Superior Resources Limited

ACN 112 844 407

ASX Release
2 November 2016

GREENVALE PROJECT UPDATE
NEW PROJECTS AND DRILL TARGETS

- **Greenvale Copper-Gold-Zinc Project – a first class copper, gold and zinc exploration project.**
- **New tenement application, "Cockie South", adds new projects and significantly upgrades the Greenvale Project package:**
  - **Steam Engine gold deposit; and**
  - **Galah Dam gold-zinc-copper prospect.**
- **Steam Engine:**
  - **Drilling planned to establish an initial JORC compliant gold resource, subject to grant of tenement application.**
- **Data compilation and analysis has identified:**
  - **Bottletree – a large 2km x 1km soil geochem copper anomaly over a large moderate IP anomaly potentially reflecting a large porphyry copper system;**
  - **One Mile Dam – an intense high-order VTEM bedrock anomaly adjacent to extensive massive sulphide mineralisation at the One Mile Prospect;**
  - **Cockie Creek – two untested IP chargeable sources located adjacent to and below SPQ's maiden inferred copper resource;**
  - **Galah Dam – gold, zinc and copper mineralisation within a large plunging alteration zone with similarities to the nearby Balcooma copper, zinc, lead and silver mine; and**
  - **Wyandotte – high grade copper intersections from historical drilling.**
- **Drilling programs and field surveys planned to be conducted during the remainder of the 2016 – 2017 year.**

Superior Resources Limited (ASX Code: **SPQ**) (**Superior** or **Company**) is pleased to provide an update on the Company's Greenvale copper-gold-zinc Project in north-east Queensland.

North-east Queensland objectives and Corporate Strategy

This project update outlines the Company's north-east Queensland Greenvale copper-gold-zinc exploration objective for the remainder of 2016 and for the 2017 season of:

- identifying new high-grade copper, gold and zinc mineralisation within existing tenements and new tenement application areas by conducting new drilling, geophysical and soil geochemistry programs (subject to funding); and

- adding new and additional resources to the existing maiden copper resource at Cockie Creek (refer ASX announcement dated 27 March 2013).

Superior's north-east Queensland objectives complement the Company's corporate and exploration strategies of:

- ***New Project Acquisition*** – acquiring an advanced-stage exploration or pre-production gold project;
- ***Lead-Zinc*** – progressing the tier 1 north-west Queensland lead-zinc projects:
  - Nicholson Project (Teck Australia Earn-in and Joint Venture); and
  - Victor Project (the 'Next Mt Isa');
- ***Gold*** – Tick Hill Project tailings assessment and additional underground gold exploration; and
- ***Capital raising*** – conducting focused immediate and longer term capital raising campaigns.

Greenvale Project Upgraded – multiple prospect copper, gold and zinc targets

Resulting from a combination of data compilation, modern reprocessing and modelling of compiled datasets and additions of new tenements, the Company considers the Greenvale Project to be a highly prospective exploration package containing multiple copper, gold and zinc exploration targets (Figure 1). The collective project area contains at least eight prospective targets that are based on significant geophysical, soil geochemical and in some cases, high-grade gold and copper intercept in historical drill holes.

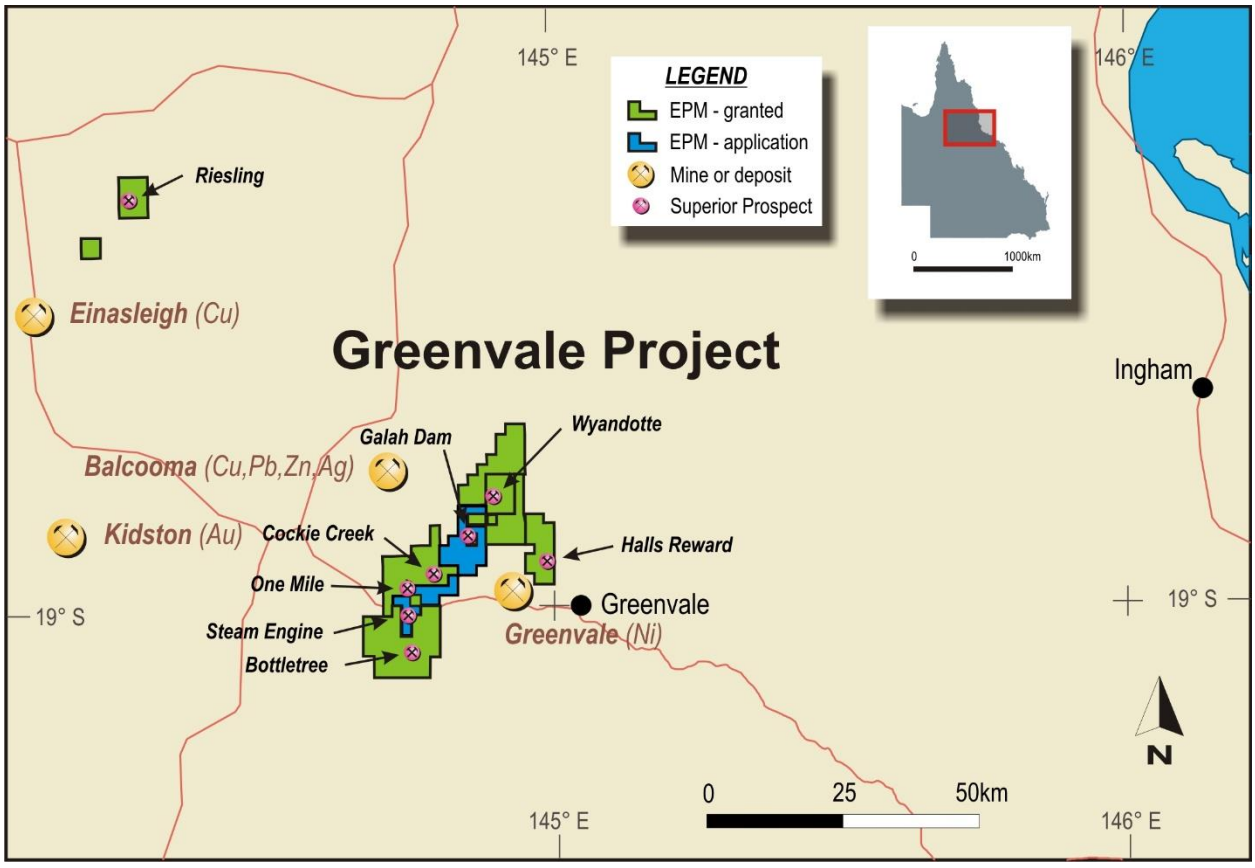

Figure 1. The Greenvale Project – locations of prospects and tenements.

New tenement application

Earlier this year the Company made application for an additional Exploration Permit for Minerals (**EPM**), EPMA26165, "Cockie South" (Figure 1). The EPMA was in competition with a second, unrelated applicant. The Queensland Department of Natural Resources and Mines provided Superior with priority in respect of the competitive application. Subject to satisfying regulatory requirements (none of which are considered onerous or unusual), the Company expects to be granted EPMA26165 during late 2016 or early 2017.

The new EPMA, "Cockie South", covers the Steam Engine Gold Deposit and the Galah Dam Gold-Zinc-Copper Prospect (Figure 1).

Geological setting and mineralisation styles

The Greenvale Project is a collection of closely spaced copper and gold targets generally located within the likely northern-most extension of remnant volcanic and intrusive rock sequences of Cambro-Ordovician age that are present in New South Wales (Figures 2 and 3). Similar rock sequences in New South Wales host the large Cadia and North Parkes porphyry copper mines.

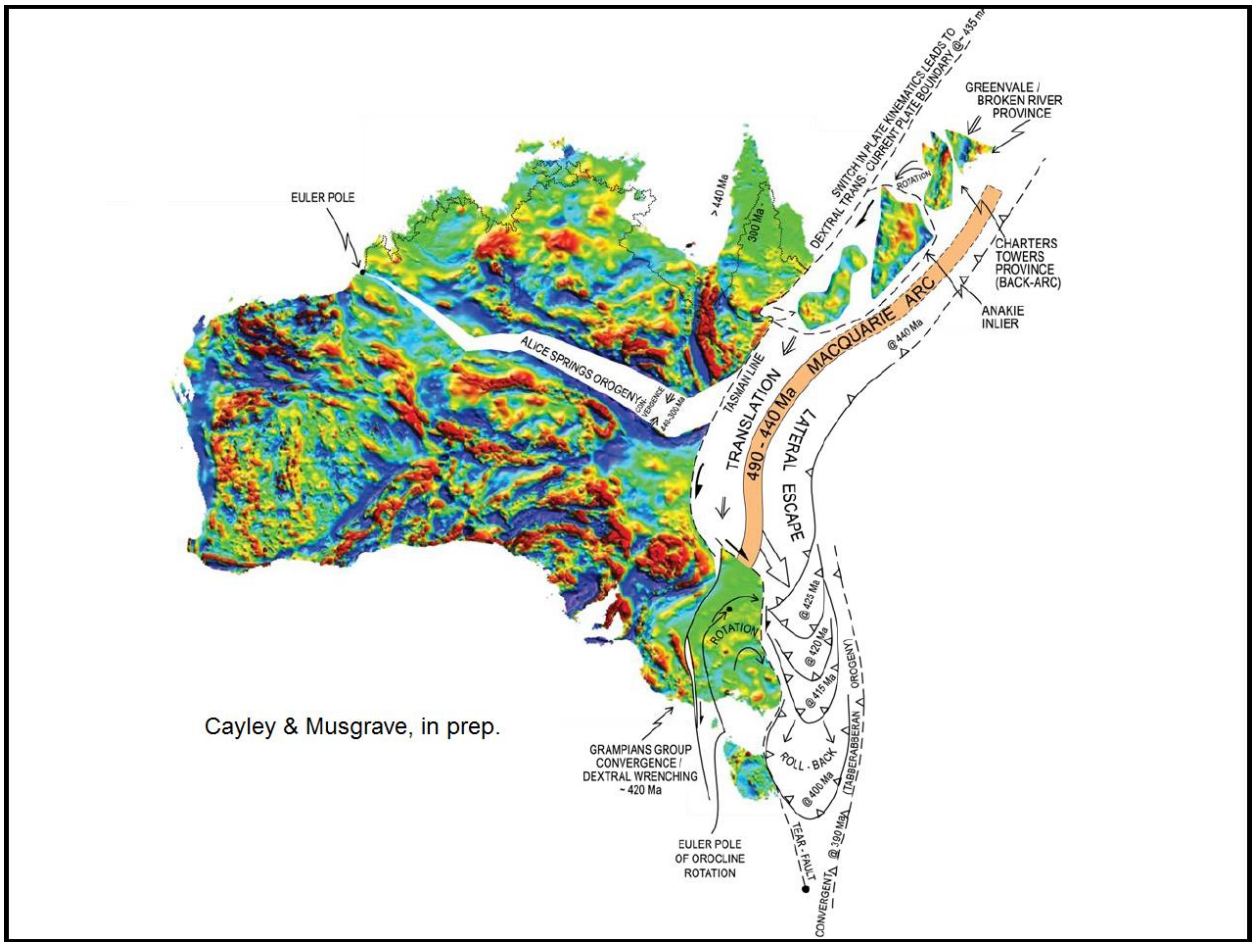

Figure 2. A reconstruction of the Macquarie Arc across eastern Australia showing the development of the Greenvale Province and other provinces including the Charters Towers Province.

The prospects within the Greenvale Project represent varied mineralisation styles that include high-grade copper-gold-zinc volcanogenic massive sulphide (VMS) and also low-grade large-tonnage porphyry copper-gold deposit types:

- Cockie Creek – porphyry copper;
- One Mile Dam – VMS;

- Steam Engine – shear-hosted gold mineralisation;
- Halls Reward – Cyprus style VMS;
- Bottletree – porphyry copper;
- Wyandotte – intrusive related and possibly porphyry copper mineralisation;
- Galah Dam – gold-zinc-copper VMS.

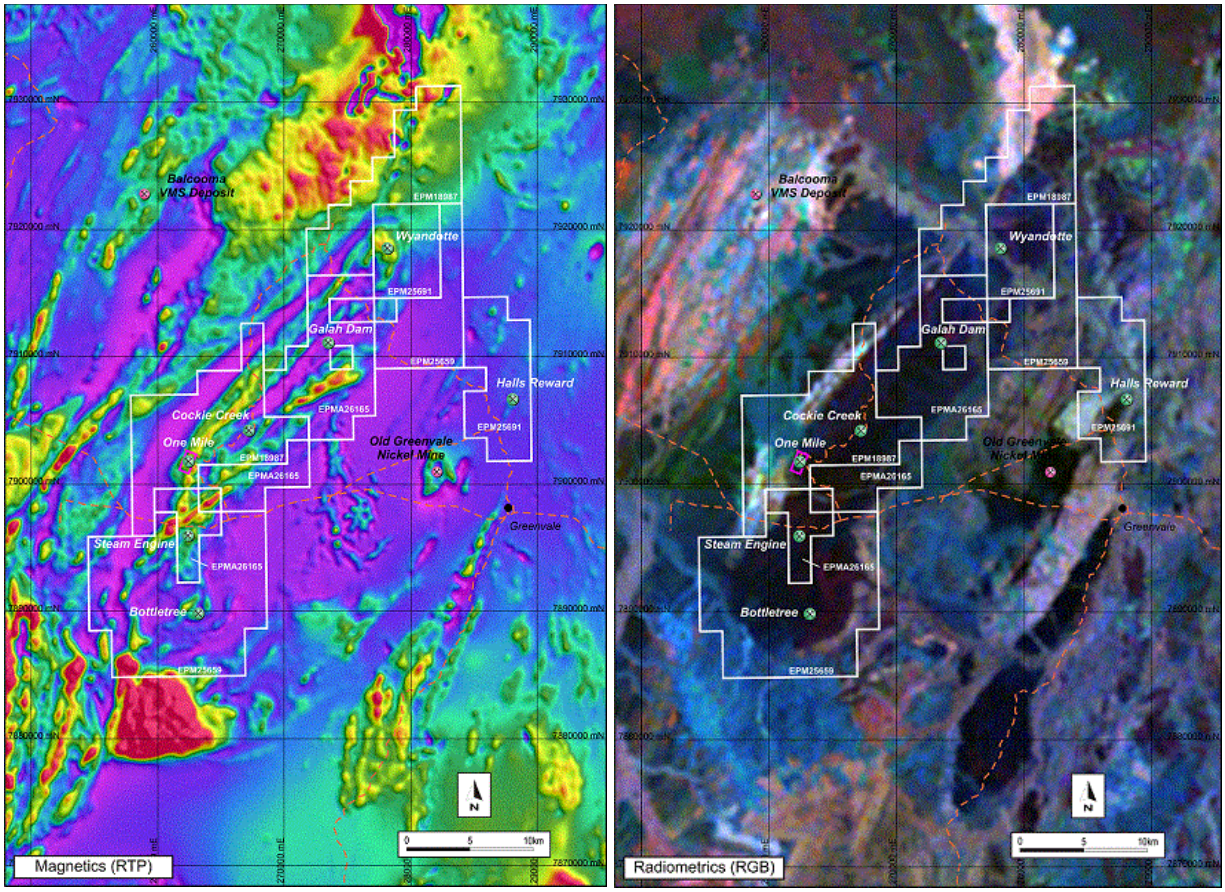

Figure 3. The possible northern extension of the central NSW Ordovician porphyry copper belt at the Greenvale Project, as indicated by regional magnetic (left) and radiometric (right) signatures.

Exploration planned for the remainder of 2016 - 2017

Subject to the availability of sufficient funding, drilling programs together with field geophysical and geochemical surveys, as relevant, will be conducted on the following prospects:

- One Mile Dam;
- Steam Engine Gold Deposit (subject to grant of tenement application);
- Wyandotte;
- Cockie Creek;
- Bottletree; and
- Galah Dam.

Selected prospect summaries follow.

Steam Engine Gold Deposit

As referred to above, the Steam Engine prospect is located within the new tenement application, EPMA26165 (Figure 1). The Company expects to be granted EPMA26165 during late 2016 or early 2017.

Gold at Steam Engine

The Steam Engine gold prospect comprises two main gold-bearing lodes, referred to as the Steam Engine Lode and the Eastern Ridge Lode (Figure 4). The lodes are north-north-east trending, west-dipping lodes and are essentially mineralised shear zones comprising pyrite-quartz-muscovite-carbonate schist within amphibolite, metasediment and/or metatonalite. A small area of gold mineralisation (Southern Zone) is located between and to the south of these two lodes.

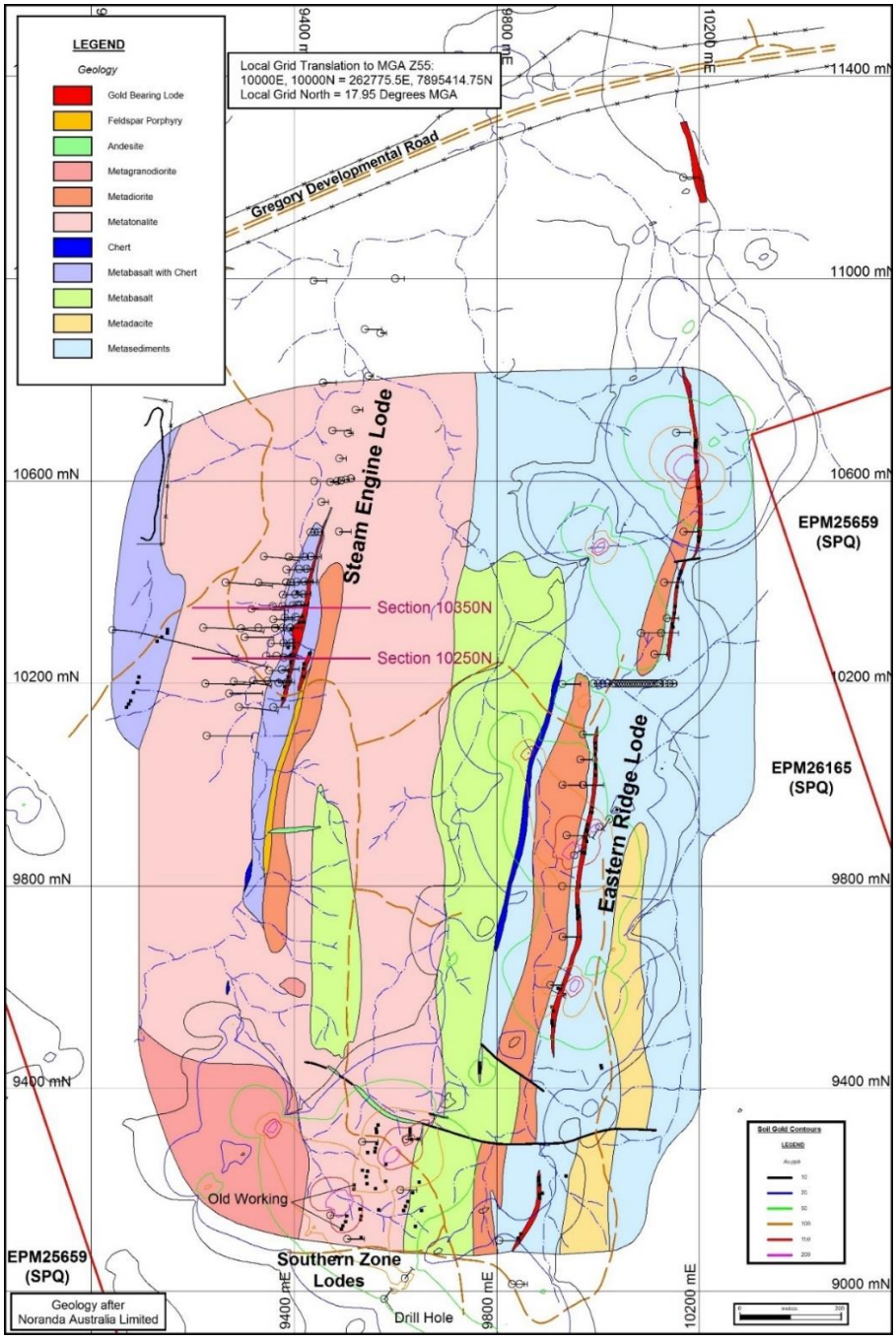

Figure 4. Steam Engine Gold Deposit – Interpreted geology showing the gold-bearing lodes (in red), historic drill holes and soil gold geochemistry (over the Eastern Ridge and Southern Zone).

Historic Drilling

Steam Engine was discovered by Noranda Australia Limited in 1983 with the first drilling being undertaken in 1985. The area was subsequently covered with a Mineral Development Licence (MDL107 – a retention type of tenement) in 1991.

Most of the historical drilling at Steam Engine has been concentrated on the central portion of the Steam Engine Lode, with only sparse drilling of the Eastern Ridge Lode (Figure 4). Approximately 75 holes have been drilled into and adjacent to the Steam Engine Lode, including 45 reverse circulation holes and 12 diamond drill holes.

Steam Engine Lode

The drilling at the Steam Engine Lode indicates that the gold mineralisation dips consistently to the west at about 55° and that it has good continuity. Much of the drilling at the Steam Engine Lode is characterised by moderate-grade gold intersections (Table 1, Figure 5).

The drilling is generally restricted to the near surface zone down to about 120m vertical depth. Only one hole has been drilled to any significant depth and this hole indicates that the lode continues to at least a vertical depth of about 220m below surface. This diamond drill hole intersected the lode between 348.4m and 350.5m down hole with 2.1m @ 5.5g/t Au intersected. This is at a vertical depth of about 220m below surface and confirms that the lode continues to that depth.

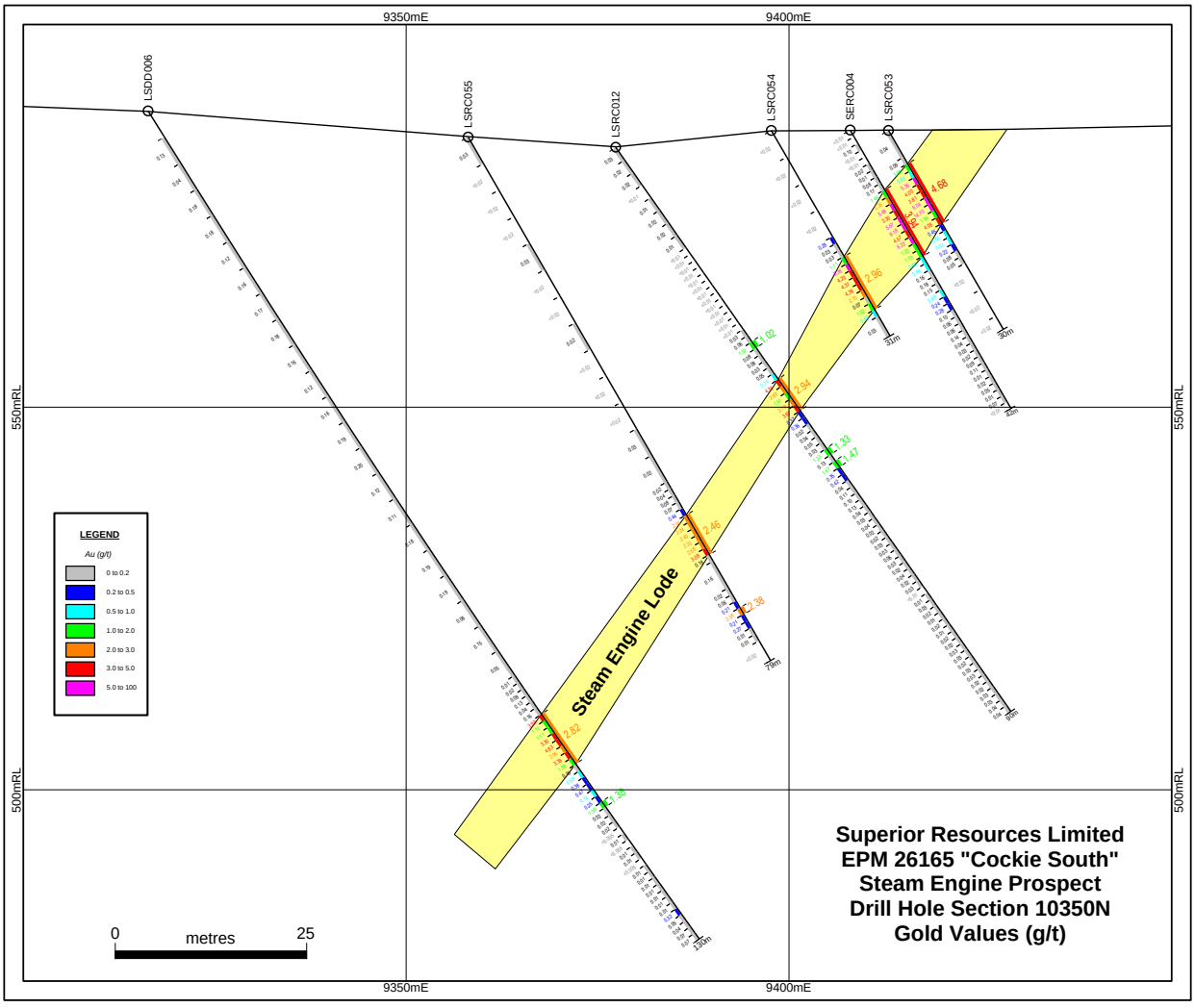

Figure 5. Steam Engine Lode – Drill hole assay section on line 10350N showing gold intersections. The lode shows good continuity with a westerly dip of about 55º.

Detailed drilling over a 300m section of this lode down to approximately 100m depth has allowed previous explorers to determine a non-JORC compliant resource for this area.

At least 56 of the approximately 75 historic holes drilled at the Steam Engine Lode returned intersections with average grades above 1.5g/t gold. Some of the intersections are set out in Table 1.

Table 1. Steam Engine Lode – Drill hole intersections from historical drilling[#]

Hole Name	From (m)	To (m)	Gold (g/t)	Length (m)	Azimuth (Local)	Hole Dip (°)
LSDD001	61.6	69.4	2.48	7.8	90.0	-55.0
LSDD001	70.4	71.4	6.80	1.0	90.0	-55.0
LSDD002	160.6	168.0	1.93	7.5	96.0	-48.0
LSDD002	171.4	178.0	1.83	6.6	96.0	-48.0
LSDD003	348.4	350.5	5.54	2.1	107.0	-40.0
LSDD004	96.5	100.0	4.36	3.5	97.0	-55.0
LSDD005	100.0	105.6	2.78	5.6	95.0	-56.0
LSDD006	94.1	102.0	2.82	7.9	92.0	-54.3
LSDD007	93.4	98.0	3.85	4.6	88.0	-53.5
LSDD007	106.0	110.1	2.85	4.1	88.0	-53.5
LSDD008	95.3	104.0	2.02	8.7	105.0	-56.0
LSDD009	90.6	92.4	5.32	1.8	99.0	-51.2
LSDD009	110.0	117.0	2.45	7.0	99.0	-51.2
LSDD011	156.0	161.2	2.18	5.2	94.0	-59.0
LSRC001	37.0	42.0	2.71	5.0	90.0	-55.0
LSRC002	38.0	44.0	2.17	6.0	90.0	-55.0
LSRC003	35.0	41.0	2.83	6.0	90.0	-55.0
LSRC012	37.0	42.0	2.94	5.0	90.0	-55.0
LSRC019	20.0	23.0	4.71	3.0	90.0	-60.0
LSRC030	76.0	85.0	2.40	9.0	90.0	-60.0
LSRC031	54.0	61.0	4.00	7.0	90.0	-75.0
LSRC033	38.0	43.0	1.74	5.0	90.0	-60.0
LSRC037	19.0	21.0	5.29	2.0	90.0	-60.0
LSRC039	31.0	39.0	2.69	8.0	90.0	-60.0
LSRC041	41.0	42.0	8.15	1.0	90.0	-60.0
LSRC042	1.0	6.0	2.34	5.0	90.0	-60.0
LSRC043	17.0	21.0	2.76	4.0	90.0	-60.0
LSRC044	43.0	47.0	2.32	4.0	90.0	-60.0
LSRC045	11.0	15.0	1.66	4.0	90.0	-60.0
LSRC046	11.0	15.0	1.78	4.0	90.0	-60.0
LSRC046	20.0	27.0	1.46	7.0	90.0	-60.0
LSRC047	0.0	1.0	6.51	1.0	90.0	-60.0
LSRC047	34.0	35.0	6.78	1.0	90.0	-60.0
LSRC047	39.0	44.0	1.31	5.0	90.0	-60.0
LSRC048	5.0	10.0	1.81	5.0	90.0	-60.0
LSRC050	0.0	10.0	3.46	10.0	90.0	-60.0
LSRC050	17.0	18.0	30.50	1.0	90.0	-60.0
LSRC051	18.0	32.0	2.49	14.0	90.0	-60.0
LSRC052	46.0	51.0	3.90	5.0	90.0	-60.0
LSRC053	5.0	14.0	4.68	9.0	90.0	-60.0
LSRC054	19.0	27.0	2.96	8.0	90.0	-60.0
LSRC055	57.0	63.0	2.46	6.0	90.0	-60.0
LSRC056	4.0	12.0	2.38	8.0	90.0	-60.0
LSRC057	20.0	24.0	1.86	4.0	90.0	-60.0
LSRC058	40.0	45.0	4.56	5.0	90.0	-60.0
LSRC059	11.0	20.0	2.49	9.0	90.0	-60.0
LSRC060	25.0	31.0	3.44	6.0	90.0	-60.0
LSRC062	24.0	28.0	3.65	4.0	90.0	-60.0
LSRC063	51.0	58.0	3.94	7.0	90.0	-60.0
SERC001	82.0	86.0	2.48	4.0	90.0	-60.0
SERC001	94.0	99.0	7.44	5.0	90.0	-60.0
SERC004	9.0	19.0	3.94	10.0	90.0	-60.0

[#] *Drill hole intersections have been calculated using a cut-off of 1g/t gold with a maximum of 2m of included material below the cut-off. True widths of intersections are approximately 0.87 times the intersection lengths shown in the table.*

Eastern Ridge Lode

Approximately 47 holes (20 RC holes) have previously been drilled into and adjacent to the Eastern Ridge Lode. The drilling shows that, like the Steam Engine Lode, the gold mineralisation occurs within a shear zone which dips to the west (Table 2).

The Eastern Ridge Lode extends for a total distance of over 2km and the spacing of the drill holes is variable. The lode structure is poorly defined by the existing drilling, opening up the possibility of further gold intersections along the length of the lode.

Table 2. Eastern Lode – Drill hole intersections from historical drilling#

Hole Name	From (m)	To (m)	Gold (g/t)	Length (m)	Azimuth (Local)	Dip (°)
LSRC005	23.0	26.0	2.79	3.0	90.0	-55.0
LSRC007	37.0	39.0	5.07	2.0	90.0	-60.0
LSRC015	29.0	33.0	2.75	4.0	90.0	-55.0
SERC008	17.0	22.0	4.47	5.0	90.0	-60.0
SERC009	24.0	27.0	6.90	3.0	52.0	-60.0

 # Drill hole intersections have been calculated using a cut-off of 1g/t with a maximum of 2m of included material below the cut-off. True widths of intersections are approximately 0.87 times the intersection lengths shown in the table.

Southern Zone

The Southern Zone lies at the southern end of the Steam Engine area. A number of shallow scattered pits indicate prospecting on a series of narrow gold bearing structures. Approximately 20 reverse circulation drill holes have been drilled in this general area (Table 3).

Table 3. Southern Zone – Drill hole intersections from historical drilling#

Hole Name	From (m)	To (m)	Gold (g/t)	Length (m)	Azimuth (Local)	Dip (°)
LSRC010	33.0	36.0	2.95	3.0	90.0	-55.0
LSRC020	39.0	40.0	5.37	1.0	90.0	-60.0
LSRC021	45.0	47.0	2.92	2.0	90.0	-57.0

 # Drill hole intersections have been calculated using a cut-off of 1g/t gold with a maximum of 2m of included material below the cut-off. True widths of intersections are unknown but expected to be approximately 0.87 times the intersection lengths shown in the table for lodes dipping approximately 60° to the west.

Exploration planned for Steam Engine

As soon as practicable after grant of the tenement application, Superior intends to commence the following exploration programs on the Steam Engine prospect.

Steam Engine Lode:

- interpretation and modelling of available data to establish an initial gold resource estimate; and
- resource drilling to expand the known gold mineralisation at depth and along strike.

Eastern Ridge Zone:

- further drilling to delineate the extent of the gold mineralisation; and
- potential infill drilling to establish a resource estimate.

One Mile Dam

The One Mile Dam prospect, located 1km from the Company's One Mile massive sulphide deposit, shows near coincident ground electromagnetic (EM), dipole-dipole induced polarization (IP) and versatile time domain electromagnetic (VTEM) geophysical anomalies from surveys originally conducted by MIM Exploration Limited and Beacon Minerals Limited (Figure 6). The target zone, interpreted from the geophysical data, has a strike length of approximately 1km.

The proximity of the substantial (but sub-economic) One Mile massive and semi-massive sulphide body containing copper, gold and zinc is very encouraging for substantial sulphide-related mineralisation at the One Mile Dam prospect. The mineralisation at the One Mile Dam prospect is likely to be of the VMS style.

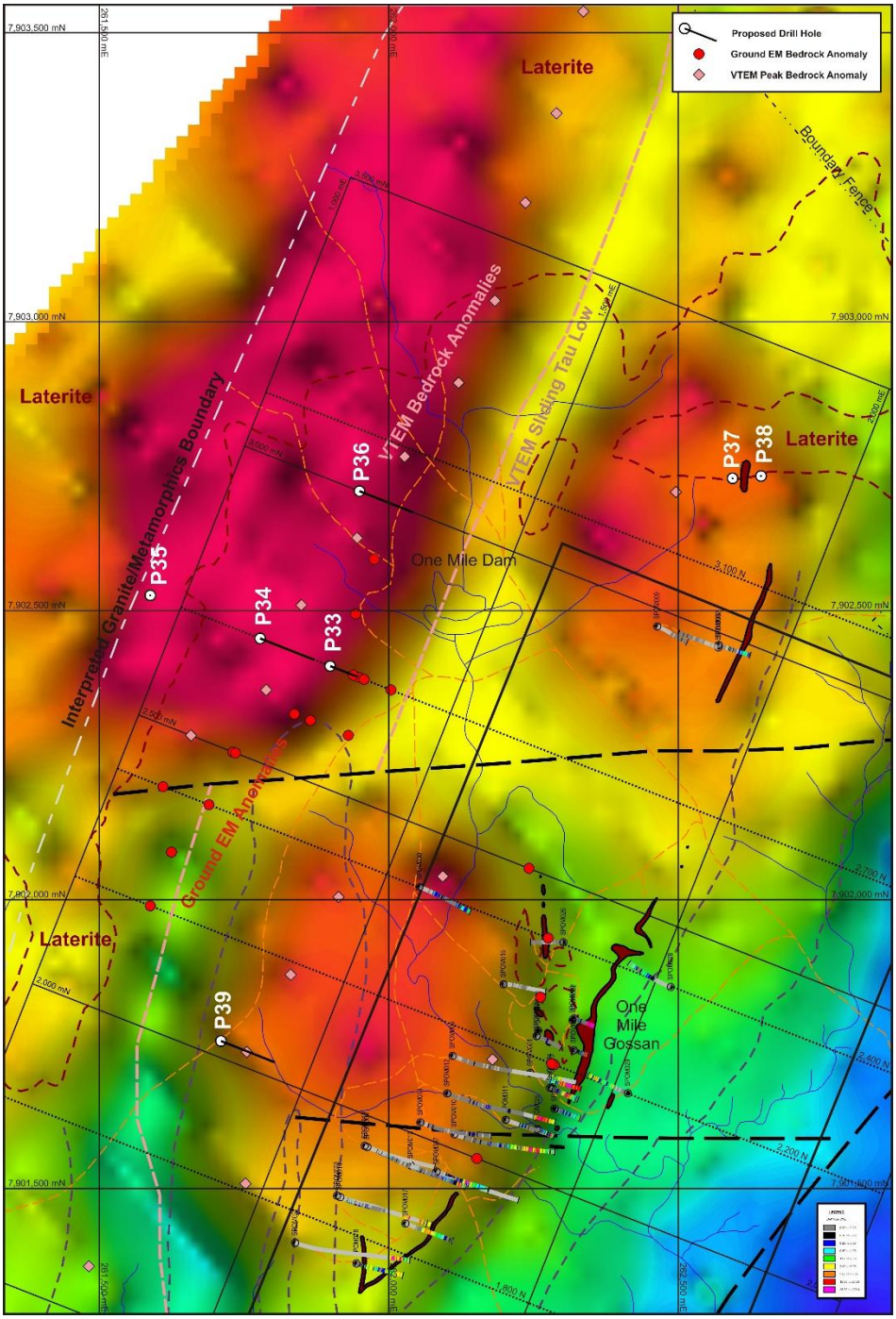

Figure 6. One Mile Dam – Proposed drill holes plotted on a VTEM (Sliding Tau - decay rate) modelled image showing the bedrock anomaly in the One Mile Dam target area and a further weaker anomaly on the western side of the One Mile Prospect.

Geophysical anomalies

At the One Mile Dam prospect, each of the EM, IP and VTEM surveys identify a substantial, or possibly two substantial, anomalous bodies at depth, likely relating to bedrock conductive sources. Superior considers that the anomalous bodies are likely to be caused by sulphides and has a reasonable expectation that the bodies are mineralised with copper, gold and zinc.

Exploration planned for One Mile Dam

These geophysical anomalies have not been tested by any drilling. Superior intends to undertake a drilling program during 2017 to identify the source of the chargeable bodies. Proposed drill holes are plotted in Figure 6.

Cockie Creek Prospect

At Cockie Creek, disseminated copper mineralisation with some gold and molybdenum is associated with a quartz-biotite-hornblende schist unit enclosed within a metamorphosed basic volcanic sequence. The copper mineralisation, with a true width up to 60m, extends over 1.2km and dips grid easterly at -80° (Figure 7).

Maiden JORC compliant resource

A resource estimation in accordance with the 2004 JORC Code and based on the previous drilling, results in global inferred resources down to an RL of 300m (approximately 250m depth) of 13Mt @ 0.42% copper (refer ASX Announcement 27 March 2013).

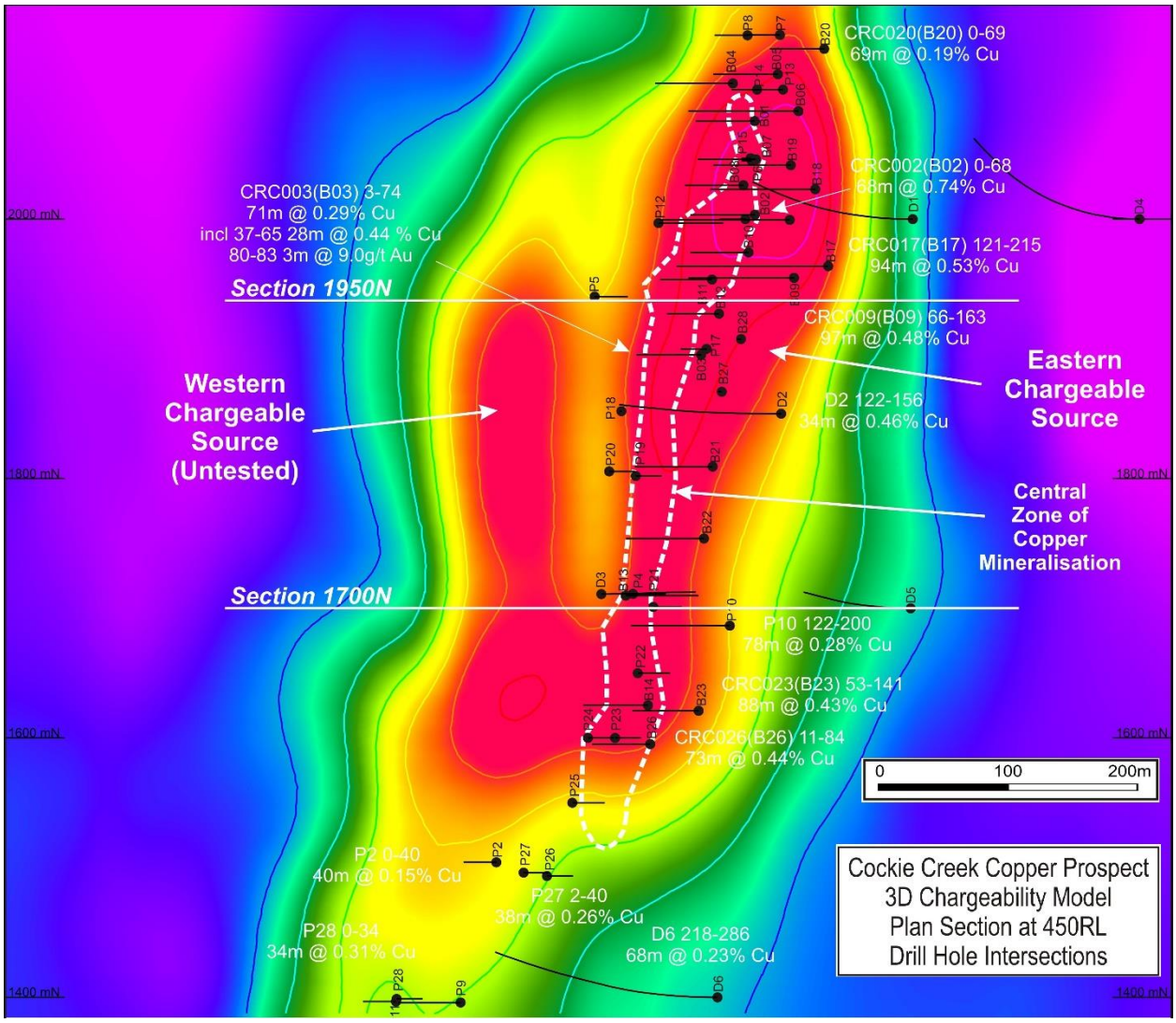

Figure 7. Cockie Creek Prospect – Plan section of 3D chargeability model at about 100m below surface showing the main mineralised area on the eastern side and the new, untested chargeable source on the western side of the area.

Geophysical modelling of IP

Modern three-dimensional (3D) computer modelling of IP geophysical survey data by Superior, produced two pronounced chargeable sources (western and eastern chargeable sources) with the eastern source corresponding with the known central zone of copper mineralisation (Figures 7 and 8). The western target zone was not identified by previous companies.

Geophysical modelling has opened up the potential of the Cockie Creek area to be a significant porphyry copper deposit.

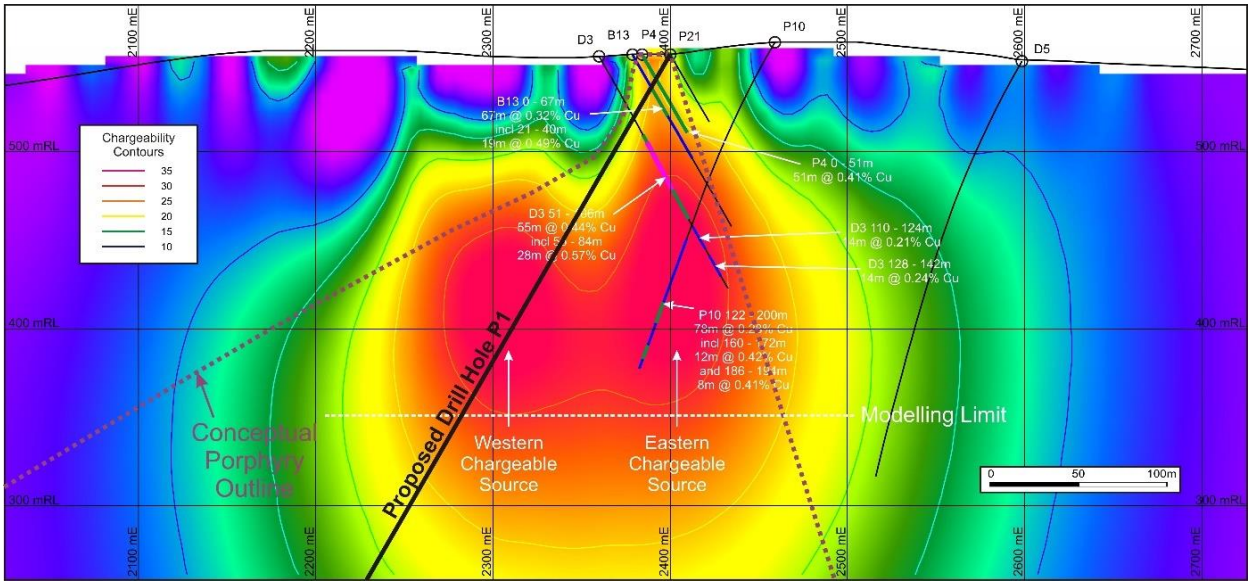

Figure 8. Cockie Creek Copper Prospect – Vertical cross section through the 3D chargeability model at 1700N showing the main mineralised area with drillhole copper intersections on the eastern side and the new untested second chargeable source on the western side. Proposed drill hole P1 is shown.

High grade gold intersection

Also of interest is an intersection of 3m @ 9.0 g/t Au between 80 and 83m in drill hole CRC003(B03) drilled through the central zone of copper mineralisation and extended towards the western chargeable source. The relationship of this high grade gold and the recently identified western chargeable source will not be known until further drilling is completed.

Exploration planned for Cockie Creek

The western chargeable source has not been tested by any drilling. Superior intends to undertake a drilling program during 2017 to drill the western chargeable source along with further drilling of the eastern chargeable source. Proposed drill holes are plotted in Figures 8 and 9.

When compared with other porphyry copper prospects, Cockie Creek is better located with regard to infrastructure than many other porphyry copper prospects around the world as it is situated only 210km from Townsville, the port city for mining in north Queensland. In addition to its port, Townsville also has a copper refinery, a zinc refinery and a lateritic nickel processing facility.

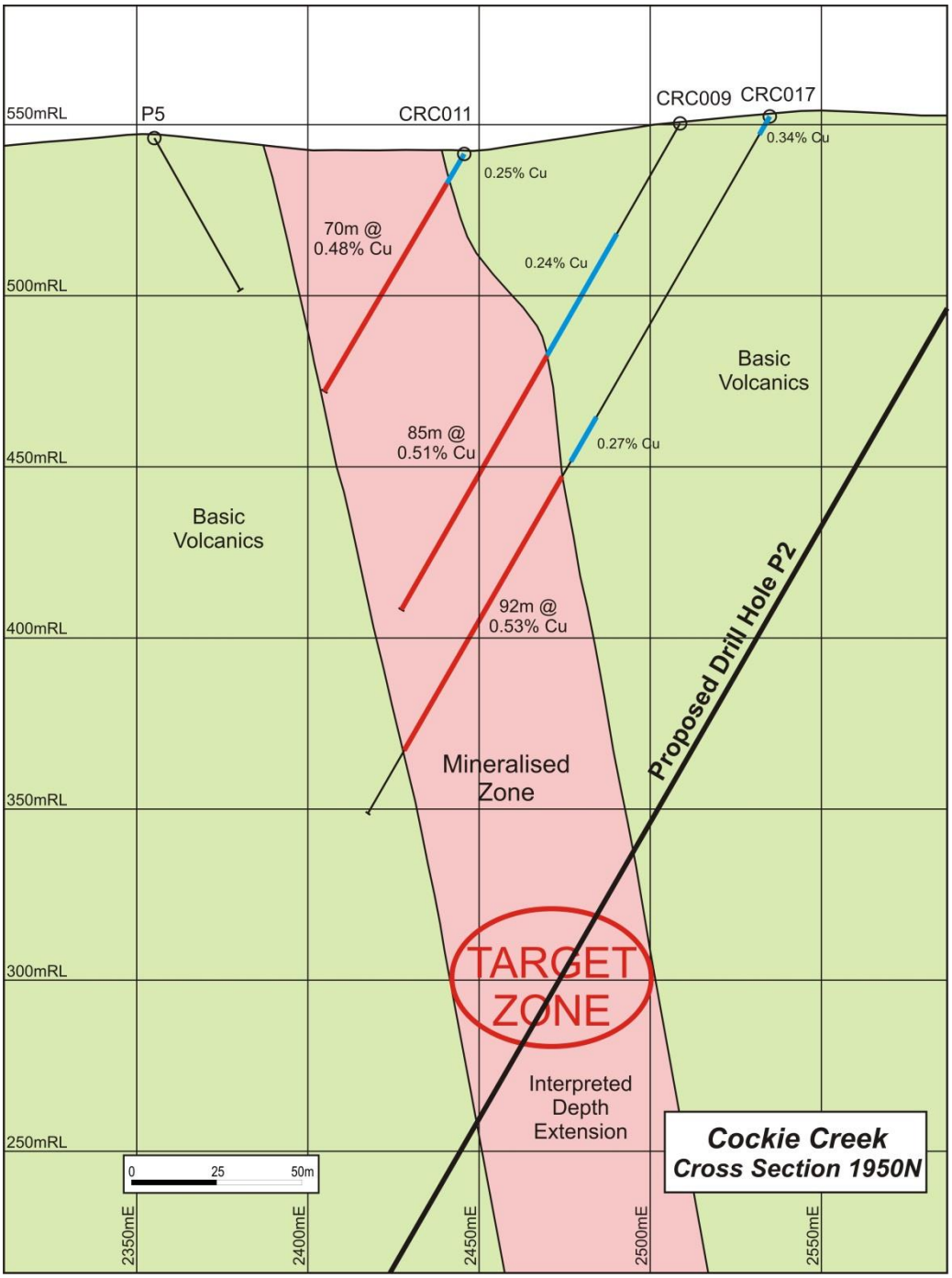

Figure 9. Cockie Creek Prospect – Section 1950N showing drill holes and the Central Zone of copper mineralisation. Proposed drill hole P2 is also shown.

Bottletree Copper-Gold Prospect

The Bottletree Prospect is a large (2km x 1km) soil copper anomaly located about 10km south of the One Mile prospect (Figure 10) with the Steam Engine Gold Prospect located in between those two prospects (Figure 1).

The mineralisation at Bottletree is interpreted to be possibly of the porphyry copper style. At the surface, the soil geochemistry appears as numerous smaller high-order soil copper anomalies that cover the 2km x 1km area (Figures 10 and 12).

Pancontinental Mining Limited completed 15 reverse-circulation holes into the higher-order anomalies. The drilling indicates that copper mineralisation above 0.3% copper has a true width up to about 60m. A section through four of the drill holes is shown in Figure 11.

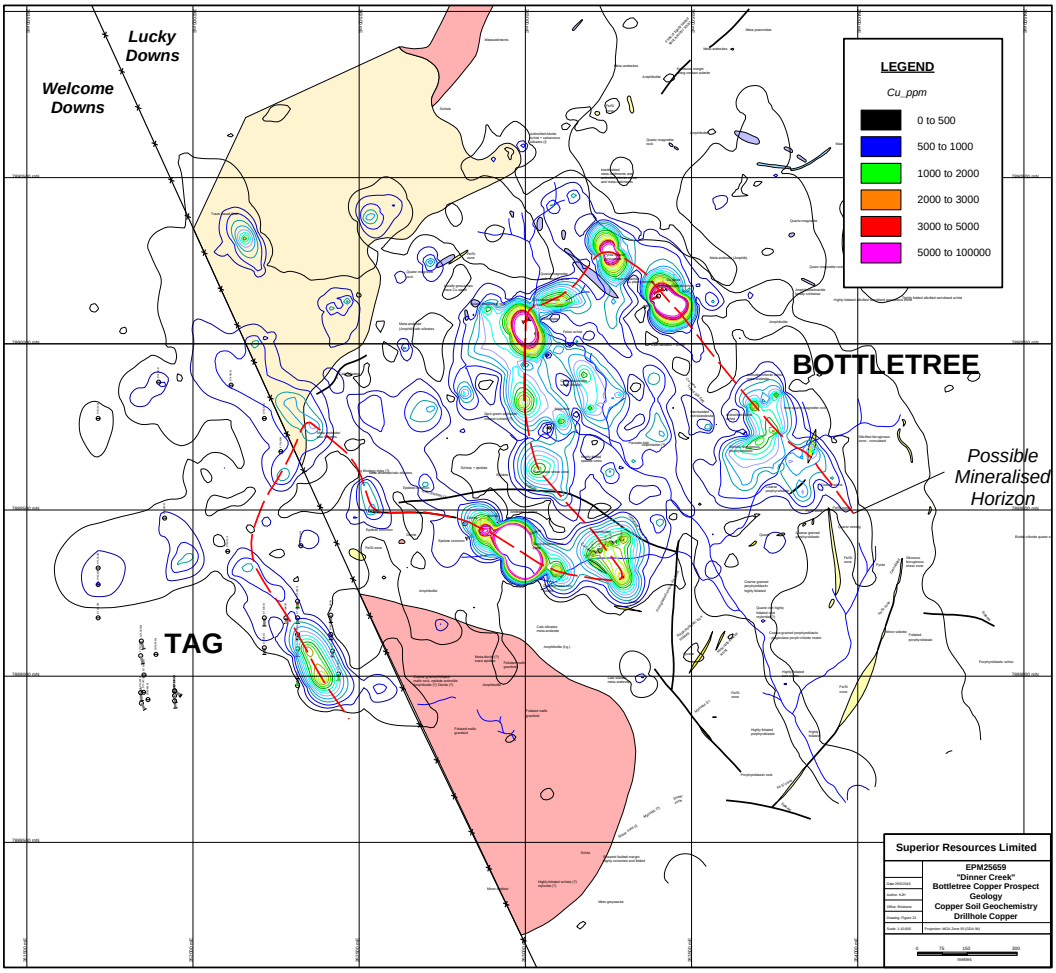

Figure 10. Bottletree Prospect – Geology, soil copper geochemistry and drill hole locations.

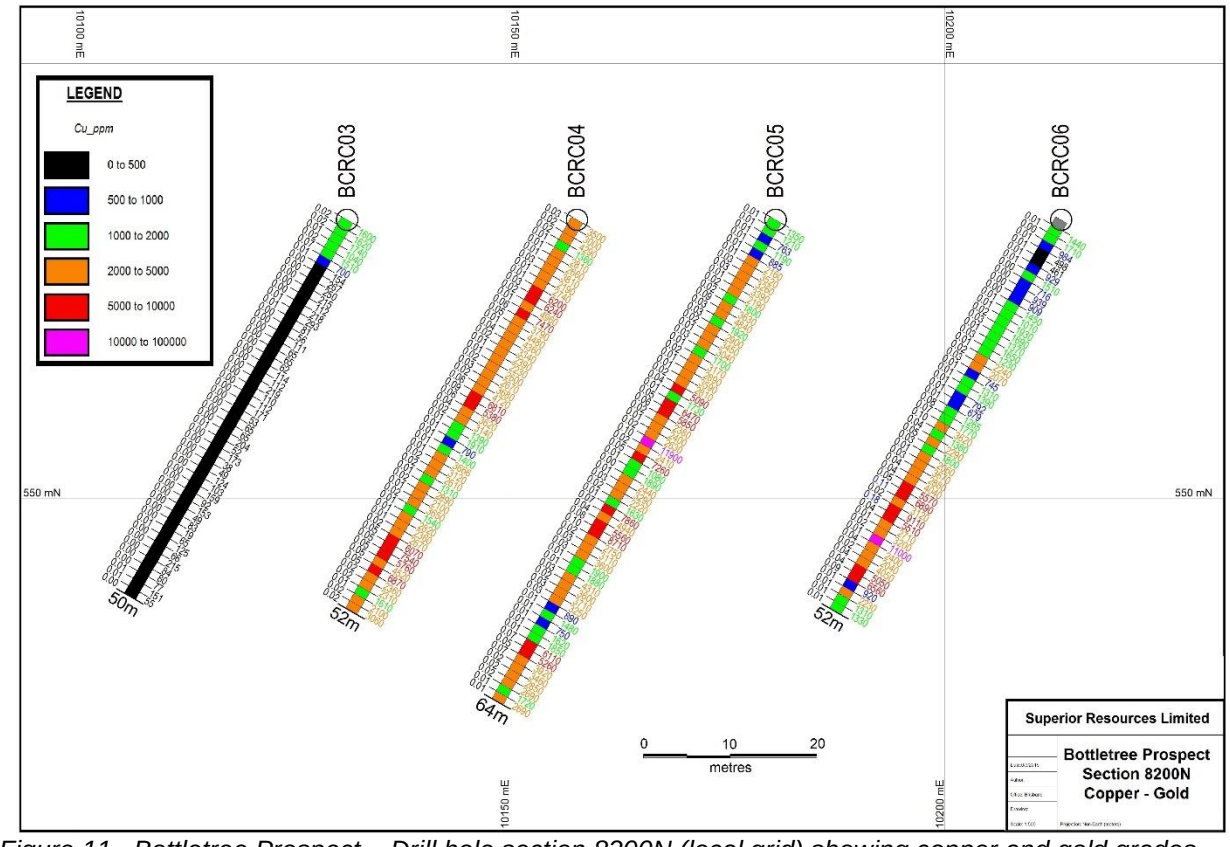

Figure 11. Bottletree Prospect – Drill hole section 8200N (local grid) showing copper and gold grades

intersected in shallow RC drilling.

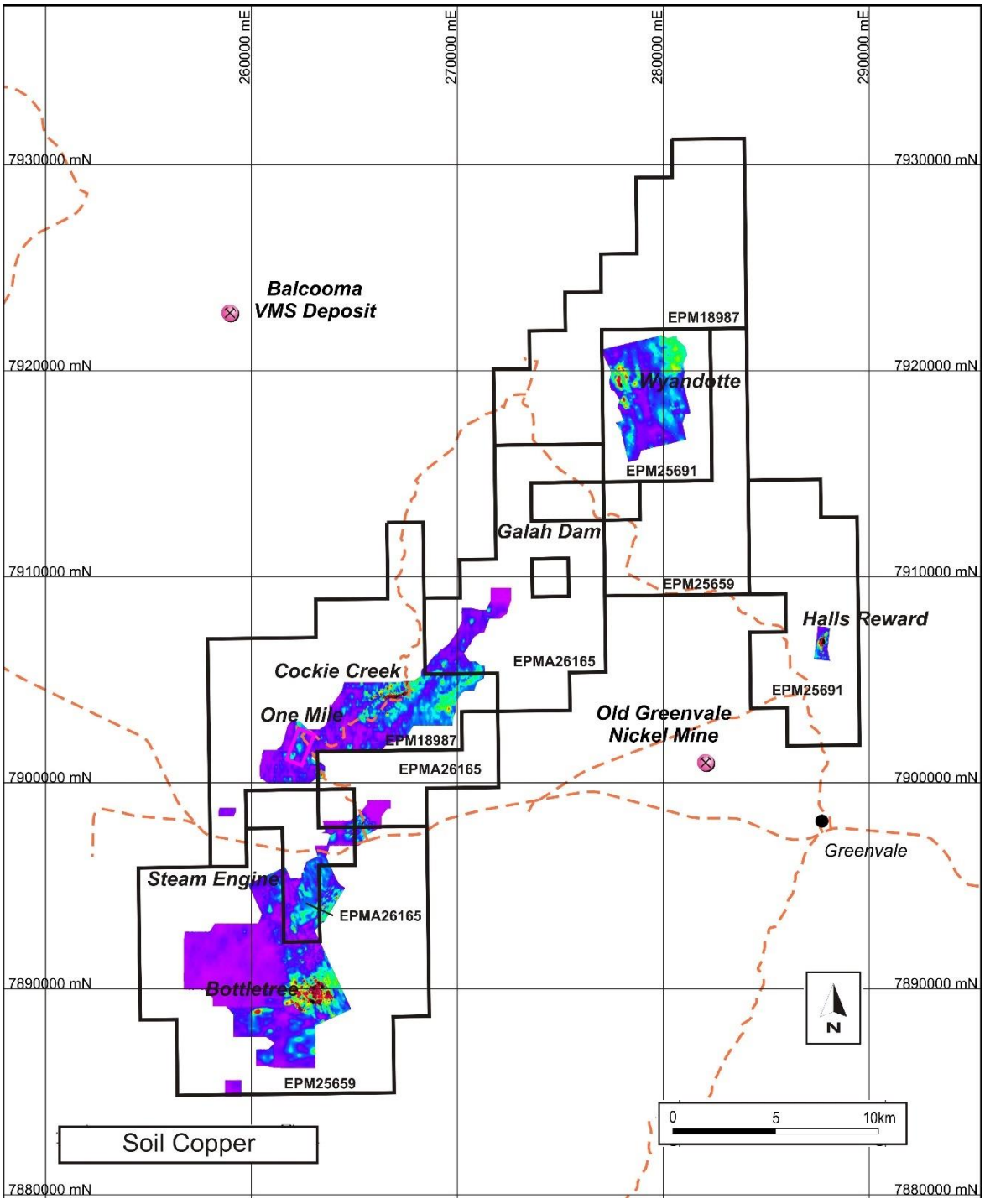

Figure 12. Greenvale Project – Image of soil copper geochemistry showing the large soil copper anomaly over the Bottletree Prospect and the soil anomalies over the other prospects.

The only geophysics conducted at Bottletree is a Gradient Array IP survey by Pancontinental. This survey produced moderate order chargeability anomalies on the eastern side of the area, which are reasonably coincident with the soil copper anomalies. The four holes drilled on Section 8200N (Figure 11) were drilled across the higher-order anomaly. Most of the remaining area has not been drilled.

The copper intersections at Bottletree are similar to those from the early drilling by MIM at Cockie Creek, which suggests that further drilling will result in better intersections of copper.

Exploration planned for Bottletree

Superior intends to undertake a dipole-dipole IP survey across the Bottletree prospect followed by a drilling program during 2017.

Regular Updates

Superior expects to provide the market with ongoing progress updates on exploration programs on the Greenvale Project during the course of 2017.

Peter Hwang
Managing Director

Contact: **Mr Peter Hwang (07 3847 2887)**
Mr Carlos Fernicola (07 3831 3922)

Further Information: *www.superiorresources.com.au*
manager@superiorresources.com.au

The information in this report, insofar as it relates to Exploration Results is based on information compiled by Mr Ken Harvey, who is a non-executive Director of Superior Resources Limited, a member of the Australian Institute of Geoscientists and a Member of the Australasian Institute of Mining and Metallurgy. 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 has undertaken 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 the report of the matters based on the 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.

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.*	• This report relies in part on data contained in reports submitted to the Queensland Department of Natural Resources and Mines as part of the Company Report System attaching to the grant of Exploration Permits. • Resources at the Cockie Creek Prospect has been reported in a previous ASX release (27 March 2013) and the supporting information is not repeated here. • The drilling sampling techniques, where reported in the Company Report System, 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 most samples was completed by commercial laboratory methods that were appropriate at the time the samples were collected. In the case of the Steam Engine drilling, 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 apparent 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.).*	• Historical Reverse Circulation (RC) and Diamond Drilling (DD) are the only drill types relied on in this report. Results from RAB drill holes are not reported.
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 preferential loss/gain of fine/coarse material.*	• 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,*	• At Steam Engine and Bottletree, geological logging of most of the drill holes is available in the Company Report System. • Logs for holes drilled at Steam Engine at fill-in 25m sections have not been located at this stage as detailed in a more comprehensive report on the area.

Appendix 1: JORC Code, 2012 Edition – Table 1

Criteria	JORC Code explanation	Commentary
	channel, etc.) photography. • *The total length and percentage of the relevant intersections logged.*	The available logging is of a standard to support the proposed resource estimation. No geotechnical logs have been reported and it is assumed that these were not done. The diamond drill hole logs usually include structural data which has been compiled into digital form and plotted on sections. • The logging is generally of a qualitative nature. No core or chip photography is available in the reports. • 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.*	• As reported above, it is reported that diamond drill core has been halved as is standard practice for most explorers. • 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.*	• As reported above, assaying of samples was completed by commercial laboratory methods that were appropriate at the time the samples were collected. • In the case of the Steam Engine drilling, 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. • 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.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Limited more recent drilling by Beacon Minerals Limited at Steam Engine confirms the drill gold intersections obtained by Noranda Australia Limited as shown in Figure 5 (SERC004). 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 adjustments.

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Criteria	JORC Code explanation	Commentary
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.*	• 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. A reasonably 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 future validation of the drill hole locational data before being used for the proposed resource estimation work. • The drilling and other work at Bottletree was also controlled by a local grid but the accuracy of this grid is not apparent in the available records. This has little bearing on the historical results reported. • 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 and is indicated on Figure 2 for the Steam Engine area and Figure 10 for Bottletree. • The drill hole spacing is sufficient for the central portion of the Steam Engine Lode to allow the proposed estimation of resources when other issues are addressed to allow this to occur. • Most intersections reported in this report are interval weighted average 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.*	• In the Steam Engine area, as is evident from the sections, the orientation of the drill holes is ideal for reporting of results and the proposed estimation of resources. • In the Bottletree area, until further data acquisition and interpretation of the results have been completed, no conclusion can be reached on the appropriateness of the drill hole orientations.
Sample security	• *The measures taken to ensure sample security.*	• Not known.
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 at this time.

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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 in respect of Steam Engine and Galah Dam lie within application for Exploration Permit for Minerals 26165 which has not been granted but which Superior has a reasonable expectation will be granted subject to the area proceeding successfully through the granting process. • Superior has been listed as the priority applicant for EPM26165 and its work program has been accepted for the area. • Superior holds much of the surrounding area under granted exploration permits with 100% ownership. • The One Mile Dam and Cockie Creek prospects are located on granted EPM18987. • The Wyandotte and Halls Reward prospects are located on granted EPM25691. • The Bottletree prospect is located on granted EPM25659. • The One Mile prospect is located on a granted Mining Lease (ML6750).
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• All of the drilling reported in this report has been completed and reported on under the Company Report System applying to granted Exploration Permits for Minerals by the Queensland Department of Natural Resources and Mines However 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 has some similarities with the shear gold mineralisation at Hemlo in Ontario, Canada. An important feature of the Steam Engine mineralisation is its continuity and persistent dip to the west. • The Cockie Creek deposit is interpreted to be of porphyry copper style. • The One Mile, One Mile Dam, Galah Dam and Ninety Mile prospects are interpreted to be of VMS style • The Wyandotte prospect is interpreted to be of intrusive related style with the possibility that it is of porphyry copper style. • Insufficient data exists in respect of the Bottletree prospect to enable a conclusion as to mineralisation style but it is possibly of porphyry copper style.
Drill hole	• *A summary of all information material to the understanding of the exploration*	• Drill hole collar tables with significant intersections are included in the

Appendix 1: JORC Code, 2012 Edition – Table 1

Criteria	JORC Code explanation	Commentary
Information	*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.*	main body of the announcement. These tables include information relevant to an understanding of the results reported. The collar locations of the holes referred to are included at the end of this Table.
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.*	• Drill hole exploration results are reported as a length weighted average of the significant assays of the hole intersections. • No top cutting has been applied as there are a limited number of high-grade assays that influence the calculated intersection grades. 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 55° 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. • At Bottletree, no firm 'true widths' are reported as this depends on a comprehensive process of interpreting the orientation and nature of the mineralisation intersected which will probably take some months to complete properly. Section 8200N at Bottletree allows the conclusion of a true width of up to 60m 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.*	• Reporting of all reverse circulation and diamond drill holes at Steam Engine with intersections above 1g/t gold has been included in tables within the report. Possibly less reliable RAB holes have not been included. • Reporting of drillhole copper and gold assay results for the best section (8200N – Figure 11) at Bottletree is included in the report.
Other substantive exploration	• *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;*	• 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

Appendix 1: JORC Code, 2012 Edition – Table 1

Criteria	JORC Code explanation	Commentary
data	*metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	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 and it has been omitted. The critical geological information that the mineralisation is hosted in a westerly-dipping shear zone is reported. • Historical geophysical survey data is reported for One Mile Dam, Cockie Creek and Bottletree. Diagrams are included showing computer modelled historical geophysical data at One Mile Dam and Cockie Creek with new targets outlined from this work. The same caution is appropriate for computer modelling of geophysical data as for computer modelling of other data.
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

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Steam Engine (Steam Engine Lode) drill hole collar location information relevant to Table 1 in the body of the announcement.

Hole Name	East (Local)	North (Local)	RL (Local)	Azimuth (Local)	Dip (°)
LSDD001	9367.12	10310.52	534.43	90.0	-55.0
LSDD001	9370.22	10310.52	530.00	90.0	-55.0
LSDD002	9322.92	10304.74	466.95	96.0	-48.0
LSDD002	9329.74	10304.07	459.09	96.0	-48.0
LSDD003	9271.39	10257.67	348.07	107.0	-40.0
LSDD004	9393.07	10445.70	505.94	97.0	-55.0
LSDD005	9385.66	10396.21	502.72	95.0	-56.0
LSDD006	9369.91	10345.82	506.63	92.0	-54.3
LSDD007	9347.90	10311.41	510.47	88.0	-53.5
LSDD007	9355.03	10311.66	500.39	88.0	-53.5
LSDD008	9335.95	10236.04	505.07	105.0	-56.0
LSDD009	9331.71	10199.85	512.97	99.0	-51.2
LSDD009	9345.04	10197.92	495.58	99.0	-51.2
LSDD011	9346.49	10394.30	459.05	94.0	-59.0
LSRC001	9370.32	10205.61	556.65	90.0	-55.0
LSRC002	9386.28	10310.03	551.24	90.0	-55.0
LSRC003	9415.76	10400.18	552.73	90.0	-55.0
LSRC012	9400.03	10353.88	551.60	90.0	-55.0
LSRC019	9431.49	10450.56	564.28	90.0	-60.0
LSRC030	9359.90	10205.66	516.43	90.0	-60.0
LSRC031	9399.65	10400.13	528.14	90.0	-75.0
LSRC033	9460.25	10600.00	548.13	90.0	-60.0
LSRC037	9380.20	10201.40	573.48	90.0	-60.0
LSRC039	9408.30	10228.90	562.34	90.0	-60.0
LSRC041	9371.75	10225.70	551.96	90.0	-60.0
LSRC042	9397.25	10252.40	588.02	90.0	-60.0
LSRC043	9389.40	10251.80	573.50	90.0	-60.0
LSRC044	9368.30	10254.80	546.38	90.0	-60.0
LSRC045	9401.30	10280.90	577.44	90.0	-60.0
LSRC046	9386.00	10280.40	575.89	90.0	-60.0
LSRC046	9391.25	10280.40	566.80	90.0	-60.0
LSRC047	9354.65	10280.00	585.17	90.0	-60.0
LSRC047	9371.65	10280.00	555.72	90.0	-60.0
LSRC047	9375.15	10280.00	549.66	90.0	-60.0
LSRC048	9396.75	10310.90	578.95	90.0	-60.0
LSRC050	9405.91	10331.80	584.27	90.0	-60.0
LSRC050	9412.16	10331.80	573.44	90.0	-60.0
LSRC051	9394.20	10330.60	562.60	90.0	-60.0
LSRC052	9383.55	10326.70	543.75	90.0	-60.0
LSRC053	9417.75	10356.10	577.92	90.0	-60.0
LSRC054	9409.20	10355.20	566.23	90.0	-60.0
LSRC055	9388.10	10352.70	533.34	90.0	-60.0
LSRC056	9422.40	10377.00	578.82	90.0	-60.0
LSRC057	9413.80	10376.40	566.00	90.0	-60.0
LSRC058	9399.25	10375.60	547.04	90.0	-60.0
LSRC059	9428.45	10402.00	570.98	90.0	-60.0
LSRC060	9419.80	10401.10	559.70	90.0	-60.0
LSRC062	9423.10	10426.30	560.78	90.0	-60.0
LSRC063	9412.25	10425.60	536.75	90.0	-60.0
SERC001	9344.71	10291.54	519.25	90.0	-60.0
SERC001	9350.96	10291.54	508.43	90.0	-60.0
SERC004	9416.19	10355.47	574.88	90.0	-60.0

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Steam Engine (Eastern Ridge Lode) drill hole collar location information relevant to Table 2 in the body of the announcement.

Hole Name	East (Local)	North (Local)	RL (Local)	Azimuth (Local)	Dip (°)
LSRC005	9984.05	10000.00	574.63	90.0	-55.0
LSRC007	9949.00	9700.00	570.09	90.0	-60.0
LSRC015	10142.28	10300.00	570.41	90.0	-55.0
SERC008	9939.41	10199.27	573.61	90.0	-60.0
SERC009	9963.10	9868.86	575.92	52.0	-60.0

Steam Engine (Southern Zone) drill hole collar location information relevant to Table 3 in the body of the announcement.

Hole Name	East Local)	North (Local)	RL (Local)	Azimuth (Local)	Dip (°)
LSRC010	9554.79	9295.00	588.54	90.0	-55.0
LSRC020	9491.75	9150.00	583.89	90.0	-60.0
LSRC021	9635.05	9200.00	581.22	90.0	-57.0