

COMPLETION OF PHASE 2 DRILLING AT STEAM ENGINE GOLD PROJECT

Announcement

New footwall alteration zone discovered beyond planned hole depth at Steam Engine Lode

HIGHLIGHTS:

- Phase 2 RC drilling program successfully completed at Steam Engine with a total of 37 holes for approximately 2,700m (Total Phase 1 & Phase 2: 69 holes for 5,282m)
- Extension of one hole beyond planned end-of-hole depth resulted in the discovery of a new footwall alteration zone at northern end of Steam Engine Lode:
 - o at a previously untested position located 50m east of the main Steam Engine Lode
 - showing same characteristics as the main Steam Engine Lode with strongly mineralised quartz-sericite-pyrite schist and potentially represents a previously unknown gold lode to the east of Steam Engine
- Drilling at each target area intersected multiple stacked alteration zones, further reinforcing and extending the northern stacked lodes discovered during Phase 1
- Phase 2 program focussed on expanding open-pittable Resources by:
 - following up new gold shoot discoveries from Phase 1 program at northern ends of Steam Engine and Eastern Ridge lodes
 - o testing SAM geophysical targets at southern end of Eastern Ridge Lode
 - o conducting maiden drilling of Windmill East Lode
- Recently completed Scoping Study indicates substantial financial upsides with from modest increases in gold Resources: revision of Mineral Resource Estimate and financial model after receipt of all assays
- Feasibility Study work progressing, including ore beneficiation testing program, waste rock geochemical assessments and environmental studies
- Compelling Resource upside potential: current Mineral Resource calculated only to shallow vertical depths averaging 90m at Steam Engine Lode and 35m at Eastern Ridge Lode. Resource calculated along 1.2 kms of lode strike – at least 10 kms of additional untested lode potential identified by anomalous soil geochemistry and outcropping lode

Superior Resources Limited (**ASX:SPQ**) (**Superior**, the **Company**) is pleased to announce the completion of a Phase 2 drilling program at its 100% owned Steam Engine Gold Project (**Project**), where the Company is expediting the Project towards development.

Superior's Managing Director, Peter Hwang commented: "Although this year's drilling programs were aimed at achieving immediate upgrades to the recent Scoping Study financial outputs, the drilling has also resulted in significant Resource and geological developments.



"Prior to this year, the Project was always considered to be a simple lode deposit system comprising two discrete lodes and maybe a third at the Southern Zone Lodes. However, the discovery of multiple stacked lodes and completely new lode zones away from the main lodes shines a new light on the potential that we are beginning to see at Steam Engine.

"There appears to be gold lodes that may not extend to surface and the possibility of an en echelon system extending over the entire Project area is being considered. We are potentially seeing the start of some breakthroughs that could transform the scale of the Project.

"Nevertheless, at the same time we are expediting the development of the Project as an initial mining and toll treatment operation, with work on many of the key regulatory and operational components having commenced.

"Steam Engine is a fantastic gold project and being located amongst several porphyry copper-gold systems and within metres of highway and renewable energy infrastructure, the company and its shareholders are in an enviable position to realise substantial value potential going forward.

"We look forward to updating the market with results from numerous batches of drill samples and with progress on the Feasibility Study work units."

Snapshot – Developing Steam Engine Amongst Two Mineral Provinces

Steam Engine is a unique gold deposit located between several Tier 1-potential porphyry Cu-Au-Mo prospects and an under-explored magmatic sulphide Ni-Cu-PGE province within the Company's 100%-owned Greenvale Project in northeast Queensland (**Fig. 1**).

Resource definition drilling during 2020 and 2021 expanded the maiden Steam Engine Mineral Resource Estimate (**MRE**) from 1Mt @ 2.5g/t Au for 85,000oz to the current **4.18 Mt @ 1.5 g/t Au for 196,000oz Au¹** (**Fig. 2**). The Project presents substantial growth potential as the MRE is established to generally shallow depths over 1.2kms of at least 10kms of mineralised structure as indicated by soil geochemistry.

A recent Scoping Study² based on a gold price assumption of **A\$3,250**, resulted in financially and technically robust cases for both low CAPEX toll treatment and higher CAPEX stand-alone processing development scenarios, with pre-tax overall cash flows of approximately \$46M (Toll Treatment) and approximately \$71M (Stand-Alone Processing) and pre-tax NPVs (at 7% discount rate) of approximately \$38M (Toll Treatment) and approximately \$42M (Stand-Alone Processing).

The Company's strategy for Steam Engine is to achieve open-pit mining in the shortest timeframe by conducting parallel programs of Resource expansion and exploration drilling, a Feasibility Study and regulatory compliance processes for the grant of a mining lease.

¹ The current MRE of 4.18Mt @ 1.5g/t Au for 196,0000z Au is based on a cut-off grade of 0.25g/t Au and was established for the purpose of examining a stand-alone processing development scenario. The current MRE for a toll treatment scenario, based on a cut-off grade of 1.0g/t Au is 2.72 Mt @ 2.0 g/t Au for 171,000 oz Au. Refer to Appendix 1 for a more detailed statement of the MRE. Information in this report relating to Mineral Resource Estimates and associated block models is a summary of information contained in original ASX announcement: "*Material upgrade in Steam Engine Resource to 196,000 oz Au with 80.6% increase to Measured and Indicated categories*", dated 11 April 2022. The Company is not aware of any new information that materially affects the MRE as presented and all material assumptions and technical parameters underpinning the estimates in the original market announcement continue to apply and have not materially changed.

² Refer to original ASX announcement: "*Positive Steam Engine Gold Scoping Study*", dated 16 September 2024. The Company confirms that all the material assumptions underpinning the production target and the forecast financial information derived from the production target in the original ASX announcement continue to apply and have not materially changed.



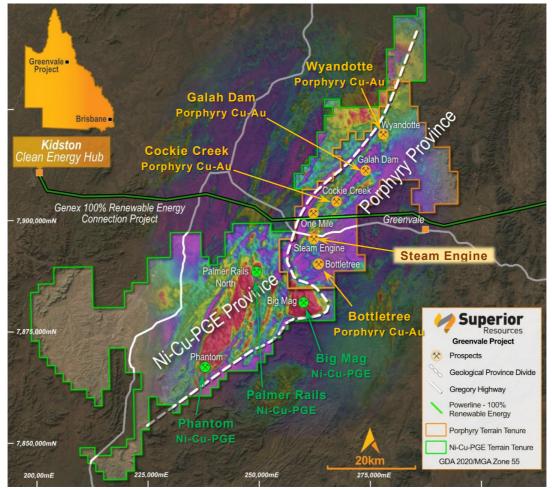


Figure 1. Regional aerial magnetics over the Greenvale Project area showing the newly recognised porphyry province (amber tenements) and the magmatic Ni-Cu-PGE sulphide province (tenements outlined in green). Steam Engine is located centrally between the two mineral provinces and adjacent to major power and road networks.

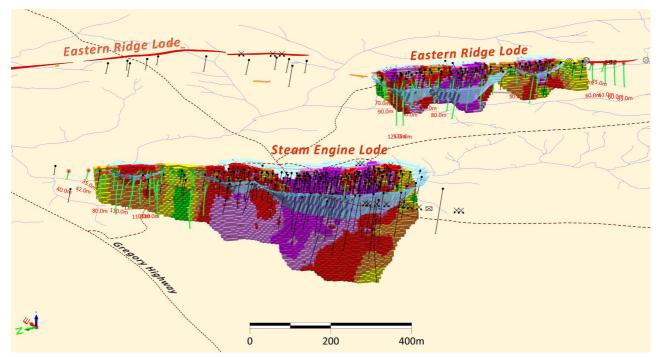


Figure 2. Oblique view of the Steam Engine and Eastern Ridge lodes showing the 2022 Mineral Resource block models, optimised pit shells and drill hole traces (2024 drill holes marked green and pre-2024 drill holes marked black). The Gregory Highway is shown in the foreground.



Phase 2 Drilling Program

The objective of the Phase 2 reverse-circulation (**RC**) drilling program was to expand shallow open-pittable Resources that would provide immediate uplifts to the economic outcomes from the Scoping Study financial modelling. A total of 37 RC holes for 2,668 metres was drilled in the Phase 2 program (**Fig. 3**). Total Phase 1 and Phase 2 drilling amounts to 69 RC holes for 5,282 metres (**Table 1**).

The specific targets in the Phase 2 program were as follows:

- following up new gold shoot discoveries from the recently completed Phase 1 program at the northern ends of the Steam Engine and Eastern Ridge lodes³;
- sub-audio magnetic (SAM) geophysical targets at southern end of Eastern Ridge Lode; and
- maiden drill testing of Windmill East Lode.

Steam Engine	Eastern Ridge	Windmill East	Ualaa	
		Windinin Last	Holes	Metres
	Phase 1			
16	16	-	22	2 614
1,230	1,384	-	32	2,614
Phase 2				
16	16	5	77	2 (()
1,222	1,201	245	5/	2,668
		TOTAL	69	5,282
	1,230 16	16 16 1,230 1,384 Phase 2 16 16	16 16 - 1,230 1,384 - Phase 2 16 16 5 1,222 1,201 245	16 16 - 32 1,230 1,384 - 32 Phase 2 16 16 5 37 1,222 1,201 245 37

Table 1. 2024 Steam Engine Gold Project RC Drilling Summary

NEW FOOTWALL ALTERATION ZONE

As a result of increasing intensities of alteration observed near the planned end of hole **SRC235** at the northern end of the Steam Engine Lode, the hole was extended by a further 15 metres. This resulted in the intersection of a 10-metre alteration zone containing strong pyrite mineralisation at a location that is about 60 metres to the east of the main Steam Engine Lode (Fig. 4).

This observation is highly significant as no prior drilling has investigated so far to the east of the Steam Engine Lode. The alteration zone shows the same characteristics as the main Steam Engine Lode and is considered to represent a new and potentially significant gold lode. The existence of a significant new gold lode at this position would have the potential to change the scale of the project.

Subject to assay confirmation of the presence of gold mineralisation, an extensive follow-up drilling program will be conducted.

MULTIPLE STACKED ALTERATION ZONES

The significant development of multiple stacked alteration zones that were observed in the Phase 1 program holes continued in the Phase 2 program with several holes at the northern ends of each of the Steam Engine and Eastern Ridge lodes intersecting greater numbers of such zones (**Figs. 3, 5 and 6**).

The alteration zones are typically characterised by schistose quartz-sericite-pyrite mineralisation within phyllic alteration.

The presence of the alteration zones is considered positive as any gold mineralisation would be contained within these zones. The development of multiple alteration zones is also considered positive as it may

³ Refer to ASX announcements dated 23 September 2024 and 3 October 2024.



indicate a potential strengthening of the mineralising system or a complex strain zone that may develop into a greater volume of bulk mineralisation.

SOUTHERN END OF EASTERN RIDGE LODE AND WINDMILL EAST LODE

Phase 2 drilling at the southern end of the Eastern Ridge Lode targeted historical workings comprising old prospectors' pits and small shafts and part of an intense SAM anomaly (**Fig. 3**).

A total of 6 RC holes were drilled with each intersecting broad zones of quartz-sericite-pyrite alteration.

Maiden drilling at Windmill East comprising 5 holes successfully intersected the zone of interest in each of the holes. Broad zones of alteration containing pyrite mineralisation was also observed.

Synopsis

The Phase 2 program was highly successful, resulting in the discovery of a potentially significant new lode zone at a new location to the east of the main Steam Engine Lode, increasing complexity of alteration at the northern ends of each of the two main lodes as well as significant alteration at the southern end of the Eastern Ridge Lode and the new Windmill East Lode.

Although gold mineralisation at the Project is predominantly restricted to the quartz-sericite-pyrite alteration zones, the existence of an alteration zone does not confirm the presence of gold mineralisation. Gold mineralisation and the grade of mineralisation can only be confirmed by the results of laboratory assaying of drill samples.

The Company nevertheless considers the above observations to be highly significant.

Sample Assay Status

As at 12 November 2024, a total of 1,764 drill samples delivered in nine batches have been received by SGS Laboratories in Townsville. This represents approximately one-third of the total number of samples collected from the Phase 2 program.

The Company has been informed by SGS that the first batch of assays is expected to be delivered on 22 November 2024. Subsequent batches of assays are expected to be received on a weekly or basis over the next three months.

Next Steps

The following sets out the key activities planned to be conducted on the Project, most of which are expected to be reportable to the market:

- 1. Receipt and analysis of the first batch of sample assay results;
- 2. Complete interpretation of **SAM survey data** together with inversion modelling of ground magnetics data;
- 3. Mineral Resource upgrade;
- 4. Financial modelling upgrade; and
- 5. Continue **Feasibility Study** work units, including native title and mining lease application process; and
- 6. Subject to funding, continue exploration drilling programs.



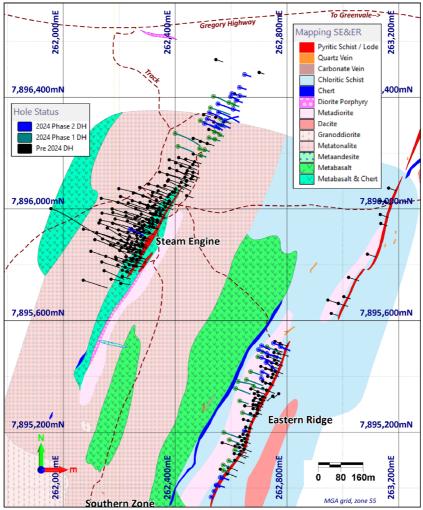


Figure 3. Map of part of the Steam Engine and Eastern Ridge lodes showing surface geology, lode outcrops (red), reported Phase 1 drill holes (in green) and Phase 2 drill holes (in blue). Pre-2024 drill holes are shown in black.

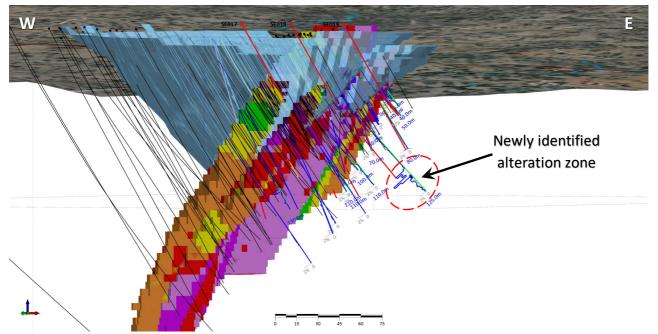


Figure 4. Oblique sectional view of the Steam Engine Lode, viewed from below surface from the southern end of the lode and looking north-northeast. The lode is represented by a grade-coded block model and optimised pits are shown in light blue. Phase 2 drill holes are shown as light green traces with blue alteration histograms. Note the newly identified alteration zone located approximately 60m east of the main Steam Engine Lode.



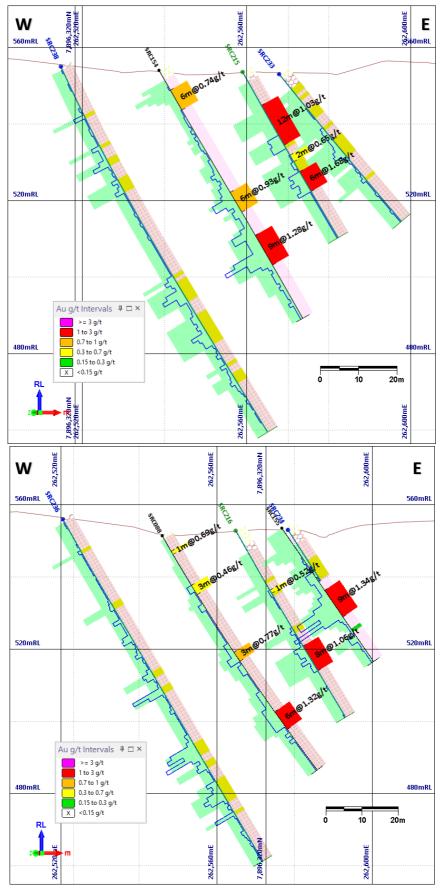


Figure 5. Cross sections showing Phase 2 drill holes (in blue) SRC233, SRC238 and SRC234, SRC236 at the northern end of the Steam Engine Lode. Also shown are Phase 1 holes (in green) and pre-2024 holes (in black) (Refer to ASX announcements dated 23 September 2024 and 3 October 2024). Sericite alteration (light green histograms) and pyrite mineralisation (blue histograms) are shown along the left side of drill hole traces.



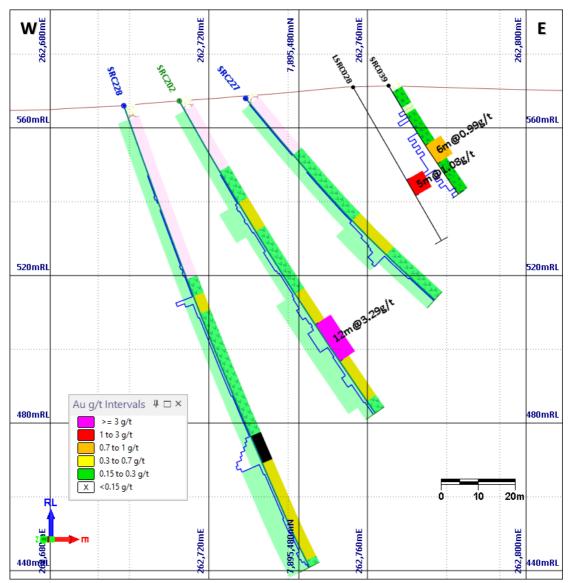


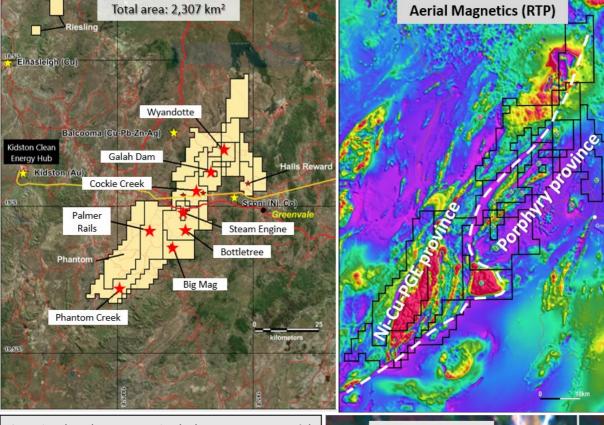
Figure 6. Cross section showing Phase 2 drill holes (in blue) SRC227 and SRC228 at the northern end of the Eastern Ridge Lode. Also shown are Phase 1 holes (in green) and pre-2024 holes (in black) (Refer to ASX announcements dated 23 September 2024 and 3 October 2024). Sericite alteration (light green histograms) and pyrite mineralisation (blue histograms) are shown along the left side of drill hole traces.

Approved for release by the Board of Directors

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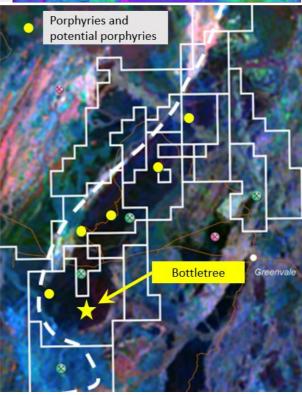
Greenvale – Juxtaposed porphyry and magmatic Ni-Cu-PGE sulphide provinces

Superior has long recognised the copper potential within the Lucky Creek Corridor. However, recent exploration drilling at Bottletree, coupled with regional geological investigations over several years has enabled the characterisation of the Lucky Creek Corridor as a fossil island arc porphyry province, hosting numerous porphyry and potential porphyry systems recurring along a 50 km zone.

Superior is taking the lead with Tier-1 potential coppergold porphyry exploration in this part of Australia.

Juxtaposed against the Greenvale Porphyry Province is a second province formed by a completely different geological genesis model. Originally formed at a much deeper crustal level, the Greenvale Magmatic Nickel-Copper-PGE Sulphide Province has been technically proven in terms of the presence of such mineralising systems. However, the province remains practically unexplored.

Superior enjoys a first mover advantage over the entire province, which presents as one of the best sulphide Ni-Cu-PGE propositions in Australia.





About Superior

Superior Resources Limited (ASX:SPQ) is an Australian public company exploring for large copper, nickel-copper-cobalt-PGE, lead-zinc-silver and gold deposits in northern Queensland, which have the potential to return maximum value growth for shareholders. The Company is focused on multiple Tier-1 equivalent exploration targets and has a dominant position within the Carpentaria Zinc Province in NW Qld and Ordovician rock belts in NE Qld considered to be equivalents of the NSW Macquarie Arc.

For more information, please visit our website at <u>www.superiorresources.com.au</u>.

Reporting of Exploration Results: Information contained in this report that relates to the reporting of Steam Engine Gold Project exploration results is based on information compiled by Mr Kevin Richter who is a full-time employee of Superior Resources Limited. Mr Richter is a Member of the Australasian Institute of Mining and Metallurgy and 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. Other information contained in this report relating to Exploration Results, Mineral Resource Estimations, Scoping Study outcomes and exploration interpretations reflect information that has been previously reported in ASX market announcements as referenced within this report.

Information in this report relating to the Steam Engine Gold Project 2024 Scoping Study is a summary of information contained in original ASX announcement: "Positive Steam Engine Gold Scoping Study", dated 16 September 2024. Information in this report relating to Mineral Resource Estimates (MRE) and associated block models is a summary of information contained in original ASX announcement: "Material upgrade in Steam Engine Resource to 196,000 oz Au with 80.6% increase to Measured and Indicated categories", dated 11 April 2022. The Competent Person relevant to the original ASX announcement is Mr Kevin Richter. The Company is not aware of any new information that materially affects the MRE as presented and all material assumptions and technical parameters underpinning the estimates in the original market announcement continue to apply and have not materially changed.

Reliance on previously reported information: Information contained in this report relating to the findings and outcomes of the Company's 2024 Scoping Study is provided on the basis of material assumptions that applied at the time of the original reporting of the Scoping Study. The Company confirms that all the material assumptions underpinning the production target and the forecast financial information derived from the production target in the original ASX announcement continue to apply and have not materially changed.

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 may prove to be incorrect. Many known and unknown factors could cause actual events or results to differ materially from the estimated or anticipated events or results expressed or implied by any forward-looking statements. All forward-looking statements made in this presentation are qualified by the foregoing cautionary statements.

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APPENDIX 1

STEAM ENGINE GOLD PROJECT MINERAL RESOURCE STATEMENT

Model	Classification	Tonnes	Grade (g/t Au)	Ounces (Au)
STAND-ALONE PROCESSING	MEASURED	800,000	2.1	53,000
MODEL	INDICATED	1,420,000	1.5	68,000
(0.25 g/t Au block grade cut-off)	INFERRED	1,960,000	1.2	75,000
TOTAL	TOTAL		1.5	196,000
	MEASURED	590,000	2.6	49,000
TOLL TREATMENT MODEL (1.0 g/t Au block grade cut-off)	INDICATED	1,020,000	1.9	62,000
	INFERRED	1,110,000	1.7	60,000
TOTAL		2,720,000	2.0	171,000

Refer to ASX announcement: "Material upgrade in Steam Engine Resource to 196,000 oz Au with 80.6% increase to Measured and Indicated categories", dated 11 April 2022.

Holes	Easting (m)	Northing (m)	RL (m)	Depth (m)	Dip°	Azimuth ^o
SRC190	262592	7895098	578	50	-70	108
SRC191	262613	7895136	576	55	-60	108
SRC192	262594	7895173	573	75	-60	108
SRC193	262574	7895199	575	109	-60	108
SRC194	262641	7895270	571	80	-60	108
SRC195	262631	7895312	573	100	-70	108
SRC196	262616	7895357	574	110	-61	109
SRC197	262625	7895382	573	130	-61	103
SRC198	262655	7895388	569	120	-61	108
SRC199	262680	7895364	569	75	-61	107
SRC200	262670	7895417	567	85	-61	108
SRC201	262696	7895470	567	105	-61	107
SRC202	262711	7895488	567	100	-61	110
SRC203	262728	7895506	568	95	-61	109
SRC204	262572	7895083	577	50	-62	107
SRC205	262573	7895063	580	45	-61	109

REPORTED DRILL HOLE COLLAR DETAILS

Note: Locations reported are in MGA Zone 55. Location information is derived from GPS and not DGPS data.



APPENDIX 2

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	 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. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. 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. 	 Reverse Circulation (RC) drill samples are collected as drilled via a riffle splitter attached to the drill rig cyclone and collected as 1m riffle split samples. Approximately 1-3kg of sample was collected over each 1m interval used for assaying. The drill bit sizes used in the drilling were consistent in size and are considered appropriate to indicate the degree and extent of mineralisation. 1m representative samples were assayed for gold at SGS Laboratories in Townsville. Assaying for gold was via fire assay of a 50-gram charge. Samples of the gold mineralisation over 0.1g/t Au were also submitted for multielement assaying using a four-acid digest. The sample preparation was conducted by SGS Laboratories in Townsville for all 2024 samples.
Drilling techniques	 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.). 	 Drilling from surface was performed using standard RC drilling techniques as applicable to the hole drilled. RC Drilling was conducted by AED (Associated Exploration Drillers) using a Schramm 660 drilling rig with a 5.5 inch drill bit. Additional to the on-board air compressor of the drilling rig being used, additional compressed air was available as necessary via a separate booster compressor. Sampling was by the use of a face-sampling hammer bit. All holes were surveyed using a Reflex Gyro north-seeking gyroscopic instrument to



Criteria	JORC Code explanation	Commentary
		obtain accurate down-hole directional data.
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. 	• Sample recovery was performed and monitored by a Pinata contractor and Superior's representatives.
	 Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and 	• The volume of sample collected for assay is considered to be representative of each 1m interval.
	grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	• 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.
		• No relationship is evident between sample recovery and grade.
Logging	 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 	• Geological logging was conducted during the drilling of each hole by a Pinata geologist having sufficient qualification and experience for the mineralisation style expected and observed at each hole.
	 metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. The total length and percentage of the relevant intersections logged. 	• All holes were logged in their entirety at 1m intervals for the RC drill holes. A spear was used to produce representative samples for the logging of RC holes.
		 All logging data is digitally compiled and validated before entry into Superior's database.
		• The level of logging detail is considered appropriate for Resource drilling.
		• The RC chip trays were all photographed.
Sub-sampling techniques	 If core, whether cut or sawn and whether quarter, half or all core taken. 	• The sample collection methodology is considered appropriate for RC drilling and was conducted in accordance with standard industry practice.
and sample preparation	 If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling 	• RC drill hole samples are split with a riffle splitter at 1m intervals as drilled. Split 1 metre samples are regarded as reliable and representative. Approximately 1-3kg of sample was collected over each 1m interval. Samples were collected as dry samples. Duplicate samples are taken and assayed in each batch processed for assaying.
	 Guarry control procedures dapped for an sub sumpring stages to maximise representivity of samples. 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. Whether sample sizes are appropriate to the grain size of the 	 The sample sizes are considered appropriate to the style of mineralisation being assessed.



Criteria	JORC Code explanation	Commentary
	material being sampled.	
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. 	 All samples were submitted to SGS Laboratories in Townsville for gold. Samples of the gold mineralisation above 0.1g/t Au were also submitted for multi-element assaying using a four-acid digest.
	 For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, 	 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.
	 calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether 	 Multi-element analyses were conducted on the gold mineralisation using a four-acid digestion followed by an ICP-OES/MS finish using method GO_ICP41Q100.
	acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	 The following 35 elements were assayed: Ag, Al, As, Ba, Bi, Ca, Ce, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Se, Sn, Sr, Te, Th, Tl, Ti, U, V, W, Zn and Zr.
		 Certified gold, multi-element standards and blanks were included in the samples submitted to the laboratories for QAQC. Laboratory assay results for these quality control samples are within 5% of accepted values.
		 Additionally, the laboratories used a series of their own standards, blanks, and duplicates for the QC of the elements assayed.
Verification of sampling andThe verification of significant intersections by either independent or alternative company personnel.	independent or alternative company personnel.	 The reported significant intersections have been verified by Pinata and Superior geologists against the representative drill chips collected and the drill logs.
assaying	 The use of twinned holes. Documentation of primary data, data entry procedures, data 	No holes drilled by Superior were twinned.
	 Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 Logs were recorded by Pinata field geologists on hard copy sampling sheets which were entered into spreadsheets for merging into a central database.
		Laboratory assay files were merged directly into the database.
		The data is routinely validated when loading into the database.
		No adjustments to assay data were undertaken.
data points (collar and down-hole surveys), trenches, mine work	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	• Drill hole collars have been recorded in the field using handheld GPS with three metre or better accuracy. The locations will be further defined later this year using DGPS to give sub one metre accuracy.
		• The drill hole spacing and drilling technique are appropriate to establish the degree of geological and grade continuity for the Mineral Resource estimation procedures that



Criteria	JORC Code explanation	Commentary
		have been applied. The gold mineralised system remains open and further infill, depth and strike extension drilling is required to confirm the full extent of the ore bodies.
		• The area is located within MGA Zone 55.
		 Topographic control is currently from DGPS pickup that has been merged with RL adjusted contours. This arrangement will be upgraded prior to any possible mining when further definition of the topography would be needed (e.g. a LIDAR survey).
Data spacing and	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to 	• Drill hole spacing is variable at the Steam Engine Project area, due to the different stages of Resource evaluation at the Project.
appropriat estimation	 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. 	 The drill hole spacing is sufficient in the central portions of the Steam Engine and Eastern Ridge lodes to allow estimation of Resources when all the necessary information is compiled.
		 Most intersections reported in this report are weighted composites of smaller sample intervals as is standard practice.
Orientation of data in	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is	 The orientation of the drill holes is generally ideal for reporting of the intersection results.
relation to geological structure	<i>ical</i> • If the relationship between the drilling orientation and the	 No orientation sample bias has been identified at this stage.
Sample security	The measures taken to ensure sample security.	• Sub-samples selected for assaying were collected in heavy-duty polyweave bags which were immediately sealed.
		 These bags were delivered directly to SGS Laboratories by Terra Search contractor employees.
		• Sample security measures within SGS Laboratories are considered adequate.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	 No audits or reviews of the sampling techniques and data have been undertaken to date.



Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
tenement and agreements or material issues with third parties such as joint	• The areas reported lie within Exploration Permit for Minerals 26165 and is held 100% by Superior.	
land tenure status	ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental	• Superior holds much of the surrounding area under granted exploration permits.
	settings. The security of the tenure held at the time of reporting along 	• Superior has agreements or other appropriate arrangements in place with landholders and native title parties with respect to work in the area.
	with any known impediments to obtaining a licence to operate in the area.	 No regulatory impediments affect the relevant tenements or the ability of Superior to operate on the tenements.
Exploration done by other	• Acknowledgment and appraisal of exploration by other parties.	• All historic drilling reported in this report has been completed and reported in accordance with their current regulatory regime.
parties		• Compilation in digital form and interpretation of the results of that work in digital form has been completed by the Competent Person.
Geology	• Deposit type, geological setting and style of mineralisation.	• The Steam Engine and Eastern Ridge gold deposits are hosted within shear zones.
		• The gold mineralisation occurs within a number of north-northeast trending, west- dipping pyritic quartz-muscovite-carbonate schist lodes within metamorphosed intermediate to basic intrusives and metasediments. Significant chlorite–epidote and sericite type alteration zones exist in the shear zones, with the mineralisation appearing to be mostly linked with heavily sericite altered sections of the host rock.
		 The gold mineralisation phase consists of a predominant pyrite sulphide assemblage +/- minor arsenopyrite, pyrrhotite, and chalcopyrite (all fine grained).
		• 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 about 500m to the east of the Steam Engine Lode zone.
		 The lodes are typically interpreted as being of the mesothermal lode type. Recent studies undertaken by Superior suggest the Steam Engine mesothermal gold mineralisation is most similar to orogenic style mineralisation.
		• The important features of the lodes are their continuity and a persistent dips to the west.



Criteria	JORC Code explanation	Commentary
Drill hole Information	 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: easting and northing of the drill hole collar elevation or RL (Reduced Level) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. 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. 	 Drill Hole collar tables with significant intersections are included in this announcement and previous ASX announcements including those dated: 22 November 2021, 18 October 2021, 29 September 2021, 1 September 2021, 12 August 2021, 19 February 2021, 11 February 2021, 18 January 2021, 5 November 2020, 15 October 2020, 30 September 2020, 14 September 2020 and 14 August 2017.
Data aggregation methods	 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. 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. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	 Exploration results are reported as a length weighted average of all the assays of the hole intersections. No top cutting has been applied to the exploration results. No metal-equivalent values are reported.
Relationship between mineralisation widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	 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. For the Eastern Ridge Lode zone an interpreted westerly dip of approximately 45 to 55° 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.
Diagrams	• 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.	 Included. Further relevant maps and sections are included in previous ASX announcements including those dated: 22 November 2021, 18 October 2021, 29 September 2021, 1 September 2021, 12 August 2021, 19 February 2021, 11 February 2021, 18 January 2021, 5 November 2020, 15 October 2020, 30 September 2020, 14 September 2020



Criteria	JORC Code explanation	Commentary
		and 14 August 2017.
Balanced reporting	• 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.	• Drill Holes collar tables with significant intersections are included in this announcement and previous ASX announcements including those dated: 22 November 2021, 18 October 2021, 29 September 2021, 1 September 2021, 12 August 2021, 19 February 2021, 11 February 2021, 18 January 2021, 5 November 2020, 15 October 2020, 30 September 2020, 14 September 2020 and 14 August 2017.
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. 	 Three batches of metallurgical tests from composited samples have been conducted between 2020 to 2022 involving a total of 31 samples (24 for Steam Engine and 7 from Eastern Ridge). A summary of the metallurgical test work undertaken so far has concluded an average recovery for the Steam Engine Lode of 82% and for the Eastern Ridge Lode of 95%.
Further work	 The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Additional work programs include: Further Resource expansion and exploration drilling programs Further Metallurgical studies Geotechnical studies Toll treatment negotiations Preliminary mining and rehabilitation planning Preliminary environmental studies