



ASX RELEASE

16 May 2016

ASX: MGV

New Gold and Copper Targets Lady Stardust & Mt Eelya

- **Surface copper and zinc anomaly extended over 700m strike at Mt Eelya in close proximity to recently discovered massive copper sulphide mineralisation (8m @ 1.6% Cu, 0.6g/t Au, 10g/t Ag)**
 - Anomaly open to the south-east and up to 250m wide
 - Co-incident with elevated Pb anomalism
 - Further drilling planned
- **New surface gold and copper soil anomaly identified at Lady Stardust**
 - Anomaly extends over a strike of 700m
 - Co-incident with VTEM anomaly
 - Excellent structural setting
- **Infill geochemistry followed by aircore/RC drilling planned to test these new targets**
- **RC drilling at Break of Day, Mt Eelya and Hollandaire West to commence next week**

Musgrave Minerals Ltd ("Musgrave" or "the Company") (ASX: MGV) is pleased to confirm two significant new targets from surface geochemistry on the Cue Project in the Murchison region of Western Australia (*Figure 1*). Infill soil geochemical sampling has been undertaken on selected versatile time domain electromagnetic ("VTEM") targets to aid drilling prioritisation. A large surface gold-copper anomaly has been identified at Lady Stardust and the copper-zinc anomaly at Mt Eelya has been extended 700m along strike.

The Cue Project ("The Project") is a Farm-In and Joint Venture Agreement with Silver Lake Resources Limited ("Silver Lake") (ASX: SLR) where Musgrave can earn up to an 80% interest. The Project includes the Moyagee Gold and Hollandaire Copper Resources.

Reverse circulation ("RC") drilling at Break of Day, Mt Eelya and Hollandaire West is due to commence next week.

Lady Stardust (Gold)

A new surface gold anomaly has been identified at the southern end of the Lady Stardust VTEM target. The gold soil anomaly extends for approximately 700m in strike and is approximately 200m wide (Figure 2).

The target is situated on a prospective lithological contact and favorable structural position and has not been drill tested.

A copper and co-incident barium soil anomaly (Figure 3) has been identified using a portable x-ray fluorescence ("pXRF") analyser. The anomaly is co-incident with the Lady Stardust VTEM target suggesting the source of the conductor may be related to base metal mineralisation. The VTEM target is modelled as a sub-vertical conductor with a strike extent of approximately 900m.

Aircore and RC drilling is planned to test both the gold and copper anomalies at Lady Stardust.

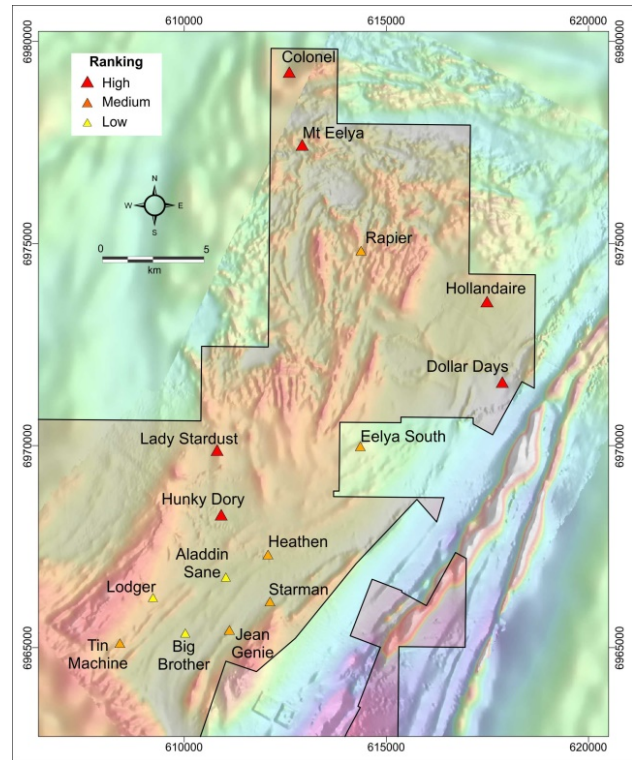


Figure 1: Cue Project location plan showing the location of Lady Stardust and Mt Eelya Prospects

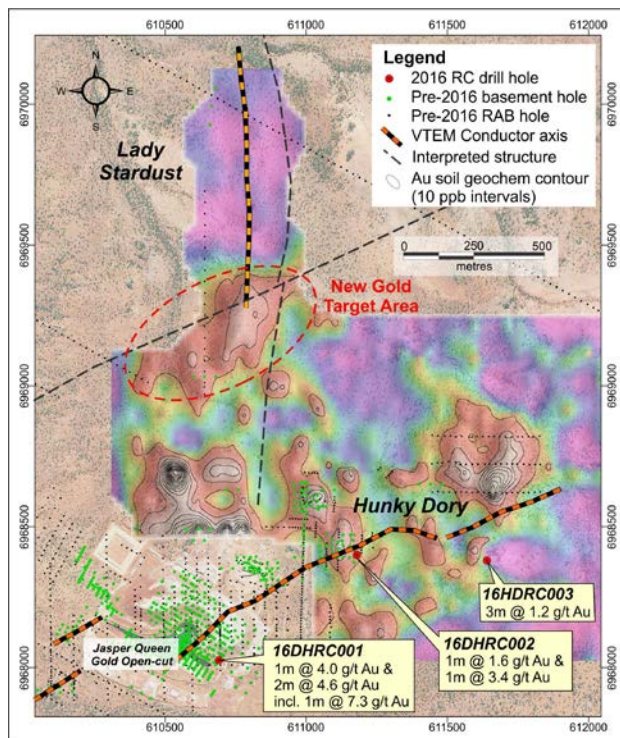


Figure 2: Lady Stardust gold (25g fire assay) soil anomaly

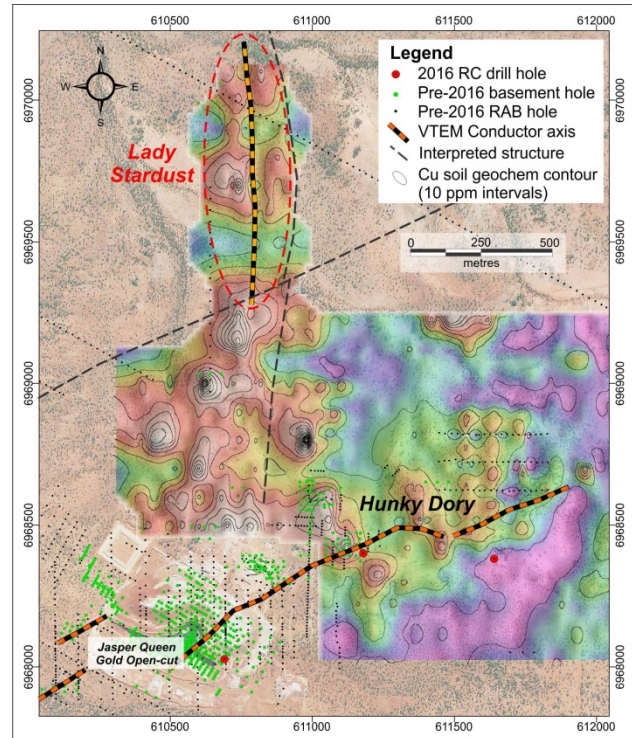


Figure 3: Lady Stardust pXRF copper soil anomaly



Mt Eelya (Copper-Gold-Zinc)

At Mt Eelya, where Musgrave recently discovered massive copper sulphide mineralisation (8m @ 1.6% Cu, 0.6g/t Au, 4.5g/t Ag (16EHRC001), see ASX announcement 3 March 2016, “*Copper-Gold Mineralisation Confirmed at Mt Eelya*”), a new soil geochemical survey was completed to determine the potential extents of the anomalous zone. Anomalous copper (figure 4) and zinc (Figure 5) has been confirmed through pXRF analysis of soil samples and extends over a strike extent of more than 700m.

Gossanous float, the weathered product of sulphide mineralisation, can be traced at surface, intermittently over a strike of approximately 300m at Mt Eelya (Figure 4 and 5). The gossan forms two intermittent but sub-parallel zones. Interpretation of the recent VTEM survey data has identified three potential conductors aligned parallel with the gossans. To date the drilling has been focused on testing only one of these three potential zones of mineralisation. Ground EM is required to better define these potential new conductive targets.

RC drilling is due to recommence at Mt Eelya next week to test off-hole electromagnetic conductors identified in drill hole 16EHRC001. The conductors at Mt Eelya have a strong association with massive sulphide copper-gold mineralisation.

Musgrave Managing Director Rob Waugh said, “*This is an excellent result at Lady Stardust and increases our confidence in this gold and copper target. The work at Mt Eelya has significantly extended the anomalous copper and zinc zone and is consistent with VMS (volcanic massive sulphide) mineralisation supporting our geological model for the area. We have an exciting RC drilling program recommencing at Mt Eelya, Hollandaire West and Break of Day next week and look forward to the drilling and the results that will follow.*”

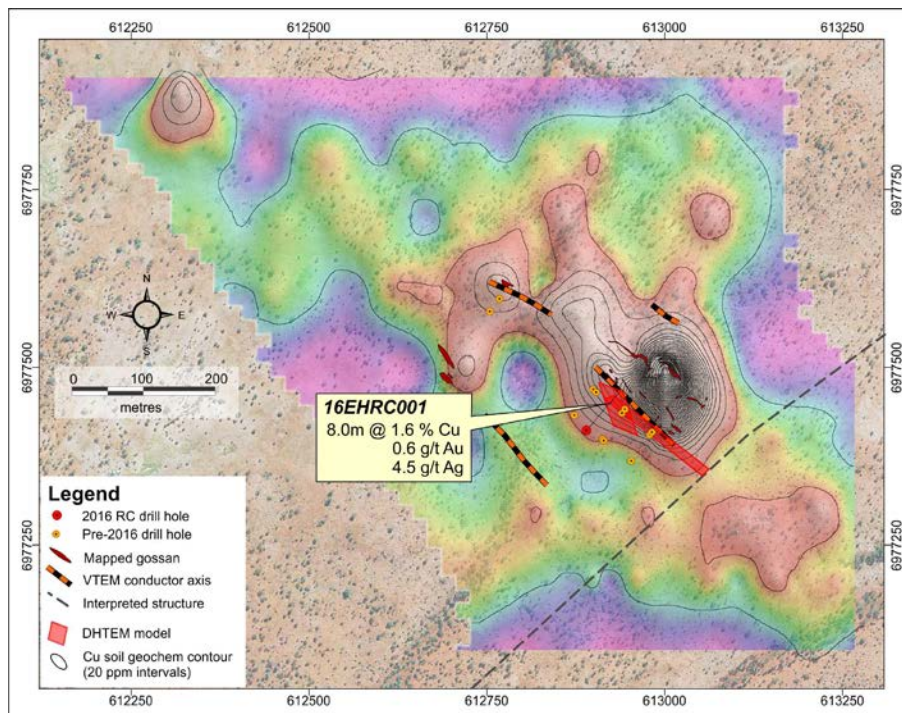


Figure 4: Mt Eelya pXRF copper soil anomaly with copper gossans, EM conductors and drill hole locations

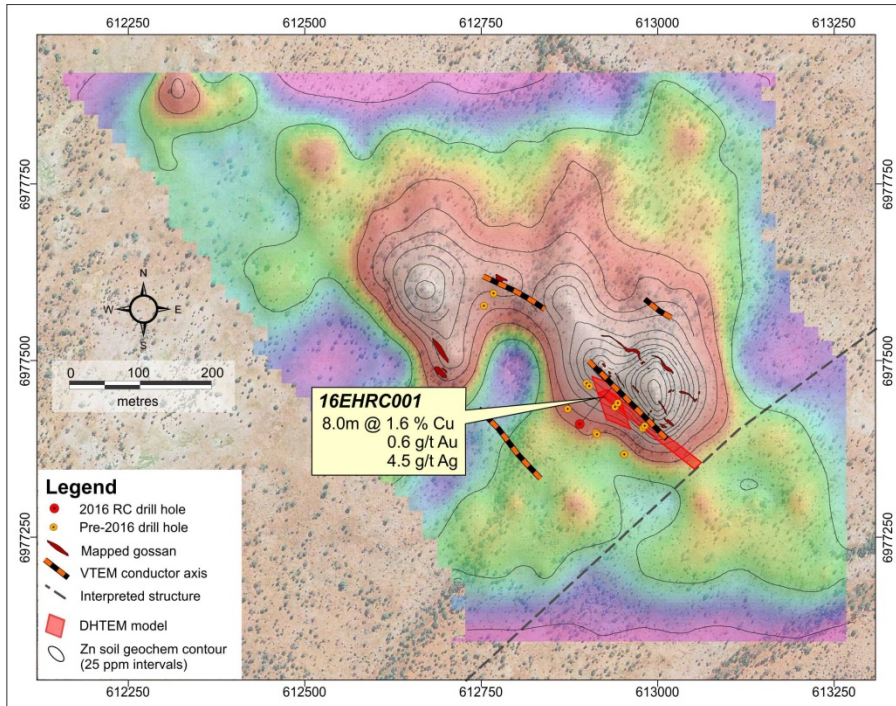


Figure 5: Mt Eelya pXRF zinc soil anomaly with copper gossans, EM conductors and drill hole locations

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About Musgrave Minerals

Musgrave Minerals Limited is an active Australian gold and base metals explorer. The Cue Project in the Murchison region of Western Australia is an advanced gold and copper project. Musgrave's focus is to increase gold and copper resources through discovery and extensional drilling to underpin studies that will demonstrate a viable path to development in the near term. Musgrave also holds the highly prospective Mamba Ni-Cu sulphide project in the Fraser Range of Western Australia and an active epithermal Ag-Pb-Zn-Cu project in the prospective silver and base metals province of the southern Gawler Craton of South Australia and a large exploration footprint in the Musgrave Province in South Australia. Musgrave has a powerful shareholder base with four mining and exploration companies currently participating as cornerstone investors.

**Competent Person's Statement
 Exploration Results**

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled and/or thoroughly reviewed by Mr Robert Waugh, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM) and a Member of the Australian Institute of Geoscientists (AIG). Mr Waugh is Managing Director and a full-time employee of Musgrave Minerals Ltd. Mr Waugh has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration 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 Waugh consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

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JORC TABLE 1

Section 1 Sampling Techniques and Data

Criteria	Explanation	Commentary
Sampling techniques	<i>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.</i>	Sampling is undertaken using standard industry practices including the use of duplicates and standards at regular intervals. Soil sampling was undertaken on 100m spaced lines and 25m spaced intervals. Samples are taken from 20-30cm depth with a 250u sieve (60#). Average sample size is ~150g. The sample is then placed in a plastic cup with nylon film and analysed by XRF.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	All co-ordinates are in UTM grid (GDA94 Z50) and have been either surveyed or measured by hand-held GPS with an accuracy of ± 5 metres.
	<i>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 (eg 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	Two orientation lines were used to check and compare XRF v's four acid digest ICP-MS multi-element results.
Drilling techniques	<i>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).</i>	No new drilling was completed or data reported in this announcement.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	No new drilling was completed or data reported in this announcement.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	No new drilling was completed or data reported in this announcement.
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	No new drilling was completed or data reported in this announcement.
Logging	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	All geological and regolith related observations are stored in the database.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	A brief soil and geomorphological description is recorded for each sample site.
	<i>The total length and percentage of the relevant intersections logged.</i>	No new drilling was completed or data reported in this announcement.
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	No diamond drilling was undertaken during this program.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	No new drilling was completed or data reported in this announcement.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Sieved 250u (60#) samples were collected on site and analysed without further preparation.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	Field QC procedures involve the use of certified reference standards (1:25) and blanks (1:50) at appropriate intervals for early stage exploration programs.
	<i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i>	Sampling is carried out using standard protocols and QAQC procedures as per industry best practice. Duplicate samples are inserted (1:50) and routinely checked against originals.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Sample sizes are considered appropriate for grain size of sample material to give an accurate indication of base metal anomalism at Mt Eelya and Lady Stardust.

<i>Quality of assay data and laboratory tests</i>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	For soil multi-element analysis at both Mt Eelya and Lady Stardust a portable XRF analyser (Niton XI3t GOLDD+) in "Test All Geo" mode at a tube voltage of 50kV and a tube power of 200mA. The detection area is 25mm ² . A lithium ion battery power source is used. A cycle time of 60 seconds and an element range of Mg to U. Soil samples at Lady Stardust were analysed for gold using a registered laboratory (Intertek-Genalysis) and standard 25g Fire Assay analysis for gold. Internal certified laboratory QAQC is undertaken including check samples, blanks and internal standards. These methodologies are considered appropriate for base metal and gold detection in soils.
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	No geophysical tools were used to estimate mineral or element percentages.
	<i>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.</i>	Standards, duplicates, blanks, and repeats are utilised as standard procedure. Certified reference materials that are relevant to the type and style of mineralisation targeted are inserted at regular ~25 sample intervals.
<i>Verification of sampling and assaying</i>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	Samples are verified by the geologist before importing into the main database (Datashed).
	<i>The use of twinned holes.</i>	No new drilling was completed or data reported in this announcement.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Primary data is collected using a standard set of templates. At each sample site soil colour and geomorphology is recorded. Data is verified before loading to the database.
	<i>Discuss any adjustment to assay data.</i>	No adjustments or calibrations are made to any assay data reported.
<i>Location of data points</i>	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	All maps and locations are in UTM grid (GDA94 Z50) and have been surveyed or measured by hand-held GPS with an accuracy of ± 5 metres.
	<i>Specification of the grid system used.</i>	Sample site co-ordinates are in UTM grid (GDA94 Z50).
	<i>Quality and adequacy of topographic control.</i>	Hand held GPS is used for exploration and all soil locations with an accuracy of ± 5 metres.
<i>Data spacing and distribution</i>	<i>Data spacing for reporting of Exploration Results.</i>	A soil sample grid of 100m x 25m was utilised to infill historical regional 400m x 40m sampling.
	<i>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.</i>	There is no current mineral resource at Mt Eelya or Lady Stardust. The current drill spacing at Mt Eelya is not considered to be adequate to determine a mineral resource.
	<i>Whether sample compositing has been applied.</i>	No drill sample compositing has been undertaken.
<i>Orientation of data in relation to geological structure</i>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Grid orientations are biased to reflect geological interpretation and to reduce sampling costs but are estimated to accurately determine anomaly orientations.
	<i>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.</i>	No new drilling was completed or data reported in this announcement.
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	Chain of custody is managed by internal staff. All samples are stored on site and transported by a licenced reputable transport company or MGW personnel to a registered laboratory in Perth (Genalysis-Intertek at Maddington). XRF soil samples are analysed by Portable XRF Services Pty Ltd in West Perth. When at the laboratory samples are stored in a locked yard before being processed and tracked through preparation and analysis (Lab-Trak system).
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No external audits or reviews of modelling techniques and data have been undertaken.

Section 2 Reporting of Exploration Results

Criteria	Explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<i>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.</i>	The Mt Eelya prospect is located on granted exploration licence E20/608. The Lady Stardust prospect is located on E20/606, M20/277, M20/225 and M20/245. The primary tenement holder is Silver Lake Resources Ltd. Musgrave minerals commenced a Farm-In and Joint Venture on the project on 24 November 2015 (see MGV ASX announcement 25 November 2015: "Musgrave Secures Advanced Gold and Copper Project". The Cue project tenements consist of 39 licences (Lena is M21/106 and Hollandaire E20/699) as outlined in the Farm-In and Joint Venture Agreement. The tenements are subject to standard Native Title heritage agreements and state royalties. Third party royalties are present on some individual tenements.
	<i>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.</i>	The tenements are in good standing and no known impediments exist.
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Historical drilling (minor shallow RAB and RC), soil sampling and geophysical surveys have been undertaken in different areas on the tenements intermittently by multiple third parties over a period of more than 30 years. At Mt Eelya historical exploration and gossan sampling has been undertaken by Cambrian Resources in the 1990's and a drill program consisting of 12 holes was completed by Silver Lake Resources Ltd in 2012. DHEM was undertaken on two drill holes and three lines of surface EM were completed. MGV drilled one RC hole at Mt Eelya in February 2016 and intersected massive sulphide mineralisation (see ASX release 3 March 2016, "Copper-Gold Mineralisation Confirmed at Mt Eelya")
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	Geology comprises typical Archaean Yilgarn greenstone belt lithologies and granitic intrusives. Two main styles of mineralisation are present, typical Yilgarn Archaean lode gold and volcanic massive sulphide (VMS) base metal and gold mineralisation within the Eelya Felsic Complex.
<i>Drill hole Information</i>	<i>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: eastings 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.</i>	All relevant historical drill hole information has previously been reported by SLR. All MGV drill holes have also been previously reported.
<i>Data aggregation methods</i>	<i>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.</i>	No new drilling was completed or data reported in this announcement.
	<i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i>	No new drilling was completed or data reported in this announcement.
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalent values have been reported.
<i>Relationship between mineralisation widths and intercept lengths</i>	<i>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').</i>	No new drilling was completed or data reported in this announcement.
<i>Diagrams</i>	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	Diagrams referencing new data can be found in the body of this release. Some diagrams referencing historical data can be found in the body of this report.

<i>Balanced reporting</i>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	Representative reporting of significant samples is represented.
<i>Other substantive exploration data</i>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	All new meaningful data is reported in this release. All material results from geochemical and geophysical surveys and drilling related to these prospects has been reported or disclosed previously.
<i>Further work</i>	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	A range of exploration techniques will be considered to progress exploration including additional surface sampling and drilling.
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Refer to figures in the body of this announcement.

