

# Strong drill results reinforce Steam Engine Mineral Resource

#### **HIGHLIGHTS:**

- First assays from Scoping Study Resource Drilling Program deliver consistent high grade, nearsurface results at Steam Engine and Eastern Ridge Lodes, including:
  - o 6m @ 4.4 g/t Au from 30m (SRC020)
    - incl **1m @ 9.8 g/t Au** from 30m
  - o 8m @ 2.6 g/t Au from 29m (SRC013)
    - incl 2m @ 7.0 g/t Au from 33m
  - o 8m @ 3.1 g/t Au from 17m (SRC018)
    - incl **3m @ 5.7 g/t Au** from 18m
  - 9m @ 3.1 g/t Au from 30m (SRC015)
    - incl **3m @ 4.1 g/t Au** from 33m
  - o 15m @ 2.3 g/t Au from 40m (SRC024)
    - incl 6m @ 4.1 g/t Au from 47m
  - o 5m @ 3.2 g/t Au from 14m (SRC007)
    - incl **2m @ 6.0 g/t Au** from 16m
  - o 7m @ 3.0 g/t Au from 62m (SRC026)
    - incl **3m @ 5.0 g/t Au** from 63m
  - o 6m @ 3.6 g/t Au from 27m (SRC019)
  - o **13m @ 2.0 g/t Au** from 29m (SRC022)
    - incl 4m @ 3.3 g/t Au from 30m
  - 16m @ 1.8 g/t Au from 18m (SRC032)
    - incl **5m @ 3.4 g/t Au** from 24m
- All holes returned significant gold mineralisation from Steam Engine and Eastern Ridge Lodes, reinforcing confidence in the Mineral Resource.
- Mineral Resource Estimate will be revised and released to market shortly after receipt of all assays, followed by results of the Scoping Study.
- Resource drilling program focussed on only 30% of at least 2.5 kms of outcropping lode strike and only to shallow depths. Mineralisation remains open along strike and down dip.
- Upcoming revised Mineral Resource Estimate expected to be upgraded from current 1.27 million tonnes @ 2.3 g/t gold (approximately 94,000 ounces) resource<sup>1</sup>.

**Superior Resources Limited (ASX:SPQ)** is pleased to announce the return of initial assays from the Resource Drilling Program at the Steam Engine Gold Deposit, located approximately 210 kilometers west of Townsville, Queensland.

<sup>&</sup>lt;sup>1</sup> Refer to ASX announcement dated 4 May 2020.

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The drilling has produced consistent high-grade mineralisation at both the Steam Engine and Eastern Ridge Lodes and confirms the current mineralisation model.

The first assays received are from 28 shallow reverse circulation (**RC**) drill holes for a total of 1,375 metres. To date, drilling at Steam Engine has reached 3,361 metres from 71 drill holes, which includes 65 RC holes for 3,059 metres and 6 diamond core holes for 302 metres. A combined total of approximately 3,500 metres of RC and diamond drilling is planned under the current extended program.

Commenting on the results, Managing Director, Peter Hwang said:

"With this initial batch of assays all returning excellent gold mineralisation from near surface, the near-term production potential of Steam Engine continues to build. The assay results further strengthen the current Mineral Resource and boosts our confidence for a positive Scoping Study. Based on visual observations during the drilling, we extended the program to give greater emphasis on expanding the near-surface Mineral Resource with holes along strike from the currently modelled Resource. So, our program is both a resource drilling program for the purpose of the Scoping Study and an exploratory program aimed at expanding the Mineral Resource."

"With mineralisation open along strike and down dip at both the Steam Engine and Eastern Ridge Lodes, there is obvious potential for growth. The current Mineral Resource Estimate is based on only 30 percent of at least 2.5 kilometres of outcropping lode strike and only includes near-surface mineralisation."

"Although the first batch of assays have taken longer than expected, we should see a regular flow of results going forward. In the meantime, we look forward to releasing a revised Mineral Resource Estimate after receipt of all assays and the results of a Scoping Study shortly afterwards."

### First assay results

The assay results from recent drilling at the Steam Engine and Eastern Ridge lodes are from a total of 28 reverse circulation drill holes totaling 1,375 metres (Figure 1). This includes:

- 16 RC drill holes for 926 metres from the Steam Engine Lode; and
- 12 RC drill holes for 449 metres from the Eastern Ridge Lode.

These holes have ranged in depth from 30 to 90 metres at the Steam Engine Lode and from 20 to 60 metres depth at the Eastern Ridge Lode.

The significant results of the assaying are set out in Table 1 and shows all the intersections into the Steam Engine and Eastern Ridge lodes. Drill hole collar locations and parameters are set out in Table 2.

A plan and a long section of the assay results from the Steam Engine Lode are shown in context with previous drilling intersections in Figures 2 and 3. A plan and a long section of the assay results from the Eastern Ridge Lode are shown in context with previous drilling intersections in Figures 4 and 5.

## The current drilling program

The current drilling forms part of a resource infill and extension drilling program for the purposes of a Scoping Study to examine the viability of mining the current Mineral Resource. The infill drilling is being carried out to improve the confidence levels of the shallower portions of the resource to Measured and Indicated JORC categories.

The original 2,500 metre program was recently extended to a number of new areas adjacent to the current Mineral Resource for the purpose of expanding the current Indicated and Inferred resource of 1.27 million tonnes at 2.3 g/t gold (Refer to ASX announcement dated 4 May 2020).

Drilling to date has reached 3,361 metres from 71 drill holes, with most samples still in the process of being assayed. This drilling includes:

• 65 RC drill holes totalling 3,059 metres; and



• 6 diamond core drill holes totalling 302 metres.

The additional RC drilling has targeted new areas that are of open pit potential at the northern end of Steam Engine lode, at the northern end of the Eastern Ridge lode, and at the Southern Zone to the south of the Eastern Ridge and Steam Engine lodes.

**Table 1.** Gold assay results of recent drill hole samples from Steam Engine and Eastern Ridge Lodes.

Fable 1. Gold assay  Hole ID		From	То	Interval (m)	Au (g/t)	Lode
TIOIE ID		(m)	(m)	interval (iii)	Au (g/t)	Loue
SRC001	1 1 1	16	21	5	2.9	Eastern Ridge
	Including	19	21	2	6.7	_
SRC002		33	38	5	1.5	Eastern Ridge
SRC003		12	15	3	0.7	Eastern Ridge
SRC004		23	26	3	1.1	Eastern Ridge
SRC005		7	9	2	1.0	Eastern Ridge
SRC006		20	23	3	8.0	Eastern Ridge
SRC007		14	19	5	3.2	Eastern Ridge
	Including	16	18	2	6.0	Ţ.
SRC008		29	32	3	1.4	Eastern Ridge
SRC009		6	11	5	1.8	Eastern Ridge
	Including	7	8	1	4.2	
SRC010		21	24	3	2.1	Eastern Ridge
SRC011		24	29	5	2.8	Eastern Ridge
01(0011	Including	26	27	1	7.4	Lasterrinage
SRC012		47	51	4	0.4	Eastern Ridge
SRC013		29	37	8	2.6	Steam Engine
3NC013	Including	33	35	2	7.0	Steam Engine
SDC015		30	39	9	3.1	Ota and Francisca
SRC015	Including	33	36	3	4.1	Steam Engine
000047		26	30	4	2.8	Steam Engine
SRC017	Including	29	30	1	6.6	
000040		17	25	8	3.1	0, 5
SRC018	Including	18	21	3	5.7	Steam Engine
SRC019		27	33	6	3.6	Steam Engine
000000		30	36	6	4.4	0, 5 ;
SRC020	Including	30	31	1	9.8	Steam Engine
SRC021		46	52	6	2.4	Steam Engine
		29	42	13	2.0	·
SRC022	Including	30	34	4	3.3	Steam Engine
00000		42	49	7	2.1	0, 5
SRC023	Including	46	47	1	5.2	Steam Engine
		40	55	15	2.3	
SRC024	Including	47	53	6	4.1	Steam Engine
0.00		43	50	7	2.0	- ·
SRC025	Including	44	45	1	5.1	Steam Engine
SRC026	, and the second	62	69	7	3.0	
	Including	63	67	4	4.8	Steam Engine
SRC027		41	43	2	0.7	Steam Engine
SRC028		28	30	2	1.5	Steam Engine
SRC030		20	38	17	1.0	Steam Engine
		18	34	16	1.8	
SRC032	Including					Steam Engine
	sidding	24	29	5	3.4	



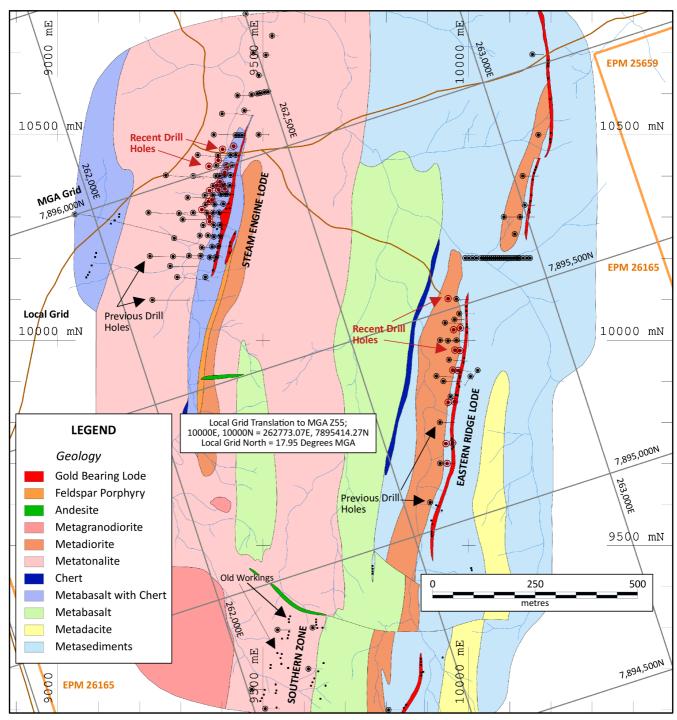


Figure 1. Plan showing the locations of the recently driled holes (in red) and previously drilled holes (in black) over background geology. The Steam Engine and Eastern Ridge gold-bearing lodes are shown in red.



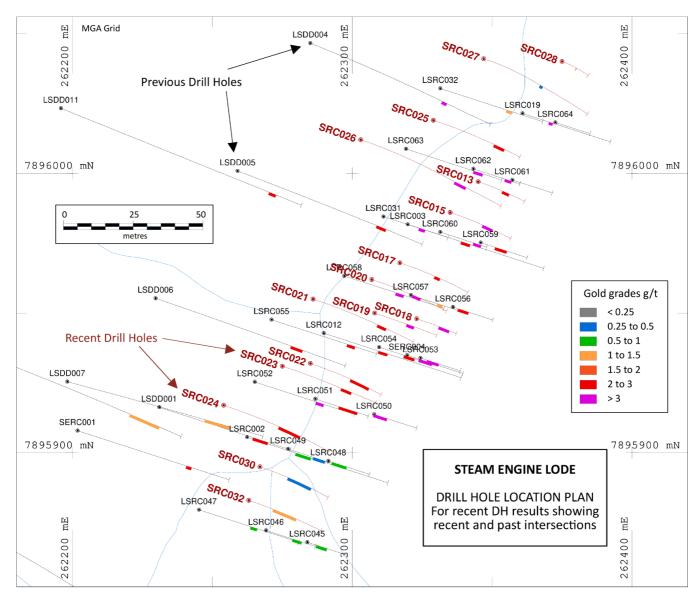


Figure 2. Plan showing locations and traces of recently drilled holes at the Steam Engine Lode. Mineralisation and grade intersections are shown as colour-coded bars.



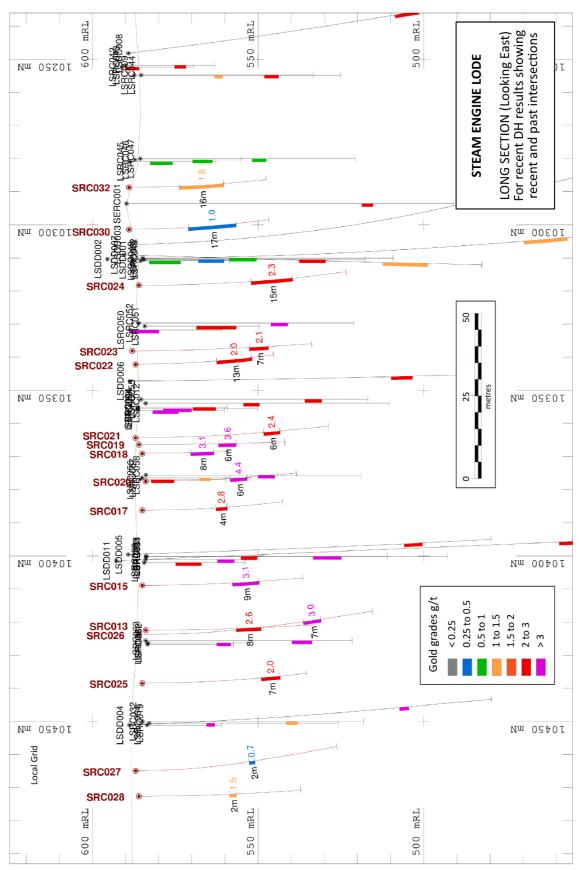


Figure 3. Long section showing locations and traces of recently drilled holes at the Steam Engine Lode. Mineralisation and grade intersections are shown as colour-coded bars.



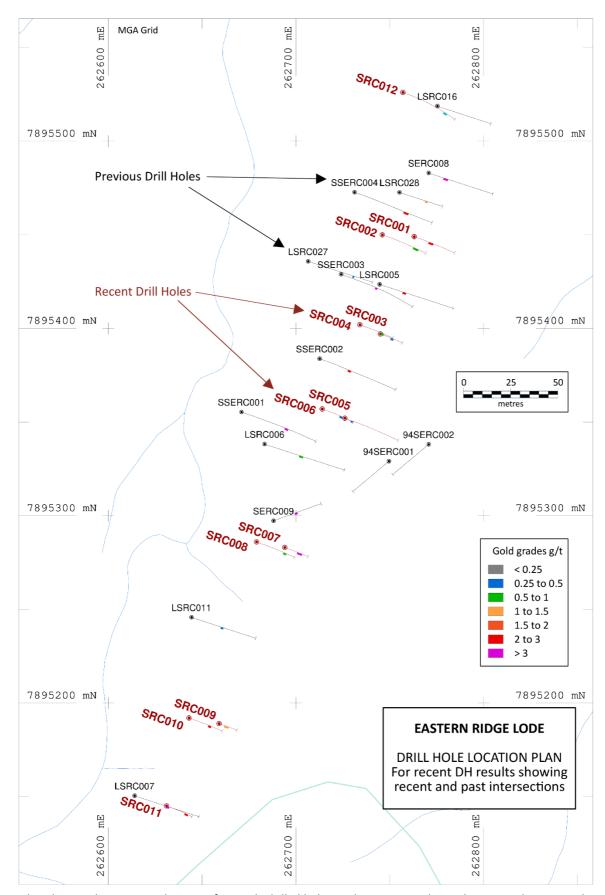


Figure 4. Plan showing locations and traces of recently drilled holes at the Eastern Ridge Lode. Mineralisation and grade intersections are shown as colour-coded bars.



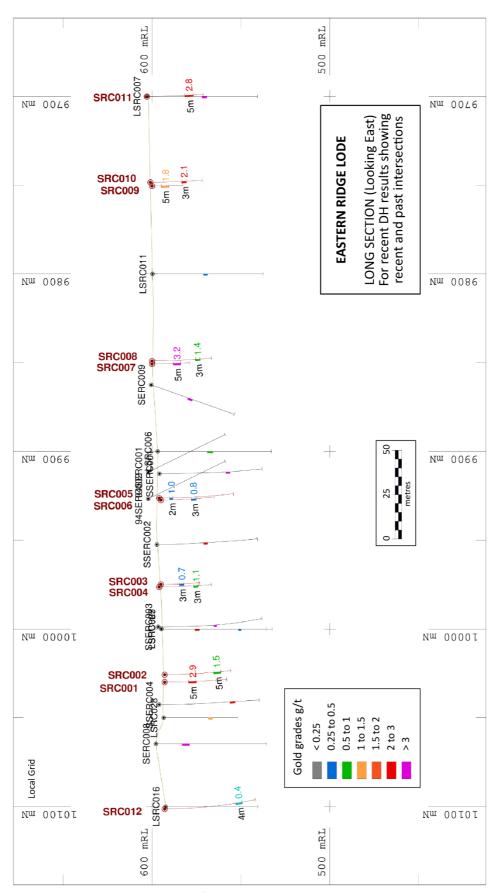


Figure 5. Long section showing locations and traces of recently drilled holes at the Eastern Ridge Lode. Mineralisation and grade intersections are shown as colour-coded bars.



**Table 2.** Collar details for the reported holes, MGA Zone 55.

	Easting	Northing	RL	Depth		<b>5</b> : 0
Holes	(m)	(m)	(m)	(m)	Azimuth <sup>o</sup>	Dip <sup>o</sup>
SRC001	262763	7895449	593	42	108	-60
SRC002	262746	7895450	593	45	108	-60
SRC003	262745	7895397	595	25	108	-60
SRC004	262734	7895402	596	35	108	-60
SRC005	262726	7895352	596	52	108	-60
SRC006	262714	7895357	595	35	108	-60
SRC007	262694	7895283	600	25	108	-60
SRC008	262679	7895286	600	40	108	-60
SRC009	262659	7895189	600	20	108	-60
SRC010	262643	7895192	601	35	108	-60
SRC011	262631	7895145	603	35	108	-60
SRC012	262757	7895526	593	60	108	-60
SRC013	262345	7895997	584	54	108	-72
SRC015	262335	7895986	585	54	108	-67
SRC017	262317	7895968	585	50	108	-60
SRC018	262323	7895948	585	30	108	-60
SRC019	262308	7895950	586	50	108	-65
SRC020	262307	7895962	584	54	108	-60
SRC021	262286	7895955	587	70	108	-60
SRC022	262285	7895932	587	50	108	-59
SRC023	262275	7895931	588	65	108	-60
SRC024	262254	7895917	586	75	108	-58
SRC025	262329	7896019	585	60	108	-60
SRC026	262303	7896012	586	90	108	-60
SRC027	262347	7896041	587	74	108	-60
SRC028	262375	7896040	586	50	108	-80
SRC030	262267	7895895	589	50	108	-60
SRC032	262263	7895883	589	50	108	-60

### <ENDS>

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#### **About Superior Resources Limited**

Superior Resources Limited (ASX:SPQ) is an Australian public company exploring for large lead-zinc-silver, copper, gold and nickel-copper-cobalt deposits in northern Queensland which have the potential to return maximum value growth for shareholders. The Company has a dominant exploration position within the Carpentaria Zinc Province and the Greenvale Ordovician rock sequences. The Carpentaria Zinc Province one of the world's richest mineral producing regions and the Company is focused on multiple Tier-1 equivalent exploration targets. At Greenvale, the Company holds ground covering the majority of the Ordovician sequences in the region, which includes at least three significant copper-gold porphyry and VMS prospects, an advancing high-grade gold deposit and a regionally large magmatic sulphide nickel-copper-cobalt prospect.

#### **About Greenvale Project**

The Greenvale Project covers a region of volcanic and intrusive rocks of Ordovician Age that are similar in type and age to the porphyry copper belt in New South Wales. The New South Wales belt of rocks host the large Cadia and North Parkes porphyry copper mines. The sequence of rocks in the Greenvale area are likely to be the northern-most extension of the remnant New South Wales Ordovician Macquarie Arc rocks.

Superior's Greenvale Project is highly prospective for VMS and porphyry copper, gold, zinc and silver deposits and contains at least ten mineral prospects. The project is located within an area of notable economic significance, being proximal to the Kidston, Balcooma, Surveyor and Dry River South deposits.

#### **About Steam Engine Gold Deposit**

The Steam Engine Gold Deposit is an extensive mesothermal gold lode system on which an Indicated and Inferred Mineral Resource Estimate of 1.27 million tonnes at 2.3 g/t for 94,000 ounces of gold has been established (refer ASX announcement 4 May 2020). The Resource has been modelled on only 30 percent of at least 2.5 kilometres of strike length of outcropping lode and only modelled to relatively shallow depths.

Currently, three gold lode zones have been identified: (1) the Steam Engine Lode; (2) the Eastern Ridge Lode; and (3) the Southern Zone of lodes. The deposit has the potential to contain significant greater tonnages high-grade gold ore shoots that may extend to significant depths. The mineralisation is hosted within structures that are sheared to a greater extent than many similar lode gold deposits, which increases the potential for significant thicknesses of gold lode mineralisation.

The Eastern Ridge Lode zone, being the longest lode structure, potentially represents the primary ore conduit. Although the lode has been mapped at surface to be at least 1.4 kilometres long, gold surface soil geochemistry indicates that the structure is closer to at least 4 kilometres long. Many shorter structures exist on the hanging wall side of the Eastern Ridge lode zone, such as the Steam Engine lode and numerous other zones have mainly only been identified from historic gold soil sampling.

Large portions of the world's economic deposits of gold are found in vein systems of this kind and they can hold impressive amounts of valuable ore. The veins and shoot zones typically can extend to significant depths with gold grades typically higher than other types of gold deposits.



**Reporting of Exploration Results and Mineral Resources:** The reporting of some exploration results in this report reflects information that was originally reported in market announcements as referenced in various parts of this report. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant original market announcement.

Other information contained in this report that relates to exploration results is based on information compiled by Mr Kevin Richter, an employee of Superior Resources Limited, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Richter has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking 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 Richter consents to the inclusion in this report of the matters based on his information in the form and context in which it appears Information contained in this report that relates to Exploration Activities 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 being undertaken 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**

## JORC Code, 2012 Edition – Table 1

## **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Drill holes are sampled and collected as 1m riffle-split samples. Approximately 1-3kg of sample was collected over each 1m interval.</li> <li>All samples are collected as drilled via a riffle splitter attached to the drill rig cyclone.</li> <li>The drill bit sizes used in the drilling were consistent in size and are considered appropriate to indicate the degree and extent of mineralisation.</li> <li>Sample intervals that lack metalliferous anomalism are not reported and are not considered to be material.</li> <li>1m representative samples of intervals with visible mineralisation and those in the area of interest based on previous drilling were assayed for gold at SGS laboratories in Townsville.</li> <li>1m samples at 0.5 g/t Au and above were also submitted for multi-element assaying using a four-acid digest.</li> <li>Assaying for gold was via fire assay of a 50 gram charge.</li> <li>Sample preparation at SGS laboratories in Townsville for all samples is considered to be of industry standard procedure.</li> </ul>
Drilling techniques	<ul> <li>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).</li> </ul>	<ul> <li>Drilling from surface was performed using standard Reverse-Circulation (RC) drilling techniques.</li> <li>Drilling was conducted by Associated Exploration Drillers (AED) using a UDR 650 drilling rig and 5.5 inch drill bit. Additional to the on-board air compressor of the drilling rig, additional compressed air was available as necessary via a separate booster truck.</li> <li>Sampling was by the use of a face-sampling hammer bit.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>All holes were surveyed using a Reflex Gyro north-seeking gyroscopic instrument to obtain accurate down-hole directional data.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	<ul> <li>Sample recovery was performed and monitored by Terra Search contractor and Superior Resources' representatives.</li> </ul>
	<ul> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and</li> </ul>	<ul> <li>The volume of sample collected for assay is considered to be representative of each 1m interval.</li> </ul>
	grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	<ul> <li>RC drill rod string delivered the sample to the rig-mounted cyclone which is sealed at the completion of each 1m interval. The riffle splitter is cleaned with compressed air at the end of each 1m interval and at the completion of each drill hole.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Geological logging was conducted during the drilling of each hole by a Terra Search geologist having sufficient qualification and experience for the mineralisation style expected and observed at each hole.</li> </ul>
		<ul> <li>All holes were logged in their entirety at 1m intervals. A spear was used to produce representative samples for logging.</li> </ul>
		<ul> <li>All logging data is digitally compiled and validated before entry into the Superior database.</li> </ul>
		The level of logging detail is considered appropriate for resource drilling.
		The RC Chip trays were photographed.
Sub-sampling techniques	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	<ul> <li>The sample collection methodology is considered appropriate for RC drilling and was conducted in accordance with standard industry practice.</li> </ul>
and sample preparation	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> </ul>	Split 1m samples are regarded as reliable and representative.
	• For all sample types, the nature, quality and appropriateness	RC samples are split with a riffle splitter at 1m intervals as drilled.
	<ul><li>of the sample preparation technique.</li><li>Quality control procedures adopted for all sub-sampling</li></ul>	Samples were collected as dry samples.
	stages to maximise representivity of samples.	Duplicate samples are taken and assayed in each batch processed for assaying.
	<ul> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> </ul>	<ul> <li>The sample sizes are considered appropriate to the style of mineralisation being assessed.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	
Quality of assay data and	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> </ul>	<ul> <li>All samples were submitted to SGS laboratories in Townsville for gold. Gold assays at or above 0.5 g/t were additionally assayed for a full suite of 38 additional elements using a four-acid digest.</li> </ul>
laboratory tests		<ul> <li>Samples were crushed, pulverised to ensure a minimum of 85% pulp material passing through 75 microns, then analysed for gold by fire assay method GO_FA50V10 using a 50 gram sample.</li> </ul>
	<ul> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether</li> </ul>	<ul> <li>Multi-element analyses were conducted on assays of 0.5 g/t gold or above using a four-acid digestion followed by an ICP-AES finish using method GO_ICP41Q100.</li> </ul>
	acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	• A sub-sample of each was also subject to multi-element analysis using four acid digest and ICP emission spectroscopy technique for the following 38 elements: Ag, Al, As, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cu, Fe, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Se, Sn, Sr, Te, Th, Ti, U, V, W, Y, Zn, Zr.
		<ul> <li>Gold and multi-element standards were included in the samples submitted to the laboratory for QAQC.</li> </ul>
		<ul> <li>Additionally, SGS used a series of its own standards, blanks, and duplicates for the QC of the elements assayed.</li> </ul>
Verification of sampling	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>The reported significant intersections have been verified by at least two Terra Search geologists against representative drill chips collected and the drill logs.</li> </ul>
and assaying		No holes were twinned.
		<ul> <li>Logs were recorded by Terra Search field geologists on hard copy sampling sheets which were entered into spreadsheets for merging into a central database.</li> </ul>
		<ul> <li>Laboratory assay files were merged directly into the database. The project geologists routinely validate data when loading into the database.</li> </ul>
		No adjustments to assay data were undertaken.
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and</li> </ul>	<ul> <li>Drill hole collars have been recorded in the field using handheld GPS with three metre or better accuracy. The collar locations have yet to be further defined using DGPS.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <li>other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Drill hole spacing and drilling technique are appropriate to establish the degree of geological and grade continuity of the mineral resources estimation procedures that will be applied. The mineralised system remains open and further infill and depth and strike extension drilling is required to confirm the full extent of the mineralisation.</li> </ul>
		The area is located within MGA Zone 55.
		<ul> <li>Topographic control is currently from previous DGPS pickup and RL adjusted contours.         This arrangement has been adequate to date, however further definition of the topography is planned using DGPS. This is to be carried out shortly.     </li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to</li> </ul>	<ul> <li>Drill hole spacing is variable at the Steam Engine area, due to different stages of resource evaluation at the project.</li> </ul>
	establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.  • Whether sample compositing has been applied.	<ul> <li>The drill hole spacing is sufficient in the central portions of the Steam Engine Lode and the Eastern Ridge Lode to allow estimation of resources when all the necessary information is compiled. The current exploration phase is not yet completed and an updated resource statement will be carried out at the completion of this current exploration phase.</li> </ul>
		<ul> <li>Most intersections reported in this report are weighted composites of smaller sample intervals, which is considered to be standard industry practice.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>The orientation of the drill holes is ideal for reporting of the intersection results.</li> <li>No orientation sample bias has been identified at this stage.</li> </ul>
Sample security	The measures taken to ensure sample security.	<ul> <li>Sub-samples selected for assaying were collected in heavy-duty polyweave bags which were immediately sealed.</li> </ul>
		<ul> <li>These bags were delivered directly to the SGS assay laboratory in Townsville by Terra Search and Superior Resources employees.</li> </ul>
		Sample security measures within SGS laboratories are considered adequate.



Criteria	JORC Code explanation	Commentary
Audits or	<ul> <li>The results of any audits or reviews of sampling techniques</li></ul>	<ul> <li>No audits or reviews of the sampling techniques and data have been undertaken to</li></ul>
reviews	and data.	date.

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>The areas reported on lie within Exploration Permit for Minerals 26165 which was granted on 30 January 2017. Superior holds much of the surrounding area under granted exploration permits.</li> <li>Superior has agreements or other appropriate arrangements in place with landholders and native title parties with respect to work in the area.</li> <li>No regulatory impediments affect the relevant tenements or the ability of Superior Resources to operate on the tenements.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>All historical drilling reported in this report has been completed and reported in accordance with their current regulatory regime.</li> <li>Compilation in digital form and interpretation of the results of that work in digital form has been completed by the Competent Person.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The Steam Engine and Eastern Ridge gold deposits are hosted within a shear zone.</li> <li>The gold mineralisation occurs within several north-northeast trending, west-dipping pyritic quartz-muscovite-carbonate schist lodes within metamorphosed intermediate to basic intrusives and metasediments.</li> <li>Several gold bearing lodes occur in the area, of which the Steam Engine Lode zone is the most notable. The Eastern Ridge Lode zone is located some 500m east of the Steam Engine Lode zone.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>The gold mineralisation occurs in lode zones and is thought to be of the mesothermal vein type. At least some of the shearing has occurred post mineralisation, along the plane of the mineralisation.</li> </ul>
		<ul> <li>The important features of the Steam Engine and Eastern Ridge lodes are their continuity and a persistent dip to the west.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	Drill hole collar tables with significant intersections are included in the main body of the announcement. These tables include information relevant to an understanding of the results reported.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Exploration results are reported as a length weighted average of all the assays of the intersections.</li> <li>No top cutting has been applied as there are a limited number of high-grade gold assays that influence the calculated intersection grades. This is a feature of the Steam Engine Gold Deposit.</li> <li>No metal equivalent values are reported.</li> </ul>
Relationship between mineralisatio n widths and	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported,</li> </ul>	• For the Steam Engine lode zone an interpreted westerly dip of approximately 50 to 60° and drill holes which generally dip to the east at around 60° (or less) result in near true widths at or above 0.87 times the intersection lengths as reported.



Criteria	JORC Code explanation	Commentary
intercept lengths	there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	<ul> <li>For the Eastern Ridge lode zone an interpreted westerly dip of approximately 40 to 50° and drill holes that generally dip to the east at around 60° (or less) result in true widths at or above 0.9 times the intersection lengths reported.</li> </ul>
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	f • Included.
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>Reporting of all reverse circulation drill holes with intersections on the Steam Engine and Eastern Ridge lodes at or above 0.4 g/t gold has been included in tables within the report.</li> </ul>
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	• None.
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> </ul>	<ul> <li>Additional assaying and drilling currently underway at the Steam Engine project to prove up most of the gold lode zone areas, within the optimised pit areas, to Measured and Indicated resources.</li> </ul>
	<ul> <li>Diagrams clearly highlighting the areas of possible extensions including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Much of the drilling is currently Reverse Circulation drilling to help reduce costs, but six Diamond Core drill holes have already been drilled, to allow for additional metallurgical, structural, and other geological studies. These diamond core drill holes are currently being cut for assaying purposes.</li> </ul>
		<ul> <li>The proposed first stage of this drilling has been designed to infill a significant portion of the Mineral Resources within the optimised pit shells. Other than the drilling program at least the following additional work programs are included:</li> </ul>
		- Metallurgical studies
		- Geotechnical studies



Criteria	JORC Code explanation	Commentary
		- Toll treating negotiations
		<ul> <li>Preliminary mining and rehabilitation planning</li> </ul>
		- Preliminary environmental studies
		<ul> <li>Additional holes have also been drilled to investigate other open-pitable areas, to the north of Steam Engine, to the north of Eastern Ridge, and in the Southern Zone (to the south of Eastern Ridge &amp; Steam Engine). These additional holes are now completed with samples being despatched for assay. Two additional diamond holes are being drilled down dip of the current Steam Engine Lode mineralisation to investigate deeper mineralisation potential at the Steam Engine Lode.</li> </ul>