



# Advanced Exploration in Tier 1 Jurisdictions

AGM Presentation • November 2023

ASX:GSN

# Disclaimer

Deposit	Competent Person	Employer	Professional Institute
Duketon, East Laverton and Mon Ami Exploration Results and Geological Interpretation	Rachel Backus	Resourceful Exploration Services Pty Ltd	AIG, AUSIMM
Mon Ami Mineral Resource	Dr Michael Cunningham	SRK Consulting (Australasia) Pty Ltd	MAusIMM, MAIG
Edinburgh Park Project	Rachel Backus	Resourceful Exploration Services Pty Ltd	AIG, AUSIMM

## Competent Persons Statement

The information in this report that relates Exploration Results and Mineral Resources is based on the information of the Competent Persons listed in the table above. Each of the Competent Persons have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity they are undertaking to qualify as Competent Persons under the JORC Code 2012. For new information, each consents to the inclusion in the report of the matters based on his information in the form and context in which they occur. Previously announced information is cross-referenced to the original announcements. In these cases, the Company is not aware of any new information or data that materially affects the information presented and that the technical parameters underpinning the estimates continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcements of (GSN 25/1/19, 12/8/20, 2/3/21, 14/4/21, 21/7/21, 21/9/21, 5/10/21, 11/10/21, 28/10/21, 13/12/21, 17/1/22, 9/3/22, 31/3/22, 15/6/22, 29/6/22, 5/7/22, 8/11/22, 13/12/22, 27/3/23, 16/5/23, 21/6/23, 9/10/23 and 9/11/23. References to ASX RRL announcements of 18/1/11, 8/3/11, 6/4/21, 31/3/22 are noted in the presentation).

ASX announcements are available on the Company's website at [www.gsml.com.au](http://www.gsml.com.au)

## Disclaimer

No representation or warranty, express or implied, is made by the Company that the material contained in this presentation will be achieved or proved correct. Except for statutory liability which cannot be excluded, each of the Company, its directors, officers, employees, advisors or agents expressly disclaims any responsibility for the accuracy or completeness of the statements made in the presentation and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in his presentation or any effort or omission therefrom. Any opinions expressed in the presentation are subject to change without notice. The distribution of this presentation (including an electronic copy) outside of Australia (including the United States) may be restricted by law and any such restrictions should be observed. Any non-compliance with these restrictions may contravene applicable securities laws.

## Forward Looking Statements

This presentation has been prepared by Great Southern Mining Limited and contains background information about Great Southern Mining Limited, current at the date of this presentation. The 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 in this presentation. This presentation is for information purposes only. Neither this presentation nor the information in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of shares. This presentation 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 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, Great Southern Mining Limited and its officers, employees, agents and advisers do not make any representation or warranty, express or implied, as to the currency, accuracy, reliability or completeness of any information, statement, opinions, estimates, forecasts or other representations contained in this presentation. No responsibility for any errors or omissions from this presentation arising out of negligence or otherwise is accepted.

# Corporate Snapshot

**A\$17.4M**

Market Cap (at \$0.023 per share)

**755M**

Shares on Issue (incl. Goldfields Subscription)

**31.6M**

Options (\$0.10-\$0.20 exercise price)

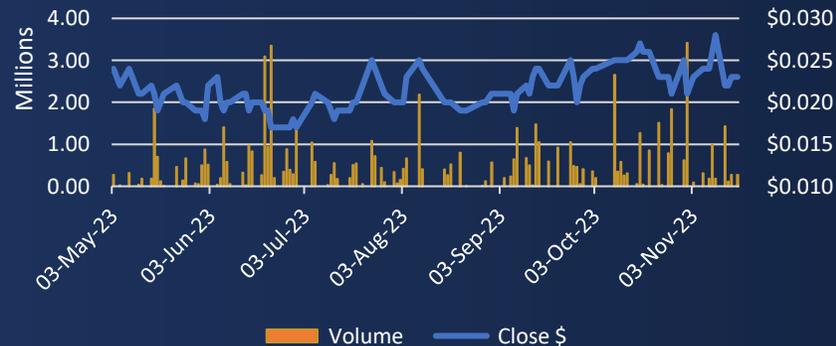
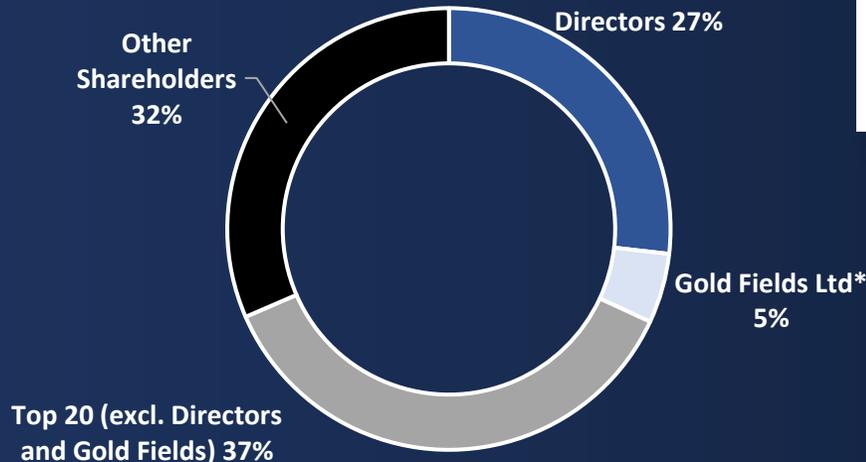
**A\$0.8M**

Cash (at 30 Sept 23, excl. A\$1.0M received post Qtr)

**A\$0.3M**

Listed Investment (ASX:RRR share holding value at 21 Nov 23)

## Shareholders



### BOARD OF DIRECTORS

#### John Terpu

Executive Chairman

Over 22 years' experience in the mining & exploration sector, through acquisition and investment in many projects. Founder of Conquest Mining which discovered the Mt Carlton mine and went on to become gold major Evolution Mining. As Chairman of Emerchants Ltd, drove the company's market cap from A\$1m to over A\$150m.

#### Matt Keane

Managing Director

Geologist with 25 years of experience in mining, exploration and financial markets, including 8 years as a Resources Analyst. Mr Keane's technical career incorporated 10 years with BHP across various commodity groups.

#### Matthew Blake

Non-Executive Director

Mr Blake has 25 years' experience in the financial services industry and with companies listed on the ASX. Executive Director of Javelin Minerals Limited and NED with Unith Limited.

#### Andrew Caruso

Non-Executive Director

Mining executive with over 25 years' experience in the Australian and international mining industries, including significant corporate leadership and business development experience.

# Investment Highlights



Advanced exploration projects in established mining districts



Primed for major gold, nickel and copper discoveries



All projects located within 40km of hungry mills



Major exploration programs planned for 2023/2024 – significant newsflow



Quality Board with skin in the game and an experienced exploration team

## Western Australia

3 high quality gold projects in Laverton Gold District (>25Moz)

All projects 100% owned

- **Duketon Gold**
- **Mon Ami**
- **East Laverton Nickel**

## Queensland

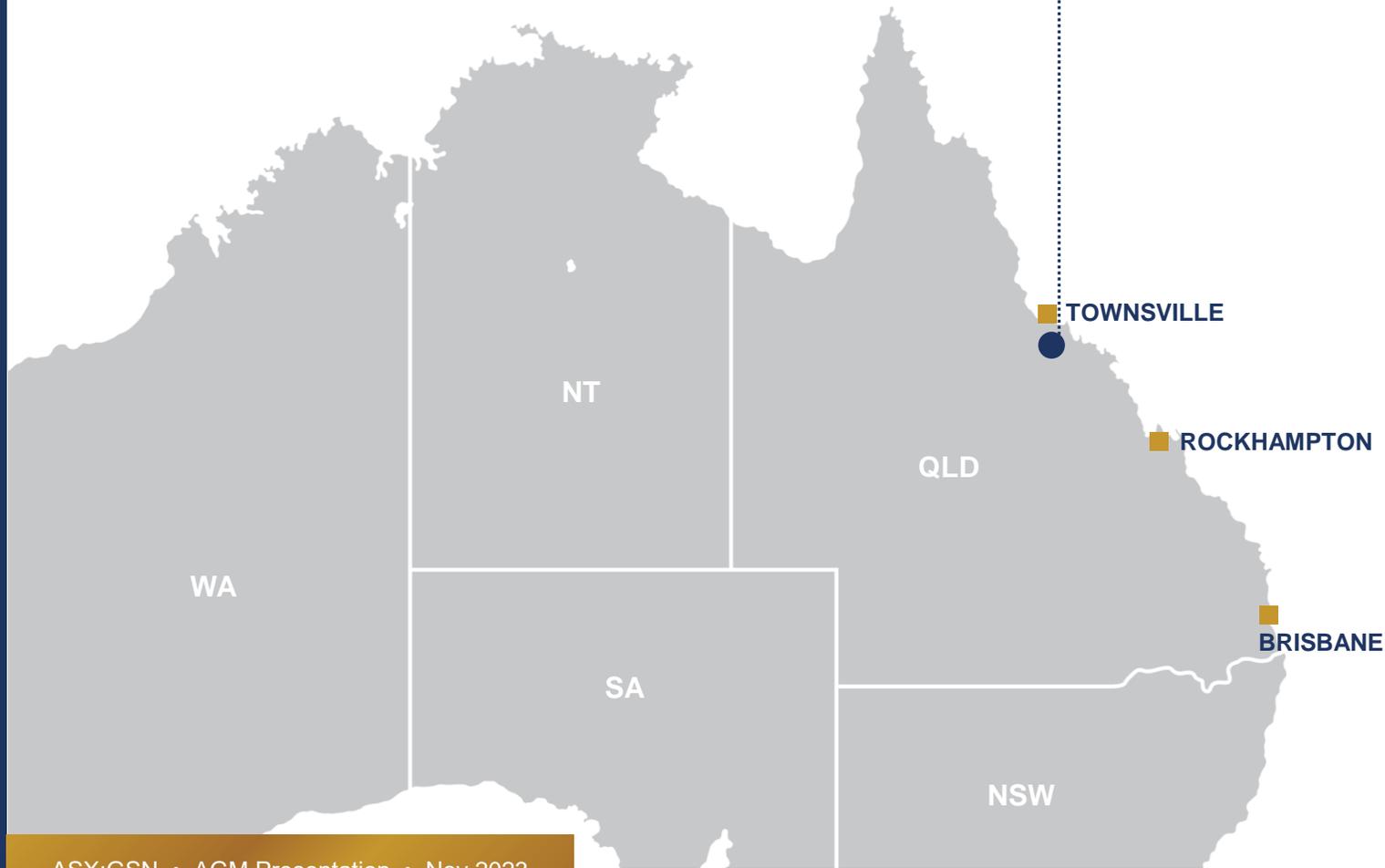
Belt scale project in North Queensland Copper-Gold District (>20Moz)

- **Edinburgh Park**

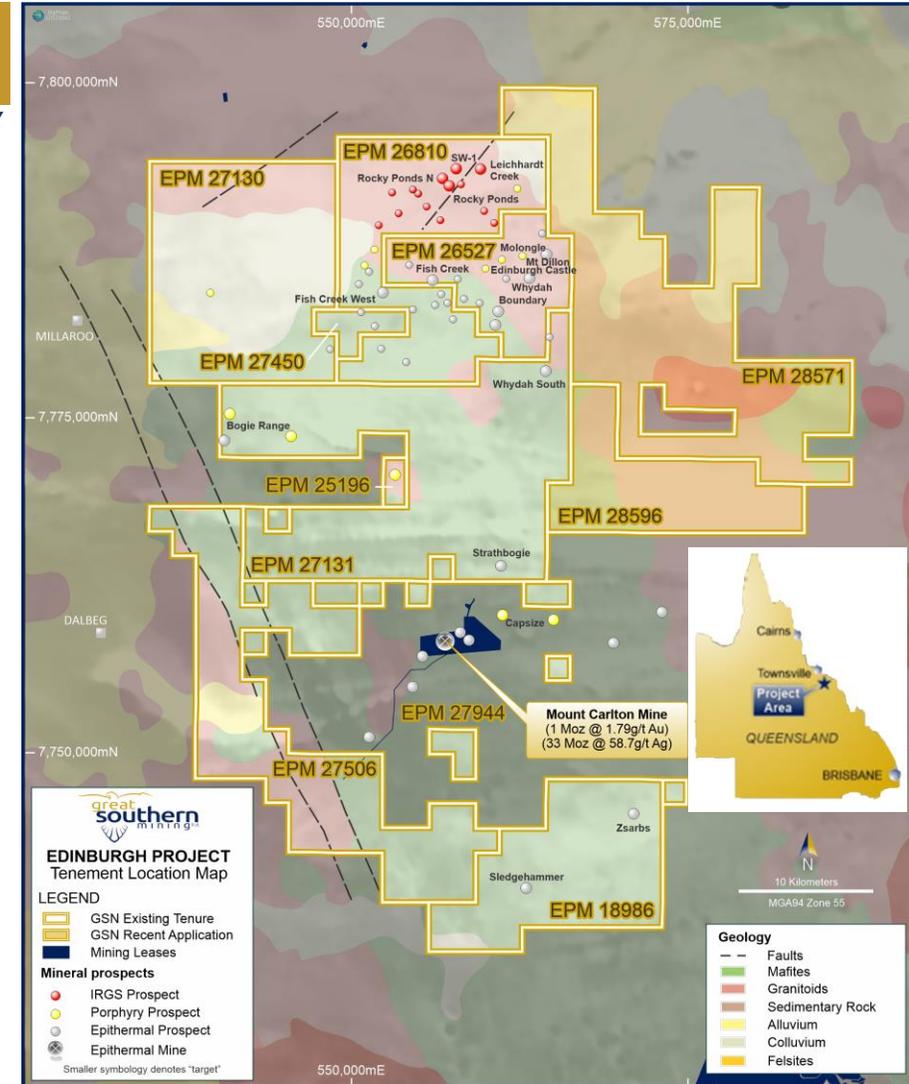
75% Gold Fields earn-in commenced



# Great Southern's Queensland Projects



**Edinburgh Park Project**



GSN's Edinburgh Park Project highlighting proximity to Mt Carlton Mine.

# Edinburgh Park

Gold Fields Earn-In, Credentialed Partner  
for Tier One Discoveries

- Belt scale play with ~1,750km<sup>2</sup> tenure surrounding 1.7Moz Au Eq Mt Carlton Mine
- Prospective for gold-copper porphyry mineralisation, as well as high and low sulphidation gold-silver-copper mineralisation
- **29 epithermal and porphyry targets** identified by GSN<sup>1</sup>
- High priority targets at the Molongle, Mt Dillion, Red Rock, Leichhardt Creek and Sledgehammer target areas

## Gold Fields Earn-in

- Gold Fields spending up to **A\$15m over 6 years** to earn a 75% interest<sup>2</sup>
  - **Minimum spend of A\$2.5m** in the first 2 years
- Gold Fields also subscribed to **A\$1m GSN shares** for a 5.4% holding
- Gold Fields is the ideal partner with experience and funding to discover major porphyry/epithermal deposits
- Geophysics commencing in Q4 2023 then drilling expected in early-2024

<sup>1</sup> Refer to GSN:ASX announcement date 29 June 2023

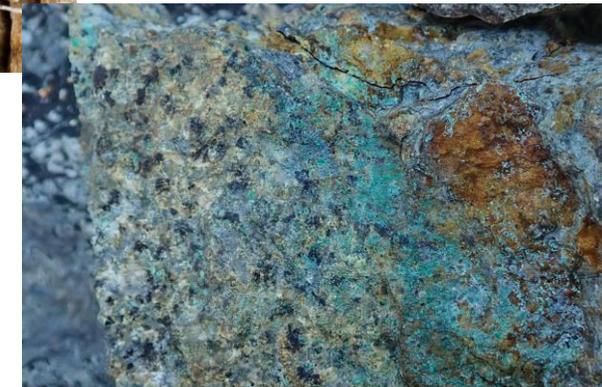
<sup>2</sup> Refer to GSN:ASX announcement date 9 October 2023



Quartz, pyrite fracture veining at Leichhardt Creek target



Epithermal style quartz stockworks at Megan Veins target, with rock chip samples grading up to 10g/t gold



Copper and silver rich porphyry specimen from Molongle Creek target

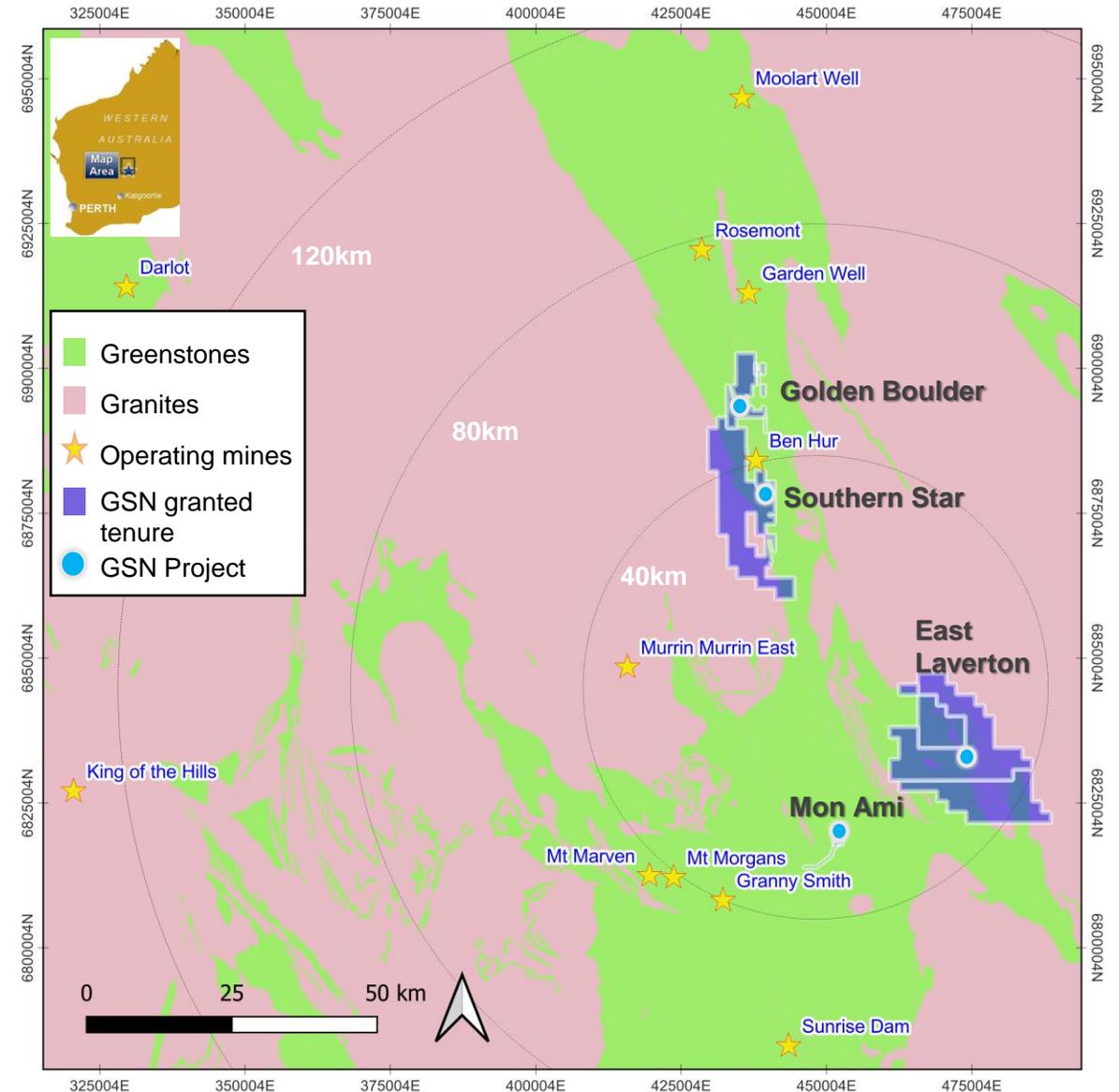
# Advanced Western Australia Projects



# Advanced Western Australia Projects

## LAVERTON-LEONORA “Game of Mines”

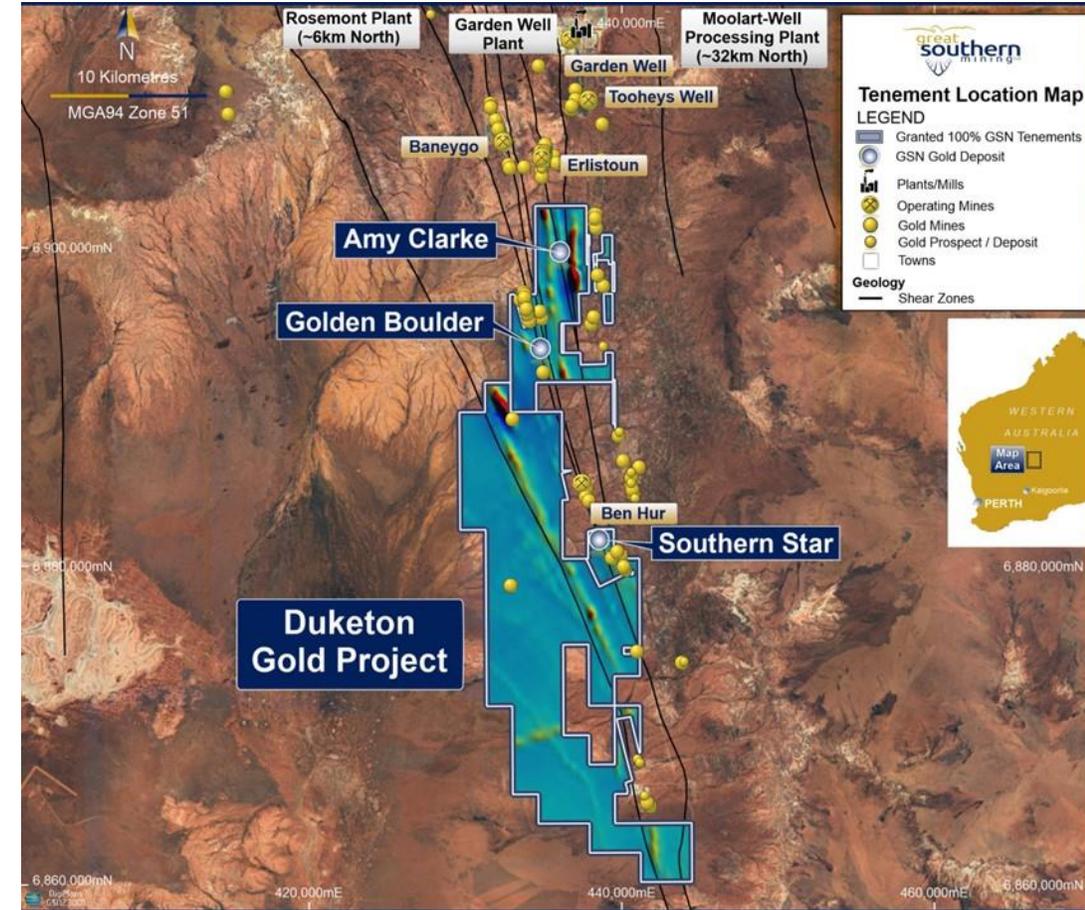
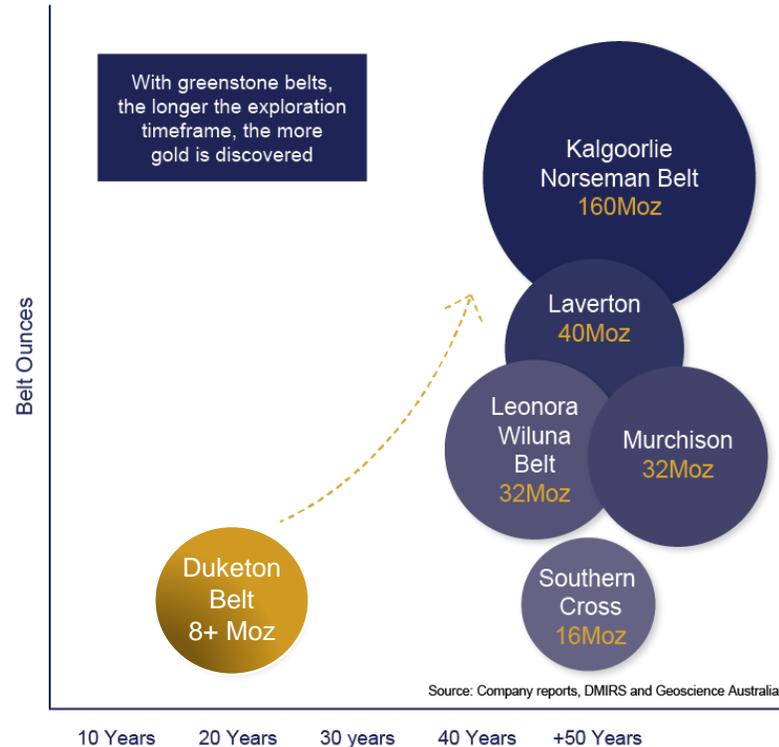
- Consolidation underway around existing infrastructure throughout the goldfields – Why is this happening?
  - Existing mills are growing short of ore feed
  - In the current environment, it is expensive to build new infrastructure
  - Permitting and access to people and materials is pushing out development timelines
- Significant advantage for advanced projects around installed infrastructure, compared to a standalone resource
- GSN WA projects are surrounded by significant installed milling capacity
  - Approx. 20Mtpa mill capacity within 200km of GSN projects
  - On current throughput, these mills ~20% underfed or mills are on care and maintenance



# Duketon Gold

## Underexplored greenstone belt

- Duketon Belt is still immature compared to other WA Greenstone Belts
- Gold deposits focussed on three major structural trends
- All three trends continue through GSN 269km<sup>2</sup> tenure
- GSN tenure remains sparsely drilled
- Yet three compelling prospects defined to date, all with high grade intercepts and scale potential
- Multiple other high priority targets remain untested



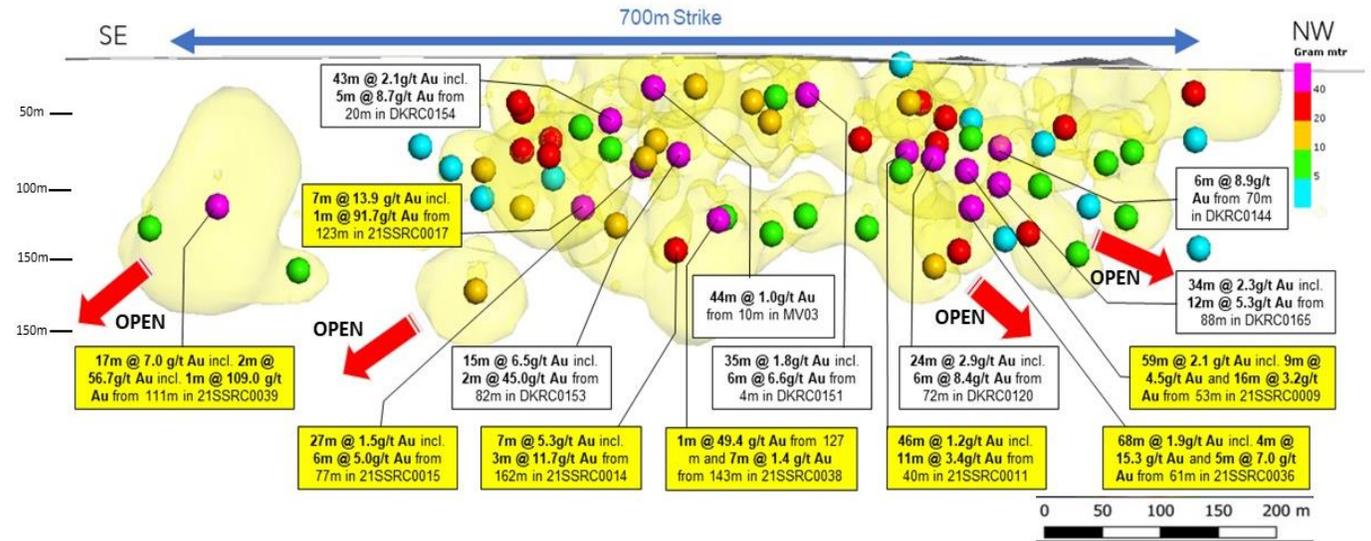
Map of GSN's 100% owned Duketon Gold Project and surrounding operating mills owned by Regis (ASX: RRL)

# Southern Star

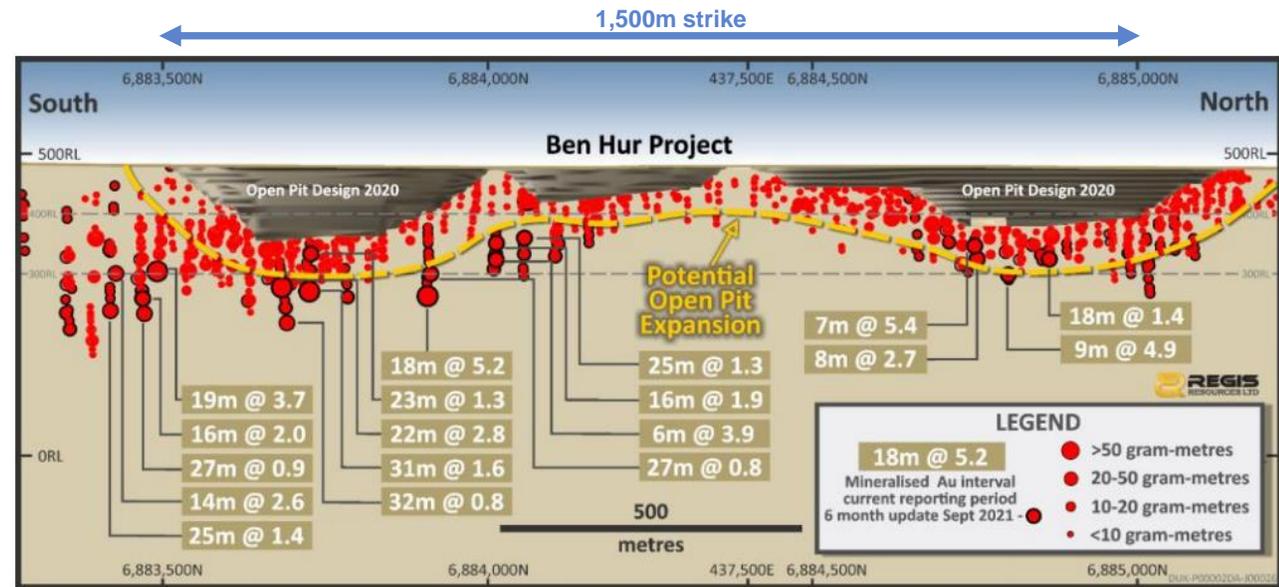
## Ben Hur Analogue

- Southern Star is a **large contiguous mineralised gold** system currently defined over ~700m
- Southern Star is considered an analogue to Regis Resources' Ben Hur deposit, located ~3km to the north within the same geological host
- Ben Hur – 390koz @ 1.2g/t Au based on ~130,000m drilling. Southern Star has just ~20,000m drilled to date
- Majority of Southern Star drilling above 140m below surface – well within reach of potential open pit mining
- Better drill intercepts to date include<sup>1</sup>:
  - **69m @ 1.1g/t Au** from 39m, incl. **10m @ 3.5g/t AU**
  - **68m @ 1.9g/t Au** from 61m, incl. **4m @ 15.3g/t Au**
  - **59m @ 2.1g/t Au** from 53m, incl. **9m @ 4.5g/t Au**
  - **17m @ 7.0g/t Au** from 11m incl. **1m @ 109.0g/t Au**

<sup>1</sup> Refer to ASX GSN announcement 29/6/22



Long Section of the Southern Star mineralisation showing selected gold intercepts. Mineralisation remains open in nearly every direction including down-plunge, down-dip and along strike to the north and south.



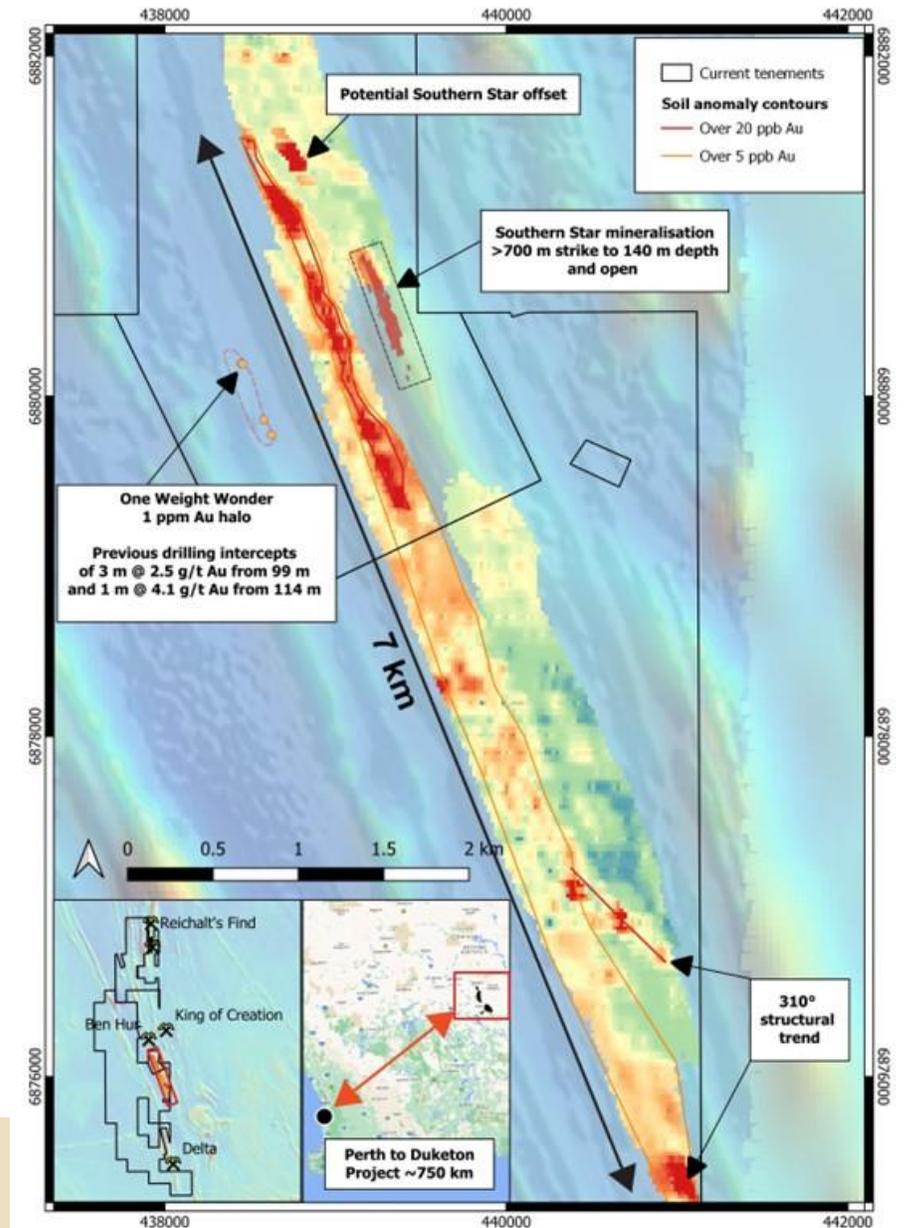
Long section of RRL's Ben Hur deposit taken from RRL presentation released 6 September 2022

# Southern Star

- ❑ GSN has 6.7km to test along the interpreted Rosemont-Ben Hur trend at Southern Star
  - ~1.5km to the north of Southern Star and ~4km to the south of current mineralisation
- ❑ Open in all directions with limited drilling along strike or at depth
- ❑ Drilling program underway targeting:
  - Strike extensions
  - Depth and down plunge extensions
  - Geochemical heat map (right) showing gold anomalism from a recent soil survey underlain by aeromagnetic imagery. Results show a distinct 7 km anomalous trend to the west of Southern Star – being tested in current drill program.
  - Fault offsets to the north of Southern Star

## Next steps:

RC drilling program underway



# Duketon Gold

## Golden Boulder Area – Emerging Discovery

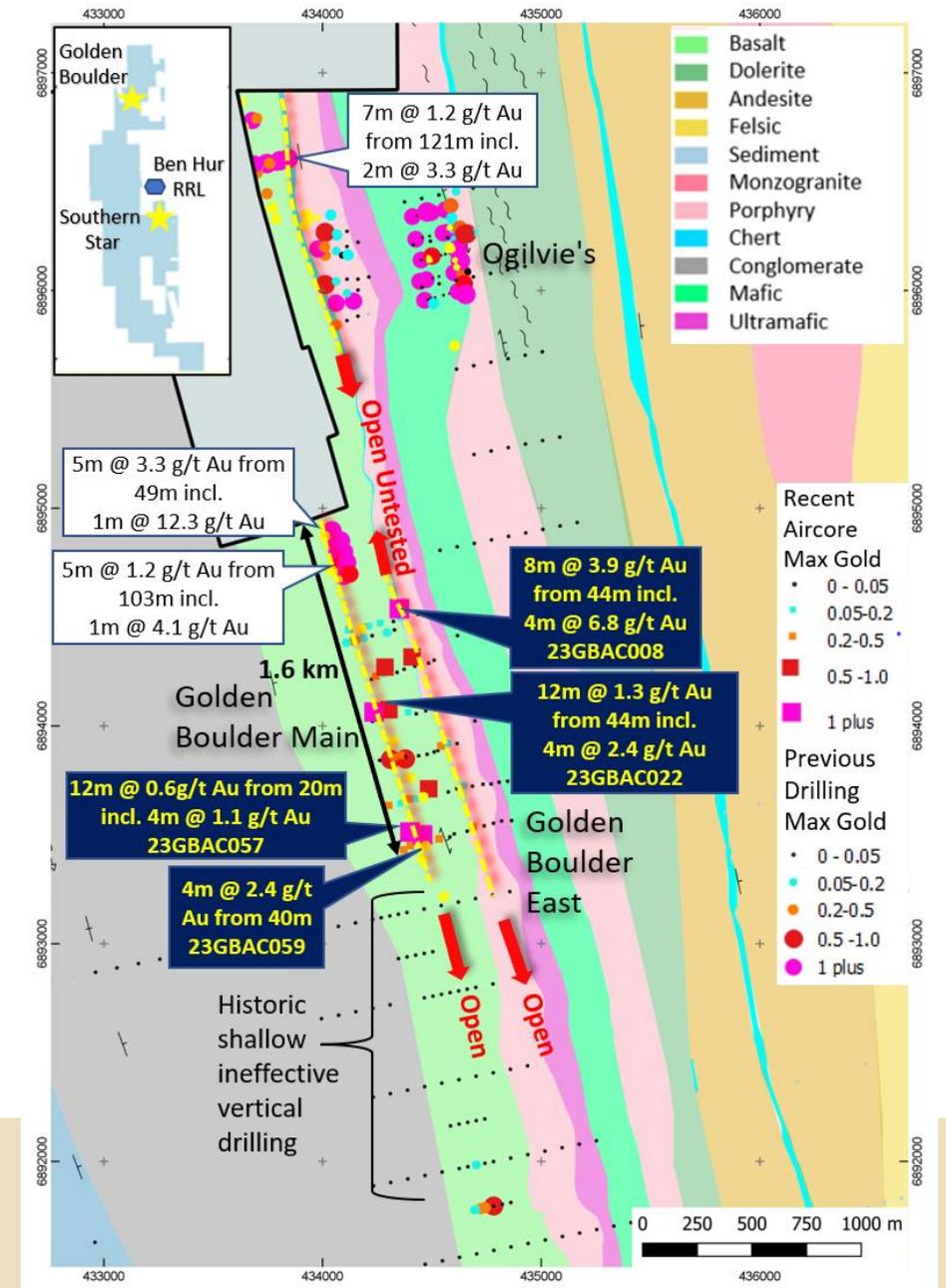
- Multiple parallel gold trends with over 50 historic shafts
- Historic drilling is sparse and shallow (average depth just 40m) and in some areas ineffective due to hard ferricrete crust
- RC drilling in 2021 returned **5m @ 3.3g/t Au** from 49m, incl. **1m @ 12.3g/t Au** and **8m @ 2.1g/t Au** from 32m, incl. **4m @ 3.7g/t Au**<sup>1</sup>
- Aircore drilling in 2023 returned **8m @ 3.9g/t Au** from 44m, incl. **4m @ 6.8g/t Au** and **12m @ 1.2g/t Au**, incl. **4m @ 2.4g/t Au**<sup>2</sup>
- Mineralisation on Golden Boulder Main line defined over 1.6km strike
- Prospective horizon on Golden Boulder East identified over 3km on GSN tenure
- Mineralisation open along strike and at depth

<sup>1</sup> Refer to ASX:GSN Announcements 8/7/21, 23/9/21

<sup>2</sup> Refer to ASX GSN announcement 16/5/23

### Next steps:

Follow up and step out RC drilling



# Duketon Gold

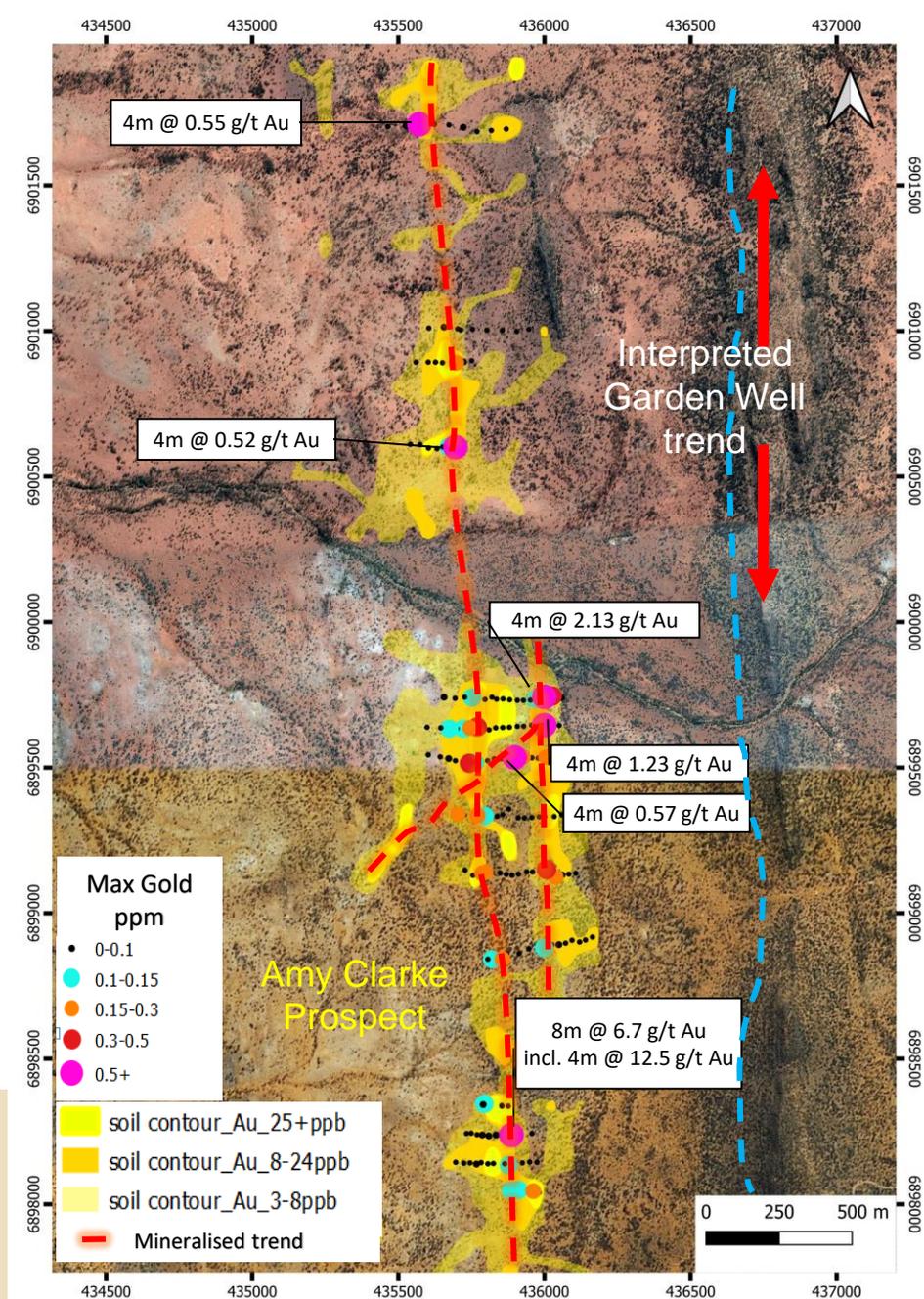
Amy Clarke

- Tenement acquired in late-2020 with little historical exploration undertaken
- 8km from Garden Well processing facility
- 5km gold anomaly identified in shallow aircore drilling and soil geochemistry
- Main anomalism sits along strike (less than 3.5km) from Regis' Erlistoun pit with 320koz @ 1.9 g/t Au<sup>1</sup>
- Similar surface gold anomalism to Regis' Garden Well anomaly prior to the 2.1 Moz @ 1.4 g/t Au gold discovery<sup>1</sup>
- GSN drilling in 2021 confirmed two significant mineralised trends including an intercept of:
  - **8m @ 6.7g/t Au** from 33m, including **4m @ 12.5g/t Au**<sup>2</sup>
- Garden Well trend to the east remains virtually untested

<sup>1</sup> Source: ASX:RRL announcements 8/3/11, 18/1/11

<sup>2</sup> Refer ASX announcement 17/1/22

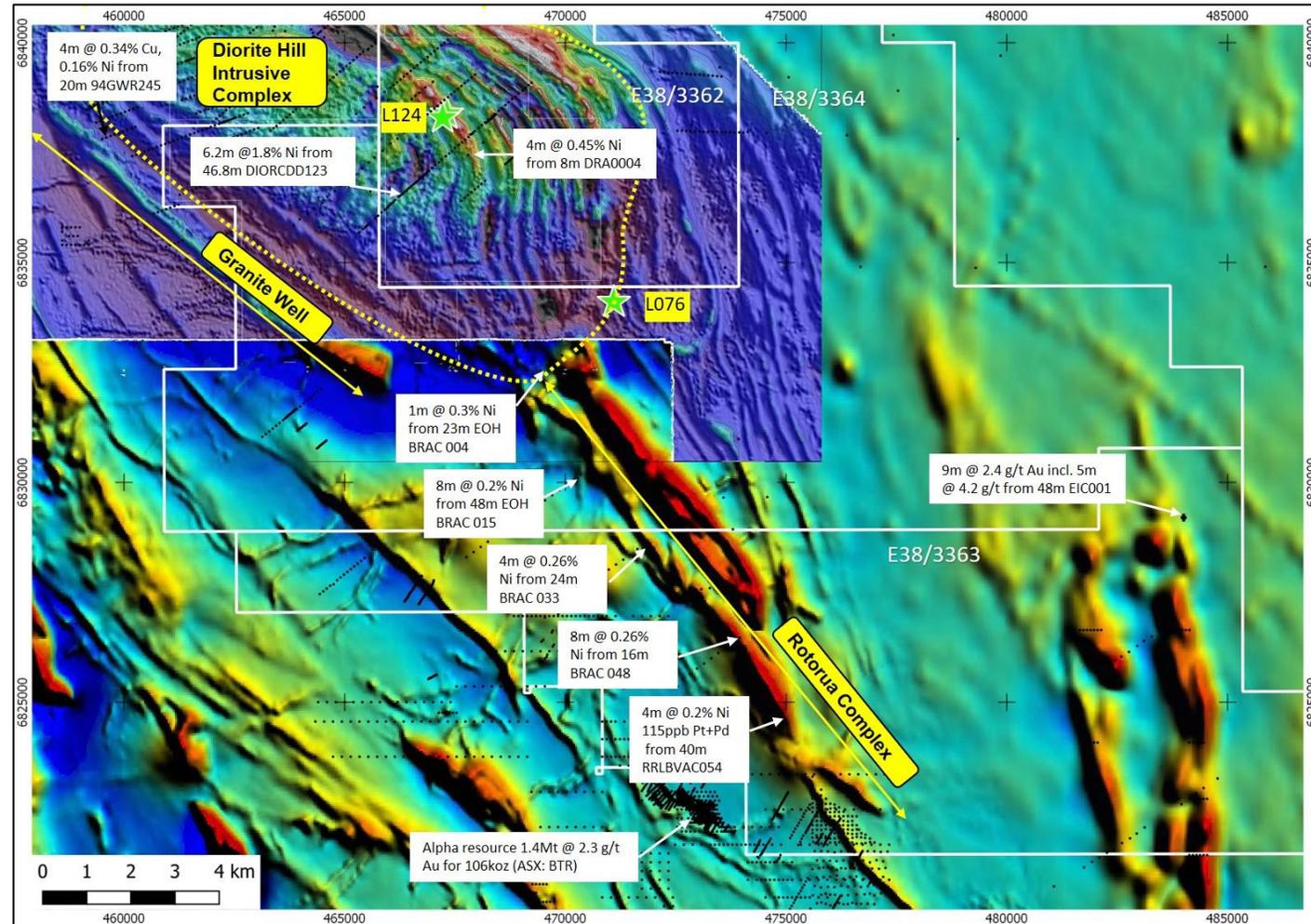
**Next steps:** Follow up RC drilling to previous high grade intercepts. Extensional aircore drilling over southern extension geochemical anomaly



# East Laverton Project

## Nickel and Gold Potential

- Project area of 407km<sup>2</sup>
- Prospective for both intrusive magmatic and komatiitic nickel–copper–PGE mineralisation
- 4 conceptual target areas:
  - Diorite Hill layered intrusive
  - Rotorua Komatiite trend
  - Granite Well Komatiite trend
  - Karora Ultramafic trend
- Diorite Hill drilling program in late-2022 proved the right geology – follow up exploration required
- 14km of komatiite trends to be tested with EM in 2023, commencing in the June quarter
- Gold potential still to be tested
- Historic gold intercept of **9m @ 2.4g/t Au**, incl. **5m @ 4.2g/t Au** in the east never followed up



Magnetic image highlighting the Rotorua and Granite Well targets with drillhole database displaying Newmont significant intersections along the edge Rotorua complex. Refer to Brightstar Resources (BTR) 2021 Annual Report for Alpha Gold Resource.

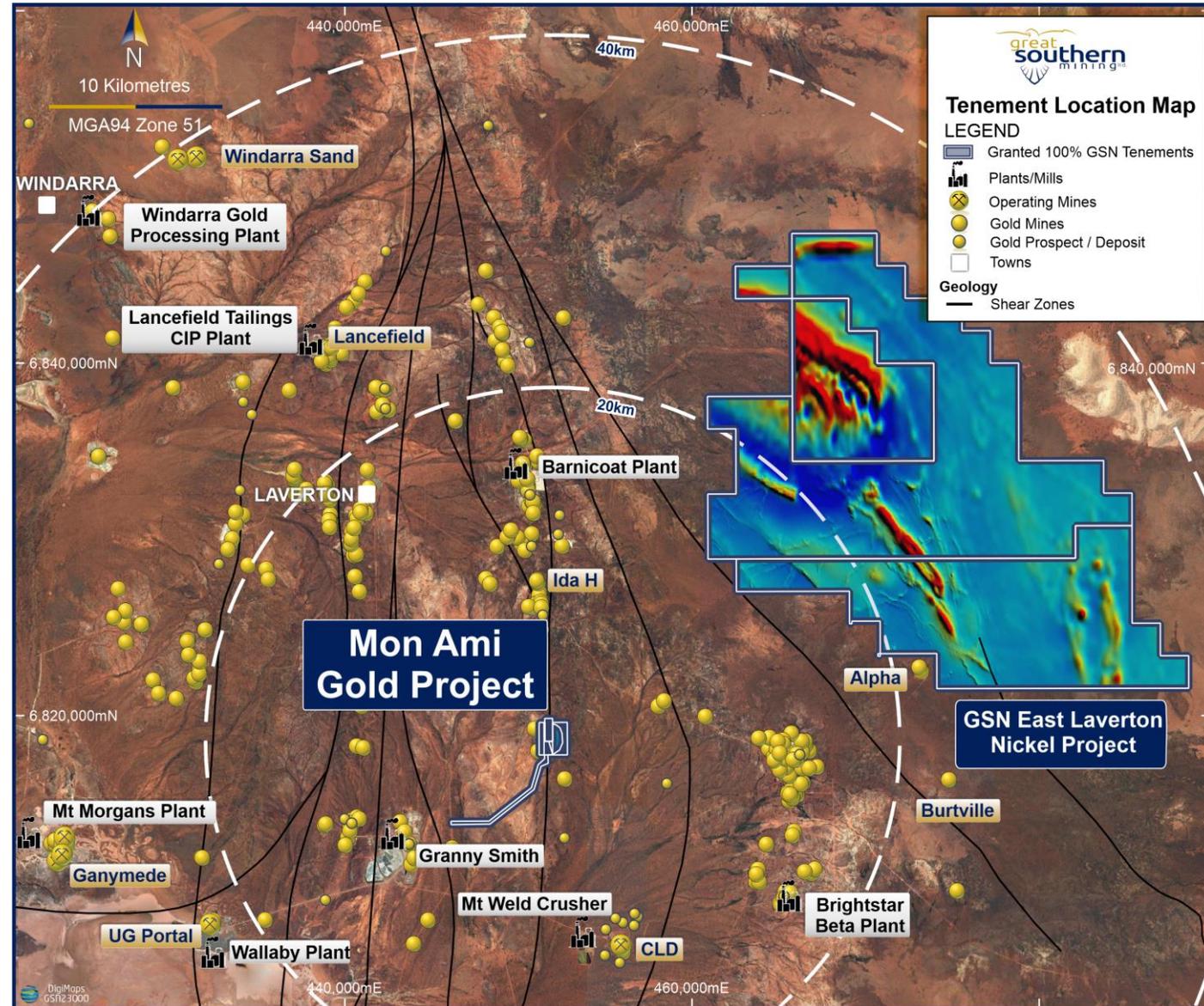
# Mon Ami Gold

- Established 1.56Mt @ 1.11g/t Au for 55koz Mineral Resource<sup>1</sup>

	COG (g/t)	Tonnage (Mt)	Grade (g/t Au)	Metal (Oz Au)
Indicated	0.5	1.41	1.16	52,500
Inferred	0.5	0.15	0.61	3,000
<b>Total</b>	<b>0.5</b>	<b>1.56</b>	<b>1.11</b>	<b>55,500</b>

- Shovel ready on a granted Mining License with requisite mining and environmental studies complete
- Permitted haul access route to nearest major highway
- Within trucking distance to at least three gold processing facilities

<sup>1</sup> Source: ASX announcement 21/7/21. The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcements regarding the MRE.



# Why invest in Great Southern Mining?



High quality projects  
in premium locations  
near hungry mills



Moving from target  
generation phase to high  
impact drilling in 2024



Significant newsflow  
planned over next 6-12  
months



## Contact Us

**Matt Keane**  
Managing Director

**E:** [mkeane@gsml.com.au](mailto:mkeane@gsml.com.au)

**T:** 0452 175 787

Mill	Owner	Capacity (Mtpa)	Current Throughput (Mtpa Annualised)	Reference
Barnicoat	Focus Minerals Limited	1.5	On care and maintenance	Quarterly Activities Report – released 28/4/23
Brightstar	Brightstar Resources Limited	0.5	On care and maintenance	Investor Presentation – released 8/6/23
Granny Smith	Goldfields	3.5	1.6	Operational Update – released 4/5/23
Sunrise Dam	Anglo Gold Ashanti	4.1	2.7	Market Update Report – released 12/5/23
Mt Morgans	Dacian	2.8	Operations suspended	Quarterly Activities Report – released 27/4/23
Duketon (Garden Well, Rosemont and Moolart Well)	Regis Resources Ltd	10.0	8.4	Quarterly Reports – June 22 (released 26/7/22), Sep 22 (released 27/10/22), Dec 22 (released 25/1/23) and March 23 (released 27/4/23)
Gwalia	St Barbara	1.4	1.0	Quarterly Reports – June 22 (released 27/7/22), Sep 22 (released 18/10/22), Dec 22 (released 25/1/23) and March 23 (released 27/4/23)

Table 1 – Mills in Laverton/Leonora Area with estimated current throughputs based on available information.