ASX Announcement **5th September 2022**

Significant Metallurgical Results – C2 Resource

HIGHLIGHTS – C2 Project (100% DKM)

The results of metallurgical testwork on a composite of fresh mineralisation from C2 have been received. In summary;

- **C2 ore responds well to conventional flotation** and produces **a saleable concentrate**
- **Nickel recovery was as high as 77.3%** to a saleable grade concentrate during open circuit batch flotation testwork.
- Low levels of deleterious elements in concentrate (no smelter penalties)
- **Copper and cobalt** were recovered and will contribute concentrate **by-product credits.**

The testwork demonstrated an ability to produce **concentrate grades ranging from 11-18% Ni and an Fe:MgO of between 12-20:1** using typical flotation reagents. Interpolation of the nickel recovery at a concentrate grade of 13% was 65.5% and it is anticipated that with further metallurgical work, the recovery can be improved.

This result compliments the positive metallurgical testwork results received for Rosie (see ASX announcement 8 and 10 July 2020)

Further work will target improved nickel recovery via optimisation of flotation conditions and closing the flowsheet to recover nickel from intermediate concentrate streams.

The positive result in these tests allow DKM to move forward with **infill drilling the C2 deposit to an indicated** status so it can be used for scoping study level assessment and **extending the resource** along strike and down dip.

C2 contains **5.7 million tonnes at 0.7% nickel, 0.04% copper and 0.14g/t platinum and palladium for a contained 38,000 tonnes of nickel, 2,370 tonnes of copper and 26,000 oz of platinum and palladium** at 0.5% nickel cut-off (see ASX announcement 29 January 2015).

Stuart Fogarty, DKM Managing Director said:

"What a great result. 13% Ni in concentrate and a highly attractive Fe:MgO ratio of between 12-20:1. The simplicity of the flowsheet and the metallurgical processes invoked at C2 to produce a saleable concentrate is a testimony to the quality of C2. These results in conjunction with the previous results

from Rosie prove that there is an effective metallurgical pathway for the successful extraction of both deposits and fundamentally underpins the criteria for an operation. This allows DKM to drill out the inferred resource at C2 with the intention of converting it into an indicated resource and growing it through extensions beyond the current 38,000 nickel tonne resource."

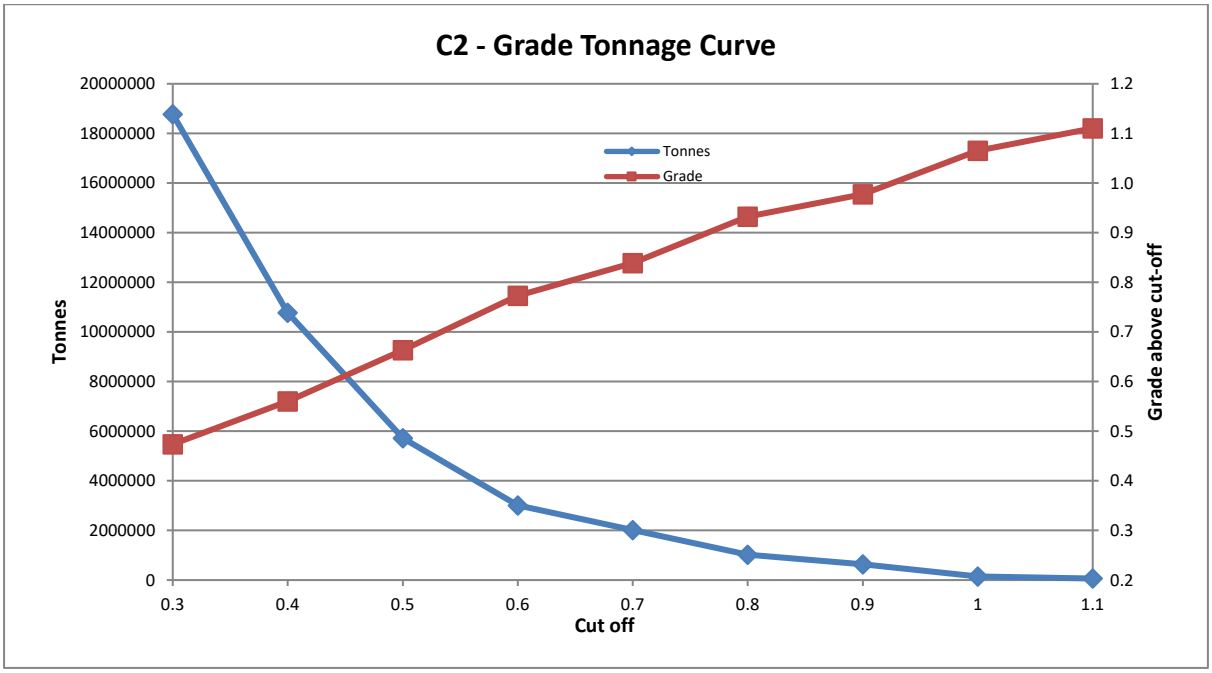

Figure 1: Grade Tonnage Curve at Ni cut-offs.

Cut-Off (Ni %)	Tonnes	Grade (Ni %)	Ni (t)
0.3	18,775,665	0.5	88,902
0.4	10,776,805	0.6	60,356
0.5	5,721,787	0.7	37,967
0.6	3,008,201	0.8	23,249
0.7	2,019,653	0.8	16,940
0.8	1,018,985	0.9	9,503
0.9	641,066	1.0	6,265
1	148,053	1.1	1,577
1.1	62,461	1.1	694

Table 1: C2 Deposit Grade Tonnage Table for different Ni cut-offs

Figure 2: Flotation of Nickel Sulphides from C2 Deposit

Duketon Mining Ltd (**ASX: DKM**, **"Duketon"** or **"the Company"**) is pleased to announce the receipt of positive metallurgical results for the C2 nickel resource. A composite sample from diamond drilling was processed through a number of flotation tests during the past few months. The test work was completed by Strategic Metallurgy Pty Ltd, recognised as leading consultants in nickel sulphide metallurgy.

The primary objective of this test work was to assess nickel flotation response for C2 and determine the recovery to a saleable grade (>10%Ni) concentrate. Assessment of concentrate quality, including Fe:MgO ratio and other deleterious elements was also included.

The C2 composite was prepared from select drill core intervals that represent the known resource zones. The core samples were all from the hole DKDD0030 between 205m – 235m with sample IDs DKM38779 – DKM38813. The nickel assay of all intervals ranged between 0.6% Ni – 2.5% Ni and formed the composite with a grade of 1.07% Ni (see Tables 2 & 6).

These tests confirm that **C2 ore responds well to conventional flotation** and **produces a saleable concentrate**. **Open circuit recovery is as high as 77.3%** to a saleable concentrate with **nickel grades ranging from 11%-18% Ni** and an **Fe:MgO of between 12-20:1** (see Table 3). It is anticipated with further metallurgical work the recovery can be improved without compromising any of the key elements. Platinum and palladium were recovered into the concentrate however are not present at high enough levels to warrant credits. **Low levels of deleterious elements** were detected in concentrate but are not expected to incur any penalties. **Copper and cobalt are present in levels expected to receive concentrate by-product credits**.

The positive result in these tests allow DKM to move forward with infill drilling the C2 deposit to an indicated status so it can be used for scoping study level assessment and extending the resource along strike and down dip.

C2 contains 5.7 million tonnes at 0.7% nickel, 0.04% copper and 0.14g/t platinum and palladium for a contained **38,000 tonnes of nickel, 2,370 tonnes of copper and 26,000 oz of platinum and palladium at 0.5% nickel cut-off** (see Figure 1 and Tables 1,4 & 5).

Ni (%)	Cu (%)	Co (%)	S (%)	MgO (%)	Pt (gpt)	Pd (gpt)	Rh (gpt)	Au (gpt)	Ir (gpt)	Os (gpt)	Ru (gpt)
1.07	0.04	0.03	3.56	29.7	0.05	0.05	0.007	0.01	0.017	0.015	0.024

Table 2. Composite Head Assay (determined by a combination of XRF, fire assay, acid digest ICP and CS2000 sulfur analyser).

Ag	Al	Au	As	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu
(ppm)	(%)	(ppm)	(%)	(%)	(ppm)	(%)	(%)	(ppm)	(%)	(%)	(%)	(%)
2	0.02	0.55	0.04	<0.01	<5	<0.002	0.07	30	<0.01	0.31	0.14	0.68
F	**Fe**	**Hg**	**K**	**Mg**	**Mn**	**Mo**	**Ni**	**P**	**Pb**	**Pd**	**Pt**	**S**
(%)	(%)	(ppm)	(%)	(%)	(%)	(ppm)	(%)	(%)	(%)	(ppm)	(ppm)	(%)
<0.1	39.3	<0.1	<0.01	1.17	0.02	55	12.6	<0.01	0.02	0.54	0.17	37.1
Sb	**Se**	**Si**	**Sn**	**Sr**	**Te**	**Th**	**Ti**	**U**	**V**	**Zn**	**Zr**	
(%)	(ppm)	(%)	(%)	(%)	(ppm)	(ppm)	(%)	(%)	(%)	(%)	(%)	
<0.01	45	0.97	<0.01	<0.001	13.4	<0.1	<0.01	<0.002	0.002	0.03	<0.001	

Table 3. Nickel Concentrate Analysis

C2 Nickel Resource >0.5%Ni - October 2012				
Classification	**Oxidation**	**Tonnes**	**Ni (%)**	**Ni (t)**
Inferred	Fresh	5,100,000	0.7	34,200
	Transitional	600,000	0.6	3,800
Total		**5,700,000**	**0.7**	**38,000**

Table 4: C2 Nickel Resource > 0.5% Ni

C2 Nickel Resource >0.5%Ni - October 2012							
Classification	**Oxidation**	**Tonnes**	**Ni (%)**	**Cu (%)**	**Pt (ppb)**	**Pd (ppb)**	**S (%)**
Inferred	Fresh	5,100,000	0.7	0.04	60	79	3.3
	Transitional	600,000	0.6	0.04	72	105	0.9
Total		**5,700,000**	**0.7**	**0.04**	**61**	**82**	**3.1**

Table 5: C2 Resource > 0.5% Ni with Auxiliary Attributes

Sample ID	Interval Start (m)	Interval End (m)	Ni Grade (ppm)	Sample Mass (g)
DKM38779	205	206	14000	14120
DKM38780	206	207	14400	
DKM38781	207	208	14100	
DKM38782	208	209	12400	
DKM38783	209	210	11500	
DKM38784	210	211	9130	14580
DKM38785	211	212	7850	
DKM38786	212	213	9630	
DKM38787	213	214	7880	
DKM38788	214	215	8670	
DKM38789	215	215.75	10100	11680
DKM38790	215.75	216.5	10200	
DKM38791	216.5	217	6480	
DKM38792	217	218	8270	
DKM38793	218	219	9350	
DKM38794	219	220	7160	15000
DKM38796	220	221	8110	
DKM38797	221	222	7700	
DKM38798	222	223	6040	
DKM38799	223	224	7530	
DKM38800	224	225	7520	15080
DKM38801	225	226	7300	
DKM38802	226	227	6860	
DKM38803	227	228	8080	
DKM38805	228	228.47	14500	
DKM38806	228.47	229	10000	
DKM38807	229	230	8520	9280
DKM38808	230	231	24000	
DKM38809	231	232	24300	
DKM38811	232	233	8290	
DKM38812	233	234	8590	
DKM38813	234	235	6070	

Table 6. Composite Interval Selection

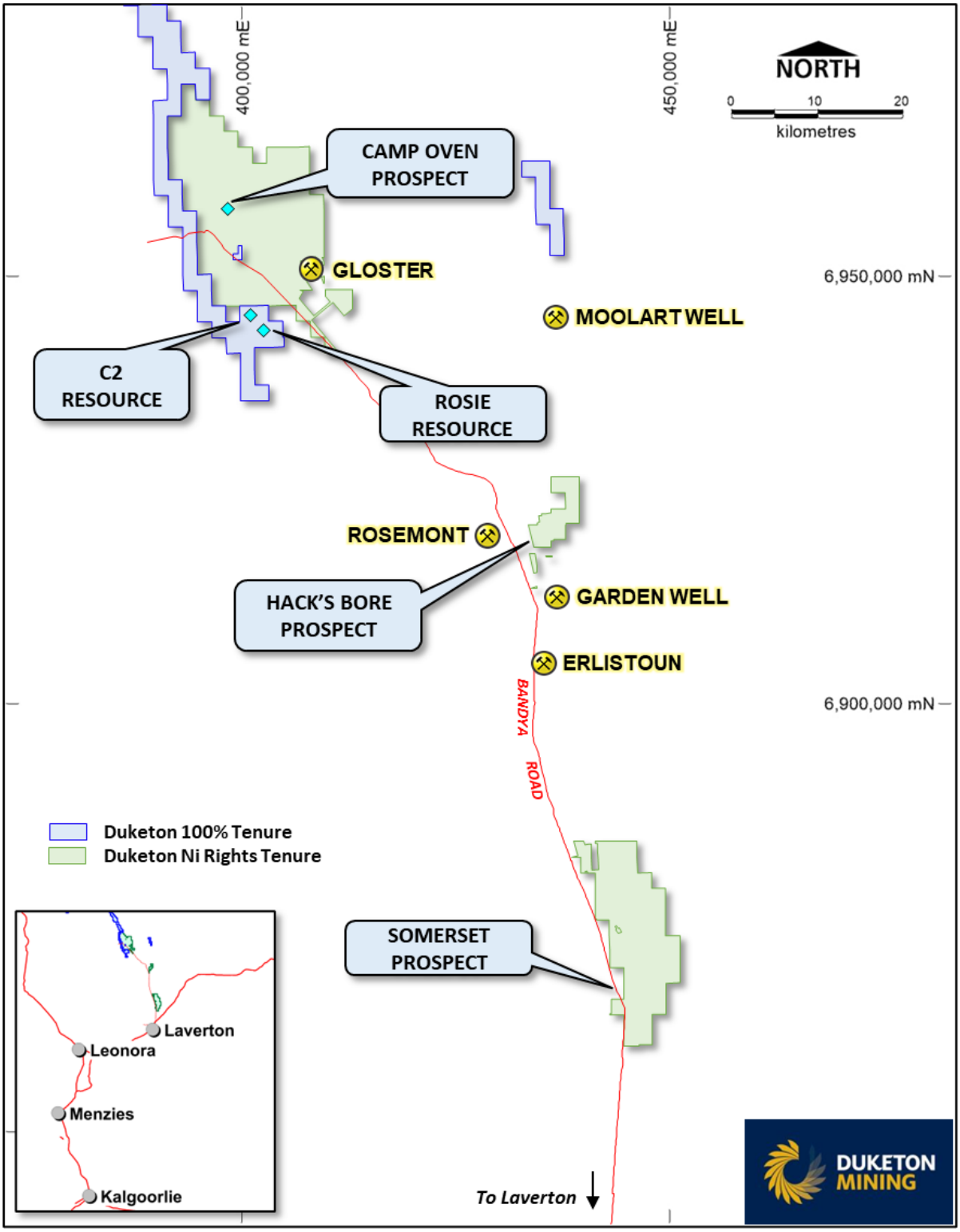

Figure 3: Plan of DKM Tenements showing Nickel Resources and Prospects

Authorised for release by:
Stuart Fogarty
Duketon Mining Limited - Managing Director
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Competent Person Statement:

The information in this report that relates to exploration results is based on information compiled by Ms Kirsty Culver, Member of the Australian Institute of Geoscientists (AIG) and an employee of Duketon Mining Limited. Ms Culver has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity that is being undertaken to qualify as a competent person as defined in the JORC Code 2012. Ms Culver consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

The information in this release that relates to Metallurgical Results and Interpretations is based on information compiled by Nick Vines, Executive Director at Strategic Metallurgy Pty Ltd. Mr Vines is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and has sufficient experience which is relevant to the metallurgical test work on the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Vines consents to the inclusion in the release of the matters based on this information in the form and context in which it appears.

This announcement includes information extracted from the Company's previous ASX announcements, which are available to view on the Company's website (www.duketonmining.com.au) as follows:

- Rosie Scoping Study – ASX announcement dated 28 April 2021.
- Positive Metallurgical Results Rosie Nickel – ASX announcement dated 8 July 2020
- Positive Metallurgical Results Rosie Nickel - Amendment – ASX announcement dated 10 July 2020
- Nickel Resources at Duketon more than double ASX announcement dated 29 January 2015

In the case of the Rosie Scoping Study, the Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions underpinning the production target, or the financial information derived from the production target in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context that the Competent Person's findings are represented have not been materially modified from the original market announcement.

JORC Table 1

JORC Code, 2012 Edition – Table 1 report – Duketon Project

Section 1 Sampling Techniques and Data – C2 Diamond Drilling

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• Diamond core was drilled triple tube HQ to competent rock and then NQ2 to end of hole. • The sample interval is cut in half and half again using a diamond core saw and quarter core sampled for assay. Each sample provides between 1.5-2.0kg of material. The core is cut to the left of the orientation line, with the same quarter sampled to ensure sample is representative. • Diamond core is sampled to geological boundaries, no greater than 1m and no less than 20cm per sample. • Certified samples and blanks are routinely added to every batch of samples. • Mineralisation is determined qualitatively by geological logging and quantitatively through assaying. • Metallurgical sample was extracted from drillhole DKDD0030. The drill core was shipped to Strategic Metallurgy in Belmont Western Australia and stored at the Strategic Metallurgy Laboratory.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Rock roll or rough core to refusal then diamond drilling using triple tube HQ3 (61.1mm) sized core to competent rock and then NQ2 (50.6mm) to end of hole. • Core is oriented using a Boart Longyear TruCore UPIX orientation tool.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Recoveries qualitatively noted at the time of drilling and recorded. • Core is metre marked and orientated. Recoveries are recorded. • Triple tube HQ is used to maximise recovery through the weathered zone and ensure a representative sample.
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.*	• All core is logged to a level of detail to support future use in a mineral resource calculation. • Qualitative: Lithology, alteration, mineralisation. • Quantitative: Vein percentage, sulphide percentage. • All holes for their entire length are logged. • All core is photographed.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• The core is cut using an automatic core saw, half core is sampled. • The entire sample (approx. 2kg) is dried, pulverised to 85% passing 75µm. • Pulp duplicates are taken at the pulverising stage and selective repeats conducted at the laboratory's discretion. • Sample sizes are considered appropriate for the grainsize of the material sampled. • Metallurgical samples were crushed and pulverised to 75µm. Samples were then split into 1kg sub-samples for flotation testwork.
Quality of assay data and	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	• Samples are analysed using a Fire Assay 40g charge with MS finish for Au, Pt & Pd and a multi-acid digest with ICP-AES finish for 17 elements.

Criteria	JORC Code explanation	Commentary
laboratory tests	• *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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• This technique is industry standard for nickel and considered appropriate. • Samples are analysed for the following elements: Al, As, Au, Ca, Co, Cr, Cu, Fe, K, Mg, Na, Ni, Pd, Pt, S, Sc, Ti, V, Zn, Zr • Certified Reference Material (Standards) and blanks were submitted with batches.
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.*	• All data is checked internally for correctness by senior DKM geological and corporate staff. • All data is collected via Ocris software and uploaded into the DKM Datashed Database following validation. • No adjustments are made to assay data. • No twinned holes have been drilled to date.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• All location points are collected using a handheld GPS in MGA 94 – Zone 51 • Downhole surveying (azimuth and dip of the drillhole) of diamond drillholes was measured by the drilling contractors using an Axis Champ Gyro tool. • A topographic surface has been created from airborne geophysical data. Drillholes are corrected to this surface.
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.*	• Current drillhole spacing ranges from 30m x 30m up to 50m x 50m in parts. • Sample compositing has been applied.
Orientation of data in relation to	• *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*	• The orientation of the geology and mineralization at C2 is steeply dipping to the east and striking NW.

Criteria	JORC Code explanation	Commentary
eological structure	*sampling bias, this should be assessed and reported if material.*	
Sample security	• *The measures taken to ensure sample security.*	• Chain of custody is managed by company representatives and is considered appropriate. All samples are bagged in a tied numbered calico bag, grouped into larger polyweave bags and cable tied. Polyweave bags are placed into larger bulky bags with a sample submission sheet and tied shut. Consignment note and delivery address details are written on the side of the bag and delivered to Toll in Laverton. The bags are delivered directly to Bureau Veritas in Canning Vale, WA who are NATA accredited for compliance with ISO/IEC17025:2005.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No external audits or reviews have been conducted apart from internal company review.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The tenement (M38/1252) is 100% owned by Duketon Mining Limited and is in good standing and there are no known impediments to obtaining a licence to operate in the area.

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous drilling at The Bulge Complex was completed by Independence Group (IGO) and South Boulder Mines Ltd. This work has been checked for quality as far as possible and formed the basis of the follow-up conducted as part of the drilling programme presented.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The C2 deposit is a komatiite-hosted nickel sulphide deposit. The mineralisation is characterised by accumulations of massive, matrix, breccia and disseminated Ni-Cu-PGE magmatic sulphides at the basal contact of a komatiite ultramafic rock, overlying a mafic pillow basalt footwall +/- fine grained siltstone sediments which may also contain sulphides in varying amounts.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.*	• Significant intercepts are provided in a table within the text of this announcement.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *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 top-cuts have been applied when reporting results. • First assay from the interval in question is reported (i.e. Ni1). • Aggregate sample assays calculated using a length weighted average. • Significant grade intervals are based on intercepts > 3000ppm nickel.
Relationship between	• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*	• Downhole length is reported for the drillholes.

Criteria	JORC Code explanation	Commentary
mineralisation widths and intercept lengths	• *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	
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.*	• Refer to figures in document.
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.*	• All drillhole locations are reported and a table of significant intervals is provided in the release text.
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.*	• Refer to document.
Further work	• *The nature and scale of planned further work (eg 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.*	• A discussion of further work underway is contained within the body to this ASX release.