

17 October 2014

## Expanded electromagnetic survey commenced at Simmons prospect, Marymia

Australian Mines Limited (“Australian Mines” or “the Company”) is pleased to report that following the encouraging results returned from its recently completed diamond drilling program at Simmons, the Company has commenced a follow-up electromagnetic (EM) survey over this prospective nickel sulphide region of Western Australia.

This newly commenced geophysical survey has been designed to identify bedrock conductors within the northern continuation of the Simmons ultramafic sequence that may reflect the presence of nickel sulphide mineralisation.

In addition to testing the extension of the komatiitic unit at Simmons, the current EM survey is also designed to test for potential Kambalda-style mineralisation at Company’s other high priority nickel targets, including<sup>1</sup>:

- MM001 – a surface geochemical anomaly extending for 1,200 x 800 metres with a strong, coherent nickel and copper response (peak nickel and copper values of 1,826ppm and 674ppm respectively)
- MM004 – a surface geochemical anomaly whose footprint exceeds 2,400 x 1,200 metres and is developed on a sub-cropping ultramafic lithology (peak values are 1,185ppm nickel + 283ppm copper).

Australian Mines’ Marymia Project hosts a sequence of folded komatiitic ultramafic rock with a combined strike length of 20 kilometres.

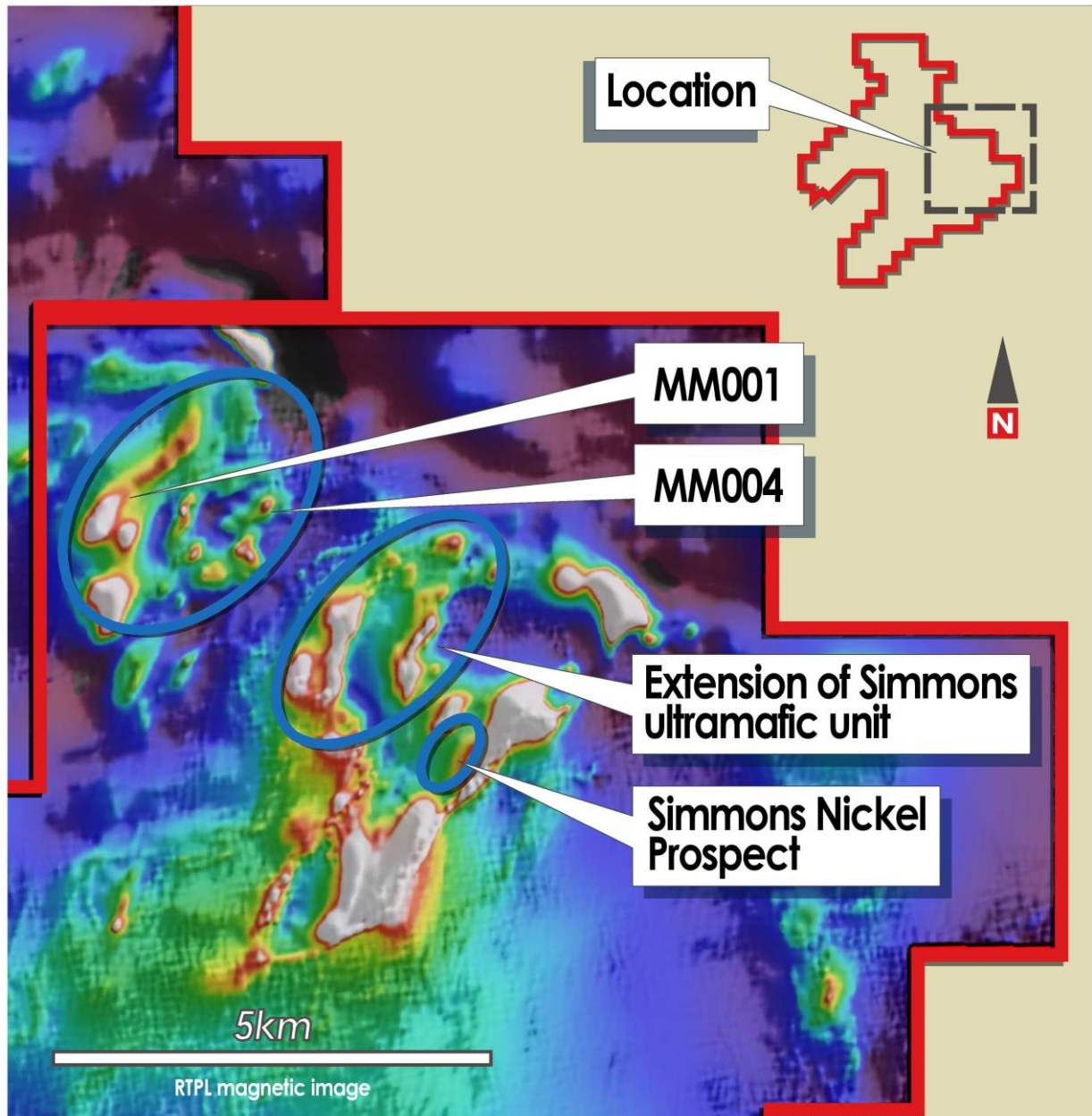
Independent researchers have previously concluded that the ultramafic sequence at Marymia may represent the northern extension of the Norseman-Wiluna nickel belt (being the richest komatiite-hosted nickel belt in the world)<sup>2</sup>.

The subsequent reporting of nickel mineralisation within the oxide layer at Marymia, which included 4 metres @ 1.07% nickel from 28 metres<sup>3</sup>, appears to lend support to their opinion regarding the potential of this project area to host nickel sulphide mineralisation.

<sup>1</sup> Falcon Minerals Limited, Annual Technical Report – Marymia Project, submitted to the Western Australian Department of Mines and Petroleum in November 2006

<sup>2</sup> Hoatson, D.M., Jaireth, S. & Jaques, A.L., 2006, Nickel sulphide deposits in Australia, *Ore Geology Reviews*, 29, 177-241

<sup>3</sup> Riedel Resources Limited, 2013 Annual Report, released 12 September 2013



**Figure 1:** The ground-based electromagnetic survey currently in progress at Australian Mines' Marymia Project is testing the northern extension of the Simmons ultramafic unit and a number of priority surface geochemical anomalies including the MM001 and MM004 target zones for indications of potential buried massive sulphide mineralisation. The background of this figure is high-resolution aeromagnetics (areas coloured white represents areas of high magnetic responses and regions shaded blue represent areas of low magnetic response). Ultramafic rocks hosting Kambalda-style nickel mineralisation are often more magnetic than the surrounding rocks<sup>4</sup>.

<sup>4</sup> Craven, B., Rovira, T., Grammer, T. & Styles, M., 2000, The role of geophysics' in the discovery and delineation of the Cosmos Nickel Sulphide Deposit, Leinster area, Western Australia, *Exploration Geophysics*, 31, 201-209.



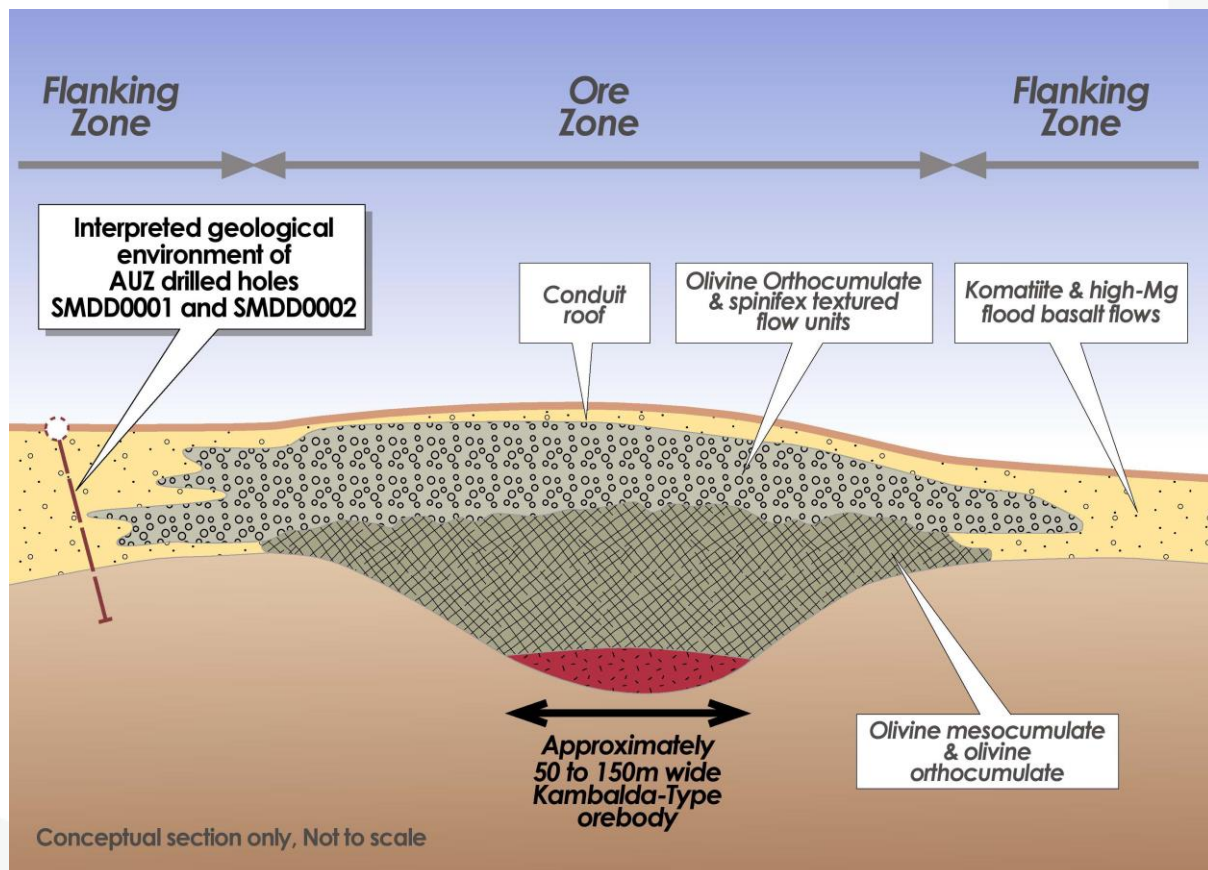
In June 2014, Australian Mines trialed a ground-based EM survey over selected targets across its Marymia Project. During this first-pass geophysical program, three areas (totalling 6 kilometres of strike) were tested for potential buried nickel sulphide mineralisation.

One of the three areas tested by Australian Mines during its first phase of EM was an historic nickel-in-soil anomaly located near the interpreted basal contact of ultramafic unit. The geophysical survey of this geochemical anomaly successfully detected a strongly conductive body at depth and the Company drill tested this target (referred to as the Simmons nickel prospect) in September 2014.

As announced by the Company on 30 September 2014, preliminary results from the two-hole diamond core drill program at Simmons intersected two distinct sulphide zones, including a four-metre wide sulphide zone near the base of the ultramafic sequence.

The assay results from these drill holes are currently pending.

Whilst it appears that this zone predominantly comprised pyrrhotite (iron sulphide), it definitively confirmed that the ultramafic sequence at Marymia does host sulphides indicating the potential for the project to host Kambalda-style massive nickel sulphide mineralisation.



**Figure 2:** Schematic cross-section of a typical Kambalda-style nickel deposit. Preliminary results from Australian Mines' maiden drilling program at Simmons suggest that the Company's diamond core holes (SMDD001 and SMDD002) were located within the Flanking Zone of the ultramafic sequence. (Image modified from Hoatson et al., 2006, Nickel sulphide deposits in Australia, *Ore Geology Reviews*, 29, 177-241).





Preliminary observations and geological logging of the Simmons diamond core suggest that both drill holes may be located in the 'Flanking Zone' of a komatiitic unit, as depicted conceptually in Figure 2.

The primary objective of the current EM survey is therefore to identify any potential channel flow or "Ore Zone" at the Simmons prospect and determine the approximate size and depth of any bedrock conductor.

Australian Mines anticipates that this expanded EM survey will be completed by late November and the Company will seek to drill test any resulting targets in December.

**Managing Director Benjamin Bell commented:** "Following the encouraging early indications received from the Simmons diamond drilling campaign, Australian Mines is moving quickly to broaden its nickel exploration program across the Marymia project area.

The presence of sulphides near the targeted horizon together with confirmation of the favourable geological setting at Simmons indicates that this region has the potential to host Kambalda-style nickel mineralisation. The task for the Company now is to identify and test any potentially mineralised channel zone, being the primary objective to the current EM survey.

The additional priority targets – including *MM001* and *MM004* – which will be targeted by the current EM survey, further demonstrates the highly prospective nature and exploration upside of this region. The Company will provide a further update on the progress of its exploration in due course."

**\*\*\*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)

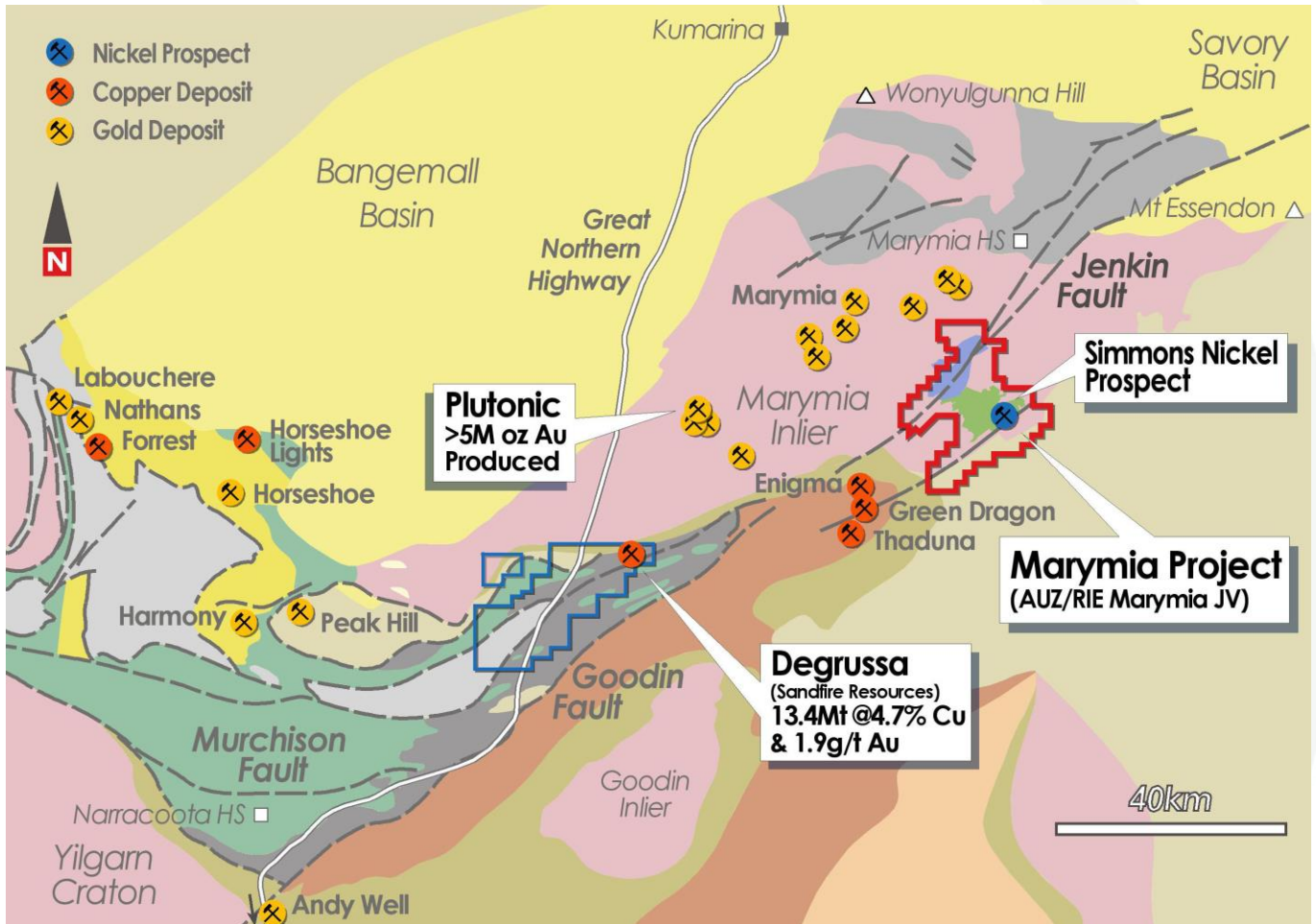
**Competent Person's Statement**

Information in this report that relates to 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 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 Bell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.



## Marymia Nickel-Copper-Gold Project (Agreement for Australian Mines to earn up to 80%)

Australian Mines has entered into a Heads of Agreement with Riedel Resources covering the Marymia nickel-copper-gold project, located 55 kilometres northeast and along strike of Sandfire Resources' world class DeGrussa copper-gold mine. Under the terms of this Agreement announced on 30 April 2014, Australian Mines may acquire a 51% interest in the Marymia project by making a cash payment to Riedel Resources of \$250,000 by 30 October 2014 and spending \$1 million on exploration within an initial two-year period. Following the acquisition of the initial 51%, Australian Mines may elect to acquire an additional 29% interest (taking the total to 80%) in the project by spending a further \$2 million on exploration within a further 36-month period.





## Appendix 1: Exploration Drilling Results

**Table 1: Simmons Diamond Core Drill Program**

Hole ID	Depth (m)	North (MGA50)	East (MGA50)	RL	Dip	Azimuth	Comments
SMDD001	600.7	7199080	801780	580	-60°	140°	<p>Ultramafic intersected at 526.6 metres down hole</p> <p>First sulphide zone – from 490.6 to 492.9 metres down hole</p> <p>Observed sulphides predominantly pyrrhotite &amp; pyrite</p> <p>Second sulphide zone – from 577.2 to 580.5 metres down hole</p> <p>Observed sulphides predominantly pyrrhotite &amp; pyrite, and minor chalcopyrite</p> <p><b>Assays pending</b></p>
SMDD002	630.8	7199076	801775	580	-60°	140°	<p>Ultramafic intersected at 504.8 metres down hole</p> <p>First sulphide zone – from 353.9 to 376.7 metres down hole</p> <p>Observed sulphides predominantly pyrrhotite &amp; pyrite</p> <p>Second sulphide zone – from 512.6 to 517.2 metres down hole</p> <p>Observed sulphides predominantly pyrrhotite &amp; pyrite</p> <p><b>Assays pending</b></p>

All co-ordinates are recorded in MGA Zone 50.

Drill hole collar co-ordinates were obtained using handheld GPS and are accurate to within +/- 5 metres.

Reduced Level (RL) is reported in metres above sea level.

Data entry and electronic storage of Australian Mines' assay data adheres to the industry's accepted protocols and is managed by rOREdata in Perth, Australia.



## Appendix 2: 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>	<ul style="list-style-type: none"> <li>No Australian Mines assay results or significant intersections are included in the accompanying report.</li> </ul> <p>The HQ diamond core was half-cut and sampled at one metre intervals.</p> <p>Sampling is guided by Australian Mines' protocols and QAQC procedures which were designed in consultation with SRK Consulting, Perth.</p> <p>All samples were submitted to the Bureau Veritas (UltraTrace) assay laboratory in Perth for Fire Assay and Four Acid ICP-OES analysis.</p> <p>Australian Mines analyse for the following elements: Au, Ag, Al, As, Ba, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sn, Sr, Te, Ti, Tl, V, W, Zn.</p>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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.)</li> </ul>	<ul style="list-style-type: none"> <li>The Simmons drill program referred to in the accompanying report involved two diamond core drill holes.</li> </ul> <p>Drill hole SMDD001 had an RC pre-collar to 96 metres down hole, with an HQ diamond tail to end of hole (being 600.7 metres).</p> <p>Drill hole SMDD002 had a rock roller pre-collar to 36 metres down hole, with an HQ diamond tail to end of hole (being 630.8 metres).</p> <p>The core was oriented and marked by the drill contractor (DDH1 drilling) using ACT Mk II electric core orientation.</p>



## 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.
- Diamond core recoveries are recorded during drilling and reconciled during the core processing and geological logging. No significant sample recovery problems appear to have occurred in either drill hole.

Insufficient drilling and geochemical data is available at present to evaluate potential sample bias. Australian Mines protocols, however, are followed to preclude any issues of sample bias due to material loss or gain.

## 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.
- Geological logging of drill core have been recorded for this drill hole, including lithology, mineralogy, texture, weathering, oxidation, colour and other features of the samples.

Drill core was not logged to any geotechnical standard and the data is insufficient to support Mineral Resource estimation at this stage.

The drill hole was logged in full to the end of the hole.

## 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.
- No Australian Mines assay results or significant intersections are included in the accompanying report.

The diamond core resulting from the Company's Simmons drill program was cut using an Almonte Diamond saw by Australian Mines personnel.

Half core was sampled on one-metre intervals.

Samples are dried and pulverised using industry standard methods by Bureau Veritas (UltraTrace) at their Perth assay laboratory.

All samples are pulverised to produce a 50-gram charge, which is analysed by Fire Assay and Four Acid ICP-OES.

The sample sizes are considered to be appropriate to correctly represent the sought after mineralisation style.





## 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.

- No Australian Mines assay results or significant intersections are included in the accompanying report.

Samples were submitted to Bureau Veritas (UltraTrace) in Perth and will be assayed using a Fire Assay and mixed four acid digest.

The samples are digested and refluxed with a mixture of acids including Hydrofluoric, Nitric, Hydrochloric and Perchloric acids and conducted for multi-elements including Au, Ag, Al, As, Ba, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sn, Sr, Te, Ti, Tl, V, W, Zn.

This method approaches a total digest for many elements although some refractory minerals may not be completely attacked.

The quality of the analytical results is monitored through the use of internal laboratory procedures to ensure the results are representative and within acceptable ranges of accuracy and precision.

## 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.

- No Australian Mines assay results or significant intersections are included in the accompanying report.

Primary data was collected using a set of standard Excel templates using lookup tables. The information was sent to the Company's external database consultant, rOREdata, for validation and compilation into Australian Mines' database.

No twinned hole drilling is proposed by Australian Mines at this stage.

No adjustments or calibrations were made to any assay values.

## 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.

- Drill hole collar locations were recorded using handheld Garmin GPS.

The expected accuracy is +/- 5 metres for easting and northings and 10 metres for elevation coordinates. Elevation values were 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.
- Australian Mines' maiden drill program at the Simmons prospect (Marymia Project) involved two diamond core drill holes targeting a geophysical anomaly interpreted for the Company's recently completed moving loop electromagnetic survey.

This drill data is not being used for estimating a Mineral Resource or modelling of grade at this stage in exploration.

No sample compositing was applied to the exploration results.

## 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.
- The diamond core holes are drilled towards 140 degrees at an angle of -60 degrees to intersect a modelled mineralised zone at a near perpendicular orientation. The orientation of the body however may be locally variable and any relationship to mineralisation has yet to be identified.

## Sample security

- The measures taken to ensure sample security.
  - The chain of custody is managed by Australian Mines.
- Samples are stored on site and are delivered by Australian Mines personnel directly to the assay laboratory.

## Audits or reviews

- The results of any audits or reviews of sampling techniques and data.
- Australian Mines' sampling techniques and data collection processes are of industry standard and have been subjected to internal reviews.

Any data received from the assay laboratories are independently verified by rOREdata in Perth, Australia.



## Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<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>	<ul style="list-style-type: none"> <li>The Marymia Project (and Simmons prospect) is located within the Western Australian exploration licences of 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 Limited (ASX code: RIE) in relation to the Marymia Project.</p> <p>Exploration licences E52/2394 and E52/2395 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>Exploration activities on E52/2394 and E52/2395 are permitted under agreements dated; 7 October 2010 between Audax Resources Ltd (a subsidiary of Riedel Resources) and the Yamatji Marlpa Aboriginal Corporation as agent for the <i>Yugunga-Nya</i> people; and 23 October 2010 between Audax Resources and <i>Gingirana</i> Pty Ltd. Australian Mines is permitted to operate under these agreements as the company is joint venturing with Riedel Resources on this project.</p> <p>Exploration licences E52/2394 and E52/2395 are in good standing with no impediments to exploration known to exist at the time of writing.</p>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Limited exploration and drilling programs have previously been undertaken across the Marymia Project by other companies.</li> </ul> <p>A summary of the historic anomalous gold and nickel intersections are outlined in the Prospectus released by Riedel Resources Limited on 23 November 2010.</p>



## Geology

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

The Marymia Project overlies the Baumgarten Greenstone Belt, which is interpreted as the northern extension of the Eastern Goldfields Province of the Yilgarn Craton. The geology of the Marymia Project comprises an Archaean greenstone sequence of basalts and komatiitic ultramafic rocks.

## 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.
- Refer to Appendix 1 of the accompanying report.

## 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 in detail.
  - The assumptions used for any reporting of metal equivalent values should be clearly stated.
  - No Australian Mines assay results or significant intersections are included in the accompanying report.
- No metal equivalents have been used in the accompanying report.





## 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').
- There is insufficient understanding of the bedrock geology at present to determine the true thickness of any reported drill intersections.

Any intersections included in the accompanying report are down hole lengths. The true widths of these intersections are not known.

## 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 and sections are included in the body of the accompanying 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.
- The accompanying document is considered to represent a balanced report.

## 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.
- The Company released the results of its ground-based moving loop electromagnetic (MLTEM) survey on 1 August 2014. This MLTEM survey identified a strong bedrock conductor at the Company's Simmons prospect. This EM conductor formed the basis of the drilling program referred to in the accompanying report. The specifications, description and analysis of the MLTEM survey are included in Australian Mines' 1 August 2014 announcement.

Australian Mines released an announcement on 30 September 2014, which provided preliminary geological observations of the diamond core of holes SMDD001 and SMDD002. These observations include that two distinct sulphide zones (>10% sulphides) were noted in both drill holes. These sulphide zones appear to comprise iron sulphides (pyrrhotite and, to a lesser extent pyrite) with trace amounts of other sulphides including chalcocopyrite (copper) in hole number SMDD001.

Further data collection will be reviewed and reported when considered material.



## 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.
- Further work will include drill testing of any resulting EM anomalies. The Company may also seek to undertake down hole electromagnetic survey of these drill holes to test for the presences of any off-hole conductors.