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ASX Announcement **20th September 2021**

More High-Grade Results from Rosie

HIGHLIGHTS

Rosie Project (100% DKM)

- Results have been received for five more drill holes at Rosie and include:

  4.00m @ 1.80% Ni, 0.23% Cu & 2.69 g/t Pt + Pd DKDD0018

  Inc. 3.08m @ 2.21% Ni, 0.25% Cu & 3.26 g/t Pt + Pd

  5.44m @ 1.68% Ni, 0.31% Cu & 1.43 g/t Pt + Pd DKDD0022

  Inc. 3.50m @ 2.19% Ni, 0.35% Cu & 1.69 g/t Pt + Pd

  5.00m @ 1.64% Ni, 1.02% Cu & 2.38 g/t Pt + Pd DKDD0020

  4.70m @ 1.50% Ni, 0.87% Cu & 1.66 g/t Pt + Pd DKDD0019

  DKDD0018 equates to **4.00m @ 2.56% NiEq* inc. 3.08m @ 3.12% NiEq***

  DKDD0022 equates to **5.44m @ 2.32% NiEq* inc. 3.50m @ 2.95% NiEq***

  DKDD0020 equates to **5.00m @ 2.81% NiEq***

- Holes to be submitted for remaining suite of PGE's (Rhodium, Ruthenium, Iridium, Osmium). Rosie typically has an additional 0.5 g/t of these remaining PGE's.
- DKM will update the market once final assays for remaining PGEs have been received.
- Awaiting assays from 5 drillholes in the Upper North area and 2 drillholes from the South-Eastern area.
- Once all assays have been received an updated mineral resource estimate (MRE), stope optimisation and cash flow model will be completed.

The NiEq number is calculated using the same parameters as the latest MRE (see ASX announcement 4 March 2021). Assumptions for the nickel equivalent prices, recovery and calculation are detailed in the attached JORC Table 1. 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.

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Duketon Mining Ltd (**ASX: DKM**, **"Duketon"** or **"the Company"**) is pleased to announce assay results have been received for five more diamond holes drilled at Rosie Nickel Deposit.

The significant intersections are currently being assayed for the full suite of platinum group elements and DKM will update the market with final assays once the remaining PGEs have been received. These drillholes are likely to significantly increase the confidence and grade in the Upper North area of the Rosie resource.

The Company is awaiting assays from 5 more drillholes in the Upper North area. Once all assays have been received an updated mineral resource estimate, stope optimisation and cash flow model will be completed.

Table 1: Significant Intercept Table (Significant intercepts are 1m >4000 ppm Ni, maximum internal dilution of 2 metres, intersections are downhole widths.)

Hole ID	Depth From (m)	Depth To (m)	Intercept Width (m)	Ni %	Cu %	Pt + Pd (g/t)	Comments
DKDD0018	230	234	4	1.8	0.23	2.69	**4m @ 1.8% Ni, 0.23% Cu & 2.69 g/t Pt + Pd**
inc.	230.64	233.72	3.08	2.21	0.25	3.26	**3.08m @ 2.21% Ni, 0.25% Cu & 3.26 g/t Pt + Pd**
DKDD0019	66	67	1	0.48	0.03	0.2	1m @ 0.48% Ni, 0.03% Cu & 0.2 g/t Pt + Pd
and	73	74	1	0.4	0.04	0.23	1m @ 0.4% Ni, 0.04% Cu & 0.23 g/t Pt + Pd
and	79.3	91.1	11.8	0.92	0.42	0.74	11.8m @ 0.92% Ni, 0.42% Cu & 0.74 g/t Pt + Pd
inc.	83	87.7	4.7	1.5	0.87	1.66	**4.7m @ 1.5% Ni, 0.87% Cu & 1.66 g/t Pt + Pd**
DKDD0020	96	109	13	0.91	0.41	0.97	13m @ 0.91% Ni, 0.41% Cu & 0.97 g/t Pt + Pd
inc.	102	107	5	1.64	1.02	2.38	**5m @ 1.64% Ni, 1.02% Cu & 2.38 g/t Pt + Pd**
DKDD0021	224	229.2	5.2	0.65	0.1	0.46	5.2m @ 0.65% Ni, 0.1% Cu & 0.46 g/t Pt + Pd
and	232.6	235.7	3.1	1.17	0.36	1.05	**3.1m @ 1.17% Ni, 0.36% Cu & 1.05 g/t Pt + Pd**
inc.	232.6	235	2.4	1.28	0.44	1.35	**2.4m @ 1.28% Ni, 0.44% Cu & 1.35 g/t Pt + Pd**
DKDD0022	370.06	375.5	5.44	1.68	0.31	1.43	**5.44m @ 1.68% Ni, 0.31% Cu & 1.43 g/t Pt + Pd**
inc.	371	374.5	3.5	2.19	0.35	1.69	**3.5m @ 2.19% Ni, 0.35% Cu & 1.69 g/t Pt + Pd**

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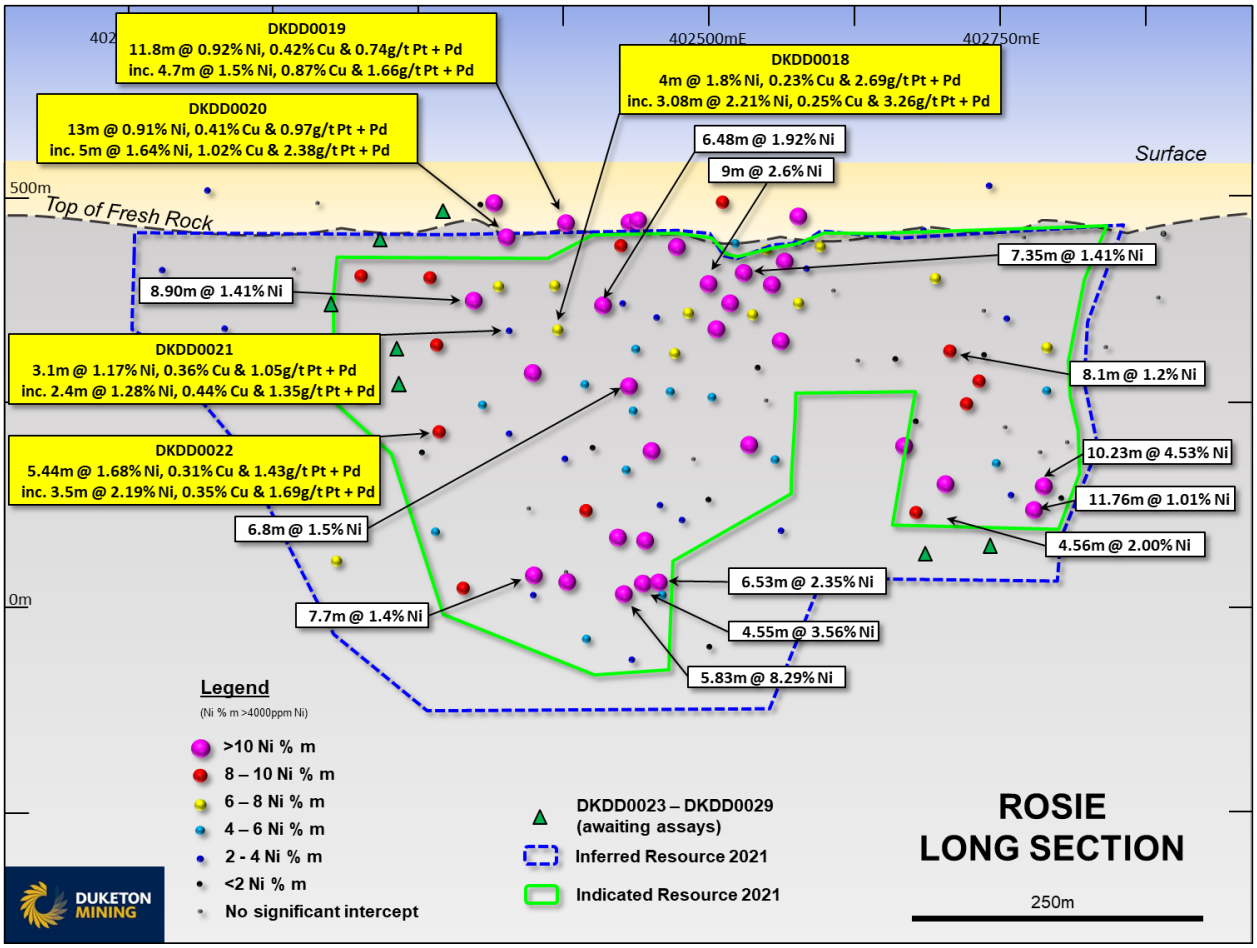


Figure 2: Long Section of Rosie

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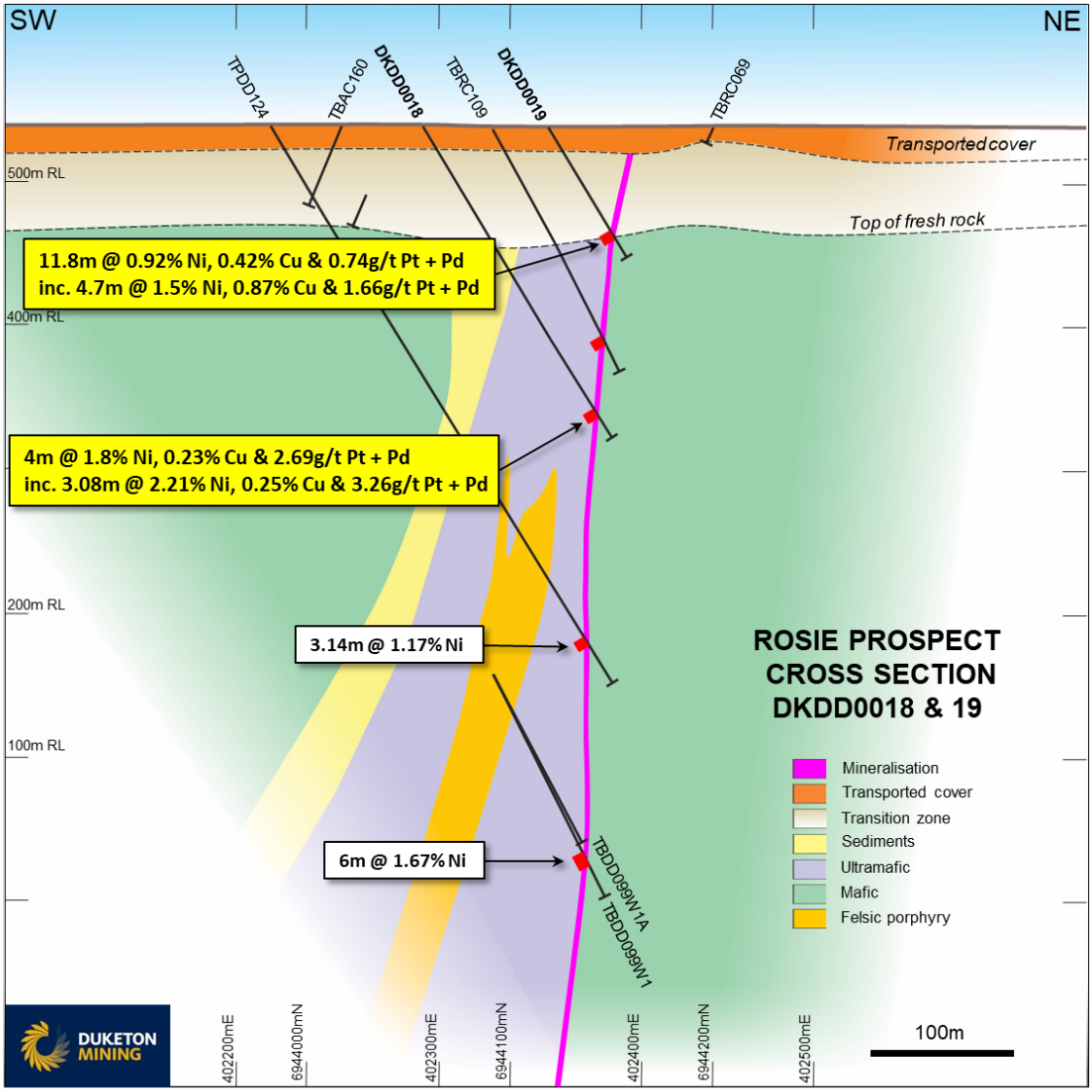


Figure 3: Cross Section of DKDD0018 & DKDD0019

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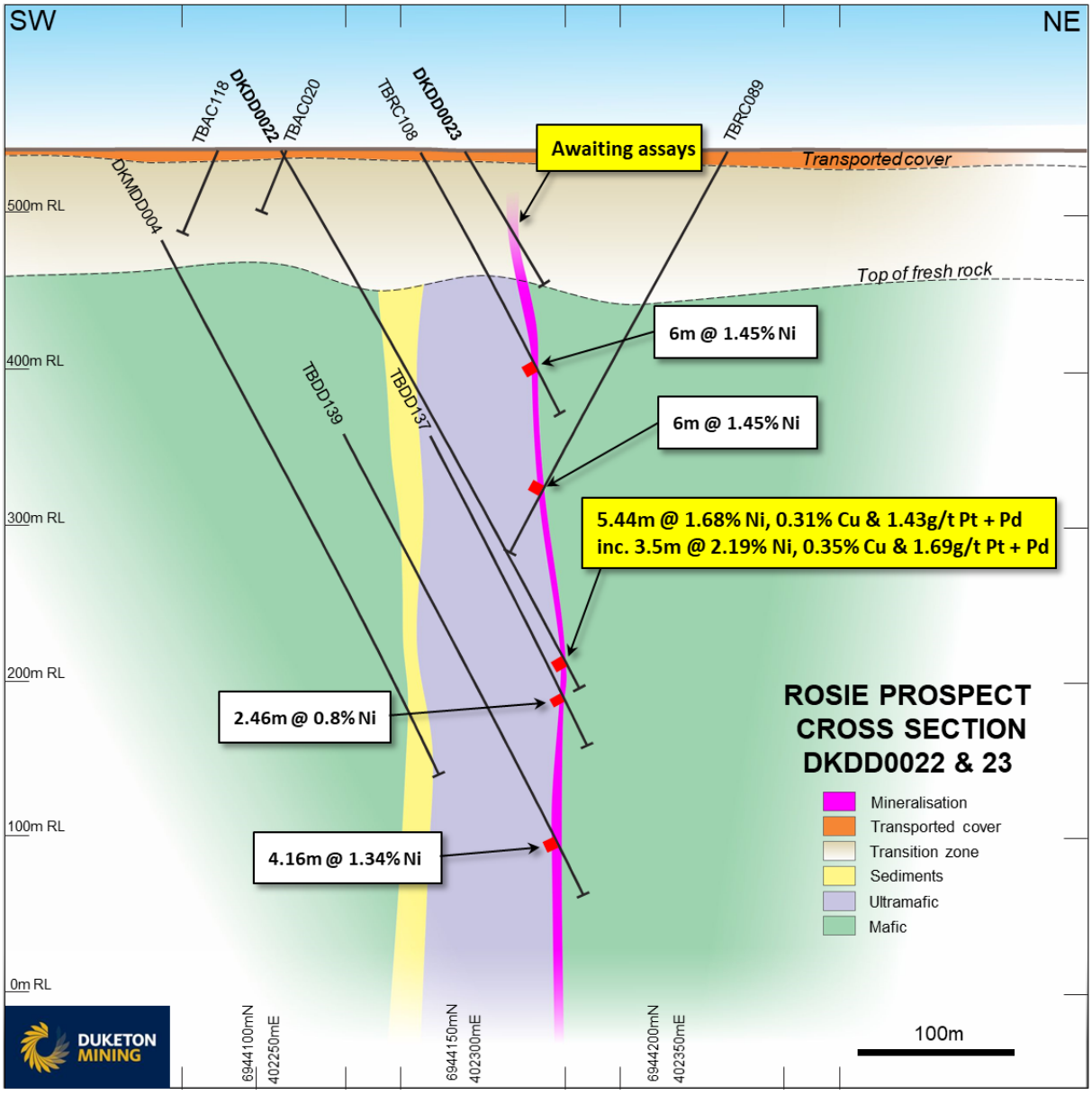


Figure 4: Cross Section of DKDD0022

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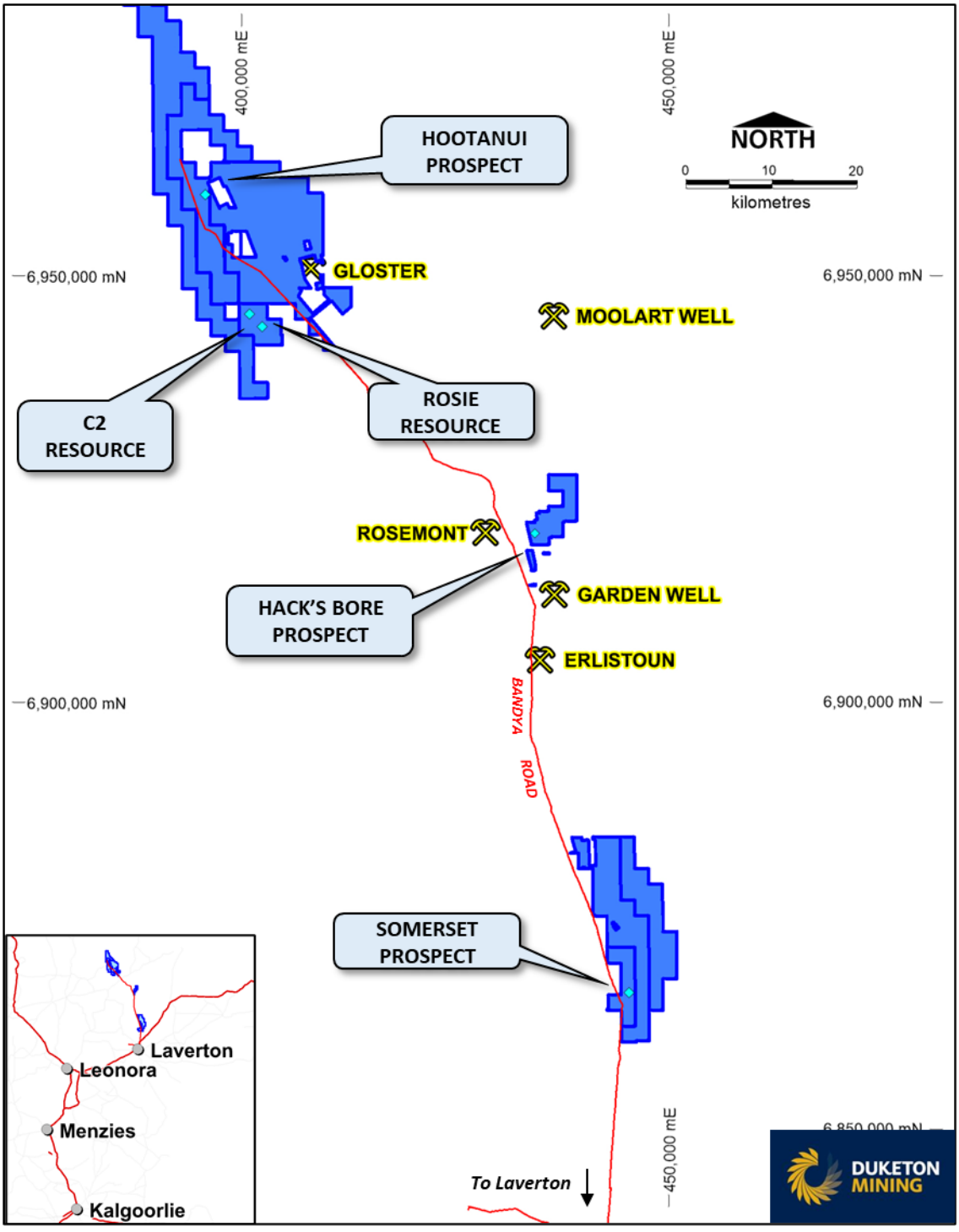


Figure 5: Plan of DKM Tenements showing Nickel Resources and Prospects

Table 2: Drillhole collar details

Hole ID	Easting (MGA 94 Z51)	Northing (MGA 94 Z51)	Nominal RL (m)	Dip (°)	Azimuth (mag °)	Total Depth (m)
DKDD0018	402291	6944057	540	-60	45	255
DKDD0019	402360	6944112	540	-60	45	105.8
DKDD0020	402302	6944152	540	-60	45	130.5
DKDD0021	402248	6944106	540	-60	45	255.2
DKDD0022	402171	6944145	540	-60	45	395.8

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:

Increase to Nickel Equivalent Grade for Rosie Resource – ASX announcement dated 4 March 2021.

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.

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JORC Table 1

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

Section 1 Sampling Techniques and Data – Rosie 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 using a diamond core saw and half core sampled for assay. Each sample provides between 2.0-3.0kg of material. The core is cut to the left of the orientation line, with the same half 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.
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.

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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.
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.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc,*	• 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

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Criteria	JORC Code explanation	Commentary
laboratory tests	*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.*	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 • 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	• *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 Rosie is steeply dipping to the south to south-west and striking NNW to W.

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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.

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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 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 are based on intercepts > 4000ppm nickel.
		• NiEq has been calculated with the following prices (US $) and recoveries for Pentlandite (P) and Violarite (V):
		  • Ni $8.00/lb., P = 96.9%, V = 88.7%
		  • Cu $3.65/lb., P = 99.5%, V = 94.5%
		  • Co $15.30/lb., P = 95.1%, V = 88.5%
		  • Pt $1,100/oz., P = 78.2%, V = 57.6%
		  • Pd $2,300/oz., P = 97.6%, V = 87.3%
		• Rh $15,500/oz., P = 83.4%, V = 64.8%
		• The calculation for the pentlandite domain is: NiEq = Ni% + (Cu% * 0.995 *

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Criteria	JORC Code explanation	Commentary
		(3.65/8.00)) + (Co% * 0.951 * (15.30/8.00)) + (Pt% * 0.782 * (1100 * 14.583/8.00)) + (Pd% * 0.976 * (2300 * 14.583/8.00)) + (Rh% * 0.834 * (15500 * 14.583/8.00)) • The calculation for the violarite domain is: NiEq = Ni% + (Cu% * 0.945 * (3.65/8.00)) + (Co% * 0.885 * (15.30/8.00)) + (Pt% * 0.576 * (1100 * 14.583/8.00)) + (Pd% * 0.873 * (2300 * 14.583/8.00)) + (Rh% * 0.648 * (15500 * 14.583/8.00))
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 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.

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