For Immediate Release

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NQ Minerals Plc
(the "Company" or "NQ Minerals")

New Mineral Resource Supports Further Investment in Tasmania Energy Metals

Highlights:

- Barnes Hill Nickel Project Mineral Resource estimates increase to 14.3 million tonnes grading 0.72% Nickel and 0.05% Cobalt.
- Metallurgical recovery testwork underway.
- Prefeasibility Study underway targeting annual throughput of 630,000 tonnes per annum (tpa) of nickel ore and 240,000 tpa of Hellyer's pyrite/precious metal concentrate.
- Based on metallurgical testwork performed to date, the project is being scoped to produce 5,250 tpa of contained nickel and 300 tpa of contained cobalt, and 22,500 oz of gold and 456,000 oz of silver that would be extracted from the Hellyer pyrite/precious metal concentrates.

London listed NQ Minerals Plc (NEX: NQMI) (OTCQB: NQMLF), the base and precious metals producer from the Hellyer Gold Mine ("Hellyer") in Tasmania Australia, is pleased to announce a significant upgrade to the Barnes Hill Project's nickel and cobalt Mineral Resource estimates in Tasmania to 14.3 million tonnes at 0.72% nickel and 0.05% cobalt. These resources are all located within 120km of the Hellyer operations. Mineral Resources are reported in accordance with the JORC Code.

In addition, NQ has agreed a further strategic investment, under its existing agreements to acquire 100% of Tasmania Energy Metals Pty Ltd ("TEM").

The investment is targeted towards the development of a new low cost long life nickel/cobalt/gold/silver operation planned for the Bell Bay area in Tasmania, using NQ's pyrite/precious metals concentrates from the Hellyer Mine for the supply of locally produced sulfuric acid.

David Lenigas, Chairman of NQ Minerals, commented:

"NQ is pleased at the progress being made by TEM towards establishing the feasibility of a long life and low-cost quartile nickel/cobalt/gold/silver integrated downstream mining and processing operation. The new Mineral Resource estimates for TEM's Scotts Hill and Mt Vulcan deposits more than doubles their available nickel and cobalt resource in the local areas surrounding our Hellyer operations, pushing resource estimates from 6.6Mt to 14.3Mt. TEM is working towards a feasibility study that targets more than 20 years of plant feed for a planned operation in the Bell Bay area."

"NQ's investment in this project has the potential to materially enhance the economic returns on Hellyer's gold and silver reserves and add nickel and cobalt to the Company's suite of metals available for global sales from our Tasmanian operations."

The Mineral Resource estimate for the Barnes Hill Project, including the new Mineral Resource for the Scotts Hill and Mt Vulcan deposits, reported above a 0.5% Ni cut-off grade, is shown in Table 1. The cut-off grade of 0.5% Ni is based on preliminary pit optimisation results completed by Snowden in 2010 and is commensurate with similar deposits. Snowden believes that the cut-off grade is reasonable assuming a standard open-pit mining approach with low to moderate selectivity.

Table 1: Barnes Hill Project Mineral Resource Estimates 2019

Scotts Hill & Mt Vulcan ("SV") Mineral Resource 2019 at a 0.5% Ni cut-off

Domain	Class	Tonnes (kt)	Ni %	Co %	MgO %	Fe_2O_3 %	SiO_2 %
Transitional	Inferred	1,240	0.65	0.09	3.7	42.4	29.9
Saprolite	Inferred	2,970	0.76	0.05	12.0	29.8	38.7
Saprock	Inferred	3,490	0.61	0.03	26.6	15.7	42.8
SV Total	**Inferred**	**7,700**	**0.67**	**0.05**	**17.3**	**25.4**	**39.2**

Barnes Hill ("BH") North & South Mineral Resource 2019 at a 0.5% Ni cut-off

Domain	Class	Tonnes (kt)	Ni %	Co %	MgO %	Fe2O3 %	SiO2 %
BH Limonite	Indicated	110	0.56	0.16	1.4	57.4	13.7
BH Limonite	Inferred	50	0.56	0.11	2.0	54.3	18.7
Limonite Total		**160**	**0.56**	**0.14**	**1.6**	**56.4**	**15.4**
BH Transitional	Indicated	250	0.65	0.09	3.5	42.8	25.0
BH Transitional	Inferred	10	0.81	0.15	3.7	49.8	24.5
Transitional Total		**250**	**0.65**	**0.09**	**3.5**	**42.9**	**25.0**
BH Saprolite	Indicated	3,960	0.83	0.06	11.3	28.3	37.7
BH Saprolite	Inferred	480	0.76	0.06	13.2	25.2	42.0
Saprolite Total		**4,440**	**0.82**	**0.06**	**11.5**	**28.0**	**38.2**
BH Saprock	Indicated	1,370	0.73	0.03	25.6	14.4	41.6
BH Saprock	Inferred	390	0.68	0.02	25.1	15.0	43.1
Saprock Total		**1,760**	**0.72**	**0.03**	**25.5**	**14.5**	**42.0**
BH Total	**Indicated & Inferred**	**6,610**	**0.78**	**0.05**	**14.7**	**25.7**	**38.1**

Grand Total	**Indicated & Inferred**	**14,300**	**0.72**	**0.05**	**16.1**	**25.5**	**38.7**

Notes: 1) Please refer to the end of this section for the Competent Persons statements; 2) the Mineral Resource is reported in accordance with the JORC Code (2012) with required tables included in the appendix; 3) Some rounding related discrepancies may occur in the totals.

New Mineral Resource Estimate for Scotts Hill & Mt Vulcan

Scotts Hill and Mt Vulcan (collectively "Scotts-Vulcan") are lateritic nickel deposits located 2km from Tasmania Energy Metals' 100%-owned Barnes Hill North deposit. Scotts Hill and Mt Vulcan occur primarily within exploration license EL2/2017 which is adjacent to mining lease 1872P/M that hosts the Barnes Hill North and South deposits. Tasmania Energy Metals has purchased a 100% interest in EL2/2017. A formal instrument of transfer has been lodged with Mineral Resources Tasmania for the transfer of EL2/2017 to Tasmania Energy Metals, which is expected to occur within a few weeks. Together mining lease 1872P/M and exploration license EL2/2017 form the Barnes Hill Project.

The Barnes Hill Project deposits are interpreted to have formed from the chemical weathering of the ultramafic Andersons Creek Complex ("ACC"). The ACC is a layered wedge of serpentinised Cambrian stratigraphy consisting mainly of serpentinite, pyroxenite and gabbro. Late stage chemical weathering has concentrated nickel within the saprolite zone while the upper regolith has been altered to nickel reduced clays. The mineralised zone is overlain by a ferruginised laterite zone and a surficial pisolitic soil horizon. The mineralisation has been identified as having been retained, despite subsequent erosion, on a number of low hills within the areas of EL2/2017 and 1872P/M, being principally Barnes Hill, Scotts Hill and Mt Vulcan which have been the subject of extensive drilling.

Following additional air core drilling in early 2019, a Mineral Resource has been estimated by Snowden Mining Industry Consultants for Scotts Hill and Mt Vulcan, which replaces a historical polygonal resource estimated in 2001. Additionally, the Mineral Resource reporting for Barnes Hill North and South, which was previously reported under the 2004 JORC Code, has been updated by Snowden to comply with the requirements of the 2012 JORC Code.

Snowden interpreted the domain boundaries between the laterite layers based on a combination of the geochemical assay data and geological logging. The laterite profile at Barnes Hill and Scotts-Vulcan is very similar, although the ferruginous zone at Scotts-Vulcan is less well developed and discontinuous.

The typical laterite profile at the Barnes Hill project comprises:

Domain	**Description**
Surficial soil	• Transported overburden
Pisolite	• Ferruginous pisolite
Laterite	• Laterite zone (red-brown) with sporadic ferruginised hard-cap material; characterised by high Fe_2O_3 grades and low Ni, Co, MgO and SiO_2 grades
Limonite	• Limonite zone (yellow-brown) has a gradational chemical boundary with the overlying laterite zone; characterised by high Fe_2O_3 with increasing SiO_2 due to greater clay content; key difference between the limonite and laterite zones is the change in colour from red-brown to yellow-brown and an increase in nickel (0.2% to 0.8%) and cobalt (>0.1%) grades • Variable Fe_2O_3 up to 70% in places • Very low MgO and generally low SiO_2, although local patches of silcrete(?) show elevated SiO_2 up to 15% • Highest Co grades occur within the limonite zone
Transitional	• Transitional domain between the limonite zone and the saprolite zone • Reduction in Fe_2O_3 and increase in MgO (2-4%) and SiO_2 (>20%)
Saprolite	• Commonly associated with a colour change from red-brown / yellow brown to green-brown or green • Highest average Ni grade • Drop in Fe_2O_3 and increase in MgO (8-15%) and SiO_2 (>30%)
Saprock	• Transitional domain between the mineralised saprolite zone and the parent host rock • Contains weathered bedrock material and clay along fractured weathered zones • Identified from the overlying saprolite zone by a drop in Ni and Fe_2O_3 and increase in MgO (25-30%) and SiO_2
Bedrock	• Ultramafic/serpentinite • Very low Fe_2O_3 and Al_2O_3; high MgO (>30%) and SiO_2

The Mineral Resources were estimated using block models, constructed using a parent cell size of 25 mE by 25 mN by 1 mRL for Barnes Hill and 50 mE by 50 mN by 1 mRL for Scotts-Vulcan, constrained within the wireframed domains of the interpreted laterite layers. Grades were estimated using ordinary block kriging for both the Barnes Hill deposit and Scotts-Vulcan. Search ellipses and estimation parameters were based on the results of the variography, along with consideration of the drill spacing and geometry of the mineralisation.

Global average density values were applied to the blocks according to the domain based on density measurements of diamond drill core.

The Barnes Hill and Scotts-Vulcan Mineral Resource estimates have been classified and reported in accordance with the JORC Code (2012). Mineral Resources for the Barnes Hill deposit have been classified as a combination of Indicated and Inferred Resources, while the Scotts-Vulcan resource has been classified as an Inferred Resource. The classification was developed by Snowden based on an assessment of the nature and quality of the drilling, sampling and assaying methods; drill spacing; confidence in the geological interpretation; and results of the model validation. The Mineral Resource is limited to the Limonite, Transitional, Saprolite and Saprock domains. At Barnes Hill, where drilling is approximately 50 mN by 50 mE or better and the thickness is greater than 2 m, the resource has been classified as an Indicated Resource. Areas that are not supported by a 50 mN by 50 mE drill spacing or are less than 1 m in thickness have been assigned an Inferred classification. At Scotts-Vulcan, blocks within approximately 125 m of a drillhole have been classified as an Inferred Resource, with extrapolation beyond the drilling limited to approximately 125 m.

A pit optimisation was completed by Snowden in 2010 to assess the reasonable limits of open-pit mining. The optimisation was based on a Ni price of US$9/lb and Co price of US19/lb. Whilst the metal prices used are somewhat high relative to current prices, Snowden believes that the parameters are reasonable for the intended purpose of assessing the reasonable prospects for eventual economic extraction and limits of potential open-pit mining.

Further Investment in TEM to Fund Ongoing Feasibility Works

As previously announced, NQ entered into a Convertible Loan Instrument to invest in Tasmania Energy Metals ("TEM"). NQ's initial investment in TEM was expanded in July 2019, with the total investment now being three convertible notes each of which carries a face value of £150,000. Now, through a Deed of Variation dated 31 October 2019, NQ Minerals has agreed to make an additional investment of £150,000 into a fourth Convertible Loan Instrument with the same terms and conditions as those announced on 5 June 2019. The Convertible Loan has a repayment term of three years and carries no interest. NQ has the discretionary right to convert the Convertible Loan into shares of TEM at any point during the three-year term.

TEM and NQ Minerals are continuing to work on developing plans for an integrated facility for the treatment of the pyrite/precious metals concentrate produced from the Hellyer Mine ("Hellyer"). The additional investment follows the successful completion of project milestones. These include the completion of the maiden Mineral Resource estimate for the Scotts Hill and Mount Vulcan deposits, which has been estimated by Snowden Mining Industry Consultants and reported in accordance with the JORC Code. TEM has also commenced bench scale metallurgical testwork. 542kg of ore from the Barnes Hill project has been delivered to an independent laboratory for detailed processing and leaching assessment. Testwork results will form the basis for a Prefeasibility Study ("PFS"). The PFS is planned for delivery in the first half of 2020. The PFS includes the initial design of a plant co-processing

630,000 tonnes per annum (tpa) of nickel ore and 240,000tpa of pyrite/precious metal concentrate. Based on metallurgical testwork performed to date, the project is being designed to produce 5,250tpa of contained nickel and 300tpa of contained cobalt in a Mixed Hydroxide Precipitate, as well as annual production of 22,500oz of gold and 456,000oz of silver that would be extracted from the Hellyer pyrite/precious metal concentrate.

Under the amended agreement, Tasmania Energy Metals has extended NQ Minerals' exclusivity period up to 31 December 2019. During that period NQ Minerals has the right to acquire a binding option over all of Tasmania Energy Metals' assets, including the nickel-cobalt licenses covering Barnes Hill, Scotts Hill and Mount Vulcan, and 100% control of the integrated minerals processing facility that is being developed. It is expected that metallurgical testwork results supporting the PFS will be received during this extended exclusivity period.

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NQ Minerals is an Australian-based mining company which commenced production in Q4 2018 at its 100% owned flagship Hellyer Gold Mine in Tasmania. Hellyer has a published JORC compliant Mineral Resource estimated at 9.25 Mt which is host to Gold at 2.57 g/t Au for 764,300 oz Au, Silver at 92 g/t Ag for 27,360,300 oz Ag, Lead at 2.99% Pb for 276,600 tonnes and Zinc at 2.35% Zn for 217,400 tonnes. In addition to these resources, the Hellyer assets include a large mill facility and full supporting infrastructure, including a direct rail line to port. The Company anticipates strong cash-flow and profitability from Hellyer and has a portfolio of exciting exploration prospects. Please visit our website at www.nqminerals.com.

Competent Person's Statement – Mineral Resources

The information in this report that relates to the Barnes Hill, Scotts Hill and Mt Vulcan Mineral Resource estimates is based on information compiled by John Graindorge who is a Chartered Professional (Geology) and a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity to which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". John Graindorge is a full-time employee of Snowden Mining Industry Consultants Pty Ltd and consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

Competent Person's Statement– General

The information in this report that relates to the Hellyer and Barnes Hill project is based on information (third party consultants) compiled by Roger Jackson, an Executive Director of the Company, who is a 20+ year Member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and a Member of Australian Institute of Company Directors. Mr. Jackson has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration results, Mineral Resources and Ore Reserves". Mr. Jackson consents to the inclusion of the data contained in relevant resource reports used for this announcement as well as the matters, form and context in which the relevant data appears.

For further information, please contact:

NQ Minerals plc
David Lenigas, Chairman

lenigas@nqminerals.com

Colin Sutherland, Chief Financial Officer
colin.sutherland@nqminerals.com
Tel: +1 416 452 2166 (North America)

Media Enquiries:
Graham Herring
IFC Advisory
graham.herring@investor-focus.co.uk
Tel: +44 (0) 7793 839 024 (United Kingdom)

Corporate Adviser:
First Sentinel Corporate Finance Limited
Brian Stockbridge/Liza Vasilyeva
Tel: +44 207 183 7407 (United Kingdom)

Appendix: JORC Code (2012) Tables for Both Scotts Hill & Mt Vulcan and Barnes Hill

Part 1: Scotts Hill & Mt Vulcan Mineral Resource Estimate 2019

JORC Table 1 – Section 1: Sampling Techniques and Data

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 downhole 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.*	• The bulk of the data used for resource estimation is based on the logging and sampling of air core drilling (approximately 94% of the data). • Air core drilling from 1997 was sampled at 1 m intervals using a PVC or aluminium scoop to obtain an average weight of 0.73 kg per sample. For the 2019 drilling, 200-300 g was collected by spearing from each metre. • The sample was pulverised and split to 200 g from which a 20 g sub-sample was taken for XRF and LOI analysis. • Diamond drilling was sampled at 1 m intervals with occasional smaller length samples taken where appropriate due to mineralisation boundaries.
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).*	• A total of 67 drill holes totalling 816 m have been drilled at the Scotts-Vulcan deposit, comprising 62 air core drill holes (50 mm diameter) and 5 PQ triple tube diamond drill holes.
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.*	• Diamond drill holes were completed using triple tube to enhance core recoveries. Core recovery was recorded throughout drill holes with core recovery typically exceeding 90%.

Criteria	JORC Code explanation	Commentary
	• *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.*	• Recovery of air core drill samples was generally reasonable based on a visual assessment, with relatively few damp or wet samples. Samples with "poor" recovery were not assayed and recorded as "No Sample". • Sample weights were recorded for a total of 4,611 samples from the 2008-2010 air core drilling programs, which includes the Barnes Hill and Scotts-Vulcan deposits. Analysis of the dry sample weights indicates an average sample weight of approximately 0.7 kg was attained, with a total of 699 samples, or 15.2% of the dataset, with sample weights below 0.5 kg. • There is no relationship between sample recovery and grade as far as Snowden is aware.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Air core drill holes were logged at 1 m intervals with chip trays of each metre collected as a geological record and photos taken of all chip trays. • Diamond drill holes were logged over geological intervals ranging from centimetres to several metres. Core photos were taken of each tray throughout the hole. • Where logging exists, all intervals were logged. Logging includes the interval colour and rock type / laterite horizon.
Subsampling 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 subsampling 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.*	• For diamond drill holes all core was cut in half using a diamond core saw and 1 m half core samples submitted for assay. PQ diamond drill hole samples weighed more than 5 kg and up to 10 kg in fresher rock samples. • Air core drill holes were tube sampled with a separate sample taken for each metre. Duplicate samples and standard samples were also submitted as a quality control measure. • Field split duplicates and standards were initially submitted at the rate of approximately 1:50. No blanks were submitted. No coarse split or blind resubmissions have been completed. • Whilst the average sample size for the 1997 air core drilling is somewhat small, it is considered reasonable given the nature of the drilling, grain size and grade variability. The samples collected for the 2019 drilling are considered to be too small and larger samples are required to reduce the sampling error and improve precision and representivity.
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.*	• Samples from before 2019 were submitted to the ALS Laboratory in Adelaide. Of the 2019 drilling samples, 326 were submitted to ALS Brisbane and a further 3 to ALS Perth. All samples were assayed by lithium borate fusion X-Ray Fluorescence (XRF; laboratory method ME-XRF12), with LOI at 1,000°C by thermogravimetric analysis (TGA). • Samples were logged and tracked via the laboratory's internal LIMS system. • Laboratory sample preparation involved:

Criteria	JORC Code explanation	Commentary
	• *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.*	– Any samples that didn't air dry overnight were oven dried at a maximum of 120°C – Entire sample initially crushed to 90% passing 2 mm and split using a riffle splitter – A sample split of up to 1 kg was pulverised to 95% passing 106 µm – 0.66 g sub-sample was analysed by fused bead XRF with a lower detection limit 0.005% Ni and 0.001% Co. • QA/QC procedures implemented for the 1997 drilling included the submission of certified standards, duplicate samples and pulp duplicates. • TEM inserted CRMs and field duplicates into the sample batches from the 2019 drilling. Of the 329 samples submitted for the 2019 drilling, 29 QC samples were included, comprising 15 CRMs and 14 field duplicates, equating to an insertion rate of approximately 1:40 for each of the CRMs and duplicates. Results of the CRMs shows that reasonable analytical accuracy has been achieved and field duplicates show a reasonable level of precision. • Additionally, a batch of 36 sample pulps was submitted to the SGS laboratory in Perth for check assaying. Three check assays from SGS show significantly different Ni results compared to the original sample and are suspected to have been incorrectly labelled. • ALS and SGS included standards within sample batches as part of the internal laboratory QAQC.
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.*	• As part of the 2010 Barnes Hill resource estimate, Snowden verified laboratory assay certificates against the supplied database with no discrepancies identified. • A total of 5 diamond drill holes twinned existing air core drill holes to confirm grade and provided mineralised material for bulk density testwork. • Geological logging was completed on paper, transferred to Excel spreadsheets and geological logging codes validated. • Due to the different generations of assays, where required, element assays were converted to oxides (e.g. % Fe to % Fe_2O_3). No other adjustments have been made to the assay data.

Criteria	JORC Code explanation	Commentary
Location of data points	• *Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• The coordinate system used for the 2019 drilling is MGA Zone 55 projection based on the GDA94 datum. Historical data (i.e. 1997 drilling) was reportedly collected using the AGD66 datum, however this was apparently later converted to GDA94 by Proto / Allegiance. Investigations by TEM revealed that there is significant uncertainty regarding the coordinate system that was used and the reliability of the transformed coordinates. Based on a map provided by TEM, Snowden and TEM were able to ascertain that the coordinates of the historical data recorded in the database were likely based on the AGD66 system. As such, a transformation was applied by Snowden using the world coordinate transform algorithm in Datamine Studio RM software from AGD66 to MGA94 Zone 55. The resulting, transformed coordinates were verified by TEM as being visually correct. The transform shifts the historical collar locations approximately 212.6 m horizontally to the northeast. • The collars of the 2019 drilling at Scotts-Vulcan were surveyed by a contract surveyor using RTK GPS with a horizontal accuracy of ±10 mm and a vertical accuracy of ±15 mm. • The survey method and accuracy of the 1997 drilling is unknown. • The vertical (Z) coordinate for the 2019 drilling matched the topographic surface reasonably well, however, Snowden noted a significant difference between the historical collars and the topographic surface of up to 43 m (average 17 m difference). Given the close match of the 2019 drilling to topography, Snowden elected to project the historical collar points onto the topographic surface. • A topographic surface was provided by TEM, based on a LiDAR-derived 5 m digital elevation model of the northwest region of Tasmania completed by Geoscience Australia in 2013. The LiDAR has a reported 0.15 m vertical and horizontal accuracy.
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.*	• Air core drill hole spacing across the Scotts-Vulcan resource area is somewhat variable but is based on an approximate 100 mE x 100 mN grid. • Five diamond drill holes were completed at various locations across the deposit to gain material for bulk density and to twin existing air core drill holes. • Samples were composited to a 1 m interval for resource estimation.
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.*	• Drill holes were drilled vertically, perpendicular to the interpreted mineralisation orientation which is sub-horizontal.

Criteria	JORC Code explanation	Commentary
	• *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.*	
Sample security	• *The measures taken to ensure sample security.*	• No specific measures have been taken to ensure sample security. • Snowden does not believe that sample security poses a material risk to the integrity of the assay data used in the Mineral Resource estimate.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No external review of sampling and drilling procedures has been completed as far as Snowden is aware.

JORC Table 1 – Section 2: Reporting of Exploration Results

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 Scotts-Vulcan deposit straddles granted Exploration Lease EL 2/2017 and Mining Lease 1872P/M, although the majority of the resource occurs within EL 2/2017. • Tasmania Energy Metals Pty Ltd is the registered holder of 100% of Mining Lease 1872P/M. TEM has entered into a binding agreement to acquire 100% of EL 2/2017 from its registered holder Monclar Pty Ltd. TEM indicated that the transfer documentation has been submitted to Mineral Resources Tasmania, with the transfer expected to be processed in late 2019.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• A number of phases of mapping, drilling and metallurgical testwork have been completed over the nickel/cobalt laterites in the Barnes Hill area by various companies: – **1955 to 1956, Ben Lomond Mining.** Reconnaissance sampling completed to identify Ni-rich clays above serpentinites. – **1958, Consolidated Zinc.** Enterprise Exploration Company Pty Ltd completed an exploration report in 1958. Initial mapping identified garnierite bearing serpentine in a 4,000 ft by 2,500 ft area. Auger drilling completed on 3 lines south of Barnes Hill. Holes were 100 ft apart over a distance of 1,400 ft, 1,700 ft and 2,400 ft. Sample recovery was reportedly excellent and all holes except 2 ended at the bedrock contact. Average grades ranged from 0.4% Ni to 0.96% Ni and thicknesses varied from less than 5 ft to 9 ft. Other smaller areas were also identified and an additional 6 lines of auger drillholes were completed, however the nickel laterite profile was thinner (4 to 6 ft) and of lower grade (0.2% Ni).

Criteria	JORC Code explanation	Commentary
		– **1965 to 1967, BHP.** Regional and detailed mapping was completed. Airborne and ground magnetic surveys, along with geochemical sampling. One diamond core hole drilled at Scotts Hill to 673 ft to investigate magnetic anomaly - intersected magnetite (no sulphide mineralisation). A series of pits were completed on 17 separate lines within the 'Chromite Gravels'. BHP concluded the laterites near Andersons Creek were of low grade and not worthy of development. – **1967 to 1968, King Island Scheelite.** 17 diamond drillholes completed. Assay analyses were completed by Minex in Melbourne. Mineralogical study using XRD completed with nickel bearing phases identified. Identification of different domains laterally (Scotts Hill / Mount Vulcan / Barnes Hill) and throughout the profile (Laterite Zone / Transitional Serpentinite Zone / Bleached Serpentinite Zone / Fresh Zone). Beneficiation tests were also completed (H_2SO_4 leach tests, size analysis of ore, size analysis of residue of H_2SO_4 leach, caustic soda recovery, ammonia recovery, Nicaro process) with the Nicaro process achieving 67.7% Ni recovery. – **1969, King Island Scheelite.** Additional 20 diamond drill holes completed. Four ore locations delineated (Scotts Hill, Mount Vulcan, Barnes Hill and Barnes Hill south). Resource estimate of 6.0 Mt at 1.04% Ni and 0.06% Co at a 0.7% Ni cutoff. Analysis for Ni, Co, Cr, Al_2O_3, CaO, MgO, SiO_2 and FeO was completed. Analyses were completed by the Launceston Laboratories of the Tasmanian Department of Mines.
		– **1971 to 1972, Allstate Exploration.** 15 core holes completed. Trenching also completed. – **1969 to 1981, Northern Chromite.** Chromium production on western flank of Barnes Hill. Drilling completed at Rifle Range. – **1988, Placeco Australia.** Rock chip samples taken from Barnes Hill, Dans Hill and Mt Vulcan areas. – **1997 to 2000, Allegiance Mining.** Completed 549 m of air core drilling in 51 holes. Drilling contractor was Tas Diamond Driller Pty Ltd. All holes were vertical with 1 m samples. All samples were weighed. 9 holes at Scotts Hill, 8 holes Mt Vulcan, 17 holes at Barnes Hill, and 17 holes at Barnes Hill South. RC drilling program of 65 holes totalling 492 m. Updated resource estimated in March 1998

Criteria	JORC Code explanation	Commentary
		– **2001 to 2005, Jervois Mining.** Air core holes relogged to standardised format. Check assaying was completed on pulps from Allegiance air core holes S001 to S051. Composite bulk samples for limonite, saprolite and weathered serpentinite lithologies for the Barnes Hill region and the Scotts Hill / Mount Vulcan regions were collected for metallurgical testing. Resource estimate re-done based on lithological domains. – **2007, Proto Resources.** Completion of a high-level review of the Barnes Hill Project and drillhole database by Snowden Mining Industry Consultants. Air core drilling program (17 holes for 202 m) completed to validate historic drilling results and to provide samples for metallurgical testwork. Detailed flora and fauna assessment of the resource areas by North Barker Ecosystem Services. Cutting and assaying of some historic diamond core holes held at the MRT Rockstore in Mornington. Metallurgical testwork at HRL Testing in Brisbane. Regional soil sampling program consisting of 429 samples taken along 400 m spaced east-west lines. Aboriginal heritage and European heritage surveys completed. Column leach testwork on further air core drilling samples from the Barnes Hill deposit. First phase of a resource drilling program at the Barnes Hill deposit which consisted of 75 air core drill holes (BHA001 — 075) for 1,080 m was completed in 2008. Second phase of the resource drill-out at Barnes Hill was completed in late 2009 through to early 2010 and consisted of 549 air core drillholes (BHA076 - 625) for 4,839 m and 16 diamond drillholes (BHD001 - 16) for 416 m
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Barnes Hill deposits, including Scotts Hill and Mt Vulcan, are interpreted to have formed from the chemical weathering of a serpentinised ultramafic parent rock (Andersons Creek Complex). The ultramafic Andersons Creek Complex is a layered wedge of Cambrian ultramafic stratigraphy consisting mainly of serpentinite, pyroxenite and gabbro. The ultramafic complex around the Barnes Hill region has been altered almost completely to serpentinite prior to the chemical weathering process. The weathered serpentinites have subsequently been altered to clays which are overlain by a ferruginised laterite zone. • The laterite profile identified at Barnes Hill comprises: – A surficial pisolitic soil horizon – Fe-rich laterised hardcap zone (in places) – Laterite zone – Limonite zone – Saprolite zone – Saprock zone – Bedrock / serpentinite

Criteria	JORC Code explanation	Commentary
		• The Barnes Hill ultramafic rocks (Andersons Creek Complex) are bounded by quartzites to the east and claystones and slates to the west. Permian conglomerates overlie the ultramafic complex to the north and south. The quartzites are of Cambrian age and were intruded by the ultramafic rocks in the Cambrian. The ultramafics were subsequently altered to serpentinites. In turn the serpentinites were intruded by granitic rocks in the Devonian period. The belt of serpentine occupies a topographic low and is surrounded to the west and north by rugged hills. • The weathering history at Barnes Hill has not been suitable for the co-precipitation of soluble silica and nickel. Consequently, the hydrous nickel silicate garnierite, which is typically present in other nickel laterite deposits, is not prevalent at Barnes Hill. Serpentine and chlorite are the main nickel bearing species.
Drillhole information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:* – *easting and northing of the drillhole collar* – *elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar* – *dip and azimuth of the hole* – *downhole 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.*	• No exploration results being reported. • A diagram showing the location of drillhole collars is included in the accompanying release.
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.*	• No exploration results being 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 drillhole angle is known, its nature should be reported.* • *If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').*	• No exploration results being reported. • Drill holes were drilled vertically - perpendicular to the interpreted ore body orientation. • The true width of mineralisation is not considered to be materially different from the drillhole intercepts for vertical drilling.

Criteria	JORC Code explanation	Commentary
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.*	• No exploration results being reported.
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.*	• No exploration results being reported.
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 exploration results being reported.
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.*	• Drilling of a regular grid pattern to improve the classification of the Mineral Resource (currently only inferred) is planned for 2020. This is expected to include several hundred holes. • Drilling will also include lateral extensions not previously closed off by earlier drilling.

JORC Table 1 – Section 3: Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Selected checks by Snowden of drill hole data against original assay certificates were completed with no errors identified. • Geological logging completed on paper, transferred to Excel spreadsheets and geological logging codes validated. • Drill hole database backed up on a regular basis. • Statistical checks completed to ensure all assays fall within acceptable limits. • Checks on overlapping or duplicate Intervals completed. • Checks were completed on all samples which fell below analytical detection limits to ensure samples were assigned zero grades in resource estimation.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Due to the lack of outcropping geology and as no drilling is currently taking place, Snowden does not believe that a site visit is warranted at this stage; however, a site visit is anticipated when drilling recommences.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.*	• Snowden believes that the local geology is well understood as a result of work undertaken by Proto and other companies working in the region. The Scotts-Vulcan nickel laterites have developed from the weathering of an ultramafic host rock sequence.

Criteria	JORC Code explanation	Commentary
	• *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The geological interpretation of the laterite horizons was developed based on the profile interpreted in 2010 for the nearby Barnes Hill deposit and used in the 2010 Barnes Hill resource model. At Scotts-Vulcan however, the upper ferruginous portion of the profile is not as well developed as at Barnes Hill and is less continuous, especially given the current drill spacing. Consequently, the pisolite, hard-cap, laterite and limonite zones were combined into a single "laterite" domain, which Snowden believes is reasonable given the somewhat gradational nature of the internal boundaries. • Surfaces of the laterite horizons were interpreted based on a combination of geochemistry (mainly MgO and Fe_2O_3) and the geological logging. Each surface was treated as a hard boundary for resource modelling. • Geological interpretation in this region has been limited to the extent of current drilling. • Alternative interpretations of the mineralisation are unlikely to significantly change the overall volume of the mineralised zone in terms of the reported classified resources.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The deposit has an extent of approximately 1.6 km north-south by 0.9 km east-west. • The main and thickest regions of the deposit are centred around Scotts Hill and Mt Vulcan, and extend approximately 500 m north-south by 500 m east-west. • Ni mineralisation within the limonite zone is overlain in most part by ferruginised lateritic waste material which may be up to 15 m thick in places.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.*	• Ordinary kriging estimation (parent cell estimation) technique for Ni, Co, MgO, MnO, Al_2O_3, Fe_2O_3 and SiO_2. • Sample selection honoured geological domains which were developed considering the vertical chemical and geological trends of the profile. Five (5) domains developed: combined Limonite-Laterite domain, Transitional domain, Saprolite domain, Saprock domain and Bedrock domain. • Statistical analysis by domain completed. Top-cuts were applied to Co (0.35% Co) and MgO (8% MgO) within the Limonite-Laterite domain to control sporadic extreme values during estimation. No other top-cuts were applied. • Variography completed for Ni, Co, MgO, MnO, Al_2O_3, Fe_2O_3 and SiO_2. Due to the low number of samples for individual domains, variograms were modelled within a combined Transitional-Saprolite-Saprock domain and applied to all domains. • Validation of block estimates included visual and statistical checks, both global and local. Checks were completed against original and declustered drill hole composites.

Criteria	JORC Code explanation	Commentary
	• *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• All tonnages have been estimated as dry tonnages.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• Resources have been reported within domain boundaries above a 0.5% Ni cut-off. The cut-off grade of 0.5% Ni is based on the 2010 pit optimisation results for the Barnes Hill deposit and is commensurate with similar deposits. Snowden believes that the cut-off grade is reasonable assuming a standard open-pit mining approach with low to moderate selectivity.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• It is assumed that the deposit will be mined using conventional drill and blast open cut mining methods with low to moderate selectivity.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Until 2019, all testwork had been conducted on the Barnes Hill deposit. However, the 2019 testwork has been performed on ore drawn from Scotts Hill & Mt Vulcan. This showed Scotts-Vulcan to have similar metallurgical characteristics as Barnes Hill. • Four periods of metallurgical testwork have been undertaken during 1968 to 1969, 1997 to 2000, 2000 to 2002 and 2019 onwards. • The 2002 testwork reported Ni recoveries of 80% or greater for saprolite material, which provides support for reasonable prospects of eventual economic extraction.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• It is assumed that no environmental factors exist that could prohibit any potential mining development at the Barnes Hill deposit.

Criteria	JORC Code explanation	Commentary
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vughs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Bulk density was determined for a total of 244 density samples by the water immersion technique (Archimedes principle) on 20 cm to 30 cm samples of PQ diamond core. • Default density values were assigned to each domain: Limonite-Laterite domain (1.5 g/cm^3), Transitional domain (1.40 g/cm^3), Saprolite domain (1.3 g/cm^3), Saprock domain (2.2 g/cm^3) and Bedrock domain (2.4 g/cm^3).
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Classification is based on a number of considerations: – Nature and quality of the drilling and sampling methods. – Drill spacing. – Uncertainty in the collar coordinates of historical holes due to grid transformations. Resurveying of historical collars is required to verify the transformations applied. – Confidence in the understanding of the underlying geological and grade continuity. – Analysis of the QAQC data. – Confidence in the estimate of the mineralised volume. – The results of the model validation. • The resource classification scheme adopted by Snowden for the Scotts-Vulcan MRE is outlined as follows: – Where blocks are located within approximately 125 m of a drillhole, the transitional (Domain 45), saprolite (50) and saprock (55) domains were classified as Inferred Resources. – Blocks within the transitional (Domain 45), saprolite (50) and saprock (55) domains greater than approximately 125 m from a drillhole, remain unclassified and do not form part of the Mineral Resource. – The bedrock (60) and laterite-limonite (40) domains remain unclassified and do not form part of the Mineral Resource. • Extrapolation horizontally beyond the drilling is limited to approximately 125 m. • The Mineral Resource classification appropriately reflects the view of the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• Snowden is not aware of any independent reviews of the Mineral Resource estimate. • Snowden's internal review process ensures all work meets quality standards.

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The Mineral Resource has been validated both globally and locally against the input composite data. • Given the relatively sparse drilling within the Inferred Resource, estimates are considered to be globally accurate. Closer spaced drilling is required to improve the local confidence of the block estimates. • There is no operating mine at Barnes Hill project and as such, no production data is available.

Part 2: Barnes Hill Mineral Resource Estimate 2019

JORC Table 1 – Section 1: Sampling Techniques and Data

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 downhole 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.*	• The bulk of the data used for the Barnes Hill resource estimate is based on the logging and sampling of air core drilling (approximately 97% of the data). • Air core drilling was sampled at 1 m intervals using a PVC or aluminium scoop to obtain an average weight of 0.7 kg per sample. The sample was pulverised and split to 200 g from which a 20 g sub-sample was taken for XRF and LOI analysis. • Diamond drilling was sampled at 1 m intervals with occasional smaller length samples taken where appropriate due to mineralisation boundaries.
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).*	• A total of 716 drill holes totalling 7,114 m have been drilled at the Barnes Hill deposit, comprising 694 air core drill holes (50 mm diameter) and 23 PQ triple tube diamond drill holes. All 716 drill holes were used tor geological interpretation and resource estimation.
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.*	• Diamond drill holes were completed using triple tube to enhance core recoveries. Core recovery was recorded throughout drill holes with core recovery typically exceeding 90%.

Criteria	JORC Code explanation	Commentary
	• *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.*	• Recovery of air core drill samples was generally reasonable based on a visual assessment, with relatively few damp or wet samples. Samples with "poor" recovery were not assayed and recorded as "No Sample". A total of 28 samples did not have enough sample for analysis. • Sample weights were recorded for a total of 4,611 samples from the 2008-2010 air core drilling programs. Analysis of the dry sample weights indicates an average sample weight of approximately 0.7 kg was attained, with a total of 699 samples, or 15.2% of the dataset, with sample weights below 0.5 kg.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Air core drill holes were logged at 1 m intervals with chip trays of each metre collected as a geological record and photos taken of all chip trays. • Diamond drill holes were logged over geological intervals ranging from centimetres to several metres. Core photos were taken of each tray throughout the hole. • 4,627 data-lines of logging were produced for the 2010 MRE for all drillholes. Not all data has logging records. • Logging codes have not been standardised.
Subsampling 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 subsampling 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.*	• For diamond drill holes all core was cut in half using a diamond core saw and 1 m half core samples submitted for assay. PQ diamond drill hole samples weighed more than 5 kg and up to 10 kg in fresher rock samples. • Air core drill holes were tube sampled with a separate sample taken for each metre. Duplicate samples and standard samples were also submitted as a quality control measure. • Field split duplicates and standards were initially submitted at the rate of approximately 1:50. No blanks were submitted. No coarse split or blind resubmissions have been completed. • Whilst the average sample size for the air core drilling is somewhat small, it is considered reasonable given the nature of the drilling, grain size and grade variability.
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.*	• All samples were submitted to the ALS Laboratory in Adelaide for assay by lithium borate fusion X-Ray Fluorescence (XRF; lab method ME-XRF12), with LOI at 1,000°C by thermogravimetric analysis (TGA). • Samples were logged and tracked via the laboratory's internal LIMS system. • Laboratory sample preparation involved: – Any samples that didn't air dry overnight were oven dried at a maximum of 120°C – Entire sample initially crushed to 90% passing 2 mm – Sample split using a riffle splitter – A sample split of up to 1 kg was pulverised to 95% passing 106 µm

Criteria	JORC Code explanation	Commentary
		– A 0.66 g sub-sample was analysed by fused bead XRF with a lower detection limit of 0.005% Ni and 0.001% Co. • QAQC procedures implemented by Proto Resources included the submission of certified standards, duplicate samples and pulp duplicates. • ALS laboratory included internal standards within sample batches and was also involved in round robin testing with other laboratories.
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.*	• Snowden verified laboratory assay certificates against the supplied database with no discrepancies identified. • A total of 16 diamond drill holes (BHD001 – BHD016) twinned existing air core drill holes to confirm grade and provided mineralised material for bulk density testwork. • Geological logging was completed on paper, transferred to Excel spreadsheets and geological logging codes validated. • No adjustments have been made to the assay data.
Location of data points	• *Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Drill hole collars were surveyed by handheld GPS. Due to discrepancies between the drill hole collar elevations and the topographic surface, the drill hole collars were projected to the topographic surface as it is considered to have greater accuracy. • All drill holes were drilled vertically • Topographic surface was determined by an Airborne Laser Scanning (LiDAR) survey completed by Photomappng Services of Melbourne, Victoria LiDAR survey has a quoted accuracy of 0.15 m. Supplied contours were on a 1 m elevation spacing.
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.*	• Air core drill hole spacing across the Barnes Hill resource area has been completed predominantly on a 50 mN x 50 mE staggered grid pattern. A 50 mN by 50 mE drilling pattern has been shown to give a robust grade estimate into 25 mN by 25 mE by 1.0 m blocks and is considered adequate to support a Measured Resource classification for mineralised material greater than 2.0 m thick. However, a 50 mN x 50 mE staggered drilling pattern does not accurately define the true variability of thickness and consequently tonnage estimates are subject to additional uncertainty. An Indicated classification has therefore been applied. • Diamond drill holes were completed at various locations across the deposit to gain material for bulk density and to twin existing air core drill holes. • In addition, two traverses consisting of 151 holes of 10 m closely spaced air core drill holes were completed in the northern resource area to test grade and width variability.

Criteria	JORC Code explanation	Commentary
		• Sampling was completed consistently to a 1 m length. Compositing was not required to obtain an equal sample support.
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.*	• Drill holes were drilled vertically, perpendicular to the interpreted ore body orientation. • A tight spaced (10 m) drilling program was completed along a north-south and an east-west line, traversing the main portion of the deposit, to assess thickness and grade variation on a local scale.
Sample security	• *The measures taken to ensure sample security.*	• No specific measures have been taken to ensure sample security. • Snowden does not believe that sample security poses a material risk to the integrity of the assay data used in the Mineral Resource estimate.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No external review of sampling and drilling procedures has been completed as far as Snowden is aware.

JORC Table 1 – Section 2: Reporting of Exploration Results

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 Barnes Hill deposit occurs within Mining Lease 1872P/M. • Tasmania Energy Metals Pty Ltd is the registered holder of 100% of Mining Lease 1872P/M.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• A number of phases of mapping, drilling and metallurgical testwork have been completed over the nickel/cobalt laterites in the Barnes Hill area by various companies: – **1955 to 1956, Ben Lomond Mining.** Reconnaissance sampling completed to identify Ni-rich clays above serpentinites. – **1958, Consolidated Zinc.** Enterprise Exploration Company Pty Ltd completed an exploration report in 1958. Initial mapping identified garnierite bearing serpentine in a 4,000 ft by 2,500 ft area. Auger drilling completed on 3 lines south of Barnes Hill. Holes were 100 ft apart over a distance of 1,400 ft, 1,700 ft and 2,400 ft. Sample recovery was reportedly excellent and all holes except 2 ended at the bedrock contact. Average grades ranged from 0.4% Ni to 0.96% Ni and thicknesses varied from less than 5 ft to 9 ft. Other smaller areas were also identified and an additional 6 lines of auger drillholes were completed, however the nickel laterite profile was thinner (4 to 6 ft) and of lower grade (0.2% Ni).

Criteria	JORC Code explanation	Commentary
		– **1965 to 1967, BHP.** Regional and detailed mapping was completed. Airborne and ground magnetic surveys, along with geochemical sampling. One diamond core hole drilled at Scotts Hill to 673 ft to investigate magnetic anomaly - intersected magnetite (no sulphide mineralisation). A series of pits were completed on 17 separate lines within the 'Chromite Gravels'. BHP concluded the laterites near Andersons Creek were of low grade and not worthy of development. – **1967 to 1968, King Island Scheelite.** 17 diamond drillholes completed. Assay analyses were completed by Minex in Melbourne. Mineralogical study using XRD completed with nickel bearing phases identified. Identification of different domains laterally (Scotts Hill / Mount Vulcan / Barnes Hill) and throughout the profile (Laterite Zone / Transitional Serpentinite Zone / Bleached Serpentinite Zone / Fresh Zone). Beneficiation tests were also completed (H_2SO_4 leach tests, size analysis of ore, size analysis of residue of H_2SO_4 leach, caustic soda recovery, ammonia recovery, Nicaro process) with the Nicaro process achieving 67.7% Ni recovery. – **1969, King Island Scheelite.** Additional 20 diamond drill holes completed. Four ore locations delineated (Scotts Hill, Mount Vulcan, Barnes Hill and Barnes Hill south). Resource estimate of 6.0 Mt at 1.04% Ni and 0.06% Co at a 0.7% Ni cutoff. Analysis for Ni, Co, Cr, Al_2O_3, CaO, MgO, SiO_2 and FeO was completed. Analyses were completed by the Launceston Laboratories of the Tasmanian Department of Mines.
		– **1971 to 1972, Allstate Exploration.** 15 core holes completed. Trenching also completed. – **1969 to 1981, Northern Chromite.** Chromium production on western flank of Barnes Hill. Drilling completed at Rifle Range. – **1988, Placeco Australia.** Rock chip samples taken from Barnes Hill, Dans Hill and Mt Vulcan areas. – **1997 to 2000, Allegiance Mining.** Completed 549 m of air core drilling in 51 holes. Drilling contractor was Tas Diamond Driller Pty Ltd. All holes were vertical with 1 m samples. All samples were weighed. 9 holes at Scotts Hill, 8 holes Mt Vulcan, 17 holes at Barnes Hill, and 17 holes at Barnes Hill South. RC drilling program of 65 holes totalling 492 m. Updated resource estimated in March 1998

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		– **2001 to 2005, Jervois Mining.** Air core holes relogged to standardised format. Check assaying was completed on pulps from Allegiance air core holes S001 to S051. Composite bulk samples for limonite, saprolite and weathered serpentinite lithologies for the Barnes Hill region and the Scotts Hill / Mount Vulcan regions were collected for metallurgical testing. Resource estimate re-done based on lithological domains. – **2007, Proto Resources.** Completion of a high-level review of the Barnes Hill Project and drillhole database by Snowden Mining Industry Consultants. Air core drilling program (17 holes for 202 m) completed to validate historic drilling results and to provide samples for metallurgical testwork. Detailed flora and fauna assessment of the resource areas by North Barker Ecosystem Services. Cutting and assaying of some historic diamond core holes held at the MRT Rockstore in Mornington. Metallurgical testwork at HRL Testing in Brisbane. Regional soil sampling program consisting of 429 samples taken along 400 m spaced east-west lines. Aboriginal heritage and European heritage surveys completed. Column leach testwork on further air core drilling samples from the Barnes Hill deposit. First phase of a resource drilling program at the Barnes Hill deposit which consisted of 75 air core drill holes (BHA001 — 075) for 1,080 m was completed in 2008. Second phase of the resource drill-out at Barnes Hill was completed in late 2009 through to early 2010 and consisted of 549 air core drillholes (BHA076 - 625) for 4,839 m and 16 diamond drillholes (BHD001 - 16) for 416 m
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Barnes Hill deposit is interpreted to have formed from the chemical weathering of a serpentinised ultramafic parent rock (the Andersons Creek Complex). The Andersons Creek Complex is a layered wedge of Cambrian ultramafic stratigraphy consisting mainly of serpentinite, pyroxenite and gabbro. The ultramafic complex around the Barnes Hill region has been altered almost completely to serpentinite prior to the chemical weathering process. The weathered serpentinites have subsequently been altered to clays which are overlain by a ferruginised laterite zone. • The laterite profile identified at Barnes Hill comprises: – A surficial pisolitic soil horizon – Fe-rich laterised hardcap zone (in places) – Laterite zone – Limonite zone – Saprolite zone – Saprock zone – Bedrock / serpentinite

Criteria	JORC Code explanation	Commentary
		• The Barnes Hill ultramafic rocks (Andersons Creek Complex) are bounded by quartzites to the east and claystones and slates to the west. Permian conglomerates overlie the ultramafic complex to the north and south. The quartzites are of Cambrian age and were intruded by the ultramafic rocks in the Cambrian. The ultramafics were subsequently altered to serpentinites. In turn the serpentinites were intruded by granitic rocks in the Devonian period. The belt of serpentine occupies a topographic low and is surrounded to the west and north by rugged hills. • The weathering history at Barnes Hill has not been suitable for the co-precipitation of soluble silica and nickel. Consequently, the hydrous nickel silicate garnierite, which is typically present in other nickel laterite deposits, is not prevalent at Barnes Hill. Serpentine and chlorite are the main nickel bearing species.
Drillhole information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:* – *easting and northing of the drillhole collar* – *elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar* – *dip and azimuth of the hole* – *downhole 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.*	• No exploration results being reported. • A diagram showing the location of drillhole collars is available on request.
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.*	• No exploration results being reported.
Relationship between mineralisatio n 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 drillhole angle is known, its nature should be reported.* • *If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').*	• No exploration results being reported. • Drill holes were drilled vertically - perpendicular to the interpreted ore body orientation. • The true width of mineralisation is not considered to be materially different from the drillhole intercepts for vertical drilling.

Criteria	JORC Code explanation	Commentary
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.*	• No exploration results being reported.
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.*	• No exploration results being reported.
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 exploration results being reported.
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.*	• Further drilling is planned as part of ongoing feasibility programs. This will target areas were historical work including sampling by BHP and drilling by King Island Scheelite reported anomalous nickel values. In particular, areas around and north of Simmonds Hill will be explored. • Additional bulk density measurement is planned. This would use different methods to those used previously and would seek to enhance the reliability of existing bulk density measurements.

JORC Table 1 – Section 3: Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Selected checks by Snowden of drill hole data against original assay certificates were completed with no errors identified. • Geological logging completed on paper, transferred to Excel spreadsheets and geological logging codes validated. • Statistical checks completed to ensure all assays fall within acceptable limits. • Checks on overlapping or duplicate Intervals completed. • Checks were completed on all samples which fell below analytical detection limits to ensure samples were assigned zero grades in resource estimation.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• Due to the lack of outcropping geology and as no drilling is currently taking place, Snowden does not believe that a site visit is warranted at this stage; however, a site visit is anticipated when drilling recommences.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.*	• Snowden believes that the local geology is well understood as a result of work undertaken by Proto and other companies working in the region.

Criteria	JORC Code explanation	Commentary
	• *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The Barnes Hill nickel laterite has developed from the weathering of an ultramafic host rock sequence. The boundaries of the deposit have been interpreted from drilling which has intersected unmineralised sandstone and siltstones to the east, west and south of the deposit. The northern boundary to the deposit has yet to be defined from drilling. • Surfaces of the laterite horizons were interpreted based on a combination of geochemistry (mainly MgO, Fe_2O_3 and Ni) and the geological logging. Each surface was treated as a hard boundary for resource modelling. • Alternative interpretations of the mineralisation are unlikely to significantly change the overall volume of the mineralised zone in terms of the reported classified resources.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The deposit has an extent of approximately 2 km north-south by 1 km east-west. • The main and thickest region of the deposit is centred around Barnes Hill and is approximately 400 m north-south by 800 m east-west. This area is characterised by a distinct limonite zone (average thickness ~3.5 m) underlain by a saprolite zone (~4.0 m). • The area to the south of Barnes Hill is thinner and consists primarily of saprolite material ~2.0 m to 3.0 m). • Ni mineralisation within the limonite zone is overlain in most part by ferruginised lateritic waste material (~2.0 m to 5.0 m).
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.*	• Ordinary kriging estimation (parent cell estimation) technique for Ni, Co, MgO, Fe_2O_3 and SiO_2. • Sample selection honoured geological domains which were developed considering the vertical chemical and geological trends of the profile. Seven (7) domains developed: Pisolite / Hardcap domain, Laterite domain, Limonite domain, Transitional Domain, Saprolite Domain, Saprock Domain and Bedrock Domain. • Statistical analysis by domain completed. No outlier / extreme values identified and as such, no upper or lower cuts were applied to the datasets. • Variography for Ni and Co completed for the Limonite and Saprolite domains. Isotropic variogram model developed which was applied to all elements for all domains. • Validation of block estimates included visual and statistical checks , both global and local. • Checks were completed against original and declustered drill hole / composite dataset.

Criteria	JORC Code explanation	Commentary
	• *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• All tonnages have been estimated as dry tonnages.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• Limonite domain has been interpreted based on a 0.2% Ni threshold. Overlying lower grade lateritic material has been considered waste. Assessment of probability plots and histograms supports the selection of this value as a natural threshold between waste and mineralised material. • Resources have been reported within domain boundaries above a 0.5% Ni cut-off. The cut-off grade of 0.5% Ni is based on the pit optimisation results from 2010 and is commensurate with similar deposits. Snowden believes that the cut-off grade is reasonable assuming a standard open-pit mining approach with low to moderate selectivity.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• It is assumed that the deposit will be mined using conventional drill and blast open cut mining methods with low to moderate selectivity.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Three periods of metallurgical testwork have been undertaken on Barnes Hill during 1968 to 1969, 1997 to 2000 and 2000 to 2002. • The 2002 testwork reported Ni recoveries of 80% or greater for saprolite material, which provides support for reasonable prospects of eventual economic extraction.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• It is assumed that no environmental factors exist that could prohibit any potential mining development at the Barnes Hill deposit.

Criteria	JORC Code explanation	Commentary
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vughs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Bulk density was determined for a total of 244 density samples by the water immersion technique (Archimedes principle) on 20 cm to 30 cm samples of PQ diamond core. • Default density values were assigned to each domain: Pisolite / Hardcap Domain (1.75 g/cm^3), Laterite domain (1.70 g/cm^3), Limonite domain (1.5 g/cm^3), Transitional domain (1.40 g/cm^3), Saprolite domain (1.3 g/cm^3), Saprock domain (2.2 g/cm^3) and Bedrock domain (2.4 g/cm^3).
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• Classification was based on a number of considerations: – Reliability of the drilling, sampling and assaying. – Geostatistical measures associated with estimated block grades (e.g. regression slope, kriging variance). – Number of composites and number of drillhole used in estimation. – Domain thickness and variability. – Results of a conditional simulation study of the saprolite thickness. – Amount and reliability of the density data. • Mineral Resources have been classified as a combination of Indicated and Inferred Resources based on the following criteria: – The Mineral Resource has been limited to the Limonite, Transitional, Saprolite and Saprock domains. – Where drilling is 50 mN by 50 mE or better and the thickness is greater than 2 m, the resource has been classified as an Indicated Resource. – Areas that are not supported by a 50 mN by 50 mE drill spacing or are less than 1 m in thickness have been assigned an Inferred classification. • The Mineral Resource classification appropriately reflects the view of the competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• Snowden is not aware of any independent reviews of the Mineral Resource estimate. • Snowden's internal review process ensures all work meets quality standards.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.*	• The Mineral Resource has been validated both globally and locally against the input composite data. • Sequential Gaussian simulation (SGS) of the saprolite thickness was completed by Snowden in 2010 to assess risk associated with the tonnage estimate. For a panel size of 100 m x 100 m (equates to an approximate quarterly production rate of 55 kt) an average thickness variation of ±24% is estimated at a 90% confidence level. This equates to a thickness range of ±1.2 m from the mean thickness of 4.9 m (i.e. 3.7 m to 6.1 m). For a 200 m x 200 m panel, the thickness variation is reduced to approximately 15%, or ±0.75 m.

Criteria	JORC Code explanation	Commentary
	• *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• Simulation of Ni and Co grades has not been completed at this stage. • Given the sparser drilling within the Inferred Resource areas, these estimates are considered to be globally accurate. Closer spaced drilling is required to improve the local confidence of the block estimates in these areas. • There is no operating mine at Barnes Hill and as such, no production data is available.