ASX: AHN

Issued Capital
812,967,558 shares
75,000,000 @ $0.02 options

Athena Resources Limited
ACN 113 758 900

Directors
Edmond Edwards
Hau Wan Wai
David Wheeler
Joe Graziano

Company Secretary
Joe Graziano

About Athena Resources

AHN is an Australian ASX listed explorer and developer of high-grade iron ore assets in Western Australia.

The Company is focused on its Byro Project, strategically located in the Mid-West region 350km from the Port of Geraldton.

The Byro Iron Ore Project has potential to mine and supply premium grade, low impurity magnetite (>70% Iron Content) for the production of green steel, a fast-growing global market opportunity. The Byro Project also contains exciting base metal potential.

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Byro Industrial Minerals Project

Completion of Infill Drilling Required for Indicated Mineral Resource Estimation.

Highlights:

Completion of the infill resource drilling program to acquire data sufficient to upgrade the FE1 2004 inferred JORC compliant, magnetite, Mineral Resource Estimate, (MRE) to a 2012 JORC compliant Indicated Resource.

- **14 Reverse Circulation (RC) holes were completed for 1,037.5m including 11 diamond tails for 1,305.3m. The diamond tails were drilled in accordance with infill requirements to undertake a JORC compliant Indicated Mineral Resource Estimation, (MRE).**
- **All logging and preliminary data acquisition has been completed covering lithology and ore domains including detailed geotechnical logging of the diamond core for pit optimisation.**
- **Drilling has extended the boundary of the orebody interpreted from the existing JORC compliant Inferred Resource.**
- **Logging and magnetic susceptibility readings show magnetite ore intersections of similar and higher quality than represented in the inferred resource estimation.**
- **Diamond core and RC chip samples are being processed for assay and Davis Tube Recovery (DTR) procedures.**
- **Independent international mining consultant Entech completed a positive site visit for review of data acquisition practices and compliance within the JORC Code.**

Athena Resources ("AHN" or "the Company") is pleased to announce completion of the infill resource drilling program to acquire data sufficient to upgrade the FE1 2004 inferred JORC compliant, magnetite, Mineral Resource Estimate, (MRE) to a 2012 JORC compliant Indicated Resource. Completion of the infill drilling program is a strategic development towards the Company's FE1 Project Feasibility Study (PFS), within 2022.

The completion of drilling and preliminary data acquisition is a key component in the development of the Byro magnetite resource with many milestones already completed. The infill program supports major steps including grant of mining leases, native title mining agreement, thorough metallurgy repeated in Australia and China, process engineering design, Main Roads WA approved transport corridor, hydrology studies, advanced environmental studies and exploration drilling of supporting satellite ore bodies.

The program was designed by the Company in consultation with Entech Pty Ltd who have been appointed to undertake the Mineral Resource Estimation (MRE). The program was designed to satisfy the identified data gaps required to lift the resource from an inferred to indicated resource including required geotechnical data for pit optimization for the PFS.

The infill program consisted of 11 RC pre-collars followed by 11 diamond tails for solid core recovery and 3 standalone RC holes. Several holes were drilled twinning historic holes. Data from the twinned holes will be used to fulfill data gaps required by the 2012 JORC Code and define variability within the ore body while extending the modelled block to the west and to a depth of 200m.

Infilling compliments 31 existing holes to bring the total drilling within the resource to 45 holes for 6,929.25m. Drilling also completes the required grid spacing of 100m line spacing with hole positions 50m apart on each line.

Magnetite ore intersections throughout the campaign were largely as predicted with high purity magnetite commonly as coarse grain granulite and at times presenting as semi-massive to matrix ore as seen below.

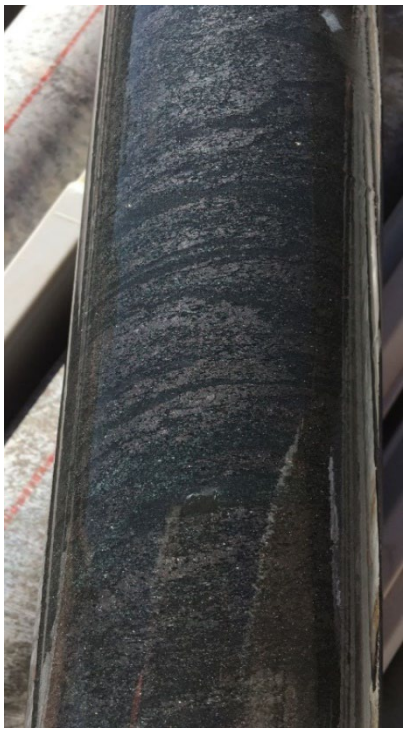

Figure 1. Semi-Massive to Matrix Magnetite Ore

From completed drilling and geological logging, the Company is delighted to confirm the magnetite ore drilled within the FE1 Resource is of the same quality and genesis to that identified from previous drilling, metallurgy, and ore characterisation.

The image (left) is a section of PQ size whole core at 154m down hole in hole AHRC0115D. The magnetite is a silver color and consists of pure coarse grains of magnetite with no inclusions. The darker mineral is biotite in silicate, all together a simple assemblage of minerals.

Magnetic susceptibility data has been captured using a KT10 Magnetic susceptibility meter through the ore intersections with many intervals such as that shown in Figure 1, reaching the maximum reading of $2000^{10\text{-}3}$, standard units correlating well with data from previous drilling.

Whole core graphically confirms previous identification of the rock type as "Upper Granulite Facies Magnetite Gneiss". This means the ore has been purified by nature through intense geological processes. The classification sets the Byro ore apart from lower facies and high impurity ores such as Banded Iron Formations (BIF). This classification is fundamental in understanding the level of purity and unique quality of the Byro ore type and why it is ideal for supply into the Green Steel Industry.

Core cutting and sample preparation is underway to complete whole rock assay and DTR determinations for the mineral resource estimate,

Table 2. Collar Details

Hole ID	Type	MGA N	MGA E	RL	Dip	Azimuth	Depth	Final Depth
AHRC0110	RC	7110036	431100	349.5	-60	90	40.5	
AHRC0110D	DD	7110036	431100	349.5	-60	90	86.86	127.36
AHRC0111	RC	7110036	431000	349	-60	90	90.1	
AHRC0111D	DD	7110036	431000	349	-60	90	108.16	198.26
AHRC112	RC	7110036	430950	349	-60	90	84.2	
AHRC112D	DD	7110036	430950	349	-60	90	174.1	258.3
AHRC0113	RC	7109970	430950	348.5	-60	90	93.3	
AHRC0113D	DD	7109970	430950	348.5	-60	90	116.6	209.9
AHRC0114	RC	7109970	431000	349	-60	90	90.3	
AHRC0114D	DD	7109970	431000	349	-60	90	128.8	219.1
AHRC0115	RC	7109970	431050	349	-60	90	46.6	
AHRC0115D	DD	7109970	431050	349	-60	90	139.67	186.27
AHRC0107	RC	7110303	431008	348.5	-60	90	66.5	
AHRC0107D	DD	7110303	431008	348.5	-60	90	110.66	177.16
AHRC0108	RC	7110303	430910	347.5	-60	90	100	
AHRC0108D	DD	7110303	430910	347.5	-60	90	95.4	195.4
AHRC0109	RC	7110303	430864	347	-60	90	102	102
AHRC0116	RC	7110407	430971	349	-60	90	102	
AHRC0116D	DD	7110407	430971	349	-60	90	131.5	131.6
AHRC0117	RC	7110501	430952	348	-60	90	102	102
AHRC0118	RC	7110907	430990	348	-60	90	120	120
AHRC0119	RC	7109906	431010	348	-60	90	102	102
AHRC0120D	DD	7109975	431105	350	-60	90	138.6	165.3
AHRC0121D	DD	7110501	430958	348	-60	90	176.8	176.8

The map below shows locations of FE1 drill collars on magnetic signature overlaid with preliminary pit design.

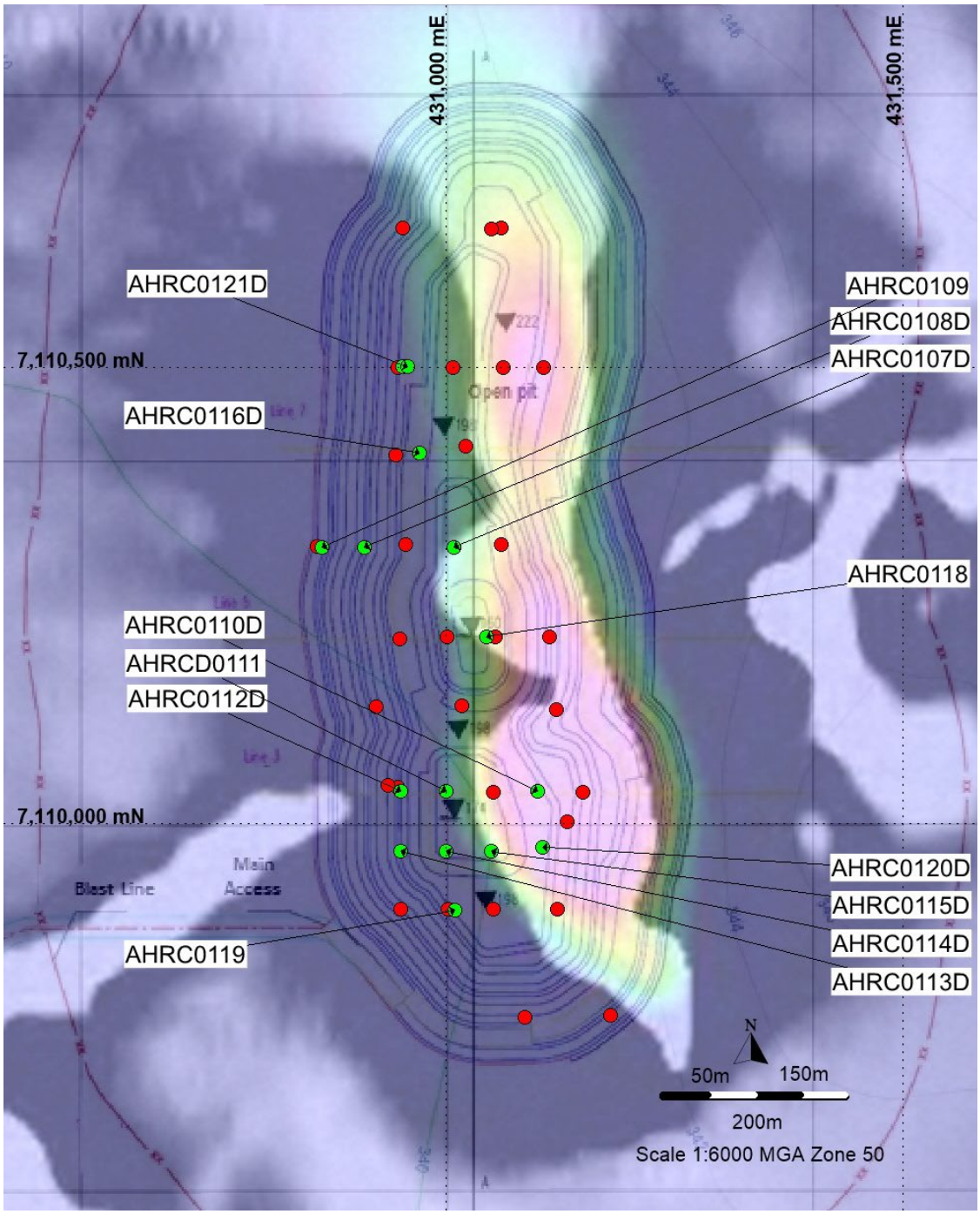

Figure 1 FE1 drill collars on magnetic signature overlaid with preliminary pit design (Red dots – existing drill holes, green dots - infill holes).

This announcement has been approved by the board.

CAUTIONARY NOTES AND DISCLOSURES

Disclosures

All data and Information of material nature referred to within this Report with reference to historical drilling have previously been reported on the ASX platform in compliance with the relevant JORC compliance reporting format at the time of data acquisition.

Cautionary Notes and Forward Looking Statements

This announcement contains certain statements that may constitute "forward looking statements". Such statements are only predictions and are subject to inherent risks and uncertainties, which could cause actual values, results, performance achievements to differ materially from those expressed, implied or projected in any forward looking statements.

JORC Code Compliance Statement

Some of the information contained in this announcement is historic data that have not been updated to comply with the 2012 JORC Code. Some information referred to in the announcement was prepared and first disclosed under the JORC Code 2004 edition. It has not been updated since to comply with the JORC Code 2012 edition on the basis that the information has not materially changed since it was last reported.

Competent Persons Disclosure

Mr Kelly is an employee of Athena Resources and currently holds securities in the company.

Competent Person Statement

The information included in the report was compiled by Mr Liam Kelly, an employee of Athena Resources Limited. Mr Kelly has had over twenty years' experience as a geologist in mining and exploration and is a Member of the Australasian Institute of Mining and Metallurgy, (306501). Mr Kelly has sufficient relevant experience in the styles of mineralisation and deposit styles under consideration to qualify as a Competent Person as defined in "The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 Edition)". The historical information included is compliant with the relevant JORC Code, 2004 Edition, and new information announced post that version of the JORC Code is compliant with the JORC Code 2012 Edition. Mr Kelly consents to the inclusion of the information in the report in the context and format in which it appears.

INTERESTS IN MINING TENEMENTS

Athena Resources Limited 100%	Tenement Type
Byro Exploration	E – Exploration License
E09/1507	
E09/1552	
E09/1637	
E09/1781	
E09/1938	
Byro Project Mining	M - Mining Lease
M09/166	
M09/168	

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.*	• Drill core and cuttings were lithologicaly and geotechnically logged and measured for magnetic susceptibility. Solid core was measured and core recovery was recorded. All core runs where possible were ORI marked and an orientation line applied to the core. The measurement tool used for Magnetic susceptibility was a handheld KT-10 with serial number # 8791
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• Multiple magnetic susceptibility readings were taken over lithological units/intervals with the average reading noted from scanning mode
	• *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.*	• Reverse Circulation drilling, (RC) was used to obtain 2m composite samples from which 5 kg samples were taken for assay per 2-meter interval' • Sampling from solid core did not overlap lithological boundaries. • Although the nature of RC drilling includes reduced inherent contamination from previous intervals it is an appropriate drilling method to determine basic lithology and to complete pre-collars for diamond tails.
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).*	• Reverse Circulation Drilling, (RC) was used to pre-collar holes for diamond tails. • Pre-collars were drilled through the regolith to interpreted depths above the ore body upper contact with the Diamond tails coring through the ore body and up to 10m into the footwall.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample*	• Original samples recovered from RC drill cuttings at 2m intervals • Collection of RC cuttings both chips and fines were retrieved from a

Criteria	JORC Code explanation	Commentary
	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.*	cyclone splitter • No bias was observed between recovery and sample quality or loss or gain. • Solid core was measured, and core recovery was recorded. All core runs where possible were ORI marked and an orientation line applied to the core.
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.*	• Original RC drill chips were geologically logged as well as recording geotechnical features observable in chip over the full depth of the holes by a qualified geologist. • RC Sample piles and chip trays were photographed. • All RC intercepts were logged to an accuracy of 1m intervals. • HQ diameter core have been geologically and geotechnically logged using standard techniques to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • All core was photographed • Intersections are still being calculated and will be finalised on receipt of assays.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	• HQ diamond core has been quarter cut for assay and DTR work. Remainder in storage for metallurgy.
	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	• Original RC sample splits were retrieved directly from dry rotary cyclone for assay
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• Samples were collected directly from cuttings and core, and are representative of the interval. • Samples are suitable for application of best practice XRF and DTR analysis as per ALS Laboratories
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	• Industry standard sampling preparation procedures were used such as Blanks, Standards and Repeat assays. Lab results will be reviewed and checked for deviation using lab certified references and in house analysis

Criteria	JORC Code explanation	Commentary
	• *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.*	• 5kg splits were collected directly from cyclone using industry standard procedures and sent directly to lab. • Core was cut representing lithological boundaries and ore variation. • Blanks, Standards and Repeat assays have been included at set intervals throughout sampling.
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Original average RC drill sample size retrieved was 5kg, average chip size is 2-20mm. Sample sizes taken are large enough to be representative of the whole rock constituents. • Diamond quarter core samples ranged from minimum interval 100mm to maximum interval of 2m and are appropriate to the grain size.
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.*	• Samples are currently being submitted with assays pending.
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.*	• Initial inspection and logging by onsite Geologist • Holes have been twinned to interpret variability. • Samples and assays to be verified using standard QA QC methods • All primary data from drilling is recorded in the Company data base. • Assays pending
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*	• GPS +/- 10m Drill hole locations were measured with Garmin hand held GPS. Accuracy is within +/-5m • MGA_GDA94 Zone 50

Criteria	JORC Code explanation	Commentary
	estimation. • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Topographic surface recorded with handheld Garmin • Continuous down hole surveys were completed with a down hole north seeking gyro camera Axis/Reflex.
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.*	• No assay results have been reported. • Sample intervals were routinely 2m or less dependent on geology and mineralisation and are appropriate for the mineral resource estimation being considered.
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.*	• This report refers to testing down dip lithology with vertical hole orientations at -60° dip. • This report makes no interpretation or reference to the shape or size of the structure.
	• *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.*	• No orientation-based sampling bias has been identified in this data at this point
Sample security	• *The measures taken to ensure sample security.*	• Chain of custody is being maintained from sample site to lab
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• No reviews of data management systems have been carried out

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 tenement referred to in this report, M09/166 is 100% Athena owned and operated within native title determined claim WAD 6033/98, made on behalf of the Wajarri Yamatji People.
	• *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 is in good standing and no known impediments exist. • See tenement listing attached.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Historic exploration within the greater project area largely confined to south of a line extending from Imagi Well to the Byro East intrusion (Melun Bore). The earliest work with any bearing on Athena's activities is that of Electrolic Zinc Co (1969) exploring for chromatite at Imagi Well, followed closely by Jododex Australia (1970-1974) at Byro East. Much of the exploration of a more regional nature is of limited use either because of the vagaries of the accuracy of positional information and the limited range of elements analysed. More recent surveys pertinent to Athena's current investigations include that of Redback Mining (1996-2002), Yilgarn Mining Limited (2003-2008) and Mithril (2007, JV with Yilgarn) at Byro East, and Western Mining Corporation (1976-1979) and Precious Metals Australia at Imagi Well. Newcrest Mining carried out a limited reconnaissance RAB drilling programme for platinum just to the east of Byro homestead (1998-1990).
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Upper amphibolite to granulite metamorphic facies with mafic to ultramafic intrusive. Granite and migmatite are common

Criteria	JORC Code explanation	Commentary

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.*
		• Refer to body of text for collar location, elevation, dip, azi, and EoH for holes drilled;

	• *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 information has been excluded
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.*	• No weighting, min max, ave, truncation or cut off techniques were used in this report
	• *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.*	• No metal equivalent are referred to in this report
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No metal equivalent are referred to in this report
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*	• There is no relationship to the geometry of mineralisation or drill hole angle.
	• *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').*	• There is no relationship to the width or depth extent of the body only down hole length.

Criteria	JORC Code explanation	Commentary
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.*	• All relevant data is tabulated within the body of the announcement.
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.*	• This report contains all meaningful results to date. • Assays are pending.
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.*	• This report contains all meaningful results to the completion of drilling.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Further metallurgical work will be undertaken to obtain definitive and conclusive data to be incorporated into the exploration database. If warranted further drilling will be undertaken to gain better understanding of the body shape, size and characteristic.
	• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Planned drilling information is not complete. • Future drilling is commercially sensitive and is not included in this report.