

**Northern Cobalt Ltd**  
ACN 617 789 732

**ASX Code(s)**  
Fully Paid Shares: **N27**  
Options: **N27O**

**Share Price**  
\$AUD 0.41

**Market Capitalisation**  
\$AUD 14.7 M

**Capital Structure**  
**Ordinary Shares**  
Issued 35.8 M  
**Options**  
Listed 10.5 M @20c  
Unlisted 12.3 M @25c  
**Performance Shares**  
Class A 9.6 M  
Class B 3.6 M

**Substantial Holder(s)**  
13.7% Coolabah Group  
5.8% PAC Partners

**Last Capital Raise**  
20 Sept 2017  
\$4.2M @ 20c (IPO)

**Board**  
**Len Dean** - Chair  
**Michael Schwarz** - MD  
**Duncan Chessell** - NED  
**Andrew Shearer** - NED  
**Jarek Kopias** - Co Sec

**Address**  
67 Goodwood Road  
Wayville SA 5034  
(South Australia)

**Contact**  
Michael Schwarz  
0402 101 790  
Managing Director

**Website**  
[northerncobalt.com.au](http://northerncobalt.com.au)

**Second Drilling progress report on the Wollogorang Cobalt Project, Northern Territory**

- **Resource drilling completed at the Stanton Cobalt Deposit, first assays expected in 2 weeks.**
- **57 drill holes completed, 13 more than the originally planned 44 drill holes. Extra drill holes to better define extensions of mineralisation.**
- **RC drill rig has moved to the "Running Creek" Prospect.**
- **Metallurgical diamond drilling to commence early this week.**

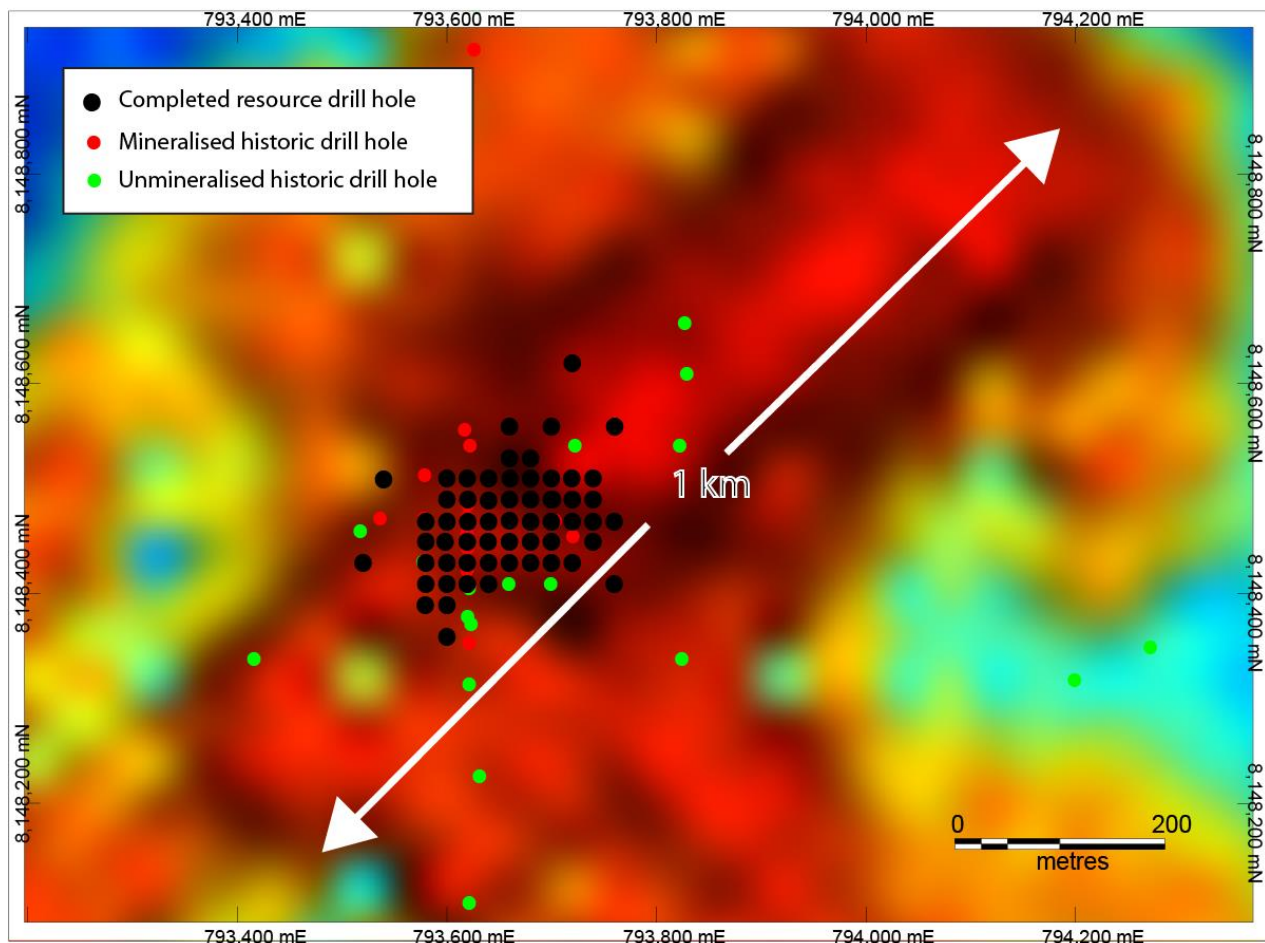


***Two RC drill rigs resource drilling at the Stanton Cobalt Deposit***

**Resource drilling completed at Stanton Cobalt Deposit**

A total of 57 RC drill holes have been completed at the Stanton Cobalt deposit, a total of 13 more than were originally planned for the site. The extra 13 drill holes have been drilled to test extensions of mineralisation located outside of the previously defined JORC 2012 inferred resource.

The final batch of geochemical samples from resource drilling will be despatched from site for analysis by the end of the week. The first assays are expected to be received within 2 weeks.



***Drill plan of the Stanton Cobalt Deposit showing completed resource drill holes and historic drill holes. The background image is surface geochemistry.***

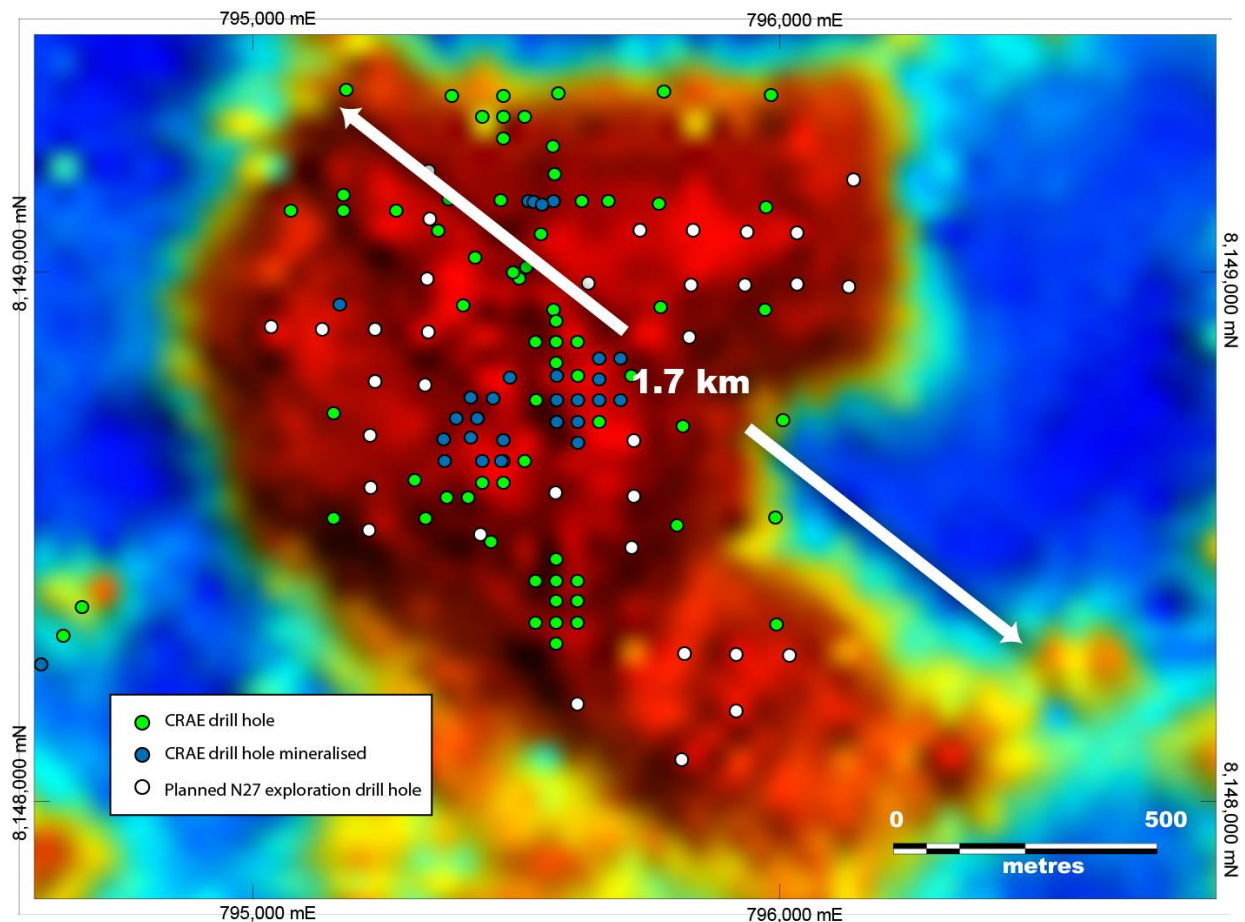
### **Drilling commences at the Running Creek Target**

A RC drill rig has commenced drilling at the Running Creek Co-Cu Target. The plan is to drill up to 34 drill holes targeting extensions to known cobalt and copper mineralisation identified by historic drilling undertaken by CRA. The Running Creek target appears to be more copper rich than Stanton, with historical drill intersections including (**historical estimates**):

- **13.4m @ 1.2% copper from 25.5m in DD94RC63**
- **7.0m @ 0.38% copper from 25m in DD94RC125**

**The historical estimates are not reported in accordance with the JORC code and a competent person has not done sufficient work to classify the historical estimates as mineral resources or ore reserves. It is uncertain that following evaluation and/or further exploration work that the historical estimates will be able to be reported as mineral resources or ore reserves in accordance with the JORC code.**





**Drill plan of the Running Creek Target showing historic drill holes and planned exploration drill holes. The background image is surface geochemistry.**

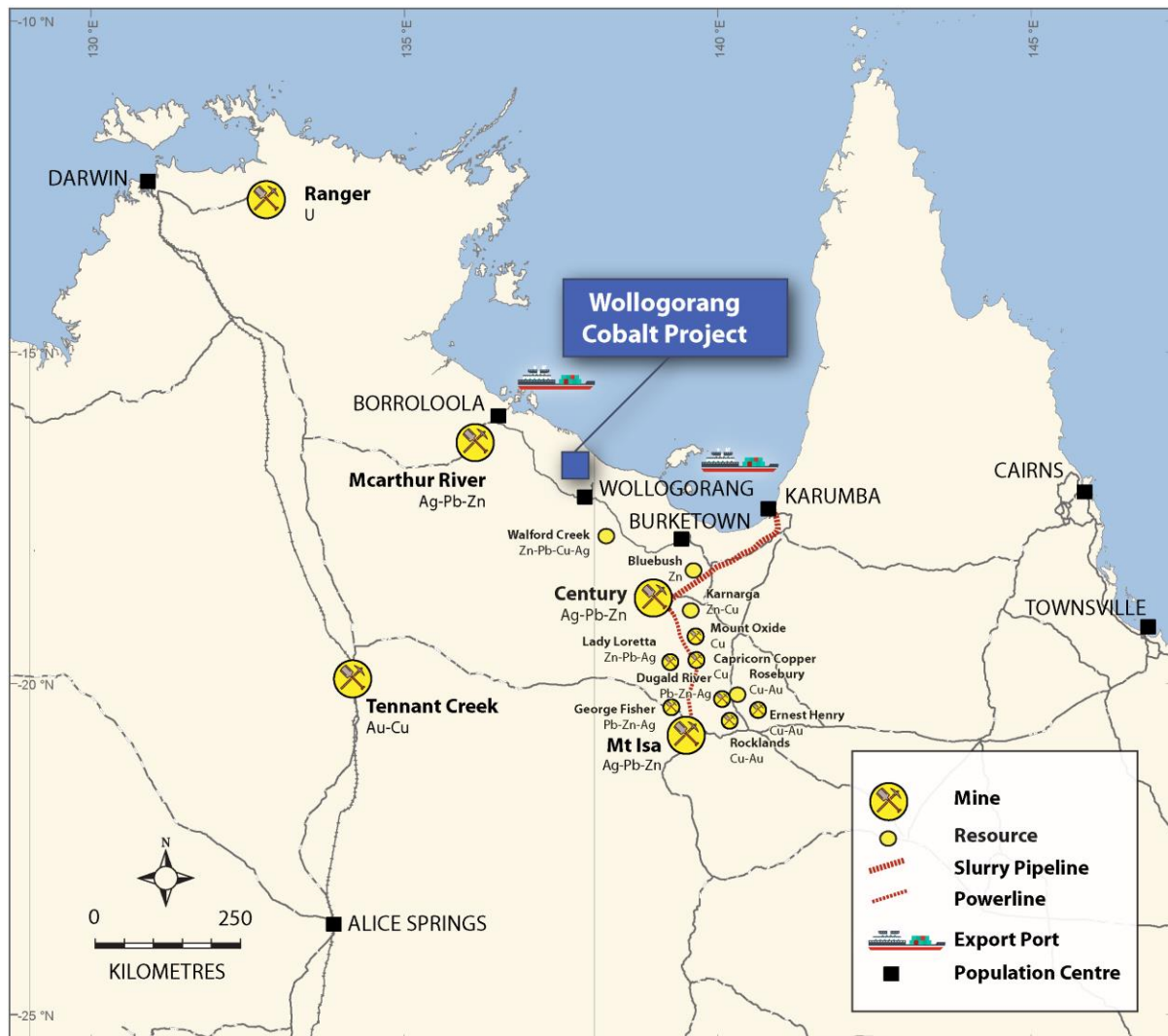
### **Metallurgical diamond drilling at the Stanton Cobalt Deposit**

A diamond drill rig is expected to commence the first of 6 diamond drill holes into the Stanton Cobalt Deposit early this week. The diamond drill core will be used to obtain representative samples of cobalt-copper-nickel mineralisation. Samples will be submitted for metallurgical test work to establish a process to produce a concentrate. This information is required to define an indicated resource and for marketing to potential customers.

### **Competent Persons Statement**

*The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Michael Schwarz who is a member of the Australian Institute of Geoscientists. Mr Michael Schwarz is a full-time employee of the company and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Michael Schwarz consents to the inclusion in the report of the matters based on his information in the form in which it appears.*

*This reports contains historical exploration results announced on 20 September 2017 as "Prospectus" (historical estimate). The Company confirms it is not in possession of any new information or data relating to the historical estimate that materially impacts on the reliability of the estimates or the Company's ability to verify the historical estimate. Supporting information provided in the announcement of 20 September 2017 continues to apply and has not materially changed.*



### Project Location

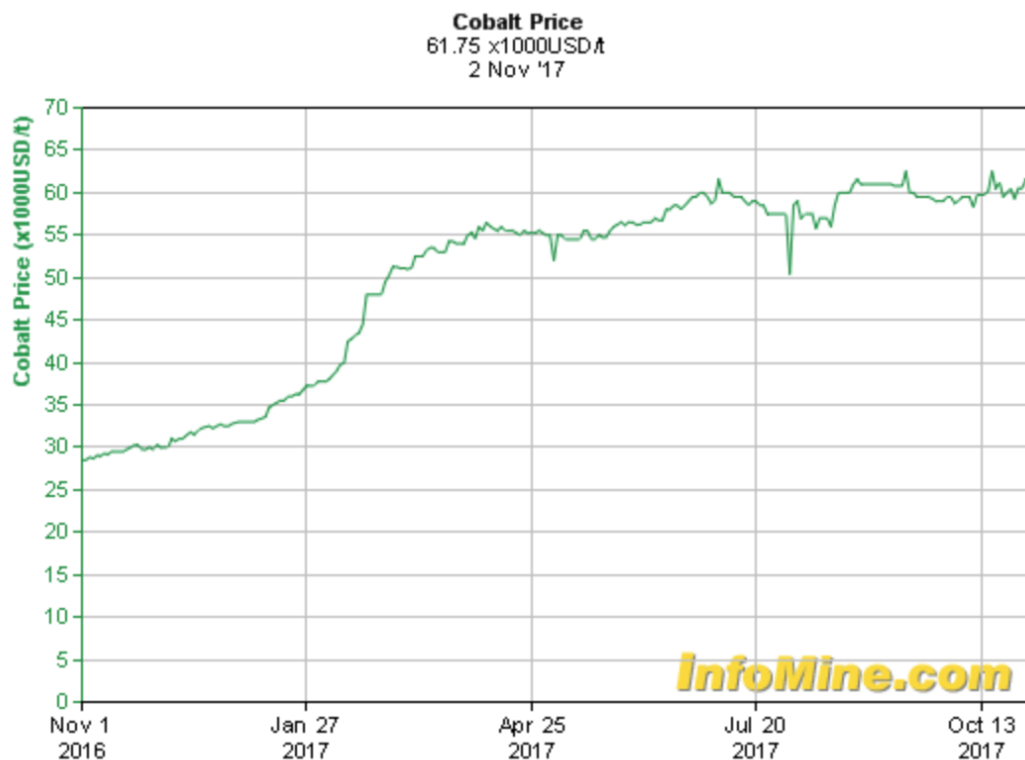
The Wollogorang Cobalt Project occurs in the far north-eastern corner of the Northern Territory, a mining friendly jurisdiction. The Project area is 180 km to the south-east of the population centre of Borroloola. The capital city of Darwin is 870 km to the north-west and the McArthur River Mine is approximately 150 km to the west-northwest.

## About Northern Cobalt Ltd

Northern Cobalt Ltd is an emerging resource company engaged in the acquisition, exploration and development of cobalt mineral projects. The company is led by an experienced and diverse board of directors and management team with proven success in corporate finance, operational management, engineering and exploration project management. Their combined experience and commitment provides Northern Cobalt with the tools to capitalise on the growing demands of the cobalt and energy storage markets.

## Cobalt Sector

Cobalt is an important metal used in the production of batteries and is favoured in end uses such as electric vehicles and mobile phones. The price of Cobalt has doubled over the last 12 months (reference-[www.infomine.com](http://www.infomine.com)). Cobalt demand continues to be tipped as the driver for the cobalt sector as supply remains constrained.



For further information please contact:

Michael Schwarz,  
Managing Director, Northern Cobalt Ltd  
M: +61 402 101 790  
E: [mschwarz@northerncobalt.com.au](mailto:mschwarz@northerncobalt.com.au)

**Appendix 1. N27 drilling at the Stanton Cobalt Deposit**

Hole_ID	Easting MGA94_Z53 (m)	Northing MGA94_Z53 (m)	Dip (degrees)	Azimuth (mag)	Max_Depth (m)
DD17RC001	793619.724	8148510.541	-90	0	100
DD17RC002	793620.073	8148490.014	-90	0	99
DD17RC003	793620.076	8148470.039	-90	0	100
DD17RC004	793620.037	8148450.022	-90	0	100
DD17RC005	793620.046	8148430.006	-90	0	100
DD17RC006	793619.972	8148410.001	-90	0	100
DD17RC007	793599.949	8148389.934	-90	0	91
DD17RC008	793599.935	8148409.980	-90	0	96
DD17RC009	793599.980	8148429.894	-90	0	100
DD17RC010	793598.756	8148450.427	-90	0	100
DD17RC011	793599.964	8148469.976	-90	0	100
DD17RC012	793599.987	8148489.941	-90	0	100
DD17RC013	793599.913	8148509.931	-90	0	100
DD17RC014	793580.023	8148470.022	-90	0	100
DD17RC015	793580.038	8148450.124	-90	0	100
DD17RC016	793580.108	8148429.979	-90	0	100
DD17RC017	793579.983	8148410.047	-90	0	100
DD17RC018	793639.959	8148410.011	-90	0	100
DD17RC019	793639.966	8148429.886	-90	0	100
DD17RC020	793639.910	8148449.998	-90	0	100
DD17RC021	793640.002	8148469.963	-90	0	100
DD17RC022	793639.943	8148489.914	-90	0	100
DD17RC023	793639.976	8148510.022	-90	0	100
DD17RC024	793659.980	8148560.103	-90	0	100
DD17RC025	793660.019	8148529.897	-90	0	100
DD17RC026	793660.622	8148510.206	-90	0	100
DD17RC027	793660.049	8148489.973	-90	0	100
DD17RC028	793660.125	8148470.121	-90	0	100
DD17RC029	793659.983	8148449.978	-90	0	100
DD17RC030	793659.982	8148429.998	-90	0	100
DD17RC031	793679.915	8148430.018	-90	0	100
DD17RC032	793679.893	8148449.958	-90	0	100
DD17RC033	793679.966	8148469.958	-90	0	100
DD17RC034	793679.982	8148490.048	-90	0	100
DD17RC035	793680.044	8148510.057	-90	0	100
DD17RC036	793680.017	8148530.092	-90	0	100
DD17RC037	793720.146	8148619.925	-90	0	100
DD17RC038	793700.162	8148560.151	-90	0	100
DD17RC039	793699.970	8148509.921	-90	0	100

# ASX Release

## 6 November 2017



DD17RC040	793699.943	8148470.021	-90	0	100
DD17RC041	793699.902	8148450.147	-90	0	100
DD17RC042	793700.141	8148429.978	-90	0	100
DD17RC043	793720.130	8148430.117	-90	0	100
DD17RC044	793720.139	8148470.008	-90	0	100
DD17RC045	793719.981	8148490.100	-90	0	100
DD17RC046	793719.630	8148510.123	-90	0	100
DD17RC047	793760.302	8148560.052	-90	0	100
DD17RC048	793740.008	8148510.371	-90	0	100
DD17RC049	793739.980	8148490.225	-90	0	100
DD17RC050	793760.251	8148469.833	-90	0	100
DD17RC051	793739.954	8148469.713	-90	0	100
DD17RC052	793739.973	8148450.032	-90	0	100
DD17RC053	793759.751	8148409.798	-90	0	100
DD17RC054	793600.031	8148359.653	-90	0	100
DD17RC055	793579.664	8148389.921	-90	0	100
DD17RC056	793520.205	8148430.271	-90	0	100
DD17RC057	793540.086	8148509.701	-90	0	100

*Results of drill holes 1 to 23 previously announced on 27 October 2017 as "Drilling Progress Report - Wollogorang Cobalt Project".*



**Appendix 2. The following tables are provided to ensure compliance with the JORC Code (2012) requirements for the reporting of the Exploration Target for the Wollogorang Cobalt Project**

**Section 1 Sampling Techniques and Data**

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

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Reverse Circulation (RC) drilling using standard equipment.</li> <li>Sampling was undertaken at one metre intervals.</li> <li>Drilling designed to intersect the mineralised ore zone based historical drilling</li> </ul>
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>Reverse circulation percussion (RC)</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to</li> </ul>	<ul style="list-style-type: none"> <li>Recovery generally good, with poor recovery in a small number of samples due to groundwater.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<i>preferential loss/gain of fine/coarse material.</i>	
<i>Logging</i>	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drilling logged in detail on a metre by metre basis.</li> <li>• Lithology, alteration and oxidation logged qualitatively.</li> <li>• Sulphide content and type logged qualitatively.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• RC drill samples split using a rig mounted cone splitter.</li> <li>• Sample duplicates collected, and standards used to confirm representivity of sampling.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>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.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No analyses have been undertaken yet</li> </ul>
<i>Verification of sampling and assaying</i>	<ul style="list-style-type: none"> <li>• <i>The verification of significant intersections by either independent or alternative company personnel.</i></li> <li>• <i>The use of twinned holes.</i></li> <li>• <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></li> </ul>	<ul style="list-style-type: none"> <li>• An electronic database containing collars, geological logging and assays is maintained by the Company</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>Discuss any adjustment to assay data.</li> </ul>	
Location of data points	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Holes have been surveyed using Differential GPS (DGPS).</li> <li>UTM grid MGA94 Zone 53 was used</li> <li>A majority of holes have had down hole surveys completed.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Drill hole spacing approximately every 20m on a grid across the existing mineral resource.</li> <li>Spacing and distribution is considered to be appropriate.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Sample relationship to mineralisation and structure is unknown at this stage.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples are bagged and sealed on pallets on site and transported to the analytical laboratories by commercial transport companies.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audits undertaken at this stage as the drilling program has only recently commenced.</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to</li> </ul>	<ul style="list-style-type: none"> <li>Wollogorang Cobalt Project exploration area occurs on EL 31272 which is 100% owned by Mangrove Resources Pty Ltd a wholly owned subsidiary to Northern Cobalt Ltd.</li> <li>The licence is currently in good standing with the relevant authorities.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>operate in the area.</i>	
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>The Stanton Cobalt deposit and surrounding prospects were discovered by CRA Exploration Pty Ltd in the period 1990-1996 period under a farm in arrangement with W J (Joe) Fisher.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>The local geology is dominated by the Gold Creek Volcanics of the Tawallah Group. This formation is a series of basaltic lavas and shallow intrusives, interlayered with thin oxidised sandstone, carbonate and siltstone units. It is conformably underlain by reduced sedimentary facies of the Wollogorang Formation, which includes dolostones, sandstones and carbonaceous shales. A regional dolerite sill, the Settlement Creek Dolerite, was emplaced synchronous with effusion of the Gold Creek Volcanics. The Wollogorang Formation and Settlement Creek Dolerite do not outcrop on the Stanton prospect area, but are however intersected in a number of drill holes on the tenement. Within the district, the Gold Creek Volcanics are unconformably overlain by a felsic volcanic package that includes a rhyolitic rheoignimbrite sheet (Hobblechain Rhyolite), proximal epiclastics (Pungalina Member) and distal reworked clastics (Echo Sandstone).</li> <li>Mineralisation is interpreted to be largely controlled by stratigraphy within the flat lying interbedded sediment and volcanic rock units of the Proterozoic Gold Creek Volcanics. Brecciation and faulting has a strong control on the intensity and limits of mineralisation. In fresh rock the cobalt-nickel is located in disseminated siegenite (cobalt-nickel sulphide). Chalcocite and pyrite are also noted. Weathering to a variable depth of approximately 30m has resulted in cobalt oxide secondary mineralisation in a large proportion of the deposit.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li><i>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:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level –</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>See Appendix 1.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p>elevation above sea level in metres) of the drill hole collar</p> <ul style="list-style-type: none"> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> <ul style="list-style-type: none"> <li>• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	
Data aggregation methods	<ul style="list-style-type: none"> <li>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>• Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• Not relevant as only qualitative data reported.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>• Any observations made are down hole length and true width is not known.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>• Not relevant as drilling is within existing resource and only qualitative data reported.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>• The company considers that the reporting of downhole intersections of cobalt sulphide mineralisation is not practical for several reasons. <ul style="list-style-type: none"> <li>○ The cobalt sulphide mineral (siegenite) can be very fine grained and black in colour and indistinguishable from the host rocks in places.</li> <li>○ It is only readily identifiable visually</li> </ul> </li> </ul>



Criteria	JORC Code explanation	Commentary
		<p>when coarse grained and the host rock is light in colour.</p> <ul style="list-style-type: none"> <li>Therefore, any attempt to quantify the length and concentration of sulphide mineralisation is problematic.</li> <li>Because the drilling method consists of RC drill chips the distribution (massive, vein, disseminated) of mineralisation is difficult to determine.</li> </ul> <p>Therefore, any attempt to quantify the length and concentration of sulphide mineralisation is problematic. Geochemical assays are required to undertake a quantitative analysis.</p>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li><i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>No other relevant data to report</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>Planned further work detailed in this, and previous releases, and in figures. This work includes comprises drill testing along a significant portion of the surface geochemical anomaly.</li> </ul>