ASX Announcement **25th July 2022**

Significant Shallow PGEs above Rosie Ni-Cu-PGE Resource

HIGHLIGHTS - Rosie Project (100% DKM)

Results have been received for RC holes drilled within the oxide zone above the Rosie Ni-Cu-PGE resource and include:

- **17m @ 1.02g/t Pt + Pd, 0.18% Ni & 0.27% Cu** from 15m
- **7m @ 2.13g/t Pt + Pd, 0.82% Ni & 0.29% Cu** from 68m
- **10m @ 1.29g/t Pt + Pd, 0.68% Ni & 0.30% Cu** from 45m
- **9m @ 1.12g/t Pt + Pd, 0.67% Ni & 0.27% Cu** from 82m
- **4m @ 2.95g/t Pt + Pd, 1.25% Ni & 0.99% Cu** from 72m

All drillholes lie **outside of the resource**

Individual samples **up to 6.38g/t Pt + Pd**

Holes to be **submitted for remaining suite of PGE's** (Rhodium, Ruthenium, Iridium, Osmium).

Mineralisation starts **12m from surface**

Strike length of mineralisation greater than **350m at +2g/t**

Drilling will continue in the area with the intention of moving towards modelling a Ni-Cu-PGE resource

Stuart Fogarty, DKM Managing Director said:

"Drilling into the transitional and oxide zone above Rosie continues to be a success - with every completed hole over a 900m length intersecting mineralisation. Within that 900m strike there is a higher-grade 350m long zone with greater than 2g/t of platinum and palladium starting at less than 12m from the surface. These results reinforce the continuity of PGE grades above the fresh sulphide zone at Rosie, which is very encouraging for future development options of the project. I am confident Duketon remains well funded with circa $18 million cash to pursue this and all other opportunities in its portfolio."

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Duketon Mining Ltd (**ASX: DKM**, **"Duketon"** or **"the Company"**) is pleased to announce assay results have been received for RC holes drilled within the oxide zone above the Rosie Ni-Cu-PGE Deposit.

Four drill traverses were completed across the top of the Rosie Deposit to determine the grade and distribution of PGE's within the oxide zone. The drilling highlights a high-grade core of Platinum and Palladium above the centre of Rosie, 350m wide (see Figure 1 and 2). This is situated within a broader 900m wide zone of greater than 0.5g/t Platinum and Palladium.

Nickel and copper mineralisation occurs in the same area and is typified by partial to complete oxidation of the sulphides. Significantly, mineralisation occurs only 12m from surface. Drill holes will be submitted for the full suite of PGE's (Rhodium, Ruthenium, Iridium, Osmium).

Duketon will continue to drill this zone with the intention of modelling a resource and then subsequently assessing it for mining and processing options. This could have positive implications for any development options at the Rosie Ni-Cu-PGE Resource.

- **17m @ 1.02g/t Pt + Pd, 0.18% Ni & 0.27% Cu** from 15m
    - **inc. 6m @ 1.42g/t Pt + Pd, 0.34% Ni & 0.45% Cu**
- **7m @ 2.13g/t Pt + Pd, 0.82% Ni & 0.29% Cu** from 68m
- **10m @ 1.29g/t Pt + Pd, 0.68% Ni & 0.30% Cu** from 45m
    - **inc. 6m @ 1.79g/t Pt + Pd, 0.74% Ni & 0.36% Cu**
- **9m @ 1.12g/t Pt + Pd, 0.67% Ni & 0.27% Cu** from 82m
- **4m @ 2.95g/t Pt + Pd, 1.25% Ni & 0.99% Cu** from 72m

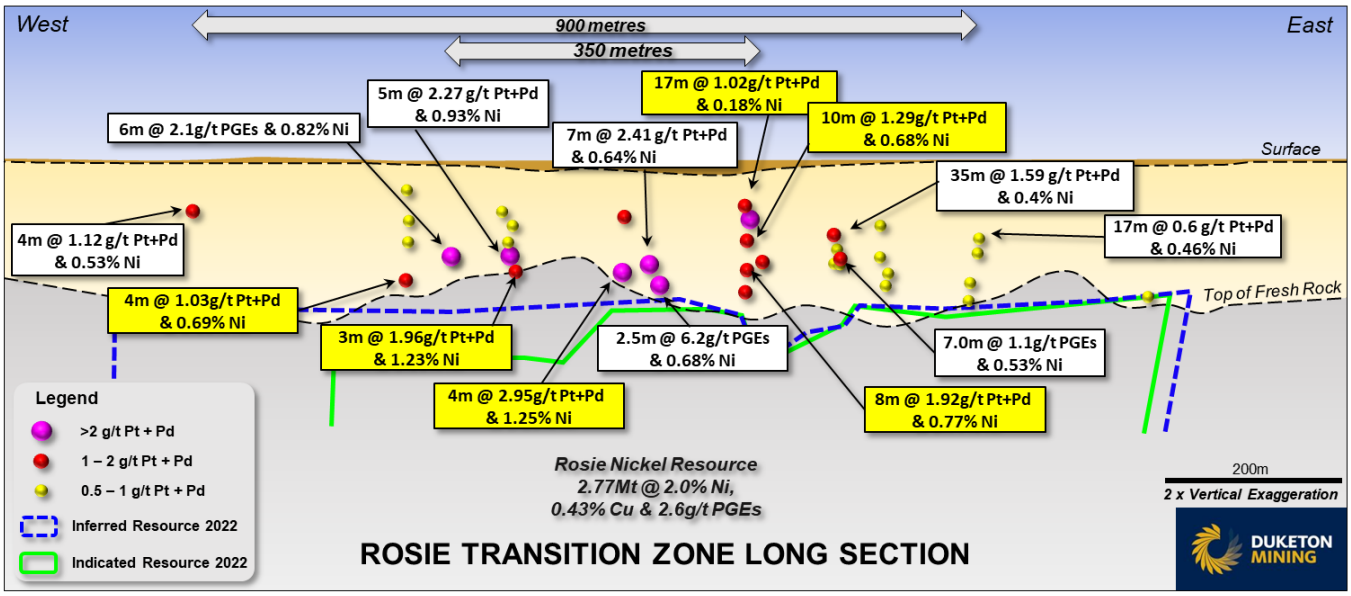

Figure 1: Long Section of Rosie

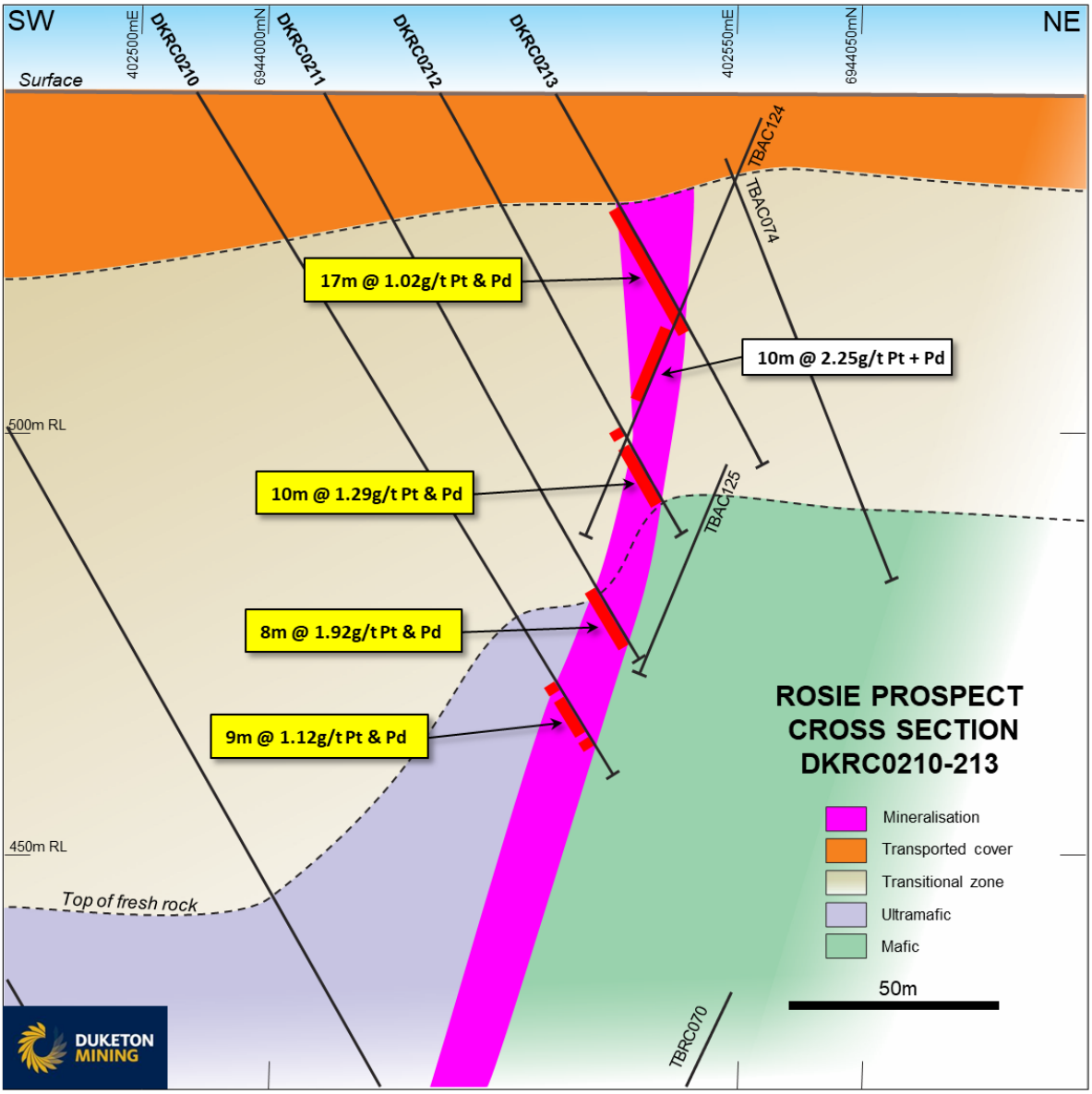

Figure 2: Oblique Cross Section.

Table 1: Significant Intercept Table of PGEs (Significant intercepts are 0.5m >500 ppb Pt + Pd, maximum internal dilution of 2 metres, intersections are downhole widths)

Hole ID	Depth From (m)	Depth To (m)	Comments
DKRC0206	75	78	3m @ 0.83g/t Pt + Pd, 0.79% Ni & 0.13% Cu
inc	76	77	**1m @ 1.02g/t Pt + Pd, 0.91% Ni & 0.13% Cu**
and	81	85	4m @ 0.76g/t Pt + Pd, 0.58% Ni & 0.09% Cu
DKRC0207	57	67	10m @ 0.68g/t Pt + Pd, 0.43% Ni & 0.16% Cu
DKRC0208	37	47	10m @ 0.55g/t Pt + Pd, 0.35% Ni & 0.18% Cu
DKRC0210	82	91	**9m @ 1.12g/t Pt + Pd, 0.67% Ni & 0.27% Cu**
inc	85	91	**6m @ 1.35g/t Pt + Pd, 0.83% Ni & 0.35% Cu**
DKRC0211	67	75	**8m @ 1.92g/t Pt + Pd, 0.77% Ni & 0.27% Cu**
inc	68	75	**7m @ 2.13g/t Pt + Pd, 0.82% Ni & 0.29% Cu**
DKRC0212	45	55	**10m @ 1.29g/t Pt + Pd, 0.68% Ni & 0.30% Cu**
inc	48	54	**6m @ 1.79g/t Pt + Pd, 0.74% Ni & 0.36% Cu**
DKRC0213	15	32	**17m @ 1.02g/t Pt + Pd, 0.18% Ni & 0.27% Cu**
inc	21	27	**6m @ 1.42g/t Pt + Pd, 0.34% Ni & 0.45% Cu**
DKRC0215	72	76	**4m @ 2.95g/t Pt + Pd, 1.25% Ni & 0.99% Cu**
inc	72	75	**3m @ 3.75g/t Pt + Pd, 1.22% Ni & 1.25% Cu**
DKRC0216	34	40	**6m @ 1.87g/t Pt + Pd, 0.44% Ni & 0.32% Cu**
inc	34	38	**4m @ 2.47g/t Pt + Pd, 0.20% Ni & 0.38% Cu**
DKRC0218	74	77	**3m @ 1.96g/t Pt + Pd, 1.23% Ni & 0.71% Cu**
DKRC0219	39	46	7m @ 0.92g/t Pt + Pd, 0.69% Ni & 0.25% Cu
inc	39	44	**5m @ 1.03g/t Pt + Pd, 0.80% Ni & 0.26% Cu**
inc	45	46	**1m @ 1.09g/t Pt + Pd, 0.33% Ni & 0.25% Cu**
DKRC0222	109	111	**2m @ 1.84g/t Pt + Pd, 0.57% Ni & 0.22% Cu**
DKRC0223	79	83	**4m @ 1.03g/t Pt + Pd, 0.69% Ni & 0.47% Cu**
inc	80	82	**2m @ 1.38g/t Pt + Pd, 0.82% Ni & 0.69% Cu**
DKRC0224	42	44	2m @ 0.93g/t Pt + Pd, 0.64% Ni & 0.34% Cu
and	53	58	5m @ 0.85g/t Pt + Pd, 0.48% Ni & 0.36% Cu
inc	56	58	**2m @ 1.15g/t Pt + Pd, 0.65% Ni & 0.33% Cu**
DKRC0225	17	23	6m @ 0.88g/t Pt + Pd, 0.13% Ni & 0.20% Cu
inc	17	20	**3m @ 1.15g/t Pt + Pd, 0.12% Ni & 0.27% Cu**

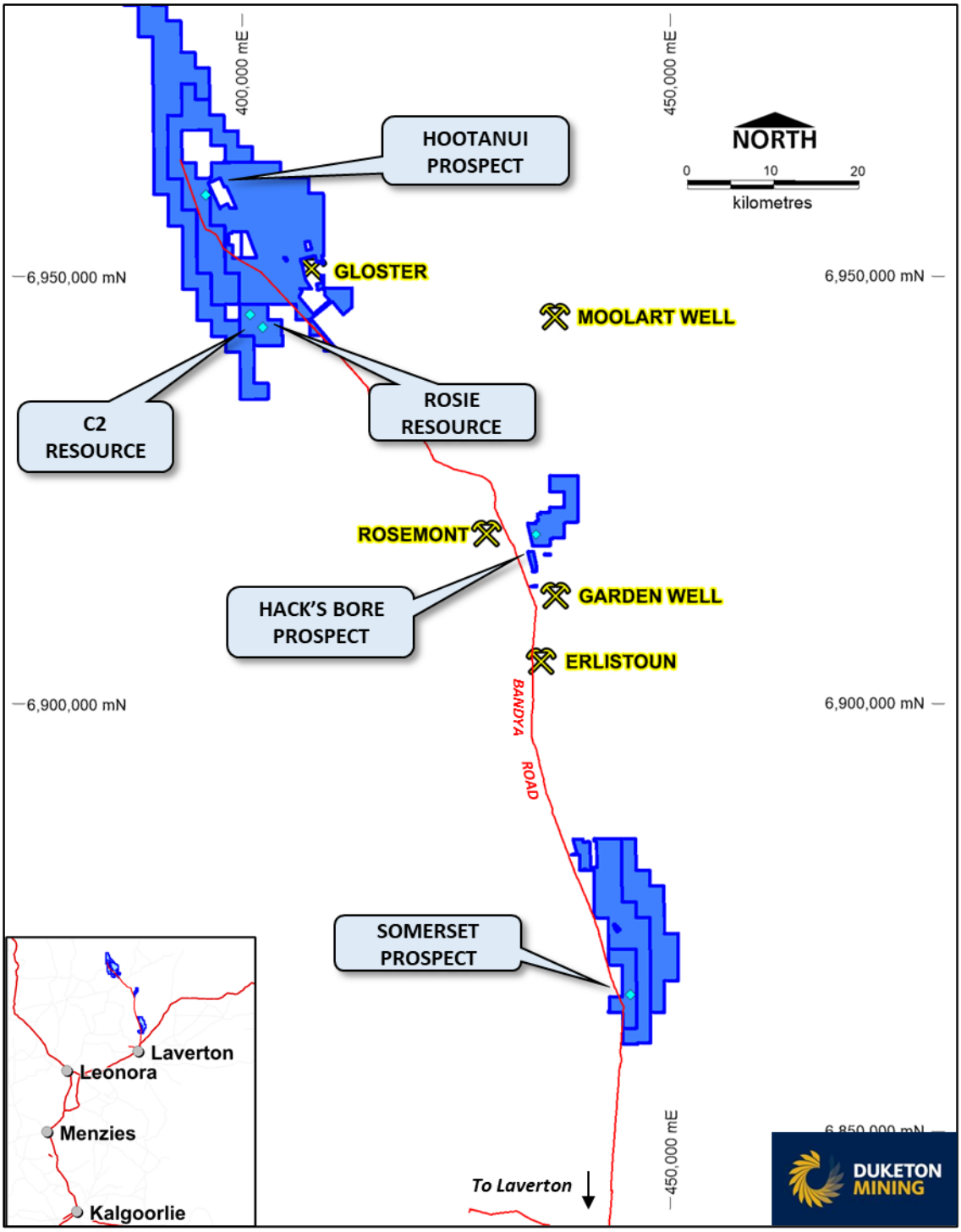

Figure 3: Plan of DKM Tenements showing Nickel Resources and Prospects

Table 2: Drillhole collar details

Hole ID	Easting (MGA 94 Z51)	Northing (MGA 94 Z51)	Nominal RL (m)	Dip (°)	Azimuth (mag °)	Total Depth (m)
DKRC0206	402700	6943936	541	-60	45	95
DKRC0207	402697	6943951	541	-60	45	71
DKRC0208	402702	6943964	541	-60	45	53
DKRC0209	402698	6943981	540	-60	45	47
DKRC0210	402505	6943994	541	-60	45	95
DKRC0211	402516	6944004	541	-60	45	77
DKRC0212	402525	6944015	540	-60	45	59
DKRC0213	402533	6944026	540	-60	45	50
DKRC0214	402389	6944074	541	-60	45	82
DKRC0215	402401	6944084	540	-60	45	78
DKRC0216	402413	6944096	540	-60	45	65
DKRC0217	402419	6944105	540	-60	45	55
DKRC0218	402308	6944163	540	-60	45	83
DKRC0219	402318	6944178	540	-60	45	59
DKRC0220	402328	6944186	540	-60	45	47
DKRC0221	402338	6944199	540	-60	45	47
DKRC0222	402228	6944254	540	-60	45	113
DKRC0223	402237	6944265	540	-60	45	89
DKRC0224	402241	6944268	540	-60	45	70
DKRC0225	402248	6944278	540	-60	45	50

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.

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 Resource Increases in Tonnes, Grade and Metal – ASX announcement dated 10 March 2022.

- Rosie Scoping Study – ASX announcement dated 28 April 2021.

In the case of the ASX announcement dated 4th March (referring to the Rosie Resource), 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 and technical parameters underpinning the estimates in the announcement continue to apply and have not materially changed.

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 – Rosie RC 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.*	• RC drill chips were collected as 1 metre samples from the rig cyclone and cone splitter to provide a 1 metre sample. Composite samples were collected using a spear. Sample size is approximately 2kg. • Certified samples and blanks and field duplicates are routinely added to every batch of samples. • Mineralisation determined qualitatively by geological logging and quantitatively through assaying.
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).*	• RC drilling using a face sampling hammer with a nominal diameter of 140mm.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*	• Recoveries qualitatively noted at the time of drilling and recorded in the DKM database.

Criteria	JORC Code explanation	Commentary
	• *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.*	• The cyclone of the drill rig is cleaned at the end of each rod to ensure sample is not “hung-up” and samples are as clean as possible with as little cross contamination as possible.
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 samples were logged to a level of detail to support future use in a mineral resource calculation should it be required. • Qualitative: Lithology, alteration, mineralisation. • Quantitative: Vein percentage, sulphide precentage. • All holes for their entire length are logged.
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.*	• RC drill chips were collected as 1 metre samples from the rig cyclone and cone splitter to provide a 1 metre sample. Composite samples were collected using a spear. • Sample condition with respect to moisture content is noted on the geological log. • The entire composite sample (approx. 2kg) has been dried, pulverised to 85% passing 75µm. • Field duplicates are collected at a rate of 1 in 50 for RC. Pulp duplicates have been taken at the pulverising stage and selective repeats conducted at the laboratories discretion. • Sample sizes are considered appropriate for the grainsize of the material sampled.
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*	• 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. • This technique is industry standard for nickel and considered appropriate. • Samples are analysed for the following elements: Al, As, Au, Ca, Co,

Criteria	JORC Code explanation	Commentary
	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.*	Cr, Cu, Fe, K, Mg, Na, Ni, Pd, Pt, S, Sc, Ti, V, Zn, Zr • Selected samples are also analysed using a Fire Assay 25g charge with MS finish for Au, Pt, Pd, Rh, Ru, Os, Ir to a 1ppb detection limit. • 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 100m x 100m in parts. Holes drilled in this program aim to close the spacing down to approximately 50m x 50m in the Upper North area. • Sample compositing has been applied.
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.*	• The orientation of the geology and mineralization at Rosie is steeply dipping to the south to south-west and striking NNW to W.

Criteria	JORC Code explanation	Commentary
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.
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

Criteria	JORC Code explanation	Commentary
		presented.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Rosie Nickel Deposit is a komatiite-hosted nickel sulphide deposit. The mineralisation is characterised by accumulations of massive, matrix, breccia and disseminated sulphides at the basal contact overlying a basalt footwall.
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 based on intercepts > 500ppb Pt + Pd. • No metal equivalent values have been used for reporting of results.
Relationship between mineralisation widths and intercept lengths	• *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Downhole length is reported for the drillholes.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of*	• Refer to figures in document.

Criteria	JORC Code explanation	Commentary
	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.	
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.