

## ASX RELEASE 22 January 2019

### GEOPHYSICS HIGHLIGHT POTENTIAL AT GREGJO, NT

- Large induced polarisation (IP) chargeability anomaly identified in multiple traverses across the Gregjo Prospect
- The anomaly is directly below copper mineralisation intersected in recent shallow drilling, extending up to 200 m out from the Gregjo Fault and 800m along the fault
- Geochemical results received from the laboratory reproduce the grades of copper mineralisation recorded using a pXRF in the field
- A new drilling program is being planned to test the IP anomaly at Gregjo in conjuction with the very promising targets generated at Running Creek
- Planning for a detailed magnetic survey is well underway at the Snettisham Vanadium Project in Alaska

#### **Gregjo Prospect**

Northern Cobalt Limited (**ASX: N27**) is pleased to announce it has identified a significant IP chargeability anomaly beneath the previously identified copper mineralisation at the Gregjo Prospect in the Northern Territory, Australia. Recently received laboratory results confirm copper mineralisation along the Gregjo Fault with at least five (5) drill holes along the fault intersecting mineralisation over 1% Cu along a distance of >300m (Figure 4).

- 18RAB013 7m @ 1.23% Cu from 1m
  - o including 1m @ 4.24% Cu
- 18RAB009 15m @ 0.53% Cu from 5m
  - o including 4m @ 1.08% Cu
- 18RAB020 20m @ 0.72% Cu from 1m
  - o including 1m @ 1.4% Cu
  - and 3m @ 1.67% Cu
- 18RAB031 11m @ 0.65% Cu from 16m
  - o including 1m @ 1.97% Cu
- 18RAB051 3m @ 1.57% Cu from 13m
  - o and 1m @ 0.78% Cu

"The identification of significant copper mineralisation in drilling, above an extensive IP chargeability target at Gregjo has opened up the potential for a significant new copper mineralised system only 3.4 km to the south of the Stanton Cobalt <u>Deposit</u>. The project <u>continues to show the extent of the mineralisation that runs through the Wollogorang Project."</u>, Michael Schwarz (MD)

#### **CAPITAL STRUCTURE**

Ordinary Shares Issued 51.3 M

Options and rights Listed options 6.3 M @ 20c Unlisted options 12.3 M @ 25c Unlisted rights 2.5 M Performance Shares Class A 9.6 M Class B 3.6 M

Last Capital Raise 24 April 2018 - SPP \$0.6M @ 35c **BOARD** 

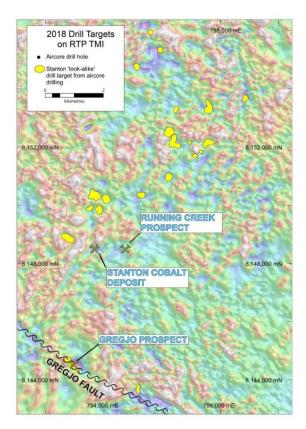
Len Dean - Chair Michael Schwarz - MD Duncan Chessell - NED Andrew Shearer - NED Jarek Kopias - Co Sec Mineralisation at the Gregjo Prospect, located approximately 3.4 km south of the Stanton Cobalt Deposit, is associated with a north-west trending structure (Figure 1).

The Gregjo Prospect was originally identified by CRA in the 1990's, as a surface geochemical anomaly with minor copper mineralisation, with limited extent.

Reinterpretation of the main controls of mineralisation by Northern Cobalt along north-west trending structures and subsequent drill testing in 2018, has identified the source of the copper mineralisation causing the surface geochemical anomaly.

Following the drilling an IP survey was undertaken across the Gregio Prospect to define possible depth extensions to copper mineralisation (Figure 2).

The results of the IP survey identified a large chargeable feature beneath the currently identified mineralisation (Figure 3).



**Figure 1.** 2018 RTP magnetic image showing the Stanton Deposit and Running Creek and Gregjo Prospects

Northern Cobalt interprets this feature to represent an extension of high-grade oxide copper mineralisation identified at surface to primary mineralisation at depth. The anomaly can be identified in sections 1,2 and 4 but appears to be missing from section 3, possibly due to unfavourable host rocks at this location or being offset by a cross cutting fault. The distance between sections 1 and 4 exceeds 800m of strike. A drilling program is being planned to test this feature at the earliest possible opportunity.

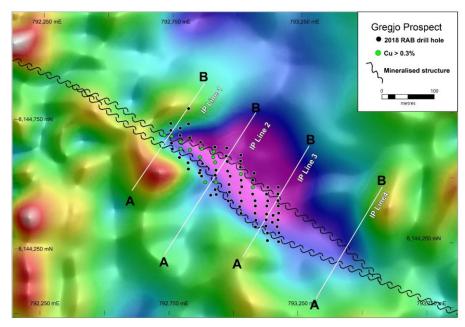


Figure 2. Plan of IP survey traverses and RAB drilling at Gregio

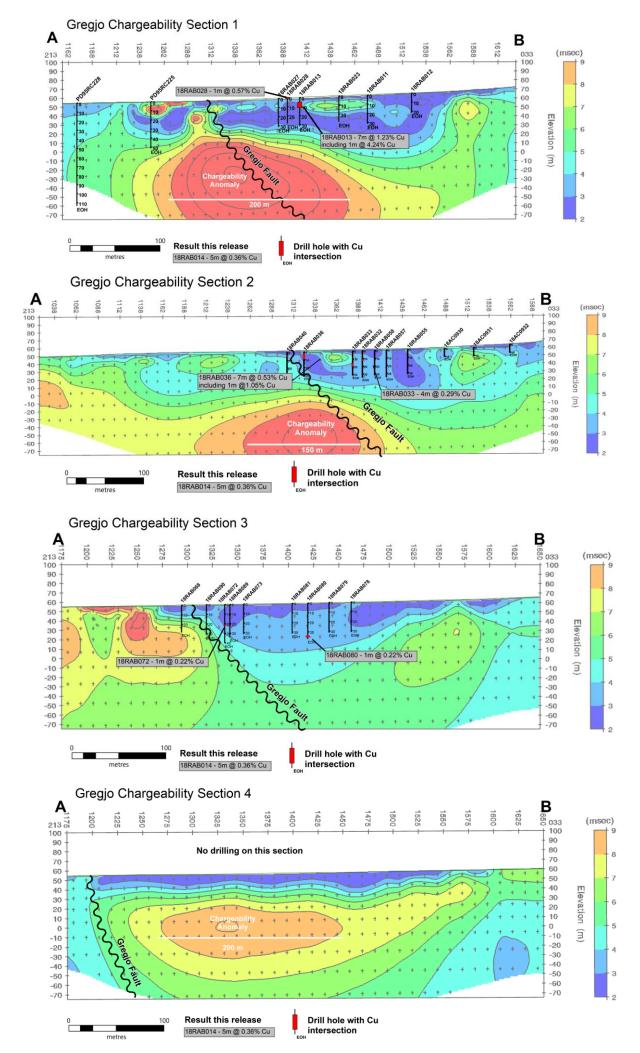


Figure 3. Induced polarisation chargeability sections at Gregjo

#### **Comparisons with the Stanton Cobalt Deposit**

The Stanton Cobalt Deposit is a cobalt dominated mineral system with spatially associated copper mineralisation controlled by a north-east trending fault structure which is approximately 100m across at surface. At Gregjo, copper mineralisation appears to also be associated with north-west trending structures interpreted from detailed magnetics flown in 2018 and from surficial linear features evident in satellite imagery. However, the Gregjo system is much larger and has the potential to be many times the size of Stanton at surface. Evidence from the IP survey suggests that the mineralisation continues at depth and along strike, making the Gregjo Prospect a high priority for follow-up drilling in the near future.

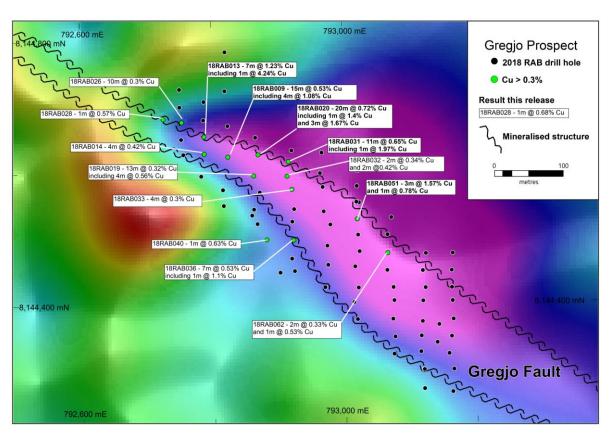
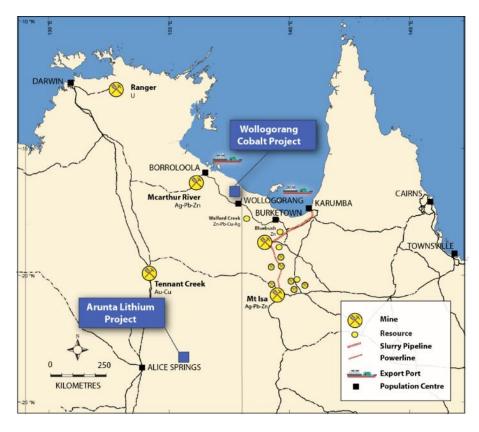


Figure 4. Drill hole plan showing significant copper intersections, Gregio



#### **Project Location**

The Wollogorang Cobalt Project is in the far north-eastern corner of the Northern Territory, a mining friendly authority. 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.

#### **Competent Persons Statement**

The information in this report that relates to exploration results is based on, and fairly represents, information and supporting documentation 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 is appears. The information in this announcement is an accurate representation of the available data and studies of the material mining project. This report includes results that have previously been released under JORC 2012 by the Company as "Copper Discovery at the GregJo Prospect" on the 28th August 2018. The Company is not aware of any new information or data that materially affects the information included in this announcement and all material assumptions and technical parameters underpinning the Mineral Resource continue to apply and have not materially changed.

Historical results have been obtained from open file company report CR2002-0102 lodged with the Department of Primary Industries and Resources, NT. https://geoscience.nt.gov.au/gemis/ntgsjspui/handle/1/3

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Table 1. Significant copper drill intersections

Hole ID	Easting	Northing	Depth From	Depth To	Interval	Cu (%)
18RAB009	792824	8144624	1	16	15	0.53
		including	6	10	4	1.08
18RAB013	792788	8144655	5	12	7	1.23
		including			1	4.24
18RAB014	792788	8144629	3	7	4	0.42
18RAB019	792863	8144595	5	17	13	0.32
		including	13	17	4	0.56
18RAB020	792870	8144627	1	21	20	0.72
		including	13	14	1	1.4
		and	16	19	3	1.67
18RAB026	792754	8144677	2	11	10	0.29
18RAB028	792726	8144682	0	1	1	0.57
18RAB031	792916	8144616	16	27	11	0.65
		including	18	19	1	1.97
18RAB032	792914	8144594	11	13	2	0.34
		and	25	27	2	0.42
18RAB033	792921	8144574	16	20	4	0.29
18RAB036	792923	8144497	2	9	7	0.53
		including	2	3	1	1.05
18RAB040	792882	8144498	4	5	1	0.63
18RAB051	793020	8144528	13	16	3	1.57
		and	17	18	1	0.78
18RAB062	793066	8144476	13	15	2	0.33
		and	40	41	1	0.53

**Appendix 1. Drill hole table** 

Appendix	L. Drill noie		Facting	Nouthing			
Hole ID	Hole Type	Total Depth (m)	Easting (m)	Northing (m)	RL (m)	Azimuth	Dip
PD92RC026	RC RC	24	792713	8144683	59.0	0	-90
PD92RC027	RC	22	792907	8144678	60.1	0	-90
PD92RC028	RC	24	792901	8144480	54.9	0	-90
PD92RC029	RC	24	792705	8144491	53.0	0	-90
PD92RC030	RC	18	793096	8144477	57.6	0	-90
PD92RC031	RC	24	793106	8144677	62.0	0	-90
PD95RC224	RC	81	792626	8144668	56.6	0	-90
PD95RC225	RC	51	792626	8144568	53.9	0	-90
PD95RC226	RC	81	792726	8144568	54.5	0	-90
PD95RC227	RC	51	792826	8144568	55.6	0	-90
PD95RC228	RC	113	792626	8144468	52.4	0	-90
PD95RC229	RC	51	792626	8144368	50.4	0	-90
PD95RC230	RC	87	792726	8144368	51.6	0	-90
PD95RC231	RC	51	792826	8144468	53.9	0	-90
PD95RC232	RC	51	792926	8144568	56.9	0	-90
18AC0923	AC	10	793018	8144300	53.6	0	-90
18AC0924	AC	4	793022	8144354	54.3	0	-90
18AC0925	AC	10	793021	8144402	55.4	0	-90
18AC0926	AC	10	793016	8144453	55.9	0	-90
18AC0927	AC	10	793022	8144503	57.2	0	-90
18AC0928	AC	10	793020	8144553	57.9	0	-90
18AC0929	AC	10	793019	8144601	58.7	0	-90
18AC0930	AC	10	793023	8144649	60.2	0	-90
18AC0931	AC	10	793024	8144694	61.4	0	-90
18AC0932	AC	10	793024	8144750	65.6	0	-90
18AC0933	AC	10	793024	8144805	72.2	0	-90
18AC0934	AC	10	792927	8144753	62.7	0	-90
18AC0935	AC	10	792917	8144693	60.5	0	-90
18AC0936	AC	10	792921	8144646	59.0	0	-90
18AC0937	AC	10	792919	8144599	57.6	0	-90
18AC0938	AC	10	792920	8144550	56.6	0	-90
18AC0939	AC	10	792925	8144490	55.6	0	-90
18AC0940	AC	10	792922	8144449	55.0	0	-90
18AC0941	AC	10	792824	8144503	54.5	0	-90
18AC0942	AC	13	792817	8144550	55.3	0	-90
18AC0943	AC	16	792820	8144597	56.2	0	-90
18AC0944	AC	28	792825	8144650	58.1	0	-90
18AC0945	AC	16	792818	8144703	60.6	0	-90
18AC0946	AC	10	792823	8144753	62.2	0	-90
18AC0949	AC	10	793120	8144300	54.3	0	-90
18AC0950	AC	10	793119	8144351	54.8	0	-90
18AC0951	AC	10	793122	8144403	56.0	0	-90
18AC0952	AC	10	793119	8144452	56.8	0	-90
18AC0953	AC	10	793126	8144500	57.7	0	-90

		Total Depth	Easting	Northing			
Hole ID	Hole Type	(m)	(m)	(m)	RL (m)	Azimuth	Dip
18AC0954	AC	10	793118	8144550	59.0	0	-90
18AC0955	AC	10	793123	8144602	60.3	0	-90
18AC0956	AC	10	793119	8144653	61.9	0	-90
18AC0957	AC	10	793121	8144699	63.3	0	-90
18RAB008	RAB	31	792816	8144574	55.6	0	-90
18RAB009	RAB	31	792824	8144624	57.5	0	-90
18RAB010	RAB	31	792824	8144671	59.4	0	-90
18RAB011	RAB	31	792820	8144724	61.1	0	-90
18RAB012	RAB	21	792821	8144783	63.5	0	-90
18RAB013	RAB	31	792788	8144655	58.5	0	-90
18RAB014	RAB	34	792788	8144629	57.2	0	-90
18RAB015	RAB	31	792783	8144595	55.7	0	-90
18RAB016	RAB	31	792868	8144522	55.4	0	-90
18RAB017	RAB	13	792863	8144544	55.7	0	-90
18RAB017a	RAB	31	792860	8144535	55.7	0	-90
18RAB018	RAB	28	792872	8144570	56.2	0	-90
18RAB019	RAB	31	792863	8144595	56.8	0	-90
18RAB020	RAB	31	792870	8144627	58.0	0	-90
18RAB021	RAB	31	792866	8144653	59.2	0	-90
18RAB022	RAB	28	792787	8144680	59.1	0	-90
18RAB023	RAB	28	792788	8144708	60.2	0	-90
18RAB024	RAB	20.5	792751	8144727	60.5	0	-90
18RAB025	RAB	28	792751	8144700	60.0	0	-90
18RAB026	RAB	31	792754	8144677	59.0	0	-90
18RAB027	RAB	31	792753	8144651	57.5	0	-90
18RAB028	RAB	28	792726	8144682	58.3	0	-90
18RAB029	RAB	25	792756	8144628	56.9	0	-90
18RAB030	RAB	25	792817	8144550	55.3	0	-90
18RAB031	RAB	31	792916	8144616	57.7	0	-90
18RAB032	RAB	34	792914	8144594	57.3	0	-90
18RAB033	RAB	31	792921	8144574	56.9	0	-90
18RAB034	RAB	34	792924	8144544	56.5	0	-90
18RAB035	RAB	31	792921	8144525	56.2	0	-90
18RAB036	RAB	31	792923	8144497	55.6	0	-90
18RAB037	RAB	31	792920	8144469	55.2	0	-90
18RAB038	RAB	31	792924	8144450	55.0	0	-90
18RAB039	RAB	31	792902	8144448	54.6	0	-90
18RAB040	RAB	31	792882	8144498	54.8	0	-90
18RAB041	RAB	31	792979	8144520	57.0	0	-90
18RAB042	RAB	31	792974	8144488	56.2	0	-90
18RAB043	RAB	31	792975	8144459	55.8	0	-90
18RAB044	RAB	31	792970	8144425	55.3	0	-90
18RAB045	RAB	28	793019	8144376	54.6	0	-90
18RAB046	RAB	31	793014	8144402	55.4	0	-90
18RAB047	RAB	68	793021	8144424	55.5	0	-90

		Total Depth	Easting	Northing			
Hole ID	Hole Type	(m)	(m)	(m)	RL (m)	Azimuth	Dip
18RAB048	RAB	34	793016	8144456	55.9	0	-90
18RAB049	RAB	52	793023	8144479	56.8	0	-90
18RAB050	RAB	40	793021	8144504	57.2	0	-90
18RAB051	RAB	52	793020	8144528	57.3	0	-90
18RAB052	RAB	50	793023	8144553	58.1	0	-90
18RAB052a	RAB	20	793019	8144554	57.9	0	-90
18RAB053	RAB	37	793020	8144578	58.5	0	-90
18RAB054	RAB	28	793021	8144601	58.7	0	-90
18RAB055	RAB	31	792967	8144629	58.9	0	-90
18RAB056	RAB	37	792921	8144633	58.5	0	-90
18RAB057	RAB	34	792964	8144598	58.2	0	-90
18RAB058 18RAB059	RAB RAB	31 31	792968 792969	8144577 8144540	57.4 57.0	0	-90 -90
18RAB060	RAB	28	792909	8144530	57.0	0	-90 -90
18RAB061	RAB	31	793066	8144504	57.6	0	-90 -90
18RAB062	RAB	46	793066	8144476	57.1	0	-90
18RAB063	RAB	55	793065	8144450	56.4	0	-90
18RAB064	RAB	31	793003	8144424	56.7	0	-90
18RAB065	RAB	31	793074	8144404	55.7	0	-90
18RAB066	RAB	31	793073	8144376	55.1	0	-90
18RAB067	RAB	31	793076	8144349	54.7	0	-90
18RAB068	RAB	28	793074	8144323	54.2	0	-90
18RAB069	RAB	28	793120	8144270	53.9	0	-90
18RAB070	RAB	13	793119	8144299	54.3	0	-90
18RAB070a	RAB	14	793120	8144299	54.3	0	-90
18RAB071	RAB	31	793115	8144326	54.9	0	-90
18RAB072	RAB	40	793116	8144350	54.8	0	-90
18RAB073	RAB	31	793118	8144372	55.5	0	-90
18RAB074	RAB	31	793119	8144403	56.0	0	-90
18RAB075	RAB	31	793123	8144423	56.2	0	-90
18RAB076	RAB	31	793119	8144449	56.8	0	-90
18RAB077	RAB	31	793124	8144475	57.4	0	-90
18RAB078	RAB	31	793165	8144475	57.6	0	-90
18RAB079	RAB	31	793163	8144449	57.0	0	-90
18RAB080	RAB	37	793163	8144423	56.3	0	-90
18RAB081	RAB	31	793164	8144403	56.1	0	-90
18RAB082	RAB	26	793165	8144375	55.7	0	-90
18RAB083	RAB	34	793162	8144349	55.2	0	-90
18RAB084	RAB	37	793158	8144323	55.0	0	-90
18RAB085	RAB	31	793165	8144299	54.6	0	-90
18RAB086	RAB	31	793163	8144265	54.2	0	-90
18RAB087	RAB	34	793140	8144340	55.0	0	-90
18RAB088	RAB	31	793143	8144367	55.4	0	-90
18RAB089	RAB	34	793102	8144365	55.0	0	-90
18RAB090	RAB	31	793099	8144338	54.6	0	-90

# Appendix 2. The following tables are provided to ensure compliance with the JORC Code (2012) requirements for the reporting of the exploration results 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
Sampling techniques	<ul> <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> <li>Rotary Air Blast Hammer (RAB) drilling using standard equipment.</li> <li>Sampling was undertaken at one metre intervals.</li> <li>Samples were collected in rubber buckets from the drill rig cyclone and then subsampled for analyses into plastic zip-lock bags.</li> <li>Drilling was designed to sample relatively fresh basement beneath surficial soil cover and wetherd and laterised basement.</li> <li>Sampling was undertaken at variable intervals depending on visual estimates of mineralisation.</li> </ul>
Drilling techniques	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, facesampling bit or other type, whether core is oriented and if so, by what method, etc).	<ul> <li>Rotary Air Blast (RAB) with a 137mm diameter hammer.</li> <li>Historical Holes</li> <li>Reverse Circulation (RC) drilling using standard equipment.</li> <li>Diamond Drilling (DD) using standard equipment</li> </ul>

Criteria	JORC Code explanation	Commentary
Drill sample recovery	<ul> <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 preferential loss/gain of fine/coarse material.</li> </ul>	Recovery generally good, with poor recovery in a small number of samples due to groundwater.
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Drilling logged in detail on a metre by metre basis.</li> <li>Lithology, alteration and oxidation logged qualitatively.</li> </ul>
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Samples were collected in rubber buckets from the drill rig cyclone and then subsampled by sieving to a - 2mm mesh size fraction and placed into plastic zip-lock bags.</li> <li>Representative end-of-hole samples have been kept in plastic chip trays.</li> <li>Sample duplicates collected, and standards used to confirm representivity of sampling.</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation,</li> </ul>	<ul> <li>Analytical Laboratory Analyses</li> <li>Sample Preparation - The samples have been sorted &amp; dried. The whole sample has been pulverised in a vibrating disc pulveriser.</li> <li>Analytical Methods - As, Bi, Co, Cu, NiO, Mo XRF determined by X-Ray Fluorescence Spectrometry on oven dry (85 'C) sample unless otherwise stated.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul> <li>etc.</li> <li>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.</li> </ul>	The samples have been cast using a 12:22 flux to form a glass bead which has been analysed by XRF.
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>An electronic database containing collars, geological logging and assays is maintained by the Company.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and downhole 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> <li>Holes have been surveyed using a handheld GPS (GPS).</li> <li>UTM grid MGA94 Zone 53 was used</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing, and distribution is sufficient to 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> <li>RAB drill hole locations have been placed to infill and extend known mineralisation. Holes are generally 25m-50m apart.</li> <li>Where more than one traverse covers a target they are spaced 50-100m apart.</li> <li>Spacing and distribution is considered to be appropriate.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	Sample relationship to mineralisation and structure is unknown at this stage.
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples are bagged and sealed in plastic tubs on site and transported to the analytical laboratories by commercial transport companies for traditional anlyses and to the field</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul> <li>camp for pXRF analyses.</li> <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> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <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> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>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>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>The Stanton Cobalt Deposit, Running Creek Prospect, Gregjo Prospect 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>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <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 disconformably 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</li> </ul>

Criteria	JORC Code explanation	Commentary
		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.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	See Appendix 1
Data aggregation methods	<ul> <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</li> </ul>	Simple length weighted averages were used for reporting of significant drill intercepts with a cut-off grade of 0.2% (2000 ppm) Cu and a maximum internal dilution of 2m @ 1500ppm.

Criteria	JORC Code explanation	Commentary
	should be clearly stated.	
Relationship between mineralisatio n widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	Any observations made are down hole length and true width is not known.
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	See attached release.
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul> <li>All significant drill intersections have been reported and it has been noted when no significant intersection has been encountered.</li> </ul>
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	No other relevant data to report.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Planned further work detailed in this, and previous releases, and in figures. This work includes comprises drill testing further drill targets and follow up drilling of mineralised prospects.</li> </ul>