

# MUSGRAVE MINERALS LTD (ASX: MGV)



Musgrave Minerals Limited  
ACN 147 890 671



RIU EXPLORERS CONFERENCE

16 February 2021

Rob Waugh  
Managing Director

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# 2021 OBJECTIVES

## TARGETING MAJOR HIGH-GRADE SYSTEMS AND NEAR TERM PRODUCTION

### Cue Gold Project

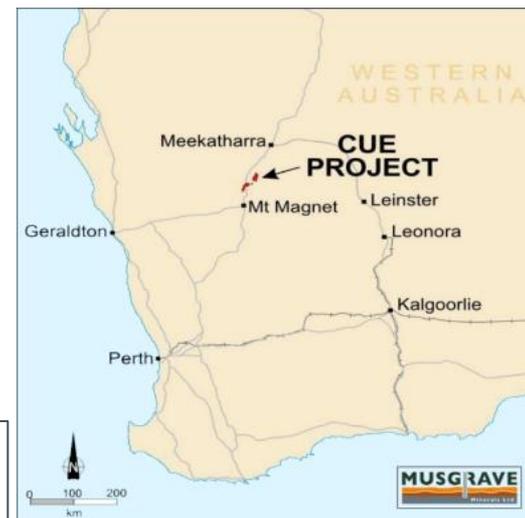
- Systematically test targets, make new discoveries & grow the gold resource base
- Commence PFS at Break of Day/Lena to define a clear path to production
- Mining Proposal approval
- Basement drill testing of Lake Austin gold targets under EVN JV with the aim of defining a large economic gold system



# CORPORATE OVERVIEW

ASX Code	MGV
Shares on Issue	532M
Share Price (9 Feb 2021)	\$0.36
<b>Cash on Hand</b> (Feb 2021)	<b>~\$24M</b>
Securities Held (LEG, CYM)	<b>~\$1.5M</b>
Debt	Nil
Market Capitalisation (@36c)	~\$190M
<b>Enterprise Value</b>	<b>~\$165M</b>
Liquidity (120 day volume)	>2M shares/day

Top Shareholders	Current Holding
HSBC Custody Nominees (Australia) Limited	15.2%
Westminex Group	7.0%
Jetosea Pty Ltd	5.3%
Evolution Mining Ltd (EVN)	4.1%
Citicorp Nominees Pty limited	3.4%



Bonanza hits at Starlight + gold price rising

Starlight discovery



Active explorer: >75% of dollars in ground



# BOARD AND MANAGEMENT



**Graham Ascough**  
BSc, MAusIMM,  
Pgeo  
Non-Executive  
Chairman



**Rob Waugh**  
MSc, BSc,  
FAusIMM, MAIG  
Managing  
Director



**Kelly Ross**  
BBus, CPA, AGIA  
Non-Executive  
Director



**John Percival**  
Non-Executive  
Director



**Brett Lambert**  
BAppSc (Mining  
Engineering)  
Non-Executive  
Director



# BREAK OF DAY RESOURCE ESTIMATE

## Break of Day:

797kt @ 10.2g/t Au for 262koz Au

High-grade, potential high-margin open cut  
(subject to feasibility)

Includes Starlight & White Light

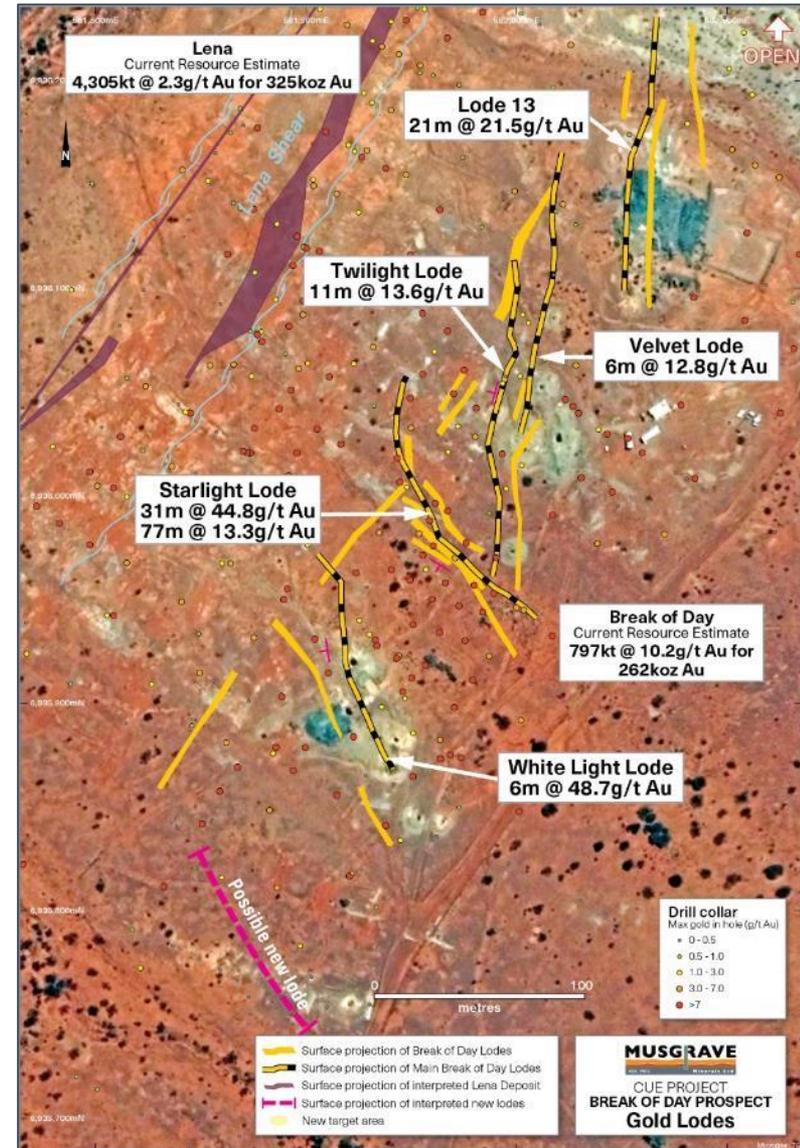
360kt @ 13.9g/t Au for 161koz Au

of which Starlight hosts

240kt @ 17.0g/t Au for 131koz Au from 3m  
below surface

- 5 lodes host 85% of the resources
- Re-interpretation of the geological model demonstrates potential for repetitions
- Opens search space and creates opportunity for discovery
- Ongoing focus on near surface high-grade ounces
- PFS commenced

Mineral Resource details and CP statements on Slides 19, 20, 21 & 22



# BREAK OF DAY RESOURCE MODEL 3D RESOURCE SCHEMATIC IMAGES

## Break of Day

- 797kt @ 10.2g/t Au for 262koz Au
- 25 lodes define resource with 85% of gold in 5 main lodes
- >85% of gold is in top 200m

From previous 2017 resource the new resource has:

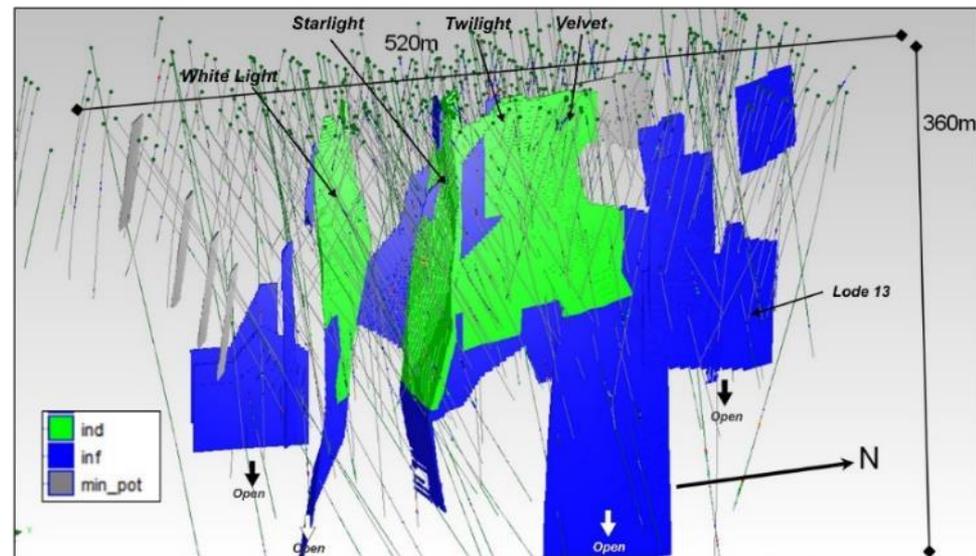
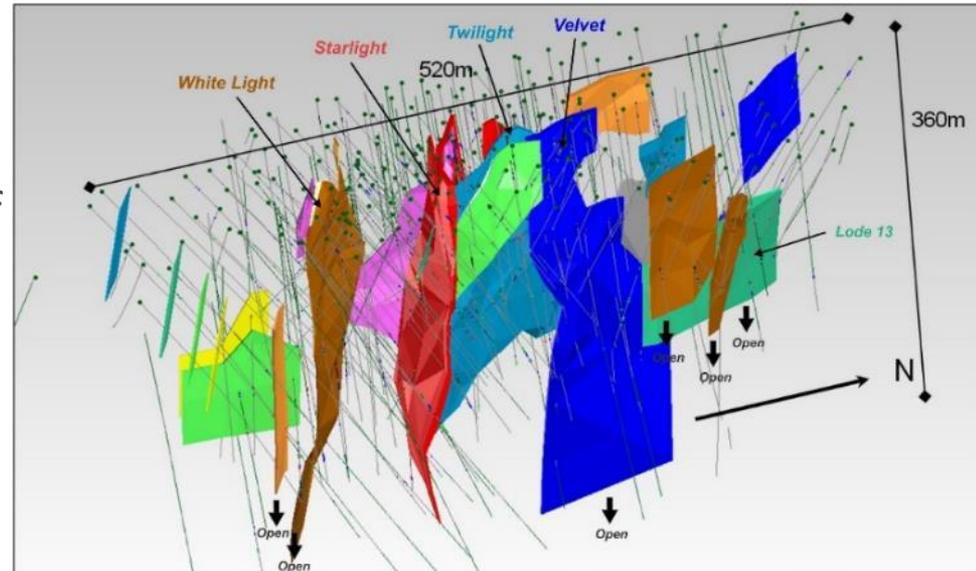
- increased gold grade by 42%
- Increased Indicated Resources by 58%
- increased contained ounces by 31%

## Break of Day includes:

Starlight & White Light lodes

- 360kt @ 13.9g/t Au for 161koz Au

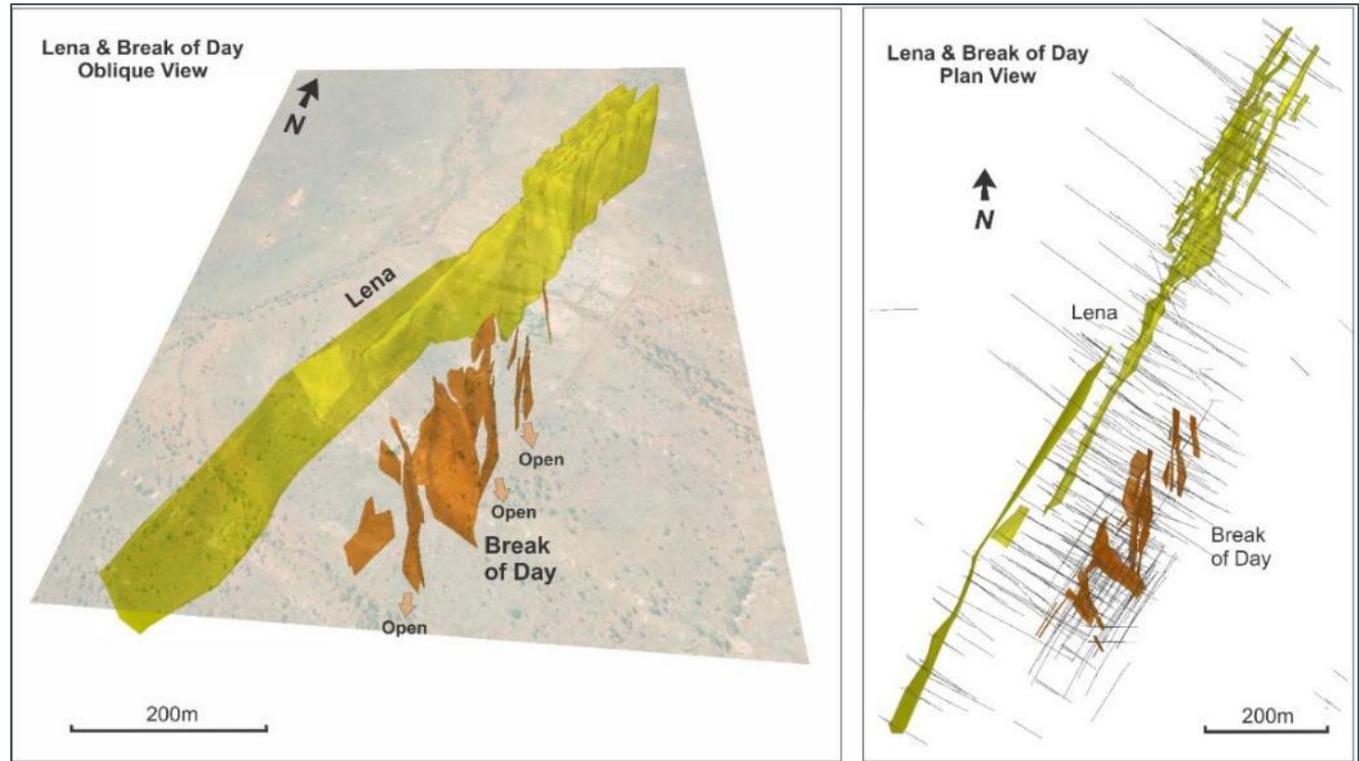
*Mineral Resource details and CP statements on Slides 19, 20, 21 & 22*



# BREAK OF DAY / LENA 3D MODEL

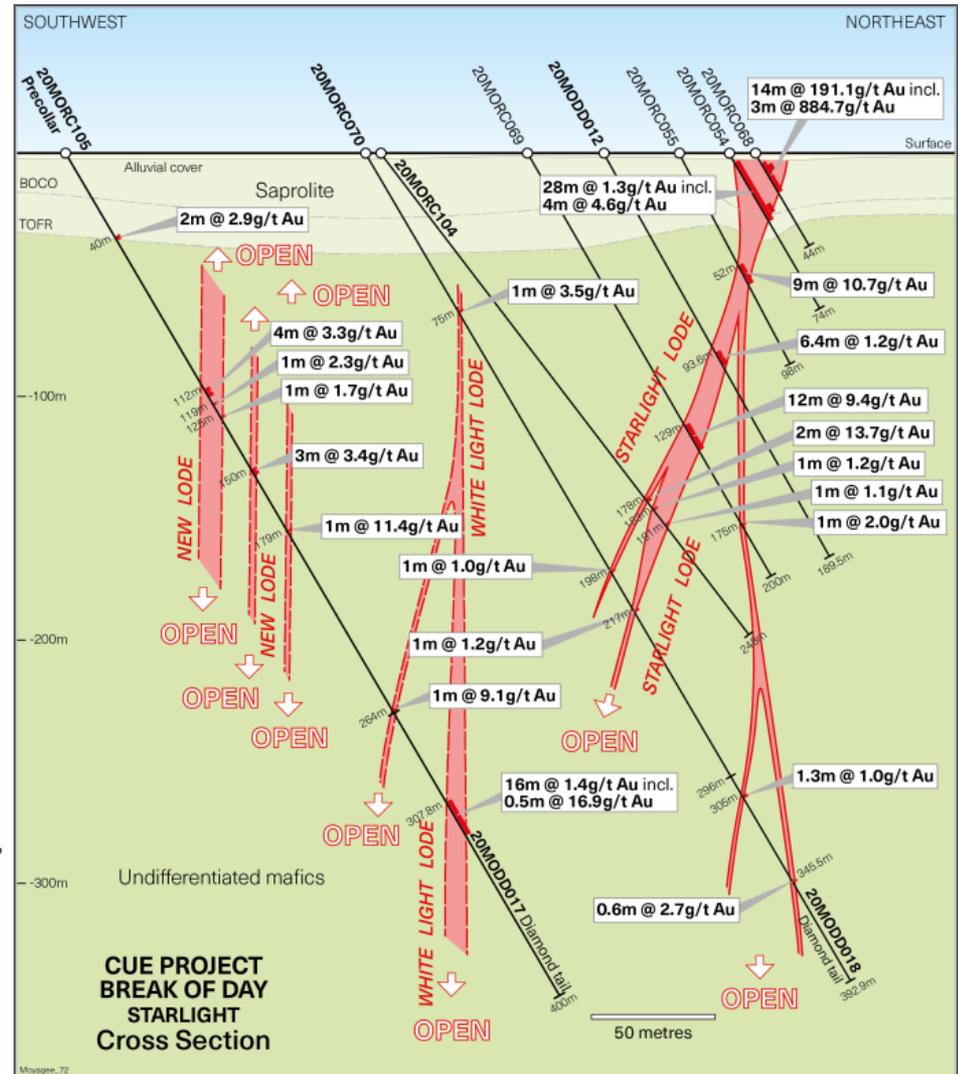
## Break of Day

- Near-surface, very high-grade deposit
- High-grade starts only 3m below surface – low pre-strip
- >50,000m drilling
- >1,100oz Au in resources per vertical metre in top 175m
- 85% of resource (>220koz Au) in top 200m



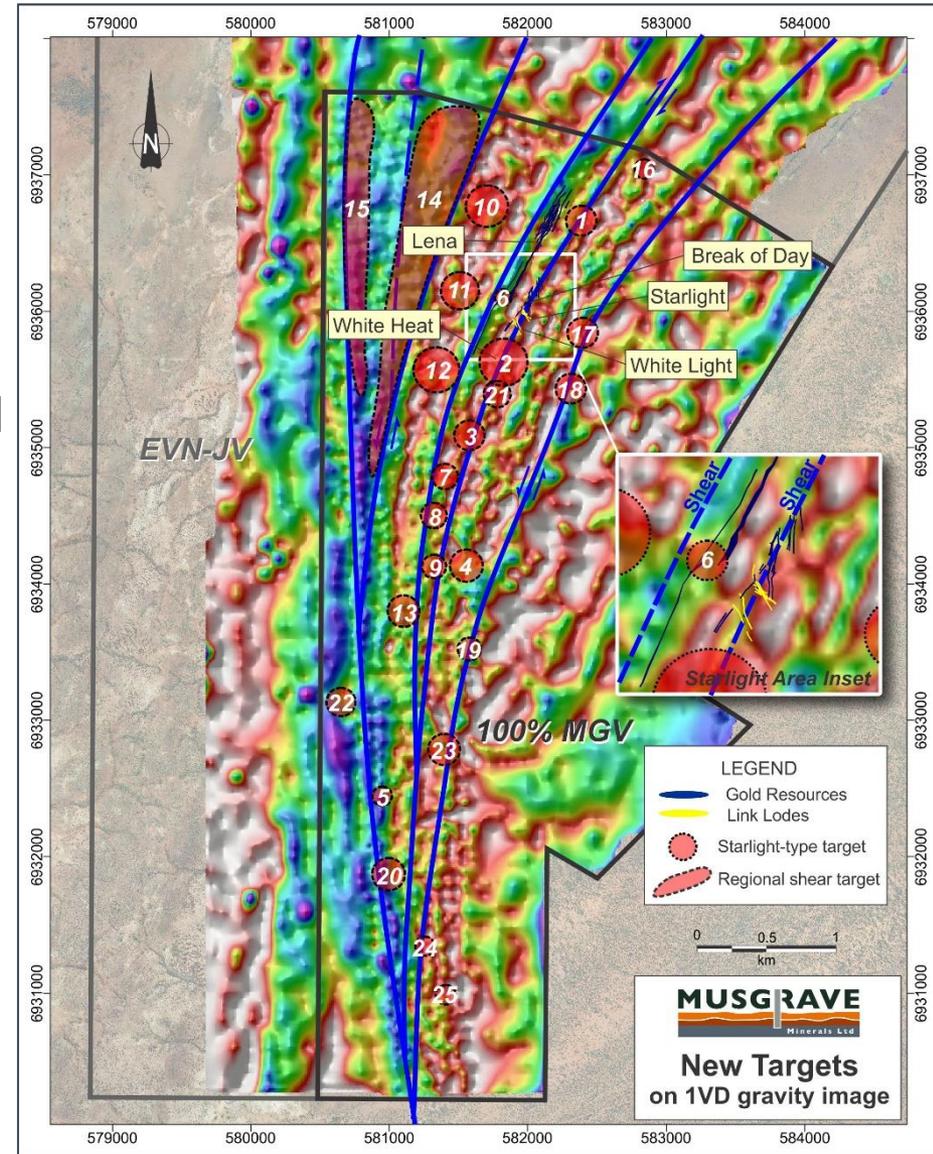
# BREAK OF DAY POTENTIAL LODE REPETITIONS TO SOUTH

- Near-surface, high-grade gold discovery
  - Only 3m of hardpan cover
- Intercepts include:
  - 14m @ 191.1g/t Au (from 4m) incl.
  - 3m @ 884.7g/t Au
  - 9m @ 10.7g/t Au (from 52m)
  - 12m @ 9.4g/t Au (from 129m)
  - 2m @ 13.7g/t Au (from 183m)
- Potential for lode repetitions to south – not in current resource e.g. White Heat



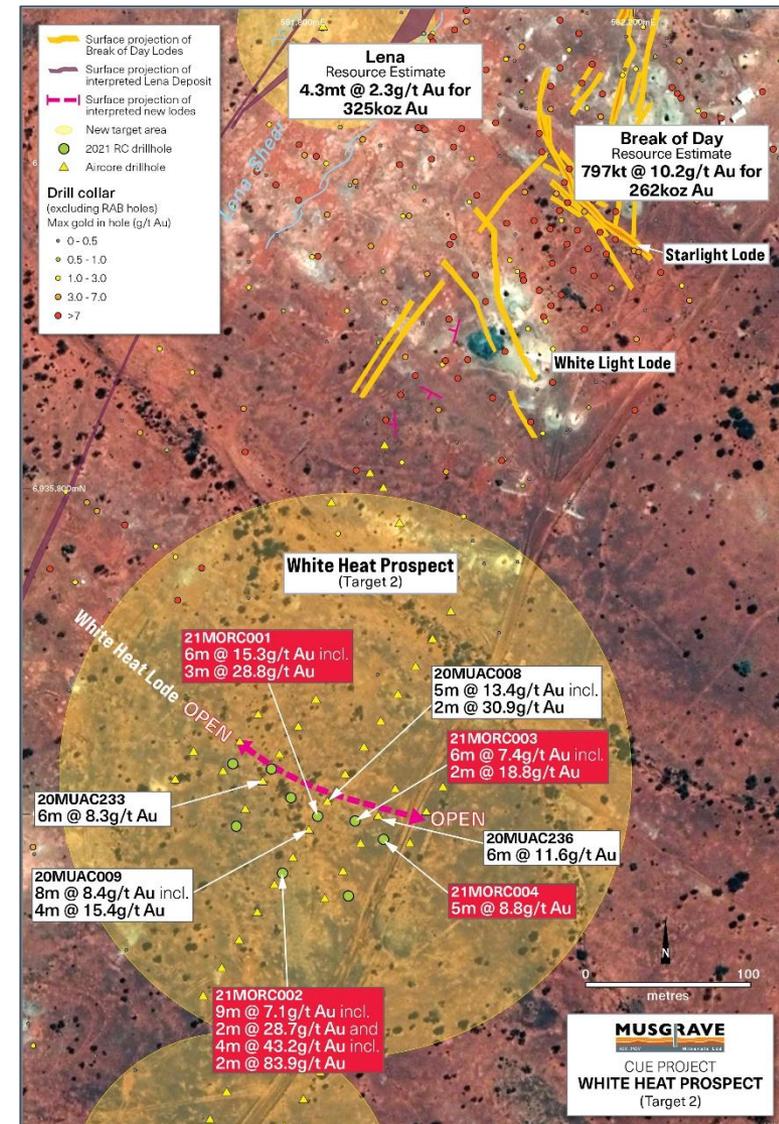
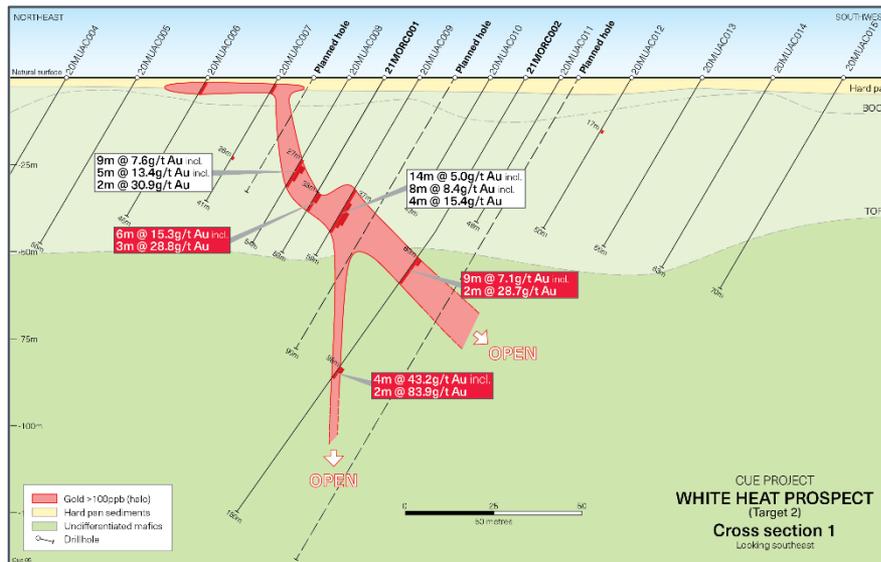
# STARLIGHT ANALOGUES – NEW TARGETS

- New discoveries have changed the paradigm
  - Increased the search space
- >20 regional targets with anomalous gold in first pass aircore drilling
- High-grade gold identified on 6 regional targets - further assays pending
- >25,000m follow-up aircore/RC drilling underway on new targets



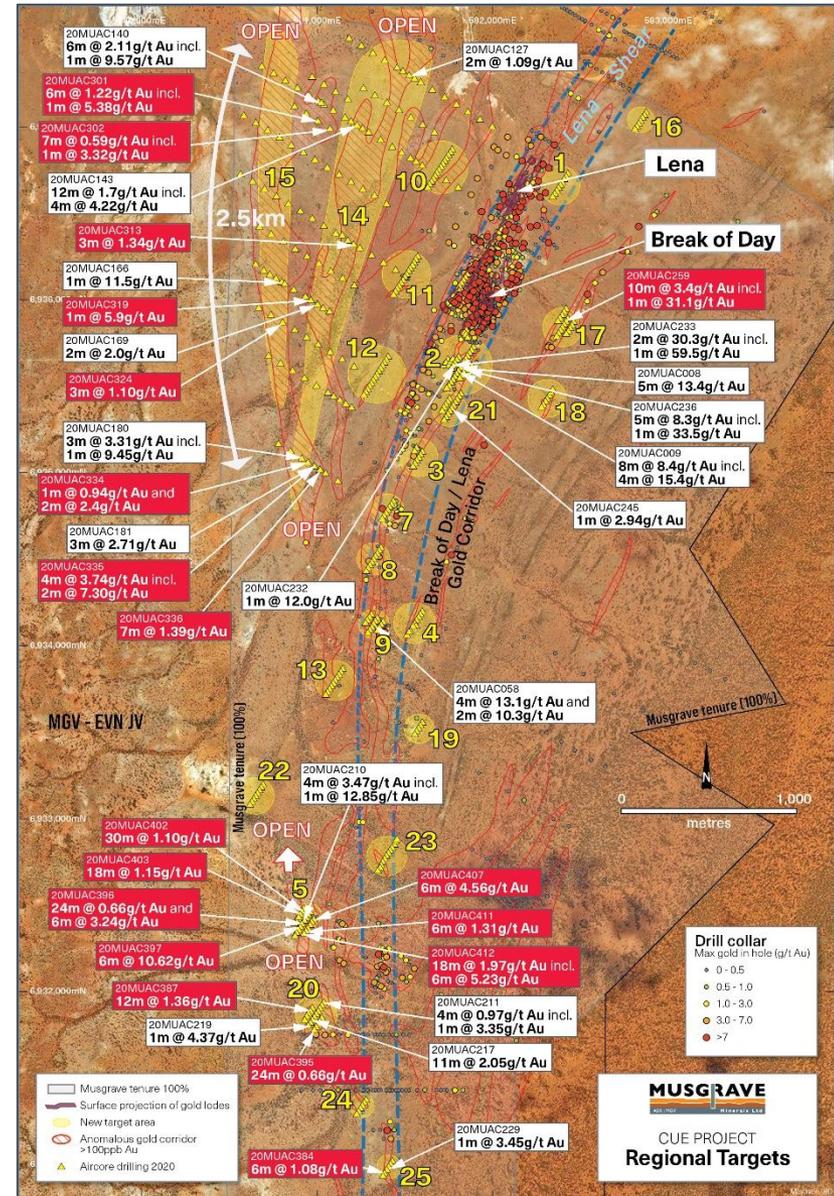
# NEW WHITE HEAT DISCOVERY (TARGET 2) –300M SOUTH OF WHITE LIGHT

- New high-grade intercepts under 2-3m of hardpan cover – no historical drilling
  - 4m @ 43.2g/t Au from 98m
  - 6m @ 15.3g/t Au from 38m
  - 9m @ 7.1g/t Au from 60m
- ~100m strike and open down dip
- Follow-up drilling ongoing – assays pending



# OTHER REGIONAL TARGETS

- Target 14 & 15
  - Two x Parallel shear structures - gold corridors
  - +2.5km of strike on each
  - Gold values up to 11.5g/t Au under 8-40m cover
- Target 17
  - 1m @ 31.1g/t Au from 22m
- Target 20
  - 11m @ 2.0g/t Au from 28m
  - 1m @ 4.3g/t Au from 46m to EOH
- Target 5
  - 6m @ 10.6g/t Au from 30m
  - 6m @ 5.2g/t Au from 24m
- All targets open along strike and down dip
- Follow-up drilling commenced



# EXCEPTIONAL GOLD RECOVERIES BREAK OF DAY & LENA

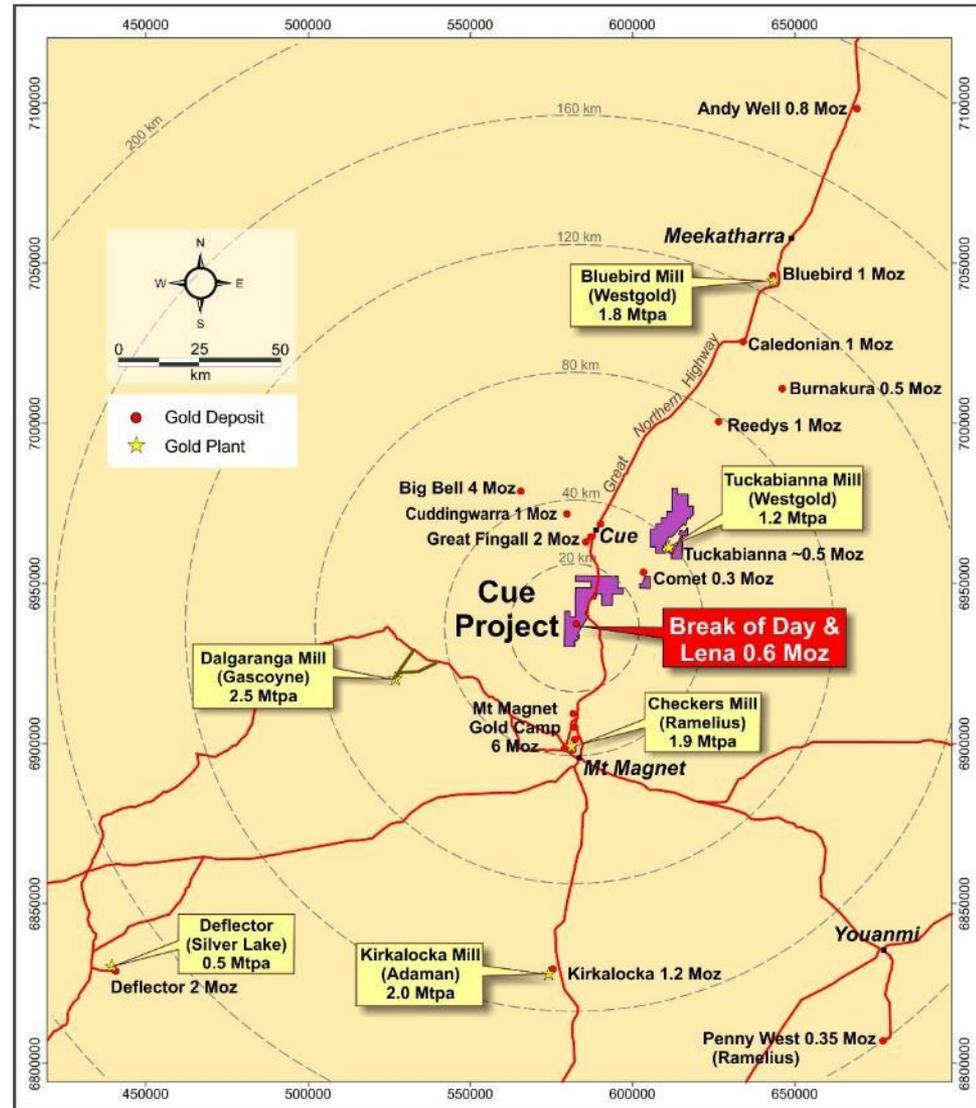


- Excellent gold recoveries achieved from metallurgical test work at Break of Day and Lena:
  - **Total 96-99% recoverable gold** from conventional gravity and CIL processing
  - **High gravity recoveries (>70-80%) - fresh rock**
  - Good in comparison to typical Yilgarn gold ores
- Suggests low reagent use and reduced processing costs
- No deleterious elements
- Preliminary test work at Starlight indicates 98-99% total CIL recovery (50-+80% gravity recovery)

- Surrounded by significant gold producers (Ramelius, Westgold, Silver Lake)
- High-grade gold ore can be trucked a long distance using existing road infrastructure
  - eg. RMS trucking ore 300km @ ~6.5g/t Au from Vivien mine

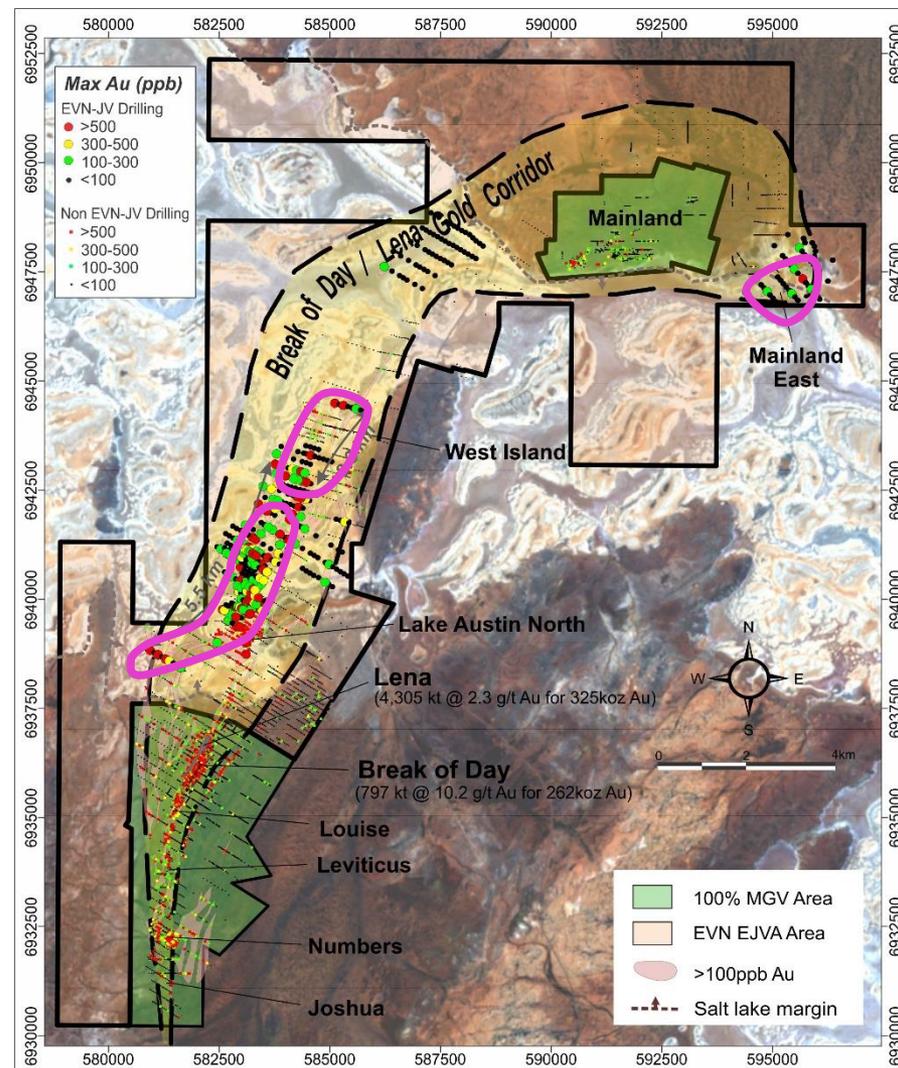
## Strategic and Corporate Appeal

- Striving for standalone operation
  - .... multiple processing facilities in district
- EVN JV to fund lake exploration
- Strong AUD gold price



# GOLD TARGETS – LAKE AUSTIN (EVN JV)

- EVN JV – Evolution Mining can spend \$18M in 5yrs to earn 75%
  - Minimum \$4M in first 2yrs
  - If entire \$18M not spent MGCV retains 100%
- Multiple new high priority gold targets under variable thickness dune and lake cover
- **Basement gold intercepts include:**
  - **Lake Austin North**
    - **84m @ 1.7g/t Au (18MORC039) incl.**
      - **20m @ 6.1g/t Au**
    - **94m @ 2.2g/t Au (18MORC057) incl.**
      - **29m @ 5.1g/t Au**
  - **242m @ 1.0g/t Au (18MODD008) incl.**
    - **45m @ 3.3g/t Au**



# SCHEDULED WORK PLAN

Cue Gold Project	Q1 2021	Q2 2021	Q3 2021	Q4 2021
RC follow-up drilling of new priority regional targets	•	•	•	
Aircore drilling – regional targets	•	•	•	
Resource growth drilling	•	•	•	•
Resource definition and conversion drilling		•	•	
EVN JV – Diamond drilling follow-up of high priority targets	•	•		
Prefeasibility Study	•	•	•	•



# RESOURCES + GRADE + RECOVERY + INFRASTRUCTURE + EXPLORATION UPSIDE

- Total Mineral Resources >659koz Au
- **High-grade gold project**
  - High value near surface resource at BoD  
797kt @ 10.2g/t Au for 262,000oz gold
- Opportunity for further discoveries through successful regional drilling programs
- Exploration joint venture with Evolution
- **Activity and news flow:**
  - **RC drilling at White Heat & Targets 5, 14, 17 & 20 underway**
  - **Regional follow-up aircore drilling to commence in March**
  - **EVN JV - diamond drilling underway**
  - **Resource infill drilling - March**
- Well funded & strong AUD gold price environment



## ADDITIONAL INFORMATION

# GOLD RESOURCES

## JORC Mineral Resources (Indicated and Inferred)

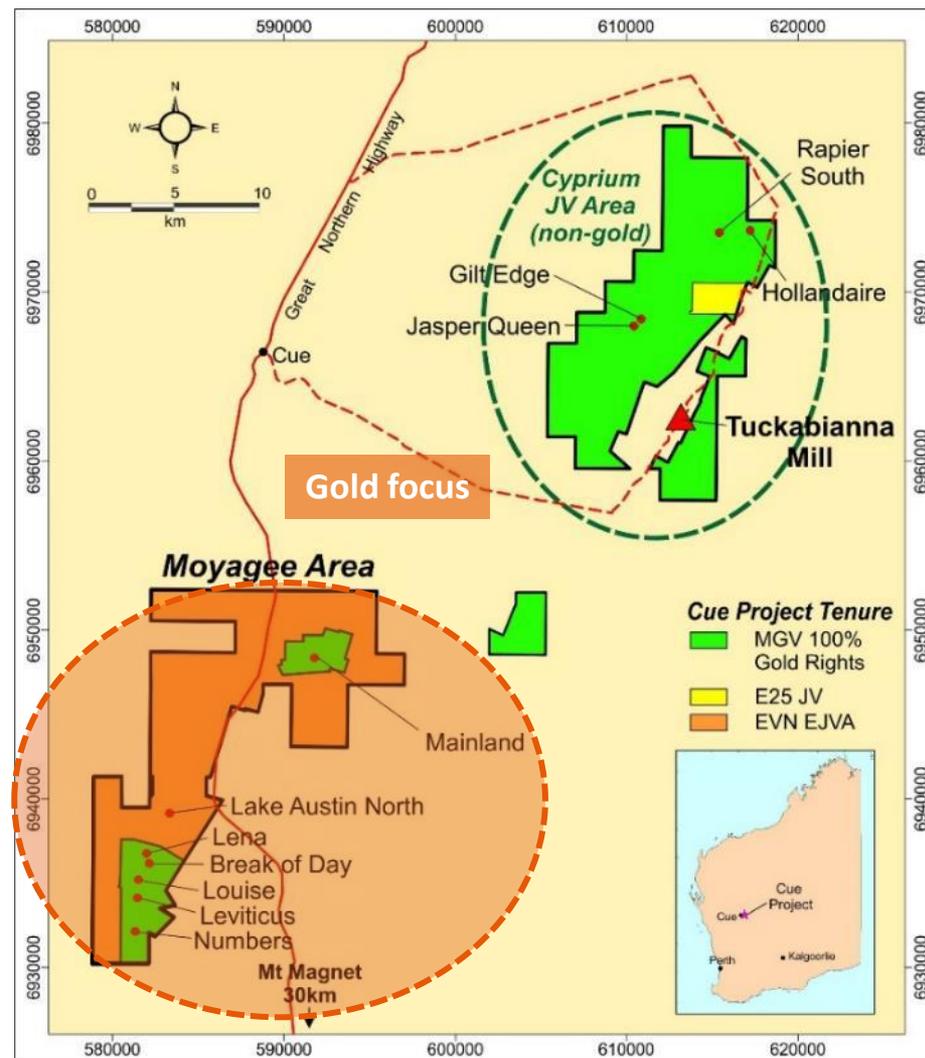
Southern Area* (Moyagee)	Tonnes (000's)	Au (g/t)	Oz Au
Break of Day	797	10.2	262,000
Lena	4,305	2.3	325,000
Leviticus	42	6.0	8,000
Numbers	278	2.5	22,000
<b>Total</b>	<b>5,422</b>	<b>3.5</b>	<b>617,000</b>

Northern Area *	Tonnes (000's)	Au (g/t)	Oz Au
Hollandaire** + Rapier South	728	0.6	17,000
Jasper Queen + Gilt Edge	271	2.8	24,000
<b>Total</b>	<b>999</b>	<b>1.3</b>	<b>42,000</b>
<b>Total Cue Project</b>	<b>6,421</b>	<b>3.2</b>	<b>659,000</b>

\*\*The Hollandaire Resource Estimate is on 100% basis (MGV has a 20% attributable interest in the Hollandaire deposit, free carried to completion of DFS). Totals are on an attributable interest basis. Complete resource tables are detailed on slide 20.

\* As at 11 November 2020, Copper and gold Mineral Resources reported by Musgrave Minerals Ltd (MGV) in ASX announcements dated 11 November 2020, 17 February 2020, and 14 July 2017 Cyprium Metals Limited (CYM) in its ASX Announcement dated 29 September 2020 and Silver Lake Resources Limited (SLR) in its ASX Announcement "Mineral Resources and Ore Reserves Update", 26 August 2016. CP statements on Slide 22.

Due to the effects of rounding, the totals may not reflect the sum of all components.



# JORC GOLD RESOURCES



## Gold Mineral Resources as at 11 November 2020

Deposit	Indicated Resources			Inferred Resources			Total Resources		
	Tonnes '000s	Au Grade g/t	Total oz. Au '000s	Tonnes '000s	Au Grade g/t	Total oz. Au '000s	Tonnes '000s	Au Grade g/t	Total oz. Au '000s
<b>Moyagee</b>									
Break of Day	450	12.1	176	350	7.7	86	797	10.2	262
Lena	2,253	1.7	121	2,053	3.1	204	4,305	2.3	325
Leviticus				42	6.0	8	42	6.0	8
Numbers				278	2.5	22	278	2.5	22
Total Moyagee	2,703	3.4	297	2,723	3.7	320	5,422	3.5	617
<b>Eelya</b>									
*Hollandaire	2,179	0.3	21	605	0.4	8	2,784	0.3	27
*Hollandaire (MGV 20%)	436	0.3	4	121	0.4	2	557	0.3	5
Rapier South				171	2.1	12	171	2.1	12
Total Eelya (MGV)	436	0.3	4	292	1.4	13	728	0.6	17
<b>Tuckabianna</b>									
Jasper Queen				175	2.6	15	175	2.6	15
Gilt Edge				96	3.1	9	96	3.1	9
Total Tuckabianna				271	2.8	24	271	2.8	24
<b>Total Cue Project</b>	<b>3,138</b>	<b>3.0</b>	<b>301</b>	<b>3,286</b>	<b>3.4</b>	<b>358</b>	<b>6,421</b>	<b>3.2</b>	<b>659</b>

\*Note 1: The Hollandaire Resource Estimate is on 100% basis (MGV has a 20% attributable interest in the Hollandaire deposit, free carried to completion of DFS). **Totals** are on an attributable interest basis. Gold mineralisation not associated with the copper resource at Hollandaire, that is 100% attributable to MGV, is yet to be modelled and reported in compliance with JORC 2012.

Note 2: Due to the effects of rounding, the total may not reflect the sum of all components

### Notes to Tables:

The Break of Day, Lena and Hollandaire Mineral Resources are produced in accordance with the 2012 Edition of the Australasian Code of Reporting of Mineral Resources and Ore Reserves (JORC 2012). The remaining Mineral Resources were first prepared and disclosed in accordance with the 2004 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and ore Reserves.

The JORC 2004 Resources in this presentation have not been updated since to comply with JORC 2012 on the basis that the information has not materially changed since it was last reported.

For further details refer to *Musgrave Minerals Ltd (MGV) ASX announcements 11 November 2020, 16 October 2020, 17 February 2020 and 14 July 2017, Cyprum Metals Limited (CYM) announcement dated 29 September 2020 and Silver Lake Resources Limited (SLR) in its ASX Announcement "Mineral Resources and Ore Reserves Update", 26 August 2016.*

# COPPER RESOURCES

JV agreement with Cyprium Metals Ltd

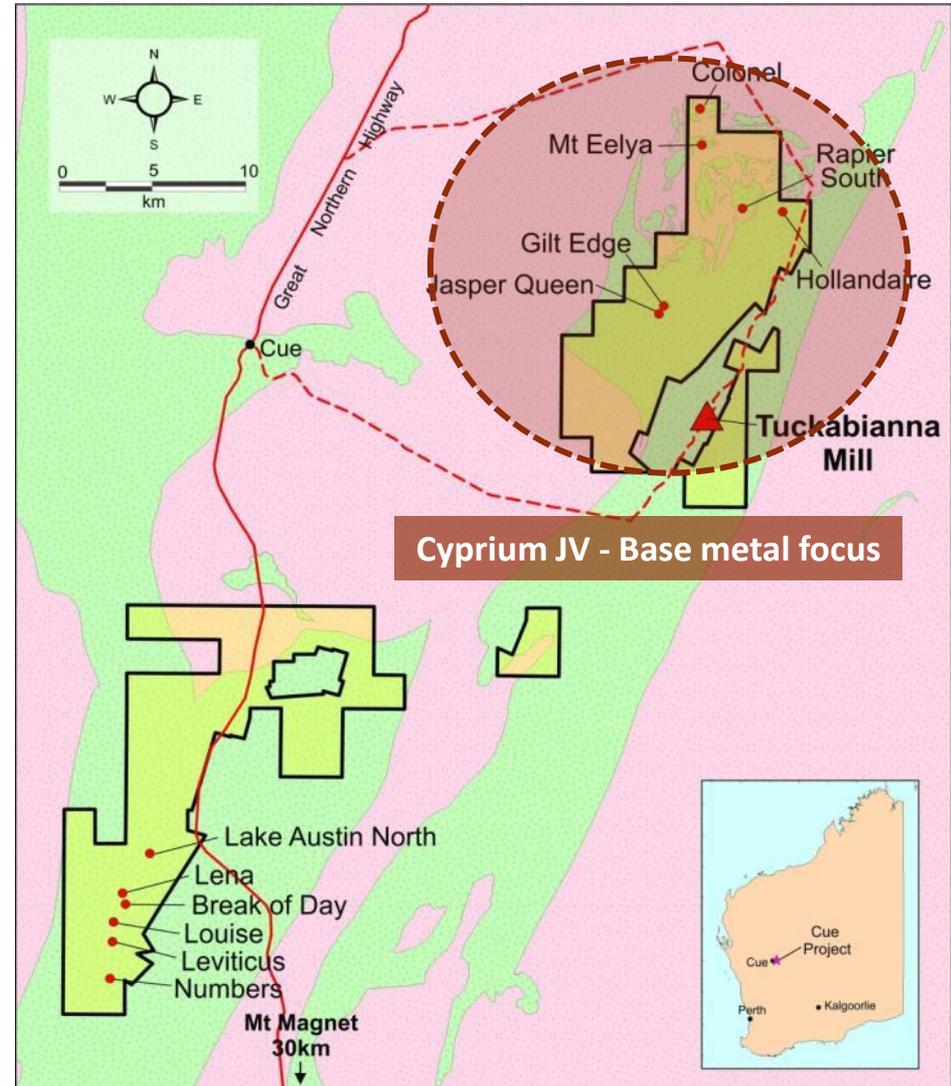
Copper resources at Hollandaire

Hollandaire Copper *	Tonnes (Mt)	Cu (%)	Cu (Tonnes)
Indicated Resources	2.179	2.0	42,200
Inferred Resources	0.605	1.6	9,300
<b>Total</b>	<b>2.784</b>	<b>1.9</b>	<b>51,500</b>

Opportunity to seek to discover new copper-zinc resources:

- Mt Eelya:
  - 8m @ 1.6% Cu, 0.8g/t Au, 4.5g/t Ag
- Colonel:
  - 6m @ 1.0% Cu, 1.7g/t Au, 11g/t Ag

\* Copper and gold Mineral Resources reported by Cyprium Metals Limited (CYM) in its ASX Announcement "Hollandaire Copper-Gold Mineral Resource Estimate", 29 September 2020. CP statements on slide 22. The Hollandaire Resource Estimate is reported on a 100% basis (MGV has a 20% attributable interest in the Hollandaire deposit, free carried to completion of DFS).



# COMPETENT PERSON'S STATEMENT



## **Mineral Resources**

*The Information in this report that relates to Mineral Resources at Break of Day and Lena 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 Company confirms that it is not aware of any further new information or data that materially affects the information included in the original market announcements by Musgrave Minerals Ltd (MGV) entitled "Lena Mineral Resource more than doubles and gold grade increases" released on 17 February 2020 and "Break of Day High-Grade Mineral Resource Estimate" released on 11 November 2020 and in the case of estimates of Minerals Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. To the extent disclosed above, the Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.*

*The information in this report that relates to the Rapier South, Jasper Queen, Gilt Edge, Leviticus and Numbers Mineral Resource is extracted from the report created by Silver Lake Resources Limited entitled "Mineral Resources and Ore Reserves Update", 26 August 2016 and is available to view on the ASX ([www.asx.com.au](http://www.asx.com.au)). The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Minerals Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented, have not been materially modified from the original market announcement.*

*The information in this report that relates to Mineral Resources for the Hollandaire 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.*

*The Company confirms that it is not aware of any further new information or data that materially affects the information included in the original market announcement by Cyprium Metals Limited (CYM) entitled "Hollandaire Copper-Gold Mineral Resource Estimate" released on 29 September 2020 and in the case of estimates of Minerals Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. To the extent disclosed above, the Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.*

## **Exploration Results**

*The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled and/or thoroughly reviewed by Mr Robert Waugh, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM) and a Member of the Australian Institute of Geoscientists (AIG). Mr Waugh is Managing Director and a full-time employee of Musgrave Minerals Ltd. Mr Waugh has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Waugh consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

# ADDITIONAL JORC INFORMATION

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

- 4 February 2021, "Appointment of Non-executive Director"
- 1 February 2021, "High-grade gold intersected in first RC holes at White Heat Prospect, Cue"
- 28 January 2021, "Quarterly Activities and Cashflow Report"
- 27 January 2021, "New basement gold targets defined on Evolution JV"
- 19 January 2021, "High-grade near-surface gold extended at Target 5, Cue"
- 18 January 2021, "Results of SPP Offer"
- 19 January 2021, "High-grade near-surface gold extended at Target 5, Cue"
- 14 December 2020, "Investor Update Presentation"
- 14 December 2020, "\$18M raising to fund resource growth and commence PFS"
- 9 December 2020, "High-grade, near-surface gold at Target 17, Cue"
- 3 December 2020, "Scout drilling intersects high-grade gold and defines large gold zones under Lake Austin, Evolution JV"
- 23 November 2020, "New White Heat discovery and further regional drilling success"
- 19 November 2020, "AGM Presentation"
- 11 November 2020, "Break of Day High-Grade Mineral Resource Estimate"
- 4 November 2020, "Regional drilling hits more high-grade gold"
- 2 November 2020, "Exceptional metallurgical gold recoveries at Starlight"
- 16 October 2020, "Annual Report to Shareholders"
- 13 October 2020, "Starlight Shines – Diggers and Dealers Company Presentation"
- 8 October 2020, "Drilling hits high-grade gold on new target, 400m south of Starlight"
- 28 September 2020, "White Light extended and potential new zone identified"
- 24 September 2020, "Infill drilling a t Break of Day confirms high grades"
- 19 August 2020, "Starlight gold mineralisation extended"
- 28 July 2020, "Bonanza gold grades continue at Starlight with 3m @ 884.7g/t Au"
- 6 July 2020, "85m @ 11.6g/t gold intersected near surface at Starlight"
- 29 June 2020, "New gold lode discovered 75m south of Starlight"
- 9 June 2020, "Bonanza near surface hit of 18m @ 179.4g/t Au at Starlight"
- 5 June 2020, "Scout drilling defines large gold targets at Cue, Evolution JV"
- 3 June 2020, "12m @ 112.9g/t Au intersected near surface at Starlight"
- 21 April 2020, "High grades confirmed at Starlight"
- 1 April 2020, "More high-grade gold at Starlight Link-lode, Break of Day"
- 16 March 2020, "Starlight link-lode shines at Break of Day"
- 28 February 2020, "High-grade gold intersected Link-lode, Break of Day"
- 17 February 2020, "Lena Resource Update"
- 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"
- 1 May 2019, "Drilling at A-Zone Continues to Deliver Thick, High-Grade Gold Intersections"
- 6 March 2019, "Musgrave Secures More Key Gold Tenure at Cue"
- 3 December 2018, "Diamond Drilling Confirms Significant Gold Discovery at Lake Austin North"
- 31 August 2018, "First RC drill hole hits 42m @ 3.2g/t Au at Lake Austin North, Cue"
- 6 July 2017, "Excellent Gold Recoveries Achieved from Initial Metallurgical Test Work at Lena"