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## Amarillo and Big Sky drilling results Cue Gold Project

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- RC drilling at the Amarillo, Big Sky and Numbers East areas has returned new gold intercepts from shallow depths
- RC results from Amarillo include:
  - 8m @ 4.6g/t Au from 34m (22MORC371), including:
    - 1m @ 21.5g/t Au from 35m
  - 6m @ 3.4g/t Au from 48m (22MORC363), and
  - 5m @ 3.0g/t Au from 57m (22MORC363)
  - 8m @ 1.4g/t Au from 25m (22MORC373)
  - 10m @ 2.8g/t Au from 38m (22MORC388)
- RC results from Big Sky include:
  - 38m @ 1.2g/t Au from 50m (22MORC397), including:
    - 1m @ 17.4g/t Au from 50m
  - 5m @ 3.3g/t Au from 7m (22MORC395)
- RC results from Big Sky North include:
  - 2m @ 3.3g/t Au from 34m (22MORC361)
- RC results from Numbers East reconnaissance drilling on 400m spaced regional drill traverse in a new area with no previous basement drilling include:
  - 1m @ 5.7g/t Au from 121m (22MORC394)
  - 2m @ 2.9g/t Au from 84m (22MORC392)
- Assay results from RC drilling at Waratah and Break of Day North are expected in two weeks
- RC Drilling has recommenced at Cue this week and activities associated with the Stage 1 PFS are continuing to advance

Musgrave Minerals Ltd (ASX: **MGV**) (“Musgrave” or “the Company”) is pleased to report further assay results from reverse circulation (“RC”) drilling across multiple prospects, on its 100% owned ground at its flagship Cue Gold Project in Western Australia’s Murchison district (*Figure 1*). These assay results are from drilling completed in December 2022 at Amarillo, Big Sky, Big Sky North and East Numbers. Additional follow-up drilling is currently being planned at these prospects. RC drilling assays for holes at Waratah and the new Break of Day North targets are expected within two weeks.

Musgrave Managing Director Rob Waugh said: “These latest assay results continue to demonstrate the significant amount of gold in the district and highlight the upside discovery potential on the Cue Gold Project. The results will enable resource growth which has the potential to inform further development studies post the delivery of the Stage 1 PFS late in March 2023. Drilling continues to focus on the top 120m of select zones at the Amarillo, Big Sky and East Numbers targets and all targets remain open at depth.”

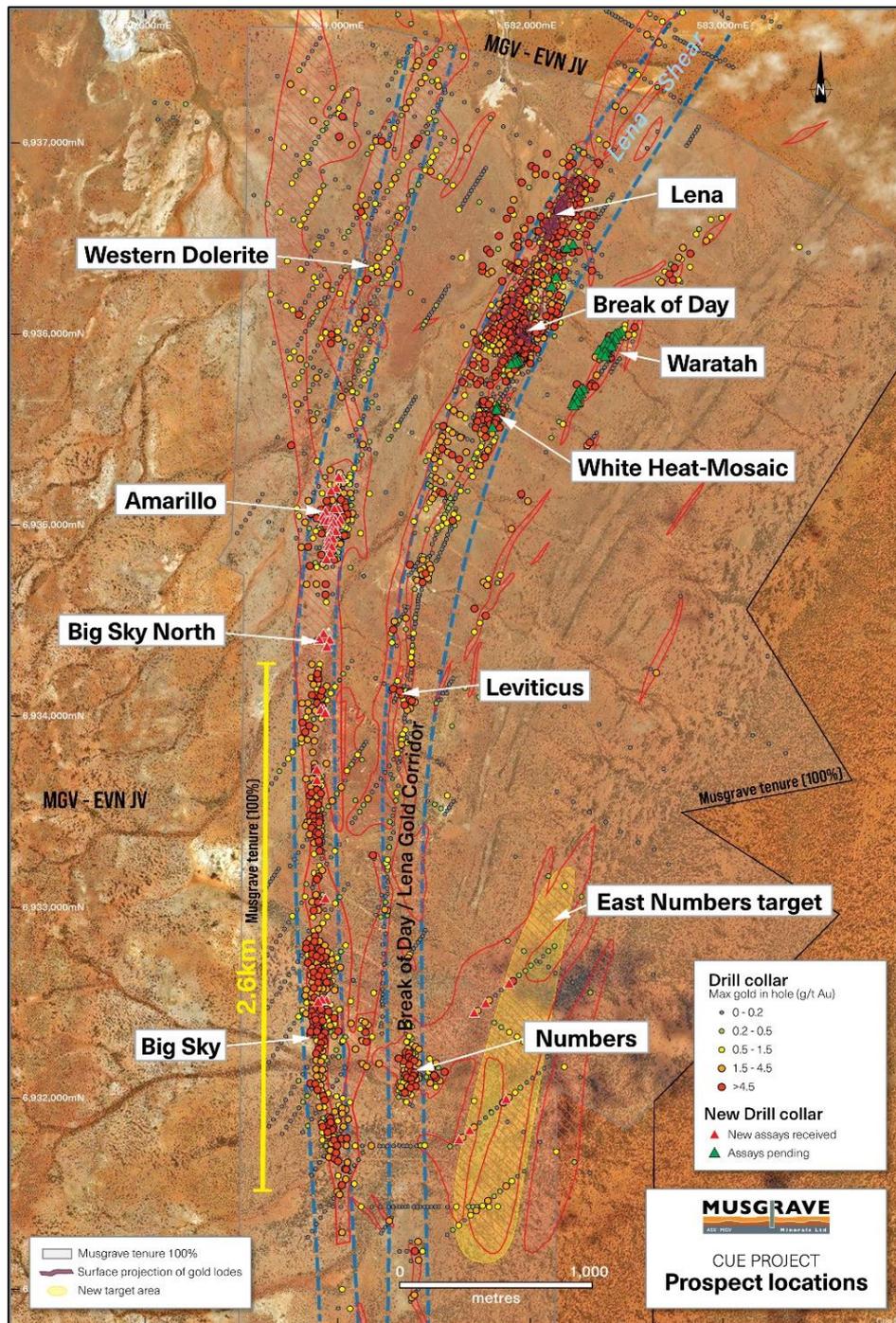


Figure 1: Regional plan showing drill hole collars and significant prospect locations.



## Amarillo Prospect

At **Amarillo**, 1.2km south-west of Break of Day (*Figure 1*) and 800m north of Big Sky, infill RC drilling (*Figure 2*) has continued to intersect regolith gold mineralisation with new intersections including:

- 8m @ 4.6g/t Au from 34m (22MORC371), including:
  - 1m @ 21.5g/t Au from 35m
- 6m @ 3.4g/t Au from 48m (22MORC363), and
- 5m @ 3.0g/t Au from 57m (22MORC363)
- 4m @ 1.6g/t Au from 25m (22MORC373)
- 4m @ 2.2g/t Au from 29m (22MORC379)
- 10m @ 2.8g/t Au from 38m (22MORC388)

The results will be incorporated into the 3D resource model to determine the strike and true width of the mineralisation. These results are part of a resource definition drill program focused on delivering a maiden Mineral Resource for Amarillo in the second half of 2023.

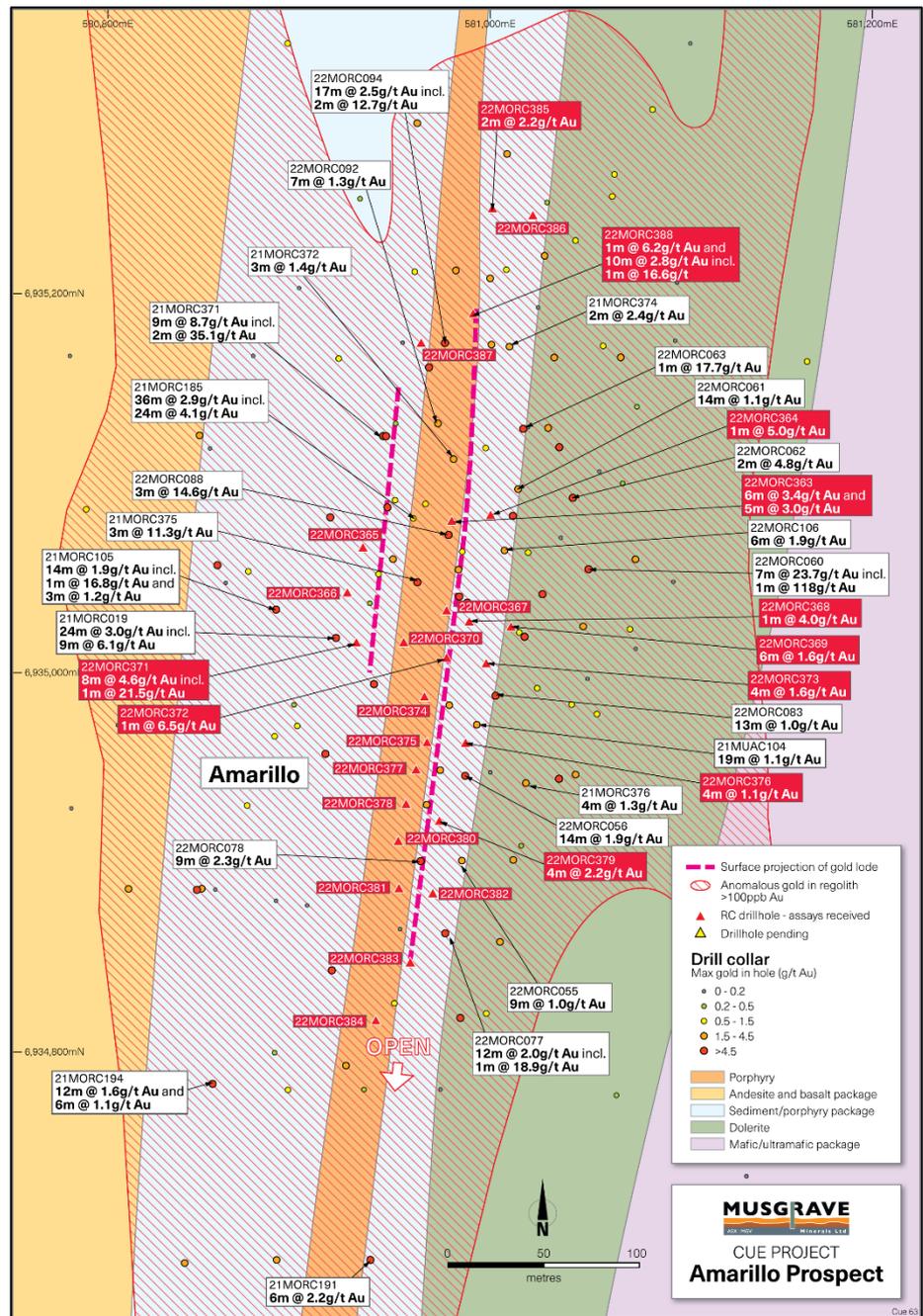


Figure 2: Plan showing Amarillo deposit, drill hole collars and new significant assay results



## Big Sky Deposit

Further infill drilling at Big Sky, 2km south-west of Lena-Break of Day (Figure 1) on MGV's 100% ground continues to intersect significant gold mineralisation below thin transported hardpan cover (~1-6m thick).

The Cue Project hosts a total Mineral Resource Estimate of **12.3kt @ 2.3g/t Au for 927koz contained gold** with 47% of this in the higher confidence Indicated Resource category. The Big Sky deposit is a subset of this resource and hosts 4.65Mt @ 1.2g/t Au for 173koz contained gold and is currently only modelled to a maximum depth of 150m where it remains open (see MGV ASX announcement dated 31 May 2022, "Cue Mineral Resource Increases to 927,000oz").

This recent drilling (9 holes for 564m) continues to confirm and enhance the near-surface gold endowment along the Big Sky trend (Figures 1 and 3). Drill hole and assay details are presented in Tables 1a and 1b with all new samples assaying above 1g/t reported in the tables.

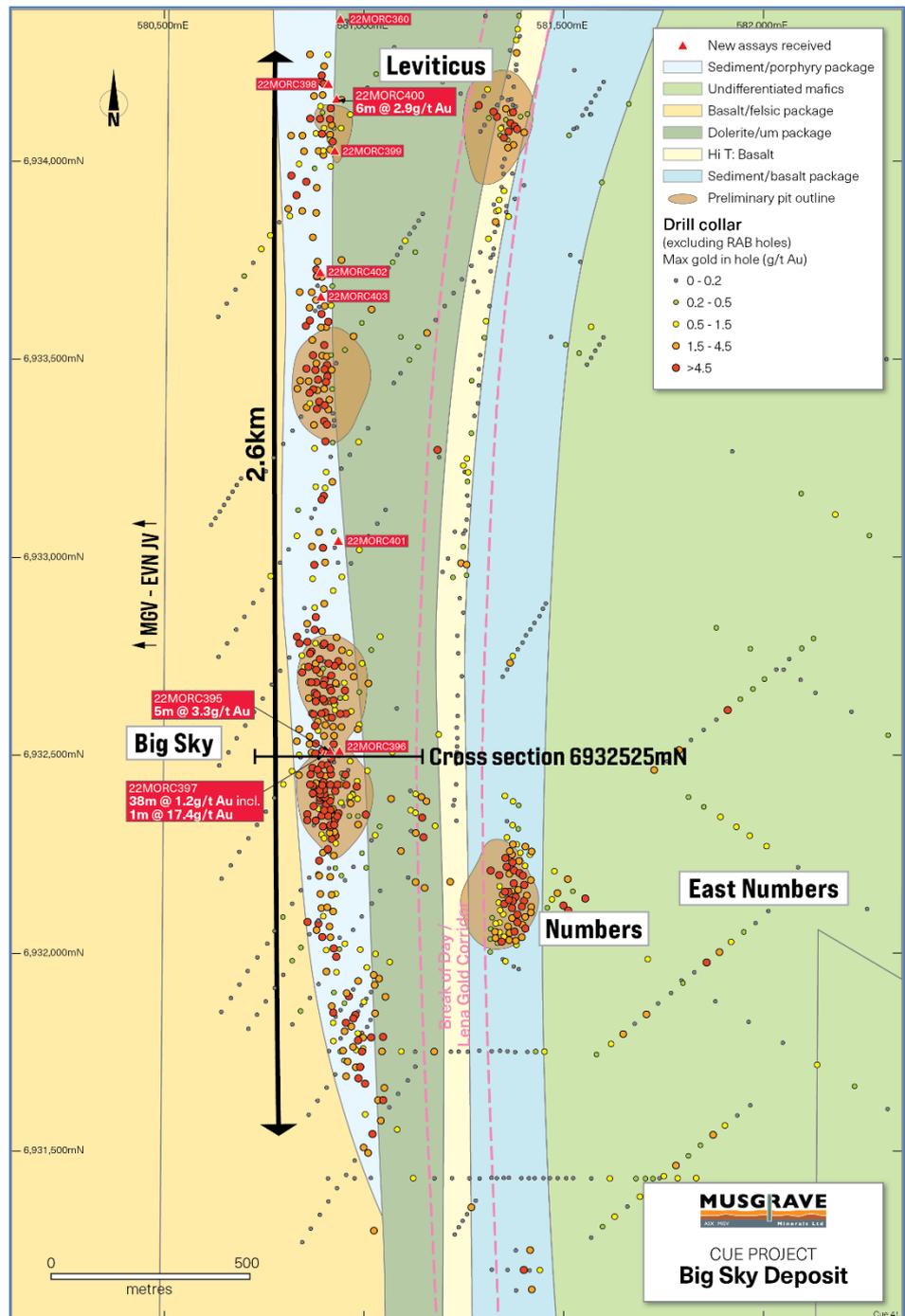


Figure 3: Plan showing Big Sky deposit, drill hole collars and preliminary pit outlines. See inset plan B (Figure 3) and Inset plan A (Figure 4) for new assay results and more detail

Significant new RC drill hole assay results inside the current Mineral Resource Estimate boundary include;

- 5m @ 3.3g/t Au from 7m (22MORC395)

The following new intersections within the current resource boundary but outside the currently optimised pit shells as shown in figures 3 and 4.

- 38m @ 1.2g/t Au from 50m (22MORC397), including:
  - 1m @ 17.4g/t Au from 50m (22MORC397), and
  - 8m @ 1.3g/t Au from 80m (22MORC397)
- 6m @ 2.9g/t Au from 18m (22MORC400) (composite sample)



These intersections highlight the upside potential at Big Sky and will likely enable further resource conversion (Inferred to Indicated) at the next resource update scheduled for H2 CY2023. This has the capacity to further enhance the resource and future pit designs. It should be noted that there are now a significant number of drill intersections located outside the optimised pit design which is based on the May 2022 Mineral Resource. These intersections will not be included in the Stage 1 PFS scheduled for late March 2023.

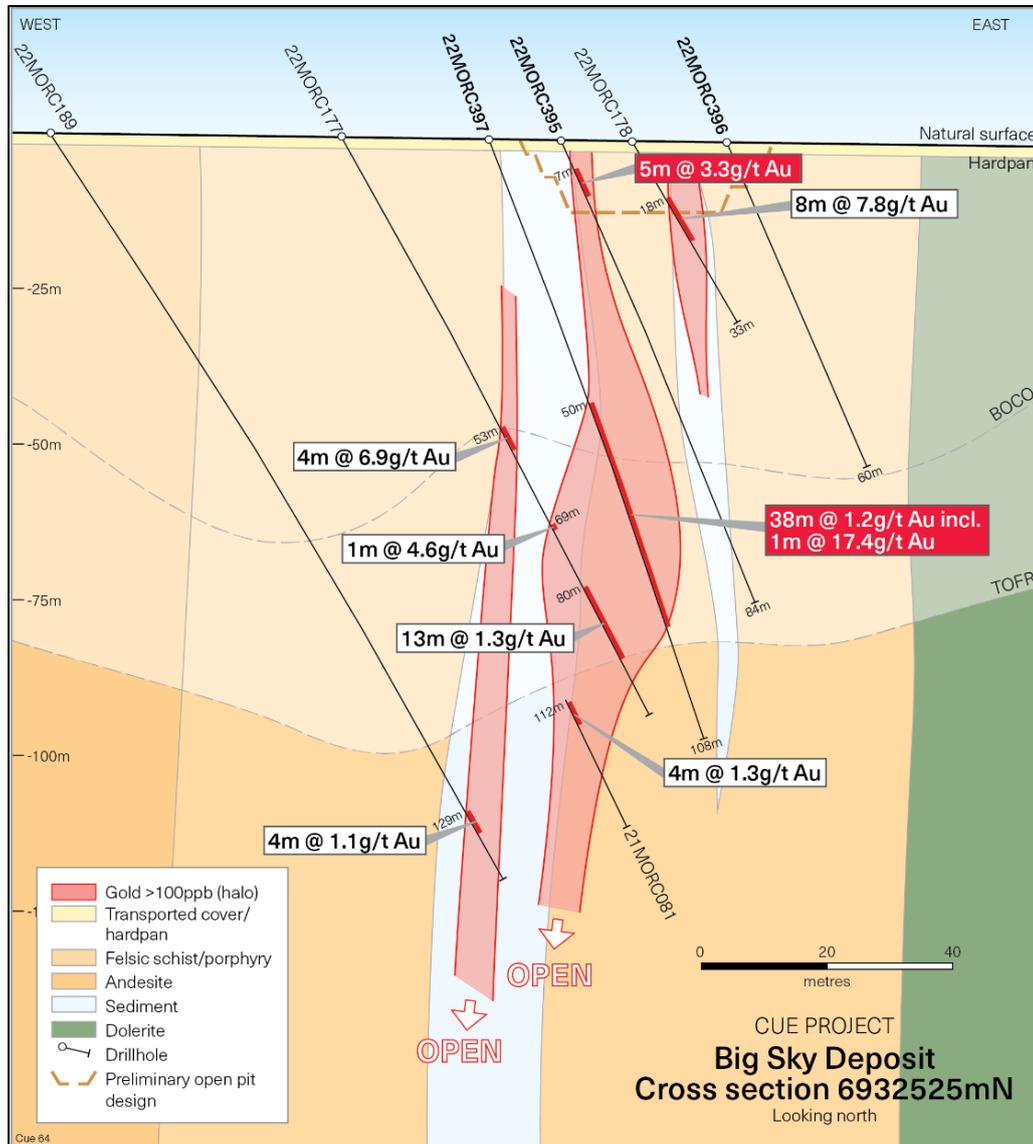


Figure 4: Cross-section 6932525mN showing drill traverse through Big Sky deposit, southern zone with a preliminary optimised open pit boundary at this location. Significantly, there are multiple drill intersections that were drilled post the latest May 2022 resource update. The optimised shell shown in this cross section is based on the May 2022 Mineral Resource.



## **Big Sky North**

Approximately 140m north of the Big Sky deposit (*Figure 1*) RC follow-up drilling of an isolated aircore intercept intersected:

- 2m @ 3.3g/t Au from 34m (22MORC361)

All RC follow-up drill hole and assay details are presented in Tables 1a and 1b.

## **East Numbers Target**

A reconnaissance RC drilling program was completed over a new target area east of the Numbers deposit (*Figure 1*) where aircore drilling has identified a 1.3km long gold anomaly in Archaean regolith. First basement drilling in the area included six RC holes for 786m drilled on three 400m spaced traverse lines. Early stage basement gold intersections include:

- 1m @ 5.0g/t Au from 136m (22MORC390)
- 2m @ 2.9g/t Au from 84m (22MORC392)
- 1m @ 5.7g/t Au from 121m (22MORC394)

A single diamond drill hole was completed in late 2022 to better define the geological context and strike of the mineralisation. All drill hole and assay details are presented in Tables 1a and 1b.

## **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 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 927,000oz"*). The new gold discoveries at Amarillo and along the Waratah trend are all outside the existing resource areas.

The Company is working towards delivery of a Stage 1 Pre-feasibility Study (PFS) in Q1 2023 with focus on the technical and financial viability of the early years of the Cue Gold Project. The study will focus on the Project's current Indicated Mineral Resources whilst exploration and resource conversion drilling will continue, aiming to extend the mine life beyond Stage 1.

## **Ongoing Activities**

### **Musgrave 100% tenements**

- RC drilling results for the Waratah and Break of Day North targets expected late-February.
- RC drilling of new and existing targets has recommenced with the aim of growing the current resource base.
- A regional aircore drilling program will commence in late February on new target areas at Cue.
- Works to inform the Stage 1 Pre-feasibility Study for the Cue Gold Project are continuing with final study expected late March 2023.



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. Musgrave has had significant exploration success at Cue with the ongoing focus on increasing the gold resources through discovery and extensional drilling to underpin studies that will demonstrate a viable path to near-term development. Musgrave also holds a large exploration tenement packages 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:

- 31 January 2023, "Quarterly Activities and Cashflow Report"
- 24 January 2023, "Further gold intersections, West Island, Cue JV"
- 12 January 2023, "Evolution satisfies earn-in milestone Cue JV"
- 22 December 2022, "Results of Share Purchase Plan"
- 2 December 2022, "Share Purchase Plan Offer Document"
- 25 November 2022, "Investor Update Presentation"
- 25 November 2022, "\$10 Million Capital Raising to Progress Cue Project"
- 8 November 2022, "2022 AGM Presentation"
- 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"
- 21 June 2022, "Appointment of General Manager - Development"
- 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"
- 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"
- 4 February 2021, "Appointment of Non-executive Director"
- 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"
- 8 October 2020, "Drilling hits high-grade gold at new target, 400m south of Starlight"
- 17 February 2020, "Lena Resource Update"
- 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
22MORC359	RC	Big Sky North	1m Individual	60	NSI			No significant intercept
22MORC360	RC	Big Sky North	1m Individual	72	NSI			No significant intercept
22MORC361	RC	Big Sky North	1m Individual	102	34	2	3.3	Gold mineralization in fresh rock
22MORC362	RC	Big Sky North	1m Individual	72	NSI			No significant intercept
22MORC363	RC	Amarillo	1m Individual	90	48	6	3.4	Gold mineralization in regolith
			and		57	5	3.0	
22MORC364	RC	Amarillo	1m Individual	54	22	1	5.0	Gold mineralization in regolith
22MORC365	RC	Amarillo	1m Individual	36	NSI			No significant intercept
22MORC366	RC	Amarillo	1m Individual	42	24	1	1.3	Gold mineralization in regolith
			and		27	1	1.2	
22MORC367	RC	Amarillo	1m Individual	31	27	1	1.3	Gold mineralization in regolith
22MORC368	RC	Amarillo	1m Individual	54	23	1	4.0	Gold mineralization in regolith
22MORC369	RC	Amarillo	1m Individual	78	45	6	1.6	Gold mineralization in regolith
22MORC370	RC	Amarillo	1m Individual	78	NSI			No significant intercept
22MORC371	RC	Amarillo	1m Individual	48	34	8	4.6	Gold mineralization in regolith
			including		35	1	21.5	
22MORC372	RC	Amarillo	1m Individual	42	19	1	6.5	Gold mineralization in regolith
22MORC373	RC	Amarillo	1m Individual	66	25	4	1.6	Gold mineralization in regolith
			and		36	2	1.8	
			and		43	1	1.2	
22MORC374	RC	Amarillo	1m Individual	30	11	1	1.1	Gold mineralization in regolith
22MORC375	RC	Amarillo	1m Individual	36	NSI			No significant intercept
22MORC376	RC	Amarillo	1m Individual	60	19	4	1.1	Gold mineralization in regolith
					29	1	2.9	
					35	1	1.4	
22MORC377	RC	Amarillo	1m Individual	60	NSI			No significant intercept
22MORC378	RC	Amarillo	1m Individual	60	NSI			No significant intercept
22MORC379	RC	Amarillo	1m Individual	54	29	4	2.2	Gold mineralization in regolith
22MORC380	RC	Amarillo	1m Individual	30	NSI			No significant intercept
22MORC381	RC	Amarillo	1m Individual	36	NSI			No significant intercept
22MORC382	RC	Amarillo	1m Individual	60	32	5	0.8	Weak gold mineralization in regolith
22MORC383	RC	Amarillo	1m Individual	54	26	2	1.9	Gold mineralization in regolith
22MORC384	RC	Amarillo	1m Individual	30	NSI			Gold mineralization in regolith
22MORC385	RC	Amarillo	1m Individual	36	32	2	2.2	Gold mineralization in regolith
22MORC386	RC	Amarillo	1m Individual	60	NSI			Gold mineralization in regolith
22MORC387	RC	Amarillo	1m Individual	36	NSI			Gold mineralization in regolith
22MORC388	RC	Amarillo	1m Individual	54	12	1	1.2	Gold mineralization in regolith
			1m Individual		29	1	6.2	
			1m Individual		38	10	2.8	
			including		45	1	16.6	
22MORC389	RC	East Numbers	1m Individual	126	NSI			Gold mineralization in regolith
22MORC390	RC	East Numbers	1m Individual	144	136	1	5.0	Reconnaissance hole
22MORC391	RC	East Numbers	1m Individual	132	NSI			Reconnaissance hole
22MORC392	RC	East Numbers	1m Individual	126	84	2	2.9	Gold mineralization in regolith
			and		88	1	1.0	
22MORC393	RC	East Numbers	1m Individual	120	50	1	1.5	Gold mineralization in regolith

			and		81	1	1.1	
22MORC394	RC	East Numbers	1m Individual	138	82	1	2.2	Gold mineralization in regolith
			and		121	1	5.7	Gold mineralization in fresh rock
22MORC395	RC	Big Sky	1m Individual	84	7	5	3.3	Near surface gold mineralization in regolith
22MORC396	RC	Big Sky	1m Individual	60	NSI			
22MORC397	RC	Big Sky	1m Individual	108	50	38	1.2	Gold mineralization in regolith
			including		50	1	17.4	
			and		60	1	6.5	
			1m Individual		80	8	1.3	
22MORC398	RC	Big Sky	1m Individual	30	NSI			
22MORC399	RC	Big Sky	1m Individual	30	25	1	1.3	Weak gold mineralization in regolith
22MORC400	RC	Big Sky	6m composite	84	18	6	2.9	Gold mineralization in regolith
22MORC402	RC	Big Sky	6m composite	30	18	6	0.9	Weak gold mineralization in regolith
22MORC403	RC	Big Sky	6m composite	42	36	6	0.5	Weak gold mineralization in regolith
22MODD041	Diamond	East Numbers	Geological	207.9	NSI			Structure identified - NSI

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

Drill Hole ID	Drill Type	Prospect	Easting (m)	Northing (m)	Azimuth (deg)	Dip (deg)	RL (m)	Total Depth (m)	Assays
22MORC359	RC	Big Sky North	580957	6934396	90	-60	423	60	Assays results in table above
22MORC360	RC	Big Sky North	580942	6934360	89	-60	423	72	Assays results in table above
22MORC361	RC	Big Sky North	580904	6934403	87	-59	423	102	Assays results in table above
22MORC362	RC	Big Sky North	580927	6934424	89	-60	423	72	Assays results in table above
22MORC363	RC	Amarillo	580980	6935080	280	-60	420	90	Assays results in table above
22MORC364	RC	Amarillo	581000	6935083	280	-60	420	54	Assays results in table above
22MORC365	RC	Amarillo	580933	6935066	280	-60	420	36	Assays results in table above
22MORC366	RC	Amarillo	580925	6935042	280	-60	420	42	Assays results in table above
22MORC367	RC	Amarillo	580977	6935033	280	-60	421	31	Assays results in table above
22MORC368	RC	Amarillo	580989	6935027	280	-60	421	54	Assays results in table above
22MORC369	RC	Amarillo	581011	6935024	280	-60	421	78	Assays results in table above
22MORC370	RC	Amarillo	580955	6935016	280	-60	421	78	Assays results in table above
22MORC371	RC	Amarillo	580930	6935016	280	-60	421	48	Assays results in table above
22MORC372	RC	Amarillo	580977	6935008	280	-60	422	42	Assays results in table above
22MORC373	RC	Amarillo	580998	6935005	280	-60	422	66	Assays results in table above
22MORC374	RC	Amarillo	580966	6934987	280	-60	423	30	Assays results in table above
22MORC375	RC	Amarillo	580967	6934963	280	-60	422	36	Assays results in table above
22MORC376	RC	Amarillo	580987	6934963	280	-60	422	60	Assays results in table above
22MORC377	RC	Amarillo	580961	6934949	280	-60	421	30	Assays results in table above
22MORC378	RC	Amarillo	580956	6934931	280	-60	420	30	Assays results in table above
22MORC379	RC	Amarillo	580973	6934922	280	-60	421	54	Assays results in table above
22MORC380	RC	Amarillo	580952	6934911	280	-60	420	30	Assays results in table above
22MORC381	RC	Amarillo	580952	6934886	280	-60	421	36	Assays results in table above
22MORC382	RC	Amarillo	580970	6934883	280	-60	421	60	Assays results in table above
22MORC383	RC	Amarillo	580958	6934847	280	-60	421	54	Assays results in table above
22MORC384	RC	Amarillo	580940	6934816	280	-60	421	30	Assays results in table above
22MORC385	RC	Amarillo	581001	6935245	280	-60	420	36	Assays results in table above
22MORC386	RC	Amarillo	581022	6935241	280	-60	420	60	Assays results in table above
22MORC387	RC	Amarillo	580964	6935174	280	-60	420	36	Assays results in table above
22MORC388	RC	Amarillo	580991	6935189	280	-60	420	54	Assays results in table above
22MORC389	RC	East Numbers	581889	6932596	50	-58	427	126	Assays results in table above
22MORC390	RC	East Numbers	581766	6932494	50	-58	428	144	Assays results in table above
22MORC391	RC	East Numbers	581707	6932443	50	-58	428	132	Assays results in table above
22MORC392	RC	East Numbers	581874	6931989	50	-58	427	126	Assays results in table above
22MORC393	RC	East Numbers	581685	6931827	50	-58	428	120	Assays results in table above
22MORC394	RC	East Numbers	581629	6931779	50	-58	428	138	Assays results in table above
22MORC395	RC	Big Sky	580914	6932511	43	-59	430	84	Assays results in table above

22MORC396	RC	Big Sky	580940	6932509	44	-60	430	60	Assays results in table above
22MORC397	RC	Big Sky	580902	6932502	42	-59	431	108	Assays results in table above
22MORC398	RC	Big Sky	580911	6934195	90	-58	425	30	Assays results in table above
22MORC399	RC	Big Sky	580927	6934026	90	-58	425	30	Assays results in table above
22MORC400	RC	Big Sky	580932	6934157	90	-80	425	84	Assays results in table above
22MORC401	RC	Big Sky	580936	6933042	88	-83	425	96	Assays results in table above
22MORC402	RC	Big Sky	580890	6933718	90	-58	426	30	Assays results in table above
22MORC403	RC	Big Sky	580892	6933659	90	-58	427	42	Assays results in table above
22MODD041	Diam	East Numbers	581765	6932491	48	-60	427	207.9	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.*
2. *In RC drilling 6m composite samples and collected for gold analysis with all composites grading above 0.1g/t Au re-assayed from one metre individual samples 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 or a 500g sample by Photon Assay at MinAnalytical in Canning Vale.*
4. *g/t (grams per tonne), ppm (parts per million), ppb (parts per billion), NSI (no significant intercept)*
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 3m < 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. *Coordinates are in GDA94, MGA Z50.*

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## 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>
	<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><u>Current drill programs</u></p> <p>Regional 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>Some samples are sent to the NATA accredited MinAnalytical Laboratory in Canning Vale, Perth and analysed via PhotonAssay technique (method code PAAU2) along with quality control samples and duplicates. Individual samples are assayed for gold after drying and crushing to nominally 85% passing 2mm and a 500g linear split taken for PhotonAssay (method code PAP3512R).</p> <p>The PhotonAssay technique was developed by CSIRO and Chryso Corporation and is a fast, chemical free non-destructive, alternative using high-energy X-rays to traditional fire assay and uses a significantly larger sample size (500g v's 50g for fire assay). This technique is accredited by the National Association of Testing Authorities (NATA).</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>

<i>Drilling techniques</i>	<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>	RC drilling was undertaken by Challenge Drilling Pty Ltd utilising a KWL350 with an 350psi/1100 cfm on board compressor with a 1000cfm auxiliary. RC holes were drilled with a 5.75-inch hammer. 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. The diamond drilling program reported here was undertaken by West Core Drilling Pty Ltd utilising a LF90D drill rig. PQ, HQ and NQ core is obtained.
<i>Drill sample recovery</i>	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	In this RC drill program 1m samples were immediately submitted for laboratory analysis from the cyclone splitter on the rig. 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 MGV field staff. 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.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	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 aircore drilling. Historical sampling recovery is unclear for pre 2009 drilling.
	<i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i>	No significant sample loss or bias has been noted in current drilling or in the historical reports or from other MGV drill campaigns.
<i>Logging</i>	<i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i>	All 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.
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	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.
	<i>The total length and percentage of the relevant intersections logged.</i>	All drill holes are logged in full on completion.
<i>Sub-sampling techniques and sample preparation</i>	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	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.
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	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. 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.
	<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.

Quality of assay data and laboratory tests	<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. Some RC samples are sent to Intertek, Bureau Veritas or the NATA accredited MinAnalytical Laboratory in Canning Vale, Perth and analysed via PhotonAssay technique. Individual samples are assayed for gold after drying and crushing to nominally 85% passing 2mm and a 500g linear split taken for PhotonAssay (method code PAP3512R).  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. 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 GoldD 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.
Verification of sampling and assaying	<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.
Location of data points	<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 >±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 +2m).
Data spacing and distribution	<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.
Orientation of data in relation to geological structure	<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 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, 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 MGV 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 Big Sky and Numbers are located on M21/106 and E58/335 in an area held 100% by MGV. 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.
	<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 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.

	<p>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.</p> <p>The assumptions used for any reporting of metal equivalent values should be clearly stated.</p>	<p>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 &lt;0.5g/t Au for any interval. Short high-grade intervals are tabulated in Table 1a.</p> <p>No metal equivalent values have been reported.</p>
<p>Relationship between mineralisation widths and intercept lengths</p>	<p>These relationships are particularly important in the reporting of Exploration Results.</p> <p>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</p> <p>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').</p>	<p>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.</p>
<p>Diagrams</p>	<p>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.</p>	<p>Diagrams referencing historical data can be found in the body of this report.</p>
<p>Balanced reporting</p>	<p>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.</p>	<p>All older MGV 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.</p>
<p>Other substantive exploration data</p>	<p>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.</p>	<p>All material results from geochemical and geophysical surveys and drilling, related to these prospects has been reported or disclosed previously.</p>
<p>Further work</p>	<p>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</p> <p>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</p>	<p>A range of exploration techniques will be considered to progress exploration including additional surface sampling and drilling.</p> <p>Refer to figures in the body of this announcement.</p>