

ASX RELEASE

ASX: MGV

13 July 2016

## New Untested Gold Target (2m @ 8.0g/t Au)

- New untested gold target (Purple Rain) only 2km south-east of Break of Day
- Historical RAB drilling intersected:
  - 2m @ 8.02g/t Au from 29m down hole within broader interval of 6m @ 3.25g/t Au in MRB1559; and
  - 5m @ 0.44g/t Au from 39m down hole in MRB1560
- Intersections in area of shallow alluvial cover with no follow-up or basement drilling undertaken on the target to date
- Follow-up drilling at Break of Day and Purple Rain is scheduled to commence in late July

Musgrave Minerals Ltd ("Musgrave" or "the Company") (ASX: MGV) is pleased to advise that it has identified a new untested gold target named Purple Rain only 2km south-west of the Break of Day high grade gold prospect (*Figure 1*) at the Cue Project in the Murchison region of Western Australia.

The new target was identified through analysis of historical data. Two anomalous rotary air blast (RAB) drill holes approximately 25m apart are highly anomalous in gold. Drill hole MRB1559 intersected 6m @ 3.25g/t Au from 28m down hole including a high grade zone of **2m** @ **8.02g/t Au from 29m down hole**. A second drill hole (MRB1560) 25m to the south-east intersected 5m @ 0.44g/t Au from 39m down hole (*Figure 2*) and ended in mineralisation at 44m. Both intersections are in the weathered zone. No follow-up or basement drilling has been undertaken on the target to date.

The gold mineralisation is in an area of thin alluvial cover (3 to 6 metres) making surface geochemistry ineffective, and is open for a strike extent of up to 800m (*Figure 2*). Historical geological logging suggests the mineralisation is associated with quartz veining and hosted within a mafic/sedimentary Archaean sequence.

Musgrave Managing Director Rob Waugh said, "This is another indication of the excellent gold potential of our Cue Project. The historical intersection at Purple Rain is very similar in grade to that seen in the weathered zone at Break of Day. We look forward to being able to drill test this new target."

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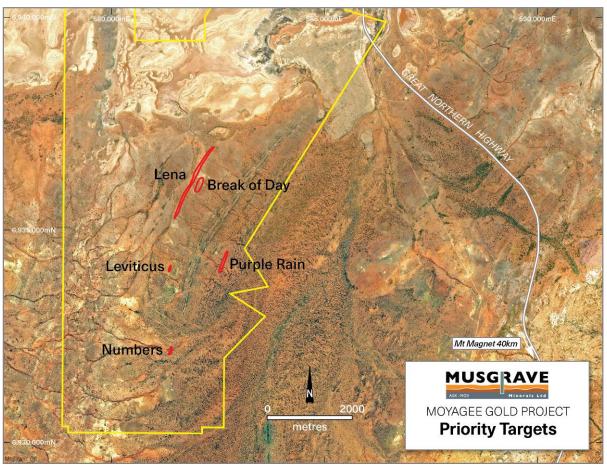


Figure 1: Location plan of Purple Rain target

### ABOUT THE CUE PROJECT

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 consists of the Moyagee Gold and Hollandaire Copper Resources (see ASX announcement "25 November 2015, "Musgrave Secures Advanced Gold and Copper Project") and surrounding tenure in the highly prospective Murchison province of Western Australia. There is significant potential to extend existing mineralisation and also discover new mineralisation within the Project area.

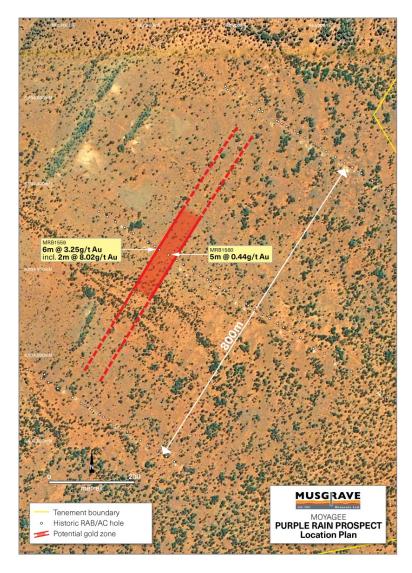


Figure 2: Plan of Purple Rain target showing drill holes locations and significant assay results

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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.

# Table 1(a): Summary of Drill Hole Locations at Purple Rain and Significant Assay Intervals

	Drill Hole ID	Drill Type	Prospect	Easting (m)	Northing (m)	Azimuth (degrees)	Dip (degrees)	RL (m)	Total Depth (m)	Sample Type	From (m)	Interval (m)	Au (g/t)
	MRB1559	RAB	Purple Rain	582625	6934246	127.5	-60	420	42	Individual 1m	28	6	3.25
)										Including	29	2	8.02
	MRB1560	RAB	Purple Rain	582645	6934233	127.5	-60	420	44	Individual 1m	39	5	0.44

Notes to Table 1(a)

- 1. An accurate dip and strike and the controls on mineralisation are only interpreted and the true width of mineralisation is not yet confirmed
- 2. The holes were drilled in 1999 by Perilya Mines NL. One (1) metre samples were submitted for analysis. Samples were analysed using 50g fire assay with AAS finish to 0.01ppm gold analysed by Analabs
- 3. g/t (grams per tonne), ppm (parts per million), ppb (parts per billion), X = below detection limit
- 4. NSA (No Significant Assay) No gold assay above 1g/t

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## JORC TABLE 1 Section 1 Sampling Techniques and Data

Criteria	Explanation	Commentary
Sampling	Nature and quality of sampling (e.g. cut	No historical sampling methodology data is available for Perilya samples
techniques	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	
$\square$	not be taken as limiting the broad meaning of	
	sampling. Include reference to measures taken to ensure	All co-ordinates are in UTM grid (MGA94 Z50) and have been eith
L .	sample representivity and the appropriate	surveyed or measured by hand-held GPS with an accuracy of >±5 metres.
Ĩ	calibration of any measurement tools or	surveyed of measured by hand-neid of 5 with an accuracy of >15 metres.
	systems used.	
i	Aspects of the determination of mineralisation	Limited historical sampling methodology data is available for Peril
h i i i i i i i i i i i i i i i i i i i	that are Material to the Public Report. In cases	samples.
V	where 'industry standard' work has been done	Individual samples weigh less than 3kg to ensure total preparation at t
	this would be relatively simple (eg 'reverse	laboratory pulverization stage, homogenised and submitted to Analabs
	circulation drilling was used to obtain 1m	analysis.
	samples from which 3kg was pulverised to	The sample size is deemed appropriate for the grain size of the material
)	produce a 30g charge for fire assay'). In other	being sampled.
/	cases more explanation may be required, such	
	as where there is coarse gold that has inherent	Samples were sent to the Analabs. Samples are and analysed using a 50g
)	sampling problems. Unusual commodities or	fire assay with AAS (atomic absorption spectrometry) finish for gold.
/	mineralisation types (eg submarine nodules)	
<u> </u>	may warrant disclosure of detailed information.	
Drilling techniques	Drill type (e.g. core, reverse circulation, open-	Historical RAB drilling has been undertaken by Perilya Mines NL in 1999.
/	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	
D. ill sources	oriented and if so, by what method, etc).	No bisto de la terita de la forma de la forma de servicio de servicio de la servi
Drill sample	Method of recording and assessing core and	No historical data is available for Perilya samples
recovery	chip sample recoveries and results assessed.	No historical data is available for the Darilya DAD drilling although it w
þ	Measures taken to maximise sample recovery	No historical data is available for the Perilya RAB drilling although it w
	and ensure representative nature of the samples.	common practice in the 1990's for drillers to use industry appropria methods to maximise sample recovery and minimise downho
þ	sumples.	contamination.
	Whether a relationship exists between sample	No significant sample loss or bias has been noted in the records.
)	recovery and grade and whether sample bias	
	may have occurred due to preferential loss/gain	
	of fine/coarse material.	
Logging	Whether core and chip samples have been	All historical geological, structural and alteration related observations a
55 5	geologically and geotechnically logged to a level	stored in the database.
	of detail to support appropriate Mineral	
	Resource estimation, mining studies and	
	metallurgical studies.	
)	Whether logging is qualitative or quantitative in	Logging of lithology, structure, alteration, mineralisation, colour and oth
ĺ	nature. Core (or costean, channel, etc)	features of samples was undertaken on a routine 1m basis.
	photography.	
)	The total length and percentage of the relevant	All drill holes were logged in full on completion.
	intersections logged.	
Sub-sampling	If core, whether cut or sawn and whether	No diamond drilling was undertaken during this program.
techniques and	quarter, half or all core taken.	
sample	If non-core, whether riffled, tube sampled,	No historical data is available for Perilya samples
preparation	rotary split, etc and whether sampled wet or	
0	dry.	
V	For all sample types, the nature, quality and	Drill sample preparation and base metal and precious metal analysis w
	appropriateness of the sample preparation	undertaken by a registered laboratory (Analabs).
	technique.	
L	Quality control procedures adopted for all sub-	No historical data is available for Perilya samples
ť	sampling stages to maximise representivity of	
	samples.	
	Measures taken to ensure that the sampling is	No historical data is available for Perilya samples
	representative of the in situ material collected,	
	including for instance results for field	
	duplicate/second-half sampling.	
1	Whether sample sizes are appropriate to the	Sample sizes are considered appropriate for grain size of sample material
	grain size of the material being sampled.	give an accurate indication of gold anomalism.

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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.	A combination of 1 metre, 2 metre composites and 4m composite sampling was undertaken on the historical Perilya RAB holes. All samples were analysed for the entire drill hole. Analysis is by 50g fire assay with AAS finish for gold. Analysis was for gold only This methodology is considered appropriate for base metal mineralisation and gold at the exploration phase.
	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.	No geophysical tools were used to estimate mineral or element percentages.
	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 historical data is available for Perilya samples
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	No historical data is available for Perilya samples
	The use of twinned holes.	No twin holes have been drilled and none by Musgrave Minerals Ltd.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Geological sample logging was undertaken on one metre intervals for all RAB drilling with colour, structure, alteration and lithology recorded for each interval. Data is verified before loading to the database. Geological logging of all samples is undertaken.
)	Discuss any adjustment to assay data.	No adjustments or calibrations are made to any assay data reported.
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.	All maps and locations are in UTM grid (MGA94 Z50) and have been surveyed or measured by hand-held GPS with an accuracy of >±5 metres.
	Specification of the grid system used.	Drill hole and sample site co-ordinates are in UTM grid (MGA94 Z50) and converted from local grid references.
	Quality and adequacy of topographic control.	No historical data is available for Perilya drill holes
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Variable drill hole spacings were used on regional traverse lines (10-25m) and RAB traverses were drilled at 400m intervals.
	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.	There is no current JORC mineral resource at the Purple Rain target.
)	Whether sample compositing has been applied.	A combination of 1 metre, 2 metre composites and 4m composite sampling was undertaken on the historical Perilya RAB holes. All samples were analysed for the entire drill hole. Analysis is by 50g fire assay with AAS finish for gold. No historical data is available on how samples were composited.
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.	Drilling was designed to cover the ground with minimal gaps. No orientation, dip or width of mineralisation is confirmed at this stage.
	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.	No orientation based sampling bias is known at this time.
Sample security	The measures taken to ensure sample security.	No historical data is available for Perilya samples
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No external audits or reviews of modelling techniques and data have been undertaken.

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## Section 2 Reporting of Exploration Results

Criteria Minoral tonomont	Explanation	Commentary
Mineral tenement	Type, reference name/number, location and	The Purple Rain prospect is located on granted mining lease M58/224 an
and land tenure	ownership including agreements or material	the primary tenement holder is Silver Lake Resources Ltd.
status	issues with third parties such as joint ventures,	Musgrave minerals commenced a Farm-In and Joint Venture on the
	partnerships, overriding royalties, native title	project on 24 November 2015 (see MGV ASX announcement 25
	interests, historical sites, wilderness or national	November 2015: "Musgrave Secures Advanced Gold and Copper Project"
	park and environmental settings.	The Cue project tenements consist of 39 licences (Lena and Break of Day
		is M21/106 and Hollandaire E20/699) as outlined in the Farm-In and Join
2		Venture Agreement.
		The tenements are subject to standard Native Title heritage agreements and state royalties. Third party royalties are present on some individual
		tenements.
	The security of the tenure held at the time of	The tenements are in good standing and no known impediments exist.
	reporting along with any known impediments to	
	obtaining a licence to operate in the area.	
Exploration done	Acknowledgment and appraisal of exploration	Historical drilling was undertaken by Perilya Mines NL in 1999. Follow-up
by other parties	by other parties.	drilling was recommended but not completed.
Geology	Deposit type, geological setting and style of	Geology comprises typical Archaean Yilgarn greenstone belt lithologies
Geology	mineralisation.	and granitic intrusives.
	mineralisation.	The main styles of mineralisation present is typical Yilgarn Archaean lode
		quartz vein gold mineralisation.
Drill hole	A summary of all information material to the	See table 1 of this announcement
Information	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.	
Data aggregation	In reporting Exploration Results, weighting	All significant drill hole assay data are reported in this release. No cut-off
methods	averaging techniques, maximum and/or	has been applied to any sampling.
	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	All significant historical drill hole assay data are reported in this release.
	lengths of high grade results and longer lengths	No cut-off has been applied to any sampling.
	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	No metal equivalent values have been reported.
	equivalent values should be clearly stated.	
Relationship		All significant drill hole assay data are reported in this release. True width
between	the reporting of Exploration Results.	are not known but all drilling is planned to intercept perpendicular to
mineralisation	If the geometry of the mineralisation with	interpreted targets.
widths and	respect to the drill hole angle is known, its	
intercept lengths	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,	
<b>D</b> '	true width not known').	
Diagrams	Appropriate maps and sections (with scales) and	Diagrams referencing historical data can be found in the body of this
	tabulations of intercepts should be included for	release.
	any significant discovery being reported These	
	should include, but not be limited to a plan view	
	of drill hole collar locations and appropriate	
Deleger	sectional views.	
Balanced	Where comprehensive reporting of all	All significant historical assays are reported in this release.
reporting	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.	

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	All material results from geochemical and geophysical surveys and drilling related to these prospects has been reported or disclosed previously. The Purple Rain Prospect was previously referred to as the Eastern Porphyry Prospect by Perilya Mines NL.
Further work	contaminating substances. The nature and scale of planned further work	A range of exploration techniques will be considered to progress
	(e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	exploration including additional surface sampling and 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.	Refer to figures in the body of this announcement.