

23 September 2015

## Drilling of bedrock conductor at Burton commenced

Australian Mines Limited (“Australian Mines” or “the Company”) is pleased to advise shareholders that the Company has commenced a reverse circulation (RC) drilling program at its Doolgunna-Marymia Project in Western Australia to test a number of high priority targets.

These targets include the Burton prospect where a high-powered surface electromagnetic (EM) survey completed by the Company over the past six weeks has detected a strongly conductive body buried at this target area.

Located beneath an extensive copper-in-soil geochemical anomaly<sup>1</sup>, the source of the bedrock conductor at Burton appears to have a strike length of 175 metres and extends almost from surface down to a depth of 650 metres. The apparent position of the Burton conductor in close proximity to the regional Jenkin Fault is also viewed by the Company as significant as this geological structure is considered a key control of the nearby DeGrussa copper-gold ore bodies.

Encouragingly, previous drilling by Australian Mines east of the Burton prospect conductor intersected a thick zone of anomalous copper and zinc<sup>2</sup>, and historic air core drilling completed along strike of the Burton conductor similarly returned highly anomalous copper assay results<sup>3</sup>.

The Company anticipates that current RC drill campaign at Burton will take up to 10 days to complete with the final assay results expected by late October.

**Managing Director Benjamin Bell commented**, “Covering more than 1,300 square kilometres of contiguous prospective geology, Australian Mines has established a strong ground position in the emerging Doolgunna copper province of Western Australia through its Doolgunna-Marymia joint venture project.

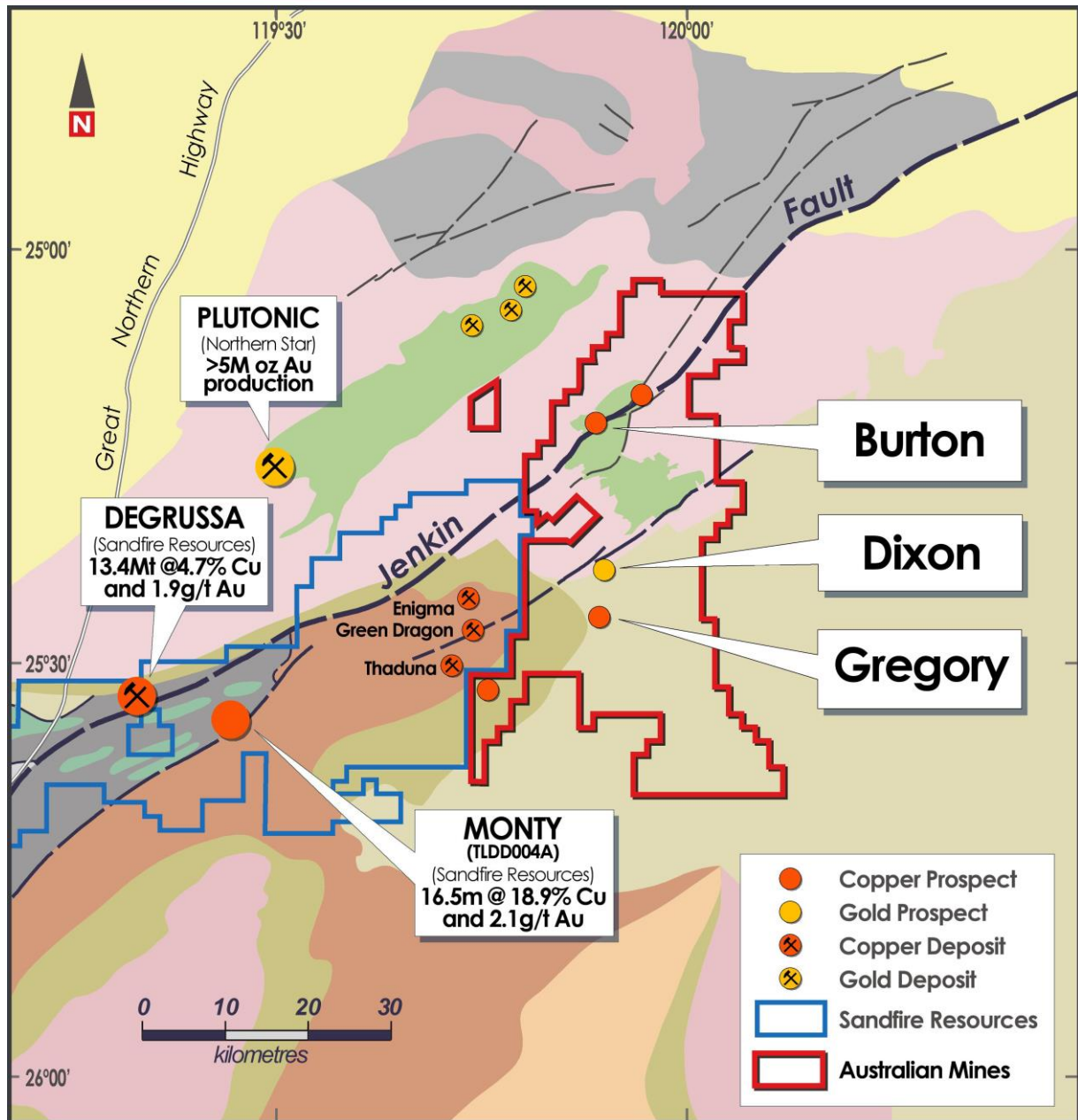
The recent detection of a strong and discrete bedrock conductive body beneath an extensive copper-in-soil anomaly at the Company’s Burton prospect represents significant progress in Australian Mines’ pursuit to discover a VMS body within its Doolgunna-Marymia tenements.

The Company’s exploration team has moved expeditiously to drill test this prospective base metal target and we look forward to updating shareholders on the results of the current drill program as they become available”.

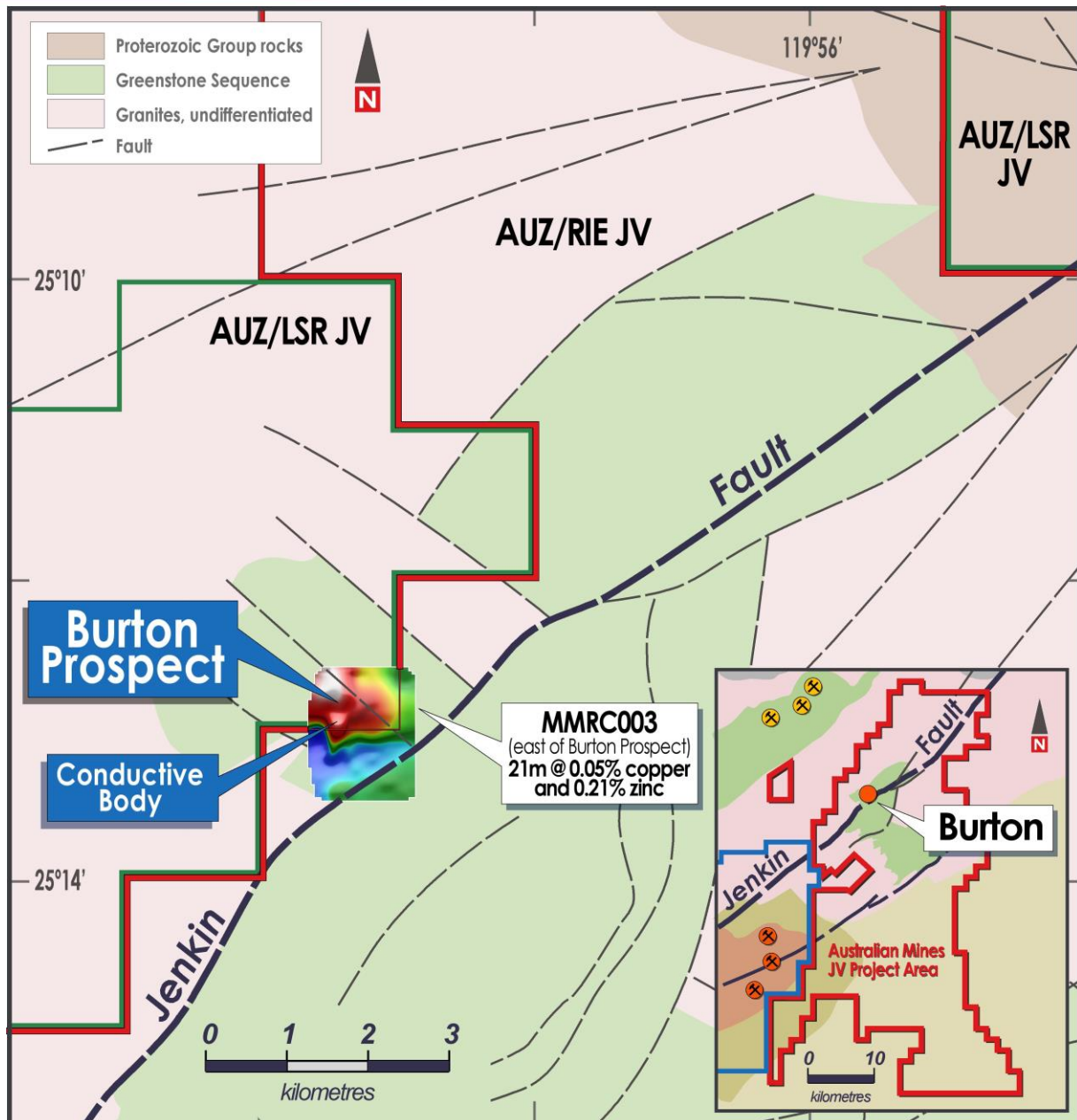
<sup>1</sup> Lodestar Minerals Limited, September 2013 Quarterly Activities Report, released 30 October 2013

<sup>2</sup> Australian Mines Limited, Copper & zinc mineralisation intersected along Jenkin Fault, released 18 June 2015

<sup>3</sup> Australian Mines Limited, Quarterly Activities Report for the period ended 30 June 2015, released 31 July 2015



**Figure 1:** Australian Mines' Doolgunna-Marymia Project is located 45 kilometres east, and along strike of, Sandfire's DeGrussa Copper-Gold Mine. The recently discovered massive copper sulphide mineralisation at the Monty prospect (Sandfire –Talisman joint venture) is similarly within 35 kilometres of the Company's project area.



**Figure 2:** A ground-based electromagnetic (EM) survey completed over a section of the Jenkin Fault within Australian Mines' Doolgunna-Marymia Project successfully detected a late-time bedrock conductor at the Burton prospect.



**Figure 3:** Australian Mines has commenced its reverse circulation (RC) drill program at Burton with the final results expected by late October.

**\*\*\*ENDS\*\*\***

**For further information, shareholders and media please contact:**

Benjamin Bell

Managing Director

Ph: +61 8 9481 5811

E: [bbell@australianmines.com.au](mailto:bbell@australianmines.com.au)

**Competent Person's Statement**

Information in this report that relates to Doolgunna-Marymia Project Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Benjamin Bell who is a member of the Australian Institute of Geoscientists. Mr Bell is a full-time employee and Managing Director of Australian Mines Limited. Mr Bell has sufficient experience that is relevant to the styles of mineralisation and types 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 Bell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



## **About Australian Mines**

Australian Mines Limited (ASX: AUZ) is an Australian-listed resource company targeting copper, nickel and gold deposits. The Company is actively exploring the Doolgunna-Marymia region of Western Australia, which has demonstrated the potential to host significant base metal and gold mineralisation including Sandfire's DeGrussa Copper-Gold Mine and Northern Star's Plutonic Gold Mine. The Company is also holds 100% interest in the Marriotts Nickel Project near Leinster, Western Australia.

### **Doolgunna – Marymia Project**

#### **Agreement to earn up to 80% interest in E52/2440, E52/2444, E52/2456, E52/2492, E52/2493 & E52/2468**

Australian Mines entered into a Farm-in and Joint Venture Agreement with Lodestar Minerals (ASX: LSR) in June 2015 in respect of All Minerals Excluding Gold within the tenements of E52/2440, E52/2444, E52/2456, E52/2492, E52/2493 and E52/2468.

Under the terms of the agreement announced on 11 June 2015, Australian Mines may acquire a 51% interest in these tenements by spending \$1 million on exploration within an initial two-year period and making a \$250,000 payment to Lodestar in December 2015.

Following the acquisition of the initial 51%, Australian Mines may elect to acquire an additional 29% interest (taking the total to 80%) in these tenements by spending a further \$2 million on exploration within a further 24-month period.

#### **Agreement to earn up to 80% interest in E52/2394 & E52/2395**

Australian Mines signed a Heads of Agreement with Riedel Resources (ASX: RIE) in April 2014 covering the tenements E52/2394 and E52/2395.

As announced on 29 May 2015, Australian Mines currently holds a 51% interest in these tenements and the Company has elected to acquire an additional 29% interest in the project (taking the total to 80%) by spending a further \$2 million on exploration by May 2018.

### **Marriotts Nickel Project**

#### **100% interest in Mining Lease 37/96**

Australian Mines holds a 100% interest in the Marriotts Nickel Project in Western Australia, which hosts a current Mineral Resource of: Indicated 460,000t @ 1.12% Ni plus Inferred 370,000t @ 1.13% Ni (reported at 0.5%Ni lower cut-off grade)<sup>4</sup>.

<sup>4</sup> Australian Mines Limited, Annual Report for the year ended 30 June 2015, released 17 September 2015



## Appendix 1: JORC Code, 2012 Edition

### Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <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.</li> <li>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 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 (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<p><b>Doolgunna-Marymia Project</b></p> <ul style="list-style-type: none"> <li>Outer-Rim Exploration undertook a ground-based moving loop and fixed loop electromagnetic survey over selected targets within the Doolgunna-Marymia project area on behalf of Australian Mines in August and September 2015.</li> </ul> <p>The line spacing for this survey was 200 metres. The along line station spacing for the survey was 100 metres. At least two readings were acquired at each station in order to ensure data repeatability.</p> <p>An in-fill fixed loop electromagnetic survey was completed over a discrete late-time anomaly at the Burton prospect. The line spacing of this in-fill survey was 100 metres with an along line station spacing of 50 metres.</p> <p>Quality assurance and quality control (QA/QC) of the electromagnetic data was independently verified by Southern Geoscience Consultants in Perth.</p>
<b>Drilling techniques</b>	<p>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.)</p>	<p><b>Doolgunna-Marymia Project</b></p> <ul style="list-style-type: none"> <li>The accompanying report does not contain any drill-related results.</li> </ul>



## Drill sample recovery

- Method of recording and assessing core and chip sample recoveries and results assessed.
- Measures taken to maximise sample recovery and ensure representative nature of the samples.
- 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.

## Doolgunna-Marymia Project

- The accompanying report does not contain any drill-related results.

## Logging

- 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.
- Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.
- The total length and percentage of the relevant intersections logged.

## Doolgunna-Marymia Project

- The accompanying report does not contain any drill-related results.

## Sub-sampling techniques and sample preparation

- If core, whether cut or sawn and whether quarter, half or all core taken.
- If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.
- For all sample types, the nature, quality and appropriateness of the sample preparation technique.
- Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.
- 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.
- Whether sample sizes are appropriate to the grain size of the material being sampled.

## Doolgunna-Marymia Project

- The accompanying report does not contain any drill-related results.



## Quality of assay data and laboratory tests

- The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.
- 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.
- 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.

## Doolgunna-Marymia Project

- The accompanying report does not contain any drill-related results.
- The survey parameters and geophysical equipment used by Outer-Rim Exploration for the electromagnetic survey at Doolgunna-Marymia includes:

### Survey Parameters

Survey line direction: North-South

Line spacing: 200 - 100 metres

Station spacing: 100 - 50 metres

### Receiver

Receiver: SMARTem 24

B-field sensor: 3-component fluxgate

Component: X,Y,Z

### Transmitter

Transmitter: ORE HP

Transmitter loop dimensions: 1200 x 700 metre (single turn)

Transmitter frequency: 1 Hertz

Transmitter current: 120 Amps

At least two readings were acquired at each station in order to ensure data repeatability.

The moving loop and fixed loop systems are fully calibrated and daily tests were carried out to ensure data quality.

## Verification of sampling and assaying

- The verification of significant intersections by either independent or alternative company personnel.
- The use of twinned holes.
- Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.
- Discuss any adjustment to assay data.
- All primary analytical data acquired by Outer-Rim Exploration during the electromagnetic survey were recorded digitally and sent in electronic format to Southern Geoscience Consultants in Perth for independent quality control and evaluation.





## Location of data points

- 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.
- Specification of the grid system used.
- Quality and adequacy of topographic control.

### Doolgunna–Marymia Project

- The data points of Outer-Rim Exploration’s survey were located using standard GPS positioning.

The expected accuracy is +/- 5 metres for easting and northings and 10 metres for elevation coordinates. Elevation values are in AHD.

The grid system used is Map Grid of Australia (MGA) GDA94 Zone 50.

## Data spacing and distribution

- Data spacing for reporting of Exploration Results.
- 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.
- Whether sample compositing has been applied.

### Doolgunna-Marymia Project

- The accompanying report does not contain any drill-related results.

The line spacing for the moving loop electromagnetic survey was 200 metres. The along line station spacing for the initial survey was 100 metres. This station spacing tightened to 50 metres for the in-fill survey lines at the Burton prospect.

## 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.
- 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.

### Doolgunna-Marymia Project

- The accompanying report does not contain any drill-related results.

## Sample security

- The measures taken to ensure sample security.

- The chain of custody is managed by Australian Mines.

## Audits or reviews

- The results of any audits or reviews of sampling techniques and data.

- Experienced geophysicists at Southern Geoscience Consultants in Perth independently reviewed all data acquired from the electromagnetic survey at Doolgunna-Marymia.



## Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<p><b>Mineral tenement and land tenure status</b></p>	<ul style="list-style-type: none"> <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>	<p><b>Doolgunna-Marymia Project</b></p> <ul style="list-style-type: none"> <li>The Doolgunna-Marymia Project is located within the Western Australian exploration licences of E52/2440, E52/2444, E52/2456, E52/2468, E52/2492, E52/2493, E52/2394 and E52/2395.</li> </ul> <p>On 30 April 2014, Australian Mines announced it had signed a Heads of Agreement with Riedel Resources (ASX code: RIE) in relation to licences E52/2394 and E52/2395.</p> <p>On 30 May 2015, Australian Mines reported that the Company had earned a 51% interest in tenements E52/2394 and E52/2395, and the Company has elected to acquire an additional 29% interest in the project (taking the total to 80%) by spending a further \$2 million on exploration by May 2018</p> <p>On 11 June 2015, Australian Mines announced it had entered into a Farm-in and Joint Venture Agreement with Lodestar Minerals (ASX code: LSR) in relation to exploration licences E52/2440, E52/2444, E52/2456, E52/2468, E52/2492, and E52/2493.</p> <p>The Company's Doolgunna-Marymia exploration licences are within the Marymia and Ned's Creek Pastoral Leases and contained within the Native Title Claim boundaries of the <i>Gingirana</i> (WAD6002/03) and <i>Yugunga-Nya</i> (WAD6132/98) Traditional Owners.</p> <p>All exploration licences are currently in good standing with no impediments to exploration known to exist at the time of writing.</p>
<p><b>Exploration done by other parties</b></p>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<p><b>Doolgunna-Marymia Project</b></p> <ul style="list-style-type: none"> <li>Limited exploration has previously been undertaken across the priority target areas of the Company's Doolgunna-Marymia Project by other companies.</li> </ul> <p>A summary of the historic anomalies and drill intersections are outlined in Riedel Resources' Prospectus released on 23 November 2010 and Lodestar's 2013 Annual Report released on 25 September 2013.</p>



## Geology

- Deposit type, geological setting and style of mineralisation.

### Doolgunna-Marymia Project

- Australian Mines are targeting three types of mineral deposits at Doolgunna-Marymia;
  - (i) DeGrussa-style volcanogenic massive sulphide copper-gold
  - (ii) Kambalda-style komatiite-hosted nickel sulphide, and
  - (iii) Plutonic-style Archaean gold.

The Doolgunna-Marymia project overlies the eastern continuation of the Bryah Basin, considered the host of Sandfire's DeGrussa and Monty copper-gold mineralisation.

The Baumgarten Greenstone Belt located in the eastern half of the Company's Doolgunna-Marymia Project is interpreted as northern extension of the Eastern Goldfields Province of the Yilgarn Craton.

## Drill hole Information

- 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:
  - easting and northing of the drill hole collar
  - elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar
  - dip and azimuth of the hole
  - down hole length and interception depth
  - hole length.
- 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.

### Doolgunna-Marymia Project

- The accompanying report does not contain any drill-related results.

A summary of historic exploration results, including a tabulation of the Material drill holes for the project are outlined in the Company's announcement of 18 June 2015, Riedel Resources' Prospectus released on 23 November 2010, and Lodestar's 2013 Annual Report released on 25 September 2013.



## Data aggregation methods

- 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.
- 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
- The assumptions used for any reporting of metal equivalent values should be clearly stated.

## Doolgunna-Marymia Project

- The accompanying report does not contain any drill-related results.

## Relationship between mineralisation widths and intercept lengths

- These relationships are particularly important in the reporting of Exploration Results.
- If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.
- 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').

## Doolgunna-Marymia Project

- The accompanying report does not contain any drill-related results.

## 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.

- Appropriate maps are included in the body of this report.

## 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.

## Doolgunna-Marymia Project

- The accompanying document is considered to represent a balanced report.

Comprehensive report of the historic Exploration Results relied on by Australian Mines in this report are provided in Riedel Resources' Prospectus released via the ASX on 23 November 2010 and Lodestar's 2013 Annual Report released on 25 September 2013.



## 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.

## Doolgunna-Marymia Project

- Other exploration data collected by the Company is not considered material to this report at this stage. Further data collection will be reviewed and reported when considered material.

Historic exploration has been undertaken at the Doolgunna-Marymia project area by previous explorers with the results summarised in Riedel Resources' Prospectus released on 23 November 2010 and Lodestar's 2013 Annual Report released on 25 September 2013.

## Further work

- The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).
- Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.

## Doolgunna-Marymia Project

The Company is proposing to undertake further drilling and geophysical surveys (both surface and down hole) as part of its follow-up exploration at Doolgunna-Marymia.