

8 May 2023

# Compelling New Drill Targets Identified From Geophysical Surveys at the Lachlan Project, NSW

Priority chargeable and conductive anomalies identified in areas known to host base and precious metal mineralisation; Drilling to be expedited in Q2/Q3 2023

## **Highlights:**

- Two discrete priority chargeable anomalies directly associated with historic high-grade copper workings identified from Induced Polarisation (**IP**) surveys at the Stella Prospect on EL8571.
- High chargeability values at the Stella prospect are notable at up to 23 millivolts per volt (mV/V) (*Figure 1*), compared with chargeability values of ~10-15 mV/V which are common at drill targets throughout the Cobar Basin in NSW.
- MLTEM and IP surveys at the Rip & Tear Prospect on EL8615 have identified two conductive plate models and a chargeable anomaly in an area with historic mining and surface gossans.
- Chargeable and conductive anomalies are interpreted to indicate the presence of blind sulphides, providing Talisman with drill-ready targets with potential for a significant discovery.
- The definition of new drill-ready anomalies reinforces Talisman's exploration strategy of systematically narrowing the exploration search space to identify robust exploration targets.
- Chargeable and conductive anomalies will be progressed to drill testing as part of the current drill program, with these priority drill targets to be drill tested through Q2/Q3 of 2023 once regulatory approvals are received.

Talisman Mining Ltd (ASX: TLM, **Talisman**) is pleased to advise that it has identified compelling new drill targets from ground-based geophysical surveys completed recently at the Stella Prospect, part of its 100%-owned Lachlan Copper-Gold Project (**Lachlan Project**) in NSW (Appendix 1).



Figure 1 - Stella Prospect, Pole-Dipole IP survey lines at 800m spacing with chargeability pseudo-sections.





### Stella Prospect (EL8571)

Talisman's geologists have conducted extensive fieldwork across the Stella prospect area which is located on Exploration Licence 8571 (**EL8571**). Though a combination of mapping, sampling and interpretation, the Talisman exploration team has interpreted a significantly more structurally complex geological interpretation for the Stella Prospect than publicly available mapping.

Two north-south trending anticlines are interpreted flanking a central syncline, which is supported by field observations and geo-morphology. Most of the area is under post-mineral Quaternary cover which has restricted previous exploration in the area.

The westernmost anticline corresponds with a historic high-grade copper working known as "Wirrala Mine" or "Sullivan's", thought to be a shear-hosted deposit with limited surface expression.

The Induced Polarisation (**IP**) survey at the Stella Prospect was intended to survey the interpreted anticlines for the presence of chargeable anomalies as a proxy for sulphide mineralisation. Nine Pole-Dipole Induced Polarisation (**PDIP**) lines were conducted across the prospect at 400m spacing with lengths varying from 1.2km to 2.4km and with a station spacing of 100m, with all nine targeting the western anticline and five extending to assess the eastern anticline at 800m spacing (*Figure 2*).



Figure 2 - Stella Prospect, Pole-Dipole IP survey lines and chargeability pseudo-sections at 400m line spacing with the Eastern and Western anomaly trends indicated.

As a result of the survey, two significant chargeable anomalies were identified in the area. The western anomaly is associated directly with the historic workings and is interpreted to be a depth and strike extension of this mineralisation at relatively shallow depth (100-200m). Peak chargeability values of 23 mV/V associated with the Western anomaly suggest a direct association between the anomaly and sulphides associated with historic copper mineralisation (*Figure 2*).





The limited historic drilling at the prospect was shallow – to a maximum 86 metres vertical depth - and drilled to the east of the chargeable anomaly<sup>1</sup>.

The eastern anomaly trends north-east, south-west and is thought to be related to a structural lineament interpreted from airborne magnetic and gravity survey results. Peak chargeability values of 18 mV/V associated with the eastern anomaly infer a slightly less chargeable anomaly relative to the western anomaly, but still of significant interest as a priority drill target given the interpreted structures and known copper and gold mineralisation in the district. This anomaly is also located at relatively shallow (100-200m) depth below surface (*Figure 3*).



Figure 3 – Stella Prospect (EL8571) Chargeability pseudo-section 6520535mN, showing chargeability values in mV/V.

The Stella Prospect is located in a regional magnetic low, which is potentially suggestive of hightemperature hydrothermal alteration associated with mineralisation destroying natural remanent magnetism in host rocks. Additionally, nearby economic polymetallic mineralisation in the Cobar Superbasin at the Hera Mine is associated with development of non-magnetic, high Fe pyrrhotite<sup>2</sup>.

Drilling approvals have been submitted to the NSW Resource Regulator covering the Stella Prospect area, as well as providing approvals for follow-up on the nearby Carpina North Gold Prospect - first drilled by Talisman in 2022 - which returned 40m @ 0.51g/t Au from 24m downhole in CNRC0012<sup>3</sup>.

It is expected that drilling will be progressed on the Stella Prospect at the first available opportunity in May 2023.

### Rip & Tear Prospect (EL8615)

The Rip & Tear Prospect is located on a major north-east to south-west structural lineament on Exploration Licence 8615 (**EL8615**). The area is dominated by sandstones to conglomerates of the Girilambone Group and shallow-water Kopyje Shelf, and has seen previous shallow exploration focused around historic workings and three outcropping gossans in the area.

<sup>2</sup> Refer Fitzherbert. J.A. et al. 2021 *The Hera orebody: A complex distal (Au-Zn-Pb-Ag-Cu) skarn in the Cobar Basin of central New South Wales, Australia.* Resource Geology Vol 71, Issue 4, pp 296-319.

TALISMAN



<sup>&</sup>lt;sup>1</sup> Refer NSW DIGS Report RE0003141, Fifth Annual Exploration Report on EL6726 – Nangerybone Project

<sup>&</sup>lt;sup>3</sup> Refer Talisman ASX Announcement dated 26 July 2022



Extensive historic surface geochemistry and auger drilling indicated strong lead anomalies<sup>4</sup>, similar to those associated with the Federation and Dominion discoveries. Despite significant surface work identifying the lead anomalies, limited historic drilling has been conducted with only two percussion holes drilled to 60 metres depth in the prospect area.

Two grids of Moving Loop Transient Electro-Magnetic (**MLTEM**) surveying covering an area of 5.36 km<sup>2</sup> for 220 stations were collected, followed by a single 3.3km long PDIP line with 100m station spacing (*Figure 4*). The exploration model used a Dominion/Federation analogue and surveyed for similar conductive anomalies with a confirmatory PDIP line to investigate disseminated sulphide potential, given past geological observations of disseminated base metal sulphides<sup>1</sup>.



Figure 4 - Rip & Tear Anomaly Area (EL8615) with interpreted faults (GSNSW Seamless Geology) and geophysical anomaly locations.

The MLTEM surveys identified two discrete conductive anomalies which were modelled into Maxwell plates as the best fit for a conductive source. Both plates appear to be associated with mapped structures, suggesting that the conductive anomalies are potentially linked to structurally controlled mineralisation using these structures as conduits and depositional sites for sulphides. Plate 1 is a steeply-dipping 1,200m long plate model with a moderate conductive value of 50 Siemens (**S**) oriented along the ENE-WSW major structure running through the prospect area (*Figure 4*). As a second order structure to the regionally significant Mineral Hill Controlling Structure, this structure may be associated with localised base metal mineralisation. The conductivity value may be indicative of net-textured or brecciated sulphides lacking complete connectivity.

Plate 2 is a NE-SW striking, moderately SE dipping plate model extending over a length of 1,300m with a moderate conductance value of 50S aligned with a third order structure which also intersects the Gilmore Suture (*Figure 4*). This structure also trends towards the Yellow Mountain workings, where historic Au-Cu-Pb-Zn-Ag mineralisation has been encountered previously<sup>5</sup>.

<sup>&</sup>lt;sup>5</sup> Refer to NSW DIGS Open file reports R0009421, RE0003757, R00024525 and R00024537.



<sup>&</sup>lt;sup>4</sup> Refer NSW DIGS Report R00022366, Exploration Report, Mineral Hill-Bobadah area.



Additionally, the PDIP line surveyed across the Plate 2 MLTEM area identified a discrete moderately chargeable anomaly at shallow depth, with peak chargeability values of 10-12 mV/V against background values of 0-2 mV/V. This anomaly is immediately adjacent to Plate 2's anomaly coincident with a topographic high, suggesting an area of basement with silicification possibly related to hydrothermal fluids and sulphide deposition.

Talisman will proceed to drill test both chargeable anomalies and the conductive anomaly to determine the potential source of each. Drilling is expected to commence in Q3 2023, following regulatory approvals. Talisman already holds land access agreements with land-holders in this area, simplifying the process and shortening the timeline.

### Management Comment

Talisman's CEO, Shaun Vokes, said: "Our concurrent work streams of drilling, geophysics and geochemistry are starting to bear fruit in NSW. The identification of the priority Stella and Rip and Tear geophysical targets represents an excellent outcome from our systematic and methodical greenfields exploration approach.

"We are looking forward to receiving regulatory approvals and drilling both targets as soon as possible."

## Ends

For further information, please contact:

Shaun Vokes – CEO on +61 8 9380 4230 Nicholas Read (Media inquiries) on +61 419 929 046

This release has been authorised by the Board of Talisman Mining Limited.





## **About Talisman Mining**

Talisman Mining Limited (ASX:TLM) is an Australian mineral development and exploration company. The Company's aim is to maximise shareholder value through exploration, discovery and development of complementary opportunities in base and precious metals.

Talisman has secured tenements in the Cobar/Mineral Hill region in Central NSW through the grant of its own Exploration Licenses and through a joint venture agreement. The Cobar/Mineral Hill region is a richly mineralised district that hosts several base and precious metal mines including the CSA, Tritton, and Hera/ Nymagee mines. This region contains highly prospective geology that has produced many long-life, high-grade mineral discoveries. Talisman has identified a number of areas within its Lachlan Cu-Au Project tenements that show evidence of base and precious metals endowment which have had very little modern systematic exploration completed to date. Talisman believes there is significant potential for the discovery of substantial base metals and gold mineralisation within this land package and is undertaking active exploration to test a number of these targets.

Talisman also has a majority participating interest in a joint venture with privately-owned Lucknow Gold Limited in relation to the Lucknow Gold Project (EL6455) in New South Wales. The Lucknow Goldfield was discovered in 1851 and was one of the earliest goldfields to be mined commercially in Australia. Historic production records at the Project are incomplete, however in excess of 400,000 ounces of gold has reportedly been produced at grades of 100 to 200 g/t gold<sup>6</sup>. Very little modern exploration has been completed outside of the existing mine workings and Talisman intends to undertake a program of geochemical surface sampling and mapping at the Project ahead of a drilling program to test for potential down plunge extensions of the high-grade gold ore shoots and repeat structures throughout the Project area.

## **Competent Person's Statement**

Information in this announcement that relates to Exploration Results and Exploration Targets is based on, and fairly represents information and supporting documentation complied by Mr Russ Gregory, who is a member of the Australasian Institute of Geoscientists. Mr Gregory is a full-time employee of Talisman Mining Ltd and has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the 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 Gregory has reviewed the contents of this announcement and consents to the inclusion in this announcement of all technical statements based on his information in the form and context in which they appear.

### **Forward-Looking Statements**

This ASX release may include forward-looking statements. These forward-looking statements are not historical facts but rather are based on Talisman Mining Ltd.'s current expectations, estimates and assumptions about the industry in which Talisman Mining Ltd operates, and beliefs and assumptions regarding Talisman Mining Ltd.'s future performance. Words such as "anticipates", "expects", "intends", "plans", "believes", "seeks", "estimates", "potential" and similar expressions are intended to identify forward-looking statements. Forward-looking statements are only predictions and are not guaranteed, and they are subject to known and unknown risks, uncertainties and assumptions, some of which are outside the control of Talisman Mining Ltd. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast. Actual values, results or events may be materially different to those expressed or implied in this presentation. Given these uncertainties, recipients are cautioned not to place reliance on forward looking statements. Any forward looking statements in this announcement speak only at the date of issue of this announcement. Subject to any continuing obligations under applicable law and the ASX Listing Rules, Talisman Mining Ltd does not undertake any obligation to update or revise any information or any of the forward looking statements in this announcement or any changes in events, conditions or circumstances on which any such forward looking statement is based.

<sup>&</sup>lt;sup>6</sup> NSW DIGS report, First Annual Exploration Report EL5770, 2001 -R00030162







Appendix 1 Lachlan Copper- Gold Project tenure





### Appendix 2

JORC Tables Section 1 & 2

#### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. 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.</li> </ul>	Not applicable to this release
	<ul> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	
	• Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3kg 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 (e.g. submarine nodules) may warrant disclosure of detailed information.	
Drilling techniques	• Drill type (e.g. core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).	Not applicable to this release
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	Not applicable to this release
	<ul> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> </ul>	
	<ul> <li>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.</li> </ul>	
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a</li> </ul>	Not applicable to this release





Criteria	JORC Code explanation	Commentary
	level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	
	<ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> </ul>	
	• The total length and percentage of the relevant intersections logged.	
Sub-sampling techniques	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	Not applicable to this release
and sample preparation	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> </ul>	
	<ul> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	
	<ul> <li>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.</li> </ul>	
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	
Quality of assay data and laboratory	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> </ul>	Not applicable to this release
	<ul> <li>For geophysical tools, spectrometres, handheld XRF instruments, etc, the parametres used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> </ul>	
	<ul> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> </ul>	Not applicable to this release
	The use of twinned holes.	





Criteria	JORC Code explanation	Commentary
	<ul> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>The coordinate system used is the Geocentric Datum of Australia (GDA) 1994. All coordinates are in the Map Grid of Australia zone 55 (MGA), Universal Transverse Mercator.</li> <li>The Australian Height Datum (AHD) is utilised for elevation.</li> <li>Topographic control is based on the Geoscience Australia SRTM 1-Second Digital Elevation Model (DEM) over the area, which is considered fit for purpose at the exploration stage.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	Not applicable to this release
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>All geophysical data is collected in an orientation perpendicular to the strike of geology as interpreted by Talisman's geologists.</li> <li>At the Stella Prospect, PDIP survey lines are were acquired in an east-west orientation against north-south striking, steeply dipping geology.</li> <li>At the Rip &amp; Tear Prospect, MLTEM grids and the PDIP survey line were collected in two variable orientations matching the strike of interpreted geology.</li> </ul>
Sample security	The measures taken to ensure sample security.	Not applicable to this release.
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>Geophysical survey data was reviewed, processed and interpreted by Ned Stolz &amp; Grant Coulston, Principal Geophysicists from Southern Geoscience Consultants Pty Ltd.</li> </ul>





### **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>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.</li> <li>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.</li> </ul>	<ul> <li>The Stella Prospect is located within EL8571, located 1km to the west of Bobadah, NSW, and is 100% owned by Haverford Holdings Pty Ltd (a wholly owned subsidiary of Talisman Mining Limited).</li> <li>The Rip &amp; Tear Prospect is located within EL8615, located 5km to the west-southwest of Bobadah, NSW, and is 100% owned by Haverford Holdings Pty Ltd (a wholly owned subsidiary of Talisman Mining Limited).</li> <li>The Central Lachlan Copper Gold Project currently comprises 16 granted exploration licences:         <ul> <li>EL8414 held in joint venture by Haverford (87% participating interest) and Peel Mining Limited (13% participating interest) and Peel Mining Limited (13% participating interest) (Refer Talisman ASX announcement 20 October 2020 for full details); and</li> <li>EL8547, EL8571, EL8615, EL8677, EL8658, EL8659, EL8680, EL8719, EL9298, EL9299, EL9302, EL9306, EL9315, EL9379 and EL9462 held 100% by Haverford.</li> </ul> </li> <li>Native Title Claim NC2012/001 has been lodged over the area of the following tenements by NTSCORP Ltd on behalf of the Ngemba, Ngiyampaa, Wangaaypuwan and Wayilwan traditional owners;         <ul> <li>EL8414, EL8571, EL8615, EL8677, EL8658, EL8659, EL9298, EL9299, EL9302, EL9304, EL9299, EL9305, EL9315, EL9379 and EL9462</li> <li>All tenements are in good standing and there are no existing known impediments to exploration or mining.</li> </ul></li></ul>
Exploration done by other	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>The Lachlan Copper-Gold Project has been subject to exploration by numerous previous explorers.</li> </ul>
parues		<ul> <li>Exploration work on has included diamond, RC and Air Core drilling, ground and down-hole EM surveys, soil sampling, geological interpretation and other geophysics (magnetics, gravity).</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>The Lachlan Copper-Gold Project lies within the Central Lachlan Fold belt in NSW.</li> <li>The Lachlan Copper-Gold Project is considered prospective for epithermal style base-metal and precious metal mineralisation, orogenic mineralisation,</li> </ul>
Drill-hole Information	• A summary of all information material to the understanding of the exploration results	<ul> <li>and Cobar style base-metal mineralisation.</li> <li>Historical drilling intercepts have been appropriately referenced to source information.</li> </ul>





Criteria	JORC Code explanation	Commentary
	including a tabulation of the following information for all Material drill-holes:	
	• easting and northing of the drill-hole collar	
	<ul> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill-hole collar</li> </ul>	
	• dip and azimuth of the hole	
	down hole length and interception depth	
	hole length.	
	<ul> <li>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 understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually material and should be stated.</li> </ul>	Not applicable to this release.
	<ul> <li>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.</li> </ul>	
	<ul> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	Not applicable to this release
	<ul> <li>If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.</li> </ul>	
	<ul> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	
Diagrams	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.	<ul> <li>Appropriate maps with scale are included within the body of the accompanying document.</li> </ul>





Criteria	JORC Code explanation	Commentary
Balanced reporting	• 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.	<ul> <li>All relevant data is reported and provides an appropriate representation of the results</li> <li>The accompanying document is considered to represent a balanced report.</li> </ul>
Other substantive exploration data	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.	All meaningful and material information is reported.
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Planned future work at the Lachlan Copper-Gold Project includes soil sampling, auger drilling, RC/ diamond drilling and geophysical surveys.</li> </ul>

