

Quarterly Report

30 September 2020

Registered Office:

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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).
- Phase 1 resource drilling program commenced during later July 2020.
- New potential fourth lode zone (Dinner Creek Lode) identified during reconnaissance rock chip sampling.

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 – 1,158,029,906 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 nickelcobalt 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



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 commenced during the June Quarter with the release of a revised and upgraded Mineral Resource Estimate (**MRE**).

Following on from the previous Quarter, a Phase 1 drilling program commenced during late July. This program was predominantly an infill resource drilling program for the purpose of upgrading the MRE to Measured and Indicated JORC (2012) confidence levels. A portion of the Phase 1 program was also designed to target high grade extensions to the gold lodes at the Steam Engine and Eastern Ridge Lodes and also to examine the potential of the Southern Zone of lodes.

UPGRADED MINERAL RESOURCE ESTIMATE (previous Quarter)

The Steam Engine Project MRE was expanded and upgraded to Indicated and Inferred (JORC 2012) and resulted in an approximate 11% increase in the in-situ gold Mineral Resource (Figures 1 and 2)¹. The total in-situ resources as of May 2020 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)².

¹ Refer to ASX announcement dated 4 May 2020 for information relating to the resource modelling and the generation of the wireframe and block models.

² Refer to ASX announcement dated 4 May 2020 for information relating to the upgraded Mineral Resource Estimate.





Figure 1. 3D view of Steam Engine Lode wireframe.



Figure 2. 3D view of Steam Engine Lode resource block model (open to the north and at depth).



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

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

Table 1. Steam Engine Gold Deposit Resource Table

PHASE 1 DRILLING PROGRAM

The Phase 1 resource drilling program commenced during late July 2020 and was completed on 18 September 2020. The program totalled 3,756 metres from 73 drill holes as follows:

- 65 reverse circulation (RC) drill holes for 3,059 metres;
- 6 shallow diamond core holes for 302 metres; and
- 2 deeper RC/diamond tailed drill holes for 395 metres.

All resource and exploratory holes intersected mineralised lode with the majority of intersections reporting high grade gold.

The Phase 1 program focussed on the shallow portions of the Steam Engine and Eastern Ridge lodes.

A range of typical intersections include³:

- 13m @ 2.4 g/t gold from 21m (SRC033)
 o incl 4m @ 3.9 g/t gold from 30m
- 6m @ 3.4 g/t gold from 48m (SRC036)
 o incl 1m @ 11.5 g/t gold from 48m
- 8m @ 3.6 g/t gold from 11m (SRC043) (Figure 4)
 o incl 2m @ 10.5 g/t gold from 17m
- 5m @ 4.1 g/t gold from 35m (SRC050)
 o incl 1m @ 12.7 g/t gold from 35m
- 6m @ 2.7 g/t gold from 71m (SRC047)
 o incl 2m @ 5.7 g/t gold from 73m

³ Refer to ASX Announcements 30 September 2020 and 15 October 2020 for the original reporting of the assay results.



- 5m @ 2.4 g/t gold from 75m (SRC046)
 - o incl **2m @ 5.0 g/t gold** from 77m.

A particularly high grade intersection (up to 47.5 g/t Au) was returned from one hole within a thicker part of the Steam Engine Lode (SRC034) (Figure 3)⁴:

- 14m @ 4.9 g/t gold from 0m (surface) (SRC034)
 - o incl 7m @ 9.2 g/t gold from 7m
 - o incl **1m @ 47.5 g/t gold** from 7m.

Approximately 30 percent of the total assays were yet to be received and reported on as at the date of this report.



Figure 3. Cross Section 10287.5 N (local grid) on the Steam Engine lode showing the significant intersections. Mineralisation and grade intersections are shown as colour-coded bars.

⁴ Refer to ASX Announcement 30 September 2020 for the original reporting of the assay results.





Figure 4: Cross Section 9875 N (local grid) on the Eastern Ridge lode. Mineralisation and grade intersections are shown as colour-coded bars.



POTENTIAL NEW LODE – DINNER CREEK LODE

Reconnaissance rock chip sampling of historically reported area of gold mineralisation during July identified a 1.2 kilometre long gossanous alteration zone located 1.2 kilometres to the east of the Eastern Ridge Lode (Figure 5). The alteration zone parallels the Steam Engine and Eastern Ridge lodes.

Rock chip samples taken from the alteration zone returned 7.6 g/t and 1.9 g/t gold, which complements historically reported rock chip assays of 4.3 g/t and 3.6 g/t gold (Figure 6).

The alteration zone potentially represents a newly recognised gold lode (Dinner Creek Lode) that is additional to the Steam Engine, Eastern Ridge and Southern Zone lodes.



Figure 5. Plan showing the location of the Dinner Creek Lode alteration zone relative to the drilled portions of the Steam Engine and Eastern Ridge lodes.





Figure 6. Plan showing the southern portion of the Dinner Creek Lode alteration zone and the locations and gold assay values (in g/t) of the recent rock chip samples. Historic rock chip samples including gold assay values (in g/t) are also shown.

Rock Chip samples from Dinner Creek Lode

The alteration zone is a gossanous, strongly brecciated zone within a zone of gossanous sericitic-quartz alteration that has previously been mapped by Pancontinental Resources during 1993 to 1994. This zone is located within the Eland Metavolcanics, some two kilometres south-east of the Steam Engine Lode zone and some 4 kilometres north of the Bottletree porphyry copper zone (Figure 5).



The strongly brecciated zone has been mapped by the Company and is approximately 40 metres by 20 metres in size (Figure 6).

A review of historic rock chip sampling by Pancontinental Resources Limited indicates that two of their previous rock chip samples returned assays of 4.3 g/t and 3.6 g/t gold along the zone of gossanous sericitic-quartz alteration (Figure 6).

Historic bleg soils carried out by Pancontinental Resources Limited during 1993 to 1994 have located anomalous areas (>5ppb gold) over a number of portions of the gossanous sericitic-quartz alteration. Investigations of these past assay locations and soil anomalies will be carried out to establish if they are also related to any zones of strong brecciation.

A sphalerite sample 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.

Follow-up work

The rock chip samples will be followed up shortly with a systematic program of rock chip sampling and field mapping. Depending on the results of this work, a program of drill-testing of the Dinner Creek Lode will be conducted to define the extent of mineralisation within the zone

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 historicallymapped surface lode that lies within a distinct gold soil anomalous zone extending over some 4 kilometres in length (Figure 7).

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 7, 8 and 9). The large Charters Towers gold deposit located about 200 kilometres south east of Steam Engine is a good example of such a system.

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 7 and 8). The high-grade corridor is supported by the identification of north west plunging high grade zones within the Steam Engine and Eastern Ridge Lodes. 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 7 and 9). This highgrade 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 7. Steam Engine Gold Deposit lodes over soil gold anomalies and conceptual corridors for high-grade ore shoots (refer ASX announcement dated 15 June 2020).





Figure 8. Potential high-grade ore shoot targets across the Steam Engine and Eastern Ridge lode zones (refer ASX announcement dated 15 June 2020).



Figure 9. Potential high-grade repetition ore shoot targets across the Southern Zone and Eastern Ridge Lode zones (refer ASX announcement dated 15 June 2020).



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 10).



Figure 10. Airborne magnetics (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.



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

CHANGE OF AUDITOR

During the Quarter, the Company conducted a tender process for the role of auditor to the Company. The Board resolved to appoint William Buck (Qld) as auditor of Superior Resources Limited.

INVESTMENTS

Superior maintains an exposure in relation to ASX listed entity, Deep Yellow Limited (ASX:DYL). As at 30 September 2020, the Company held 74,244 DYL shares with a closing value of \$23,386.86.

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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Further Information:

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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.

Forward looking statements: This document may contain forward looking statements. Forward looking statements are often, but not always, identified by the use of words such as "seek", "indicate", "target", "anticipate", "forecast", "believe", "plan", "estimate", "expect" and "intend" and statements that an event or result "may", "will", "should", "could" or "might" occur or be achieved and other similar expressions. Indications of, and interpretations on, future expected exploration results or technical outcomes, production, earnings, financial position and performance are also forward-looking statements. The forward-looking statements in this presentation are based on current interpretations, expectations, estimates, assumptions, forecasts and projections about Superior, Superior's projects and assets and the industry in which it operates as well as other factors that management believes to be relevant and reasonable in the circumstances at the date that such statements are made. The forward-looking statements are subject to technical, business, economic, competitive, political and social uncertainties and contingencies and may involve known and unknown risks and uncertainties. The forward-looking statements. All forward-looking statements are suplet by the core or implied by any forward-looking statements. All forward-looking statements are qualified by the foregoing cautionary statements.

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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

<u>Abbreviations</u>: EPM SPQ

Exploration Permit for Minerals, Queensland Superior Resources Limited