

ASX RELEASE 1 April 2020

**ASX: MGV** 

# More high-grade gold at Starlight Link-Lode, Break of Day

- Assays for a further four RC drill holes have been received including three from the Starlight Link-Lode at Break of Day
- Significant assays include:
  - 42m @ 6.8g/t Au from 70m, (20MORC018) including;
    - 4m @ 65.9g/t Au from 70m, including;
      - 1m @ 173.6g/t Au from 71m
    - 2m @ 3.6g/t Au from 101m and
    - 2m @ 6.2g/t Au from 110m
  - 4m @ 1.7g/t Au from 136m to end of hole (20MORC019) with the hole terminating in mineralisation
- The high-grade Starlight Link-Lode is now confirmed over a strike length of 100m, with the high-grade mineralisation remaining open to the west and down dip
- Additional follow-up RC drilling of the Starlight Link-Lode is expected to commence in May

Musgrave Minerals Ltd (ASX: **MGV**) ("Musgrave" or "the Company") is pleased to report further high-grade gold assay results from reverse circulation ("RC") drilling at the 100% owned Starlight Link-Lode at the Break of Day deposit on the Company's flagship Cue Gold Project in Western Australia's Murchison district (*Figure 1*). Drilling was focused on testing the new high-grade link-lode and has continued to return consistent, high-grade gold results in drilling where the mineralisation has now been extended to a strike of over 100m and remains open to the west and down dip.

Musgrave Managing Director Rob Waugh said "These are more fantastic assay results at Starlight where the link-lode continues to deliver high gold grades. Drilling continues to extend the lode which is now defined over a strike of more than 100m and remains open to the west and down dip. Further drilling is expected to continue to extend the high-grade mineralisation. Starlight also remains open near surface and the confirmation of multiple individual lodes within this link position will enhance the upside potential and the economics of this new discovery."

This RC drilling program at Break of Day consisted of 13 holes for 2,490m. Assays for nine holes have been previously reported; although one metre re-assay of composite samples are awaited. New assay results are provided in this announcement (*Table 1a and 1b*).

## **Break of Day**

The Break of Day gold deposit has a resource of 868Kt @ 7.2g/t Au for 199koz contained gold. The Cue Gold Project hosts total resources of 6.45Mt @ 3.0g/t Au for 613koz and includes Break of Day and the Lena deposit located 130m to the west (see MGV ASX releases dated 14 July 2017 and 17 February 2020).

The Break of Day resource estimate is currently based on two sub-parallel quartz vein lodes (Twilight and Velvet) striking approximately 30 degrees (Figure 2) which remain open at depth and to the south where recent drilling has intersected gold mineralisation outside the current resource boundary. The resource estimate does not include the results from the new Starlight Link-Lode.

# Starlight Link-Lode and drilling results

The identification of the high-grade Starlight Link-Lode structure is significant as it has the potential to add shallow, high-grade gold ounces to the resource. It is possible that other linking

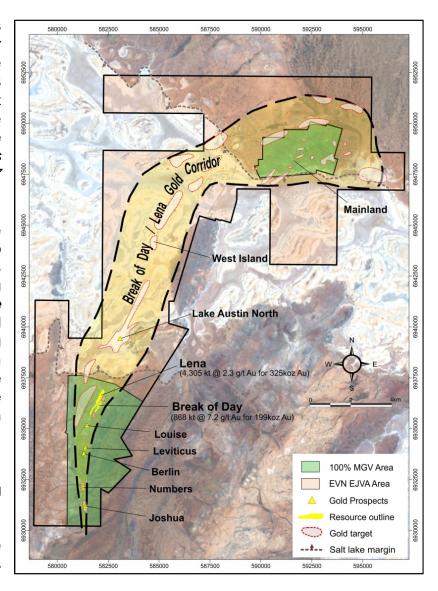


Figure 1: Prospect location plan

structures may be present within the region which will open a large new search space for exploration and increase the probability of growing the resource base. Following minor delays in assaying, further drilling is now planned for May.

The Starlight mineralisation is currently interpreted to lie within an east-west zone, at least 100m long and consists of multiple high-grade gold veins that dip steeply to the south (*Figures 2, 3 and 4*). The mineralisation remains open up and down dip and is yet to be drill tested near surface.

Significantly, all the intersections returned from Starlight sit outside the current resource boundary.

Drill hole 20MORC018 intersected the Starlight Link-Lode at 70m down hole and returned 4m @ 65.9g/t Au from 70m including 1m @ 173.6g/t Au, and 2m @ 6.2g/t Au from 110m (all one metre samples)

within a broad zone of **42m** @ **6.8g/t Au** from 70m (*Figures 2 and 3*). The intercept is 65m up-dip of 20MORC013 which intersected 42m @ 5.6g/t Au (see *MGV ASX release dated 16 March 2020, "Starlight Link-lode shines at Break of Day"*).

Drill hole 20MORC019 (*Figure 2*) collared 25m west of 20MORC015 (60m @ 2.7g/t Au, including 6m @ 13.0g/t Au (see *MGV ASX release dated 16 March 2020, "Starlight Link-lode shines at Break of Day"*)), intersected **4m** @ **1.7g/t Au** from 136m down hole through to the end of hole **where the mineralisation remains open and untested.** The hole terminated prematurely due to a detached drill bit just as shearing and veining intensified.

Drill hole 20MORC017 collared 30m to the east of 20MORC014 intersected no significant mineralisation. lt possible the mineralisation is terminated to the east or pinches out but further drilling required is confirm this.

Drill hole 20MORC016 was collared approximately 400m to the north to test for a second link-lode structure but only intersected low grade mineralisation.

Assay results and drill collars for these final four Break of Day RC drill holes are shown in Tables 1a and 1b.

A further program of follow-up RC drilling is being planned to commence in May 2020 assuming no exploration drilling restrictions in relation to the COVID-19 pandemic are in place at this time. This will be completed together with a diamond drilling program ahead of a resource update for Break of Day that is scheduled for Q3 2020.

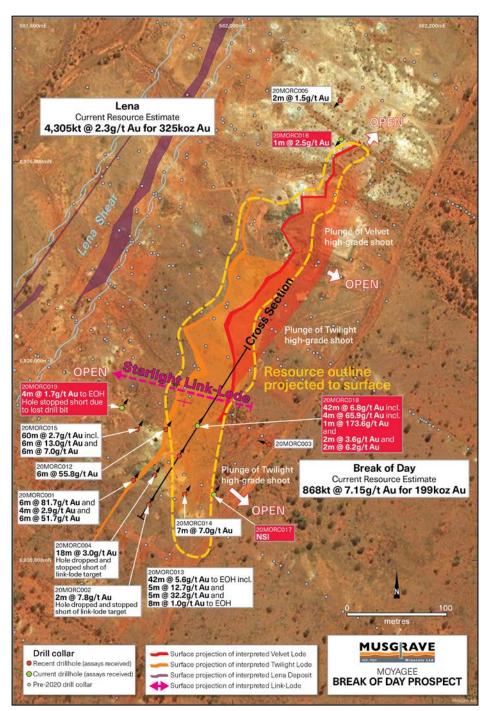


Figure 2: Plan showing Starlight link-lode position at Break of Day and new drill collars and assay results

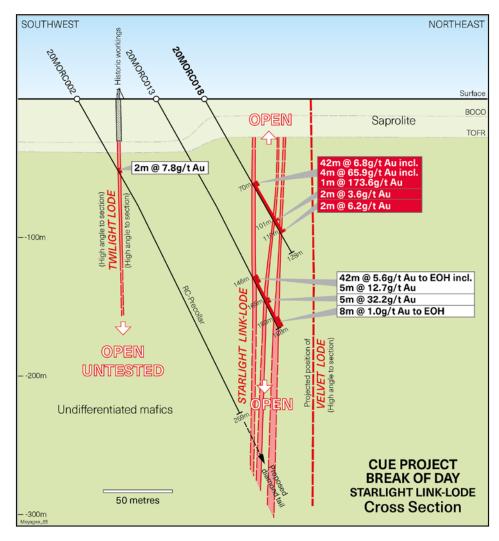


Figure 3: Cross-section of Starlight Link-lode at Break of Day

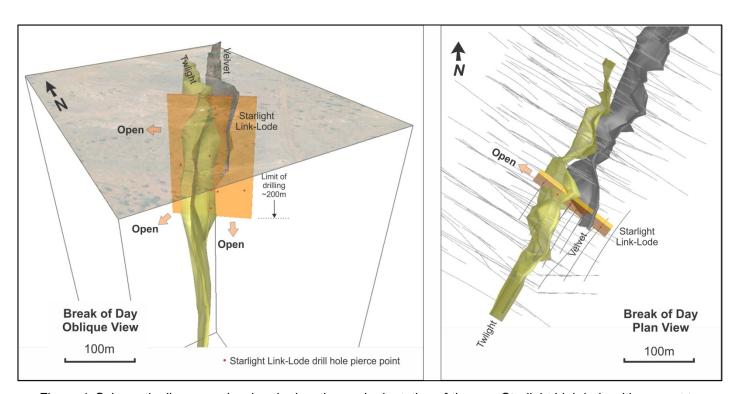


Figure 4: Schematic diagrams showing the location and orientation of the new Starlight Link-lode with respect to the known Twilight and Velvet gold lodes at Break of Day

## **Response to COVID-19**

Musgrave is continuously reviewing the situation relating to the COVID-19 pandemic and the implications for the health and wellbeing of our employees, contractors and stakeholders.

The Company has been pro-active with respect to its response to COVID-19 and has developed operational procedures and plans in line with official health advice and government directives. Musgrave will continue to operate within these guidelines and will adapt its procedures as required.

Musgrave has a strong cash position but has tightened expenditure and will continue to advance the Cue Gold Project with a near term focus on the wholly owned Starlight Link-Lode at Break of Day and the Evolution Mining funded joint venture over Lake Austin.

# **Ongoing Exploration**

## Musgrave 100% tenements

- One metre resamples from some anomalous four and six metre composite samples remain awaited from Starlight and will be reported on receipt.
- Follow-up drilling at Break of Day on the new Starlight Link-Lode at Break of Day will resume
  in May ahead of an anticipated resource update for the deposit in Q3, 2020.

# **Evolution JV**

- Four diamond drill holes have been completed for 1,578.3m over four separate targets defined by Archaean regolith gold anomalies in aircore drilling. Results will be batched and reported when assaying is complete.
- The regional aircore drilling program on Lake Austin is progressing well with 138 holes for 14,382m completed to date. Results will be reported on completion of the program and receipt of final assays.

#### THE CUE PROJECT

The Cue Project ("the Project") is located in the Murchison district of Western Australia (*Figure 5*) and hosts Mineral Resources (Indicated and Inferred) totalling 6.45Mt @ 3.0g/t gold. The Company has defined a +28kmlong prospective gold corridor that includes the Lake Austin North and Mainland-Consols gold discoveries.

The Company believes there is significant potential to extend existing mineralisation and discover new gold deposits within the Project area, as demonstrated by the recent drilling success at Break of Day, Lena and Lake Austin North. Musgrave's intent is to investigate options to best develop a low-cost operation, capable of delivering strong financial returns for its shareholders.

Musgrave has executed an \$18 million Earn-in and Exploration Joint Venture with Evolution Mining Ltd over the Lake Austin portion of the Cue Project (*Figure 5*). The Break of Day, Lena and Mainland areas are excluded from the Earn-in and Exploration Joint Venture with Evolution Mining Ltd.

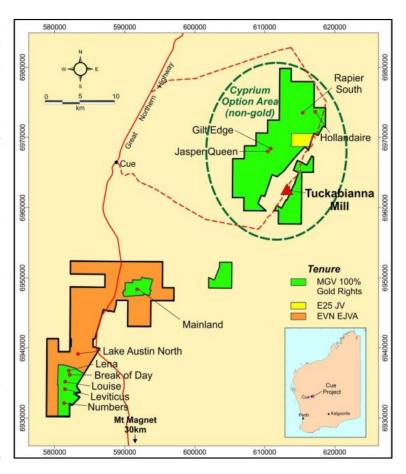


Figure 5: Cue Project location plan and tenure

In May 2019 Cyprium Australia Pty Ltd ("Cyprium") exercised an exclusive option to earn an 80% interest in the non-gold rights over the northern tenure at Cue including the Hollandaire deposit (*Figure 5*). Cyprium is required to spend \$2 million on exploration within two years to acquire the 80% interest. Musgrave will retain 100% of the gold rights and a 20% free-carried interest in the non-gold rights to the completion of a definitive feasibility study.

For and on behalf of Musgrave Minerals Limited. Rob Waugh Managing Director

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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 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.

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#### Additional JORC Information

Further details relating to the information provided in this release can be found in the following Musgrave Minerals' ASX announcements:

- 16 March 2020, "Starlight Link-lode shines at Break of Day" 12 March 2020, "Half Year Accounts
- 28 February 2020, "High-grade gold intersected Link-lode, Break of Day"
- 17 February 2020, "Lena Resource Update" 30 January 2020, "Drilling resumes at Break of Day"
- 13 January 2020, "More high-grade gold intersected at Cue"
- 3 December 2019, "New high-grade 'link-lode' intersected at Break of Day, Cue Project"
- 27 November 2019, "High-grade gold intersected in drilling at Mainland, Cue Project"
- 21 November 2019, "2019 AGM Presentation"
- 18 November 2019, "Drilling commences at Lake Austin North, Evolution JV, Cue"
- 30 October 2019, "Mainland drilling commences and more high-grade gold intersected at Lena, Cue Project"
- 24 October 2019, "September Quarterly Activities and Cashflow Report" 18 October 2019, "Annual Report"
- 18 October 2019, "Notice of Annual General Meeting / Proxy Form"
- 17 October 2019, "Company Presentation Brisbane Resources Round-up"
- 9 October 2019, "High-grade gold intersected at Break of Day and ultra-high-grade rock-chip sample from Mainland, Cue Project"
- 24 September 2019, "Further High-grade gold intersected at Lena below the existing resource, Cue Project"
- 17 September 2019, "Musgrave and Evolution sign an \$18 million Earn-In JV and \$1.5M placement to accelerate exploration at Cue"
- 3 September 2019, "High-Grade Gold Extension at Break of Day, Cue Project"
- 20 August 2019, "High-Grade Gold Intersected at Lena and Mainland, Cue Project"
- 30 July 2019, "Quarterly Activities and Cashflow Report"
- 12 July 2019, "Opportunity to Extend Lena High-Grade Resource at Cue"
- 4 July 2019, "Drilling commences at newly acquired Mainland Prospect, Cue"
- 28 May 2019, "Scout Drilling Extends Gold Zone to >3km at Lake Austin North"
- 1 May 2019, "Drilling at A-Zone Continues to Deliver Thick, High-Grade Gold Intersections"
- 6 March 2019, "Musgrave Secures More Key Gold Tenure at Cue"
- 3 December 2018, "Diamond Drilling Confirms Significant Gold Discovery at Lake Austin North"
- 29 October 2018, "High-Grade Extended at Lake Austin North, Cue"
- 15 October 2018, "Annual Report"
- 31 August 2018, "First RC drill hole hits 42m @ 3.2g/t Au at Lake Austin North, Cue"
- 27 July 2018, "Lake Austin North target continues to deliver strong gold results, Cue Gold Project, WA"
- 15 June 2018, "High-Grade Gold Intersected at Lake Austin North, Cue Gold Project, WA"
- 18 May 2018, "New Drill Results Highlight Regional Discovery Potential at Cue Gold Project, WA"
- 16 August 2017, "Further Strong Gold Recoveries at Lena"
- 14 July 2017, "Resource Estimate Exceeds 350koz Au"
- 6 July 2017, "Excellent Gold Recoveries Achieved from Initial Metallurgical Test Work at Lena"
- 16 June 2017, "More Gold Intersected Near Surface at Lena" 6 June 2017, "High Grade Gold Intersected Near Surface at Lena"
- 24 May 2017, "High Gold Grades Continue at Break of Day and Lena"
- 20 April 2017, "Excellent High Grade Gold Hits at Break of Day and Lena" 18 April 2017, "More High Grade Gold Results at Lena"
- 3 April 2017, "Strong Gold Results Continue at Break of Day and Lena"
- 17 March 2017, "Drilling Extends High Grade Gold at Break of Day and Lena"
- 30 January 2017, "Diamond Drilling Confirms High Grade Gold at Break of Day and Extends High Grade Gold at Lena"

### 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.

Table 1a: Summary of recent RC drill assay intervals from Break of Day

Drill Hole ID	Drill Type	Prospect	Sample Type	From (m)	Interval (m)	Au (g/t)	Lode	Comment		
20MORC016	RC	Break of Day	Individual 1m	57	1	2.5	New target	Collared 400m north of Starlight Link-lode to test another possible link structure		
20MORC017	RC	Break of Day	6m composite	NSI		Starlight Link-lode	Eastern most hole intersected dolerite – further drilling required to determine if lode present to east			
		RC Break of Day	Combination of Individual 1m and 6m composites	70	42	6.8	Starlight Link-lode	Open up dip		
			Including Individual 1m	70	4	65.9	Starlight Link-lode	Open up dip		
20MORC018	RC		including	71	1	173.6	Starlight Link-lode	Open up dip		
			Individual 1m	101	2	3.6	Starlight Link-lode splay	Open up dip		
			Individual 1m	110	2	6.2	Starlight Link-lode splay	Open up dip		
20MORC019	RC	Break of Day	4m composites	136	4	1.7	Starlight Link-lode	Open to west & up & down dip Hole terminated just as entering mineralised zone due to lost bit		

## Table 1b: Summary of recent Break of Day RC Drill Collars

Drill Hole ID	Drill Type	Prospect	Easting (m)	Northing (m)	Azimuth (deg)	Dip (deg)	RL (m)	Total Depth (m)	Assays
20MORC001	RC	Break of Day	581901	6935880	32	-60	418	248	Composites previously reported
20MORC002	RC	Break of Day	581916	6935856	32	-60	418	254	Previously reported
20MORC003	RC	Break of Day	582036	6935916	302	-60	418	249	Composites previously reported
20MORC004	RC	Break of Day	581922	6935885	32	-60	418	206	Composites previously reported
20MORC005	RC	Break of Day	582108	6936261	212	-60	418	242	Previously reported
20MORC012	RC	Break of Day	581933	6935931	32	-60	418	158	Composites previously reported
20MORC013	RC	Break of Day	581947	6935905	32	-60	418	188	Composites previously reported
20MORC014	RC	Break of Day	581952	6935866	32	-60	418	218	Composites previously reported
20MORC015	RC	Break of Day	581904	6935931	32	-60	418	164	Composites previously reported
20MORC016	RC	Break of Day	582109	6936222	212	-60	418	152	Reported above
20MORC017	RC	Break of Day	581981	6935866	32	-60	418	242	Reported above
20MORC018	RC	Break of Day	581965	6935935	32	-60	418	128	Reported above
20MORC019	RC	Break of Day	581889	6935953	32	-60	418	140	Reported above

#### Notes to Tables

- 1. An accurate dip and strike and the controls on mineralisation are only interpreted and the true width of the mineralisation are unconfirmed at this time but drill holes are oriented perpendicular to the interpreted strike of the mineralisation.
- 2. In RC drilling four or six metre composite samples are collected and analysed for gold while individual one metre samples are collected and analysed pending composite results.
- All samples are analysed using a 50g fire assay with ICP-MS (inductively coupled plasma mass spectrometry) finish gold analysis (0.005ppm detection limit) by Genalysis-Intertek in Maddington, Western Australia g/t (grams per tonne), ppm (parts per million), ppb (parts per billion), NSI (no significant intercept)
- 5. Higher grade intersections are generally calculated over intervals >1.0g/t Au where zones of internal dilution are not weaker than 2m < 0.5g/t Au. Composite samples assaying >0.1g/t Au are re-analysed at one metre intervals.
- All Drill holes are reported in Tables 1a and 1b above.
- Drill type; AC = Aircore, RC = Reverse Circulation, Diam = Diamond
- Coordinates are in GDA94, MGA Z50

#### ---ENDS---

# **JORC TABLE 1 Section 1 Sampling Techniques and Data**

Criteria	Explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. cut channels,	Current RC drill program
	random chips, or specific specialised industry standard	RC samples are composited at 4m or 6m intervals using a
	measurement tools appropriate to the minerals under	stainless steel scoop with all composite intervals over 0.1g/t Au
	investigation, such as down hole gamma sondes, or	resampled at 1m intervals by cyclone splitter. Individual 1m
	handheld XRF instruments, etc). These examples should	samples are submitted for initial assays where significant
	not be taken as limiting the broad meaning of	obvious mineralisation is intersected.
	sampling.	EVN JV diamond drilling program
		Diamond samples are marked at geological intervals with
		individual samples generally not larger than 1.5m and smaller
		than 0.25m.
		Historical sampling criteria are unclear for pre 2009 drilling.
		MGV sampling is undertaken using standard industry practices
		including the use of duplicates and standards at regular intervals.
		All Reverse circulation (RC) samples are split to 1-3kg in weight
		through a cyclone splitter on the drill rig for 1m drill intervals.
		A Thermo Scientific Niton GoldD XL3+ 950 Analyser is available
		on site to aid geological interpretation. No XRF results are
		reported.
		All diamond samples are marked at geological intervals with
		individual samples generally not larger than 1.5m and smalle
		than 0.25m.
	Include reference to measures taken to ensure sample	All co-ordinates are in UTM grid (GDA94 Z50) and drill hole
	representivity and the appropriate calibration of any	collars have been surveyed by GPS to an accuracy of 0.5m.
	measurement tools or systems used.	Conars have been surveyed by or 5 to an accuracy or o.sm.
	Aspects of the determination of mineralisation that are	Current RC drill program
	Material to the Public Report. In cases where 'industry	RC samples are composited at 4m or 6m intervals using
	standard' work has been done this would be relatively	stainless steel scoop with all intervals over 0.1g/t Au resample
	simple (eg 'reverse circulation drilling was used to	at 1m intervals by cyclone splitter. The 3kg samples are
	obtain 1m samples from which 3kg was pulverised to	pulverised to produce a 50g charge for fire assay with ICP-M
	produce a 30g charge for fire assay'). In other cases	finish for gold.
	more explanation may be required, such as where there	EVN JV diamond drilling program
	is coarse gold that has inherent sampling problems.	All diamond core was PQ, HQ or NQ2 and cut with an Almont
	Unusual commodities or mineralisation types (eg	automatic diamond saw and half core sampled at intervals no
	submarine nodules) may warrant disclosure of detailed	greater than 1.5m.
	information.	
		Historical sampling criteria are unclear for pre 2009 drilling.
		MGV RC samples were collected as 4m or 6m composites for a
		drill holes in the current program. One metre individual sample
		are immediately submitted for analysis where a high probabilit
		of mineralisation occurs (e.g. quartz vein lode or massiv
		sulphide). All one metre samples are split to 1-3kg in weigh
		through a cyclone splitter which is air blasted clean at the en
		of each 6m rod.
		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.  Samples are sent to the Genalysis – Intertek laboratory in
		Maddington. Samples are pulverized to 85% passing -75um and
		composite samples are analysed using a 50g fire assay with ICP-
		Composite samples are analysed using a sog me assay with ter-
		MS (inductively coupled plasma - mass spectrometry) finish gol

Drilling techniques	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).	Current RC drill program RC drilling was used in this MGV program. Challenge drilling Pty Ltd utilised a KWL 350 drill rig with 1100/350 on-board compressor with an Atlas Copco 1,000 cfm auxiliary, Hurricane 2,400cfm, 1,000 psi booster. Four inch RC drill rods with a 5.75" face hammer were utilised. Down hole surveys were undertaken at a maximum of 30m intervals using a north seeking gyroscopic tool not subject to magnetic interference. EVN JV diamond drilling program The lake diamond drilling program is being undertaken by West Core utilising a LF90D drilling rig recovering PQ and HQ core.  Historical drilling was a combination of RAB, aircore, RC and diamond at Lena. MGV undertook this diamond drilling program utilising Central Kal drilling with a 5 5/8 inch hammer for RC pre-collars and NQ2 diamond core. The current program consisted of 7 diamond drill holes. A total of more than 178 RC holes and 14 diamond drill holes have been drilled by MGV at Break of Day & Lena. Historically Silver Lake Resources Ltd (SLR) undertook RC drilling at Break of Day and Lena between 2010 and 2013 with a number of companies intermittently drilling prior to 2009 including Perilya Mines Ltd (1991-2007). A combination of historical RAB, aircore, RC and diamond
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	drilling has been utilised by multiple companies over a thirty year period across the broader project area.  Current RC drill program  RC 4m or 6m composite samples are collected and re-assayed at 1m intervals were comps are above 0.1g/t Au. Sample weights, dryness and recoveries are observed and noted in a field Toughbook computer by MGV field staff.  EVN JV diamond drilling program  In diamond drilling the tops of the holes are drilled with the quick core method through the cover sequence and then PQ core is recovered from the top of Archaean regolith until it is reduced to HQ when fresh unbroken runs are achieved. Core
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	recovery is generally close to 100%.  MGV contracted drillers use industry appropriate methods to maximise sample recovery and minimise downhole contamination including using compressed air to maintain a dry sample in RC drilling. A cyclone splitter was utilised to split 1-3kg of sample by weight. The splitter is air blasted clean at the end of each 6m rod.  Historical sampling recovery is unclear for pre 2009 drilling.
	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.	No significant sample loss or bias has been noted in current drilling or in the historical reports or from other MGV drill campaigns.
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.	All geological, structural and alteration related observations are stored in the database.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Logging of lithology, structure, alteration, mineralisation, weathering, colour and other features of core or RC/aircore chips is undertaken on a routine 1m basis or on geological intervals for diamond core.
	The total length and percentage of the relevant intersections logged.	All drill holes are logged in full on completion.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Diamond drilling recovered PQ, HQ and NQ2 size core. Core is cut with a diamond blade saw at the Intertek laboratory in Maddington where half core is crushed to 90% nominally pass 75Um.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples are composited at 4m or 6m intervals using a stainless steel scoop with all intervals over 0.1g/t Au resampled at 1m cyclone split intervals.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Drill sample preparation and base metal and precious metal analysis is undertaken by a registered laboratory (Genalysis – Intertek). Sample preparation by dry pulverisation to 85% passing 75 micron.
	Quality control procedures adopted for all sub- sampling stages to maximise representivity of samples.	MGV field QC procedures involve the use of certified reference standards (1:50), duplicates (~1:30) and blanks (1:50) at appropriate intervals for early stage exploration programs. High, medium and low gold standards are used. Historical QA/QC procedures are unclear for pre 2009 drilling.

	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.	Sampling is carried out using standard protocols and QAQC procedures as per industry practice.  Duplicate samples are inserted (~1:30) and more frequently when in high-grade gold veins, and routinely checked against originals. Duplicate sampling criteria is unclear for historical pre 2009 drilling.  Historical QA/QC procedures are unclear for pre 2009 drilling.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample sizes are considered appropriate for grain size of sample material to give an accurate indication of gold mineralisation. Samples are collected from full width of sample interval to ensure it is representative of samples lithology.
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.	On composite RC samples and 1m cyclone split samples, analysis is undertaken by Intertek-Genalysis (a registered laboratory), with 50g fire assay with ICP-MS finish undertaken for gold. This is also the technique used for sampling of diamond core.  Internal certified laboratory QAQC is undertaken including check samples, blanks and internal standards.  This methodology is considered appropriate for base metal mineralisation and gold at the exploration phase.  In diamond core individual samples are analysed through potential gold mineralised zones. Analysis is by 50g fire assay with ICP-MS finish for gold.
	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. Musgrave utilise a Thermo Scientific Niton GoldD XL3+950 Analyser to aid geological interpretation.
	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.	MGV field QC procedures involve the use of certified reference standards (1:50), duplicates (~1:30) and blanks (1:50) at appropriate intervals for early stage exploration programs.  Historical QA/QC procedures are unclear for pre 2009 drilling.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.  The use of twinned holes.	MGV samples are verified by the geologist before importing into the main MGV database (Datashed).  No twin holes have been drilled by Musgrave Minerals Ltd during this program.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Primary data is collected using a standard set of templates. Geological sample logging is undertaken on one metre intervals for all RC 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 (GDA94 Z50) and have been surveyed or measured by hand-held GPS with an accuracy of >±5 metres.  Down hole surveys are undertaken using the axis digital clinometer and gyroscope down hole tool in either continuous reading mode or at regular 30m intervals.
	Specification of the grid system used.	Drill hole and sample site co-ordinates are in UTM grid (GDA94 Z50) and historical drill holes are converted from local grid references.
	Quality and adequacy of topographic control.	Historical drill hole collars and RL's are surveyed by qualified surveyors in most instances in the resource areas post drilling. Differential GPS is used to survey drill hole collars with an accuracy of +-0.01 metre including RL's. Drill hole collars are planned and set up using standard GPS (accuracy +-2m).
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Variable drill hole spacings are used to adequately test targets and are determined from geochemical, geophysical and geological data together with historical drilling information.  At Mainland–Consols 25m drill hole spacings were undertaken but spacing is generally variable and dependent on geology, continuity, resource status and geological understanding and confidence.  At Lena a general pattern of approximately 25-75m drill spacings on 25m spaced sections has been completed through multiple phases over many years.  Historical drill hole spacings at Break of Day and Lena are variable although Perilya, SLR and MGV drilled a number of holes at approximately 12.5m, 25m or 50m sections from 1991-2019.

	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 a current JORC 2012 Mineral Resource at Break of Day and Lena defined 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".
	Whether sample compositing has been applied.	No sample compositing has been undertaken in the diamond drilling. One metre individual RC samples routinely split by the drill rig cyclone are undertaken for all RC drill holes but only 4m or 6m composite samples are submitted for analysis. Where composite assays are above 0.1g/t Au, individual 1m samples are submitted for gold assay.  Six metre sample compositing has also been undertaken using a stainless steel scoop for all RC drill holes in the current program. Composite sampling is undertaken using a stainless steel spear (trowel) at one metre samples and combined in a calico bag. Historical QA/QC procedures are unclear for pre 2009 drilling.
Orientation of data	Whether the orientation of sampling achieves unbiased	Drilling is designed to cross the mineralisation as close to
in relation to	sampling of possible structures and the extent to which	perpendicular as possible on current interpretation whilst
geological structure	this is known, considering the deposit type.	allowing for some minor access restrictions and mitigating safety risks.  Most drill holes are designed at a dip of approximately -60 degrees. The mineralisation at Break of Day and Lena is interpreted to dip between 70-90 degrees to the west. An accurate dip and strike of mineralisation at Mainland is unknown at this time.  Drill intersections at Break of Day and Lena are interpreted to be between 50-80% of the drill intersection width.
	If the relationship between the drilling orientation and	No orientation based sampling bias is known at this time.
	the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	
Sample security	The measures taken to ensure sample security.	Chain of custody is managed by MGV internal staff. Drill samples are stored on site and transported by a licenced reputable transport company to a registered laboratory in Perth (Genalysis-Intertek at Maddington). When at the laboratory samples are stored in a locked yard before being processed and tracked through preparation and analysis (Lab-Trak system).
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	During the resource estimate an external review of the geological interpretation, data and modelling techniques was undertaken by CSA global.

**Section 2 Reporting of Exploration Results** 

Criteria	Explanation	Commentary
Mineral tenement and land tenure status	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.	Musgrave Minerals secured 100% of the Moyagee Project area in August 2017 (see MGV ASX announcement 2 August 2017: "Musgrave Secures 100% of Key Cue Tenure") from Silver Lake Resources Ltd.  The Break of Day and Lena prospects are located on granted mining lease M21/106 and the primary tenement holder is Musgrave Minerals Ltd.  The Cue project tenements consist of 38 licences (Lena and Break of Day is on M21/106 and Hollandaire E20/699).  The tenements are subject to standard Native Title heritage agreements and state royalties. Third party royalties are present on some individual tenements.  The Mainland prospects are on tenements P21/731, 732, 735, 736, 737, 739, 741 where MGV has an option to acquire 100% of the basement gold rights on the tenements (not part of the EVN JV).  A new Earn-in and Exploration Joint Venture was executed with Evolution Mining Ltd on 16 September 2019 covering Lake Austin and some surrounding tenure but excludes all existing resources including Break of Day and Lena (see MGV ASX release dated 17 September 2019, "Musgrave and Evolution sign an \$18 million Earn-in JV and \$1.5 million placement to accelerate exploration at Cue") and the new Mainland option area.
	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.	The tenements are in good standing and no known impediments exist.

Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Historical drilling, 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 Break of Day, Lena and Mainland historical exploration and drilling has been undertaken by a number of companies and at Break of Day and Lena most recently by Silver Lake Resources Ltd in 2009-13 and prior to that by Perilya Mines Ltd form 1991-2007. Musgrave Minerals has undertaken exploration since 2016.
Geology	Deposit type, geological setting and style of mineralisation.	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.
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.	All relevant drill hole information has previously been reported by Perilya, Silver Lake Resources, MGV and various other companies over the years.
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.	Significant assay intervals are recorded above 1g/t Au with a minimum internal interval dilution of 2m @ 0.5g/t Au. No cutoff has been applied to any sampling.
	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.	No cut-off has been applied to any sampling. Reported intervals are aggregated using individual assays above 1g/t Au with no more than 2m of internal dilution <0.5g/t Au for any interval. Short high-grade intervals are tabulated in Table 1a.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalent values have been reported.
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').	True widths are not confirmed but all drilling is planned close to perpendicular to interpreted targets.
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.	Diagrams referencing historical data can be found in the body of this report.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All older MGV drilling data has previously been reported. Higher grade historical results are reported selectively in this release to highlight the follow-up areas for priority drilling. All data pierce points and collars are shown in the diagrams within this release.
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.	All material results from geochemical and geophysical surveys and drilling related to these prospects has been reported or disclosed previously.
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).	A range of exploration techniques will be considered to progress 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.