18 October 2019

ASX ANNOUNCEMENT

MAIDEN NICKEL SULPHIDE RESOURCE 5A SPARGOVILLE

HIGHLIGHTS

- **Maiden nickel sulphide Resource of 127,000 tonnes @ 1.9% Ni, 0.15% Cu**
  - **Including 13,000 tonnes @ 8% Ni**
- **2,370 contained Ni tonnes**
- **Over 65% of Ni tonnes in the Indicated category**
- **Majority of resource located within 100m of surface**
- **Deposit open at depth below high grade drill results**
- **Nickel market outlook positive**

Estrella Resources Limited (ASX: ESR) (Estrella or the Company) is pleased to report to shareholders its maiden 5A nickel sulphide Mineral Resource at the Spargoville Nickel Project, located approximately 30km south-west of Kambalda, Western Australia. The maiden Mineral Resource stands at 127,000 tonnes at 1.9% Ni and 0.15% Cu for a contained nickel metal inventory of 2,370 tonnes and is reported in compliance with the JORC Code (2012). The Mineral Resource is shallow with the majority of nickel within 100m of surface and amendable to open pit mining. The maiden Mineral Resource follows a detailed assessment of historic drilling and the inclusion of significant high grade nickel sulphide drilling results achieved by the Company (see ASX release 18 December 2018) which included;

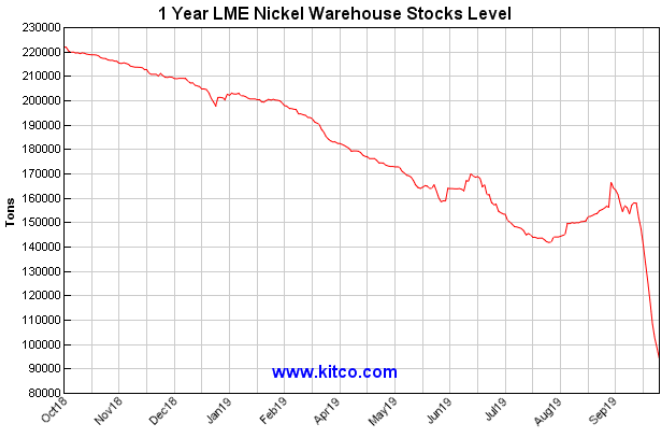
- **15m at 10.45% Ni, 0.78% Cu, 0.20% Co, 0.87g/t Pb, and 1.15g/t Pt from 20m**
- **5m at 11.32% Ni, 0.54% Cu, 0.21% Co, 0.42g/t Pd, and 0.22g/t Pt from 61m**
- **3m at 12.90% Ni, 1.37% Cu, 0.29% Co, 1.86g/t Pd, and 0.67g/t Pt from 69m**

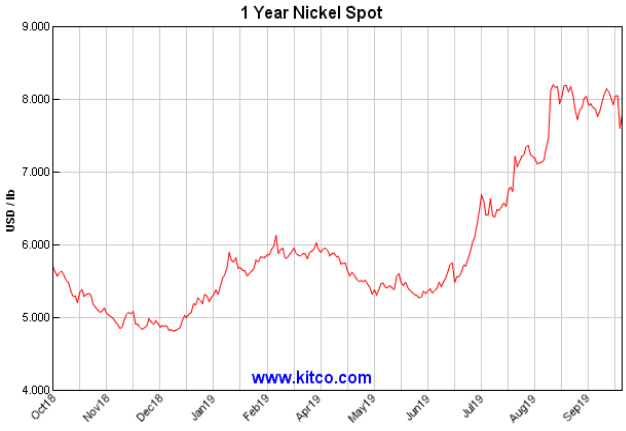
Over 65% of the contained nickel tonnes in the 5A maiden Mineral Resource have been classified as Indicated with there being sufficient drill density and understanding of the mineralisation to satisfy this classification. The deposit is open at depth below the high grade nickel sulphide drill intercepts which allows potential for an increase in the current resource with further drilling.

In light of the current strength in the nickel market and the positive outlook, the Company will undertake steps towards commercialisation of the 5A nickel sulphide Mineral Resource.

The 5A nickel sulphide deposit is one of a number of significant nickel sulphide occurrences that make up the Company's 100% owned Spargoville Nickel Project which was purchased at a time when nickel projects were not in favour and nickel prices were much lower. In A$ terms the nickel price has risen over 50% this calendar year and currently worth over A$24,000 per tonne.

Company CEO Mr. Chris Daws said "It is pleasing to be able to report to shareholders our maiden nickel sulphide Mineral Resource at 5A and comes on the back of previous exceptional nickel sulphide assays. We are keen to capitalise on this near-surface resource especially now the nickel market is strengthening, and the outlook for the metal continues to be positive. Recent news that the Indonesian Government plan to bring forward its ban on its nickel exports by two years is clearly having an impact, as evident by the recent dramatic drawdowns of nickel stocks from the London Metal Exchange by the world's biggest end users."





5A Nickel Sulphide Deposit
October 2019 Mineral Resource Estimate - Min Type (0.5% Ni Cut-off)

Type	Indicated Mineral Resource				
	Tonnage kt	Ni %	Cu %	Ni t	Cu t
Disseminated	37	0.7	0.05	250	20
Matrix/Breccia	20	2.1	0.17	430	30
Semi-massive/Massive	12	8.1	0.63	950	70
Total	**69**	**2.4**	**0.19**	**1,630**	**130**

Type	Inferred Mineral Resource				
	Tonnage kt	Ni %	Cu %	Ni t	Cu t
Disseminated	41	0.7	0.10	270	40
Matrix/Breccia	17	2.5	0.13	410	20
Semi-massive/Massive	1	7.6	0.35	60	
Total	**58**	**1.3**	**0.11**	**730**	**70**

Type	Total Mineral Resource				
	Tonnage kt	Ni %	Cu %	Ni t	Cu t
Disseminated	78	0.7	0.08	520	60
Matrix/Breccia	37	2.3	0.16	840	60
Semi-massive/Massive	13	8.0	0.61	1,000	80
Total	**127**	**1.9**	**0.15**	**2,370**	**190**

Competent Person Statement

The information in this announcement relating to Mineral Resources is based on information compiled by Mr Shaun Searle who is a consultant to Estrella Resources, and a member of The Australian Institute of Geoscientists. Mr Searle has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves". Mr Searle consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

FURTHER INFORMATION CONTACT
Christopher J. Daws
Chief Executive Officer
Estrella Resources Limited
info@estrellaresources.com.au

Forward-Looking Statements

This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning the Company's planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could," "plan," "expect," "intend," "may", "potential," "should,", "further" and similar expressions are forward-looking statements. Although the Company believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that further exploration will result in Mineral Resources.

Geology and Geological Interpretation

The Spargoville Project area lies within the Coolgardie Domain, the western most domain of the Kalgoorlie Greenstone Terrain, which stretches northwards from Norseman to Menzies. The Project is situated within a dominantly north-south striking belt of Archaean greenstone rocks that extend north from the Widgiemooltha Dome. The 5A deposit is characterised as a Kambalda style (komatiite hosted) nickel sulphide deposit.

Nickel mineralised bodies at Spargoville commonly form as lenses of massive sulphide up to several metres thick within ultramafic rocks at or near the ultramafic / meta-basalt contact. A halo of disseminated, lower-grade, mineralisation often extends up to 20m width into the ultramafics and rare veins of sulphide may be found in the underlying meta-basalt. The major ore bodies are all lensoidal with limited extent down dip and along strike, suggesting structural control in the form of embayment structures or depressions in the meta-basalt.

Sampling and Sub-sampling Techniques

Most of the drilling, sampling and assaying was completed by Selcast Exploration and Amalg Resources. Core was sampled at 1m intervals or to geological contacts and RC samples were collected at 1m intervals from the rig mounted splitter.

For ESR drilling, RC drill holes were sampled by 1m cone split composites through mineralisation and 4m spear samples in unmineralised material, producing a nominal 3kg to 5kg representative sample. RC drilling was 5 ¼ inch in diameter.

Drilling Techniques

The 5A deposit has been drilled with diamond core, carried out with NQ2 and HQ2 sized equipment, using standard tube. RC holes were 5 ¼ inch in diameter.

Mineral Resource Classification Criteria

The 5A Mineral Resource was classified as Indicated and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity. The Indicated Mineral Resource was defined within areas of close spaced RC and DD drilling of less than 20m by 20m, and where the continuity and predictability of the lode positions was good. The Inferred Mineral Resource was assigned to areas where drill hole spacing was greater than 20m by 20m, where small isolated pods of mineralisation occur outside the main mineralised zones, and to geologically complex zones.

Sample Analysis Method

Sample analysis was undertaken at Intertek laboratory in Kalgoorlie. Nickel and multielement analysis were performed by 4 acid digest and a combination of ICP-MS and ICP-OES analysis techniques. Gold and PGEs were determined by a 25g fire assay fusion, followed by aqua regia digest and ICP-MS finish.

Estimation Methodology

The mineralisation was constrained by wireframes prepared using a variety of cut-offs for the various sulphide mineralisation types. Disseminated sulphide was domained using a nominal 0.4% nickel cut-off, plus geological logging, matrix sulphide was domained using a nominal 1.0% nickel cut-off, plus geological logging; and semi-massive to massive sulphide mineralisation was domained using a 4.0% nickel cut-off, plus geological logging. Following a review of the population histograms and log probability plots and noting the low coefficient of variation statistics, it was determined that the application of high grade cuts was not warranted.

The block model parent block dimensions used were 10m NS by 5m EW by 5m vertical with sub-cells of 0.625m by 0.625m by 0.625m. The parent block size dimension was selected on the results obtained

from KNA that suggested this was the optimal block size for the 5A dataset. The Mineral Resource block model was created and estimated in Surpac using Ordinary Kriging ("OK") grade interpolation. An orientated 'ellipsoid' search was used to select data and adjusted to account for the variations in lode orientations, however all other parameters were taken from the variography. Up to three passes were used for each domain. First pass had a range of 35m, with a minimum of 6 samples. For the second pass, the range was extended to 60m, with a minimum of 4 samples. For the third pass, the range was extended to 100m, with a minimum of 2 samples. A maximum of 16 samples was used for all passes, with a maximum of 4 samples per hole.

Bulk densities ranging between 2.0t/m^3 and 2.95t/m^3 were assigned in the block model for the saprolite and saprock material, dependent on mineralisation and weathering. Regression equations were utilised to estimate bulk density for the saprock and fresh matrix and massive sulphide domains. These densities were applied based on adjusted pycnometer measurements obtained from RC chips.

Cut-off Grade

The Statement of Mineral Resources has been constrained by the mineralisation solids and reported above a cut-off grade of 0.5% nickel.

Mining and Metallurgical Methods and Parameters

It is assumed that the 5A deposit can be mined using open pit techniques. A high level optimisation analysis shows that this can be achieved at current nickel prices and assuming the 5A material is treated at a suitable third party processing plant within trucking distance of the Project.

Metallurgical testing has been conducted on samples obtained from the 5A deposit. Testing indicates that the 5A material shows more than 90% recovery at the suitable third party processing plant.

JORC Table 1

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• The Spargoville landholding has been drilled by DD (surface and underground, 504 holes), RC (204 holes), RAB and Percussion (1,514 holes) and air core (33), drilling both for nickel and gold. Drilling data exists for 4,742 drill holes for 169,420 metres in the tenement area. A total of 1,070 holes had one or more intercepts over 1% Ni. All the holes apart from KWC0001 to KWC0006 were drilled by previous operators prior to ESR taking over the prospect in 2018. • DD and RC sampling techniques conducted prior to this drilling program are not known but are assumed to be industry standard at the time of collection. Pre-this program, data was compared to historic data and the two datasets generally correlated well. • From KWC series holes reported in this announcement, RC drill holes were sampled by 1m cone split composites through mineralisation and 4m spear samples in unmineralised material. RC drilling was 5 ¼ inch in diameter. • For ESR RC holes, sampling was cone split from 1m composite bulk samples, producing a nominal 3kg to 5kg representative sample. • RC samples ranged from 4m in waste material and 1m in or near mineralisation. • Nickel mineralisation consists of contact massive sulphides (violarite, pyrite, pyrrhotite, pentlandite, chalcopyrite) typically 1.5m to 4m thick, overlain by matrix sulphides and disseminated sulphides. At 5A the sulphides have been weathered to produce supergene sulphides of pyrite and violarite and secondary oxide material. • Most of the drilling, sampling and assaying was completed by Selcast Exploration and Amalg Resources. It is unknown how samples were collected, but it is assumed to be industry standard at the time. The data from this drilling program compared well with drilling conducted by previous explorers. For this drilling program, representative samples from RC drilling were collected and sent to Intertek laboratory in Kalgoorlie for analysis. Intertek crushed and pulverised the samples in entirety and took a 50g pulp for analysis. • For ESR drilling, nickel and multielement analysis was performed by 4 acid digest and a combination of ICP-MS and ICP-OES analysis techniques. Gold and PGEs were determined by a 25g fire assay fusion, followed by aqua regia digest and ICP-MS finish. • Minor copper, cobalt, and significant arsenic occur in the nickel mineralisation.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. 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.).*	• The database is comprised of DD samples (7,823), RC samples (10,766), RAB/AC drilling samples (5,241) and unspecified samples (25,665). DD drilling included NQ, HQ and BQ diameter core.
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.*	• RC sample recoveries were inferred from sample weights reported by the laboratory for this program. No sample weight information is available for historic drilling.

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 relationship exists between sample recovery and grade.
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.*	• Detailed drill hole logs are available for 97.4% of the historic drilling and 100% of the new drilling. • Prior to the ESR drilling, it is unknown whether duplicates, standards and blanks taken for QA/QC purposes were taken. Hard copy sample logging sheets were kept. This includes samples numbers for duplicates, standards and blanks taken for QA/QC purposes. All data are available for the work conducted from the current program. • The logging is of a detailed nature and of sufficient detail to support the current reporting of a Mineral Resource.
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.*	• DD sampling techniques are unconfirmed for historic drilling. • For the ESR drilling, samples were collected by a rig mounted cyclone and cone splitter. • For the ESR drilling, sample condition fields to record moisture and sample recovery is included in the sampling log sheet and populates the assay table of the database. • For the ESR drilling, sample preparation is appropriate for RC drilling as per industry standard practices for managing RC samples. • Prior to the current program it is unknown whether quality control procedures have been used. • For the ESR drilling, quality control procedures included the inclusion of field duplicates, standard samples and blank samples into the sampling stream for laboratory analysis. Standards were placed every 30 samples with a combination of blank, low-grade and high-grade standards. Dependent on the geology, a suitable standard was selected. Blank standards (OREAS22C) were generally placed after a mineralised zone and routinely every 25 samples. Duplicate sampling was undertaken for the RC drilling every 20 samples. • Host rock for nickel mineralisation is mainly a serpentinite lens at the base of an ultramafic sequence. It is assumed that prior to the current program sampling would have been appropriate for the style of mineralisation; and from the current program, it is appropriate.
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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• For the ESR drilling, quality control procedures included the inclusion of field duplicates, standard samples and blank samples into the sampling stream for laboratory analysis. One standard, blank and field duplicate were inserted into the sample stream every 30 and 20 samples respectively. These were offset through the sampling stream and placed in areas of interest i.e. high-grade standards and blanks in the mineralised zone where possible. The QAQC results have been assessed and are acceptable. • No geophysical methods or hand-held XRF units have been used for determination of grades in the Mineral Resource.
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.*	• Significant intersections were visually field verified by company geologists and Shaun Searle of Ashmore during the 2019 site visit. • Multiple intersections reported have been checked back to original logs and assay data. • No twin holes have been drilled. • Drill hole data were sourced from digital sources and original hard-copy sampling and assay

Criteria	JORC Code explanation	Commentary
		records and imported into a central electronic database. Datashed software was used to validate and manage the data. • No adjustments have been made to the 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.*	• Surface topography is derived from drill hole collars and the historical survey control of the Spargoville open pit. The new holes were set out and picked up by Cardno Surveys and downhole surveyed by ABIMS Solutions. • Prior to the current program it is assumed that the majority of the drill holes were down hole surveyed by a single shot tool and by collar measurement with a clinometer and compass. This was rarely recorded in the database. From the current program of holes were down hole surveyed by a gyro. • Prior to ESR drilling, original surveying was undertaken in Kambalda Nickel Operations Grid (KNO) and from the current program in GDA94 grid.
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.*	• The 5A area has been drilled on a regular pattern and spacing by various previous operators. The average spacing is estimated to be approximately 20m by 20m within the 5A mine area. • The drill data spacing, and sampling is adequate to establish the geological and grade continuity required for the current announcement. • Samples were composited to 1m intervals prior to estimation.
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 drill line and drill hole orientation are oriented as close as practicable to perpendicular to the orientation of the general mineralised orientation. • Most of the drilling intersects the mineralisation at close to 90 degrees ensuring intersections are representative of true widths. KWC0004 and KWC0005 are the exception; these holes were purposefully drilled at a low angle to mineralisation for the purpose of collecting bulk sample for metallurgical test work. • No orientation based sampling bias has been identified in the data.
Sample security	• *The measures taken to ensure sample security.*	• Sample security measures are unknown for previous drilling. For the ESR drilling, sample security measures adopted include the daily movement of samples to the Kalgoorlie laboratory, where samples were securely stored before processing. • For the ESR drilling, RC split samples were transported from site daily and delivered to the accredited laboratory depot in Kalgoorlie for preparation and analysis. • Industry standard sample security standards were followed for ESR drilling. Reports and original log files indicate that a thorough process of logging, recording, sample storage and dispatch to labs was followed at the time of drilling.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Shaun Searle of Ashmore reviewed drilling and sampling procedures during the 2019 site visit and found that all procedures and practices conform to industry standards. • For the ESR drilling, sample data reviews have included an inspection and investigation of all available paper and digital geological logs to ensure correct entry into the drill hole database • Visualisation of drilling data was completed in three-dimensional software (Micromine and Surpac), and QA/QC sampling review using Maxwell Geoservices QAQCR Software was

Criteria	JORC Code explanation	Commentary
		undertaken. Although these reviews are not definitive, they provide confidence in the general reliability of the data.

Section 2 Reporting of Exploration Results

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 license to operate in the area.*	• ESR has entered into agreements to hold a 100% interest in all base metal rights to the project. The area is held under M15/395. • The tenement is in good standing with no known impediments.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Between 1966 and 1971 Australian Selection Pty Limited (later Selcast Exploration) conducted regional exploration throughout the Spargoville area ("WS5" series holes). During this period, numerous prospective targets were identified including the 5A, 5B and 5D deposits. During 1974, Selcast commenced underground mining at the 5D deposit which was renamed Andrews. Prior to the cessation of mining at Andrews in 1979, a decline was developed into the footwall of the 5B ore body, however elevated arsenic levels in the ore and falling nickel prices prevented production from the mine at this time. Despite substantial deep diamond drilling at 5A the tonnage of the nickel sulphide ore body defined did not warrant mining at the time. • In the early 1980s, BP Minerals Australia acquired Selcast and continued exploration in the Spargoville area, to determine the potential for economic gold mineralization. BP Minerals re-assayed existing holes drilled by Selcast that reported gold intersections. BP completed a series of percussion holes across the lease. • BP failed to identify a significant gold resource and in 1990 and sold the lease to Spargoville Nickel Pty Ltd. Spargoville Nickel Pty. Ltd. drilled three metallurgical holes at the 5B deposit and nine near-surface, RC drill holes at the 5A deposit ("P" series holes). • In 1993 the lease was vendored to Amalg Resources NL ("Amalg'). Amalg commenced open pit mining of the 5B deposit in 1995, targeting a small oxide gold resource previously identified by BP. A total of 9,700 tonnes of ore was mined from the 35m deep pit at a sampled grade of 2.77g/t Au. • Amalg also completed 15 underground diamond holes from the 5B decline during 1997 and re estimated a mineral resource for this deposit of. • Amalg also completed eight diamond (5AM-1 to 5AM-8) and 10 RC (5ARC09 to 5ARC18) holes at the 5A deposit between 1993 and 1997 aimed at defining an oxide nickel resource. • Between July and October 1997 Amalg mined a 30m deep pit at the 5A deposit. A total of 34,560 tonnes of oxide nickel ore was mined and stockpiled at a sampled grade of 2.36% Ni. • In December 1999 Amalg conducted a 10 hole vertical RC drilling program (298m) at the 5A pit (5ARC19 to 5ARC28) to generate sufficient quantities of nickel sulphide mineralization for metallurgical work on the transitional ore. From this work a new Mineral Resource Ni was

Criteria	JORC Code explanation	Commentary
		estimated. • In 2001 regional multi-client Norseman-Wiluna 400m line spaced aeromagnetic data and digital aerial images covering tenement M15/395 were purchased to identify regional lithological and structural trends to assist with targeting and planning of exploration programs. • A 200m by 100m moving loop survey was completed across the tenement to test for massive nickel sulphide mineralization along unexplored areas of the basal contacts. The surface TEM program consisted of moving loop, in-loop and slingram surveys. Fixed loop surveys were used over selected moving loop TEM targets and the known nickel deposits (5A, 5B, and 5D). This work indicated the surface EM failed to give any significant anomaly over the known deposits. • Accurate surveys were completed of the 5A and 5B pits and mullock dumps and 5B decline that could be converted to AMG coordinates. • Approximately 20,000t of stockpiled nickel gossan from the 5A open cut grading approximately 2.6% Ni was sold to OMG Cawse for treatment through the acid pressure leach ("PAL") plant at Cawse. • The existing nickel resources at 5A, 5B and Andrews were reassessed. Resource reverse circulation (RC) and Diamond drilling were completed at 5A and 5B and metallurgical geotechnical and mine design studies completed on the 5A deposit. In addition, heritage, flora and fauna studies were completed for feasibility study to open cut mine the 5A deposit to remove the transitional and sulphide mineralisation to a depth an approximately 70 m below surface. The feasibility study showed that the transitional ores at 5A or 5B were not suitable for either PAL or conventional leach circuits and that the Activox process was the most likely process option.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The Spargoville Project is located on the north end of the Widgiemooltha Dome within a sequence of intercalated mafic and ultramafic rocks. • Nickel mineralisation is located along the contact of basalt and ultramafic rocks. High grade nickel mineralisation is in the form of poddy contact shoots, with a broad disseminated component. The basalt-ultramafic contact dips sub vertically, striking north-south. The contact itself is quite disturbed as the area has been extensively deformed, with numerous footwall thrusts of thin packages of mineralised ultramafic. The hanging wall ultramafic unit varies from talc, tremolite, and serpentinised altered ultramafics. Disseminated nickel mineralisation is generally in serpentinised ultramafic. • The stratigraphy at a deposit scale consists of the Archaean Mt Edwards basalt overlain by the Widgiemooltha Komatiite. The ultramafic succession consists of a series of flows with intercalated sediments. It is approximately 250m thick and displays carbonate alteration and serpentinisation. The mineral assemblages are talc-antigorite-chlorite-magnetite and talc-magnesite-amphibolite-magnetite. • Nickel mineralisation at Spargoville consists of contact massive sulphides (pyrite, pyrrhotite, pentlandite, chalcopyrite) typically less than 1m thick overlain by matrix sulphides and disseminated sulphides. The strike of the nickel mineralisation varies from 10m to 50m.

Criteria	JORC Code explanation	Commentary
		• Depth of complete oxidation ranges from 15 to 30m.

Drill hole information	• *A summary of all information material to the under-standing 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.*
		• Exploration results are not being reported. A table of all drill hole collars with all the listed information is shown in the Appendices.
		• All information has been included in the appendices. No drill hole information has been excluded.

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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.*	• Exploration results are not being reported. • Not applicable as a Mineral Resource is being reported. • No metal equivalent values are being reported.
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 (e.g. 'down hole length, true width not known').*	• The drill line and drill hole orientation is oriented as close to 90 degrees to the orientation of the anticipated mineralised orientation as practicable. • The majority of the drilling intersects the mineralisation between 70 to 80 degrees.
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.*	• Relevant diagrams have been included within the Mineral Resource report main body of text.
Balanced Reporting	• *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.* • *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 hole collars were surveyed in MGA94 Zone 51 grid using differential GPS. All RC holes were down-hole surveyed with a north-seeking gyroscopic tool. • Exploration results are not being reported.
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.*	• Results were estimated from drill hole assay data, with geological logging used to aid interpretation of mineralised contact positions. • Geological observations are included in the report. • Multi-element assay suites have been analysed and arsenic has been identified as a potentially deleterious element.
Further work	• *The nature and scale of planned further work (e.g. 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.*	• Follow up drilling, metallurgical test work, and mining studies are planned. • There is potential for possible extensions in the down plunge position to the current mineralisation. • Drill spacing is currently considered adequate for the current level of interrogation of the project.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• The data base has been systematically audited by ESR geologists. • All drilling data has been verified as part of a continuous validation procedure. Once a drill hole is imported into the data base a report of the collar, down-hole survey, geology, and assay data are produced. This is then checked by an ESR geologist and any corrections are completed by the data base manager.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• A site visit was conducted by Shaun Searle of Ashmore during September 2019. Shaun inspected the deposit area, historical pit, drill chips and subcrop. During this time, notes and photos were taken. Discussions were held with site personnel regarding drilling and sampling procedures. No major issues were encountered. • A site visit was conducted, therefore not applicable.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The confidence in the geological interpretation is considered to be good and is based on visual confirmation in the open pit and within drill hole intersections. • Geochemistry and geological logging has been used to assist identification of lithology and mineralisation. • The 5A deposit is characterised as a Kambalda style (komatiite hosted) nickel sulphide deposit. Nickel mineralised bodies commonly form as lenses of massive sulphide up to several metres thick within ultramafic rocks at or near the ultramafic / meta-basalt contact. A halo of disseminated, lower-grade, mineralisation often extends up to 20m width into the ultramafics. Infill drilling has supported and refined the model and the current interpretation is considered robust. • Observations from the open pit of mineralisation and host rocks; as well as infill drilling, confirm the geometry of the mineralisation. • Infill drilling has confirmed geological and grade continuity.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The 5A Mineral Resource area extends over a north-south strike length of 185m (from 6,530,105mN – 6,530,290mN), has a maximum width of 25m (357,905mE – 357,930mE) and includes the 130m vertical interval from 350mRL to 220mRL.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.*	• Using parameters derived from modelled variograms, Ordinary Kriging (“OK”) was used to estimate average block grades in three passes using Surpac software. Linear grade estimation was deemed suitable for the 5A Mineral Resource due to the geological control on mineralisation. The extrapolation of the lodes along strike and down-dip has been limited to a distance of 10m and 15m respectively. Zones of extrapolation are classified as Inferred Mineral Resource. • Open pit mining has previously occurred at the deposit. The 2019 5A Mineral Resource reports 35,000t at 2.23% nickel for 783t of contained nickel metal at a 0.75% nickel cut-off grade in the 5A mined pit. This compares to the estimated 34,560t at 2.36% nickel for 815t of contained nickel metal from the Amalg production figures. • Ni, Cu, Co, Pt, Pd, Fe, Mg, As and S were interpolated into the block model. Arsenic is the

Criteria	JORC Code explanation	Commentary
	• *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	major deleterious element for the proposed processing option. • The parent block dimensions used were 10m NS by 5m EW by 5m vertical with sub-cells of 0.625m by 0.625m by 0.625m. The parent block size dimension was selected on the results obtained from Kriging Neighbourhood Analysis that suggested this was the optimal block size for the 5A dataset. • An orientated 'ellipsoid' search was used to select data and adjusted to account for the variations in lode orientations, however all other parameters were taken from the variography derived from Domains 15; and 1 and 101 combined. Up to three passes were used for each domain. First pass had a range of 35m, with a minimum of 6 samples. For the second pass, the range was extended to 60m, with a minimum of 4 samples. For the third pass, the range was extended to 100m, with a minimum of 2 samples. A maximum of 16 samples was used for each pass with a maximum of 4 samples per hole. • No assumptions were made on selective mining units. • Correlation analysis was conducted on the domains at 5A. • The mineralisation was constrained by wireframes prepared using a variety of cut-offs for the various sulphide mineralisation types. Disseminated sulphide was domained using a nominal 0.4% nickel cut-off, plus geological logging, matrix sulphide was domained using a nominal 1.0% nickel cut-off, plus geological logging; and semi-massive to massive sulphide mineralisation was domained using a 4.0% nickel cut-off, plus geological logging. • Statistical analysis was carried out on data from 8 domains. Following a review of the population histograms and log probability plots and noting the low coefficient of variation statistics, it was determined that the application of high grade cuts was not warranted. • Validation of the model included detailed visual validation, comparison of composite grades and block grades by northing and elevation and a nearest neighbour check estimate. Validation plots showed good correlation between the composite grades and the block model grades.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Tonnages and grades were estimated on a dry in situ basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• The Statement of Mineral Resources has been constrained by the mineralisation solids and reported above a cut-off grade of 0.5% nickel. The cut-off grade was estimated based on parameters derived from a cut-off grade estimation spreadsheet under the assumptions that the mineralisation would be treated at a third party processing plant within trucking distance of the Project. Therefore, the 5A deposit has probable prospects for eventual economic extraction. Further geological, geotechnical, engineering and metallurgical studies are recommended to further define the nickel sulphide mineralisation.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining*	• Ashmore has assumed that the deposit could be mined using open pit mining techniques. Previous open pit mining has occurred at the 5A deposit.

Criteria	JORC Code explanation	Commentary
	methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.	
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• RC dill chips sampled from the 5A drilling program was delivered to Auralia Metallurgy Pty Ltd laboratory in Midvale, WA for a metallurgical test program aimed at establishing a flow sheet for processing the weathered ore. • The high degree of weathering has resulted in about 25% of the nickel being water soluble. The low pH necessitates uneconomical rates of neutralant consumption, but water washing and rinsing of the residual solids prior to flotation has given excellent results enabling a low MgO to iron ratio and arsenic concentrations well below the upper limit. The inclusion of the water-soluble nickel increases overall nickel recovery from 65% to around 90%. • Preliminary metal precipitation tests show that nickel and cobalt can be successfully separated from copper by the iron cementation process. This process enables high-purity nickel and cobalt recovery although the composite sample tested contains low cobalt concentration. • The iron cementation test shows that this process can be used to separate copper and arsenic from nickel and cobalt. This enables a copper-free nickel and cobalt precipitate to be produced.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• No assumptions have been made regarding environmental factors. ESR will work to mitigate environmental impacts as a result of any future mining or mineral processing.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• There were some historical core measurements obtained from the 5A deposit by Amalg and Breakaway, however the data was not available in a format to assess geospatially in 3D software. Ashmore notes the majority of measurements were obtained from the lower transitional mineralised zones and had an average of 3.43t/m^3. • A total of 337 pycnometer measurements were obtained from the five RC holes drilled by ESR during 2018. A total of 111 of these measurements were obtained from within the mineralisation wireframes. Ashmore utilised this data for analysis. • Pycnometer measurements usually overstate true density values of material, therefore Ashmore adjusted the measurements for application in the block model, by subtracting 10% from the pycnometer measurements. In addition, good correlation between the measurements and nickel grades were observed for the matrix and semi massive/massive mineralisation styles. • Good correlation between the measurements and nickel grades were observed for the semi

Criteria	JORC Code explanation	Commentary
		massive/massive mineralisation styles, so regression equations were applied for this material. • Ashmore recommends that ESR obtain additional bulk density measurements for the various material types from core drilled at the deposit, where one measurement is obtained for each sampled assay interval. Ideally, regression equations are used to estimate down hole densities based on nickel grades where no measurements are available; these values are then interpolated into the block model.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The Mineral Resource estimate is reported here in compliance with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' by the Joint Ore Reserves Committee (JORC). The Mineral Resource was classified as Indicated and Inferred Mineral Resource based on data quality, sample spacing, and lode continuity. The Indicated Mineral Resource was defined within areas of close spaced RC and DD drilling of less than 20m by 20m, and where the continuity and predictability of the lode positions was good. The Inferred Mineral Resource was assigned to areas where drill hole spacing was greater than 20m by 20m, where small isolated pods of mineralisation occur outside the main mineralised zones, and to geologically complex zones. • The input data is comprehensive in its coverage of the mineralisation and does not favour or misrepresent in-situ mineralisation. The definition of mineralised zones is based on high level geological understanding producing a robust model of mineralised domains. This model has been confirmed by infill drilling which supported the interpretation. Validation of the block model shows good correlation of the input data to the estimated grades. • The Mineral Resource estimate appropriately reflects the view of the Competent Person.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• Internal audits have been completed by Ashmore which verified the technical inputs, methodology, parameters and results of the estimate.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The geometry and continuity has been adequately interpreted to reflect the applied level of Indicated and Inferred Mineral Resource. The data quality is good and the drill holes have detailed logs produced by qualified geologists. A recognised laboratory has been used for all analyses. • The Mineral Resource statement relates to global estimates of tonnes and grade. • The 2019 5A Mineral Resource reports 35,000t at 2.23% nickel for 783t of contained nickel metal at a 0.75% nickel cut-off grade in the 5A mined pit. This compares to the estimated 34,560t at 2.36% nickel for 815t of contained nickel metal from the Amalg production figures.