ASX Announcement **8 July 2020**

Positive Metallurgical Result – Rosie Nickel

HIGHLIGHTS

Rosie Project (100% DKM)

Rosie mineralisation confirmed to be amenable to the production of a high-quality PGE rich nickel and copper concentrate.

- **Nickel recovery of up to 97%** using conventional flotation techniques
- Intermediate **concentrates grading as high as 22% Ni**
- **Nickel concentrate grading 16% Ni and 7g/t total PGE's** achieved from massive ore (>13% Ni is considered saleable concentrate)
- **Bulk concentrate grading as high as 15% (Ni + Cu) and 12g/t total PGE's** were achieved from matrix violarite ore (>12% Ni+Cu is considered saleable concentrate)
- **PGE's amenable to recovery by gravity** with grades **> 8g/t total PGE's** – providing an alternative, flexible and cost-effective process option.

Results to be incorporated into an updated mineral resource estimate – nearing completion.

Duketon's Managing Director, Stuart Fogarty, said; *"It's great to see such a significant positive result with such high-grade concentrates being achieved and considerable quantities of the PGE's being recovered into the final concentrate. This allows us to now recalculate the Rosie resource as a nickel equivalent number and show the important contribution that the PGE's will add to the overall resource.*

The added flexibility of the PGE's also being recoverable by simple gravity separation prior to floatation allows us to consider other pathways of sale for this product".

Duketon Mining Limited (ASX:DKM) is pleased to announce results of metallurgical test work on two composite samples from the Rosie Nickel Deposit. The two composite samples included a sample from the upper matrix violarite zone and one from the lower massive pentlandite zone.

The massive composite sample included the following drill intersections (see ASX announcement 19th June 2014):

- **5.2m @ 9.2% Ni, 1.1% Cu and 7.1g/t PGEs**
- **6.72m @ 2.8% Ni, 0.4% Cu and 2.2g/t PGEs**
- **4.55m @ 3.6% Ni, 0.7% Cu and 4.2g/t PGEs**
- **3.2m @ 3.1% Ni, 0.4% Cu and 3.7g/t PGEs**

The matrix composite sample included the following drill intersections (see ASX announcement dated 20th February 2020):

- **8.97m @ 2.56% Ni, 0.58% Cu & 4.87 g/t PGEs**
- **4.58m @ 1.95% Ni, 0.29% Cu & 2.71 g/t PGEs**
- **5.52m @ 1.74% Ni, 0.28% Cu & 2.01 g/t PGEs**

The test work was completed by Strategic Metallurgy Pty Ltd, recognised as leading consultants in nickel sulphide metallurgy. The samples were assessed by flotation to determine the possibility of recovering nickel and copper to concentrates at a saleable grade and secondly to determine the deportment of platinum group metals, prevalent in the Rosie ore.

The Rosie ore responded well to flotation with nickel and bulk nickel copper concentrates with significant PGE's generated in a conventional flotation circuit.

Nickel recovery of up to **97%** and intermediate concentrates grading as high as **22% Ni** were achieved for the massive ore. A concentrate grade of **16% Ni** at a recovery of **83.9%** was achieved with PGEs as high as **7g/t**.

A bulk concentrate grading as high as **15% Cu+Ni** was achieved for the matrix violarite ore with PGEs as high as **12g/t.**

Additionally, preliminary gravity separation test work shows the ability to recover a PGE concentrate prior to flotation, providing an alternative, flexible and cost-effective processing option.

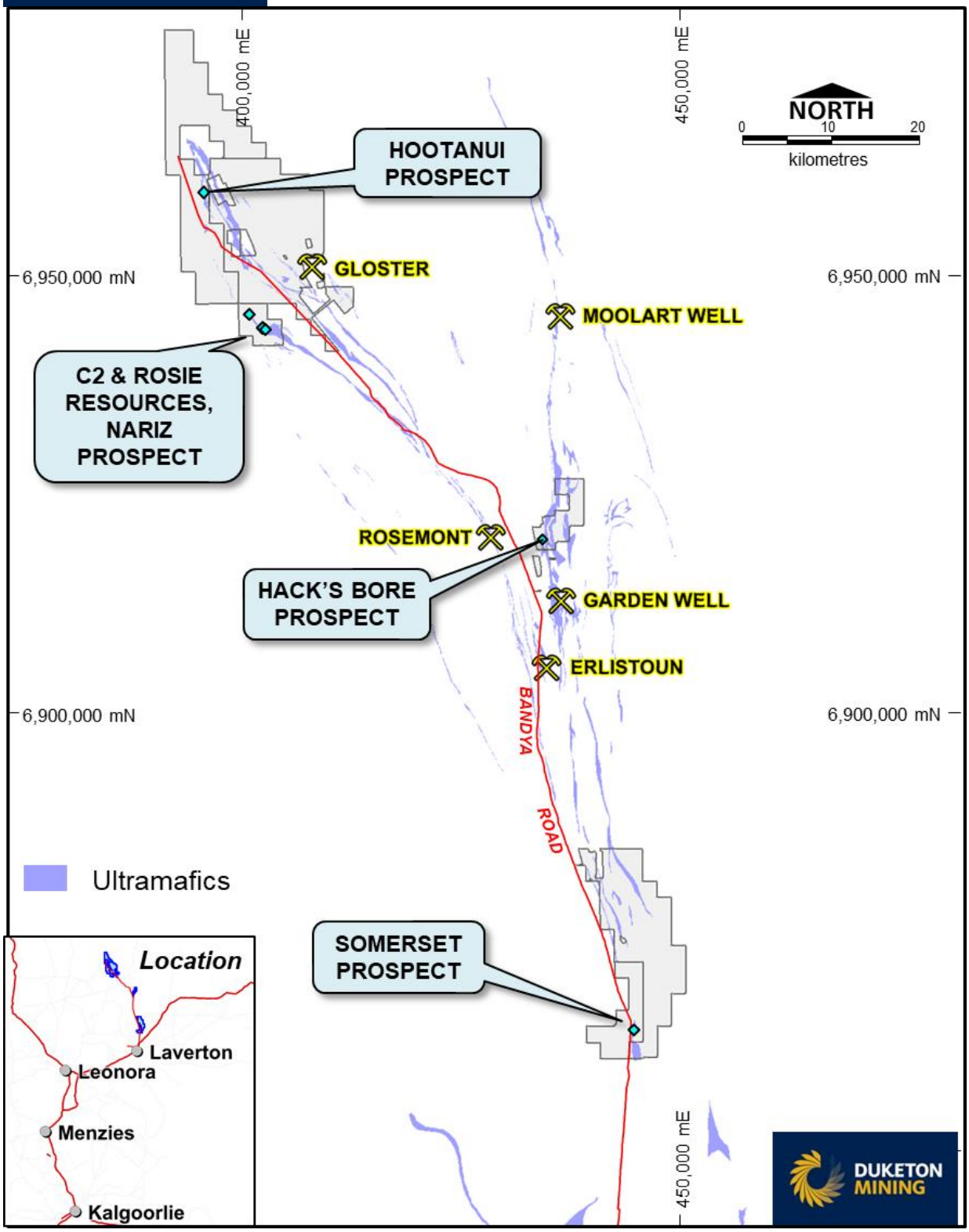

Figure 1: Plan of DKM Tenements showing Ultramafic, Nickel Resources and Prospects

Figure 2. Flotation Test

Authorised for release by:

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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.

PREVIOUSLY REPORTED INFORMATION

The information in the announcement that relates to Mineral Resources for Rosie is extracted from the report entitled "Duketon Mining Prospectus" dated 19 June 2014 and is available to view on the Company's website (www.duketonmining.com.au). 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 relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

This report includes information that relates to exploration results which were prepared and first disclosed under the JORC Code 2012. The information was extracted from the Company's previous ASX announcement released on 11 February 2020. 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. The Company confirms that the form and context in which any Competent Person's findings are presented 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 - DDH Drilling and Metallurgy Work

(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 was cut in half and half again using a diamond core saw and quarter core sampled for assay. Each sample provided between 2.0-3.0kg of material. The core was cut to the right of the orientation line, with the same quarter sampled to ensure sample is representative. • Diamond core is sampled to geological boundaries, no more than 1m and no less than 20cm per sample. • Certified samples and blanks are inserted every 25th sample for diamond drilling. • Mineralisation determined qualitatively by geological logging and quantitatively through assaying. • Metallurgical samples were extracted from drillholes DKDD0009, DKDD0010, DKDD0011 for the matrix sample and holes TBDD087, TBDD093, TBDD098 & TBDD107 for the massive sample. The drill core was shipped to Strategic Metallurgy in Belmont Western Australia, then separated into the two main composite samples 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).*	• Diamond drilling using HQ3 (61.1mm) sized core to competent rock and then NQ2 (50.6mm) to end of hole. • Core was oriented using an Ezi-Mark 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 in the DKM database. • Core is metre marked and orientated. Run recoveries are recorded in the DKM database. • Triple tube HQ was 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 samples were 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, quarter core is sampled. • The entire sample (approx. 2kg) has been dried, pulverised to 85% passing 75µm. • 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. • Metallurgical samples were crushed and pulverised to 75µm. Samples were then split into 1kg sub-samples for flotation testwork.
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 were assayed 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. • Assays were returned 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 were 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 (1 in every 25 samples).
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 has been 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 have been 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 were collected using a handheld GPS in MGA 94 – Zone 51 • Downhole surveying (magnetic azimuth and dip of the drillhole) of diamond drillholes was measured by the drilling contractors using a REFLEX EZMark Gyro. • A topographic surface has been created from airborne geophysical data. Drillholes have been 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.*	• Holes were drilled at various spacing depending upon the holes drilled previously in the area of interest. • Hole spacing is appropriate for drilling at this early stage in the exploration process. • 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 and striking NNW to W.
Sample security	• *The measures taken to ensure sample security.*	• Chain of custody was managed by company representatives and is considered appropriate. All samples are bagged in a tied numbered

Criteria	JORC Code explanation	Commentary
		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 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

Criteria	JORC Code explanation	Commentary
		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 ASX announcements 19th June 2014 and 20th February 2020

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 > 4000ppm nickel. • No metal equivalent values have been used for reporting of results. • No data aggregation has been applied to the metallurgical test 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 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. • No diagrams of the metallurgical process required at this stage as final flow sheet still to be determined via subsequent studies.

Criteria	JORC Code explanation	Commentary
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.

Section 4 Estimation and Reporting of Ore Reserves

Since no Ore Reserves are reported, this section is provided in part only, in order to provide further details of the metallurgical testwork in a manner that is consistent with the prevailing JORC Code 2012 reporting format

Criteria	JORC Code explanation	Commentary
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.* • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the*	• The Company has conducted a series of metallurgical tests to determine the effectiveness of extracting metals from the Rosie Nickel Deposit by flotation and concentration. This is considered by the company to be standard practice for such material in the Rosie Nickel Deposit • 16 float tests were completed in total, 9 on the massive sample and 7 on the matrix sample. • The company considers the above process to be standard, well-tested technology that has been proven. There has been no 'novel' or

Criteria	JORC Code explanation	Commentary
	degree to which such samples are considered representative of the orebody as a whole. • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	unproven technology under consideration. • There has been no assumptions nor allowances made for deleterious elements • No bulk sample or pilot scale test work has been conducted yet. • The samples are considered to be representative of the orebody. Each composite sample has been derived from several spatially separated drill holes that intersect the orebody. • No minerals have been defined by specification at this time.