



ASX RELEASE

23 May 2023

ASX: MGV

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## High-grade drilling results at Leviticus, Cue Gold Project

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- RC drilling at Leviticus has returned new high-grade intercepts
- Infill intersections within the current Mineral Resource Estimate (MRE) and the current Stage 1 PFS open pit design include:
  - 4m @ 20.9g/t Au from 38m (23MORC084)
  - 3m @ 3.5g/t Au from 51m (23MORC010)
- Intersections outside the current MRE but inside the current pit design include:
  - 2m @ 41.5g/t Au from 22m (23MORC012) including:
    - 1m @ 79.0g/t Au from 22m
  - 3m @ 2.5g/t Au from 17m (23MORC083)
- Hole 23MORC087 was drilled at a high angle to the known mineralised trend and intersected a potential new lode returning:
  - 3m @ 7.3g/t Au from 30m (23MORC087) including:
    - 1m @ 18.2g/t Au from 30m
- This new high-grade mineralised position is outside the current MRE and open pit design. This mineralisation is open in all directions. Follow-up drilling is currently being planned.

Musgrave Minerals Ltd (ASX: **MGV**) ("Musgrave" or "the Company") is pleased to report new assay results from reverse circulation ("RC") drilling at the Leviticus deposit, on its 100% owned ground at its flagship Cue Gold Project in Western Australia's Murchison district (*Figure 1*). These are a combination of infill and extensional drill holes and highlight the high-grade nature of the Leviticus mineralisation.

Musgrave Managing Director Rob Waugh said: *"The strong gold results continue at Cue with this drilling at the Leviticus deposit aimed at extending the mineralisation and converting the Inferred resource to the higher confidence Indicated category. The Leviticus deposit is only 1.5km south of White Heat and is being considered as an early mining option to enable the pit to be utilised for either water storage or in-pit tailings in the subsequent years of development, thus reducing capital costs."*

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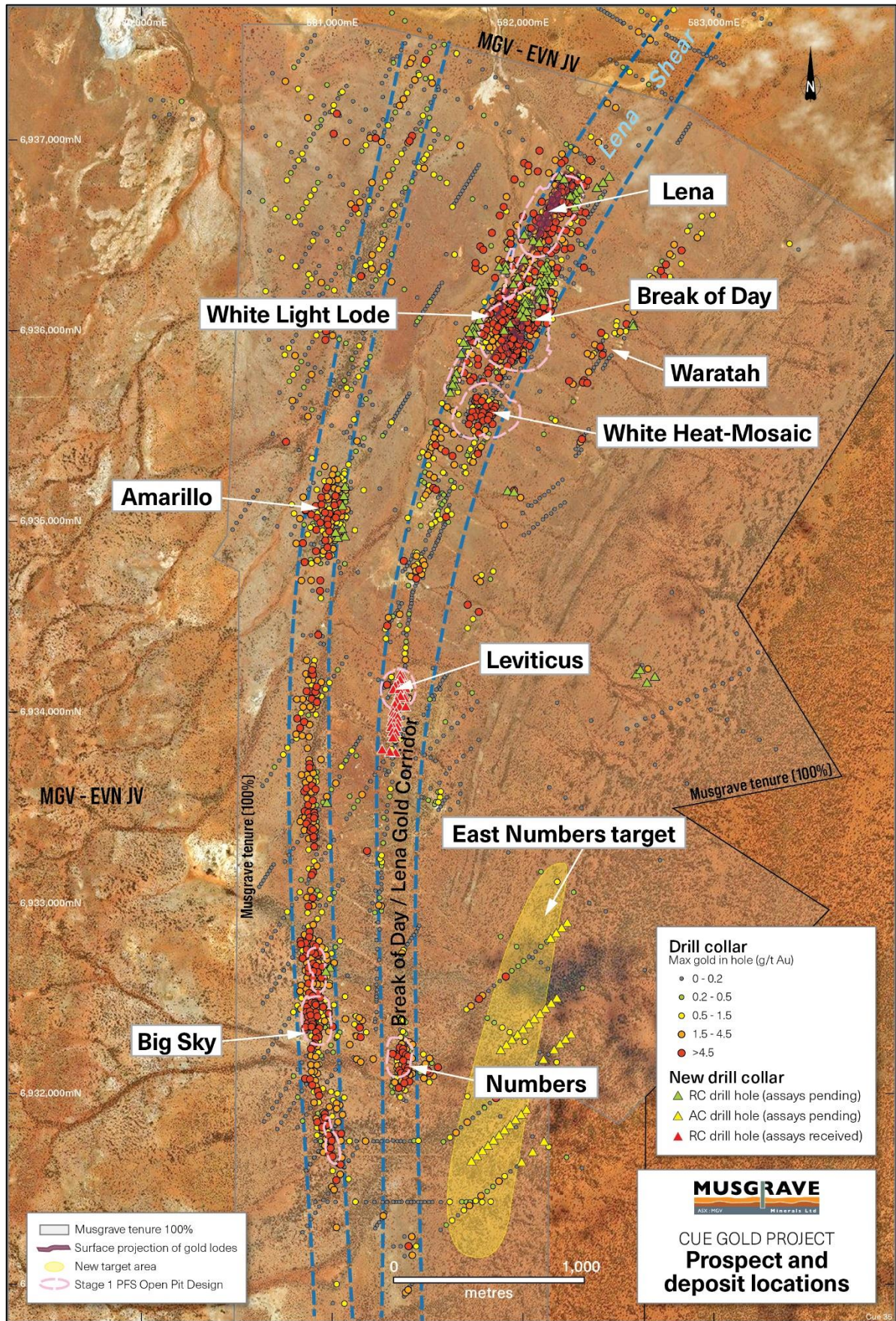


Figure 1: Regional plan showing new drill hole collars and significant prospect locations.





## Leviticus

The Leviticus deposit has a total Mineral Resource Estimate (“MRE”) of **42kt @ 6.0g/t Au for 8koz gold** (Inferred Resource) (see *MGV ASX announcement dated 31 May 2022, “Cue Mineral Resource Increases to 927,000 ounces*).

46 RC drill holes for 2,799m were completed at Leviticus in the current drill program, which was a combination of infill and extensional drilling. The infill drilling was aimed at converting the resource within the Stage 1 Prefeasibility Study (PFS) open pit design into the higher confidence Indicated category. The extensional drilling outside the current pit design has the potential to add tonnes for the Stage 2 PFS. The current drilling has extended the mineralisation and a potential new lode has been identified in drill hole 23MORC087. Further drilling is required to determine the strike and dip potential of this new lode.

This recent drilling confirms the continued high-grade prospectivity along this trend. Follow-up drilling is currently being planned with full assay results and drill hole details from the current program shown in Tables 1a and 1b.

New RC drill intersections outside the current Mineral Resource Estimate (MRE) but within the current Stage 1 PFS pit design include:

- 2m @ 41.5g/t Au from 22m (23MORC012) including:
  - 1m @ 79.0g/t Au from 22m
- 3m @ 2.5g/t Au from 17m (23MORC083)

New infill RC drill intersections within the current MRE and Stage 1 PFS current open pit design include:

- 4m @ 20.9g/t Au from 38m (23MORC084)
- 2m @ 3.7g/t Au from 88m (23MORC011)
- 3m @ 3.5g/t Au from 51m (23MORC010)
- 2m @ 3.0g/t Au from 35m (23MORC003)

New RC drill intersections within the current MRE but outside the current open pit design include:

- 2m @ 3.7g/t Au from 88m (23MORC011)

New RC drill hole 23MORC087 drilled at a high angle to the known mineralised trend at Leviticus intersected a potential new lode returning:

- 3m @ 7.3g/t Au from 30m (23MORC087) including:
  - 1m @ 18.2g/t Au from 30m

The intersection in 23MORC087 is outside the Stage 1 PFS and current open pit design. This new high-grade mineralised position is open in all directions and is hosted within the favourable high titanium basalt unit that hosts the Break of Day (797kt @ 10.2g/t Au for 262koz gold) and White Heat (185kt @ 11.0g/t Au for 65koz gold) deposit. Follow-up drilling is currently being planned. All new discoveries and mineralised lodges have the potential to add tonnes to feed into the Stage 2 PFS and further enhance the project economics.



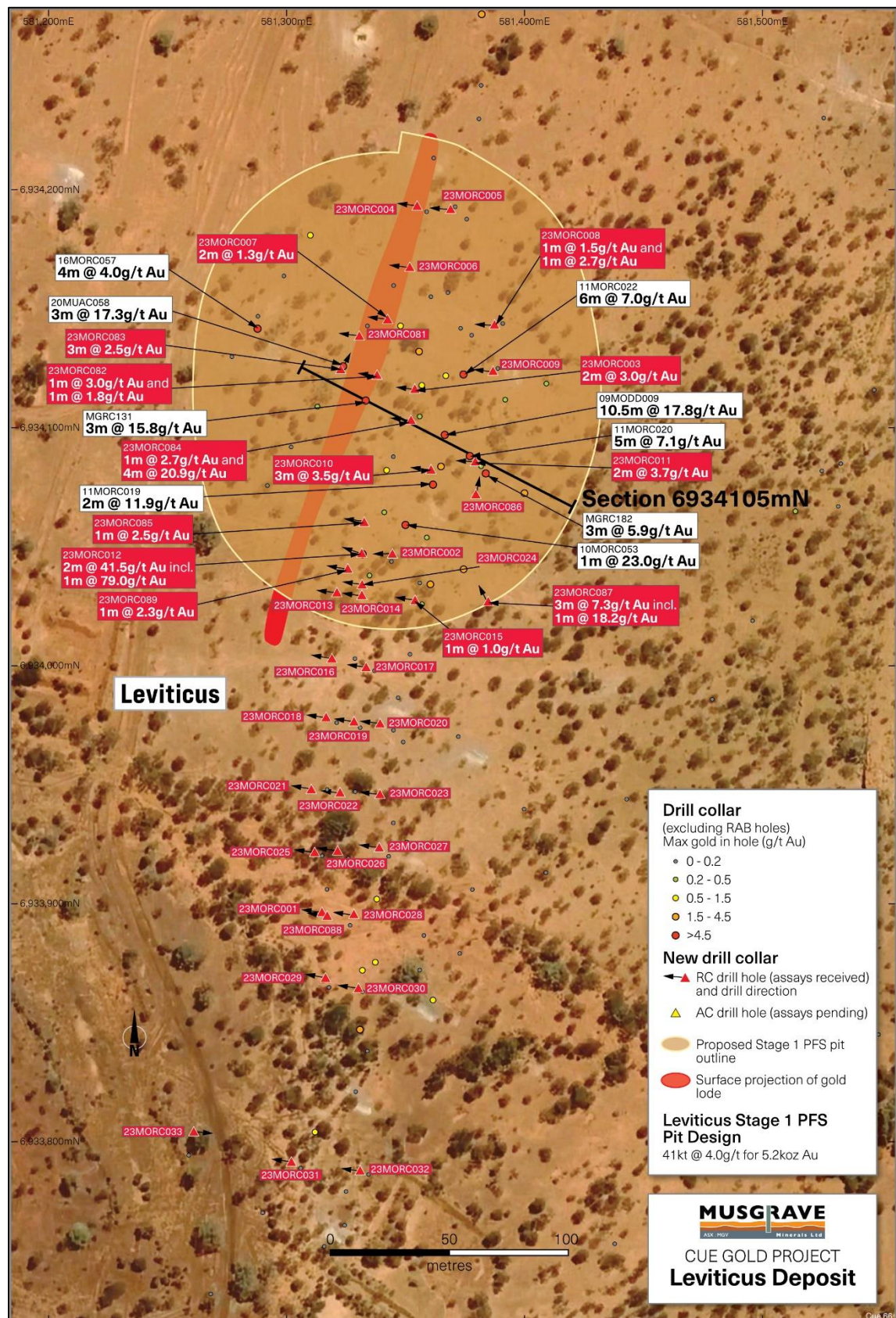


Figure 2: Plan showing recent Leviticus RC drilling and significant assay results





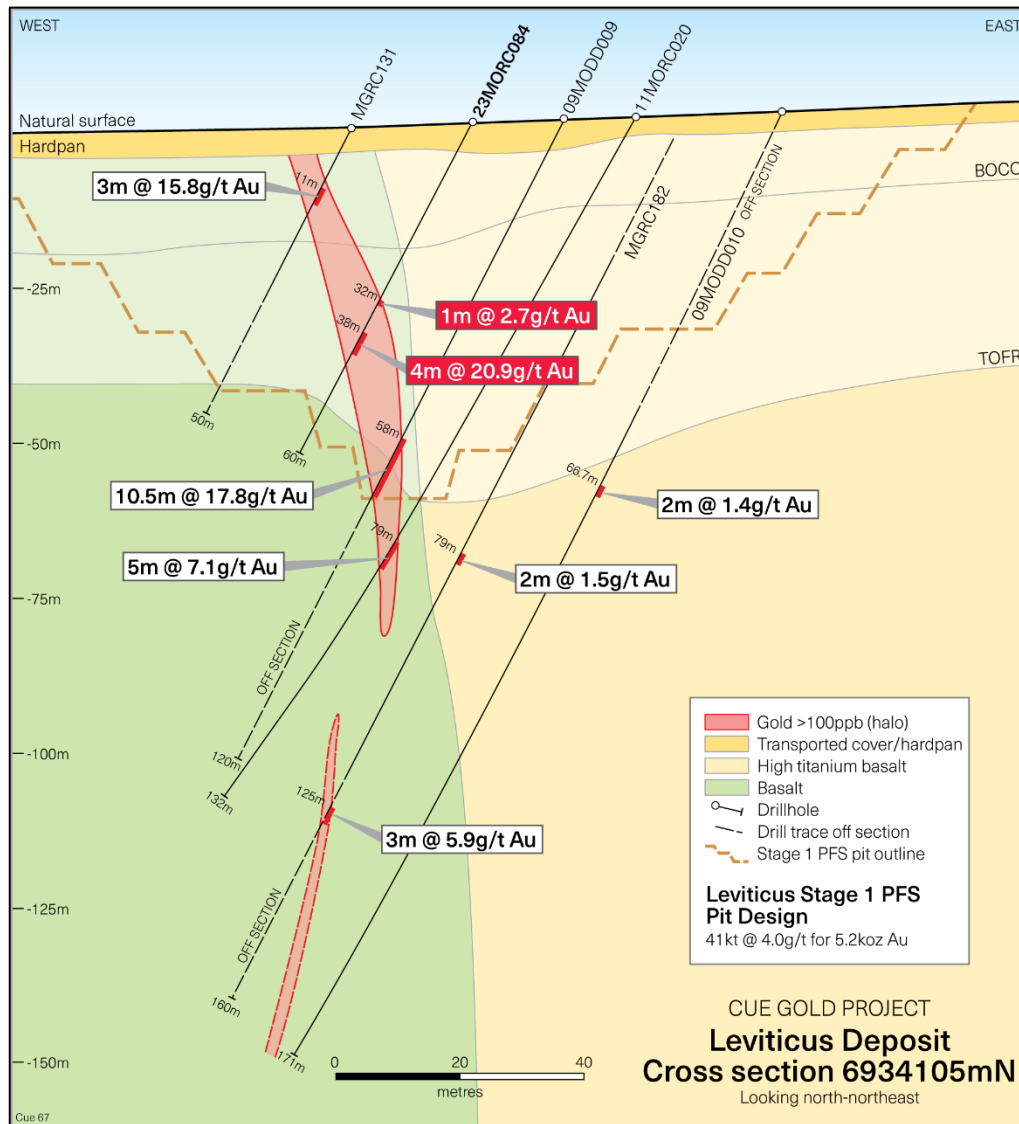


Figure 3: Cross-section at Leviticus (6934105mN) showing the new mineralisation intersected in drill hole 23MORC084 and Stage 1 PFS pit design

## Cue Gold Project

The Cue Gold Project is located approximately 30km south of the township of Cue in the Murchison district of Western Australia. The southern area gold deposits are only 5km from the Great Northern Highway, approximately 600km north of Perth on tenure wholly owned by Musgrave.

The current Mineral Resource Estimate for the Cue Gold Project totals **12.3Mt @ 2.3g/t Au for 927koz gold** including the Break of Day High-Grade Trend (982kt @ 10.4g/t Au for 327koz contained gold) and the Moyagee Western Trend (9.8Mt @ 1.7g/t Au for 541koz contained gold) both in the southern area of the project (see *MGV ASX announcement dated 31 May 2022, "Cue Mineral Resource Increases to 927,000 ounces"*). The new gold discoveries at Amarillo and along the Waratah trend are all outside the existing resource areas.

Musgrave is advancing project studies based on a development scenario involving a standalone mining and processing operation at the Cue Gold Project. The Stage 1 PFS was released in April 2023 with an **initial 5 year LOM producing 337koz at an AISC of A\$1,315/oz**. The initial study demonstrates a technical and financially robust project (see *MGV ASX announcement dated 17 April 2023, "Stage 1 PFS demonstrates potential value of Cue Gold Project"*).



## **Ongoing Activities**

Activities associated with delivery of a Stage 2 PFS for the Cue Gold Project are continuing. A significant amount of drilling has been undertaken to convert Inferred Resources to the higher confidence Indicated category on our high-grade Break of Day and White Heat deposits. This will lead into a Mineral Resource update in late 2023. The Stage 2 PFS will focus on adding mine life and further enhancing the attractive economics of the project.

Other activities on Musgrave's 100% held tenements include:

- RC drill hole assays for Break of Day north follow-up drilling expected in two weeks.
- Assay results for infill and extensional RC drilling at Break of Day and Lena (resource conversion) expected in June.
- Regional aircore drilling assays from new target areas at Cue expected in June.

Authorised for release by the Board of Musgrave Minerals Limited.

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## ***About Musgrave Minerals***

*Musgrave Minerals Limited is an active Australian gold explorer and developer. Musgrave's mission is to safely and responsibly deliver exploration success and advance development opportunities to build a profitable gold mining business at Cue for the benefit of our shareholders and the communities within which we operate.*

*The Cue Project in the Murchison region of Western Australia is an advanced gold project with robust technical and financial metrics. Musgrave has had significant exploration success at Cue and recently delivered a Stage 1 Prefeasibility Study (PFS). The current focus is on increasing the gold resources through discovery and extensional drilling to underpin a Stage 2 PFS that will add mine life and demonstrate a viable path to near-term development. Musgrave also holds a large exploration tenement package near Mt Magnet in Western Australia and in the Ni-Cu-Co prospective Musgrave Province of South Australia.*

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### ***Competent Person's Statement*** ***Mineral Resources***

*The information in this report that relates to Mineral Resources for the Break of Day, Lena, White Heat-Mosaic, Big Sky, Numbers, Leviticus, Jasper Queen, Gilt Edge, Rapier South and the Hollandaire Gold Cap deposits is based on information compiled by Mr Paul Payne, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Payne is a full-time employee of Payne Geological Services. Mr Payne has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 Payne consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

*The information in this report that relates to Mineral Resources for the Hollandaire Copper-Gold deposit is an accurate representation of the available data and is based on information compiled by external consultants and Mr Peter van Luyt a competent person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" who is a member of the Australian Institute of Geoscientists (2582). Mr van Luyt is the Chief Geologist of Cyprium Metals Limited. Mr van Luyt has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and the activity which he is undertaking to qualify as a Competent Person (CP). Mr van Luyt consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

## **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 and to the activity being undertaken 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.

### **Additional JORC Information**

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

- 9 May 2023, "Sydney Resources Round-up – Company Presentation"
- 5 May 2023, "Cue Project – Stage 1 PFS 3D interactive model"
- 28 April 2023, "Quarterly Activities and Cashflow Report"
- 17 April 2023, "Stage 1 PFS Presentation – Cue Gold Project"
- 17 April 2023, "Stage 1 PFS demonstrates potential value of Cue Gold Project"
- 24 March 2023, "Cue Project – 3D Interactive Model and PFS Update"
- 10 March 2023, "Half Year Accounts"
- 23 February 2023, "New high-grade lode identified along Break of Day corridor"
- 14 February 2023, "Amarillo and Big Sky drilling results, Cue Gold Project"
- 24 January 2023, "Further gold intersections, West Island, Cue JV"
- 12 January 2023, "Evolution satisfies earn-in milestone Cue JV"
- 25 November 2022, "\$10 Million Capital Raising to Progress Cue Project"
- 7 November 2022, "High-grade drilling results continue at White Heat-Mosaic"
- 20 October 2022, "Gold intersections continue at West Island, Cue JV"
- 7 October 2022, "Annual Report to Shareholders"
- 23 September 2022, "Full Year Statutory Accounts"
- 19 September 2022, "High-grade gold at Waratah and new regional targets at Cue"
- 30 August 2022, "Further High Grade Gold Intersected at Big Sky"
- 2 August 2022, "Bonanza Grades from Further Drilling at White Heat-Mosaic"
- 21 July 2022, "Further high-grade gold at West Island, Cue JV"
- 29 June 2022, "High grade gold at Amarillo and new regional targets"
- 31 March 2022, "Musgrave consolidates its position in the Murchison"
- 31 May 2022, "Cue Mineral Resource increases to 927,000 ounces"
- 21 April 2022, "Thick basement gold intersections at West Island, Cue JV"
- 5 April 2022, "High grades confirm Big Sky's upside potential"
- 31 March 2022, "Musgrave consolidates its position in the Murchison"
- 25 March 2022, "Strong drill results at Amarillo"
- 27 January 2022, "High-grade gold intersected at West Island, Cue JV"
- 6 January 2022, "New high-grade gold trend identified in regional RC program"
- 15 December 2021, "High grades continue at Big Sky"
- 27 January 2021, "New basement gold targets defined on Evolution JV"
- 11 November 2020, "Break of Day High-Grade Mineral Resource Estimate"
- 2 November 2020, "Exceptional metallurgical gold recoveries at Starlight"
- 17 February 2020, "Lena Resource Update"
- 27 November 2019, "High-grade gold intersected in drilling at 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"
- 16 August 2017, "Further Strong Gold Recoveries at Lena"



Table 1a: *Summary of new MGV drill hole assay intersections*

Drill Hole ID	Drill Type	Prospect	Sample Type	EOH	From (m)	Interval (m)	Au (g/t)	Comment
23MORC001	RC	Leviticus	1m Individual	40	NSI			Outside stage 1 pit design Extensional drilling
23MORC002	RC	Leviticus	1m Individual	70	NSI			Extensional drilling
23MORC003	RC	Leviticus	1m Individual	65	35	2	3.0	Gold mineralization in regolith Within MRE and Stage 1 pit design
23MORC004	RC	Leviticus	1m Individual	41	NSI			Extensional drilling
23MORC005	RC	Leviticus	1m Individual	71	NSI			Extensional drilling
23MORC006	RC	Leviticus	1m Individual	47	NSI			Extensional drilling
23MORC007	RC	Leviticus	1m Individual	50	17	2	1.3	Gold mineralization in regolith Extensional drilling but within Stage 1 pit design
23MORC008	RC	Leviticus	1m Individual	124	86	1	1.5	Gold mineralization in fresh rock Extensional drilling but within Stage 1 pit design
			and		93	1	2.7	Gold mineralization in fresh rock Extensional drilling
23MORC009	RC	Leviticus	1m Individual	138	NSI			Extensional drilling
23MORC010	RC	Leviticus	1m Individual	80	51	3	3.5	Gold mineralization in regolith Within MRE and Stage 1 pit design
23MORC011	RC	Leviticus	1m Individual	110	88	2	3.7	Gold mineralization in fresh rock outside Stage 1 pit design
23MORC012	RC	Leviticus	1m Individual	42	22	2	41.5	High grade gold mineralization in regolith Extensional resource drilling (outside MRE) but within existing Stage 1 pit design
			Including		22	1	79.0	
23MORC013	RC	Leviticus	1m Individual	30	NSI			Extensional drilling
23MORC014	RC	Leviticus	1m Individual	12	NSI			Extensional drilling
23MORC015	RC	Leviticus	1m Individual	84	47	1	1.0	Gold mineralization in regolith Outside Stage 1 pit design
23MORC016	RC	Leviticus	1m Individual	42	NSI			Extensional drilling
23MORC017	RC	Leviticus	1m Individual	60	NSI			Extensional drilling
23MORC018	RC	Leviticus	1m Individual	30	NSI			Extensional drilling
23MORC019	RC	Leviticus	1m Individual	54	NSI			Extensional drilling
23MORC020	RC	Leviticus	1m Individual	72	NSI			Extensional drilling
23MORC021	RC	Leviticus	1m Individual	30	NSI			Extensional drilling
23MORC022	RC	Leviticus	1m Individual	54	NSI			Extensional drilling
23MORC023	RC	Leviticus	1m Individual	72	NSI			Extensional drilling
23MORC024	RC	Leviticus	1m Individual	54	NSI			Extensional drilling
23MORC025	RC	Leviticus	1m Individual	30	NSI			Extensional drilling
23MORC026	RC	Leviticus	1m Individual	48	NSI			Extensional drilling
23MORC027	RC	Leviticus	1m Individual	78	NSI			Extensional drilling
23MORC028	RC	Leviticus	1m Individual	60	NSI			Extensional drilling
23MORC029	RC	Leviticus	1m Individual	42	NSI			Extensional drilling
23MORC030	RC	Leviticus	1m Individual	72	NSI			Extensional drilling
23MORC031	RC	Leviticus	1m Individual	54	NSI			Extensional drilling
23MORC032	RC	Leviticus	1m Individual	108	NSI			Extensional drilling
23MORC033	RC	Leviticus	1m Individual	78	NSI			Extensional drilling
23MORC034	RC	Leviticus	1m Individual	60	NSI			Extensional drilling
23MORC035	RC	Leviticus	1m Individual	114	NSI			Extensional drilling
23MORC036	RC	Leviticus	1m Individual	66	42	2	1.0	Gold mineralization in regolith Extensional drilling
23MORC037	RC	Leviticus	1m Individual	114	NSI			Extensional drilling
23MORC081	RC	Leviticus	1m Individual	23	NSI			Extensional drilling
23MORC082	RC	Leviticus	1m Individual	30	4	1	3.0	Gold mineralization in regolith Within Stage 1 pit design
					14	1	1.8	
23MORC083	RC	Leviticus	1m Individual	17	17	3	2.5	Gold mineralization in regolith Extensional drilling (outside MRE) but within Stage 1 pit design
23MORC084	RC	Leviticus	1m Individual	60	32	1	2.7	Gold mineralization in regolith within Stage 1 pit design
					38	4	20.9	



23MORC085	RC	Leviticus	1m Individual	36	18	1	2.5	Gold mineralization in regolith Extensional drilling but within Stage 1 pit design
23MORC086	RC	Leviticus	1m Individual	81	NSI			Extensional drilling
23MORC087	RC	Leviticus	1m Individual	84	30	3	7.3	Gold mineralization in regolith Outside MRE and current Stage 1 pit design Possible new lode
			including		30	1	18.2	
23MORC088	RC	Leviticus	1m Individual	42	NSI			Extensional drilling
23MORC089	RC	Leviticus	1m Individual	30	21	1	2.3	Extensional drilling

**Table 1b: *Summary of MGV drill collars from current RC drill program***

Drill Hole ID	Drill Type	Prospect	Easting (m)	Northing (m)	Azimuth (deg)	Dip (deg)	RL (m)	Total Depth (m)	Assays
23MORC001	RC	Leviticus	581315	6933897	277	-58	429	40	Assays results in table above
23MORC002	RC	Leviticus	581345	6934047	276	-60	430	70	Assays results in table above
23MORC003	RC	Leviticus	581354	6934117	277	-58	430	65	Assays results in table above
23MORC004	RC	Leviticus	581355	6934194	277	-58	429	41	Assays results in table above
23MORC005	RC	Leviticus	581369	6934192	276	-60	430	71	Assays results in table above
23MORC006	RC	Leviticus	581352	6934168	277	-58	430	47	Assays results in table above
23MORC007	RC	Leviticus	581343	6934146	277	-58	429	50	Assays results in table above
23MORC008	RC	Leviticus	581388	6934143	274	-59	431	124	Assays results in table above
23MORC009	RC	Leviticus	581387	6934124	274	-59	431	138	Assays results in table above
23MORC010	RC	Leviticus	581361	6934083	276	-60	430	80	Assays results in table above
23MORC011	RC	Leviticus	581380	6934086	275	-59	431	110	Assays results in table above
23MORC012	RC	Leviticus	581329	6934052	277	-58	429	42	Assays results in table above
23MORC013	RC	Leviticus	581321	6934031	277	-58	429	30	Assays results in table above
23MORC014	RC	Leviticus	581332	6934030	277	-58	429	12	Assays results in table above
23MORC015	RC	Leviticus	581354	6934028	275	-59	430	84	Assays results in table above
23MORC016	RC	Leviticus	581319	6934003	277	-58	429	42	Assays results in table above
23MORC017	RC	Leviticus	581334	6934000	276	-60	429	60	Assays results in table above
23MORC018	RC	Leviticus	581317	6933979	277	-58	429	30	Assays results in table above
23MORC019	RC	Leviticus	581328	6933977	277	-58	429	54	Assays results in table above
23MORC020	RC	Leviticus	581339	6933976	276	-60	430	72	Assays results in table above
23MORC021	RC	Leviticus	581310	6933948	277	-58	429	30	Assays results in table above
23MORC022	RC	Leviticus	581323	6933947	277	-58	429	54	Assays results in table above
23MORC023	RC	Leviticus	581339	6933946	276	-60	430	72	Assays results in table above
23MORC024	RC	Leviticus	581332	6934035	277	-58	429	54	Assays results in table above
23MORC025	RC	Leviticus	581312	6933922	277	-58	429	30	Assays results in table above
23MORC026	RC	Leviticus	581322	6933922	277	-58	429	48	Assays results in table above
23MORC027	RC	Leviticus	581339	6933924	276	-60	430	78	Assays results in table above
23MORC028	RC	Leviticus	581328	6933896	276	-60	429	60	Assays results in table above
23MORC029	RC	Leviticus	581316	6933869	277	-58	429	42	Assays results in table above
23MORC030	RC	Leviticus	581330	6933865	276	-60	429	72	Assays results in table above
23MORC031	RC	Leviticus	581302	6933792	277	-58	430	54	Assays results in table above
23MORC032	RC	Leviticus	581331	6933788	275	-59	431	108	Assays results in table above
23MORC033	RC	Leviticus	581261	6933805	96	-60	430	78	Assays results in table above
23MORC034	RC	Leviticus	581292	6933691	277	-58	432	60	Assays results in table above
23MORC035	RC	Leviticus	581314	6933688	275	-59	433	114	Assays results in table above
23MORC036	RC	Leviticus	581282	6933591	277	-58	434	66	Assays results in table above
23MORC037	RC	Leviticus	581301	6933589	274	-59	435	114	Assays results in table above
23MORC081	RC	Leviticus	581330	6934139	277	-60	430	23	Assays results in table above
23MORC082	RC	Leviticus	581338	6934122	277	-60	430	30	Assays results in table above
23MORC083	RC	Leviticus	581323	6934125	30	-60	430	17	Assays results in table above
23MORC084	RC	Leviticus	581352	6934103	276	-60	430	60	Assays results in table above
23MORC085	RC	Leviticus	581333	6934061	277	-60	430	36	Assays results in table above
23MORC086	RC	Leviticus	581380	6934072	10	-60	432	81	Assays results in table above
23MORC087	RC	Leviticus	581385	6934027	330	-60	432	84	Assays results in table above
23MORC088	RC	Leviticus	581317	6933895	277	-60	429	42	Assays results in table above
23MORC089	RC	Leviticus	581326	6934041	277	-60	430	30	Assays results in table above



*Notes to Tables 1a and 1b*

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 although all drill holes are planned to intersect lodes perpendicular to interpreted targets. True widths are expected to be approximately 70% of drill hole widths.
2. In RC drilling, 6 composite samples are collected and where composite samples assay greater than 0.1g/t Au, individual cyclone split, one metre individual samples are collected and re-analysed for gold.
3. All samples are analysed using either a 50g fire assay with ICP-MS (inductively coupled plasma - mass spectrometry) finish gold analysis (0.005ppm detection limit) by Genalysis-Intertek in Maddington or Bureau Veritas in Canning Vale (0.01ppm detection limit), WA, Western Australia.
4. g/t (grams per tonne), ppm (parts per million), ppb (parts per billion), NSI (no significant intercept) – no intercept above 1m @ 1g/t Au
5. Higher grade intersections reported here are generally calculated over intervals >1g/t gram metres where zones of internal dilution are generally not weaker than 2m < 0.5g/t Au.
6. All drill holes referenced in this announcement are reported in Tables 1a and 1b.
7. Drill type; AC = Aircore, RC = Reverse Circulation, Diam = Diamond, MRE = Mineral Resource Estimate.
8. Co-ordinates are in GDA94, MGA Z50.

---ENDS---

## JORC TABLE 1

### Section 1 Sampling Techniques and Data

Criteria	Explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i>	<p>MGV sampling is undertaken using standard industry practices including the use of duplicates and standards at regular intervals. A Thermo Scientific Niton GoldD XL3+ 950 Analyser is available on site to aid geological interpretation. No XRF results are reported.</p> <p>Historical sampling criteria are unclear for pre 2009 drilling.</p> <p><u>Current RC and aircore drill programs</u></p> <p>RC and aircore samples are composited at 6m intervals using a stainless-steel scoop with all composite intervals over 0.1g/t Au resampled at 1m intervals using a cyclone splitter. Individual 1m samples are submitted for initial gold assay where significant obvious mineralisation is intersected (e.g. quartz vein lode within altered and sheared host) and are split with a cyclone splitter.</p> <p><u>Diamond drilling</u></p> <p>Diamond samples were collected at geologically defined intervals (minimum sample length 0.25m, maximum sample length 1.5m) for all drill holes in the current program. Samples are cut using an automated diamond saw and half core is submitted for analysis.</p> <p>Individual samples weigh less than 5kg to ensure total preparation at the laboratory pulverization stage. The sample size is deemed appropriate for the grain size of the material being sampled.</p>
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	<p>All co-ordinates are in UTM grid (GDA94 Z50) and drill hole collars have been surveyed by handheld GPS to an accuracy of ~1.0m. The accuracy of historical drill collars pre-2009 is unknown.</p>



	<p><i>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></p>	<p><u>Current drill programs</u></p> <p>RC and aircore drill samples are composited at 6m intervals using a stainless-steel scoop with all composite intervals over 0.1g/t Au resampled at 1m intervals using a cyclone splitter. Individual 1m samples are submitted for initial gold assay where significant obvious mineralisation is intersected and are split with a cyclone splitter (e.g. quartz vein lode within altered and sheared host). The 3kg samples are pulverised to produce a 50g charge for fire assay with ICP-MS finish for gold.</p> <p>All 1m samples are sampled to 1-3kg in weight to ensure total preparation at the laboratory pulverization stage.</p> <p>In this RC drill program 1m samples were immediately submitted for laboratory analysis from the cyclone splitter on the rig. The sample size is deemed appropriate for the grain size of the material being sampled.</p> <p>Diamond samples were collected at geologically defined intervals (minimum sample length 0.25m, maximum sample length 1.5m) for all drill holes in the current program Samples are cut using an automated diamond saw and half core is submitted for analysis. Some samples are sent to the Genalysis -Intertek laboratory in Maddington or Bureau Veritas in Canning Vale, WA, where they are pulverized to 85% passing -75um and analysed using a 50g fire assay with ICP-MS (inductively coupled plasma - mass spectrometry) finish gold analysis (0.005ppm or 0.01ppm detection limit).</p> <p>Coarse gold is present in some samples and may affect sample accuracy. Repeat analysis and screen fire assay is regularly undertaken on samples with coarse gold.</p>
Drilling techniques	<p><i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></p>	<p>RC drilling was undertaken by Strike Drilling Pty Ltd utilising a Schramm T685 with an 500psi/1350 cfm on board compressor with a 1000cfm auxiliary. RC holes were drilled with a 5.75-inch hammer.</p> <p>A combination of historical RAB, aircore, RC and diamond drilling has been utilised by multiple companies over a thirty-year period across the broader project area.</p>
Drill sample recovery	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p>	<p>In this RC drill program 1m samples were immediately submitted for laboratory analysis from the cyclone splitter on the rig.</p> <p>In regional RC drilling 6m composite samples are collected and re-assayed at 1m intervals where comps are above 0.1g/t Au. Sample weights, dryness and recoveries are observed and noted in a field Toughbook computer by MGCV field staff.</p> <p>Diamond core samples are considered dry. The sample recovery and condition is recorded every metre. Generally, recovery is 98-100% but occasionally down to 70% on rare occasions when ground is very broken.</p>
	<p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p>	<p>MGCV contracted drillers use industry appropriate methods to maximise sample recovery and minimise downhole contamination including using compressed air to maintain a dry sample in aircore drilling.</p> <p>Historical sampling recovery is unclear for pre 2009 drilling.</p>
	<p><i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></p>	<p>No significant sample loss or bias has been noted in current drilling or in the historical reports or from other MGCV drill campaigns.</p>
Logging	<p><i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></p>	<p>All geological, structural and alteration related observations are stored in the database. Air core holes would not be used in any resource estimation, mining or metallurgical studies.</p>
	<p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p>	<p>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.</p>
	<p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p>All drill holes are logged in full on completion.</p>
Sub-sampling techniques and sample preparation	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p>	<p>All diamond core samples are routinely kept dry. Pre 2009 drilling results noted in this report are historical and not reported in detail. As such these details are unknown.</p>
	<p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p>	<p>RC samples are taken from 1m sample piles and composited at 6m intervals using a stainless-steel scoop, with all intervals over 0.1g/t Au resampled at 1m using a stainless-steel scoop.</p> <p>Diamond samples were collected at geologically defined intervals (minimum sample length 0.25m, maximum sample length 1.5m) for all drill holes in the current program Samples are cut using an automated diamond saw and half core is submitted for analysis.</p>

	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	Drill sample preparation and precious metal analysis is undertaken by registered laboratories (Genalysis – Intertek, Bureau Veritas and MinAnalytical). Sample preparation by dry pulverisation to 85% passing 75 micron.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i>	MGV field QC procedures involve the use of certified reference standards (1:50), duplicates (~1:30) and blanks at appropriate intervals for early-stage exploration programs. High, medium and low gold standards are used. Where high grade gold is noted in logging, a blank quartz wash is inserted between individual samples at the laboratory before analysis. Historical QA/QC procedures are unclear for pre 2009 drilling.
	<i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i>	Sampling is carried out using standard protocols and QAQC procedures as per industry 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.
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	Sample sizes are considered appropriate for grain size of sample material to give an accurate indication of gold mineralisation. Samples are collected from full width of sample interval to ensure it is representative of sample complete interval.
<i>Quality of assay data and laboratory tests</i>	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	On composite sampling and 1m Aircore re-samples, analysis is undertaken by Intertek-Genalysis or Bureau Veritas (registered laboratory's), with 50g fire assay with ICP-MS finish undertaken for gold. Coarse gold is present in some samples and may affect sample accuracy. Repeat analysis and screen fire assay is regularly undertaken on samples with coarse gold.
	<i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i>	No geophysical tools were used to estimate mineral or element percentages. Musgrave utilise a Thermo Scientific Niton GoldDD XL3+ 950 Analyser to aid geological interpretation.
	<i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i>	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.
<i>Verification of sampling and assaying</i>	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	MGV samples are verified by the geologist before importing into the main MGV database (Datashed).
	<i>The use of twinned holes.</i>	No twin holes have been drilled by Musgrave Minerals Ltd during this program.
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	Primary data 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.
	<i>Discuss any adjustment to assay data.</i>	No adjustments or calibrations are made to any assay data reported.
<i>Location of data points</i>	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i>	All maps and locations are in UTM grid (GDA94 Z50) and have been surveyed or measured by hand-held GPS with an accuracy of $\pm 2$ metres.
	<i>Specification of the grid system used.</i>	Drill hole and sample site co-ordinates are in UTM grid (GDA94 Z50) and historical drill holes are converted from local grid references.
	<i>Quality and adequacy of topographic control.</i>	All current aircore drill hole collars are planned and set up using hand-held GPS (accuracy $\pm 2$ m).
<i>Data spacing and distribution</i>	<i>Data spacing for reporting of Exploration Results.</i>	Variable drill hole spacings are used to complete 1 <sup>st</sup> pass testing of targets and are determined from geochemical, geophysical and geological data together with historical drilling information. For the reported drilling drill hole spacing was approximately 20m along traverse lines.
	<i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i>	No resources have been calculated on regional drilling targets as described in this release due to the early-stage nature of the drilling



	<i>Whether sample compositing has been applied.</i>	6m composite samples are submitted for initial analysis in most cases. Composite sampling is undertaken using a stainless-steel scoop at one metre samples and combined in a calico bag. Where composite assays are above 0.1g/t Au, individual 1m samples are submitted for gold assay. One metre individual samples may be submitted without composites in certain intervals of visibly favourable gold geology.
<i>Orientation of data in relation to geological structure</i>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i>	Drilling is designed to cross the mineralisation as close to perpendicular as possible on current interpretation whilst allowing for some minor access restrictions and mitigating safety risks. Most drill holes are designed at a dip of approximately -60 degrees.
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	No orientation-based sampling bias can be confirmed at this time and true widths are not yet known.
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	Chain of custody is managed by MGCV 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, Bureau Veritas in Canning Vale or MinAnalytical in Canning Vale). When at the laboratory samples are stored in a locked yard before being processed and tracked through preparation and analysis (e.g. Lab-Trak system at Genalysis-Intertek).
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No audits have been completed on sampling techniques and data due to the early-stage nature of the drilling

## Section 2 Reporting of Exploration Results

<b>Criteria</b>	<b>Explanation</b>	<b>Commentary</b>
<i>Mineral tenement and land tenure status</i>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i>	Musgrave Minerals secured 100% of the Moyagee Project area in August 2017 (see MGCV ASX announcement 2 August 2017: "Musgrave Secures 100% of Key Cue Tenure"). The Break of Day, Starlight, Lena and White Heat-Mosaic deposits are located on granted mining lease M21/106 and the primary tenement holder is Musgrave Minerals Ltd. Other deposits including Leviticus, Big Sky and Numbers are located on granted Mining Lease M58366 in an area held 100% by MGCV. 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 MGCV has an option to acquire 100% of the basement gold rights on the tenements (not part of the EVN JV). A 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 MGCV 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.
	<i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	The tenements are in good standing and no known impediments exist.
<i>Exploration done by other parties</i>	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Historical drilling, 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, Leviticus, Numbers 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 from 1991-2007. Musgrave Minerals has undertaken exploration since 2016.

<i>Geology</i>	<i>Deposit type, geological setting and style of mineralisation.</i>	Geology comprises typical Archaean Yilgarn greenstone belt lithologies and granitic intrusives. Two main styles of mineralisation are present, typical Yilgarn Archaean lode gold and volcanic massive sulphide (VMS) base metal and gold mineralisation within the Eelya Felsic Complex.
<i>Drill hole Information</i>	<i>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: eastings and northing of the drill hole collar, elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar, dip and azimuth of the hole, down hole length and interception depth and hole length.</i>	All RC drill hole collars with assays received for the current regional drill program at Cue and reported in this announcement are in Tables 1a and 1b of this announcement. All relevant historical drill hole information has previously been reported by Musgrave, Perilya, Silver Lake Resources and various other companies over the years.
<i>Data aggregation methods</i>	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	Significant assay intervals are recorded above 1g/t Au with a minimum internal interval dilution of 2m @ 0.5g/t Au. No cut-off has been applied to any sampling.
	<i>Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i>	No 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.
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	No metal equivalent values have been reported.
<i>Relationship between mineralisation widths and intercept lengths</i>	<i>These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i>	True widths are not confirmed at this time although all drilling is planned close to perpendicular to interpreted strike of the target lodes at the time of drilling.
<i>Diagrams</i>	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	Diagrams referencing historical data can be found in the body of this report.
<i>Balanced reporting</i>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced avoiding misleading reporting of Exploration Results.</i>	All older MGW drilling data has previously been reported. Some higher-grade historical results may be 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.
<i>Other substantive exploration data</i>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	All material results from geochemical and geophysical surveys and drilling, related to these prospects has been reported or disclosed previously.
<i>Further work</i>	<i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	A range of exploration techniques will be considered to progress exploration including additional surface sampling and drilling.
	<i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	Refer to figures in the body of this announcement.