ASX RELEASE 2 November 2020

ASX: MGV

Exceptional gold recoveries achieved from metallurgical test work at Starlight

- **Excellent total gold recovery confirmed by metallurgical test work on composite samples from the Starlight lode**
  - **98-99% recoverable gold from conventional gravity and cyanide leach tests**
- **Exceptional gravity-only recoveries were achieved, >80% in fresh rock and transitional zones and >50% in oxide zones in test work**
- **Standard to low reagent consumption and no deleterious elements identified**
- **Break of Day resource update is scheduled for November**
- **Regional drill testing of Starlight analogue targets within the belt is continuing**

Musgrave Minerals Ltd ("Musgrave" or "the Company") (ASX: **MGV**) is pleased to announce that it has completed initial metallurgical test work on the Starlight gold lode at Break of Day, on the Company's wholly owned ground at the Cue Project in the Murchison region of Western Australia (*Figure 1*) with exceptional results.

The testwork has highlighted gravity and cyanide leach recoveries averaging 98-99% across the different domains (oxide, transitional and fresh) and importantly highlighted the amenability to conventional gravity and leaching techniques using standard reagents.

Musgrave Managing Director Rob Waugh said, *"This is a fantastic result at Starlight - Break of Day. The very high total gold recovery and high gravity-only component recovery ensures that conventional processing options can be applied in any development scenario and also means the mineralisation is suitable for treatment through several of the nearby processing facilities currently in operation."*

Metallurgical recovery tests were completed on the four samples (oxide, transitional and 2 x fresh composites) at various grind sizes across the strike and depth extent of the Starlight lode. The gravity recoverable component was initially concentrated using a conventional laboratory scale bench top Knelson concentrator, followed by amalgamation and intensive cyanide leaching of the concentrate.

A conventional 48hr cyanide leach was then carried out on reground (P_{80} 75µm) residual material from the Knelson concentrator with readings taken periodically to determine leach kinetics of the samples.

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The test work demonstrated very rapid leaching kinetics for all four samples and overall recovery of between 98.8% and 99.5% over short leach times.

In addition, high gravity-only recoveries of >50% (oxide) and >80% (transitional and fresh) at a P_{80} of 212µm initial grind were achieved from a single pass through the Knelson concentrator. These gravity recoveries are very positive.

Cyanide consumption from the tests are considered average for a typical Yilgarn gold ore and were completed at an established grind size of ~80% passing 75µm.

The test work was undertaken by ALS Metallurgical Laboratories in Balcatta, Western Australia and managed and reviewed by Ivan Hunter at Minelogix.

Starlight Metallurgical Testwork Summary Details

Metallurgical Sample Selection

Four composite drill samples were collected from 16 representative drill holes (*Figure 3 and Table 4*) across strike and vertical section, including the regolith, of the Starlight gold lode at Break of Day. The samples consisted of one oxide (SOMC01), one transition (STMC01) and two primary (fresh) composites. The two primary composites represented mineralisation collected from various depths; Composite 1 (SFMC01) being collected from 60-140m and Composite 2 (SFMC02) collected from intercepts deeper than 150m. All individual samples were diluted with at least 1m of footwall and hanging wall material with overall dilution being typically 25%.

Gold Head Assays, Methods and Mineralogy

All samples were analysed via the following methods, 500g Screen Fire Assay (“SFA”), 50g Fire Assay (“FA”) and Aqua Regia (“AR”) with gold grades in all composites noted as high to very high. Additionally, full elemental analyses were conducted on all composites. The head assays from the metallurgical composites are summarised in Table 1 below. There was nothing deleterious detected in the analysis.

Table 1: Composite Multi-Element Head Assay Summary

A21422 - Starlight Lode
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Head Assay Results - Details And Results

Analyte	Sample ID			
	OXIDE MC [SOMC01]	TRANS MC [STMC01]	FRESH MC [SFMC01]	FRESH MC [SFMC02]
Au SFA (ppm)	113	58.5	19.3	17.1
Au FA (ppm)	139	78.8	18.7	17.6
Au FA (ppm)	111	62.4	16.2	13.7
Au AR (ppm)	111	77.0 / 75.7	18.8	14.2
Ag (ppm)	1.8	3.0	2.7	0.9
As (ppm)	30	20	60	40
Bi (ppm)	<10	<10	<10	<10
C_{TOTAL} (%)	0.33	0.54	2.52	2.55
$C_{ORGANIC}$ (%)	0.06	<0.03	<0.03	<0.03
Ca (%)	0.8000	1.0000	5.90	6.60
Cu (ppm)	162	158	104	118
Fe (%)	8.76	8.74	6.92	7.74
Hg (ppm)	0.1	<0.1	<0.1	<0.1
Mg (%)	1.04	1.64	3.16	2.52
Mn (ppm)	1700	1900	1300	1500
Na (%)	1.08	2.34	1.44	1.47
Ni (ppm)	150	100	100	80
Pb (ppm)	<5	<5	<5	<5
S_{TOTAL} (%)	<0.02	0.12	0.32	0.60
$S_{SULPHIDE}$ (%)	<0.02	0.10	0.28	0.50
SiO2 (%)	59.2	59.4	52.4	50.0
Te (ppm)	0.4	0.4	0.6	0.4
Zn (ppm)	112	118	88	106

Comminution Characteristics

Bond Ball Work Index ("BBWi") tests were performed on the two Fresh mineralised master composites.

The results from these tests are summarised in Table 2.

Table 2: Summary of Primary Sample Comminution Results

Composite	Grind P80 µm	Bond Ball Mill Work Index kWh/t
SFMC01	52	11.2
SFMC02	66	13.1

The results suggest that the Starlight primary (fresh) mineralisation has a Bond Ball Work Index value of 11.2-13.1 kWh/t lower than many primary Yilgarn gold deposits.

Gold extraction testwork results

The testwork carried out on the Starlight regolith composites to determine the metallurgical characteristics included the following:

- Single stage GRG – gravity recoverable gold
- Batch gravity amalgam and intensive leach of gravity concentrate
- Bottle roll cyanidation leach extractions on mineralised samples and gravity tailing at various grind sizes

Gravity and Cyanide Leach Testwork

Small scale tests were carried out on all four composites to determine the amenability of the different types of Starlight regolith gold mineralisation to recovery by gravity and subsequent cyanidation. The tests were conducted using a laboratory size 3-inch Knelson centrifugal concentrator, on 3kg batches at a feed size of 80% passing 212µm. The gravity concentrate produced was then amalgamated with mercury in a bottle roll for two hours to recover free liberated gold with the amalgam tail then intensively leached. The gravity residue was then re-combined with the Knelson gravity tail for the downstream cyanide leach testwork using a bottle roll technique. As the head grade in the oxide and transitional mineralisation was very high, the initial cyanide concentration in this leach was increased to 0.15% as opposed to the 0.1% used for the fresh sample leaches. All tests were performed in Perth tap water and the results are provided in Table 3 below.

Table 3: Summary of Gold Recovery by Gravity- Leach @ Various Grinds

Test No.	Sample ID	Head Assay	Gravity Sep. Primary Grind Size	Cyanidation Regrind Size	Initial NaCN Dosage	Calc. Head	GOLD				CONSUMPTION	
							Tail Residue (ppm)	Amalgam GRG (%)	Total GRG (%)	Final Rec %	NaCN (kg/t)	Lime (kg/t)
		(Au ppm)	(µm)	(µm)	(% w/v)	(Au ppm)						
JS4711	OXIDE MC [SOMC01]	139 / 111 / 111	212	150	0.150	120	4.90	46.0	51.7	95.9	0.92	0.93
JS4712				106	0.150	118	3.11	46.6	52.5	97.4	0.81	1.14
JS4713				75	0.150	108	1.30	51.0	57.4	98.8	1.25	0.68
JS4714	TRANS MC [STMC01]	78.8 / 62.4 / 77.0 / 75.7	212	150	0.150	86.7	0.75	82.9	86.9	99.1	0.82	0.37
JS4715				106	0.150	86.0	0.40	83.6	87.7	99.5	1.03	0.32
JS4716				75	0.150	85.8	0.22	83.8	87.9	99.7	1.04	0.32
JS4717	FRESH MC [SFMC01]	18.7 / 16.2 / 18.8	212	150	0.100	16.7	0.21	68.4	82.7	98.8	0.43	0.25
JS4718				106	0.100	16.6	0.13	68.8	83.2	99.2	0.44	0.28
JS4719				75	0.100	16.6	0.08	69.0	83.4	99.5	0.36	0.26
JS4720	FRESH MC [SFMC02]	17.6 / 13.7 / 14.2	212	150	0.100	11.5	0.20	71.4	81.8	98.3	0.49	0.27
JS4721				106	0.100	11.6	0.15	70.9	81.3	98.7	0.53	0.23
JS4722				75	0.100	11.5	0.11	71.7	82.3	99.1	0.62	0.35

All mineralisation types are high in gravity-only recoverable gold with the transition and fresh (primary) samples very high i.e. tested at ~80% recovery. The oxide sample recovered >50% of the feed gold to the gravity-only concentrate stream.

A 40kg single stage gravity recoverable gold ("GRG") (P_{100} 850µm) performed on one fresh composite recovered ~70% of the feed gold into the gravity concentrate stream and showed that the gold in the feed is coarse to very coarse (P_{50} 185µm). Recoveries of liberated gold were >90% in the fractions between 38 and 106µm.

The inclusion of a gravity circuit when processing will reduce the spikes in feed grade and slow leaching of coarse gold entering the downstream carbon-in-leach ("CIL") circuit.

Cyanidation Testwork Observations

All the Starlight mineralised samples are classified as free milling with extractions typically near or above 99% at a grind size of 80% passing 75µm. Final gold extraction rates need to be confirmed when head grades from mining studies are determined.

Cyanide leach kinetics are fast with the majority of gold leached within the first eight hours for all the sample domains (*Figure 1*). As expected, slightly slower rates and extent of extraction are achieved at coarser grinds (*Figure 2*). Very low leach residues (<0.1g/t Au) were observed in the primary samples.

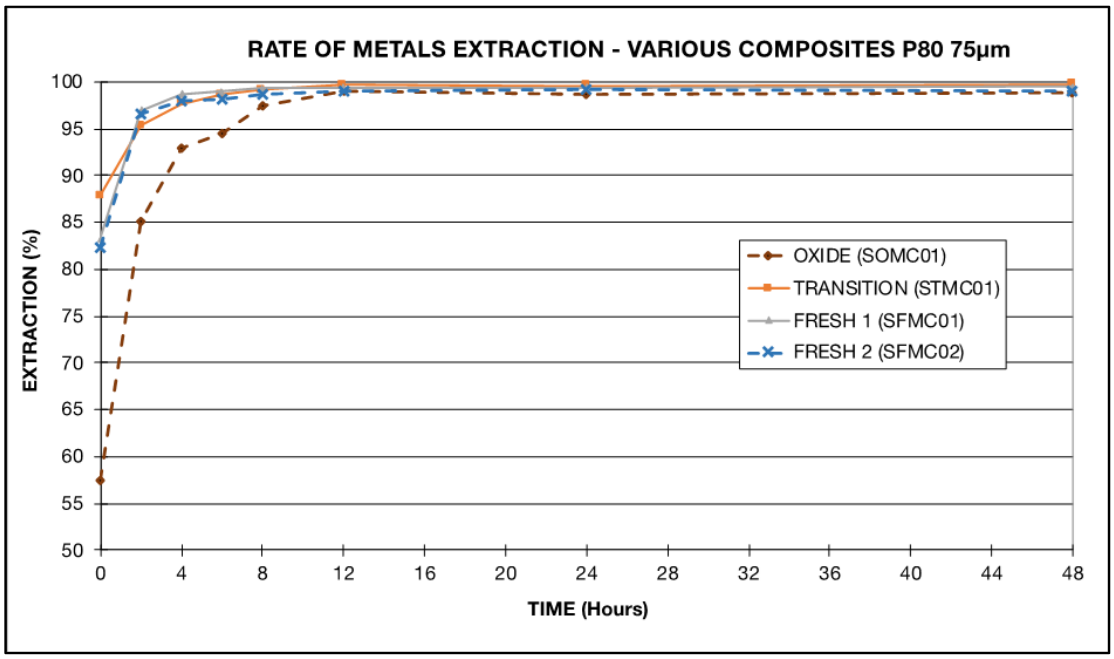

Figure 1: P_{80} 75µm Grind – Leach Extraction Curves – Various Samples

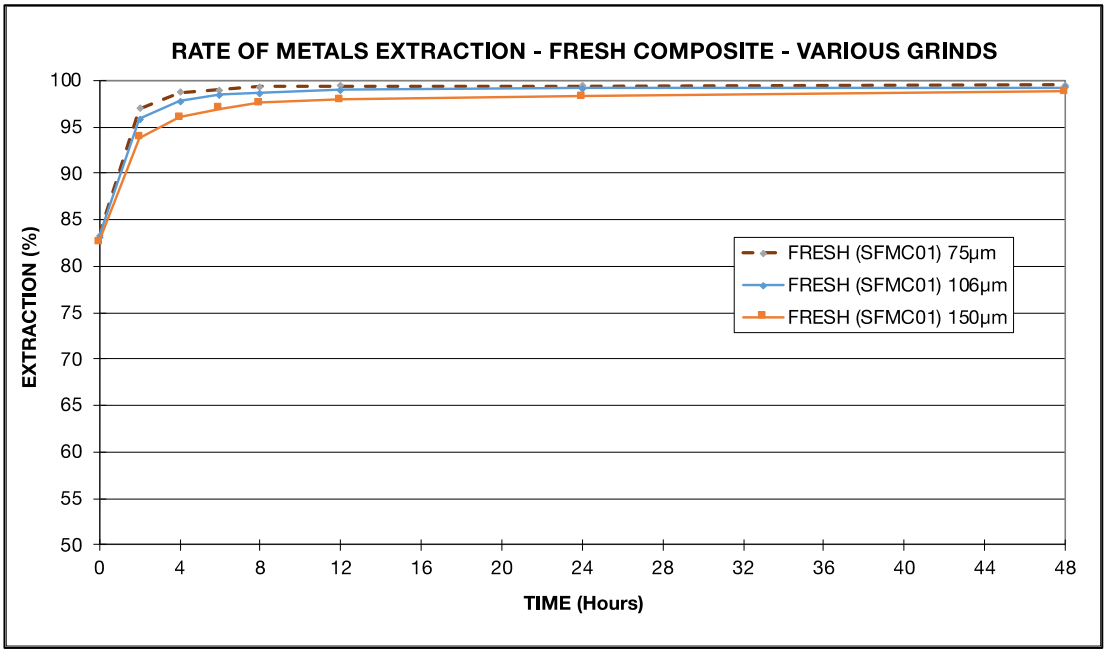

Figure 2: Leach Extraction Curves – Fresh Mineralisation – Various Grinds

The cyanide and lime consumption of the primary mineralisation is considered low with an average sodium cyanide consumption of ~0.5kg/t, and lime consumption of 0.3 kg/t. This is typical of many 'clean' free-milling primary gold ores.

The transitional mineralisation has a lower lime consumption of ~0.3-0.4kg/t which is partly lowered by the higher cyanide concentrations (0.15%) in the bottle roll tests. However, the cyanide consumption in the transitional sample is moderate at ~1.0kg/t.

The oxide mineralisation has a lower lime consumption of ~0.9kg/t than most typical oxide ores. Again, this is likely to have been lowered by the higher cyanide concentrations (0.15%) in the bottle roll tests.

Cyanide solubilisation of copper in all samples was generally <15% leached. This resulted in low copper solution values of <15ppm.

Lime consumptions were typical of the lithologies treated in Perth tap water which was used as a standard base case.

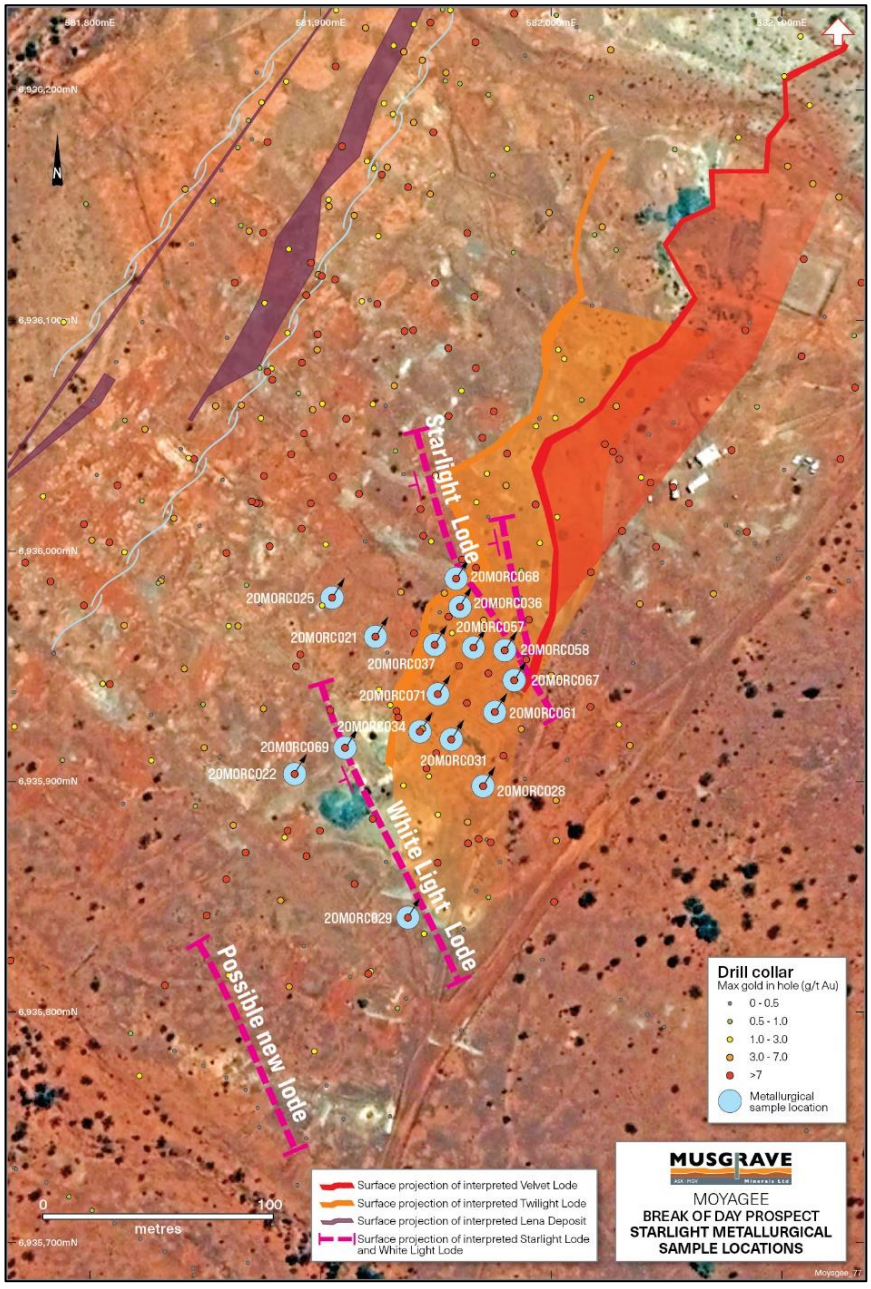

Figure 3: Plan of Starlight metallurgical test work sample locations at Break of Day

Break of Day

The Break of Day deposit is located approximately 30km south of Cue in the Murchison district of Western Australia. The Break of Day deposit is only 5km from the Great Northern Highway approximately 600km north of Perth.

The current resource estimate for the Cue Gold Project totals **6.45Mt @ 3.0g/t Au for 613koz** including the Break of Day deposit (868Kt @ 7.2g/t Au for 199koz contained gold) and the Lena deposit (4.3Mt @ 2.3g/t Au for 325koz contained gold) located 130m to the west of Break of Day (*see MGV ASX announcements dated 14 July 2017 and 17 February 2020*).

An updated resource estimate is in the process of being finalised and will include results from the new Starlight and White Light gold lodes.

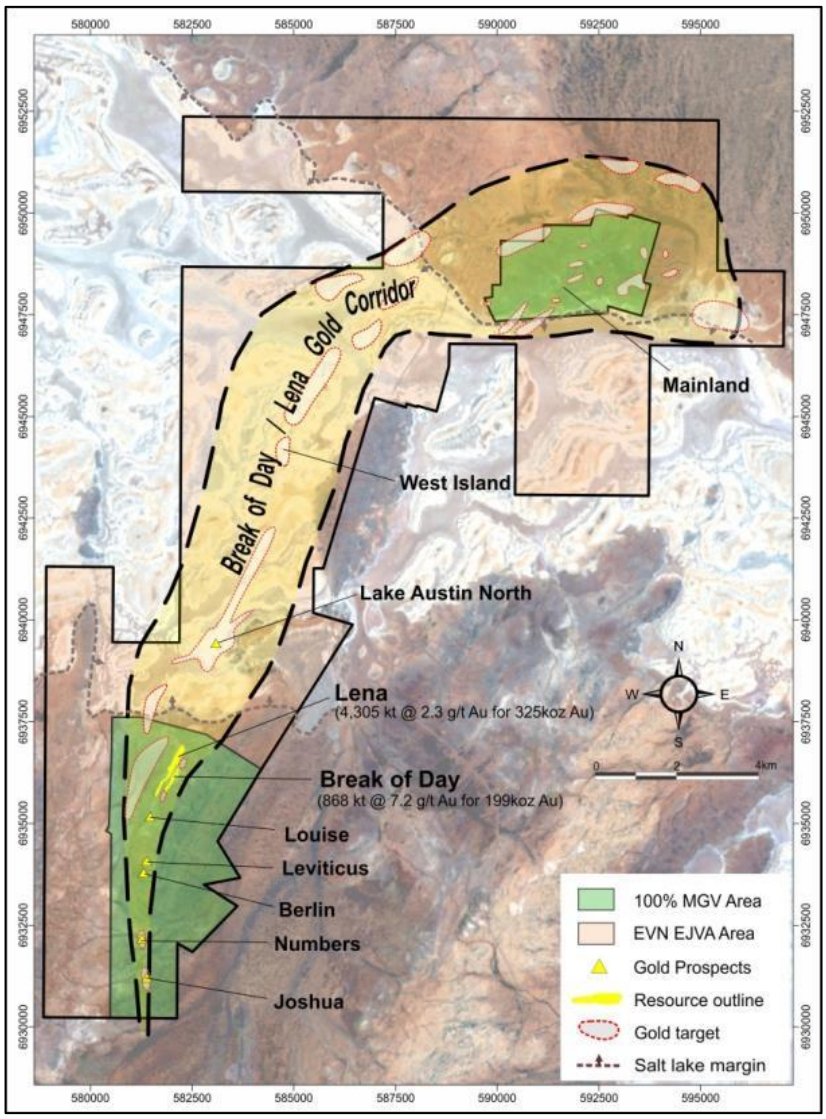

Figure 4: Prospect location plan

Ongoing Exploration

Musgrave 100% tenements

- Initial follow-up drilling along strike of new high-grade gold intersections at Target 2, 400m south of Starlight is continuing with assays pending.
- Further drilling to test the possible new lode 100m to the south of White Light identified in hole 20MORC105 (*See MGV ASX announcement 28 September 2020*) is scheduled for November.
- An updated geological interpretation and Break of Day resource update which will include the Starlight and White Light lodes, is currently underway and will be released on completion in November.
- Regional aircore/RC drilling program testing 25 regional and Starlight analogue targets is continuing. Further results are expected in November.

Evolution JV

- The Phase 2 aircore drilling program testing high-priority gold targets on Lake Austin is continuing with 12,363m, of a planned 21,900m program completed at the end of the quarter.

For and on behalf of Musgrave Minerals Limited.
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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:

- *27 October 2020, "Quarterly Activities and Cashflow Report"*
- *16 October 2020, "Annual Report to Shareholders"*
- *13 October 2020, "Starlight Shines – Diggers and Dealers Company Presentation"*
- *8 October 2020, "Drilling hits high-grade gold at new target, 400m south of Starlight"*
- *24 September 2020, "Infill drilling at Break of Day confirms high grades"*
- *19 August 2020, "Starlight gold mineralisation extended"*
- *31 July 2020, "Quarterly Activities and Cashflow Report"*
- *28 July 2020, "Bonanza gold grades continue at Starlight with 3m @ 884.7g/t Au"*
- *6 July 2020, "85m@11.6g/t gold intersected near surface at Starlight"*
- *29 June 2020, "New gold lode discovered 75m south of Starlight"*
- *9 June 2020, "Bonanza near surface hit of 18m@179.4g/t gold at Starlight"*
- *5 June 2020, "Scout drilling defines large gold targets at Cue, Evolution JV"*
- *3 June 2020, "12m@112.9g/t Au intersected near surface at Starlight"*
- *21 April 2020, "High grades confirmed at Starlight"*
- *1 April 2020, "More High-grade gold at Starlight Link-Lode, Break of Day"*
- *16 March 2020, "Starlight Link-lode shines at Break of Day"*
- *28 February 2020, "High-grade gold intersected Link-lode, Break of Day"*
- *17 February 2020, "Lena Resource Update"*
- *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"*
- *9 October 2019, "High-grade gold intersected at Break of Day and ultra-high-grade rock-chip sample from Mainland, Cue Project"*
- *17 September 2019, "Musgrave and Evolution sign an $18 million Earn-In JV and $1.5M placement to accelerate exploration at Cue"*
- *28 May 2019, "Scout Drilling Extends Gold Zone to >3km at Lake Austin North"*
- *16 August 2017, "Further Strong Gold Recoveries at Lena"*
- *14 July 2017, "Resource Estimate Exceeds 350koz Au"*

Competent Person's Statement

Exploration and Metallurgical Results

The information in this report that relates to Exploration Targets, Exploration Results and Metallurgical testwork by conventional methods, 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, Metallurgical testwork, 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 4: Summary of drill hole locations utilized for current metallurgical test work

Drill Hole ID	Drill Type	Prospect	Easting (m)	Northing (m)	Azimuth (deg)	Dip (deg)	RL (m)	Total Depth (m)	Lode	Met Sample ID	Sample Type
20MORC021	RC	Break of Day	581924	6935964	30	-60	418	110	Starlight	SFMC01	Fresh
20MORC022	RC	Break of Day	581888	6935904	30	-60	418	212	Starlight	SFMC02	Fresh
20MORC025	RC	Break of Day	581907	6935982	30	-60	418	158	Starlight	SFMC01	Fresh
20MORC028	RC	Break of Day	581972	6935899	30	-60	418	170	Starlight	SFMC01	Fresh
20MORC029	RC	Break of Day	581937	6935841	30	-60	418	262	Starlight	SFMC02	Fresh
20MORC031	RC	Break of Day	581956	6935919	30	-60	418	152	Starlight	SFMC01	Fresh
20MORC034	RC	Break of Day	581943	6935923	30	-60	418	200	Starlight	SFMC02	Fresh
20MORC036	RC	Break of Day	581961	6935977	30	-60	418	50	Starlight	SOMC01	Oxide
20MORC037	RC	Break of Day	581951	6935960	30	-60	418	102	Starlight	STMC01	Transitional
20MORC057	RC	Break of Day	581967	6935960	30	-60	418	104	Starlight	STMC01	Transitional
20MORC058	RC	Break of Day	581980	6935958	30	-60	418	98	Starlight	SOMC01 STMC01	Oxide
20MORC061	RC	Break of Day	581977	6935934	30	-60	418	86	Starlight	SFMC01	Fresh
20MORC067	RC	Break of Day	581985	6935946	30	-60	418	62	Starlight	STMC01	Transitional
20MORC068	RC	Break of Day	581958	6935991	30	-60	418	44	Starlight	SOMC01	Oxide
20MORC069	RC	Break of Day	581910	6935915	30	-60	418	200	Starlight	SFMC01	Fresh
20MORC071	RC	Break of Day	581952	6935939	30	-60	418	248	Starlight	SFMC01	Fresh

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JORC TABLE 1
Section 1 Sampling Techniques and Data

Criteria	Explanation	Commentary
Sampling techniques	*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.*	Materials used in the metallurgical sampling of the Starlight lode was collected from reverse circulation (RC) samples using a stainless steel trowel from 16 drill holes distributed across the deposit. Samples were selected using the boundaries of the initial gold assaying at one metre individual sample intervals and composited across broader mineralised zones and included a minimum of 1m edge dilution were grade was below 1g/t Au. Samples were collected and composited by MGV staff using domains identified by supervising metallurgist Ivan Hunter form Minelogix Py Ltd. All Reverse circulation (RC) samples are split at one metre intervals through a cyclone splitter on the drill rig prior to sampling.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	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.
	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.	RC samples were collected as one metre individual samples and composited as representative samples from different weathering and depth domains. Metallurgical test samples have been collected from mineralised intervals, (including a minimum of 1 metre of waste host rock dilution either side of the mineralisation within different domains and at various depths along the strike of the high-grade Starlight lode. Composite sample weights from individual drill holes varied between 7.5 and 24.6kg. Refer to figures in the body of this announcement for further details on drill hole locations.
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).*	An RC drilling program was undertaken by Challenge Drilling with a 5 5/8 inch hammer. A total of >66 RC holes have to date been drilled in this program at Starlight. All sample utilised for this test work were RC.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	RC bulk sample weights are observed and noted in a field Toughbook computer by MGV field staff. Sample recovery has been excellent and close to 100%.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	Drillers use industry appropriate methods to maximise sample recovery and minimise downhole contamination. 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.
	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.
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, colour and other features of core or RC chips is undertaken on a routine 1m basis.
	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.*	No diamond drill core was utilised for this testwork.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	RC samples are routinely cyclone split and kept dry by the use of pressurised air. No wet sampling occurred. The metallurgical samples have been collected from the mineralised zones (and include waste dilution) from recent RC drill samples. A 1-1.5kg sample was collected from every metre of the composited intervals using a stainless steel trowel and homogenised at the laboratory.

	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Drill sample preparation and base metal and initial precious metal analysis is undertaken by Genalysis – Intertek (a registered laboratory). Sample preparation by dry pulverisation to 85% passing 75µm. Assay sampling for this metallurgical testwork was undertaken by ALS Laboratories. All the Break of Day metallurgical test samples are homogenised prior to analysis and processing.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	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. ALS conduct lab checks and multiple analysis and different methods were undertaken to validate the metallurgical results including 50g Au fire assay, 50g aqua regia and 500g screen fire assay.
	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.
	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 at Break of Day. Sample is collected from full width of sample interval to ensure it is representative of samples lithology. All the Starlight/Break of Day, metallurgical test samples are from oxide, transitional and fresh rock and are deemed appropriate for a potential mining operation. Sample composite head grades are considered appropriate and potentially representative of the different domains within the deposit.
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.*	Metallurgical test results are based on and fairly represent information compiled and/or thoroughly reviewed by Mr Ivan Hunter and generated by ALS Metallurgy Pty Ltd in Balcatta WA. Mr Hunter is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and a Principal at Minelogix Pty Ltd and consults to Musgrave Minerals Ltd. For the Starlight metallurgical test samples, multiple gold analysis techniques were utilised including 50g fire assay and 50g aqua regia digest to compare with a screen fire assay technique which was utilised on a homogenised 500g aliquot to analyse sample head grades at ALS Laboratories, Perth including an SG determination. A significant amount (approximately 40%) of gold is present in the oversize (>75um) component of the samples (coarse gold). A gravity concentrate was completed to determine the quantity of gravity extractable gold. It should be noted that due to mass recovery differentials between operating plant and laboratory scale testing the laboratory scale testing could overstate the amount of gravity gold that could be recoverable in an operating process plant. After the gravity concentrate is removed the extraction of gold over time is determined by assaying the solution after 2, 4, 8, 12, 24 and 48 hours using laboratory scale direct cyanide extraction to simulate an industry standard carbon in leach (CIL) process. It is noted that tap water was used in the test work to standardise a base for future test work and may not reflect site water quality or salinity that could be used in any future potential site processing. This can affect lime consumption. Metallurgical test samples as homogenised and also analysed for a multi-element suite using ICPMS. A gravity concentrate was undertaken to determine gravity recoverable gold (GRG). After the gravity gold concentrate is removed, the extraction of gold over time is determined by assaying the solution after various time periods using laboratory scale direct cyanide extraction to simulate an industry standard carbon-in-leach process. These methods are industry standard for Yilgarn Orogenic gold deposits.
	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.	XRD analysis was undertaken by ALS Laboratories on a semi-quantitative basis on all four composite samples to estimate mineral 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.	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 intervals.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Samples are verified by the geologist before importing into the main database (Datashed). Composite metallurgical samples were verified by MGV staff. The metallurgical results were verified by Ivan Hunter of Minelogix and MGV personnel.

	The use of twinned holes.	No twin holes have been drilled by Musgrave Minerals Ltd during this program although twin holes have been drilled in the past to verify RC results with diamond core.
	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. No data has been modified post receipt.
	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 down hole tool in either continuous reading mode or at regular 20m intervals.
	Specification of the grid system used.	Drill hole and sample site co-ordinates are in UTM grid (GDA94 Z50) and 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. Differential GPS is used to survey drill hole collars with an accuracy of +-0.01 metre including RL's.
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 present at Starlight a general pattern of 25-40m drill spacings on 12.5m spaced sections has been completed. The metallurgical test samples have been collected from all domains within the Starlight lode at Break of Day from within the potential resource and across the strike length of the known mineralisation.
	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 currently no updated JORC compliant resource at Starlight which is part of the Break of Day deposit. An updated resource estimate is in the process of being calculated. There is a current JORC 2012 Mineral Resource at Break of Day defined by Musgrave Minerals Ltd in 2017. The Mineral Resources estimate at Break of Day 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 on current resources refer to MGV ASX announcement 14 July 2017, "Resource Estimate Exceeds 350koz Au" and 17 February 2020, "Lena Mineral Resource more than doubles and gold grade increases".
	Whether sample compositing has been applied.	One metre individual samples routinely split by the drill rig cyclone are undertaken for all RC drill holes but only submitted for analysis where there is a high probability of mineralisation from geological interpretation of the drill samples. Six metre sample compositing has also been undertaken for all 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. The four individual metallurgical test samples have each been composited from individual mineralised intercepts spaced along the length of the deposit at various depths and include potential mining dilution to obtain a representative grade for each domain. The samples selected will aid in determining recoveries for individual high-grade. See tables in body of this report.
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 is designed to cross the mineralisation as close to perpendicular as possible based on the best interpretation at the time of drilling whilst allowing for some minor access restrictions and mitigating on-site safety risks. Most drill holes are designed at a dip of approximately -60 degrees. The mineralisation at Starlight is interpreted to dip between 45-85 degrees to the south. The true width of drill intersections at Starlight are interpreted to be between 50-75% of the drill intersection width.
	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.*	Chain of custody is managed by internal staff. Metallurgical samples are stored on site and transported by a licenced reputable transport company to a registered laboratory in Perth (ALS in Balcatta). When at the laboratory, samples are stored in a locked yard before being processed and tracked through preparation and analysis.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	During resource estimates an external review of the geological interpretation, data and modelling techniques was undertaken by the resource consultant. Metallurgical sample representation is reviewed by the supervising metallurgist, Mr Ivan Hunter of Minelogix Pty Ltd.

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, Starlight 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. 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 historical drill hole information has previously been reported by Musgrave Minerals Ltd, Silver Lake Resources, Perilya and various other companies over the years. The four individual metallurgical test samples have been composited from 16 individual mineralised RC drill hole intercepts. Drill hole details are tabulated in the body of this report.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	All significant new drill hole assay data are reported in this release. No cut-off has been applied to any sampling. The individual metallurgical test samples have each been composited from representative mineralised RC drill hole intercepts with assays reported and tabulated in the body of this report. No top or lower cuts have been applied.
	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.	All significant new drill hole assay data are reported in this release. No cut-off has been applied to any sampling.
	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 from intercept and model geometries are expected to be 50-70% of intercept widths. All drilling is planned close to perpendicular to the interpreted strike of the target lodes.

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 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.
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 relevant data received from Musgrave's test work is reported in 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 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.
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. Further metallurgical test work will be undertaken as the project continues to progress.
	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.