

17 May 2018

# NSW Lachlan Cu-Au Project Update

#### Large Cu-Zn-Pb Anomaly at Bobabah Project Area

#### Regulatory approval received for maiden targeted RC drilling program at Blind Calf Prospect

### Highlights

- Large base-metal anomaly identified in first phase of auger drilling at Bobadah Project area with strong, coincident, Cu-Zn-Pb results:
  - Anomaly extends for 1 kilometre along strike and is adjacent to the regionally significant Gilmore Suture fault zone
  - Follow up work to include RC drill testing, down-hole and surface geophysical surveys
- Phase 2 of the Bobadah Project area auger drilling campaign underway focused on historic copper and lead mining areas south east of the new Cu-Zn-Pb anomaly
- Work programs for Phase 3 auger drilling submitted to test the south east extension of the Mineral Hill mineralisation corridor within Boona Project area
- Maiden RC drilling campaign in NSW planned to commence late this month following work program approval from NSW Department of Energy and Resources
  - 1,000 metre RC drilling program to test existing high-grade copper lode extensions along strike and at depth at the Blind Calf Prospect
- Planning underway for further RC/diamond drilling to test:
  - Historic gold mineralisation and IP anomaly at Cumbine Prospect within Bobadah Project area
  - Newly identified geochemical anomalies from recent auger drilling at Bobadah Project area
  - Parallel lode systems identified in historic drilling at Blind Calf Prospect and structural targets at wider Boona Project area



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#### Auger Drilling at Bobadah Project Area

Talisman Mining Ltd (ASX: **TLM**; "**Talisman**") is pleased to announce that the initial analysis of samples from the first phase of auger drilling over the Bobadah Project area of the Lachlan Copper-Gold Project in NSW (*Appendix 1*) has resulted in the definition of a large, coherent base metal anomaly which extends for approximately 1 kilometre along strike of the regionally significant Gilmore Suture fault zone.

Initial portable XRF analysis has identified a strong coincident copper-zinc-lead anomaly in the northern most area covered by sampling. The anomaly extends over three of the 300 metre spaced traverses and shows consistently high copper, zinc and lead grades for over 400 - 600 metres across strike, defined by greater than 300ppm zinc (*Figure 1*).

The coincident base-metal anomalies are associated with abundant brecciated and gossanous iron rich quartz vein outcrop and strong manganese alteration of the surrounding host rocks, which is indicative of epithermal style mineralisation. (*Figure 3*)



Figure 1: Auger geochemistry showing Cu (left hand side) and Zn (right hand side) anomalism at Bobadah Project area





The anomaly has a strong correlation with the regionally important NW-SE trending Gilmore Suture fault zone, which hosts economic mineralisation at the Mineral Hill base metal mine to the south east as well as numerous other historic gold and base metal mines to the north and south including the Bobadah, Babinda, Mt Boppy and Blind Calf mining centres (*Appendix 1*). Importantly, mineralisation in these areas appears to be associated with the intersection of N-S trending structures and NW-SE trending regional structures. These same trends can be observed in the copper, zinc and lead geochemical data, adding further significance to this newly highlighted area.

Shallow (<2m) geochemical sampling was conducted on a nominal 300m x 50m grid pattern over selected geological and geophysical target areas (*Figure 2*). Bottom of hole samples were collected from auger drilling, designed to penetrate the shallow transported cover sequences to allow a consistent residual sample media.



Figure 2: Phase 1 Auger drilling campaign – Bobadah Project area



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Samples were initially analysed on site for base metals using a portable XRF with sampling then dispatched to ALS laboratories in Orange NSW for gold analysis. Two batches of samples have already been dispatched with gold assays anticipated to be returned prior to the end of May.

Portable XRF analysis of samples from the southern portion of the sampled area (including the southern portion of the Cumbine Prospect) is currently underway.



Figure 3: Gossanous iron rich quartz outcrop from the Bobadah Project area

#### **Next Steps**

Planning is underway for an RC drill program and geophysical survey to test these newly identified geochemical anomalies and also to follow up known historic gold mineralisation and an existing untested IP anomaly at the Cumbine Prospect located within the same region of the Bobadah Project area.

As previously announced Talisman has also identified a number of other geological target areas through a review of historic data sets. Talisman will continue to geochemically test these target areas with auger drilling campaigns. Phase 2 is currently underway at the historic Rip & Tear lead mining centre and Phase 3 and 4 are planned at the south-east extensions of the Mineral Hill and Blind Calf mineralisation corridors (*Figure 4*).





#### Maiden RC Drilling Program at Blind Calf Prospect in Boona Project area

Final departmental approvals for a 1,000 metre RC drilling campaign at the Blind Calf Prospect (*Figure 4*) have now been received from the NSW Department of Energy and Resources. Mandatory environmental and other stakeholder notice periods are set to expire on 25 May 2018 and drilling is planned to commence shortly thereafter.

On-site earthworks have commenced including access track maintenance and other logistics to facilitate the commencement of drilling activities.



Figure 4: Boonah Project area showing upcoming RC targeted drilling at Blind Calf and upcoming Phase 3 and 4 auger drilling.





#### Ends

For further information, please contact:

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#### **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 holds a 30% interest in the Springfield Joint Venture with Sandfire Resources NL (70% and JV manager). Springfield is located in a proven VMS province in Western Australia's Bryah Basin and contains multiple prospective corridors and active exploration activities. Springfield hosts the high-grade Monty copper-gold deposit which is located 10 kilometres from Sandfire's DeGrussa operations. Monty is one of the highest-grade copper-gold discoveries made globally in recent decades and a Feasibility Study on its development was completed in March 2017. The Feasibility Study highlighted the strong technical and financial viability of Monty. The Monty deposit is currently under development and Talisman has secured project debt financing for 100% of its share of pre-production capital costs.

Talisman also holds 100% of the Sinclair Nickel Project located in the world-class Agnew-Wiluna greenstone belt in WA's north-eastern Goldfields. The Sinclair nickel deposit, developed and commissioned in 2008 and operated successfully before being placed on care and maintenance in August 2013, produced approximately 38,500 tonnes of nickel at an average life-of-mine head grade of 2.44% nickel. Sinclair has extensive infrastructure and includes a substantial 290km2 tenement package covering more than 80km of strike in prospective ultramafic contact within a 35km radius of existing processing plant and infrastructure.

Talisman has also secured tenements in the Cobar/Mineral Hill region in Central NSW through the grant of 100% owned Exploration Licenses and through separate earn-in Joint Venture and tenement purchase agreements. 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 own and Joint Venture 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.

#### **Competent Person's Statement**

Information in this ASX release that relates to Exploration Results and Exploration Targets is based on information completed by Mr Anthony Greenaway, who is a member of the Australasian Institute of Mining and Metallurgy. Mr Greenaway 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 "Australian Code for Reporting of Mineral Resources and Ore Reserves". Mr Greenaway consents to the inclusion in this report of the matters based on information in the form and context in which it appears.

<sup>*i*</sup> Result taken from CRA Exploration Pty Ltd report GS1978/259.R00023043 and Result taken from Triako Resources Ltd report R000300065. Geological Survey of NSW DIGS reporting system





#### **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. 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.





Appendix 1 Lachlan Copper- Gold Project tenure







#### Section 1 Sampling Techniques and Data

	(Criteria in this section apply to a	•
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> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>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.</li> </ul>	<ul> <li>Drilling cited in this report was completed by Talisman Mining Limited.</li> <li>Sampling techniques employed at the Lachlan Copper-Gold Project include auger bottom of hole sampling.</li> <li>Samples were sieved on-site to minus 175µ and analysed for base metals on-site via portable XRF ("PXRF"). Sieved samples were dispatched for analysis by aqua regia digest with an ICP/OES or AAS finish at ALS laboratories.</li> </ul>
Drilling techniques	<ul> <li>Drill type (e.g. core, reverse circulation, openhole 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).</li> </ul>	Surface drill holes at the Lachlan Copper-Gold Project were completed using auger drilling techniques.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <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>	<ul> <li>Auger sample recovery is generally good with no wet sampling in the project area.</li> <li>No known relationship exists between recovery and grade and no known bias exists.</li> </ul>
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	Qualitative logging of the bottom-of-hole is completed according to the nature, weathering and interpreted protolith of the sample.
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> </ul>	<ul> <li>A single bottom of hole auger samples is collected from each location and sieved to minus 175µm on site.</li> <li>Sieved samples are analysed for base metals on-site via PXRF. Sieved samples were dispatched for wet chemical analysis by aqua regia digest with an ICP/OES</li> </ul>



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Criteria	JORC Code explanation	Commentary
Quality of	<ul> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <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> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> <li>The nature, quality and appropriateness of</li> </ul>	<ul> <li>or AAS finish.</li> <li>QAQC protocols for all auger sampling involved the use of Certified Reference Material ("CRM") as assay standards.</li> <li>All QAQC controls and measures were routinely reviewed.</li> <li>Sample size is considered appropriate for low-level geochemical sample for base-metal and gold mineralisation</li> <li>QAQC protocols for all auger sampling involved the use</li> </ul>
assay data and laboratory tests	<ul> <li>the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <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>	<ul> <li>CACC protocols for all adget sampling involved the use of CRM as assay standards.</li> <li>All auger assays are required to conform to the procedural QAQC guidelines as well as routine laboratory QAQC guidelines.</li> <li>All QAQC controls and measures were routinely reviewed.</li> <li>Lab checks (repeats) occurred at a frequency of 1 in 25. PXRF instrument, Innovex Delta Gold, is used for qualitative and semi-quantitative field analysis of basemetals in regolith geochemical auger samples.</li> <li>The PXRF instrument is routinely calibrated using a calibration standard. CRM samples are included at a frequency of 1:50 and field duplicate samples are included at a frequency of 1:50.</li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <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>	<ul> <li>Logging and sampling data is captured and imported using Ocris software.</li> <li>Assay data is downloaded directly from the PXRF instrument.</li> <li>Primary laboratory assay data is always kept and is not replaced by any adjusted or interpreted 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>Sample locations are collected using a handheld GPS. Saved data is downloaded directly into GIS mapping software</li> <li>The coordinate system used is the Geocentric Datum of Australia (GDA) 1994. Coordinates are in the Map Grid of Australia zone 55 (MGA).</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>	<ul> <li>Auger sample spacing at the Lachlan project was nominally 300m x 50m.</li> </ul>



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Criteria	JORC Code explanation	Commentary
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> </ul>	<ul> <li>Samples were taken according to observations at the time in the field.</li> </ul>
	<ul> <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>	
Sample security	<ul> <li>The measures taken to ensure sample security.</li> </ul>	<ul> <li>Samples are sieved on site and placed in bags in the field.</li> </ul>
		<ul> <li>Samples are transported to a field base camp and analyses for base metals via PXRF</li> </ul>
		<ul> <li>Samples were dispatched for wet chemical analysis via courier to ALS Laboratories.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No external audits or reviews of the sampling techniques and data have been completed.</li> </ul>





# Section 2 Reporting of Exploration Results (Criteria listed in the preceding section also apply to this section)

(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 Lachlan Copper- Gold Project is held 100% by Haverford Holdings Pty Ltd, a wholly owned subsidiary of Talisman Mining Limited.</li> <li>There are no known Native Title Claims over the Lachlan Copper-Gold Project.</li> <li>All tenements are in good standing and there are no existing known impediments to exploration or mining.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>The Lachlan Copper-Gold Project has been subject to exploration by numerous previous explorers.</li> <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, and Cobar style base-metal mineralisation.</li> </ul>
Drill-hole Information	<ul> <li>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: <ul> <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> </li> <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>	No drill hole information is included in this report.
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> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure</li> </ul>	<ul> <li>No drilling results are reported in this report</li> <li>No metal equivalents have been used</li> <li>Data presented is based upon Cu, Zn &amp; Pb analysis of regolith samples via PXRF.</li> </ul>



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Criteria	JORC Code explanation	Commentary
	used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	
	<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	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill-hole angle is known, its nature should be reported.</li> <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>	No drill hole information is included in this report.
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>
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>Contouring of geochemical PXRF data 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 auger sampling, RC/ diamond drilling and geophysical surveys.</li> </ul>



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