

## Summary

### Steam Engine Gold Deposit – evaluation studies (Greenvale)

- An upgraded Mineral Resource Estimate was established:
  - **1.27 million tonnes at 2.3 g/t gold (approximately 94,000 ounces)**, including:
    - **Indicated Resources: 370,000 tonnes @ 2.5 g/t gold (approx. 33,000 ounces);** and
    - **Inferred Resources: 900,000 tonnes @ 2.2 g/t gold (approx. 64,000 ounces).**
- Commencement of a Scoping Study.
- The Mineral Resource estimation and associated work resulted in the identification of significant potential for the existence of a high-grade underground ore shoot system beneath or in the vicinity of the currently known lodes at the Steam Engine Gold Deposit.

### Bottletree (Greenvale)

- IP chargeability anomaly 1.4kms in length and open to the north, south and at depth.
- Planning for drilling program targeting a large copper target at depth.

### Big Mag (Greenvale)

- Regionally large and intense magnetic anomaly with potential for magmatic nickel-copper sulphide mineralisation.
- Initial exploration program planning and land access preparations underway.

### Wyandotte (Greenvale)

- The Wyandotte Prospect is a shallow zone of high-grade copper mineralisation, which is potentially associated with a deeper intrusion-related or porphyry system.
- A technical study of the existing data was commenced during the Quarter in order to establish an exploration target to determine whether potential exists for expansion of the copper mineralisation.
- The results of this study will be published shortly.

## Superior Resources Limited

### ASX:SPQ

### Board

Carlos Fernicola – Chairman  
Peter Hwang – Managing Director  
Simon Pooley – Non-Exec Director  
Carlos Fernicola – Company Secretary

### Securities

Ordinary Shares – 1,138,791,359  
Top 20 holders: 47.93% issued capital

### Summary

Superior Resources Limited is a Brisbane based ASX-listed mineral explorer with a portfolio of large base metal exploration projects, including a developing portfolio of nickel-cobalt projects in northern Queensland. The projects include large targets for Mount Isa style copper and lead-zinc-silver deposits in north western Queensland and exploration projects in northeast Queensland for VMS and porphyry style copper-gold-lead-zinc-silver deposits. The Company's cobalt projects are located across the northern Queensland region.

### Share Registry

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### Web Site

www.superiorresources.com.au

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## PROJECT LOCATIONS



### STEAM ENGINE GOLD DEPOSIT (GREENVALE PROJECT)

A series of technical studies to assess the potential for a near-term mining and toll treatment operation at the Steam Engine Gold Deposit were progressed through the Quarter. A maiden Mineral Resource Estimate originally released during 2017 was re-modelled and upgraded for the purpose of conducting an accelerated Scoping Study (the price of gold at the time of release was about US\$1,270).

Significant upside potential for a more extensive gold feeder system at Steam Engine was identified as a result of the re-modelling work and technical review work.

In addition, preparations for a reverse-circulation (RC) and diamond core drilling program to further upgrade and expand the Mineral Resource were conducted during the period.

#### UPGRADED MINERAL RESOURCE ESTIMATE

The Steam Engine Mineral Resource Estimate was expanded and upgraded to Indicated and Inferred (JORC 2012), resulting in an approximate 11% increase in the in-situ gold Mineral Resource. The total in-situ resources now stands at:

- **1.27 million tonnes at 2.3 g/t gold (approximately 94,000 ounces), including:**
  - **Indicated Resources: 370,000 tonnes @ 2.5 g/t gold (approx. 33,000 ounces); and**
  - **Inferred Resources: 900,000 tonnes @ 2.2 g/t gold (approx. 64,000 ounces)<sup>1</sup>.**

<sup>1</sup> Refer ASX announcement dated 4 May 2020 for information relating to the upgraded Mineral Resource Estimate.

Gold at Steam Engine is developed as lodes within a series of shear zones with a historically mapped strike extension of at least 2.5 kilometres at surface (Figure 1)<sup>2</sup>. Two main lodes, the Steam Engine Lode and the Eastern Ridge Lode, have been the focus of historic and more recent drill testing.

The Mineral Resource Estimate is based on about 30% of the strike lengths of the Steam Engine and Eastern Ridge lodes and only to shallow depths.

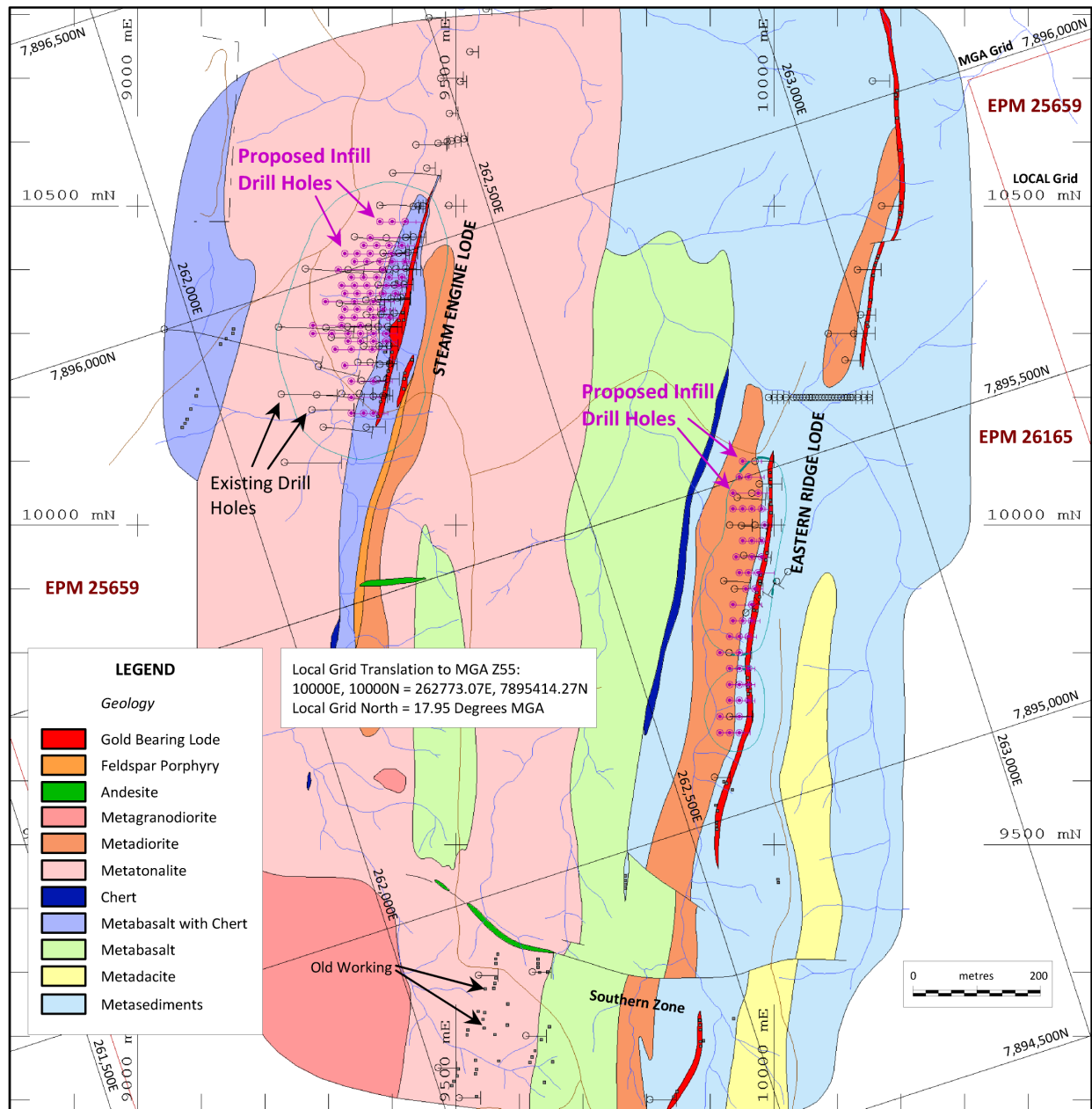


Figure 1. Steam Engine Gold Deposit – Interpreted geology showing historically-mapped gold-bearing lodes at surface (in Red) and existing and planned drill holes.

<sup>2</sup> Refer ASX announcement dated 4 May 2020 for information set out in this section, including in relation to Figures 1 to 3, inclusive.

A breakdown of the Mineral Resource Estimate is set out in Table 1.

**Table 1. Steam Engine Gold Deposit Resource Table**

Classification	Cut-off Grade	Tonnes	Grade (g/t)	Gold (ounces)
<b>Steam Engine (Main Zone)</b>				
Indicated	0.5	370,000	2.5	30,000
Inferred	0.5	420,000	2.3	31,000
<b>SUBTOTAL</b>		<b>790,000</b>	<b>2.4</b>	<b>61,000</b>
<b>Steam Engine (Footwall Zone)</b>				
Inferred	0.5	210,000	1.6	11,000
<b>Eastern Ridge</b>				
Inferred	0.5	270,000	2.7	23,000
<b>TOTALS FOR STEAM ENGINE AND EASTERN RIDGE ZONES</b>				
<b>Indicated</b>		<b>370,000</b>	<b>2.5</b>	<b>30,000</b>
<b>Inferred</b>		<b>900,000</b>	<b>2.2</b>	<b>64,000</b>
<b>TOTAL RESOURCES</b>		<b>1,270,000</b>	<b>2.3</b>	<b>94,000</b>

A plan of the Mineral Resource wireframe and relative locations is shown in Figure 2 along with a 3D block model in Figure 3.

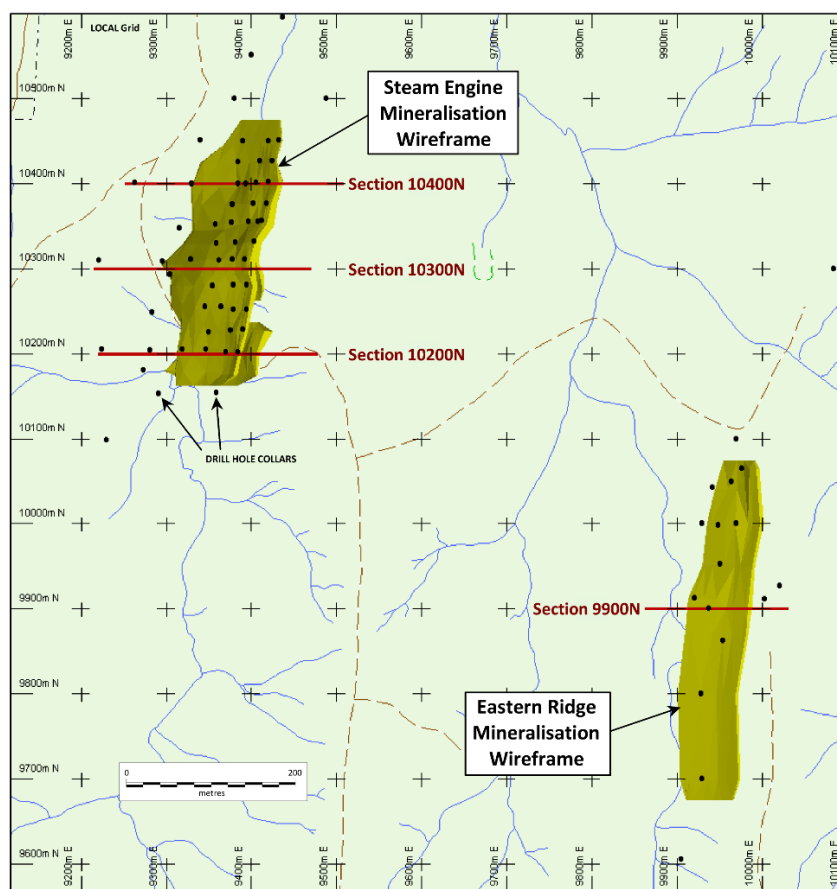


Figure 2. Plan View of Steam Engine and Eastern Ridge lode wireframes. Cross section locations are also indicated.

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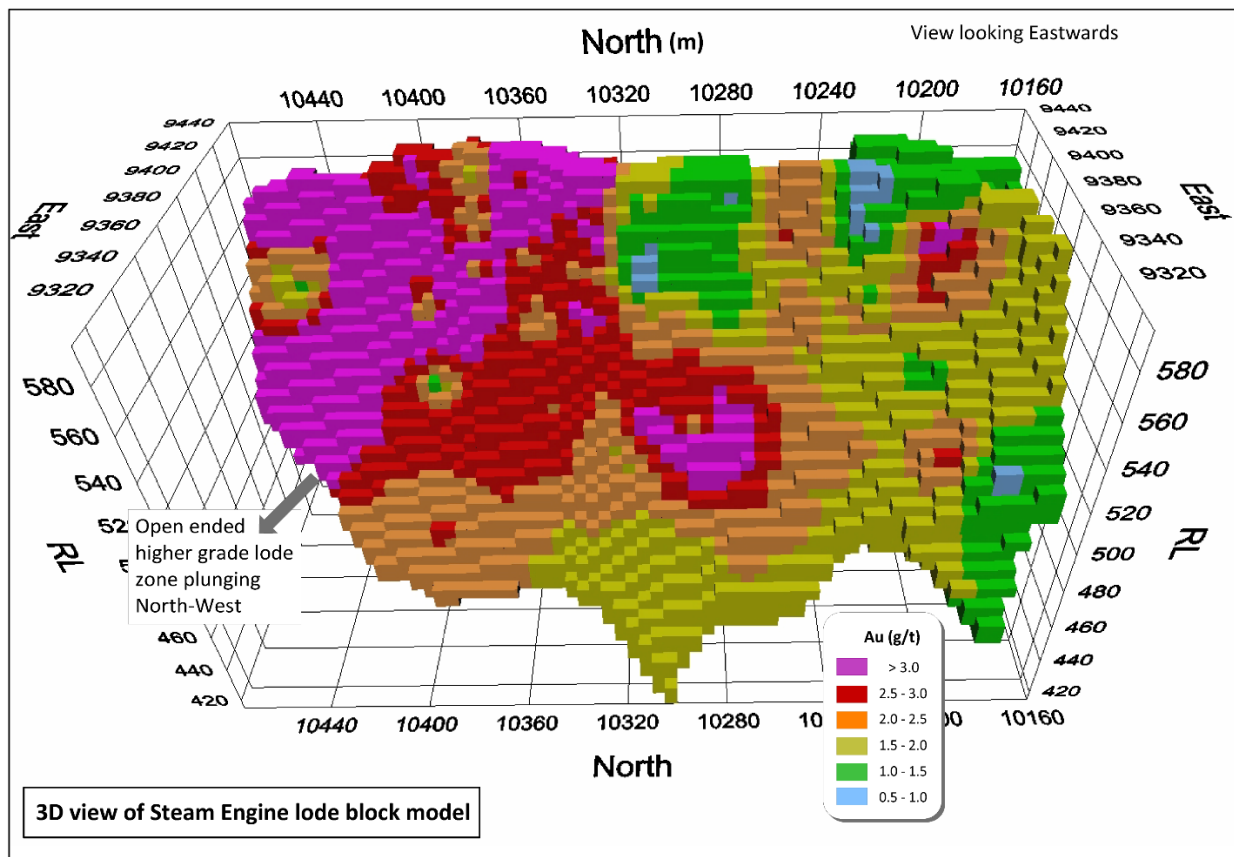


Figure 3. 3D view of Steam Engine lode resource block model (open to the north and at depth).

## SCOPING STUDY

Further development of the Mineral Resource will commence with a first phase resource drilling program, which will infill existing drilling and further upgrade the Mineral Resource.

A Scoping Study is planned to be delivered shortly after completion of the first phase drilling program, which commenced on 31 July 2020.

## UNDERGROUND ORE SHOOT SYSTEM POTENTIAL

Significant potential for the existence of a high-grade underground ore shoot system under the lodes was identified by the Company during the Mineral Resource re-modelling. The Company considers that such an ore shoot system is likely to be the feeder system responsible for gold mineralisation within the currently defined lodes, which in part are exposed at surface.

Soil geochemistry indicates a substantially greater extent of outcropping or near-surface gold mineralisation on strike and adjacent to the known lodes.

Current work at the Eastern Ridge Lode alone, has identified at least 2.5 kilometres of surface lode that lies within a distinct gold soil anomalous zone extending over some 4 kilometres in length (Figure 4).

Historic work was largely concentrated around the Steam Engine lode with only limited shallow drilling on the Eastern Ridge lode. No previous work has specifically targeted the potential for high-grade ore shoot zones beneath the current gold lodes.

Classical vein structural and gold mineralisation characteristics are observed in the lodes and are important indicators for the potential existence of an extensive high-grade ore shoot system at depth (Figures 4, 5 and 6). The large Charters Towers gold deposit located about 200 kilometres south east of Steam Engine is a good example of such a system.

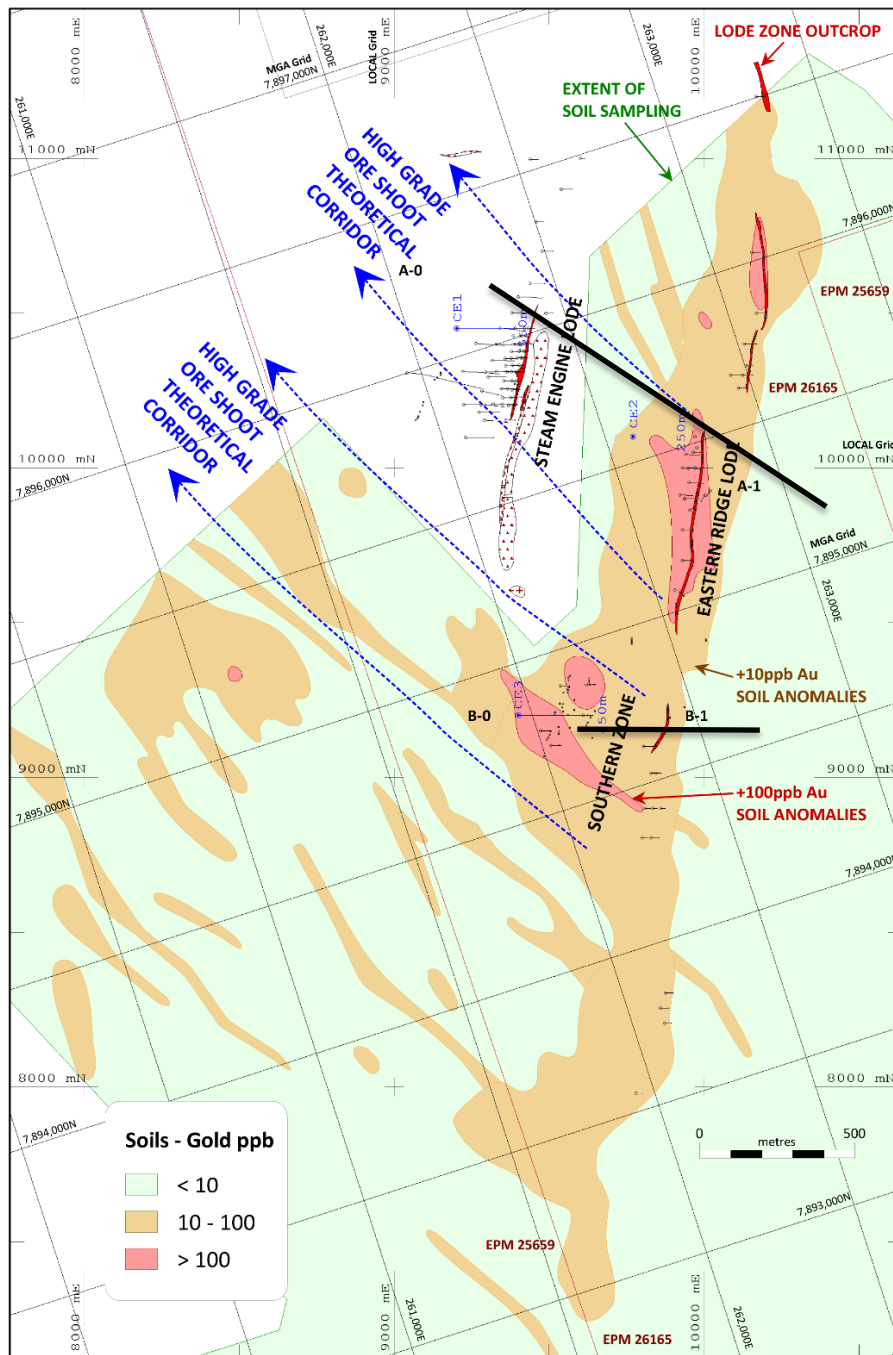


Figure 4. Steam Engine Gold Deposit lodes over soil gold anomalies and conceptual corridors for high-grade ore shoots (refer ASX announcement dated 15 June 2020).

With the application of available information, it has been possible to construct a theoretical geological model and to use classical lode system characteristics to target the areas of best potential for high-grade gold shoots.

This ore shoot potential is planned to be tested with a three-hole, 1,250m diamond drilling program designed to target the following factors:

- **two holes (550m and 250m) targeting a theoretical main high-grade ore shoot corridor** that extends north west from the Mineral Resource at the Eastern Ridge Lode, which also covers the Steam Engine Lode (Figures 4 and 5). The high-grade corridor is supported by the identification of north west plunging high grade zones within the Steam Engine and Eastern

Ridge Lodes (Figure 3). These holes are also designed to target the zones that that are most likely to contain the highest grade ore; and

- **one hole (450m) targeting a classical repetition ore shoot system within a high-grade corridor** extending north west from the Southern Zone of lodes (Figures 4 and 6). This high-grade corridor is based on existing drilling at the Southern Zone together with the gold soil geochemical sampling data. The corridor also picks up cross and sub-parallel mineralisation structures observed in the surface soil geochemistry.

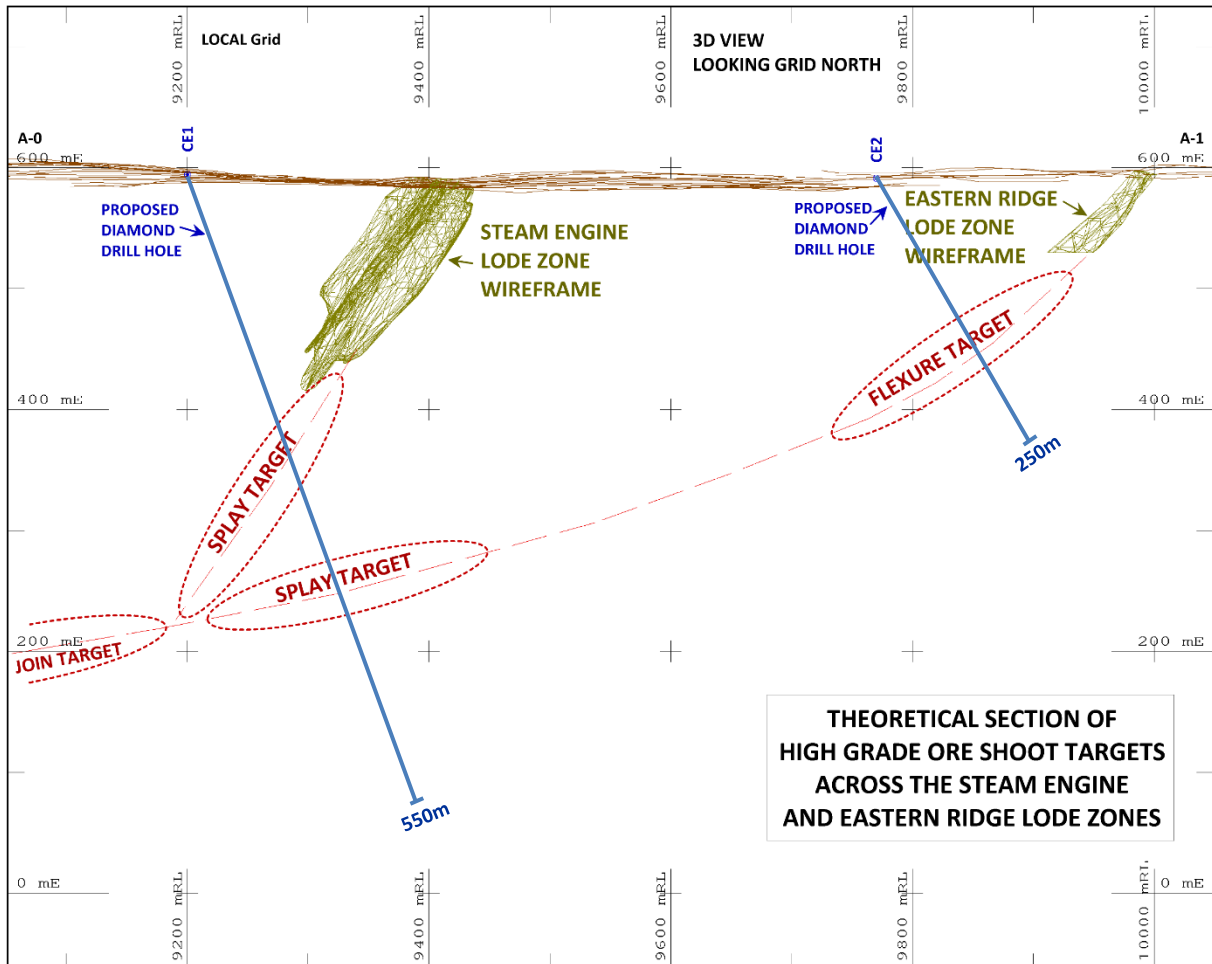


Figure 5. Potential high-grade ore shoot targets across the Steam Engine and Eastern Ridge lode zones (refer ASX announcement dated 15 June 2020).

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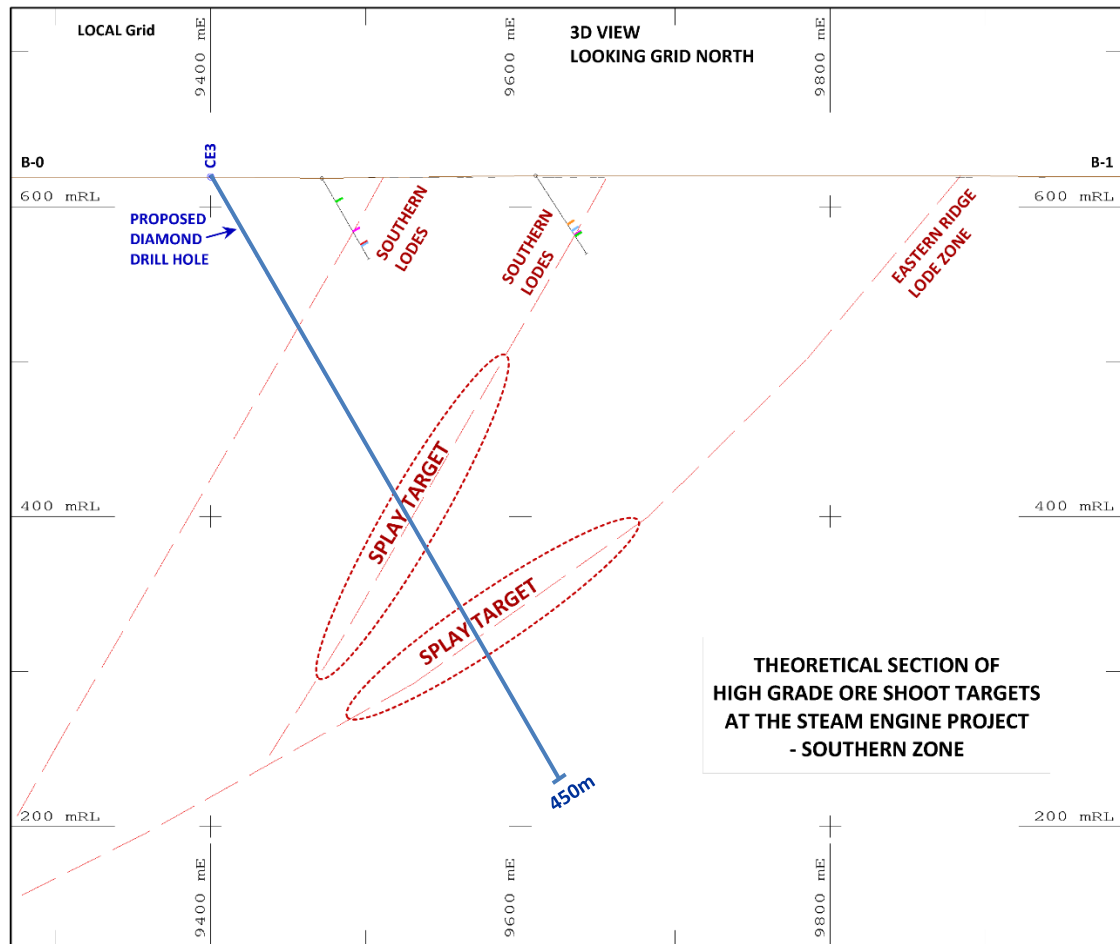


Figure 6. Potential high-grade repetition ore shoot targets across the Southern Zone and Eastern Ridge Lode zones (refer ASX announcement dated 15 June 2020).

## BOTTLETREE (GREENVALE PROJECT)

### Summary

- Desktop analysis of data and planning continued during the Quarter.
- IP chargeability anomaly 1.4kms in length and open to the north, south and at depth.
- August 2018 drilling confirmed<sup>3</sup>:
  - high grade copper mineralisation intersected in hole SBTRD006 of **18.7m @ 1.12% copper (328.0m to 346.7m)**; and
  - a broad zone of copper mineralisation intersected in hole SBTRD006 totalling **292m @ 0.22% copper (148.0m to 440.0m)**.
- Planning for 2020 drilling program targeting a large copper target at depth and to the immediate south of 2018 diamond drilling.

Planning continued for a Phase 2 diamond drilling program targeting a large IP chargeability anomaly to be conducted during the 2020 field season, subject to funding. Drilling during 2018 intersected extensive copper mineralisation averaging 0.22% copper over 292m, including 18.7m at 1.12% copper.

The geophysical modelling results together with the 2018 drill hole assay data indicate that higher

<sup>3</sup> Refer to ASX announcement, dated 25 October 2018 for more comprehensive information regarding drilling results.



grade copper mineralisation may exist within the main chargeable target zone, which is located to the south of the 2018 drilling and also at deeper levels.

A second phase diamond drilling program is currently envisaged to comprise up to four diamond core holes (Figure 7).

### Bottletree – Background

Bottletree is a large (2km x 1km) soil copper anomaly located in the southern part of the Greenvale Project (Figure 5). Coincident with the soil anomaly is a large and high order chargeability anomaly.

A two-hole diamond drilling program totalling 1,102 metres was completed during August 2018. This drilling followed up earlier shallow reverse-circulation (RC) drilling and confirmed extensive copper mineralisation extending to depths in excess of 300 metres.

The objective of the diamond drilling program was to determine whether large and high order chargeability anomalies identified from a MIMDAS IP geophysical survey completed in May 2018 (ASX Announcement - 16 May 2018) are caused by significant copper and gold mineralisation.

The deep drilling program represents the first deep drilling to have been undertaken at Bottletree.

Assay results show copper mineralisation present in SBTRD006 over a broad interval<sup>4</sup>:

- Average grade: **292m @ 0.22% Cu (148.0m to 440.0m)** (Cut-off of 0.1% Cu but with some narrow intervals of less than 0.1% Cu included); and
- High grade zones, including: **18.7m @ 1.12% Cu (328.0m to 346.7m)**.

Advanced 3D modelling of the MIMDAS survey results indicate a close correlation between the copper grades and chargeability.

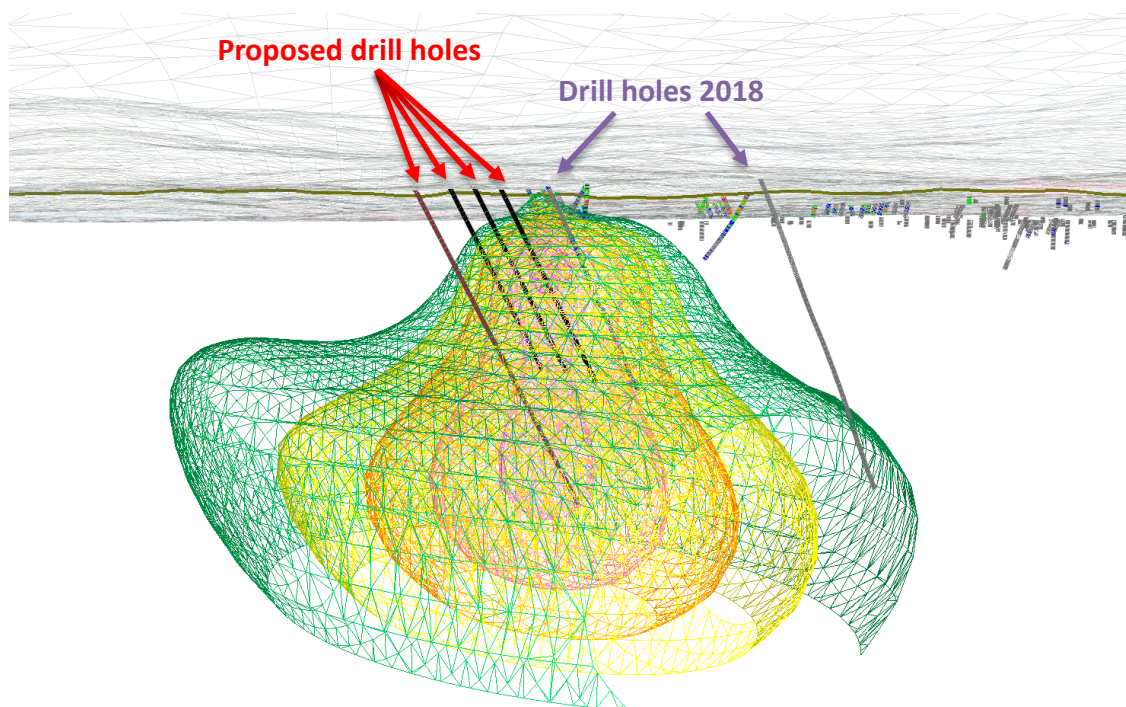


Figure 7. 3D modelling of Bottletree MIMDAS IP survey results presented in wireframe, showing locations of 2018 drill holes and proposed Phase 2 drill holes.

<sup>4</sup> Refer to ASX announcement, dated 25 October 2018 for more comprehensive information regarding drilling results.

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## BIG MAG (GREENVALE PROJECT)

Desktop data review, land access preparations and initial exploration program planning continued during the Quarter on the Big Mag Prospect.

Big Mag is a regionally large and intense magnetic feature that appears to be a large mafic or ultramafic intrusion, or several such intrusions. Consequently, it has the potential to host nickel-cobalt-copper mineralisation, either as sulphides or in a laterite weathering profile. The Company is of the view that the Big Mag feature is developed within the same geological sequence as the “old” Greenvale Nickel Mine” (now part of the SCONI Project).

The Big Mag magnetic feature is regionally significant and under-explored and is covered by a recently granted exploration permit (EPM26751, Twelve Mile Creek) (Figure 8).

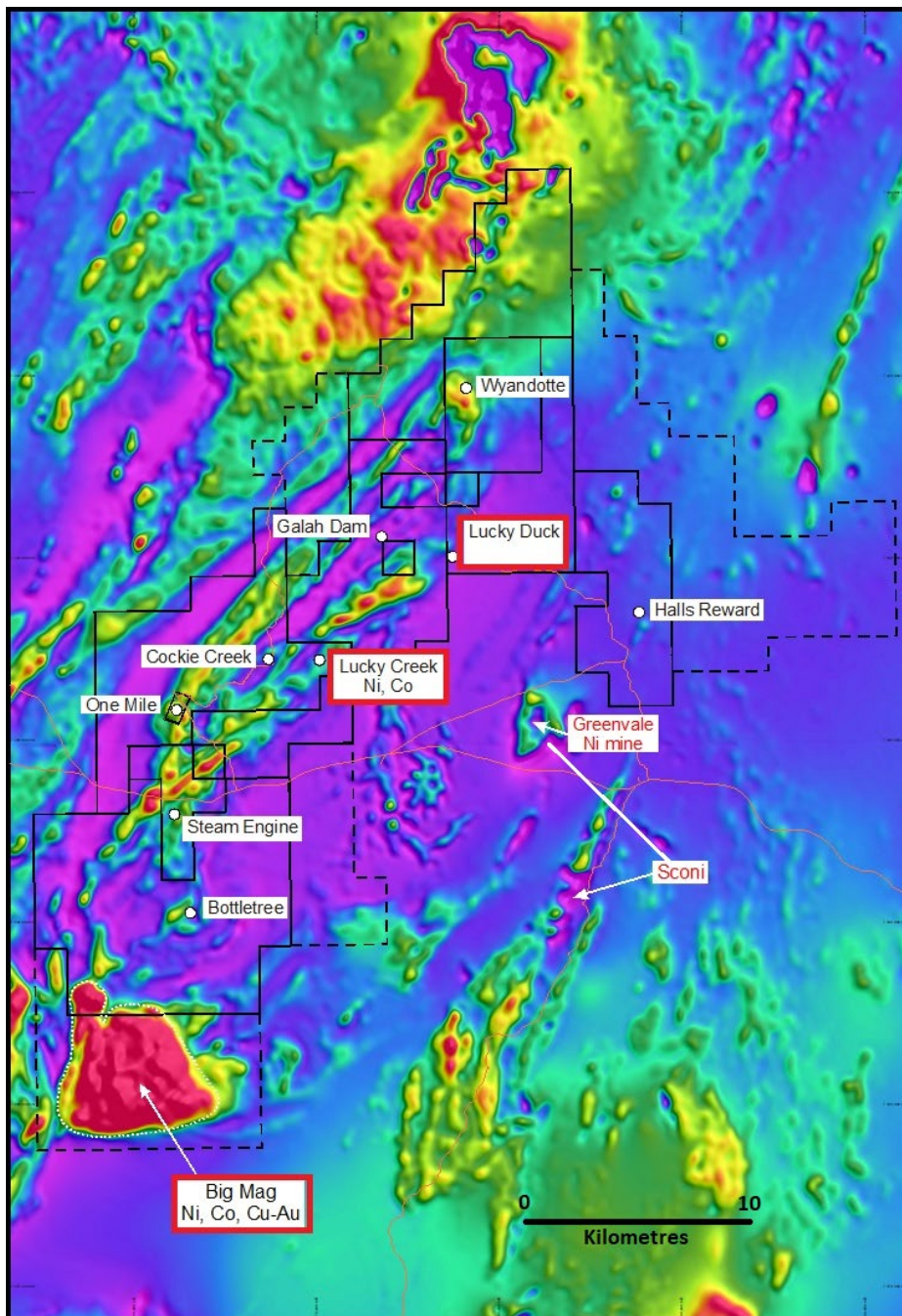


Figure 8. Airborne magnetic (RTP) processed image over the Greenvale Project area and surrounds. The “Big Mag” magnetic feature is visible in the lower left part of the image.

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## WYANDOTTE (GREENVALE PROJECT)

The Wyandotte Prospect is a shallow zone of high-grade copper mineralisation, which is potentially associated with a deeper intrusion-related or porphyry system.

Historic drilling has targeted the copper mineralisation. However, there has been insufficient drilling to estimate a reportable Mineral Resource.

A technical study of the existing data continued during the Quarter in order to establish an exploration target to determine whether potential exists for expansion of the copper mineralisation.

The results of this study will be published shortly.

## CORPORATE and COMMERCIAL

### CAPITAL RAISING

The Company completed a capital raising campaign comprising a two-tranche placement and a non-renounceable rights issue to raise up to \$1.18 million (before costs).

The placement was offered to institutional and sophisticated investors to subscribe for fully paid ordinary shares priced at \$0.003 (0.3 cents) per share, with one free attaching option for every three subscribed shares. The options have an exercise price of \$0.006 (0.6 cents) and expire on 31 December 2020. The placement was fully subscribed.

The rights issue was offered to existing shareholders on a pro-rata basis of one new share for every three ordinary fully paid shares held in the Company on 26 May 2020, at a price of \$0.003 (0.3 cents) per new share. Shareholders who subscribed under the rights issue also received one free attaching option for every three entitlement shares issued, with each option having an exercise price of \$0.006 (0.6 cents) and expiring on 31 December 2020. The rights issue was oversubscribed.

Allotment and issue of all shares and options under the placement and rights issue was completed on 14 July 2020.

### EXTRAORDINARY GENERAL MEETING

A general meeting of shareholders was held on 3 July 2020, primarily for the purpose of approving the issue of Tranche 1 options and Tranche 2 placement shares and options.

Other business of the meeting included the ratification of prior issue of placement shares, the issue of consideration options to the lead broker to the capital raising campaign and to approve amendments to the Company's Constitution.

All resolutions were passed.

### INVESTMENTS

Superior maintains an exposure in relation to ASX listed entity, Deep Yellow Limited (ASX:DYL).

As at 30 June 2020, the Company held 74,244 DYL shares with a closing value of \$15,220.02.

As at 31 March 2020, the Company held 2,403,846 Carnaby Resources Limited (ASX:CNB) shares. All CNB shares were disposed of on the ASX market trading platform during the Quarter.

### ASX Listing Rule 5.3.3

Appendix 1 sets out information that is required under ASX Listing Rule 5.3.3 (for exploration entities).

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Managing Director

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**Reporting of Exploration Results:** *The Exploration Results and interpretations contained in this report that relate to the Steam Engine Gold Deposit and Bottletree Prospect reflect information that has been reported in ASX market announcements as noted within this report. The Company confirms that it is not aware of any new information that materially affects the information included in the relevant original market announcements.*

*The Steam Engine JORC 2012 Mineral Resource Estimate (MRE) and related information were originally announced on the ASX Market Announcements Platform on 4 May 2020 (May Announcement). The Company confirms that it is not aware of any new information that materially affects the information provided in the May Announcement. All material assumptions and technical parameters on which the MRE is based continue to apply and have not materially changed.*

*Information relating to the Steam Engine Gold Deposit underground ore shoot system potential was originally announced on the ASX Market Announcements Platform on 15 June 2020 (June Announcement). The Company confirms that it is not aware of any new information that materially affects the information provided in the June Announcement. All material assumptions and technical parameters on which the MRE is based continue to apply and have not materially changed.*

*Other information in this report that comprises Exploration Results is based on information evaluated by Mr Peter Hwang, an executive director and shareholder of Superior Resources Limited and a Member of the Australian Institute of Geoscientists. Mr Hwang has sufficient experience which is relevant to this style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person under the 2012 edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Hwang consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.*

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## Appendix 1

### DISCLOSURES REQUIRED UNDER ASX LISTING RULE 5.3.3

- Mining tenements held at the end of the quarter and their location

State	Tenement Name	Tenement ID	Location	Interest	Holder	Comments
QLD	Hedleys 2	EPM15670	Nicholson	100%	SPQ	Granted
QLD	Hedleys South	EPM18203	Nicholson	100%	SPQ	Granted
QLD	Tots Creek	EPM19097	Victor	100%	SPQ	Granted
QLD	Scrubby Creek	EPM19214	Victor	100%	SPQ	Granted
QLD	Cockie Creek	EPM18987	Greenvale	100%	SPQ	Granted
QLD	Cassidy Creek	EPM19247	Greenvale	100%	SPQ	Granted
QLD	Dinner Creek	EPM25659	Greenvale	100%	SPQ	Granted
QLD	Wyandotte	EPM25691	Greenvale	100%	SPQ	Granted
QLD	Tomahawk Creek	EPM25264	Victor	100%	SPQ	Granted
QLD	Cockie South	EPM26165	Greenvale	100%	SPQ	Granted
QLD	Victor Extended	EPM26720	Victor	100%	SPQ	Granted
QLD	Twelve Mile Creek	EPM26751	Greenvale	100%	SPQ	Granted

- Mining tenements acquired and disposed of during the end of the quarter and their location

State	Tenement Name	Tenement ID	Location	Interest	Holder	Comments

- Beneficial percentage interests held in farm-in or farm-out agreements at end of the quarter

State	Project Name	Agreement Type	Parties	Interest held at end of quarter by exploration entity or child entity	Comments

Abbreviations:

EPM Exploration Permit for Minerals, Queensland  
 SPQ Superior Resources Limited

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