

## Summary

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

- All outstanding assay results from the 2020 Stage 2 drilling program at the Steam Engine Gold Project were received during the period.
- A revised Mineral Resource Estimate was established:
  - **1.73 million tonnes @ 2.2 g/t Au (approximately 122,000 ounces Au)**, including:
    - **Measured & Indicated Resources: 850,000 tonnes @ 2.5 g/t Au (approx. 67,000 ounces Au);** and
    - **Inferred Resources: 880,000 tonnes @ 1.9 g/t Au (approx. 55,000 ounces Au).**
- Preparations and planning for Stage 3 drilling program.

### Bottletree Copper Prospect (Greenvale)

- The Bottletree Copper Prospect is a large, potential Tier 1-size copper-mineralised system.
- 2018 drilling intersected the edges of the main IP chargeability target and identified significant copper mineralisation.
- On the basis of assay results and geophysics, the Company expects to encounter higher grade copper mineralisation within the main chargeable zone of the IP target.

### Wyandotte Copper Prospect (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.
- Drilling program and mining studies planned to commence early 2021.

### Big Mag and greater Greenvale Project nickel and copper potential (Greenvale)

- Regionally large and intense magnetic anomaly with potential for magmatic nickel-copper sulphide mineralisation.
- Exploration program planning targeting magmatic nickel-copper sulphide mineralisation.

## 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 – 1,377,073,558  
Top 20 holders: 48% 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

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**PROJECT LOCATIONS**

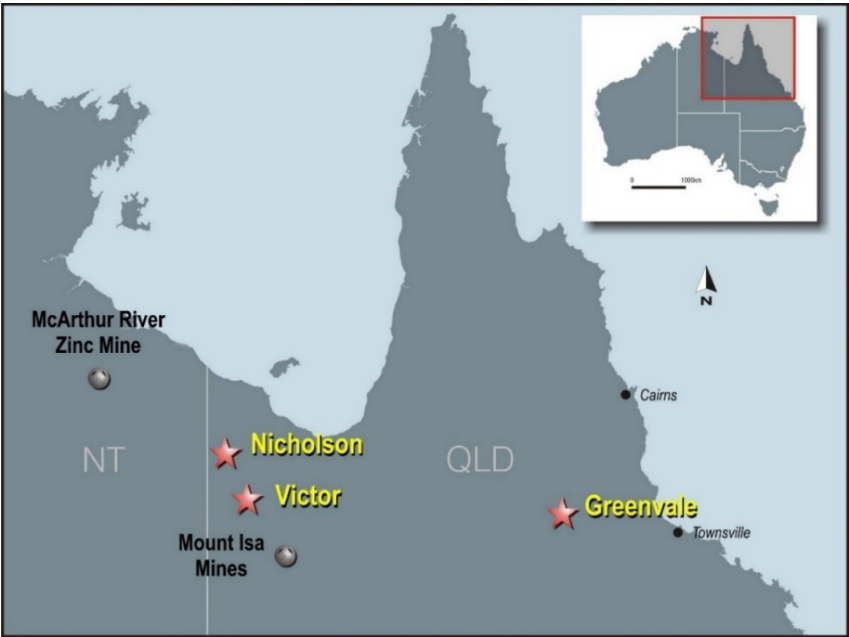


Figure 1. Location map showing the Company's current portfolio of projects.

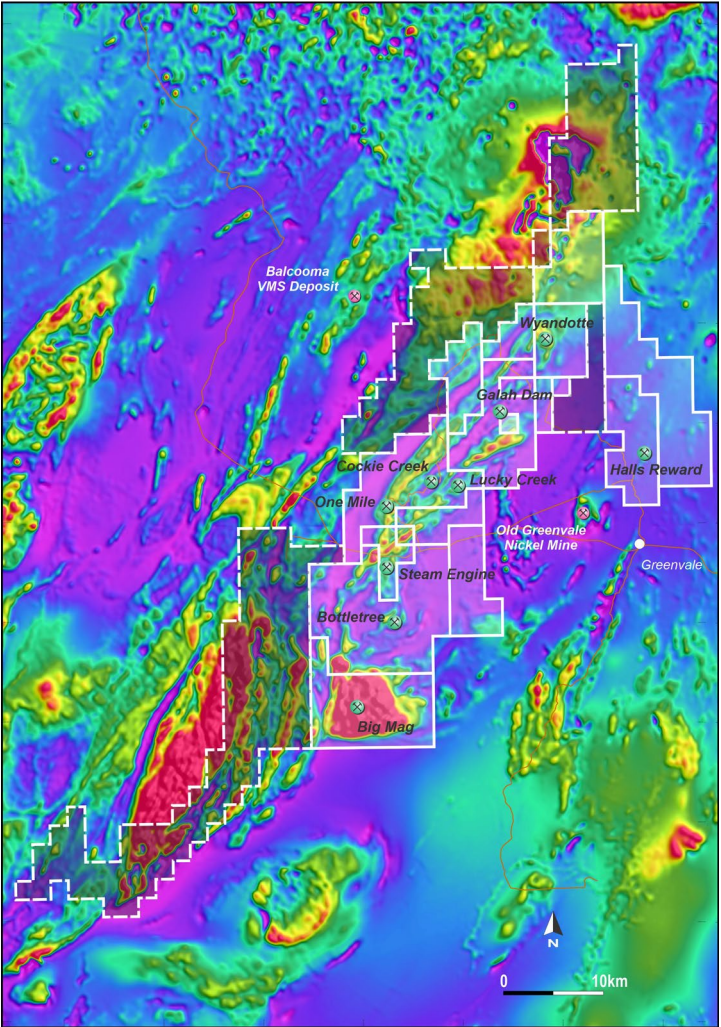


Figure 2. Locations of prospects within the Greenvale Project on image of airborne magnetics (RTP) and Superior's exploration permits and permit applications (applications appear as darker shaded areas).

## GREENVALE PROJECT

Most of the operational activities undertaken during the reporting period relate to prospects within the Greenvale Project, located approximately 200 kilometres west-northwest of Townsville, Queensland (Figures 1 and 2). The activities included:

- Receipt of **Steam Engine** Stage 2 drill assay results;
- **Steam Engine** – Revised Mineral Resource estimate and modelling;
- **Steam Engine** – Scoping Study;
- **Steam Engine** – planning of Phase 3 drilling program and other exploration programs;
- **Bottletree Copper Prospect** – 3D modelling of MIMDAS geophysical survey data and drill hole targeting; and
- **Wyandotte** – Modelling of drill hole data and preparation of Exploration Target.

### Steam Engine Gold Deposit

The activities at the Steam Engine Gold Deposit are undertaken for the purpose of assessing the viability of establishing a near-term mining and toll treatment operation at the Project. The assessment program commenced with the completion of a revised Mineral Resource estimate in May 2020.

Based on the revised estimate, two stages of Resource definition drilling (Stage 1 and Stage 2 programs) were completed between August to December 2020.

The Mineral Resource was further revised in March 2021.

A Scoping Study based on the March 2021 Mineral Resource estimate was completed and disclosed to the ASX market on 27 April 2021.

### Stage 1 and Stage 2 Drilling Programs

The Stage 1 and Stage 2 drilling programs were commenced during late July 2020 and were completed on 12 December 2020. Drilling totalled 6,811 metres from 113 drill holes, as follows:

- 105 reverse circulation (**RC**) drill holes for 6,114 metres;
- 6 shallow diamond core holes for 302 metres; and
- 2 deeper RC/diamond tailed drill holes for 395 metres.

All Stage 1 and Stage 2 resource and exploratory holes intersected mineralised lode with the majority of intersections reporting high grade gold. All assay results were received from SGS Australia geochemistry laboratories in Townsville by mid-February 2021.

The drilling programs included infill holes for Resource definition purposes as well as exploratory holes designed to extend the mineralisation envelopes along strike at the Steam Engine and Eastern Ridge lodes.

The results of the programs significantly upgraded the lodes. In summary:

- the strike length of the Steam Engine Lode was extended an additional 200m northwards and remains open;
- significant zones of low grade lode within the Steam Engine Lode were upgraded to high to very high grade zones;
- infill holes at the Steam Engine Lode indicate grade increasing with depth; and
- mineralisation at the Eastern Ridge Lode was extended a further 100m to the south and remains open.

A range of typical intersections from the Stages 1 and 2 drilling include<sup>1</sup>:

- **18m @ 2.4 g/t Au** from 21m (SDD006)
  - incl **6m @ 4.6 g/t Au** from 33m
  - incl **1m @ 10.9 g/t Au** from 37m
- **12m @ 5.1 g/t Au** from 60m (SRC080)
  - incl **6m @ 7.1 g/t Au** from 64m
  - incl **1m @ 12.3 g/t Au** from 64m
- **8m @ 5.0 g/t Au** from 62m (SRC083)
  - incl **1m @ 11.0 g/t Au** from 66m
- **7m @ 3.8 g/t Au** from 43m (SDD004)
  - incl **1m @ 5.9 g/t Au** from 48m
- **13m @ 2.4 g/t Au** from 21m (SRC033)
  - incl **4m @ 3.9 g/t Au** from 30m
- **6m @ 3.4 g/t Au** from 48m (SRC036)
  - incl **1m @ 11.5 g/t Au** from 48m
- **8m @ 3.6 g/t Au** from 11m (SRC043)
  - incl **2m @ 10.5 g/t Au** from 17m
- **5m @ 4.1 g/t Au** from 35m (SRC050)
  - incl **1m @ 12.7 g/t Au** from 35m
- **6m @ 2.7 g/t Au** from 71m (SRC047)
  - incl **2m @ 5.7 g/t Au** from 73m
- **5m @ 2.4 g/t Au** from 75m (SRC046)
  - incl **2m @ 5.0 g/t Au** from 77m
- **11m @ 2.3 g/t Au** from 64m (SRC081)
  - incl **3m @ 4.2 g/t Au** from 68m

Spectacular-grade intersections (**up to 184 g/t Au**) were returned from holes within thicker parts of the Steam Engine Lode, interpreted as a high grade ore shoot (Figures 3, 4 and 5)<sup>2</sup>:

- **5m @ 38 g/t Au** from 49m (SRC077)
  - incl **1m @ 184 g/t Au** from 51m
- **7m @ 20.6 g/t Au** from 54m (SRC076)
  - incl **1m @ 135 g/t Au** from 55m
- **14m @ 4.9 g/t Au** from 0m (surface) (SRC034)
  - incl **7m @ 9.2 g/t Au** from 7m
  - incl **1m @ 47.5 g/t Au** from 7m.

The very high grades reported in holes SRC076 and SRC077 are on adjacent lines and are located directly down dip of an ounce-per-tonne intersection reported from SRC034 from the Stage 1 Program. The three ounce-plus per tonne intersections, together with other adjacent intersections define a very high grade ore shoot within a low-grade zone that was modelled in the December 2020 revised Mineral Resource Estimate<sup>3</sup> (Figures 3, 4 and 5).

Such very high-grade zones will contribute to significantly raise the total ounces in the deposit. As a result, further drilling on this portion of the Resource will be conducted during the upcoming 2021 drilling programs in order to delineate extensions to the high grade ore shoot.

<sup>1</sup> Refer to ASX Announcements 30 September 2020, 15 October 2020, 5 November 2020 and 11 February 2021 for the original reporting of the assay results.

<sup>2</sup> Refer to ASX Announcement 30 September 2020 for the original reporting of the assay results.

<sup>3</sup> Refer to ASX Announcement 14 December 2020; refer below

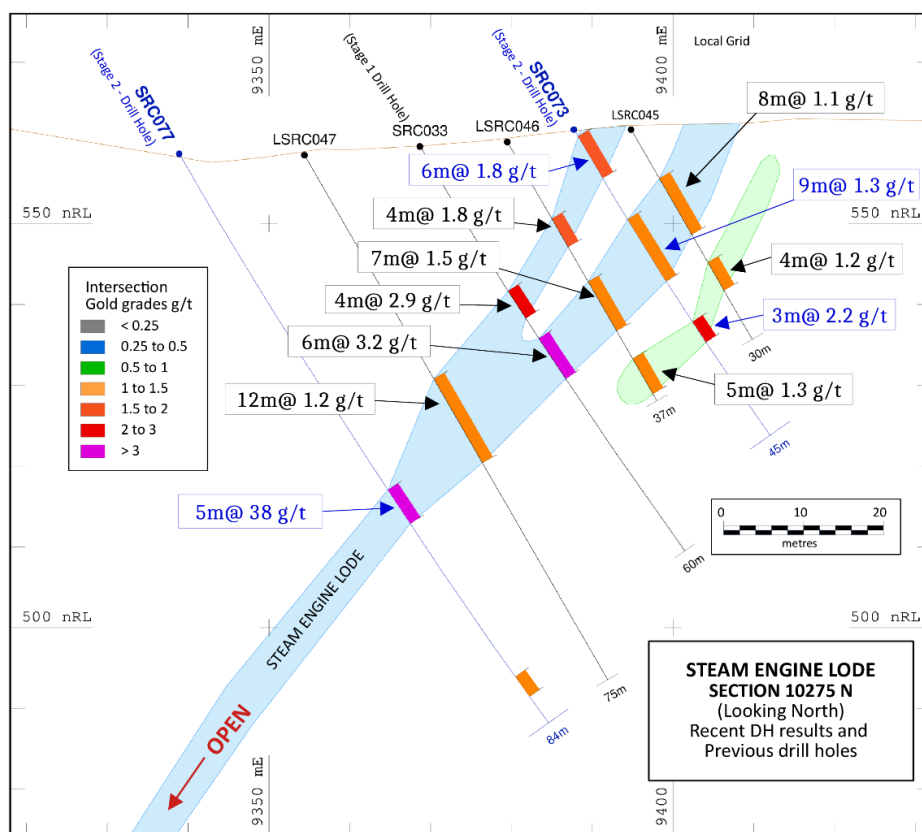


Figure 3. Cross Section 10275 N (local grid) on the Steam Engine Lode showing the significant intersections (Stage 2 drill hole intersections shown in blue).

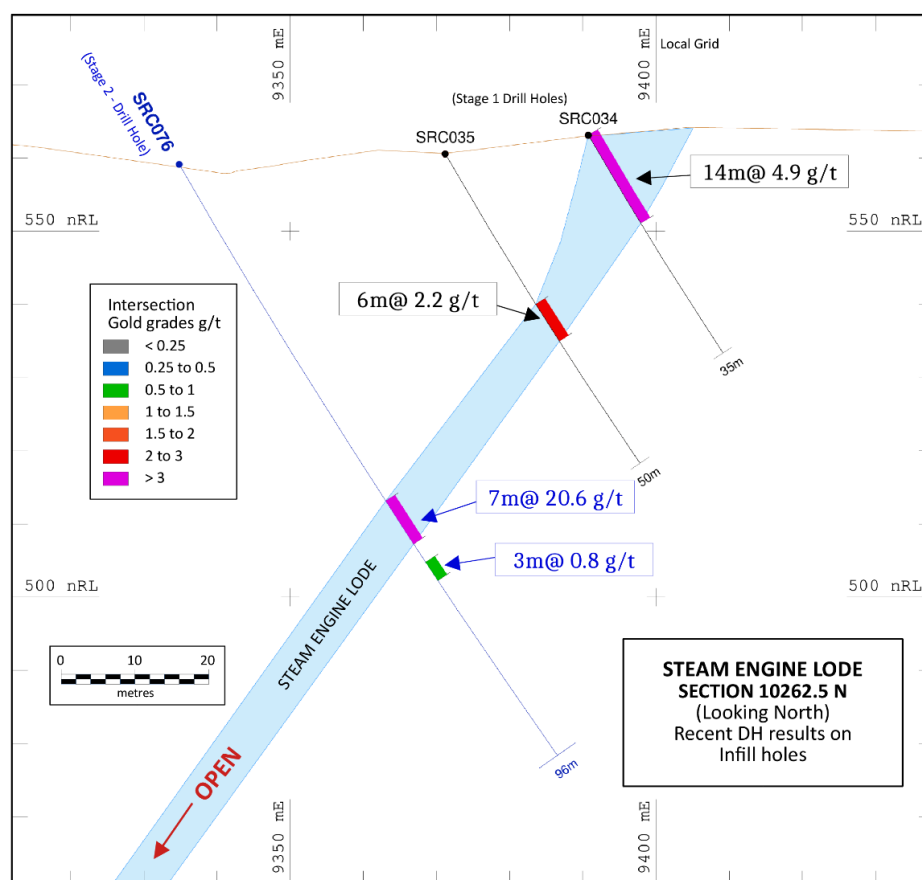


Figure 4. Cross Section 10262.5 N (local grid) on the Steam Engine Lode showing the significant intersections (Stage 2 drill hole intersections shown in blue).



## Revised Mineral Resource Estimate

The Steam Engine Project Mineral Resource Estimate (MRE) was revised during the reporting period in order to incorporate all results from the Stage 1 and Stage 2 drilling programs. The revised MRE resulted in a 123% increase in JORC Measured and Indicated category Resources and a 30% increase in total contained gold ounces (since May 2020 MRE). The Mineral Resource now stands at (refer Figures 6 and 7; Tables 1 and 2):

- **1.73 million tonnes at 2.2 g/t Au (approximately 122,000 ounces Au)<sup>4</sup>, including:**
  - **Measured: 240,000 tonnes @ 2.6 g/t Au (approx. 20,000 ounces Au);**
  - **Indicated: 610,000 tonnes @ 2.4 g/t Au (approx. 47,000 ounces Au); and**
  - **Inferred: 880,000 tonnes @ 1.9 g/t Au (approx. 55,000 ounces Au)<sup>5</sup>.**

Infill drilling at the Steam Engine and Eastern Ridge lodes has enabled a substantial upgrade in the geological confidence of the near-surface portions of the lodes. Most of the near-surface parts of both lodes have been upgraded to Indicated category, with a central portion of the Steam Engine Lode being classified as Measured. Much of the deeper, extremity and new extensional portions of the Resource remain classified in the Inferred category, due to a lower drilling density (Figure 7).

The estimations were conducted using inverse distance-weighted block modelling of the gold mineralisation zones. Internal waste material was included in the mineralised zones where it was either modelled inside the zone of gold mineralisation or where a zone potentially amenable to mining would otherwise be too narrow. Grade top-cutting of 56% and 67% was applied to two multi-ounce per tonne intersections (135 g/t Au and 184 g/t Au) for the purpose of normalising the very high grade intersection values to 60 g/t Au.

The Resource remains open down dip and along strike at the Steam Engine Lode (Figure 5) and open in all directions at the Eastern Ridge Lode. Drilling to expand the Resource will continue during 2021 in parallel with a series of mining studies.

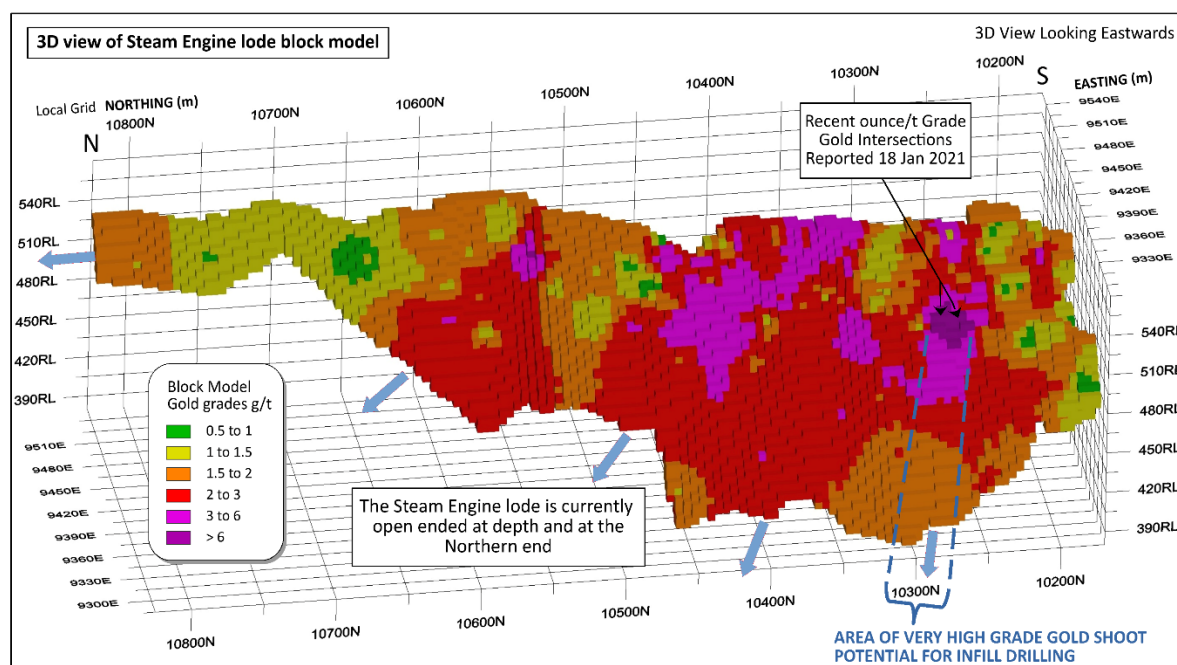


Figure 5. Block model of the Steam Engine Lode showing open-ended high grade ore shoot potential (blue arrows) and the very high grade ore shoot zone containing the multiple once per tonne grade intersections.

<sup>4</sup> Grade normalisation (top-cutting) of the grades by -56% and -67% were applied to very high grade intersections for the purpose of the estimation exercise.

<sup>5</sup> Refer to ASX announcement dated 22 March 2021 for complete information relating to the upgraded Mineral Resource Estimate.

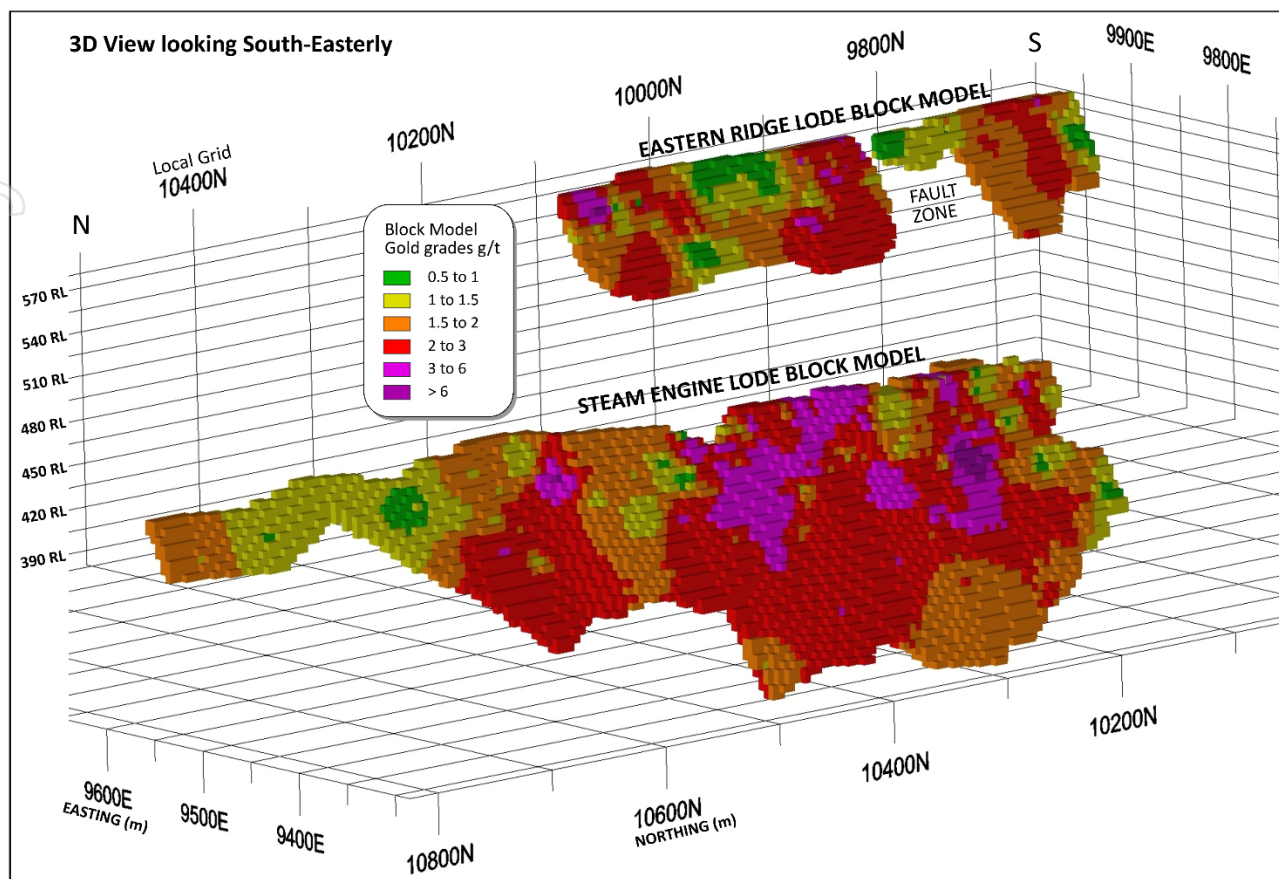


Figure 6. 3D oblique view of the Steam Engine and Eastern Ridge Block Models showing gold grade distribution.

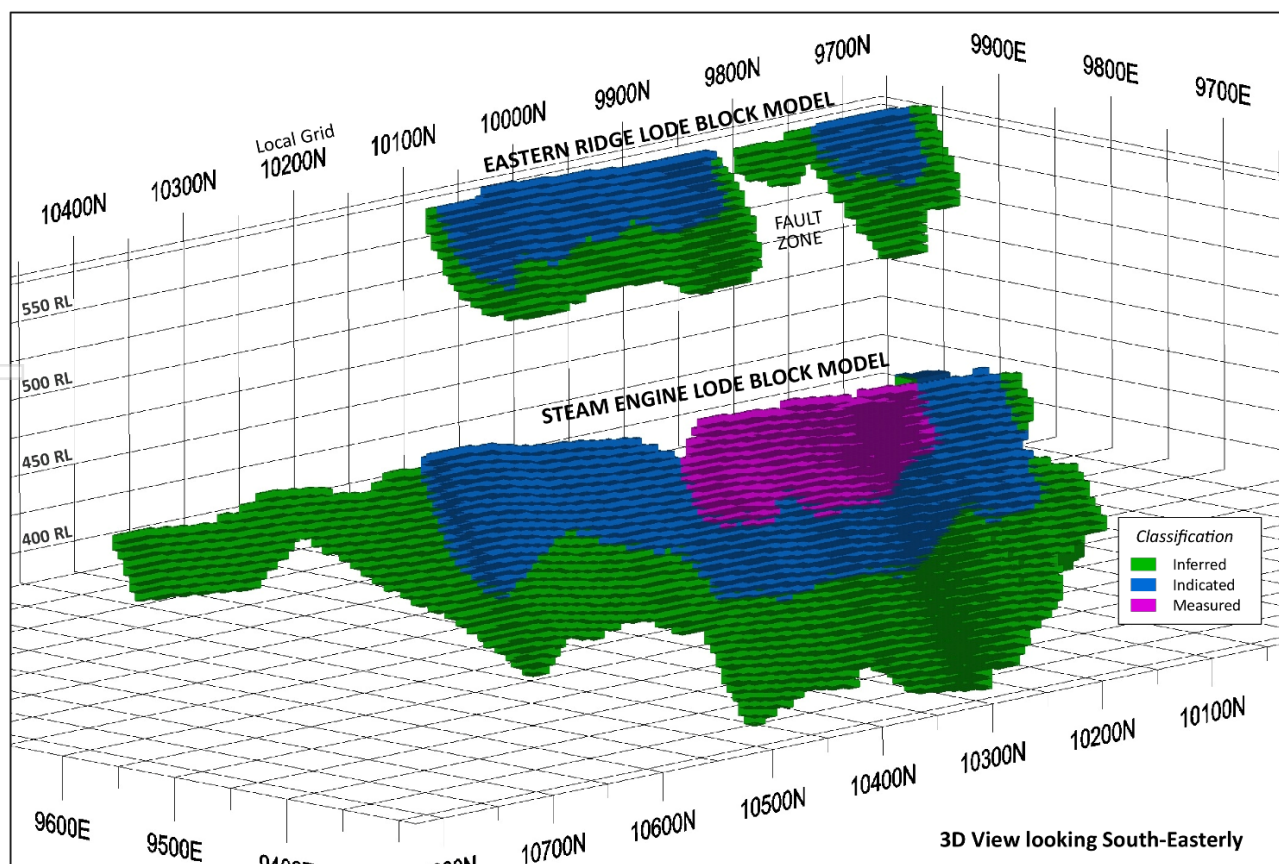


Figure 7. 3D oblique view of the Steam Engine and Eastern Ridge Block Models showing confidence level classifications.

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

Classification	Cut-off Grade (g/t Au)	Tonnes	Grade (g/t Au)	Au (ounces)
<b>Steam Engine (Main Zone)</b>				
Measured	0.5	240,000	2.6	20,000
Indicated	0.5	405,000	2.7	35,000
Inferred	0.5	620,000	2.0	40,000
<b>Steam Engine (Footwall Zone)</b>				
Indicated	0.5	60,000	1.8	3,000
Inferred	0.5	110,000	1.6	6,000
<b>Eastern Ridge</b>				
Indicated	0.5	145,000	2.0	9,000
Inferred	0.5	150,000	1.9	9,000
<b>TOTAL MINERAL RESOURCES @ 0.5 g/t Au cut-off (Steam Engine and Eastern Ridge Lodes)</b>				
Measured		240,000	2.6	20,000
Indicated		610,000	2.4	47,000
Inferred		880,000	1.9	55,000
<b>TOTAL MINERAL RESOURCES</b>		<b>1,730,000</b>	<b>2.2</b>	<b>122,000</b>

**Table 2. Comparison between May 2020 and March 2021 Mineral Resource estimates**

Classification	May 2020			Mar 2021			Comparison		
	Tonnes	Grade (g/t Au)	Gold (ounces)	Tonnes	Grade (g/t Au)	Gold (ounces)	Tonnes	Grade (g/t Au)	Gold (ounces)
<b>Steam Engine (Main Zone)</b>									
Measured	-	-	-	240,000	2.6	20,000	+ 100%	+ 100%	+ 100%
Indicated	370,000	2.5	30,000	405,000	2.7	35,000	+ 9%	+ 8%	+ 17%
Inferred	420,000	2.3	31,000	620,000	2.0	40,000	+ 48%	- 13%	+ 29%
<b>Steam Engine (Footwall Zone)</b>									
Indicated	-	-	-	60,000	1.8	3,000	+ 100%	+ 100%	+ 100%
Inferred	210,000	1.6	11,000	110,000	1.6	6,000	-48%	0%	-45%
<b>Eastern Ridge</b>									
Indicated	-	-	-	145,000	2.0	9,000	+ 100%	+ 100%	+ 100%
Inferred	270,000	2.7	23,000	150,000	1.9	9,000	- 44%	- 30%	- 61%
<b>TOTAL MINERAL RESOURCES @ 0.5 g/t Au cut-off</b>									
Measured	-	-	-	240,000	2.6	20,000	+ 100%	+ 100%	+ 100%
Indicated	370,000	2.5	30,000	610,000	2.4	47,000	+ 65%	- 4%	+ 57%
Inferred	900,000	2.2	64,000	880,000	1.9	55,000	- 2%	- 14%	- 14%
<b>TOTAL</b>	<b>1,270,000</b>	<b>2.3</b>	<b>94,000</b>	<b>1,730,000</b>	<b>2.2</b>	<b>122,000</b>	<b>+ 36%</b>	<b>- 4%</b>	<b>+ 30%</b>



## New Dinner Creek Lode

As a result of detailed geological mapping and rock chip sampling, an extensive zone of gold mineralisation was delineated approximately 900 metres to the east of the Eastern Ridge Lode. This zone of mineralisation has been named the Dinner Creek Lode (Figure 8).

Field geological observations noted that gold-bearing rock outcrops at the Dinner Creek Lode appear to be a similar rock unit with similar alteration style to the Steam Engine Lode. The Dinner Creek Lode is notably thicker at surface compared to the Steam Engine and Eastern Creek lodes and is potentially longer in strike length.

The Dinner Creek Lode has not been subjected to any modern or historical drilling, despite appearing at surface to be the longest and thickest lode zone.

A high priority maiden drilling program will commence immediately after the end of the current northern Australian monsoon season.

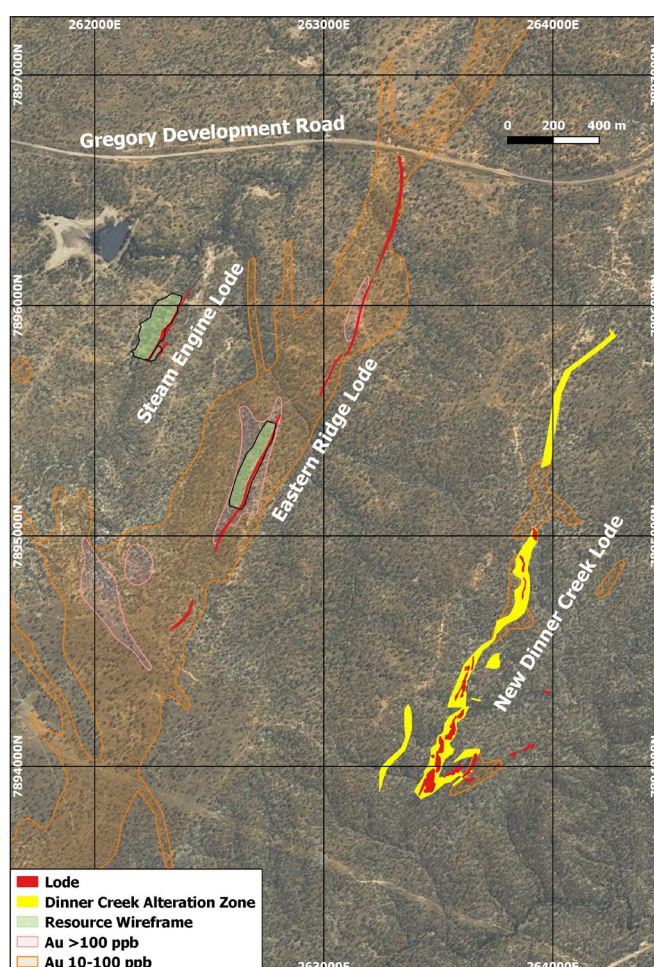


Figure 8. Steam Engine Gold Deposit lodes (in red and yellow) on satellite imagery. The May 2020 Mineral Resource wireframes (in light green) and gold in soil geochemistry is also shown.

## Rock Chip samples from Dinner Creek Lode

Rock chip samples taken from the alteration zone returned up to 7.6 g/t gold, which complements historically reported rock chip assays of 4.3 g/t and 3.6 g/t gold. The strongly brecciated zone has been mapped by the Company and is approximately 2 kilometres in strike length.

A sphalerite sample collected from the area was sent off to the CSIRO for lead isotope analysis and was reported by Pancontinental to be consistent with a primitive signature similar to that observed from the rocks hosting Cu-Au mineralisation in the Lachlan fold belt of NSW.

## BOTTLETREE COPPER PROSPECT (GREENVALE PROJECT)

The Bottletree Copper Prospect is a large, potential Tier-1 size copper-mineralised system. The system was originally identified by a 1km x 1km area of surface copper anomalism and copper mineralisation in outcrop.

Superior conducted a MIMDAS IP geophysical survey in 2018 over the general area of copper anomalism. 2D and 3D inversion modelling of the acquired resistivity and IP data identified a large chargeability anomaly. Deep diamond core drilling during 2018 returned significant broad intervals of visible copper mineralisation:

- **292m @ 0.22% Cu** (from 148m to 440m) (SBTRD006)<sup>6</sup>
  - incl **18.7m @ 1.12% Cu** (from 328m to 346.7m).

The 2018 drilling intersected the edges of the main IP chargeability target (Figures 9 and 10). The assay results indicate an apparent correlation between copper grade and the chargeability response. On this basis, the Company expects to encounter higher grade copper mineralisation within the main chargeable zone of the IP target.

Further modelling of the IP data during the reporting period confirmed and refined the previous model and enabled new drill holes to be planned for drilling during 2021.

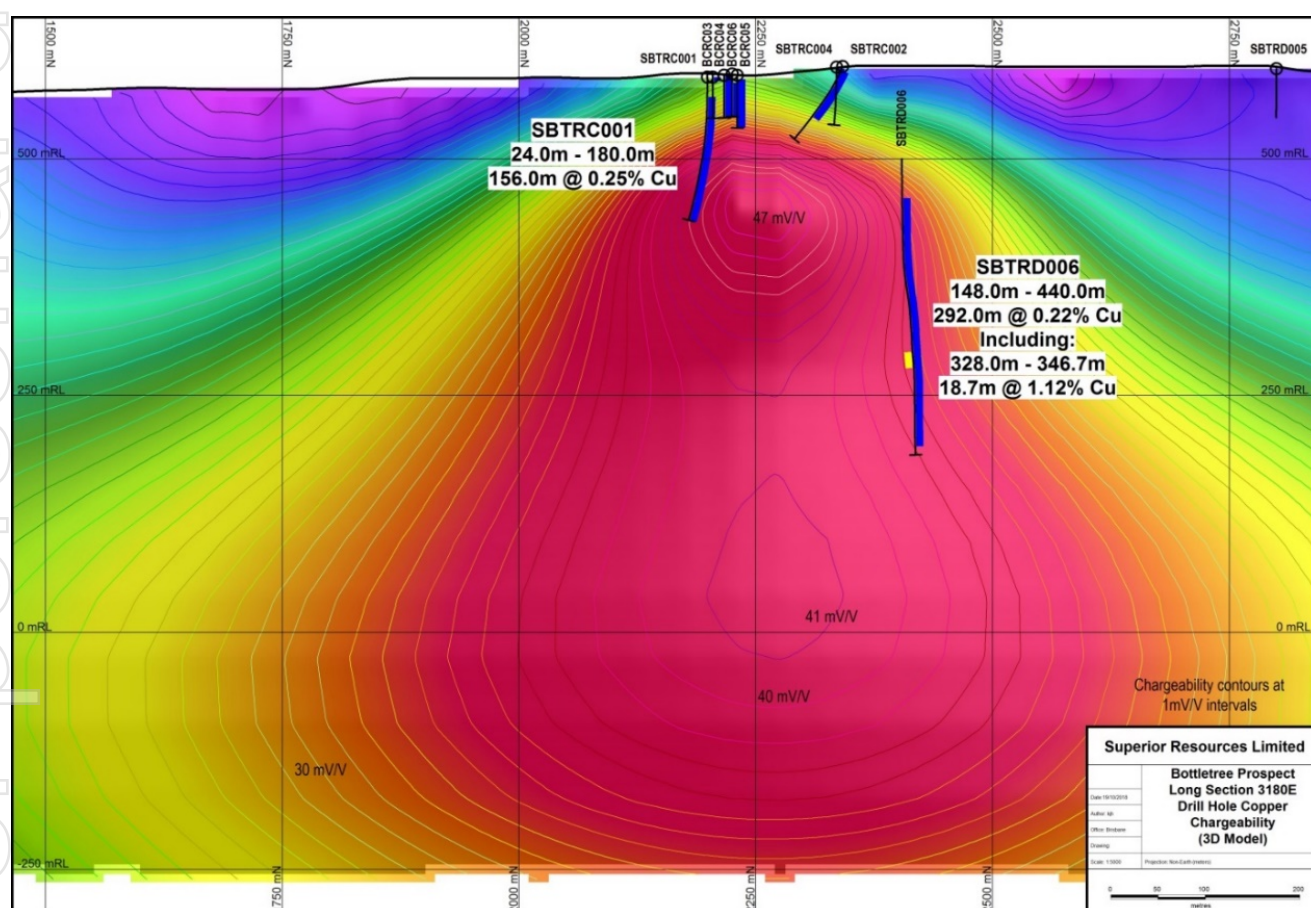


Figure 9. Bottletree long-section 3180E through hole SBTRD006 and other holes showing average copper intersections on a background image of chargeability from 3D modelling of MIMDAS IP survey data.

<sup>6</sup> Refer to ASX announcement dated 25 October 2018; Cut-off of 0.1% Cu but with some narrow intervals of less than 0.1% Cu included.



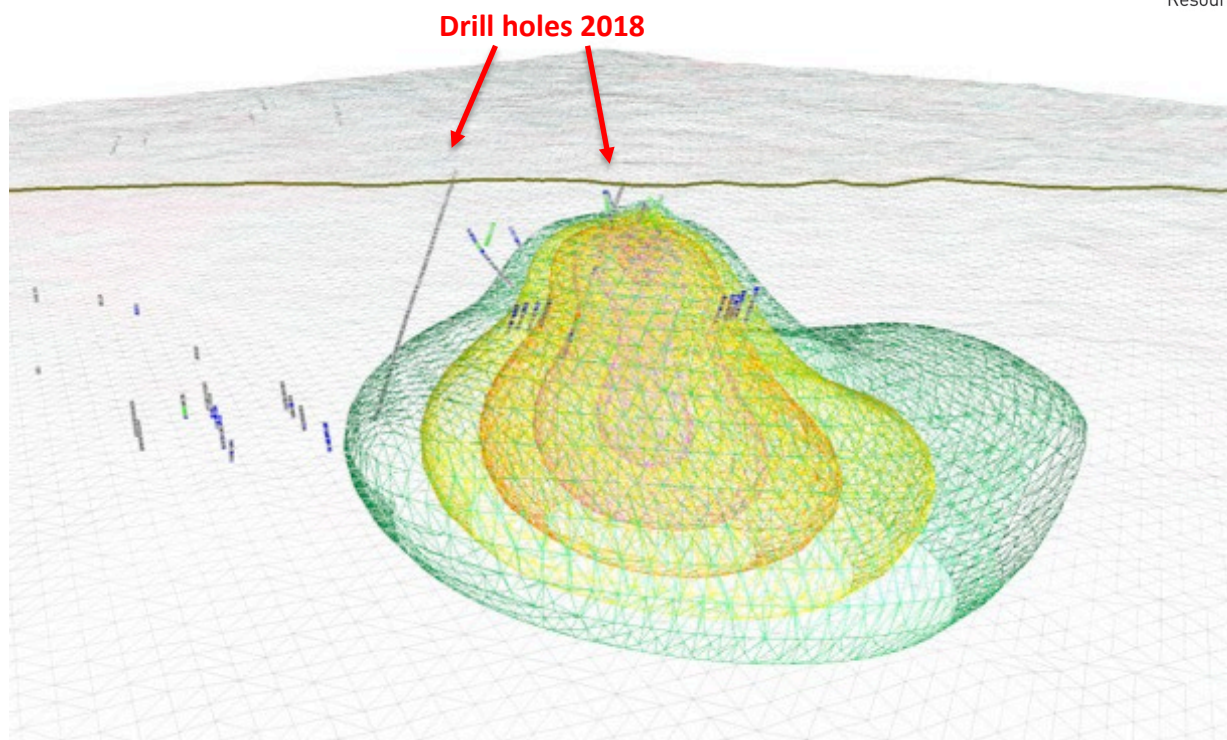


Figure 10. 3D modelling of Bottle tree MIMDAS IP survey results presented in wireframe, showing locations of 2018 drill holes SBTRD005 and SBTRD006.

### WYANDOTTE COPPER PROSPECT (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. A program of drilling and mining studies is planned to commence early in 2021.

### BIG MAG AND GREENVALE NICKEL POTENTIAL (GREENVALE PROJECT)

Desktop data review, land access preparations and initial exploration program planning was conducted during the Quarter on the Big Mag Prospect as well as the greater Greenvale Project area for its potential to host magmatic nickel sulphide deposits. The area has been a significant source of nickel production, notably at the Old Greenvale Nickel Mine which produced approximately \$6b nickel at current prices.

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.

Two new exploration permit for minerals applications were submitted (Dido and Arthur Range Projects) covering substantial areas that are prospective for Voisey’s Bay style magmatic nickel-copper-cobalt-PGE deposits (Figure 2).

## CORPORATE and COMMERCIAL

### INVESTMENTS

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

As at 31 March 2021, the Company held 74,244 DYL shares with a closing value of \$46,402.50.

#### 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 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 22 March 2021 (March Announcement). The Company confirms that it is not aware of any new information that materially affects the information provided in the March 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	Cockie South	EPM26165	Greenvale	100%	SPQ	Granted
QLD	Victor Extended	EPM26720	Victor	100%	SPQ	Granted
QLD	Twelve Mile Creek	EPM26751	Greenvale	100%	SPQ	Granted
QLD	Dido	EPM27754	Greenvale	100%	SPQ	Application
QLD	Arthur Range	EPM27755	Greenvale	100%	SPQ	Application

- 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