

# RIU EXPLORERS CONFERENCE 20 FEBRUARY 2020



ASX : MGV



## EXPLORATION UPDATE

Rob Waugh  
Managing Director

# FORWARD LOOKING STATEMENTS



This presentation has been prepared by Musgrave Minerals Ltd (MGV). The information contained in this presentation is a professional opinion only and is given in good faith. Certain information in this document has been derived from third parties and though Musgrave Minerals has no reason to believe that it is not accurate, reliable or complete, it has not been independently audited or verified by MGV.

This presentation is in summary form and does not purport to be all inclusive or complete. Recipients should conduct their own investigations and perform their own analysis in order to satisfy themselves as to the accuracy and completeness of the information, statements and opinions contained.

This is for information purposes only. Neither this nor the information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of MGV shares in any jurisdiction. This does not constitute investment advice and has been prepared without taking into account the recipient's investment objectives, financial circumstances or particular needs and the opinions and recommendations in this presentation are not intended to represent recommendations of particular investments to particular persons. Recipients should seek professional advice when deciding if an investment is appropriate. All securities transactions involve risks, which include (among others) the risk of adverse or unanticipated market, financial or political developments.

To the fullest extent permitted by law, MGV, its officers, employees, related bodies corporate, agents and advisers do not make any representation or warranty, express or implied, as to the currency, accuracy, reliability or completeness of any information, statements, opinions, estimates, forecasts or other representations contained in this presentation. No responsibility for any errors or omissions from this arising out of negligence or otherwise is accepted.

Any forward-looking statements included in this document involve subjective judgment and analysis and are subject to uncertainties, risks and contingencies, many of which are outside the control of, and may be unknown to, MGV. In particular, they speak only as of the date of this document, they assume the success of MGV's strategies, and they are subject to significant regulatory, business, competitive and economic uncertainties and risks. Actual future events may vary materially from the forward-looking statements and the assumptions on which the forward-looking statements are based. Recipients of this document are cautioned to not place undue reliance on such forward-looking statements.

Authorised for release by the Managing Director, Mr Robert Waugh.

For Further information: Robert Waugh  
T - + 61 8 9321 1061  
E - [info@musgraveminerals.com.au](mailto:info@musgraveminerals.com.au)  
W - [www.musgraveminerals.com.au](http://www.musgraveminerals.com.au)

# TARGETING MAJOR HIGH-GRADE SYSTEM AND NEAR TERM PRODUCTION

- Cue Project: **>613koz** JORC resources and growing
- Big system **>28km** of shear zone
- New Earn-in JV with Evolution on Lake Austin
  - \$18M funding for lake exploration
- Existing Break of Day & Lena resources and Mainland area retained 100% by MGCV
- High grades:
  - **45m @ 11.8g/t Au & 11m @ 54g/t Au (Break of Day)**
  - **6m @ 31.1g/t Au (Lena)**
- **Six** third-party mills nearby with capacity for high-grade feed
- Lake Austin North (EVN JV)
  - **52m @ 3.8g/t Au (Lake Austin North)**
- Analogous setting to Great Fingall  
(**~2Moz Au @ 10g/t**), 30km to North





# CORPORATE OVERVIEW

ASX Code	MGV
Shares on Issue	405M
Share Price (17 Feb 2020)	\$0.10
<b>Cash on Hand</b> (30 Dec 2019)	<b>~\$4.1M</b>
Securities Held (LEG, CYM)	<b>~\$1.9M</b>
Debt	Nil
Market Capitalisation (@10c)	~\$40M
<b>Enterprise Value</b>	<b>~\$34M</b>
Liquidity (60 day volume)	1.0M shares/day

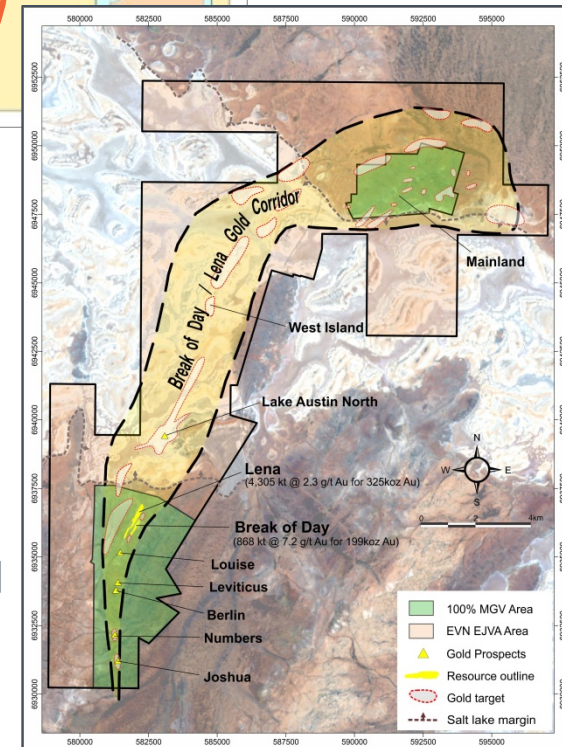
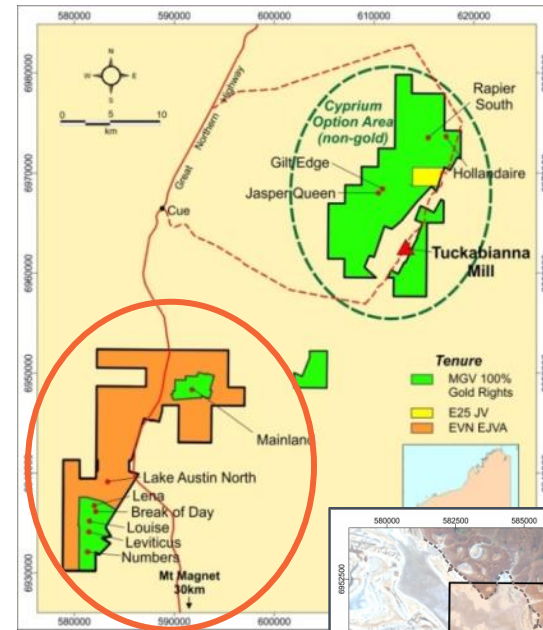
Top Shareholders	Current Holding
Westgold Resources Ltd (WGX)	16.0%
Westminex Group	6.3%
HSBC Nominees	4.8%
Jetosea Pty Ltd	4.6%
Evolution Mining Ltd (EVN)	4.6%
Riggy and Boo Pty Ltd	3.5%



- Valuation underpinned by existing JORC resource
- Re-rate possible as drilling continues and resources grow
- Active explorer: >85% of dollars in ground

# EVOLUTION EARN-IN JV: \$18M LAKE EXPLORATION FUNDING

- JV agreement reinforces confidence in project's upside gold potential
- EVN to fund \$18M over 5 years to earn 75%
  - Minimum spend of \$4M within the first 2 years (& \$2M in first 7 months)
  - MGCV to manage during the initial earn-in period
  - Brings in EVN technical expertise
- >14km of unexplored shear zone beneath lake cover at variable depths (40m to 120m)
- Additional funding
  - EVN subscribed for \$1.5M of shares at \$0.08/share
- MGCV to retain 100% of all known gold resources and approximately 11km of the prospective shear zone (including all near surface – non covered zones).
- EVN JV funded drilling has commenced at Lake Austin North



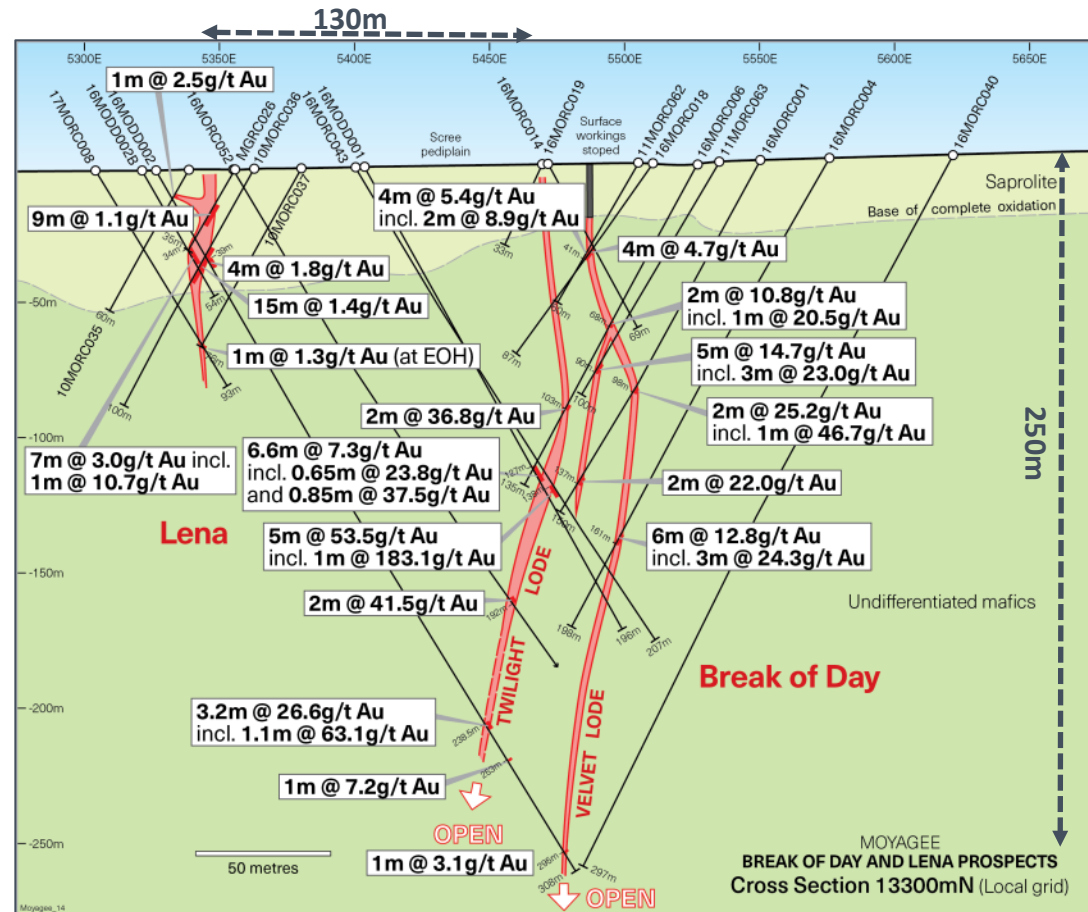
# BREAK OF DAY & LENA GOLD DEPOSITS

## Break of Day JORC Resource:

- 868kt @ 7.2g/t Au for 199koz Au (Indicated and Inferred)
- >800m of combined strike of high-grade shoots
- Resource drilling only to ~250m
- Amenable to open pit and underground mining
- Open down plunge and along strike
- New 'link-lode' opportunity
- Possible resource upgrade Q2 2020

## Lena JORC Resource:

- 4,305Kt @ 2.3g/t Au for 325koz Au (Indicated and Inferred)
- Near surface gold in multiple lodes over 1.5km strike
- Resource calculated to 430m



## Break of Day

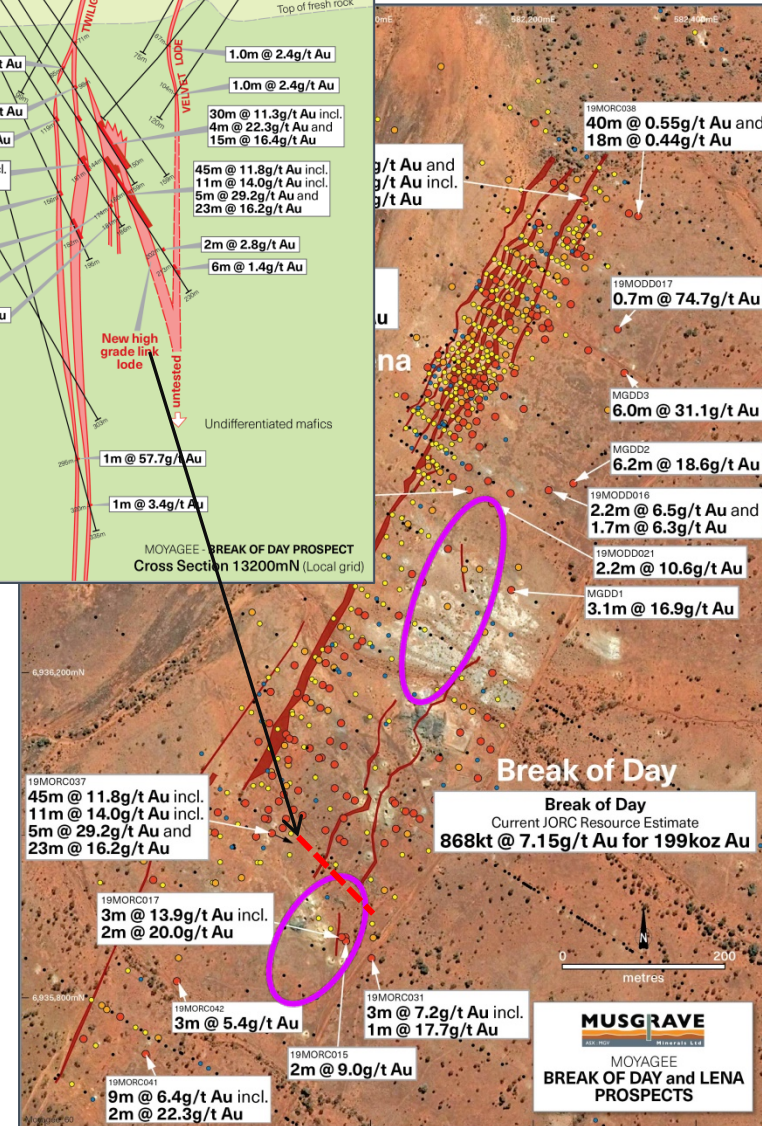
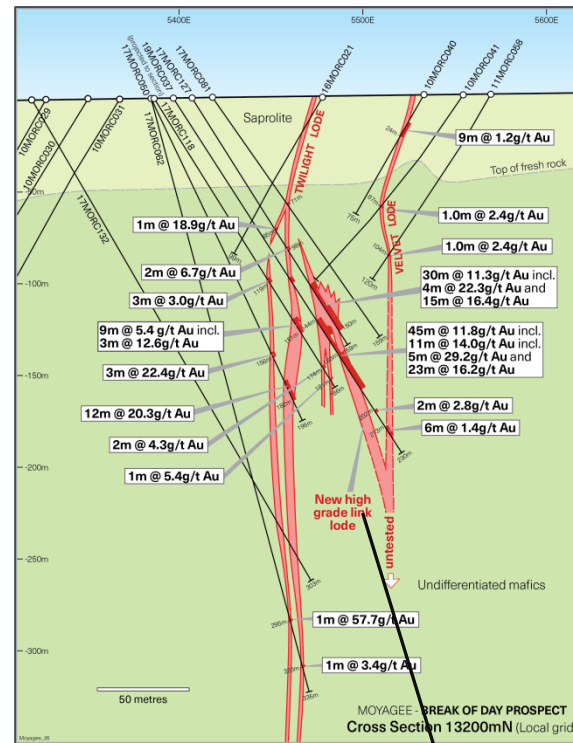
- 11m @ 54.0g/t Au
- 5m @ 53.5g/t Au
- 45m @ 11.8g/t Au
- 13m @ 8.8g/t Au
- 4m @ 28.5g/t Au
- 4m @ 15.6g/t Au



# BREAK OF DAY - UPSIDE

## Break of Day: High-grade gold

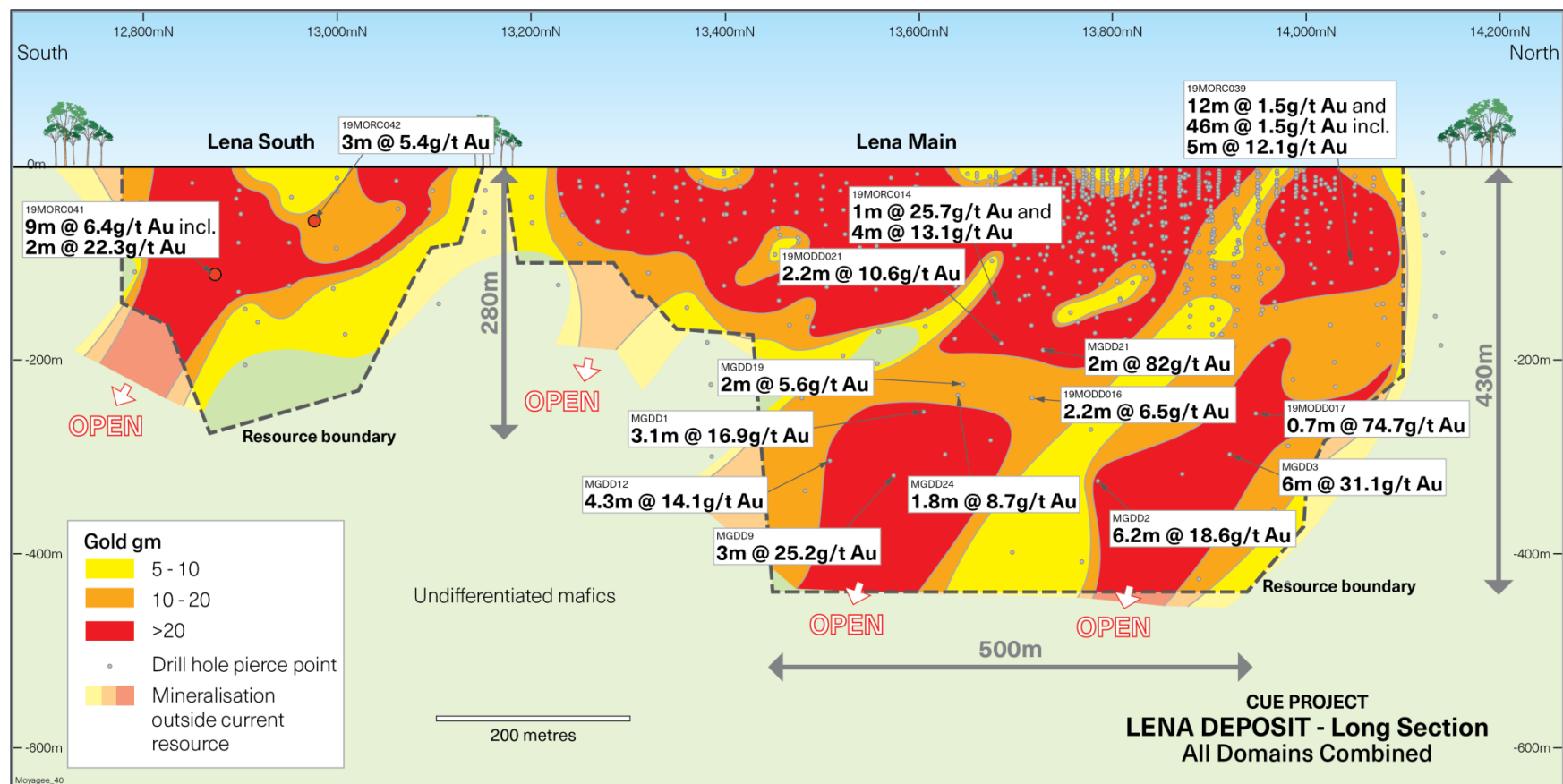
- 868kt @ 7.2g/t Au for 199koz Au (Indicated and Inferred)
- Resource drilling only to ~250m vertical depth
  - Significant potential down dip
  - Open north, south and down plunge
- New extensions along strike
  - 75m south – 3m @ 13.9g/t Au
  - 110m north – 1m @ 8.0g/t Au
- New 'link-lode' - 45m @ 11.8g/t Au
  - Opens search space and creates opportunity to grow resource
- Drilling Feb 2020 – Assays awaited



# LENA GROWTH POTENTIAL

Resource update – Feb 2020 (4,305Kt @ 2.3g/t Au for 325koz Au )

- 112% increase in gold ounces
- 28% increase in gold grade
- Deposit remains open at depth



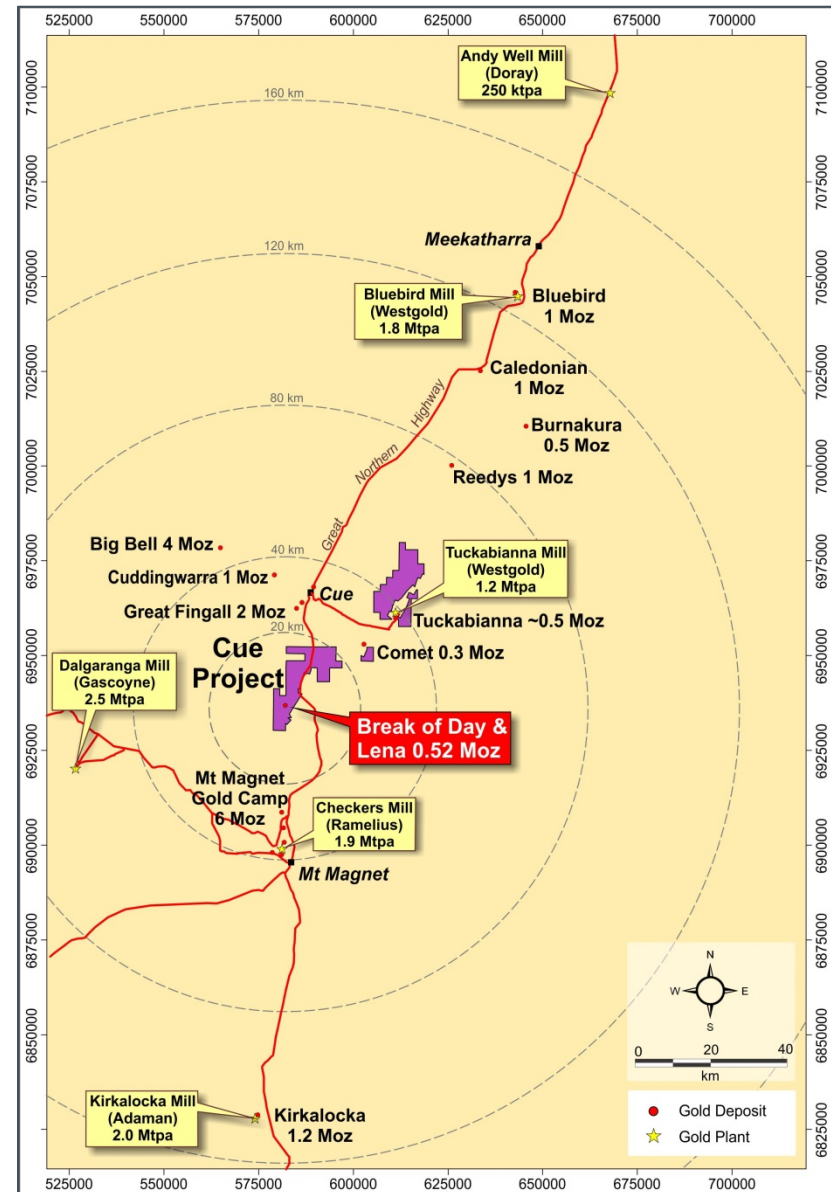


# EXCELLENT INFRASTRUCTURE = MULTIPLE DEVELOPMENT OPTIONS

- Surrounded by significant gold producers (Westgold, Ramelius)
- Westgold & Ramelius mills – only 40km away
- High-grade ore can be trucked a long distance as supplemental feed
  - e.g. RMS trucking ore 300km @ ~6.5g/t Au from Vivien

## Strategic and Corporate Appeal

- Opportunity for low-capex potential processing options:
  - Stand-alone, Profit Sharing, Toll Treatment, Ore Sale
  - Resource growth – Break of Day and exploration upside potential – new discoveries (Mainland & Lake Austin)
- EVN JV to fund lake exploration



# EXCEPTIONAL GRAVITY GOLD RECOVERY

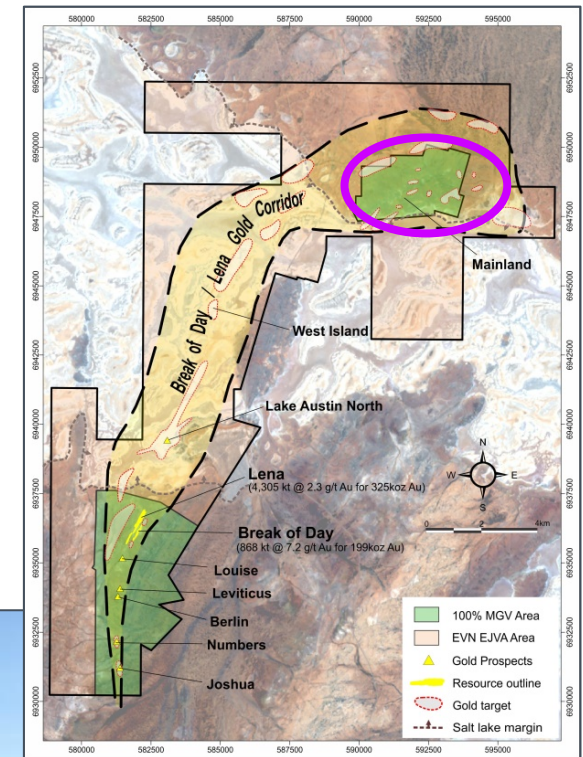
## BREAK OF DAY & LENA



- Excellent gold recoveries achieved from metallurgical test work at Break of Day and Lena:
  - **Total 96-97% recoverable gold** from conventional gravity and cyanide leach processing
  - **Very high gravity recoveries (73-84%) - fresh rock**
  - Very high in comparison to typical Yilgarn gold ores
  - 34%-55% gravity recovery from oxide and transitional material at Lena
- Suggests low reagent use and reduced processing costs
- No deleterious elements

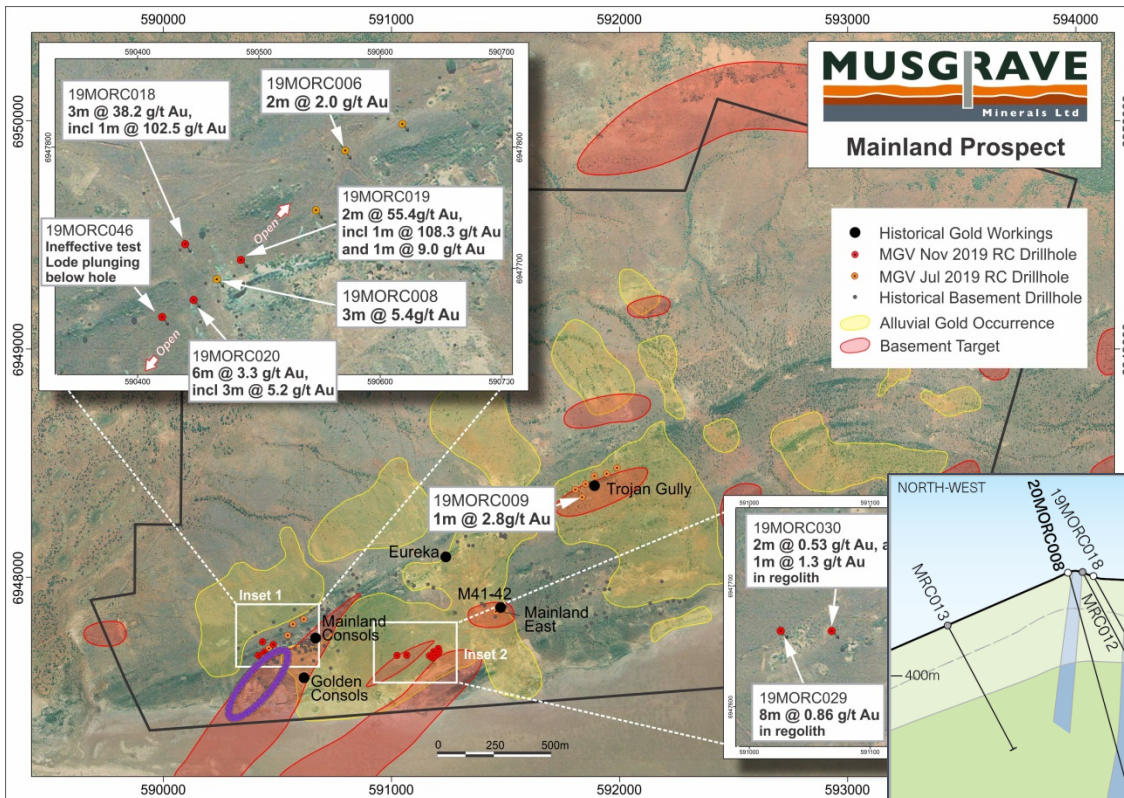
# MAINLAND AREA – LONG ALLUVIAL GOLD HISTORY

- High prospectivity to discover new high-grade gold deposits
- Limited basement exploration
- Adds additional 4km of prospective strike
- Long history of significant alluvial gold mining
- Held by alluvial prospectors for majority of last 100 years
- New High-grade hits & new drilling underway -- assays awaited





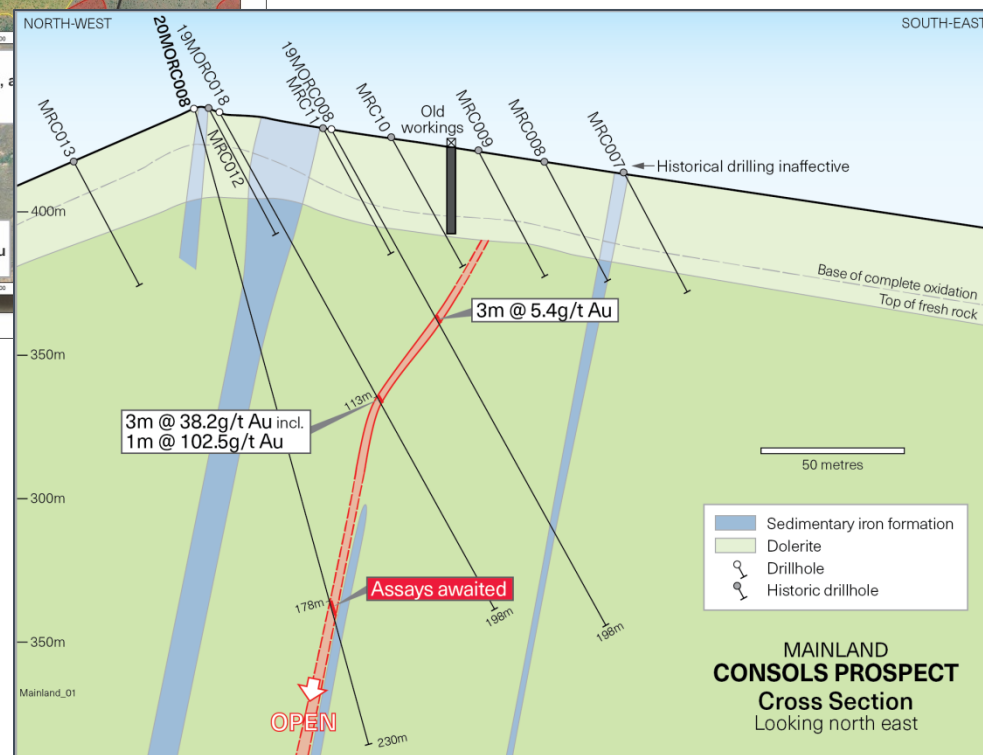
# MAINLAND – HIGH-GRADE GOLD DRILL RESULTS



## Consols high-grade drill results

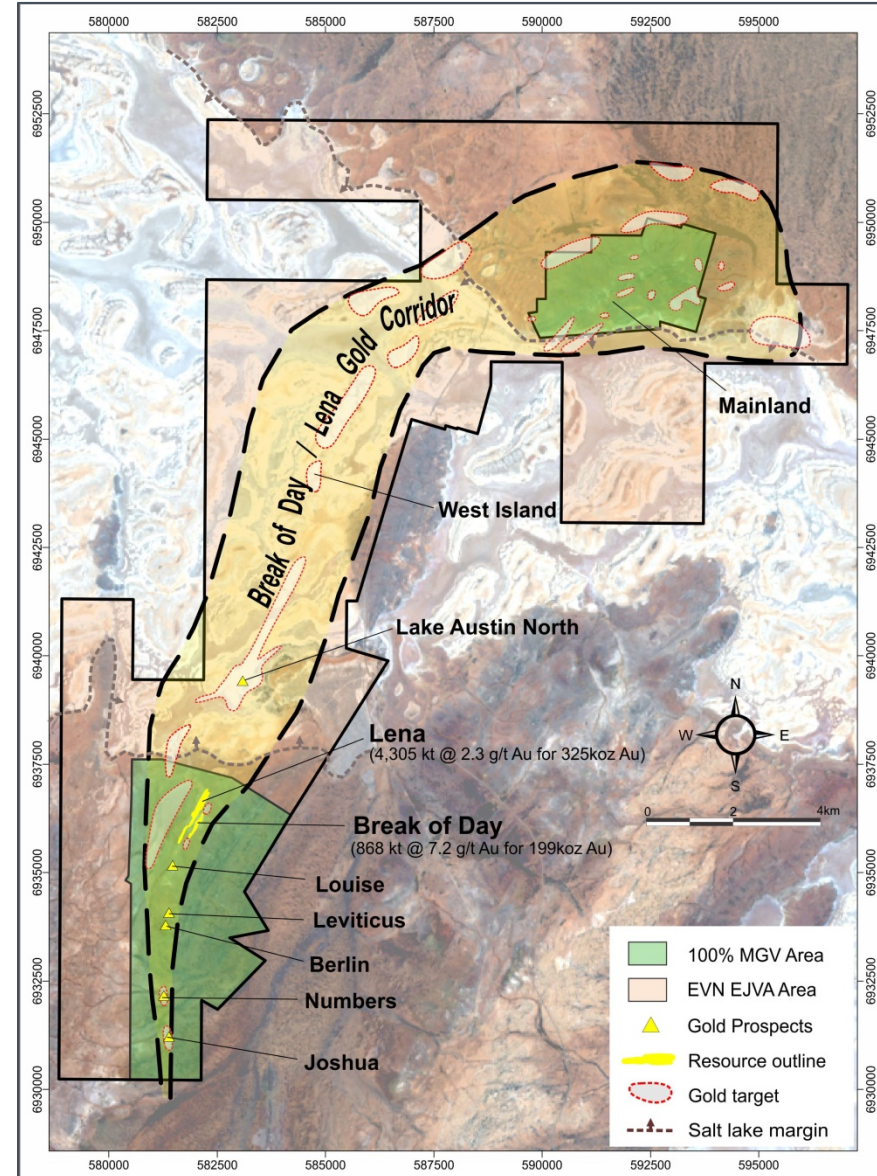
- 3m @ 38.2g/t Au, incl
  - 1m @ 102.5g/t Au
- 2m @ 55.4g/t Au, incl
  - 1m @ 108.3g/t Au
- 3m @ 5.4g/t Au

- MGV Option to acquire 100% basement gold rights
- Limited basement exploration
- Potential new high-grade gold discovery at Consols
- Drilling Feb 2020 – assays awaited



# GOLD TARGETS – LAKE AUSTIN (EVN JV)

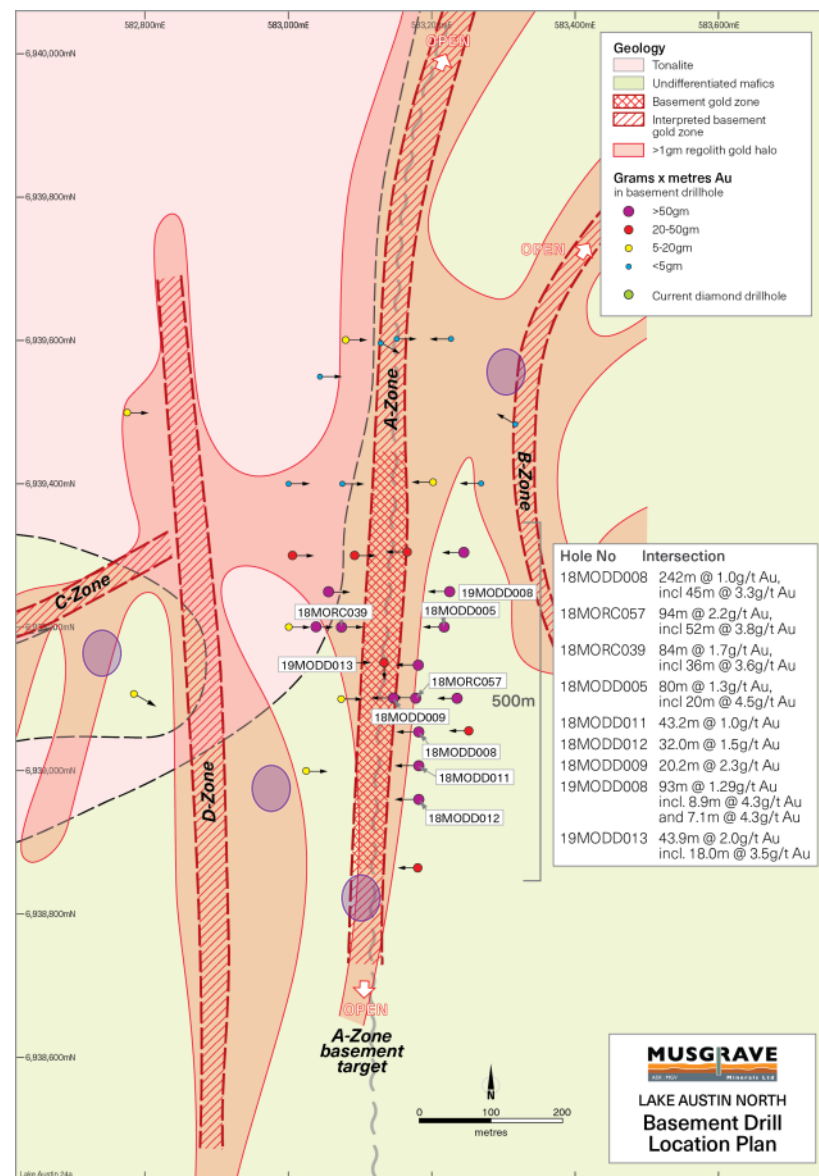
- EVN JV - to spend \$18M in 5yrs to earn 75%
  - Minimum \$4M in first 2yrs
  - If entire \$18M not spent MGV retains 100%
- High priority gold targets under variable thickness dune and lake cover
- **Basement gold intercepts include:**
  - **A-Zone, Lake Austin North**
    - **36m @ 3.6g/t Au** from 111m, Including;
      - **20m @ 6.1g/t Au** (18MORC039)
    - **52m @ 3.8g/t Au** from 198m, Including;
      - **29m @ 5.1g/t Au** (18MORC057)
    - **45m @ 3.3g/t Au** from 70m (18MODD008)
  - Multiple new basement targets





# LAKE AUSTIN NORTH (EVN JV)

- EVN funding exploration
- Large regional aircore gold anomalies under transported lake cover
  - A-Zone: ~3.5km in strike and 100-300m wide
- Large primary gold system in basement (only 500m of strike tested to date ~14%)
- A-Zone intercepts include:
  - **242m @ 1.0g/t Au** (18MODD008), incl.
    - **45m @ 3.3g/t Au**
  - **84m @ 1.7g/t Au** (18MORC039), incl.
    - **36m @ 3.6g/t Au** , incl. **20m @ 6.1g/t Au**
  - **94m @ 2.2g/t Au** to EOH (18MORC057), incl.
    - **52m @ 3.8g/t Au**, incl. **29m @ 5.1g/t Au**
- Excellent geological position on tonalite-mafic contact

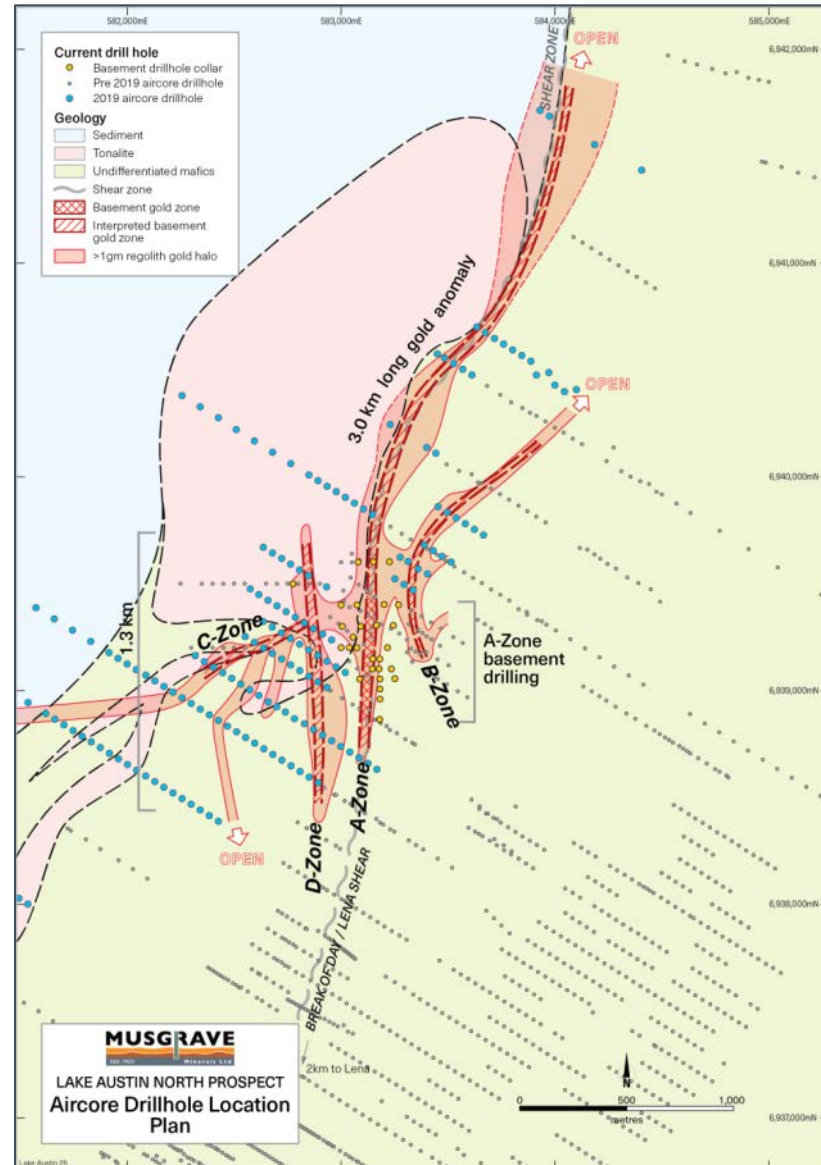




# LAKE AUSTIN NORTH

## >8KM OF COMBINED STRIKE POTENTIAL

- Extensive regional gold geochem regolith “halo” above basement gold source
- 3km gold trend A-Zone
  - 2.5km of this trend not basement drill tested
- Potentially >8km of strike anomalism
  - 94% is untested to date
- New untested high-grade thick regolith gold anomalies including:
  - 50m @ 1.1g/t Au (19MOAC173)
  - 28m @ 1.2g/t Au (19MOAC172)
  - 4m @ 1.09g/t Au to EOH (19MOAC007)
  - 26m @ 0.62g/t Au to EOH (19MOAC017)
- Large +20,000m regional aircore drilling program commenced – Assays Q2 2020



# SCHEDULED WORK PLAN

Cue Gold Project	Q1 2020	Q2 2020
Soil geochemical & geophysical surveys	•	•
RC drilling & assays – Mainland-Consols	•	•
RC drilling & assays – Break of Day ‘link-lode’	•	•
Aircore drilling (New targets – Mainland and West Lena)		•
EVN JV – Aircore drilling & assays – Lake Austin Regional (EVN JV)	•	•
Potential resource update: Break of Day Q2 2020		•



# RESOURCES + GRADE + RECOVERY + INFRASTRUCTURE + EXPLORATION UPSIDE

- Total Mineral Resources >613koz Au – with potential to grow
- High-grade gold
- New exploration earn-in and exploration joint venture with Evolution
- Large exploration upside – big system targets
- Activity and news flow:
  - **New Mainland & Break of Day drill assays**
  - **EVN JV – currently drilling**
- Well funded & strong AUD\$ gold price environment
- **High grade gold + Infrastructure + Excellent met work + Granted Mining Lease + Exploration upside = Right ingredients for potentially highly profitable gold development**
- M & A in Aussie gold sector increasing





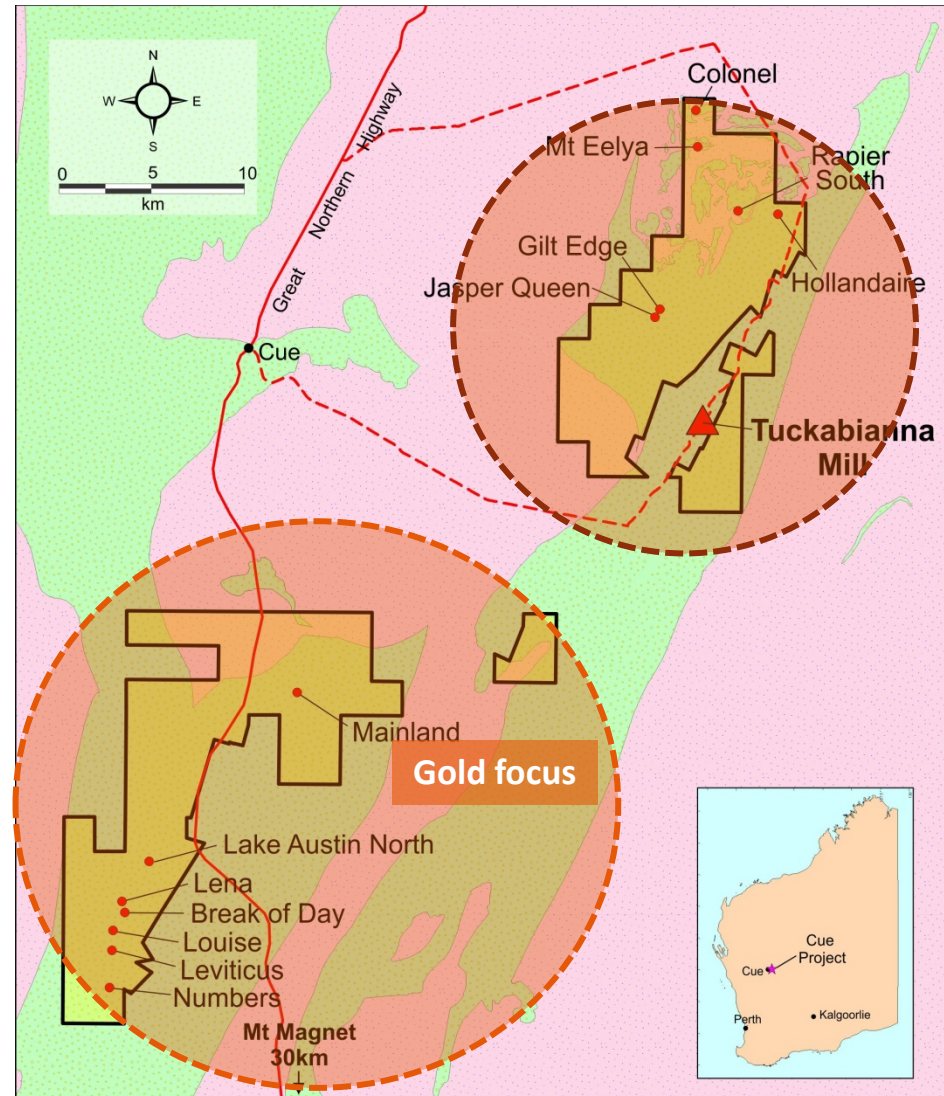
# GOLD RESOURCES

## JORC Mineral Resources (Indicated and Inferred)

Southern Area*	Tonnes (000's)	Au (g/t)	Oz Au
Break of Day	868t	7.2	199,000
Lena	4,305	2.3	325,000
Leviticus	42	6.0	8,000
Numbers	278	2.4	22,000
<b>Total</b>	<b>5,493</b>	<b>3.1</b>	<b>554,000</b>

Northern Area *	Tonnes (000's)	Au (g/t)	Oz Au
Hollandaire + Rapier South	689	1.6	35,000
Jasper Queen + Gilt Edge	271	2.8	24,000
<b>Total</b>	<b>960</b>	<b>2.0</b>	<b>59,000</b>
<b>Total Cue Project</b>	<b>6,453</b>	<b>3.0</b>	<b>613,000</b>

\* Copper and gold Mineral Resources and Ore Reserves reported by Musgrave Minerals Ltd (MGV) in ASX announcements dated 17 February 2020, and 14 July 2017 and Silver Lake Resources Limited (SLR) in its ASX Announcement "Mineral Resources and Ore Reserves Update", 26 August 2016. CP statements on Slide 21.



# COPPER RESOURCES

## Option agreement with Cyprium

(see MGV ASX release dated 19 Feb 2019)

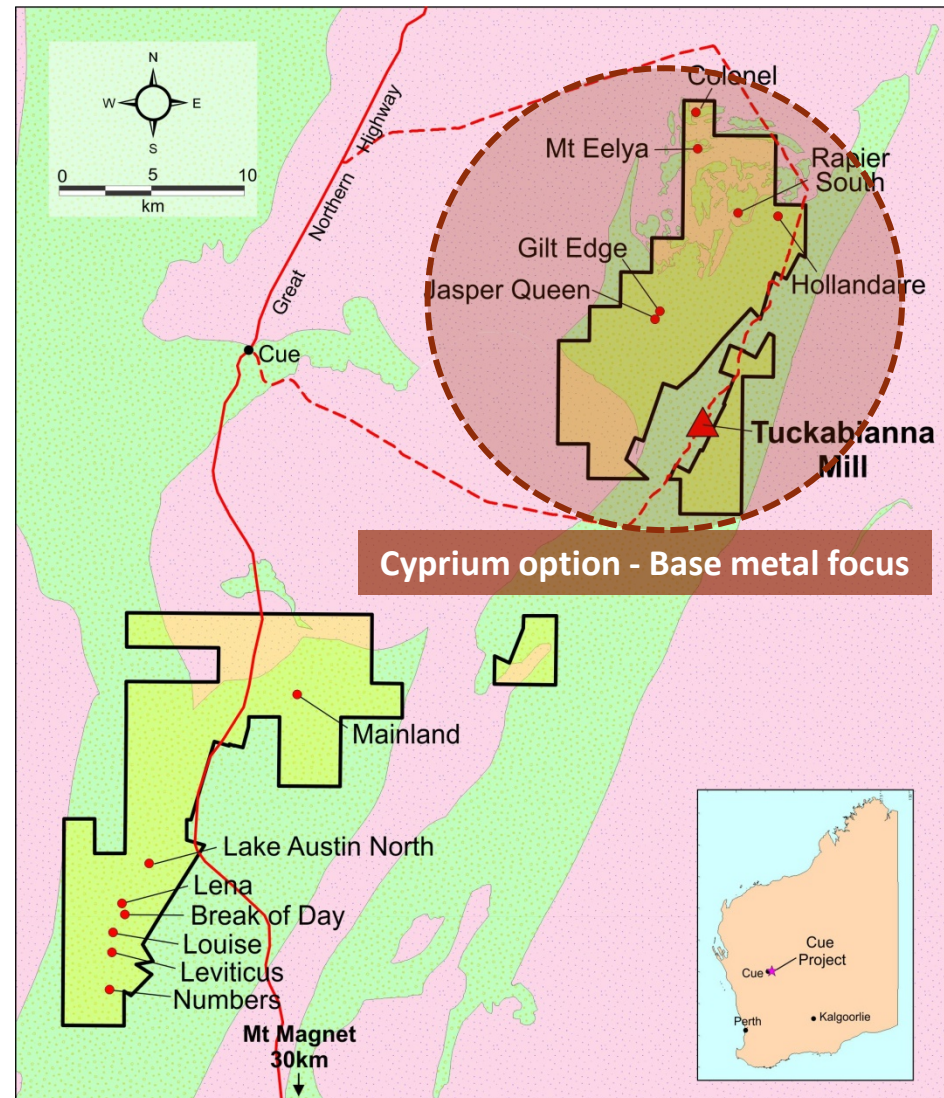
## Copper resources at Hollandaire

Hollandaire Copper *	Tonnes	% Cu	t Cu
Mineral Resource	2.0 Mt	1.9%	38,800
Ore Reserve	0.4 Mt	3.3%	14,700

## Opportunity to discover new copper-zinc resources:

- Mt Eelya:
  - 8m @ 1.6% Cu, 0.8g/t Au, 4.5g/t Ag
  - 4m @ 8.1% Zn, 1.5% Cu, 0.6g/t Au
- Colonel:
  - 6m @ 1.0% Cu, 1.7g/t Au, 11g/t Ag

\* Copper and gold Mineral Resources and Ore Reserves reported by Silver Lake Resources Limited (SLR) in its ASX Announcement "Mineral Resources and Ore Reserves Update", 26 August 2016. CP statements on slide 21.



# JORC RESOURCES AND RESERVES



## Gold Mineral Resources

1 July 2018	Indicated Resources			Inferred Resources			Total Resources		
Deposit	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>Southern Area</b>									
Break of Day	445	7.7	111	423	6.5	89	868	7.2	199
Lena	2,253	1.7	121	2,053	3.1	204	4,305	2.3	325
Leviticus				42	6.0	8	42	6.00	8
Numbers				278	2.5	22	278	2.46	22
<b>Total</b>	<b>2,697</b>	<b>2.7</b>	<b>232</b>	<b>2,796</b>	<b>3.6</b>	<b>323</b>	<b>5,493</b>	<b>3.1</b>	<b>554</b>
<b>Eelya</b>									
Hollandaire	473	1.4	21	45	1.1	2	518	1.35	22
Rapier South				171	2.2	12	171	2.15	12
<b>Total Eelya</b>	<b>473</b>	<b>1.4</b>	<b>21</b>	<b>216</b>	<b>1.9</b>	<b>13</b>	<b>689</b>	<b>1.55</b>	<b>34</b>
<b>Tuckabianna</b>									
Jasper Queen				175	2.6	15	175	2.6	15
Gilt Edge				96	3.1	9	96	3.1	9
<b>Total Project</b>	<b>3,170</b>	<b>2.5</b>	<b>253</b>	<b>3,282</b>	<b>3.4</b>	<b>360</b>	<b>6,453</b>	<b>3.0</b>	<b>613</b>

### Notes to Tables:

Due to the effects of rounding, the total may not represent the sum of all components.

The Break of Day and Lena Mineral Resources are produced in accordance with the 2012 Edition of the Australian Code of Reporting of Mineral Resources and Ore Reserves (JORC 2012). The remaining Mineral Resources and Ore Reserve estimates were first prepared and disclosed in accordance with the 2004 Edition of the Australian Code of Reporting of Mineral

## Copper Mineral Resources

1 July 2018	Indicated Resources			Inferred Resources			Total Resources		
Deposit	Tonnes '000s	Cu Grade %	Total Tonnes Cu '000s	Tonnes '000s	Cu Grade, %	Total Tonnes Cu '000s	Tonnes '000s	Cu Grade %	Total Tonnes Cu '000s
Hollandaire									
Copper	1,891	2.0	38	122	1.4	2	2,013	2.0	40

## Silver Mineral Resources

1 July 2018	Indicated Resources			Inferred Resources			Total Resources		
Deposit	Tonnes '000s	Ag Grade, g/t	Total oz. Ag '000s	Tonnes '000s	Ag Grade g/t	Total oz. Ag '000s	Tonnes '000s	Ag Grade g/t	Total oz. Ag '000s
<b>Hollandaire</b>									
Silver	1,925	6.3	390	728	4.7	110	2653	5.9	500

## Copper Ore Reserves

1 July 2018	Proven Reserves			Probable Reserves			Total Reserves		
Deposit	Tonnes '000s	Cu Grade %	Total Tonnes Cu '000s	Tonnes '000s	Cu Grade %	Total Tonnes Cu '000s	Tonnes '000s	Cu Grade %	Total Tonnes Cu '000s
<b>Hollandaire</b>									
Copper				442	3.3	15	442	3.3	15

## Silver Ore Reserves

1 July 2018	Proven Reserves			Probable Reserves			Total Reserves		
Deposit	Tonnes '000s	Ag Grade g/t	Total oz. Ag '000s	Tonnes '000s	Ag Grade g/t	Total oz. Ag '000s	Tonnes '000s	Ag Grade g/t	Total oz. Ag '000s
<b>Hollandaire</b>									
Silver				574	8.2	151	574	8.2	151

Resources and Ore Reserves (JORC 2004) and 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 17 February 2020 and 14 July 2017 and Silver Lake Resources Limited (SLR) in its ASX Announcement "Mineral Resources and Ore Reserves Update", 26 August 2016.*



# COMPETENT PERSON'S STATEMENT



## Mineral Resources and Ore Reserves

The Information in this report that relates to Mineral Resources at 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 information in this report that relates to Mineral Resources at Break of Day is based on information compiled by Mr Aaron Meakin. Mr Meakin is a full-time employee of CSA Global Pty Ltd and is a Member of the Australasian Institute of Mining and Metallurgy. Mr Meakin has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Persons as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Meakin consents to the disclosure of the information in this report in the form and context in which it appears.

The information in this report that relates to the Hollandaire, Rapier South, Jasper Queen, Gilt edge, Leviticus and Numbers Mineral Resource and Ore Reserve Estimates 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 Silver lake's website ([www.silverlakeresources.com.au](http://www.silverlakeresources.com.au)) and 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 Mineral Resources and Ore Reserves, 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.

## Exploration Results

The information in this presentation that relates to Exploration Results is based on information compiled and thoroughly reviewed by Mr Robert Waugh. Mr Waugh is a Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM) and a Member of the Australian Institute of Geoscientists (MAIG). Mr Waugh is Managing Director of Musgrave Minerals Ltd. Mr Waugh has sufficient industry experience 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 their information in the form and context in which it appears.

# ADDITIONAL JORC INFORMATION



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

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