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## New High Priority Gold Targets Defined at Cue

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- **New gravity survey on Cue tenements defines 10 new high priority gold targets under shallow dune and lake cover**
- **Gold has been intersected at seven of the targets in historical regolith aircore drilling including:**
  - **4m @ 8.1g/t Au (MOAC153) – Lake Austin North**
    - **1km long gold anomaly**
  - **4m @ 2.7g/t Au (MAC334) – West Island**
  - **7m @ 1.0g/t Au (MAC020) – Lake Austin**
- **New gravity data defines Break of Day/Lena shear zone along strike under lake and dune cover which is largely untested by drilling**
- **Interpretation of new data suggests presence of an untested parallel shear zone 600m west of the Break of Day/Lena shear under shallow cover**

Musgrave Minerals Ltd (ASX: **MGV**) (“Musgrave” or “the Company”) is pleased to report that the regional gravity survey recently completed on its Cue tenements in Western Australia’s Murchison district has highlighted 10 new high priority gold targets for drill testing (*Figure 1*). The gravity data was integrated with existing aeromagnetic, geochemical and historical drilling information to define these targets along the prospective 20km long corridor.

Seven of the targets have historical broad-spaced aircore or rotary air blast (RAB) drill holes that returned anomalous gold in assay results. These historical drill holes terminated at fresh rock and did not penetrate into basement. The targets are open and untested by basement drilling.

The Lake Austin North gold target is a 1km long regolith gold anomaly interpreted to be on a parallel shear to the Break of Day/Lena shear zone under lake sediments. Historical aircore drilling from 2002 intersected 4m @ 8.1g/t Au (MOAC153) at 87m vertical depth is open to the north and has not been followed up. The target is only 3km north of Break of Day.

The West Island target is a 500m long gold target interpreted to be on a parallel shear to the Break of Day/Lena shear zone under lake sediments. Historical aircore drilling from 2006 intersected 4m @ 2.7g/t Au at 107m down hole but no follow-up basement drilling has been conducted. The target is 8km north of Break of Day.

The Lake Austin target is a 500m long gold target interpreted to be on the continuation of the Break of Day/Lena shear zone under shallow lake sediments. Historical aircore drilling from 1996 intersected 7m @ 1.0g/t Au at 24m down hole but no follow-up basement drilling has been conducted. The target is only 1km north of Break of Day.

The gravity data has defined a parallel shear zone approximately 600m west of the Break of Day/Lena shear which has not been drill tested. Planning is currently underway to commence drill testing of these targets in April.

Musgrave Managing Director Rob Waugh commented, *“The integration of the new gravity data has significantly improved our interpretation of the geology at Cue and provided great assistance in defining and prioritising new targets for drill testing. A number of the targets have an analogous setting to the two million ounce Great Fingall deposit, 30km to the north. These are excellent targets and an opportunity for the Company to make a game-changing discovery.”*

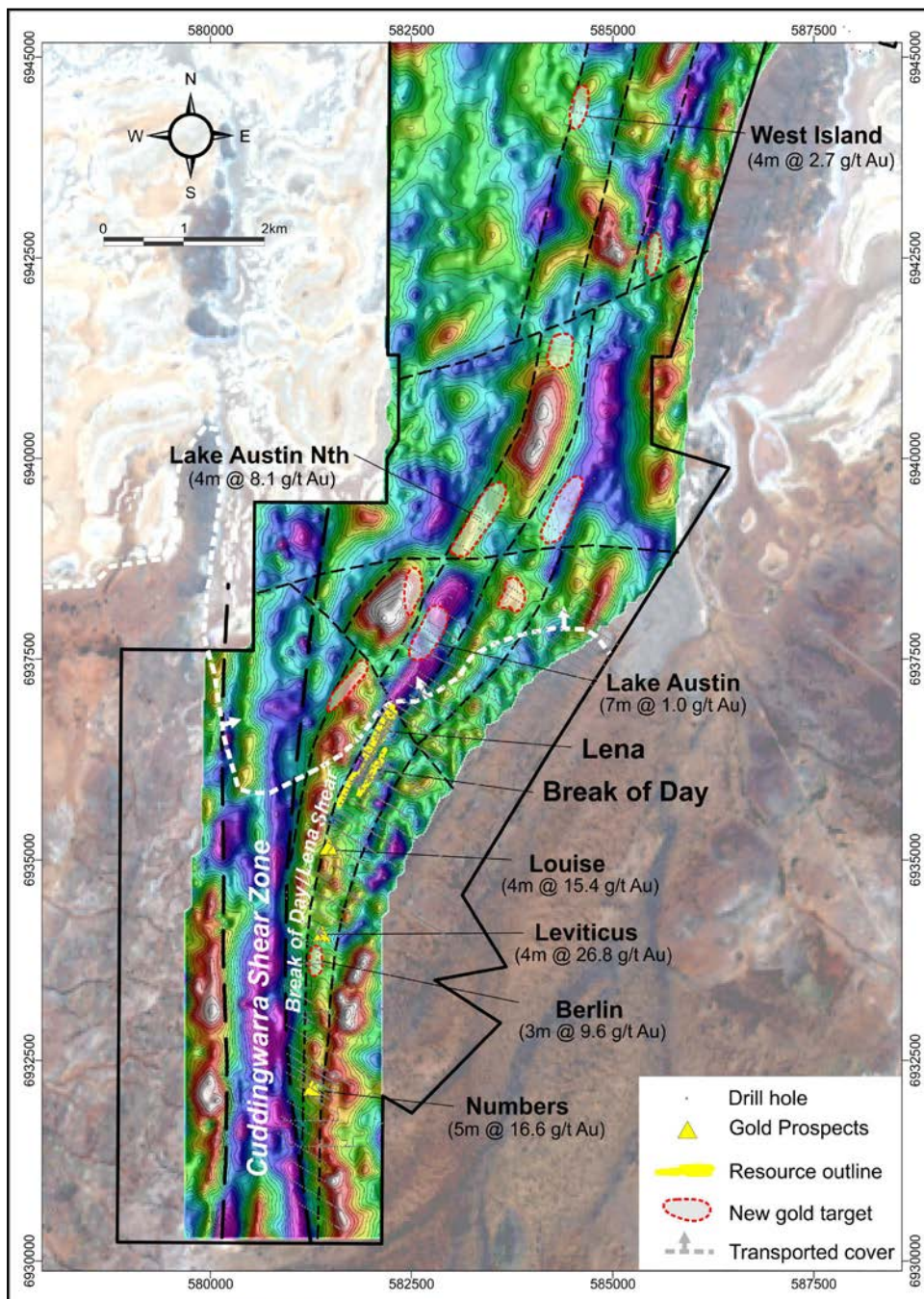


Figure 1: Location plan showing new gold targets on 2km residual gravity image



## ONGOING EXPLORATION

- An extensional diamond drilling program is continuing at Break of Day with three holes completed to date. Assays are expected within six weeks.
- Ongoing integration of the new regional gravity data will continue to define and prioritise targets for drill testing.
- A regional aircore drilling program to test new gold targets is scheduled to commence in early April.
- Development studies are continuing to evaluate options to optimise cash flow and maximise shareholder returns.

## THE CUE PROJECT

The Cue Project (“the Project”) is located in the Murchison district of Western Australia, with key tenure wholly owned by Musgrave Minerals (*Figure 2*). The Project consists of the Moyagee Gold and Hollandaire Copper Resources (see *MGV ASX announcements 14 July 2017, “Resource Estimate Exceeds 350koz Gold” and 24 October 2017, “Annual Report 2017”*).

The Company believes there is significant potential to extend existing mineralisation and discover new gold mineralisation within the Project area, as demonstrated by the recent drilling success at Break of Day, Lena and Louise. Musgrave’s aim is to double the resource at Break of Day, make new discoveries and commence studies with a view to identifying a development option that creates the most value for Shareholders.

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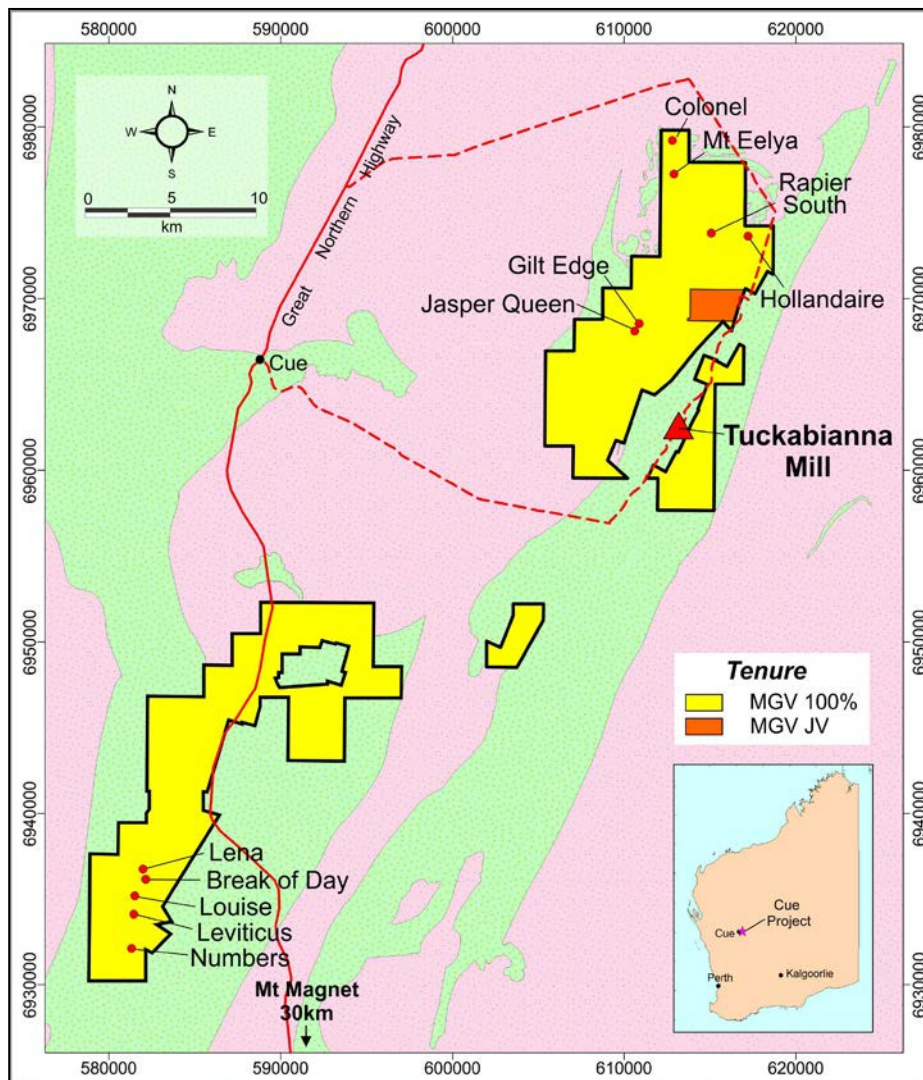


Figure 2: Cue Project location plan and tenure

### 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 has had significant exploration success at Cue with the ongoing focus on increasing the 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 a large exploration tenement package in the Ni-Cu-Co prospective Musgrave Province in South Australia.

### 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.

### Forward Looking Statements

This document may contain certain forward-looking statements. Forward-looking statements include, but are not limited to statements concerning Musgrave Minerals Limited's (Musgrave's) current expectations, estimates and projections about the industry in which Musgrave operates, and beliefs and assumptions regarding Musgrave's future performance. When used in this document, words such as "anticipate", "could", "plan", "estimate", "expects", "seeks", "intends", "may", "potential", "should", and similar expressions are forward-looking statements. Although Musgrave believes that its expectations reflected in these forward-looking statements are reasonable, such statements are subject to known and unknown risks, uncertainties and other factors, some of which are beyond the control of Musgrave and no assurance can be given that actual results will be consistent with these forward-looking statements.

## Gravity Survey Specifications

### Contractor Details

Operator : Atlas Geophysics  
Survey Dates : 4th – 19th December 2017  
: 19th January – 12th February 2018

### Survey Design

Station Spacing : 100m  
Line Spacing : 100m  
Datum/Projection : GDA94/MGA50

### Instrumentation

Gravity Meter : Scintrex CG-5  
DGPS : Hi Target V100

### Survey Control

GNSS control was established using AUSPOS and multiple submissions of static GNSS data collected over the course of the survey. Gravity control was established using multiple ABA ties to existing Atlas control stations already tied to the Australian Fundamental Gravity Network

### Image Processing

The residual image was created by applying a 2km Butterworth filter to the Bouguer Gravity to approximate the regional field, and then subtracting this from the Bouguer Gravity. The image has an east-sun shade applied. The contours are 1g.u. (0.1mGal) intervals.



## 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>	Historical sampling was undertaken using standard industry practices at the time of collection. The gravity surveying was undertaken by Atlas Geophysics as contracted to Musgrave Minerals Ltd (MGV) and completed in February 2018.
	<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 drill hole collars have been surveyed by differential GPS to an accuracy of 0.01m. The accuracy of historical drill collars pre-2009 is unknown.
	<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>	Historical sampling techniques and processes are not known for drilling prior to 2009. MGV RC samples were collected as 6m composites for all drill holes in the current program. One metre individual samples are immediately submitted for analysis where a high probability of mineralisation occurs (e.g. quartz vein lode or massive sulphide). All one metre samples are split to 1-3kg in weight through a cyclone splitter which is air blasted clean at the end of each 6m rod. MGV diamond core is cut on geological intervals with a minimum sample interval of 0.25m and a maximum of 1.2m. Diamond drilling is HQ size core. Core is cut with a diamond blade saw at Intertek laboratory in Maddington where half core is crushed to 90% nominally pass 75µm. Individual samples weigh less than 3kg to ensure total preparation at the laboratory pulverization stage. The sample size is deemed appropriate for the grain size of the material being sampled. MGV Samples are sent to the Genalysis – Intertek laboratory in Maddington. Samples are pulverized to 85% passing -75µm and four metre composite samples are analysed using a 50g fire assay with ICP-MS (inductively coupled plasma - mass spectrometry) finish gold analysis (0.005ppm detection limit). Individual one metre gold samples are analysed using a 50g fire assay with ICP-MS finish for gold.
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>	Details of historical aircore and Rotary Air Blast (RAB) drilling techniques are not clearly reported in the historical data although these drilling methods produce cut and air blasted regolith samples and not core.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	The drilling results noted in this report are historical and not reported in detail. As such these details are unknown.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	The drilling results noted in this report are historical and not reported in detail. As such these details are unknown.
	<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 relationship has been identified
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 historical drilling was intended with an exploration focus and not for Mineral Resource estimation or mining and metallurgical studies. Although drill chip samples have been historically logged for geological, structural and alteration related observations the drill holes have not been logged to a level that would support appropriate Mineral Resource estimation or mining and metallurgical studies.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	Logging of lithology, structure, alteration, mineralisation, colour and other features of samples is of a qualitative nature.
	<i>The total length and percentage of the relevant intersections logged.</i>	All historical drill holes have been logged in full.
Sub-sampling techniques and	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	Not applicable as drilling method did not produce core.

<i>sample preparation</i>	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	The drilling results noted in this report are historical and not reported in detail. As such these details are unknown.
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	The sample preparation techniques were appropriate with analysis by reputable laboratories. Sample preparation was by dry pulverisation to >85% passing 75 micron.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	The drilling results noted in this report are historical and not reported in detail. As such these details are unknown.
	<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>	The drilling results noted in this report are historical and not reported in detail. As such these details are unknown.
	<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 gold mineralisation Sample is collected from full width of sample interval to ensure it is representative of samples interval.
<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>	Analysis for gold was by aqua regia digest with AAS finish and considered appropriate for the type of exploration undertaken.
	<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>	The drilling results noted in this report are historical and not reported in detail. As such these details are unknown.
<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 two people before reporting.
	<i>The use of twinned holes.</i>	No twin holes have been drilled by Musgrave Minerals Ltd during this program.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Primary data was historically collected. Geological sample logging was undertaken on one metre intervals for all drilling with colour, structure, alteration and lithology recorded for each interval. Geological logging of all samples was undertaken.
	<i>Discuss any adjustment to assay data.</i>	To our knowledge, no adjustments or calibrations were made to any historical 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. No down hole surveys were undertaken on aircore or RAB drill holes
	<i>Specification of the grid system used.</i>	Drill hole and sample site co-ordinates are in UTM grid (GDA94 Z50) and converted from local grid references by Silver Lake Resources Ltd.
	<i>Quality and adequacy of topographic control.</i>	The drilling results noted in this report are historical and not reported in detail. As such these details are unknown.
<i>Data spacing and distribution</i>	<i>Data spacing for reporting of Exploration Results.</i>	Variable drill hole spacings were used in historical drilling with drill traverses spaced between 200m and 1km apart. Drill hole spacings on traverse lines varied from 50m t 150m.
	<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 or historical Mineral resources on these prospects. A current JORC 2012 Mineral Resource was defined at Break of Day and Lena by Musgrave Minerals Ltd. The Mineral Resources estimate at Break of Day and Lena was prepared and disclosed in accordance with the 2012 Edition of the Australian Code of Reporting of Mineral Resources and Ore Reserves (JORC 2012). For further details refer to MGV ASX announcement 14 July 2017: "Resource Estimate Exceeds 350koz Au".
	<i>Whether sample compositing has been applied.</i>	The Leviticus and Numbers prospects have historical Mineral Resource Estimates (JORC 2004) created by Silver Lake Resources Limited and available in the report entitled "Mineral Resources and Ore Reserves Update", 26 August 2016 and is available to view on Silver lake's website ( <a href="http://www.silverlakeresources.com.au">www.silverlakeresources.com.au</a> ) and the ASX ( <a href="http://www.asx.com.au">www.asx.com.au</a> ).

<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>	Drilling is exploratory in nature and as such is not designed specifically to intersect mineralisation perpendicular to the drill hole. The true orientation of mineralisation is unknown.
	<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 orientation based sampling bias is known at this time.
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	The drilling results noted in this report are historical and not reported in detail. As such these details are unknown.
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	Open file reports confirm the mineralisation as reported.

## Section 2 Reporting of Exploration Results

<b>Criteria</b>	<b>Explanation</b>	<b>Commentary</b>
<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>	Musgrave Minerals has now secured 100% of the Moyagee Project area (see MGV ASX announcement 2 August 2017: "Musgrave Secures 100% of Key Cue Tenure"). The new targets are on the following tenements: M21/106, M21/107, E21/129, E58/335, E21/194
	<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 from 1991-1999 was undertaken by Perilya Mines Ltd and from 2001-2006 by Mines and Resources Australia Pty Ltd. Prior to MGV Silver Lake Resources Ltd also did historical drilling at Break of Day, Lena, Leviticus and Numbers between 2009-2011.
<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	Geology comprises typical Archaean Yilgarn greenstone belt lithologies and granitic intrusives. Gold mineralisation is present as typical Yilgarn Archaean lode gold.
<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 and MGV and through open file reporting by previous explorers.  There are no new drill holes in this release.
<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 weighting techniques or cut-off grades have been used.
	<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>	Not applicable as no weighting techniques or cut-off grades have been used.
	<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>	The relationship between true mineralised widths and intercept widths is not known. No true widths are postulated. Only down hole intervals are reported.
<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 also 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>	An image of the new gravity survey data has been reported in this announcement with reference to historical drilling results of significance.
<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.

