Superior Resources Limited

ACN 112 844 407

ASX Release
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MAIDEN JORC INFERRED MINERAL RESOURCE ESTIMATE STEAM ENGINE GOLD DEPOSIT (STEAM ENGINE LODE)

HIGHLIGHTS:

- **1,000,000 tonnes grading 2.5g/t gold (1.0g/t cut-off)**
- **85,000 ounces contained gold**
- **Mineralisation open at depth and along strike to the north**
- **Mineral Resource based only on 400m strike length of Steam Engine Lode**
- **Total strike length of all mineralised lodes at least 2.5km – includes Steam Engine Lode, Eastern Ridge Lode and Southern Zone Lodes**

Superior Resources Limited (ASX Code: **SPQ**) (**Superior** or **Company**) is pleased to announce a maiden inferred mineral resource estimate (**MRE**) for the Steam Engine Gold Deposit. The Steam Engine Gold Deposit is located amongst several copper-zinc-gold polymetallic prospects all held 100% by the Company within the Greenvale Project (Figure 1).

The MRE (Table 1) was developed by the Company and is based on two recently drilled reverse-circulation (**RC**) holes together with historic RC and diamond drill hole data generated by Noranda Australia and Beacon Minerals. Total RC and diamond drilling on or close to the Steam Engine Lode amounts to 64 drill holes for 5062.9m of drilling.

Table 1. Steam Engine Inferred Mineral Resource Estimate

Resource Category	Cut-off grade	Resource quantity	Average Au grade	Contained gold*	Description
Inferred	1.0 g/t Au	1.0 Mt	2.5 g/t	85,000 ozs	Above 435 RL

* Calculation based on rounding to two significant figures

Managing Director, Peter Hwang commented: "*This is an excellent start to our exploration efforts at the Steam Engine Gold Deposit. The Mineral Resource is based only on the central drilled portion of the main Steam Engine Lode down to a depth of 150m and 400m along strike. Not only is there potential to increase the resources at the Steam Engine Lode along strike and at depth, but the MRE does not take into account the currently identified and approximate two kilometres of gold-bearing lodes at the Eastern Ridge Lode and Southern Zone Lodes.*

The maiden mineral resource is further confirmation of the value potential of the 100%-owned Greenvale Project, which includes other recently reported polymetallic deposits such as Bottletree located 5 kilometres to the south and Galah Dam, 20 kilometres to the north east. The project also benefits from being located 500 metres from the main sealed highway which leads directly to the established gold mining district of Charters Towers and the Pajingo Gold Mine, 225 and 295 kilometres away, respectively."

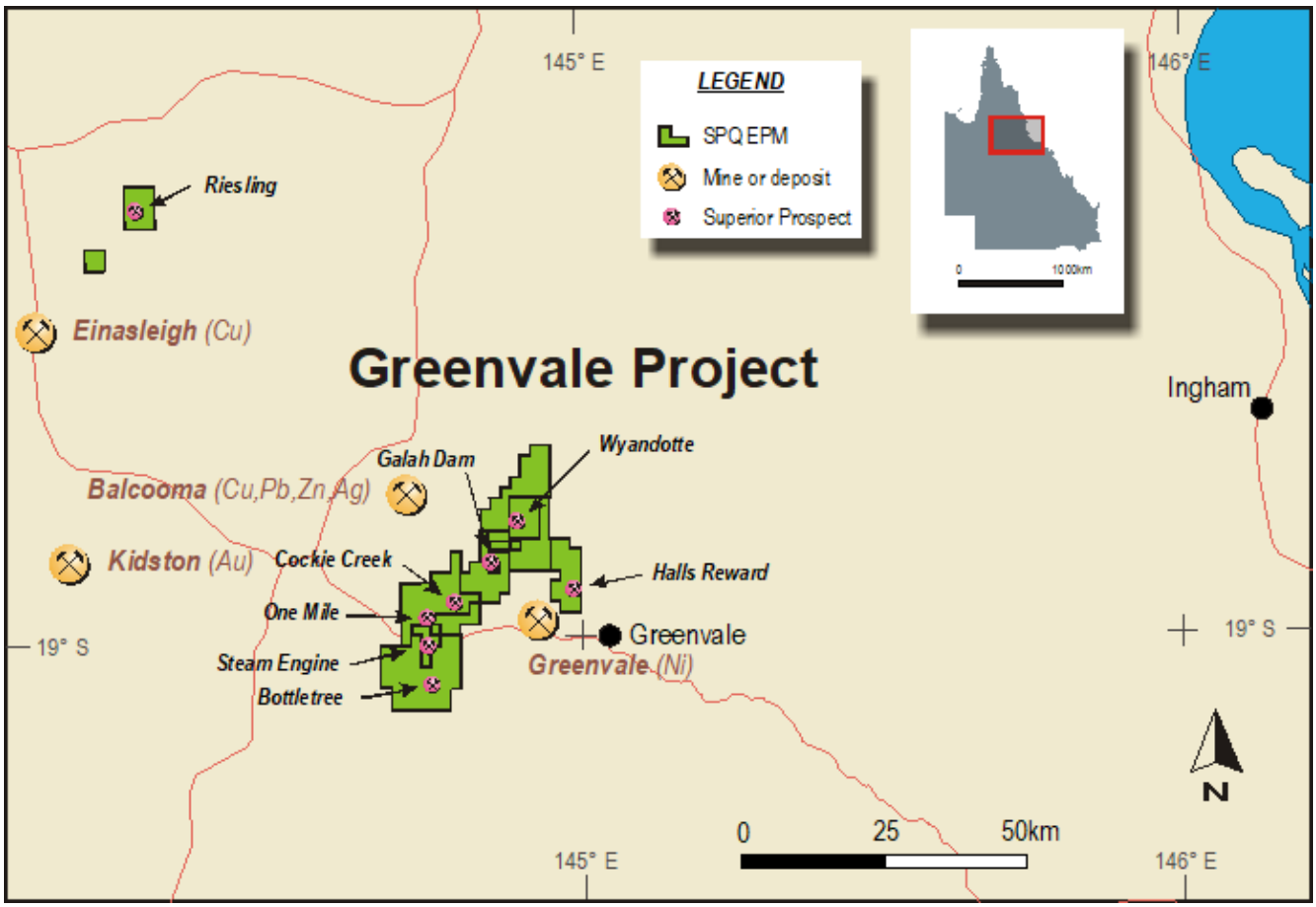

Figure 1. Location of the Steam Engine Gold Deposit and other prospects within the Greenvale Project.

The overall geology of the Steam Engine project is shown in Figure 2. A plan showing the locations of recent and historical drilling is shown in Figure 3 and a cross-section through a central part of the Steam Engine Lode is shown in Figure 4.

– ENDS –

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The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Mr Ken Harvey, a non-executive Director and shareholder of Superior Resources Limited, who is a Member of the Australian Institute of Geoscientists. Mr Harvey 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 Harvey consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Certain statements made in this report may contain or comprise certain forward-looking statements. Although Superior Resources Limited believes that any estimates and expectations reflected in such forward-looking statements are reasonable, no assurance can be given that such expectations will prove to have been correct. Accordingly, results and estimations could differ materially from those set out in the forward-looking statements as a result of, among other factors, changes in the economic and market conditions, success of business and operating initiatives and changes in the regulatory environment. Superior undertakes no obligation to update publicly or release any revisions of any forward-looking statements to reflect events or circumstances after the date of this report or to reflect the occurrence of unanticipated events.

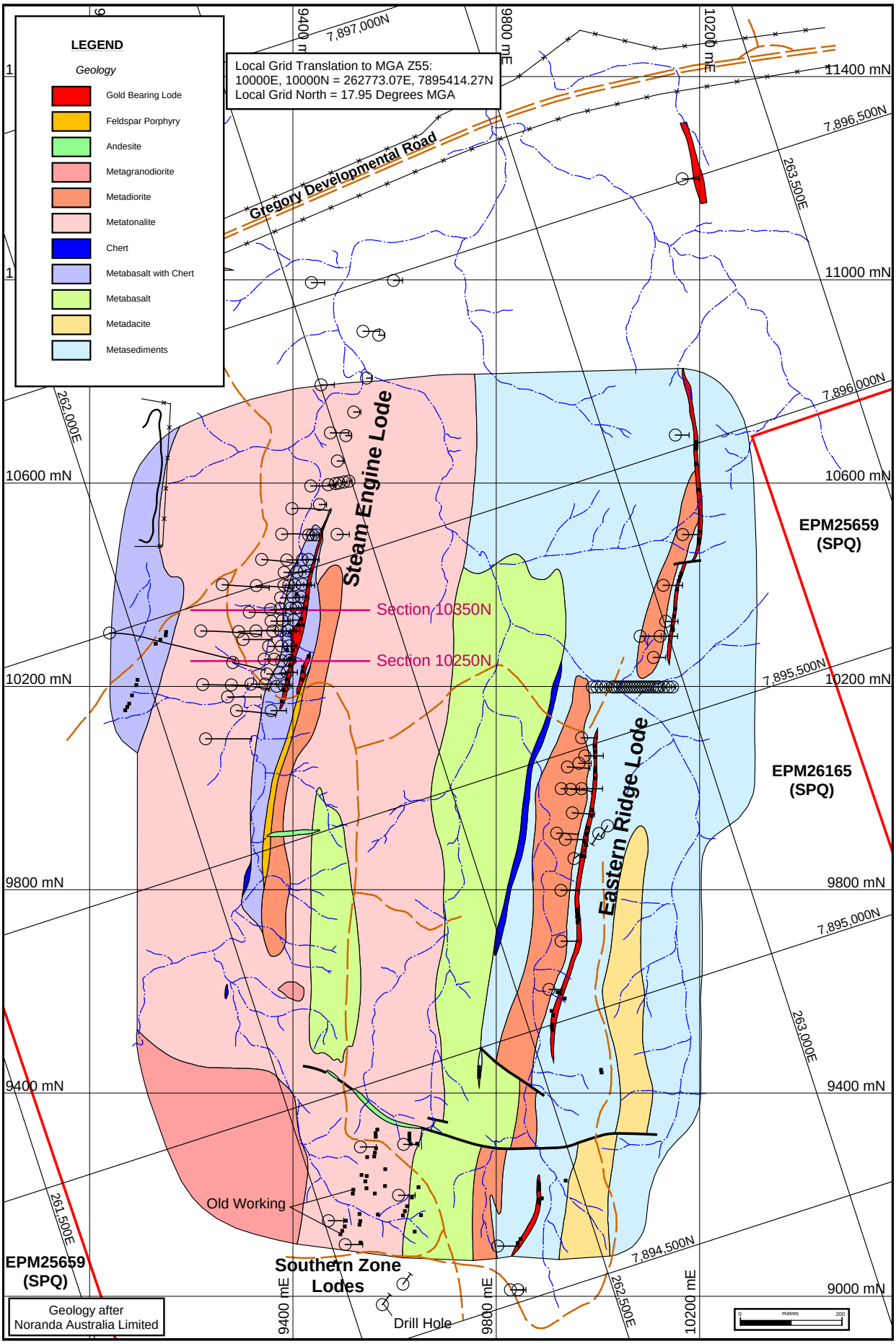

Figure 2. Steam Engine – Interpreted geology showing the gold bearing lodes and drill holes.

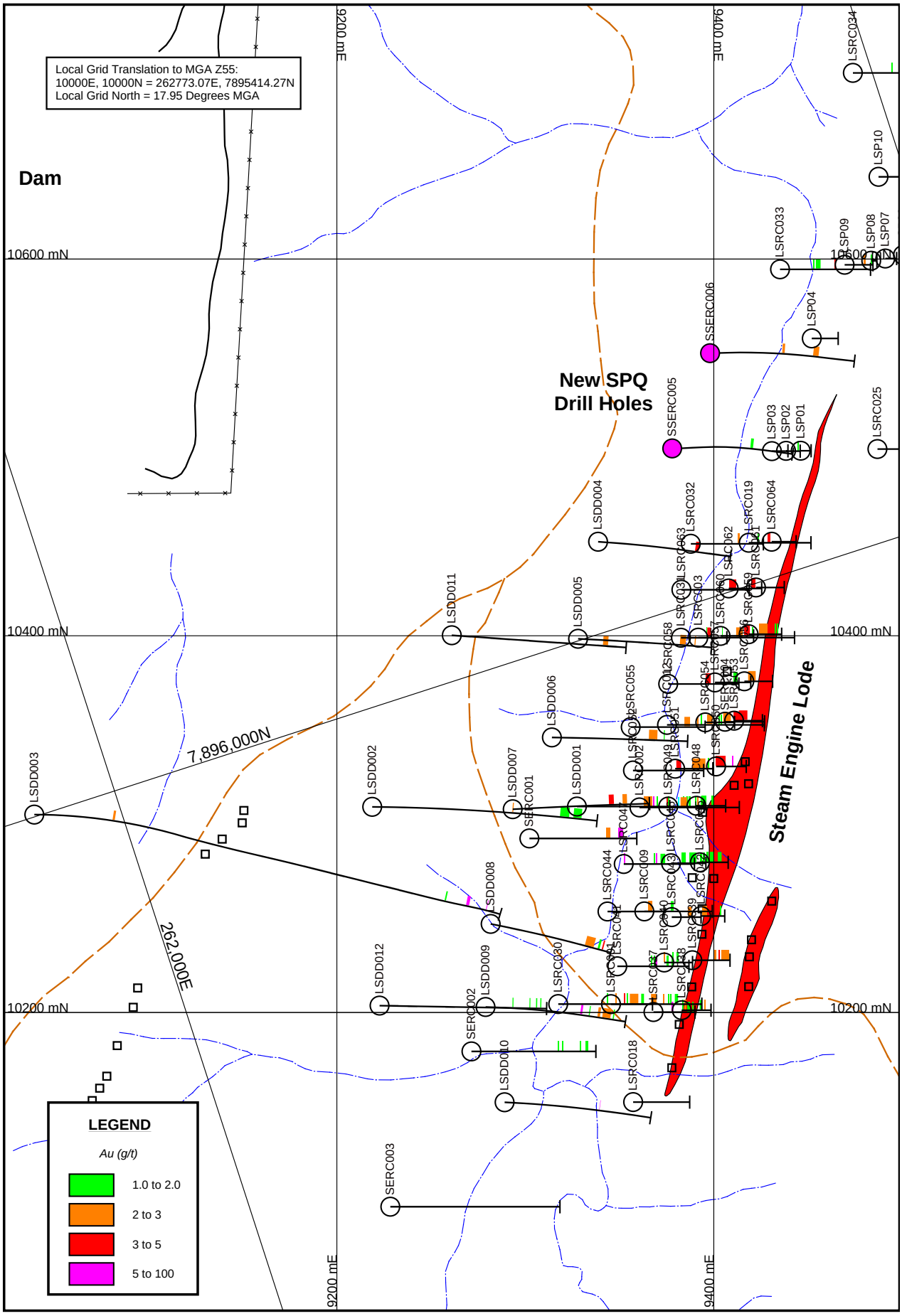

Figure 3. Steam Engine Lode – Gold bearing lodes and recent Superior and historic drill holes.

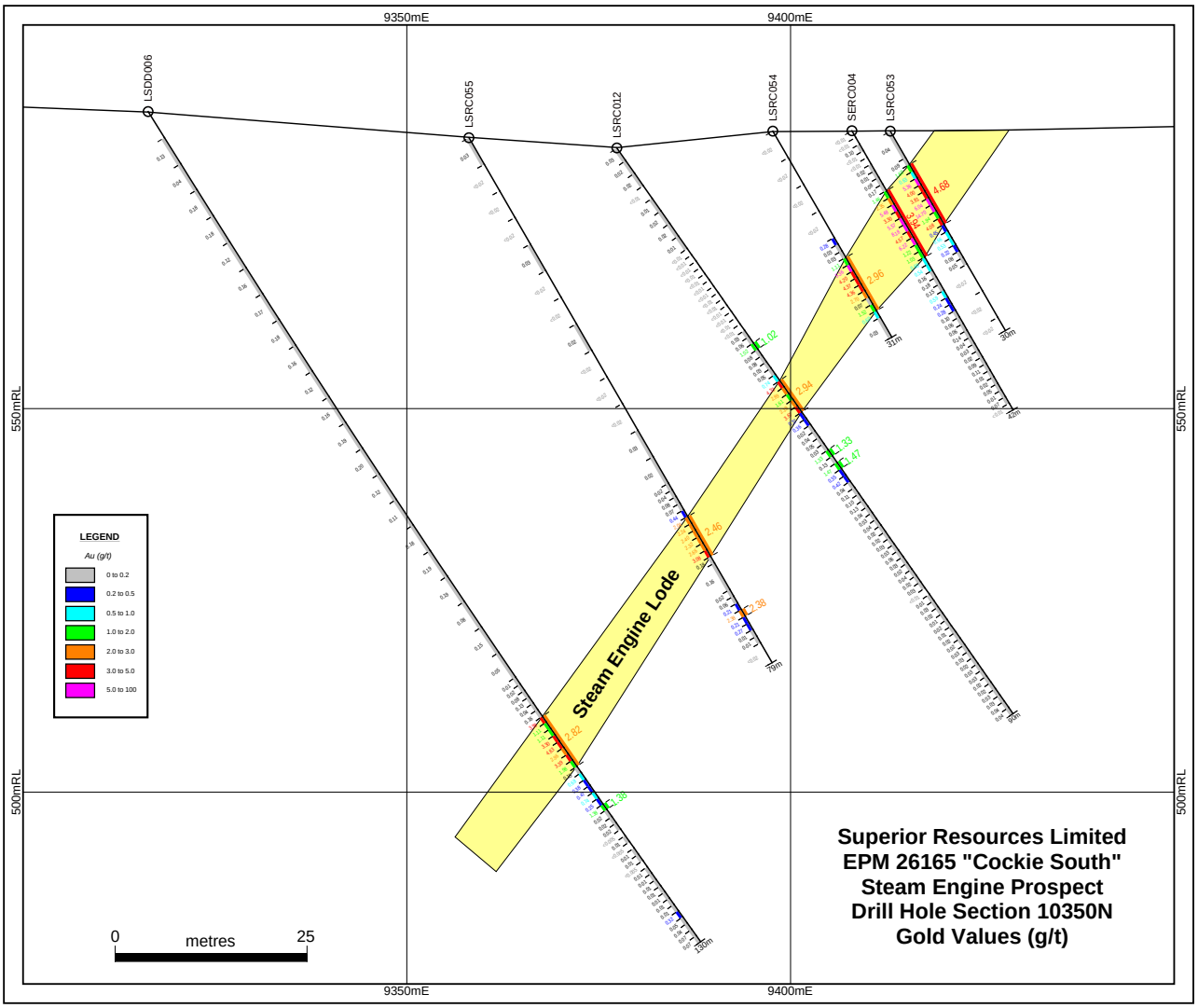

Figure 4. Steam Engine Drill Hole Section 10250N showing gold intersections of the Steam Engine Lode. The lode shows good continuity and has a westerly dip of about 55°.

Summary of JORC 2012 Mineral Resource Estimation

1. PREPARATORY WORK COMPLETED

1.1 Data Compilation

Superior has undertaken a program of digital compilation and interpretation of previous exploration data over the Steam Engine and surrounding area. The data compilation work has been done from digital scans of hard-copy reports held at the Queensland Department of Natural Resources and Mines (Mines Department) and from other sources.

Most of the historical data was recovered from reports on Noranda's (and successor's) Authority to Prospect 3392 held within the Mines Department's company report system.

Particular attention was directed to recovering drill hole data from the reports including hole collar locations, down hole survey data, down hole assay data, down hole coded geology and other information such as depth of oxidation. Whilst considerable valuable drill hole data is held by the Department, the data is incomplete in that assay and geology logs for Noranda's fill-in drilling at 25m centres are not held by the Department. The data held, however, does include some drafted 25m spaced sections allowing some of the missing assay and geological

information to be recovered to digital form. At this stage Superior has not been able to recover down hole data for six of Noranda's drill holes (LSRC039, 040, 041, 045, 046 and 047). Composite gold intersections and depths for these holes, however, have been recovered.

Noranda used a local grid control for drilling (Lucky Strike Grid) and completed accurate surveying of most of their drill hole collars on this grid with RLs being surveyed to a local height datum. Down-hole surveying of most of the diamond drill holes was completed by Noranda but RC (and RAB) holes were not surveyed.

Further RC drilling at Steam Engine was undertaken by Beacon Minerals Limited both on MDL107 and on surrounding EPM14326. Data from this drilling has been recovered to digital form from company reports held by the Mines Department. Hole collar locations were only reported in approximate MGA coordinates (using a hand-held GPS) and down-hole surveying was not completed on any of the holes.

Fortunately, many of the Noranda's drill hole collar pipes are still available at Steam Engine. Superior has completed surveying of these drill hole collars using a DGPS system. This surveying validates the accuracy of most of Noranda's reported collar locations and provides a reasonably accurate translation of the old Noranda grid (Lucky Strike Grid) coordinates to MGA Z55 as follows:

Common Point: 10,000E; 10,000N = 262,773.07E; 7,895,414.27N

Local Grid North: 17.95º MGA.

DGPS Elevation + 26.867m = Noranda Local Datum.

Mapinfo Parameters: A = 0.9513258; B = -0.3081869: C = 2193280.63;

D = 0.3081869; E = 0.9513258; F = -7582094.70.

Additional data recovered to digital format included costean location and assay data, interpreted surface geological mapping by Noranda (Figure 2) and soil geochemistry completed in the surrounding area by various parties.

A DTM of the Steam Engine area has been constructed by re-levelling the publicly available 30m SRTM data to the local grid height datum (+23.5m) and combining it with the drill hole collar RLs. This DTM is adequate for the construction of sections and initial assessment of the Steam Engine Lode gold resources.

1.2 Reverse Circulation Drilling

Superior has completed an additional 6 RC drill holes into the gold bearing lodes at Steam Engine. Two of these holes extended the drilling coverage at depth in the northern part of the Steam Engine Lode. The other holes were drilled into the Eastern Ridge Lode.

Data from this RC drilling has been incorporated into the compiled digital database of all drilling.

1.3 Sectional Geological Interpretations

Most of the historical drilling in the Steam Engine area has been concentrated on the Steam Engine Lode. Some 78 drill holes have been drilled into and adjacent to the Steam Engine Lode including 52 reverse circulation (RC) drill holes, 12 diamond drill (DD) holes and 14 rotary air blast (RAB) holes.

An assay plan and full set of assay sections at 1:500 scale have been constructed through the Steam Engine Lode. The assay plan covers about 600m of the Steam Engine Lode containing

the best area of gold mineralisation on which the resource estimation has been completed. The sections are at 25m intervals reflecting the general drill spacing in the southern more mineralised part of the area and at 50 and 100m in the northern part of the area. The sectional interpretations of the lode intersections show that the gold mineralisation dips consistently to the west at between 50° to 60°. Interpretations of the plan and sections also show that the Steam Engine Lode is comprised of a main 'Upper Lode' and a generally thinner 'Lower Lode' lying at a variable distance below the Upper Lode. The Upper Lode has good continuity in the sections. The Lower Lode has generally poor continuity and is only sufficiently well developed in two smaller areas for additional resources to be estimated.

2. RESOURCE ESTIMATION

2.1 Resource Estimation Procedure

Because of the tabular nature of the Steam Engine Lodes, estimation of the resources has been completed using a polygonal approach on a plane which is parallel to and generally conforms with the lodes.

The process included:

- Calculating the drill hole gold intersections above a 1g/t Au cut-off for each of the lodes.
- Establishing a 'plane of lode' parallel to and approximating the lodes. The plane used had an origin of 9500E, 11400N, 250RL and had a local grid strike of 16º and a westerly dip of 58º (pole to plane of -32º to 106º local grid).
- Projecting the intersections onto the plane of lode to give local X, Y and Z local coordinates on the plane of the lode as well as true thickness of the lode intersections.
- Producing voronoi polygons for each of the drill hole intersections on the plane of lode using a maximum polygonal radius of 50m.
- Clipping the polygons to the ground surface and to a maximum approximate vertical depth of 150m (local RL of 435m) where necessary. The polygons were also clipped to local plane of lode X coordinates between 432m and 1238m to limit the resource estimation to the area of reasonable drill coverage along the strike of the lode.
- Calculating the area, volume (area X true thickness), tonnage (volume X 2.7t/m^3) attributable to each intersection polygon.
- Applying cut-offs to gold grades of 1g/t Au and to true widths of 1m in the tabulated intersection data for each polygon so that sub-grade and narrow intersections are excluded from the estimation.
- Totalling the tonnage and average grade of the selected tabulated intersection data to produce resource estimations for each of the Upper Lode and the Lower Lode.
- Plotting plane of lode polygons and intersection data for each of the Upper Lode and Lower Lode at 1:1000 scale to allow comparison of the tabulated data with the plane of lode plots.

2.2 Resources

Based on the procedure outlined above the resources for the Upper Lode and Lower Lode are as follows:

Upper Lode	765,334t @ 2.58g/t Au for 63,382 oz Au
Lower Lode	281,169t @ 2.42g/t Au for 21,844 oz Au
Total	1,046,503t @ 2.53g/t Au for 85 226 oz Au

Based on three significant figures, this equates to total resources of:

1.05Mt @ 2.53g/t Au for 85,000oz Au.

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	• *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.*	Current Sampling • Samples are obtained from reverse circulation (**RC**) drilling. • All samples are collected as drilled via a riffle splitter attached to the drill rig cyclone. • Drill holes are sampled and collected as 1m riffle split samples. All samples were passed through a cyclone and then through a 7/8th to 1/8th splitter. Bulk 1m samples were collected as the 7/8th split, whereas the 1/8th split was collected as an analytical sample over 2m. Analytical sample size was in the order of 2.5kg to 3kg. • All RC holes were drilled using a standard face sampling hammer with bit size of 114mm (Four & half inch). The drill bit sizes used in the drilling were consistent in size and are considered appropriate to indicate the degree and extent of mineralisation. • Sample intervals that lack metalliferous anomalism are not reported are not considered to be material. • The magnetic susceptibility of all samples was measured in the field. • Portable XRF analyses were systematically recorded in controlled environment at Terra Search offices in Townsville. • 1m representative samples of intervals with visible mineralisation were assayed for gold at ALS laboratories in Townsville. 2m representative samples of intervals without visible mineralisation, derived from compositing two samples from consecutive 1m intervals, were also assayed for gold at ALS laboratories in Townsville. Where gold mineralisation was detected in the 2m composite samples, 1m samples were submitted for further assaying. • 1m samples were also submitted for multi-element assaying using aqua regia digestion. • Assaying for gold was via fire assay of a 50 gram charge. • Sample preparation at ALS laboratories in Townsville for all samples is considered to be of industry standard procedure. Historical Sampling • Information relating to historical results relies on data contained in reports submitted

Criteria	JORC Code explanation	Commentary
		to the Queensland Department of Natural Resources and Mines as part of the Company Report System attaching to the grant of Exploration Permits. • The sampling techniques, where reported, used standard industry approaches. These include: 1. splitting off a sample of material delivered to the top of the hole during RC drilling to produce a sample for assay accompanied by geological logging of the sample. 2. Halving of drill core from diamond drilling to produce an assay sample accompanied by geological logging of the core. • Assaying of samples was completed by commercial laboratory methods that were appropriate at the time the samples were collected. Sample intervals of 4m were commonly used for initial determination of the presence of gold by a geochemical method followed by more detailed sampling of mineralised intervals at usually 1m intervals using a more precise method. • Whilst it is not possible to determine the reliability of historical assay results, no issues arose during compilation and interpretation of the results that would suggest that the assay results were not reasonable.
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.).*	Current Sampling • Drilling from surface was performed using standard RC drilling techniques. • Drilling was conducted by Kelly Drilling using a Schramm 450WS with a 900cfm/350psi compressor and 700 psi on-board booster. • All RC holes were drilled using a standard face sampling hammer with bit size of 114mm (Four & half inch). • All holes were surveyed using a Reflex Gyro north-seeking gyroscopic instrument to obtain accurate down-hole directional data. Historical Drilling • Reverse Circulation (RC) and Diamond Drilling (DD) are the only drill types relied on in this report.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to*	Current Sampling • Sample recovery was performed and monitored by Terra Search contractor and Superior Resources' representatives. • RC recovery as well as degree of cross-sample contamination were logged on a metre basis. Overall recoveries were excellent. RC samples were all dry. • The volume of sample collected for assay is considered to be representative of each 1m interval.

Criteria	JORC Code explanation	Commentary
	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. • There is no apparent relationship between sample recovery and grade of mineralisation. Historical Drilling • Recoveries for RC drill holes were not recorded. • Recoveries for diamond drill core samples were recorded for most holes drilled at Steam Engine. These recoveries were usually of the order of 100% indicating that recoveries should not be an issue if the results are used for estimating resources. • 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 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.*	Current Sampling • 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. • Geological logging data entered via a well-developed logging system designed to capture descriptive geology, coded geology and quantifiable geology. All logs were checked for consistency by the Terra Search Principal Geologist. Data captured through Excel spread sheets and Explorer 3 Relational Data Base Management System. • The logging of RC chips is both qualitative and quantitative. Alteration, weathering and mineralisation data contain both qualitative and quantitative fields. • All holes were logged in their entirety at 1m intervals. All logging data is digitally compiled and validated before entry into the Superior database. • The level of logging detail is considered appropriate for resource drilling. • Magnetic susceptibility data for each 1m sample interval was collected in the field. Historical Drilling • Geological logging of most of the drill holes is available in the Company Report System. Logs for holes drilled at fill-in 25m sections have not been located at this stage as mentioned in the report. The available logging appears to be of a standard to support resource estimation. No geotechnical logs have been reported and it is assumed that these were not done. Diamond drill hole logs usually include structural data which has been compiled in digital form. • The logging is generally of a qualitative nature. No core or chip photography is available in the reports.

Criteria	JORC Code explanation	Commentary
		• For the logs available logging of all material has been completed.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *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 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 material being sampled.*	Current Sampling • The sample collection methodology is considered appropriate for RC drilling and was conducted in accordance with best industry practice. • Split 1m samples are regarded as reliable and representative. • RC samples are split with a riffle splitter at 1m intervals as drilled. • Samples were collected as dry samples. • Quality Assurance (**QA**)/Quality Control (**QC**) protocols were instigated such that they conform to mineral industry standards and are compliant with the JORC code. • Terra Search's input into the (QA) process with respect to chemical analysis of mineral exploration samples includes the addition of blanks, standards and duplicates to each batch so that checks can be done after they are analysed. As part of the (QC) process, Terra Search checks the resultant assay data against known or previously determined assays to determine the quality of the analysed batch of samples. An assessment is made on the data and a report on the quality of the data is compiled. • Terra Search quality control included determinations of duplicate samples every 50 samples or so to check for representative samples. There was a conscious effort on behalf of the samplers to ensure consistent weights for each sample. Comparison of assays of duplicates shows good reproducibility of results. • The above techniques are considered to be of a high quality and appropriate for the nature of mineralisation anticipated. The 2-3kg sample size is appropriate for the rock being sampled. The sample sizes are considered to be appropriate to represent the style of the mineralisation, the thickness and consistency of the intersections. Historical Drilling • As reported above, it is reported that diamond drill core has been halved as is standard practice for most explorers.

Criteria	JORC Code explanation	Commentary
		• Details of the approach taken for sampling of RC drill holes are not available.
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.* • *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.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	Current Sampling • All samples were submitted to ALS laboratories in Townsville for gold and multi-element analysis. • Samples were crushed, pulverised to ensure a minimum of 85% pulp material passing through 75 microns, then analysed for gold by fire assay method Au-AA26 using a 50-gram sample. • A sub-sample of each was also subject to multi-element analysis using aqua regia digest and ICP emission spectroscopy technique for the following elements: Ag, As, Ba, Bi, Ca, Cd, Co, Cu, Fe, Mg, Mn, Mo, Ni, P, Pb, S, Sb, Zn (ALS code ME-ICP41). • The primary assay method used is designed to measure both the total gold in the sample as per classic fire assay as well as the total amount of economic metals tied up in sulphides and oxides such as Cu, Pb, Zn, Ag, As, Mo, Bi as per aqua regia digest ICP finish. • Some major elements which are present in silicates, such as K, Ca, Fe, Ti, Al and Mg are not liberated by aqua regia digest. In this sense, the aqua regia digest is a partial analytical technique for elements locked up in silicates. • Magnetic susceptibility measurements utilising Exploranium KT10 instrument, zeroed between each measurement. • Certified geochemical standards and blank samples were inserted into the assay sample sequence. Laboratory assay results for these quality control samples are within 5% of accepted values. Historical Drilling • As reported above, assaying of samples was completed by commercial laboratory methods that were appropriate at the time the samples were collected. Sample intervals of 4m were commonly used for initial determination of the presence of gold by a geochemical method followed by more detailed sampling of mineralised intervals at usually 1m intervals with assaying for gold by a more precise method. • Assay data submitted with the reports include some duplicate assaying. It is unknown in detail what quality control procedures were adopted.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.*	Current Sampling • Significant intersections have been verified by at least two Terra Search geologists against representative drill chips collected and the drill logs.

Criteria	JORC Code explanation	Commentary
	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• No holes were twinned. • No adjustments to assay data were undertaken. • All drill hole logging and sampling data continue to be uploaded and validated by Terra Search and Superior staff. Validation is checked by comparing assay results with logged mineralogy e.g. percent of metallic sulphides minerals in comparison to metal assays. • Data is collected by qualified geologists and experienced field assistants and entered into excel spreadsheets. • Data is imported into Microsoft Access tables from the Excel spreadsheets with validation checks set on different fields. Data is then checked thoroughly by the Operations Geologist for errors. Accuracy of drilling data is then validated when imported into MapInfo. • Data is stored on a server in the Company's head office, with regular backups and archival copies of the database made. • No adjustments are made to the data. Data is imported into the database in its original raw format. Historical Drilling • Limited more recent drilling by Beacon Minerals Limited confirms the drill gold intersections obtained by Noranda Australia Limited as shown in Figure 7. Other drill hole results reported by Beacon support the order of gold grades at both the Steam Engine and Eastern Ridge lodes. • No twinned holes have been drilled by Superior at this time. • It is evident that most of the historical drill hole data was captured on paper and stored on paper. The compilation of that data in digital form has been completed by the competent person with plotting of the data on both plans and sections also held in digital form. • No adjustments have been made to historical sample assay data as there was no apparent reason for such adjustment.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	Current Sampling • Drill hole collars have been recorded in the field using hand held GPS with three metre or better accuracy. • Current drill hole collar locations and topographic RL control were further defined using a Trimble Differential GPS (DGPS). Location accuracy is in the order of 0.15m X-Y and 0.3m in the Z direction. • Down hole surveys were conducted on all holes using a Reflex GYRO with surveys taken

Criteria	JORC Code explanation	Commentary
		inside the RC rods and recorded every 5m. The instrument measures to within 1/100 degree of inclination and magnetic azimuth. • The area is located within UTM Zone 55, GDA94 datum. Historical Drilling • Noranda Australia controlled exploration of the Steam Engine area using a local grid. As the property advanced a surveyor was used to provide a more accurate local grid control with a local height datum being implemented. Data has been compiled using the local grid coordinates. Drill holes completed by Beacon Minerals Limited are reported using handheld GPS collar coordinates with a likely accuracy of about ± 5m. An accurate translation from GPS coordinates to local grid coordinates has been used to convert the Beacon drill hole data to local coordinates. Many of the drill hole collars are still evident at the prospect allowing validation of the drill hole locational data by DGPS before being used for resource estimation work. • The area lies within UTM Zone 55, GDA94 datum.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to 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.*	• Drill hole spacing is variable at the Steam Engine area but mainly at 25m section lines. • The drill hole spacing is sufficient for the central portion of the Steam Engine Lode to allow estimation of resources when all necessary information is compiled to allow this to occur as documented in the report. • Most intersections reported in this report are weighted composites of smaller sample intervals as is standard practice.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *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.*	• The orientation of the drill holes is ideal for reporting of results and estimation of resources. • No orientation sample bias has been identified at this stage.
Sample security	• *The measures taken to ensure sample security.*	• Chain of custody was managed by Terra Search Pty Ltd. Samples were transferred by them to ALS.
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
Mineral tenement and land tenure status	• *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.* • *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.*	• The areas reported lie within Exploration Permit for Minerals 26165 and held 100% by Superior. • Superior holds much of the surrounding area under granted exploration permits. • Superior has agreements or other appropriate arrangements in place with landholders and native title parties with respect to work in the area. • No regulatory impediments affect the relevant tenements or the ability of Superior to operate on the tenements.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Historical Drilling • All of the historical drilling reported in this report has been completed and reported in accordance with the current regulatory regime. • 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.*	• As reported, the Steam Engine Gold Deposit is hosted within a shear zone. It is thought to have some similarities with the shear gold mineralisation at Hemlo in Ontario, Canada which the Competent Person is familiar with having visited one of the operating mines on the lode. Important features of the Steam Engine mineralisation are its continuity and its persistent dip to the west.
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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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 previous ASX Announcement dated 14 August 2017.

Criteria	JORC Code explanation	Commentary
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 whole hole intersections. • 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. • 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 area an interpreted westerly dip of approximately 50 to 60° (or less) and drill holes which generally dip to the east at around 60° (or less) result in true widths at or above 0.87 times the intersection lengths as 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.
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 hole collar tables with significant intersections are included in previous ASX Announcement dated 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.*	• An interpreted geological map of the Steam Engine area is included in the report. This map also shows drill hole collars and traces with all gold intersections over 1g/t shown. The size of the area makes it difficult to clearly present this A0 sized map on an A4 piece of paper. Down hole geology compiled digitally for most holes is also difficult to show in sections at A4 size. The critical geological information that the mineralisation is hosted in a shear zone is reported.

Criteria	JORC Code explanation	Commentary
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.*	• Proposed further work is outlined in the report.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Data has been compiled by the competent person. Errors related to the use of historical exploration data are difficult to quantify and the data is difficult to validate.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Two site visits by the competent person to confirm drill hole locations, to undertake geological and mineralisation interpretations and to plan for additional drill holes.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• High level of confidence of the Upper Lode at Steam Engine but lower level of confidence of the Lower Lode. Interpretations agree with previous interpretation by Noranda. • Data includes drill hole data and surface exposures but there are no current underground ore exposures. • No alternative explanations are evident or have been considered. • Lode geology is fundamental for interpretations. • The lack of underground exposures and the soil cover in the area may obscure cross-cutting faults, but significant displacement on these is not apparent in the sectional data.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral*	• These are apparent on the various sections in the report.

Criteria	JORC Code explanation	Commentary
	Resource.	
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• The polygonal approach on the plane of lodes is applicable to the narrow tabular lodes, particularly given the good continuity on the Upper Lode evident from the sectional interpretations. There are no extreme grade variations evident in the data. The maximum distance of extrapolation is 50m and this only occurs where there is not data within 100m distance. Software was used to project the intersection data onto the plane of lode and to calculate true thickness as well as to generate the voronoi polygons on the plane of lode. • No check estimates have been completed at this stage and there are no production records. Previous resource estimates give variable results and are not completed under the JORC code. • The estimate is for gold only. • Incomplete assay data from early drilling does not allow estimation of other elements. Some arsenic occurs with the gold mineralisation as indicated for some intersections in Tables 1 and 2. • Block modelling was not used. • No assumptions for selective mining units. No intersection data below 1m true thickness was used in the estimation. • No correlation between variables. • The lode geology was a fundamental element of the modelling and controlled the modelling process. • No grade cutting was considered necessary. • Validation was carried out by plotting the resultant polygons on the plane of lode and comparing with the original intersectional data.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• In the absence of any specific gravity data tonnages were estimated on an assumed SG of 2.7. This appeared to be a reasonable value given the sulphide content of the lodes.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• An arbitrary intersection cut-off grade of 1g/t was used based on a likely cut-off grade for open cut gold mining in the area.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual*	• Open cut mining appears to be the most likely extraction method. The depth to which that might be possible is uncertain until further studies have been done.

Criteria	JORC Code explanation	Commentary
	economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• No metallurgical work has been completed on the mineralisation to date.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• No environmental studies have been completed to date.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• In the absence of any specific gravity data tonnages were estimated on an assumed SG of 2.7. This appeared to be a reasonable value given the sulphide content of the lodes.

Criteria	JORC Code explanation	Commentary
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Resources are only classified as inferred at this stage.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• No audits have been undertaken at this stage.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• Because of the narrow tabular nature of the Steam Engine Lodes, estimation of the resources has been completed using a polygonal approach on a plane which is parallel to and generally conforms with the lodes. This is considerate an appropriate approach given the generally good continuity of the lodes. • This approach provides an estimate within any area of the lode which is locally based. • No comparisons with production data are possible.