ARROW MINERALS

ASX: AMD

31 January 2019

NI-CU SULPHIDES IDENTIFIED AT PLUMRIDGE NICKEL PROJECT

HIGHLIGHTS:

- **Aircore drilling has identified clusters of mafic/ultramafic intrusions with cumulate textures in favourable geological settings**
- **Ni and Cu sulphides (pentlandite and chalcopyrite) confirmed through petrographic analysis**
- **Review of historic airborne, ground and downhole EM has identified three drill-ready EM targets, with drilling planned for 2Q 2019**

Arrow Minerals Limited (**Arrow** or the **Company**) is pleased to provide an update on exploration activities at the Plumridge Nickel Project (**Project**). The Project is subject to a joint venture between Independence Group NL (ASX: IGO) (**IGO**) (51%) and Arrow (49%). IGO can increase its interest in the Project to 90% by sole-funding $5m of exploration expenditure by January 2022.

The Project consists of eight exploration licences covering 2,500km^2 in the northern Fraser Range Province, approximately 200km north of IGO's Nova Ni-Cu-Co operation and 120km south of the Tropicana gold operation (***Figure 1***).

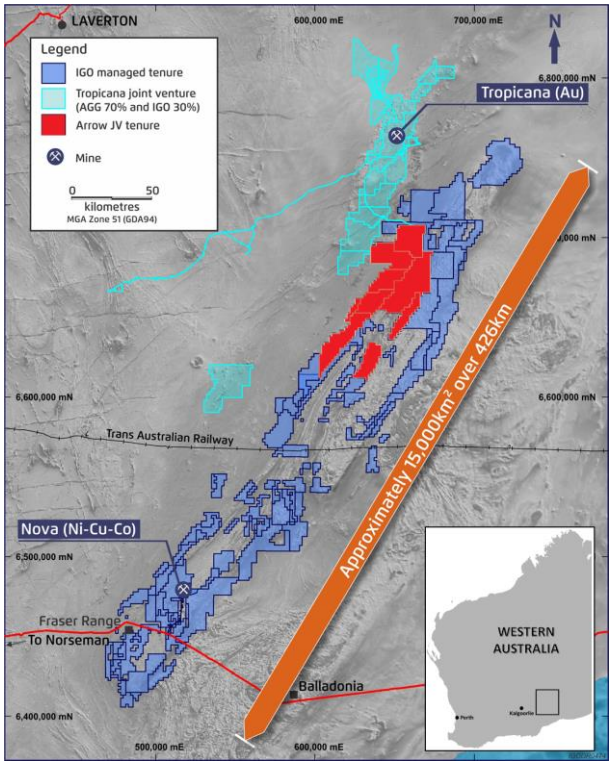

Figure 1: Plumridge Nickel JV location map

Arrow and IGO entered into the Plumridge JV in January 2018, and over the past 12 months IGO has undertaken significant exploration activities at the Project, including:

- Aircore drilling over 70% of the Project on a 3km x 800m grid;
- SPECTREM airborne EM survey over 20% of the Project area; and
- Ground moving loop EM (**MLEM**) over 15 target areas.

Commenting on exploration at the Project, Arrow's Managing Director, Mr Steven Michael, said:

"The Fraser Range Complex remains highly prospective for nickel-copper sulphides, as highlighted by the Silver Knight discovery announced by the Creasy Group in mid-2018. IGO is in a unique position to apply knowledge gained from studying the Nova deposit and exploring over 15,000km^2 of exploration licences in the area, to the Plumridge Nickel Project.

In its first year at Plumridge, IGO has completed a considerable amount of exploration, resulting in the identification of clusters of mafic/ultramafic intrusions with cumulate textures and, in at least two cases, magmatic sulphides. Also, IGO has been able to capitalise on previous exploration work, including the HeliTEM survey completed in 2017, to identify several high-priority EM targets, which will be ready for drilling in 2Q 2019."

Aircore Drilling Programme

During 2018, IGO completed 768 aircore drill holes for 34,596m (average depth 45m) on a 3km x 800m grid, covering approximately 70% of the Project area. The Fraser Complex is overlain with an average of 40-50m of transported cover and the aim of the aircore drilling programme is to provide detailed geological and geochemical analysis of the underlying bedrock.

IGO plans to drill a further 231 holes, commencing in March 2019, to provide coverage of the entire Fraser Complex within the JV area (***Figure 2***).

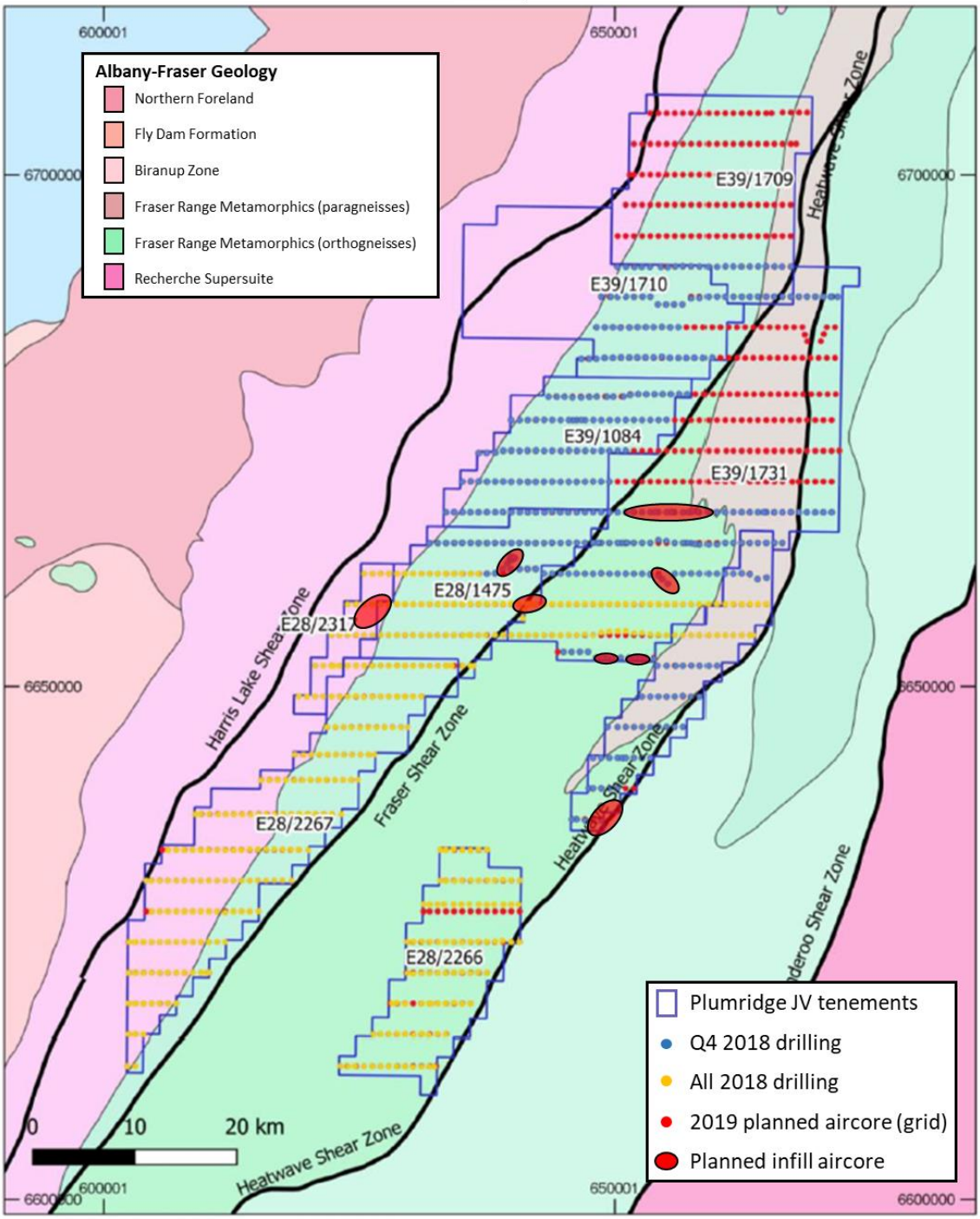

Figure 2: Plumridge Nickel Project showing completed (2018) and planned (2019) aircore drill collars

Drilling to date has confirmed the Project is highly prospective for nickel-copper sulphides, with the identification of mafic/ultramafic intrusions with cumulate textures. Cumulate rocks have been observed in several bottom-of-hole samples, with a number of samples occurring in clusters. IGO is planning an infill aircore drilling programme around several mafic/ultramafic clusters in 2019 to further understand localised geology and geochemistry (***Figure 2***).

IGO has completed petrographic analysis of several bottom-of-hole samples from the aircore drilling programme. A sample from hole 18AFAC10738 has been reported as "a moderately mineral-banded, unfoliated medium-grained mafic granulite" with "scattered, tiny (<0.2mm) blebs of reorganized magmatic sulphide composed of pyrrhotite with flames of dominant chalcopyrite and sparse pentlandite" (***Figure 3***). In addition, magmatic sulphides, including chalcopyrite, have been observed in field samples using a hand lens (***Figure 4***).

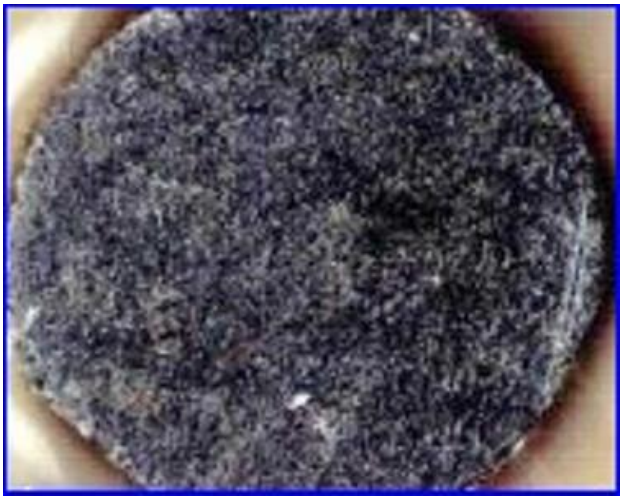

Figure 3: Sample from 18AFAC10738 with magmatic sulphides pyrrhotite, chalcopyrite and pentlandite

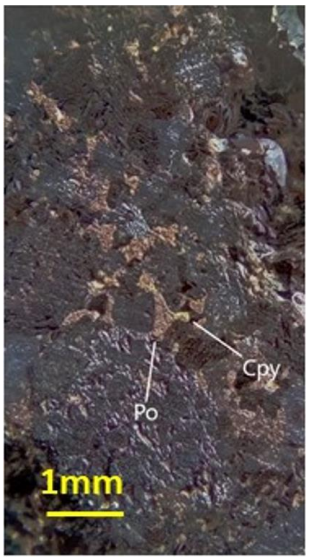

Figure 4: Field photo from 18AFAC20677 showing chalcopyrite (Cpy) and pyrrhotite (Po)

Airborne and Ground EM Surveys

In late-2017, Arrow's previous joint venture partner completed a HeliTEM airborne EM survey over the majority of the Project. Several EM targets were identified and a limited reverse circulation (**RC**) drill programme was completed in late-2017.

The HeliTEM data has been reprocessed by IGO and this information has been integrated with the aircore drilling results to identify 15 new targets. Fluxgate MLEM survey lines were completed on all targets in late-2018, with data currently being collated and interpreted. In addition, a review of the 2017 RC drilling programme, including downhole EM information, has been completed to assess the effectiveness of the drilling to adequately test the 2017 EM targets.

IGO has identified three EM targets (***Figure 5***) for high-priority RC drill testing in 2Q 2019. The three targets are:

- Mosaic
  - Identified by previous HeliTEM survey
  - Ground EM completed in November 2018
  - No proximal aircore completed in 2018 – planned for 1Q 2019
  - EM plate is within a magnetic 'eye' feature with a coincident gravity anomaly
  - Dimensions: 700m x 200m
  - Depth to top: 220m

- Narwhal
  - Identified by previous HeliTEM survey
  - 2017 RC drilling parallel to target did not test the highly conductive anomaly
  - Downhole EM confirms untested conductor
  - Dimensions: 145m x 90m
  - Depth to top: 75m
- Perle
  - Identified by previous HeliTEM survey
  - 2017 RC drilling did not intersect and adequately test the conductor
  - Dimensions: 335m x 176m
  - Depth to top: 170m

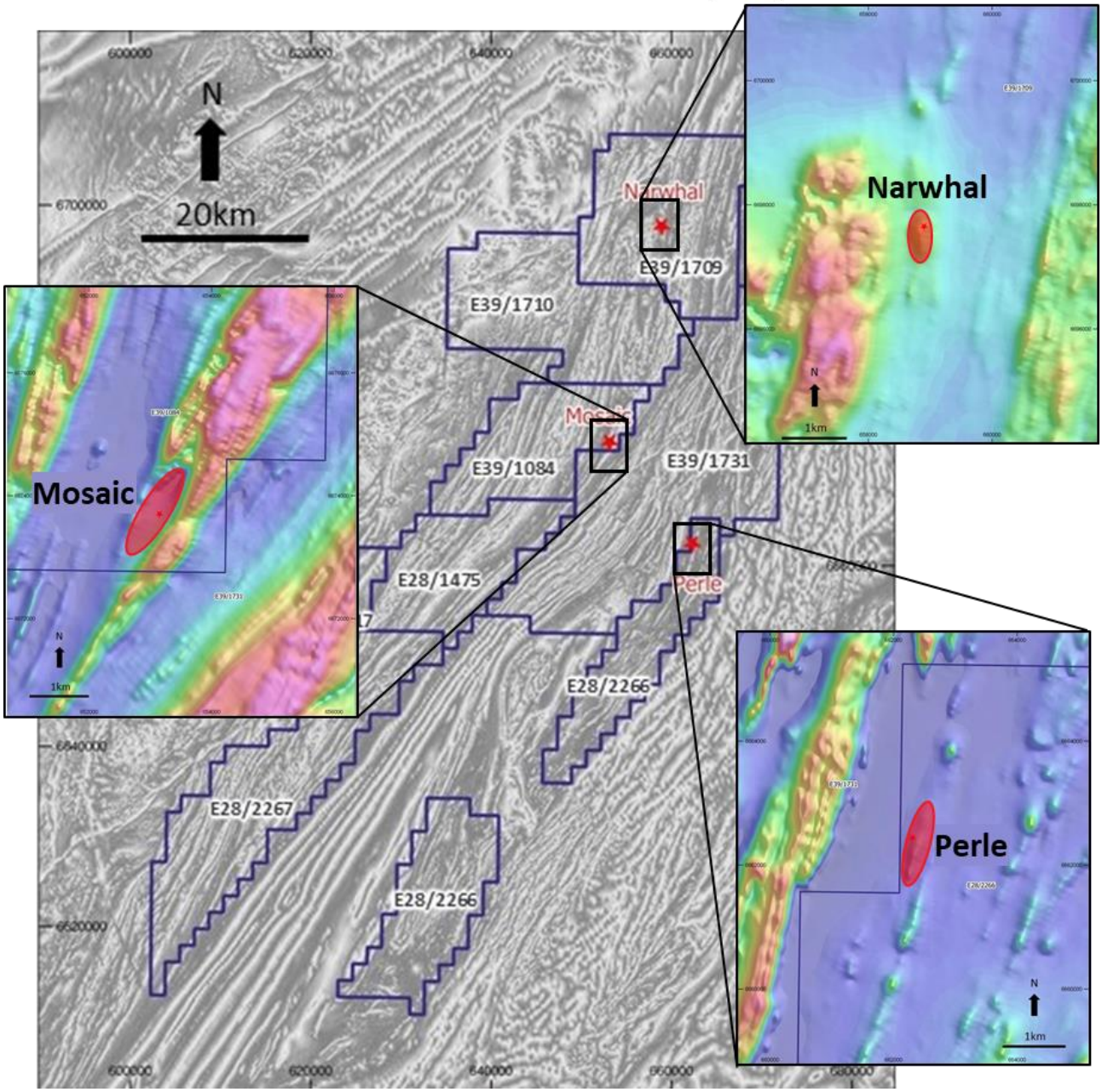

Figure 5: EM targets over regional magnetics – Mosaic, Narwhal and Perle

In mid-2018, IGO commenced an airborne EM survey using SPECTREM (fixed wing time domain EM) to identify basement conductors and map cover thickness. Approximately 20% of the Project area has been flown, with the survey to resume in March 2019 (***Figure 6***). IGO is planning to fly SPECTREM over the remaining Project area in the coming months. Significant conductors will then be followed up with ground EM surveys.

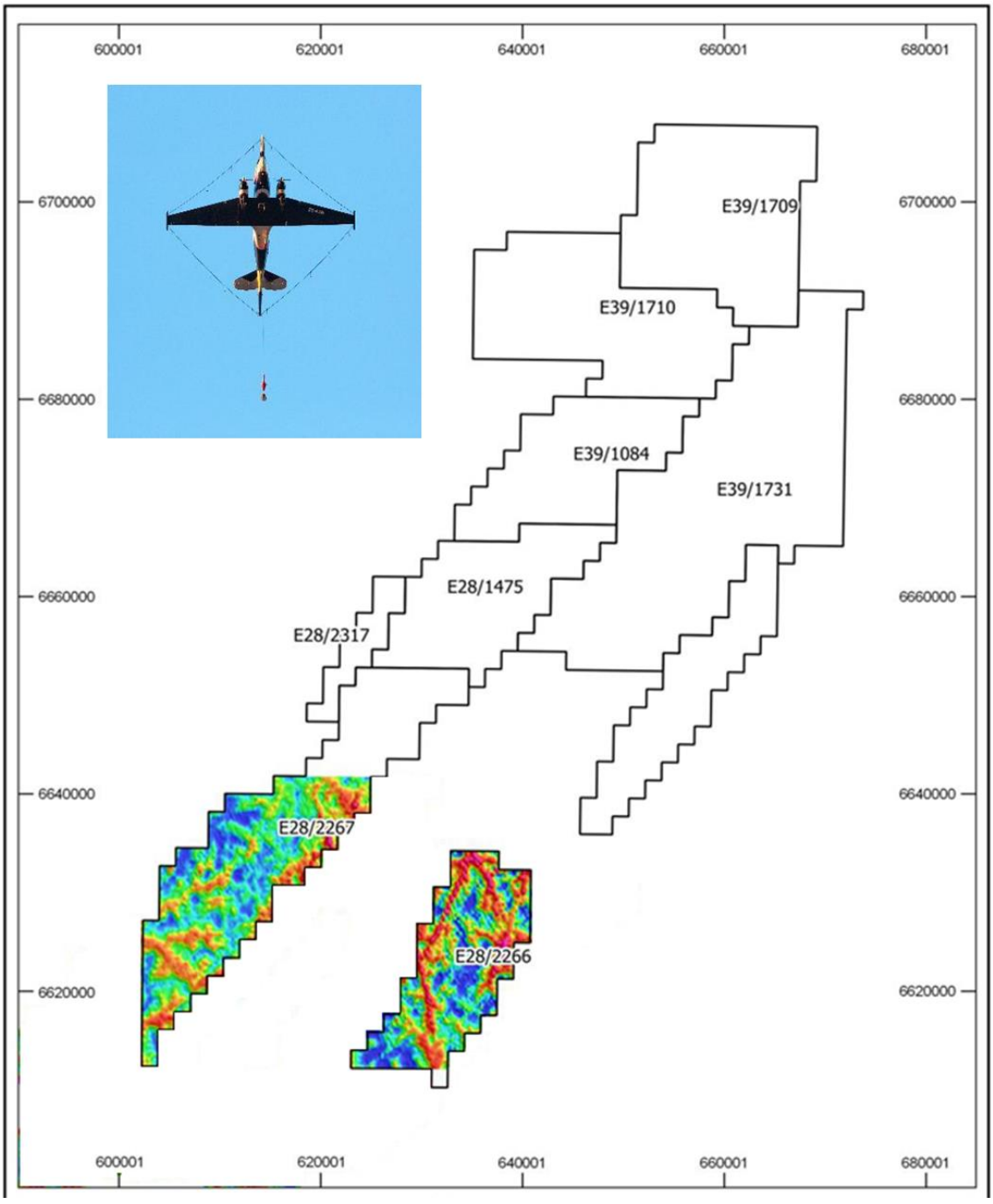

Figure 6: Project map showing SPECTREM survey completed over southern 20% of tenements

For further information visit www.arrowminerals.com.au or contact:

Arrow Minerals Limited

Mr Steven Michael
Managing Director
E: info@arrowminerals.com.au

Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Dr Frazer Tabeart who is a Member of the Australian Institute of Geoscientists. Dr Tabeart is a Director of Arrow and has more than five years' experience which is relevant to 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, Minerals Resources and Ore Reserves". Dr Tabeart consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. Additionally, Dr Tabeart confirms that the entity is not aware of any new information or data that materially affects the information contained in the ASX releases referred to in this report.

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

(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.*	EM Survey • The airborne HELITEM survey was flown on behalf of MMG in April-May 2017 using an AS350 B3 helicopter platform. The HELITEM system operates at a 12 Hz base frequency and a transmitter current of 275.4 A. Data positioning has been controlled using a NovAtel OEM4 with Antcom Antenna GPS mounted on the transmitter loop. • Moving Loop EM surveys were completed by IGO's geophysics crew with a 200 x 200m transmitter loop using a slingram configuration. Transmitter current was 80 Amps, with a 1Hz transmitter frequency. An analogue EMIT fluxgate sensor was used for the receiver. Data locations was controlled using hand held GPS units. • DHTEM surveys were completed by GAP Geophysics on behalf of MMG in January 2018. A B-field DigiAtlantis probe was used with a 200m x 200m transmitter loop and a current of 105 A operating at a base frequency of 0.25 Hz. Drill hole collar position was obtained with a hand held GPS unit. Aircore Drilling • Aircore (AC) chips were collected at 1m intervals. 4m composites were collected by a scoop sample from 1m sample piles. The Bottom of Hole sample was submitted separately. • AC samples were collected via a cyclone return system attached to the Drill Rig. • The sample was collected in buckets and placed in rows on the pad in 1m intervals. • 2-3 kg samples were collected from the sample piles

Criteria	JORC Code explanation	Commentary
		• Field duplicates were collected on a 1:47 ratio to ensure repeatability of sampling method. • CRM standards were inserted on a 1:32 ratio to test the calibration of lab equipment. • Sample weights have been recorded and reported by the lab. • Air core drilling was used to obtain 1m samples which were placed on the ground from which a scoop was used to composite 4m samples weighing approximately 2-3kgs being made up equally from each sample pile. • The samples are dispatched to Bureau Veritas Minerals Pty Ltd (BV) in Perth for sample preparation and analysis. • The 2-3 kg composite samples were pulverised to 85% passing 75 microns for 45 elements by aqua regia digestion followed by ICP-MS or ICP-OES. • A fresh rock, and the preceding composite sample, were collected from the end of hole and analysed for a 65 element suite via fused bead for Laser Ablation with determination by ICP-MS or ICP-OES (LA-ICPMS), or cast using flux with 10% Lithium nitrate to form bead with determination by X-Ray Fluorescence Spectrometry (XRF). Gold, platinum and palladium results were obtained by Fire Assay fusion and ICP-MS finish from a 40 gram aliquot with a 1ppb detection limit. • Fusion digestion and analysis by XRF and LA-ICPMS is considered total digestion.
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).*	• Aircore drilling comprised a 90mm aircore sampling bit.
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.*	• Drill sample recoveries are visually inspected on the rig and recorded in the drilling database. • Samples submitted to the lab are weighed and reported by BV. • Drill samples are visually inspected during drilling to ensure sample recovery is satisfactory.

Criteria	JORC Code explanation	Commentary
	• *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• No bias is known at this stage.
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 drill chips have been logged for lithology, mineralogy, weathering, regolith and alteration whilst in the field. • All field descriptions are qualitative in nature. Chip trays have been retained for further work and re-interpretation if required. • All drill holes were logged in full.
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.*	• No core reported. • All 4m composite were scooped directly from sample piles. 100% of the samples were dry when sampled. • All samples were sent to BV in Perth for sample preparation and analysis using standard codes and practices. • No subsampling undertaken. • 2-3kg samples are considered appropriate for the rock type and style of mineralisation.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• All samples were submitted to Bureau Veritas Minerals Pty Ltd in Perth. • Composite sample preparation included riffle split to a maximum of 3kg (if required) and then pulverized to >85% passing 75 micron. • Gold, platinum and palladium results were obtained by Fire Assay fusion and ICP-MS finish from a 40 gram aliquot with a 1ppb detection limit. • Fire assay is considered a total digest for gold. • This procedure is considered appropriate for gold analysis. • The composite samples were analysed by AR-MS.

Criteria	JORC Code explanation	Commentary
		• The Bottom of Hole samples were analysed by XRF and LA-ICPMS. • Lab and field duplicates and CRMs (certified reference materials) were inserted in to the sample string at a ~1: 20 ratio. • The laboratory analyses a range of internal and industry standards, blanks and duplicates as part of the analysis. • All field and lab QAQC demonstrate an acceptable level of precision and accuracy.
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 significant results have been reviewed by the exploration manager. • No twin holes have been drilled. • Primary data is recorded in the field in an offline digital database software package and imported to an online digital database software package on a regular basis during the drill program and at the end of the drill program. • No adjustments were made to assay data.
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.*	EM Survey • All geophysical data was collected using GDA94, MGA51 datum/projection. Aircore Drilling • Sample locations were recorded with a Garmin handheld GPS which has an accuracy of +/-5m. • GDA94 MGA Zone 51. • The level of topographic control offered by the handheld GPS is considered sufficient for the work undertaken.
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.*	EM Survey • The HELITEM survey was flown at 200m line spacing with a terrain clearance of 35m • MLTEM was completed using 200m station spacing and 400m line spacing. • DHTEM survey station spacing was 5-10m.

Criteria	JORC Code explanation	Commentary
		Aircore Drilling • Drill holes are spaced at 800m along lines spaced 3000m apart. • The data spacing and distribution is not sufficient to establish the degree of geological and grade continuity appropriate for Mineral Resource estimation purposes. • Samples reported have been collected as 4m intervals which are composited from 1m drill intervals.
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.*	**EM Survey** • The HELITEM survey lines were oriented 1350- 3150 • MLTEM survey lines were oriented 900-2700 • DHTEM data was collected along the drill hole with and Azimuth of 900 and a dip angle of 800. **Aircore Drilling** • The orientation of mineralised structures is unknown at this time. • Further work is required to confirm the true orientation of the mineralised structures.
Sample security	• *The measures taken to ensure sample security.*	• Samples were collected, stored and delivered to the lab by company personnel.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No audits or reviews have been undertaken.

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 Plumridge Nickel Project is comprised of eight granted Exploration Licenses (E28/1475, E39/1084, E39/1710, E39/1709, E28/2266, E39/1731, E28/2317 and E28/2267) which are held by Independence Group NL (51%) and Arrow Minerals Limited (49%). • The Project is subject to the Plumridge Nickel Joint Venture between Independence Group NL and Arrow Minerals Limited. • There are no Native Title Claims over the tenements. • The tenements do not intersect any nature reserves or pastoral leases.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• No previous nickel-copper exploration undertaken by other companies prior to Arrow (previously called Segue Resources Limited).
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Nova-style mafic-ultramafic intrusion-related Ni-Cu sulphides.

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.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		• No drill results have been reported in this announcement.

Criteria	JORC Code explanation	Commentary
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.*	• N/A
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the 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').*	• N/A
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.*	• See text for diagrams.
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.*	• N/A
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.*	• HELITEM, moving loop EM and downhole EM target models have been generated using the Maxwell program, which uses thin plate modelling algorithm to forward model the EM data. Plate model dimensions, orientation, depth and conductivity thickness are estimated by the modelling.
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,*	• Further 3km x 800m pattern aircore drilling will be completed over the remainder of the Project area. • RC drill testing of high-priority EM targets in planned to be completed

Criteria	JORC Code explanation	Commentary
	including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	in 2019.