from 27m (Lady Ilse, CORC035) (ASX MAG 19 February 2018)
- Anomalous gold zone is associated with a distinct Au-Bi-Te-As porphyry pathfinder geochemical signature, typical of the upper levels of a porphyry system (Halley et al 2015) (ASX MAG 19 February 2018, ASX MAG 11 November 2019)

✓ **MINERALISATION STYLE / ALTERATION**

- Anomalous gold zone is associated with pyrite-rich 'phyllitic' alteration, typical of the upper levels of a porphyry system (see Cadia East Exploration Model, Figure 1, Halley et al 2015)

✓ **ENCOURAGING GEOPHYSICAL SIGNATURE (MIMDAS)**

- MIMDAS geophysics has identified a conductive anomaly beneath a strongly chargeable zone, consistent with the distribution of alteration features at Cadia East (see Cadia East Exploration Model, Figure 1)
- The significance of the conductive feature downdip from a strongly chargeable zone is unconfirmed at Cadia, however high conductivity contrasts for Cadia porphyry mineralisation is described by Close et al (2001) with the usefulness of co-acquisition DC resistivity and magnetotelluric (MT) resistivity systems (such as MIMDAS) for directly detecting porphyry systems also highlighted by Holliday and Cooke (2007)

***The position and scale of the conductive feature at Lady Ilse, down dip from the chargeability anomaly (pyrite-rich 'phyllitic' alteration halo) and zone of gold and porphyry pathfinder geochemical anomalism defined in shallow RC drilling is considered very significant.***

## About MIMDAS

MIMDAS (MIM Distributed Acquisition System) is an advanced electrical geophysical technique which collects multiple geophysical datasets (Chargeability (IP), Resistivity/Conductivity (IP and MT). Further information on the technique is presented in Appendix 1, Table 1.

Electrical geophysics (chargeability) is an excellent method for detecting upper level porphyry pyrite-rich 'phyllic' alteration zones. Defining the chargeability anomaly above the Cadia East mineralisation was an important step during the discovery of the deposit (Holliday and Cooke 2007). Indeed, more recently Newcrest have commented on the usefulness of MIMDAS geophysics at Cadia Valley:

*'Deeper penetrating electrical geophysical applications including MIMDAS utilised with success (conventional systems visualise to 300m, MIMDAS can visualise to 1000m)' - Newcrest (2019)*

## Boda Analogue Potential

The Lady Ilse Prospect exhibits several similarities with Alkane's Boda porphyry discovery (ALK ASX 15 August 2017, ALK ASX 9 September 2019) only 6kms away. The wide zone of shallow gold and porphyry pathfinder anomalism, associated with pyrite-rich alteration, is similar to that described at Boda at the equivalent stage of exploration (ASX ALK 9 September 2019).

***Encouragingly the existing Lady Ilse shallow wide gold anomaly defined in RC drilling appears open in multiple directions with the recent MIMDAS results showing it positioned at the western edge of a much larger chargeability anomaly, overlying a conductive porphyry target***



**Figure 2:** MIMDAS survey crew setting up at Lady Ilse Prospect, Wellington North Project



## Wellington North Project (100% MAG)

### Background

Magmatic's 100%-owned Wellington North Project covers the northern extension of the Molong Volcanic Belt, which is host to Newcrest's world-class Cadia Valley porphyry gold-copper deposits (>50Moz Au & 8.7Mt Cu) ~100km to the south. The 177km<sup>2</sup> project comprises three exploration licenses and is considered highly prospective for gold-copper porphyry, gold epithermal and lode style gold mineralisation.

The recent Boda porphyry discovery by Alkane Resources Ltd (ASX ALK 9 September 2019) has highlighted the value of Magmatic's dominant surrounding tenure position in the northern Molong Belt, in what is emerging as a significant gold porphyry discovery hotspot (Figure 3). The Boda discovery has also highlighted the surface porphyry exploration signature and has had an immediate impact on the ranking of Magmatic's exploration targets, with several upgraded for Boda-style and Cadia East-style porphyry gold-copper mineralisation, e.g. Lady Ilse, Rose Hill, Ninety and Mayhurst.

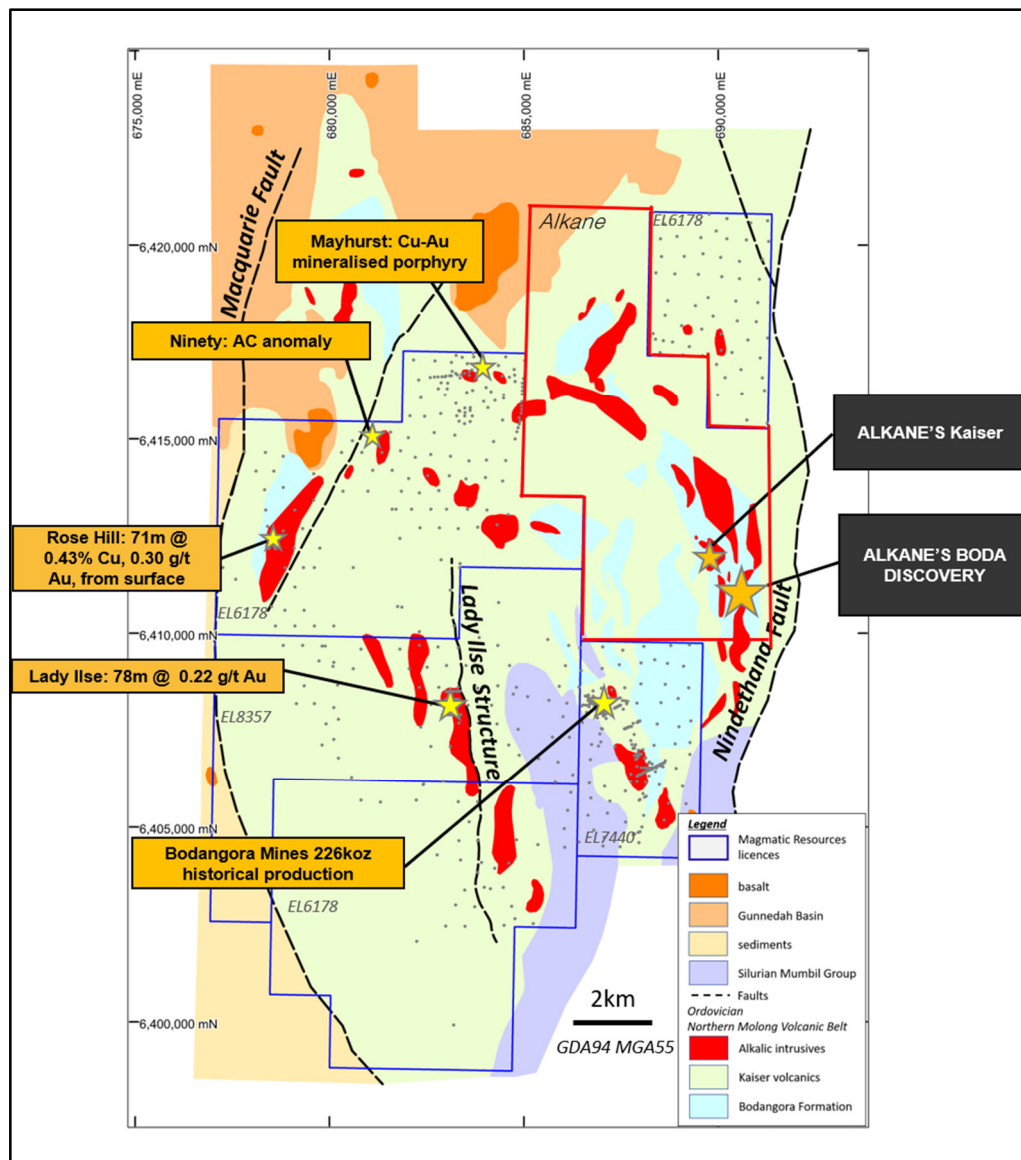
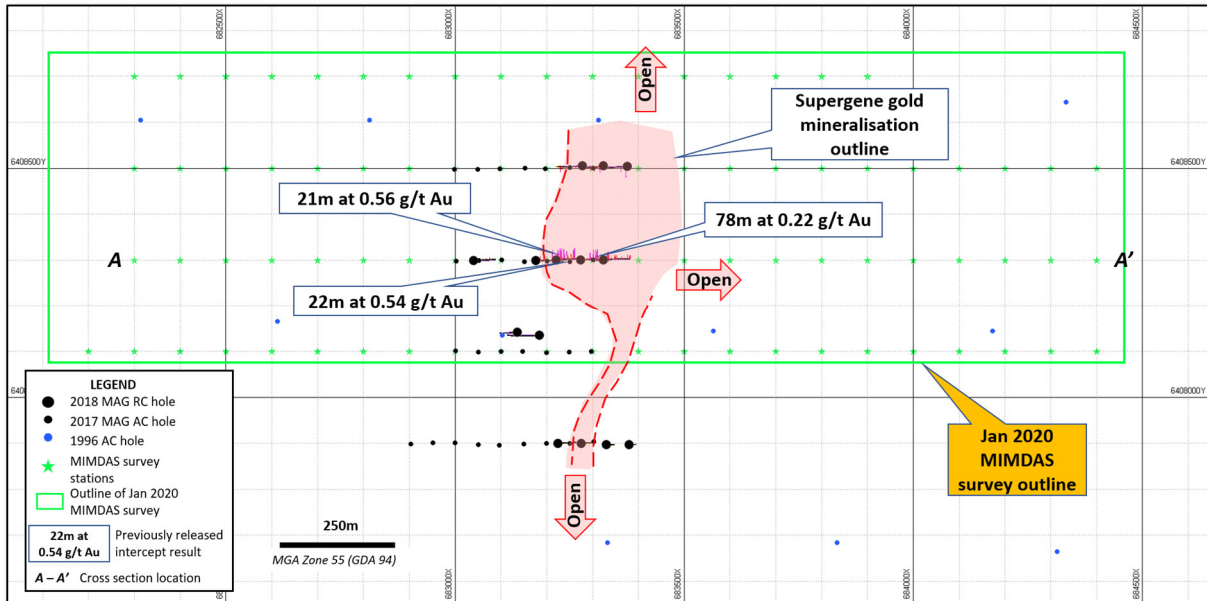
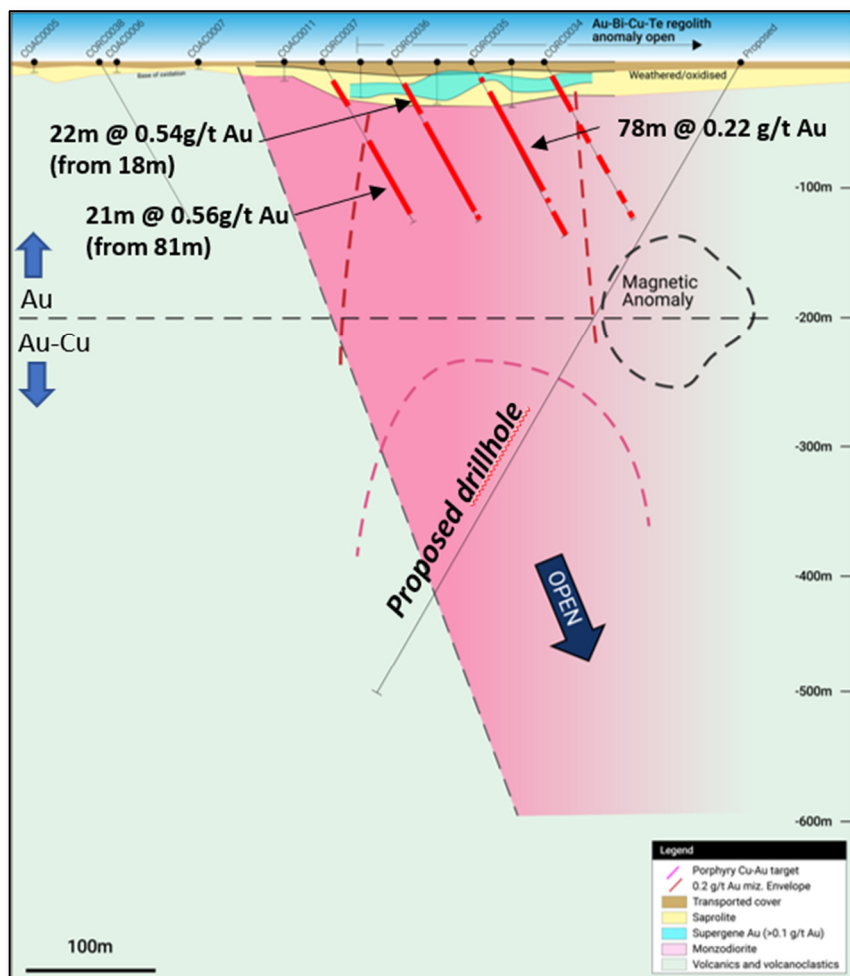


Figure 3: Wellington North Project Location Map



**Figure 4:** Lady Ilse Prospect, showing MIMDAS survey area with main drilling results (see ASX MAG 19 February 2018)



**Figure 5:** Lady Ilse Prospect schematic cross section (6408300N) showing wide zone of gold anomalism at 100m depth, akin to the equivalent stage of drilling/exploration at the nearby Boda Discovery (ALK ASX 15 August 2017)

## References

Close, D.I., Roach, M.J., Lewis, R.J.G, Bishop, J., 2001, Electrical properties of porphyry mineralisation at the Cadia Ridgeway gold-copper deposit, NSW – implications for exploration, Fifteenth Geophysical Conference and Exhibition, Exploration Geophysics 32 (4) 141-146

CMOC 2019., China Molybdenum Company Limited, <http://www.cmocinternational.com/australia/>

Evolution., 2018, <https://evolutionmining.com.au/reservesresources/>

Halley, S., Tosdal, R.M., 2015, Footprints: Hydrothermal Alteration and Geochemical Dispersion Around Porphyry Copper Deposits, SEG Newsletter, # 100

Holliday, J.R., Cooke, D., 2007, Advances in Geological Models and Exploration Methods, Ore Deposits and Exploration Technology, Fifth International Conference on Mineral Exploration

Newcrest., 2019, Newcrest Investor and Analyst Presentation, ASX Announcement, 18 November 2019

Phillips, G N (Ed), 2017. Australian Ore Deposits, The Australasian Institute of Mining and Metallurgy: Melbourne

## About Magmatic Resources (ASX:MAG)

Magmatic Resources Ltd (ASX: MAG) is a New South Wales-focused gold and copper explorer that listed on the ASX in May 2017.

In 2014, Magmatic completed the acquisition of an advanced gold-copper target portfolio from Gold Fields Limited in the East Lachlan Gold-Copper Province. Gold Fields had completed a major phase of target generation across four main projects (Wellington North, Parkes, Myall, Moorefield), before undertaking a global divestment program.

The East Lachlan has an endowment of more than 80 million ounces of gold and 13 million tonnes of copper (Phillips 2017). It is most famous for Newcrest's world class porphyry

gold-copper cluster at Cadia Valley, where currently the Cadia East Mine represents Australia's largest gold mine and one of the world's most profitable gold producers (A\$1.4B free cash FY19, Newcrest 2019). In addition, the Northparkes copper-gold porphyry cluster (3.8Moz Au, 3.4Mt Cu - China Molybdenum/Sumitomo, CMOC 2018) and Cowal Epithermal Deposit (>11Moz Au - Evolution Mining, Evolution 2018) also represent significant long-life mining operations.

The recent Boda porphyry discovery by Alkane Resources Ltd (ASX ALK 9 September 2019) has highlighted the value of Magmatic's dominant surrounding tenure position in the northern Molong Belt, in what is emerging as a significant gold porphyry discovery hotspot. The Boda discovery has also highlighted the surface porphyry exploration signature and has had an immediate impact on the ranking of Magmatic's exploration targets, with several upgraded for Boda-style and Cadia East-style porphyry gold-copper mineralisation, e.g. Lady Ilse, Rose Hill, Ninety and Mayhurst.

The company also holds a strategic position in the Parkes Fault Zone (Parkes Project), which is emerging as the other NSW gold discovery hotspot and provides further opportunity to add significant value via near term exploration success.

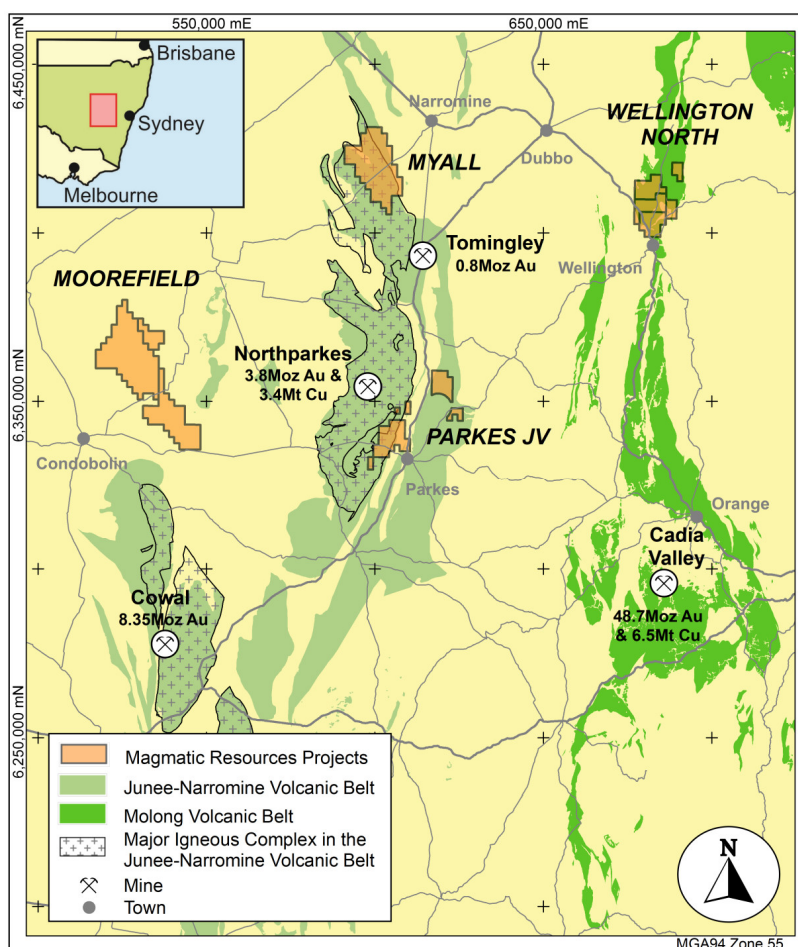


Figure 6: MAG Project Location Map



## Competent Persons Statement

The information in this document that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Steven Oxenburgh who is a Member of the AusIMM (CP) and a Member of the Australian Institute of Geoscientists. Mr Oxenburgh is a full-time employee of and has associated shareholdings in Magmatic Resources Limited and 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". Mr Oxenburgh consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. Additionally, Mr Oxenburgh 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.

Geophysical information in this report is based on exploration data compiled by Mr Terry Hoschke who is employed as a Consultant to the Company through the geophysical consultancy Alterrex Pty Ltd. Mr Hoschke is a member of the Australian Society of Exploration Geophysicists and the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and activities 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 Hoschke consents to the inclusion in the report of the matters based on 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](http://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 Ltd, 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 Ltd. 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.

## Appendix I – JORC Code, 2012 Edition – Table 1

### Section 1 Sampling Techniques and Data: Wellington North Project, Lady Ilse prospect

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>Aspects of the determination of mineralisation that are Material to the Public Report.</i>  <i>In cases where ‘industry standard’ work has been done this would be relatively simple (eg ‘reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay’). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	<b>Not applicable: Ground geophysical survey</b>
Drilling techniques	<i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	<b>Not applicable: Ground geophysical survey</b>
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	<b>Not applicable: Ground geophysical survey</b>

Criteria	JORC Code explanation	Commentary
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	<b>Not applicable: Ground geophysical survey</b>
Logging	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>The total length and percentage of the relevant intersections logged.</i>	<b>Not applicable: Ground geophysical survey</b>
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	<b>Not applicable: Ground geophysical survey</b>

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i>	<b>Not applicable: Ground geophysical survey</b>
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>The use of twinned holes.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>Discuss any adjustment to assay data.</i>	<b>Not applicable: Ground geophysical survey</b>
Location of data points	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>Specification of the grid system used.</i>	All coordinates are based on Map Grid of Australia 1994 Zone 55.
	<i>Quality and adequacy of topographic control.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>Data spacing for reporting of Exploration Results.</i>	<b>Not applicable: Ground geophysical survey</b>



Criteria	JORC Code explanation	Commentary
Data spacing and distribution	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	Not applicable: Ground geophysical survey
	Whether sample compositing has been applied.	Not applicable: Ground geophysical survey
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	Not applicable: Ground geophysical survey
	If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Not applicable: Ground geophysical survey
Sample security	The measures taken to ensure sample security.	Not applicable: Ground geophysical survey
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Not applicable: Ground geophysical survey

## Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<p>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</p> <p>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</p>	EL8357 Combo is located 12km north of Wellington NSW. The tenement is held by Modeling Resources Pty Ltd; a fully owned subsidiary of Magmatic Resources Ltd. Ground activity and security of tenure are governed by the NSW State government via the Mining Act 1992.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The ground geophysical survey was planned by Magmatic Resources exploration staff in consultation with our geophysical contractor, Geophysical Resources and Services Pty Ltd ('GRS'). GRS completed processing of the data with 2D and 3D images produced by Alterrex Pty Ltd.
Geology	Deposit type, geological setting and style of mineralisation.	The target mineral system at the Lady Ilse prospect is considered to be of a gold copper porphyry-epithermal system within the northern Molong Volcanic belt (Cadia ~100km south) within the Ordovician Macquarie Arc. Gold mineralisation identified is hosted in pyrite-magnetite-altered intrusive and volcanic rocks.
Drill hole Information	<p>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:</p> <ul style="list-style-type: none"> <li>• easting and northing of the drill hole collar</li> <li>• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>• dip and azimuth of the hole</li> <li>• down hole length and interception depth</li> <li>• hole length.</li> </ul>	<b>Not applicable: Ground geophysical survey</b>
	If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the	<b>Not applicable: Ground geophysical survey</b>

Criteria	JORC Code explanation	Commentary
	<i>understanding of the report, the Competent Person should clearly explain why this is the case.</i>	
Data aggregation methods	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	<b>Not applicable: Ground geophysical survey</b>
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	<b>Not applicable: Ground geophysical survey</b>
	<i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</i>	<b>Not applicable: Ground geophysical survey</b>
Diagrams	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	See figures in body of report for survey station locations relative to mineralisation
Balanced reporting	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	<b>Not applicable: Ground geophysical survey</b>

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	<p><i>Intentionally blank</i></p> <p><i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></p>	<p><b>MIMDAS ground geophysical survey</b></p> <p>MIMDAS is an advanced electrical geophysical acquisition technique capable of acquisition of DC resistivity and magnetotelluric (MT) resistivity and IP chargeability data. The technique is capable of acquiring a variety of electrical signals including resistivity, IP, MT data.</p> <p>Geophysical Resources and Services Pty Ltd (GRS) conducted the survey with MIMDAS receivers at 100m along 200m spaced lines and data modelled using UBC software.</p> <p>Alterrex Pty Ltd provided geophysical consulting services, producing 2D and 3D images for interpretation.</p> <p>The survey results are discussed in the body of the report.</p>
Further work	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	See body of report.
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	See figures in body of report.