## ASX ANNOUNCEMENT

**19 FEBRUARY 2019** 

CODE: ALY

#### **BOARD OF DIRECTORS**

Mr Lindsay Dudfield Non-Executive Chairman

**Mr Leigh Ryan** Managing Director

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#### **ISSUED CAPITAL**

SHARES 440,419,481

OPTIONS 29,500,000 (Unlisted)

#### **PROJECTS**

WEST LYNN (51% earning up to 80%)

LACHLAN (51% earning up to 80%)

**KARONIE (100%)** 

**BRYAH BASIN (20-100%)** 

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# Maiden Mineral Resource Estimate West Lynn Project, NSW

Alchemy Resources Limited (ASX: ALY) is pleased to announce that a maiden JORC Code 2012 Edition compliant inferred mineral resource estimate has been completed for the nickel-cobalt zone of the West Lynn Project, located 13km northwest of Nyngan, NSW.

The mineral resource estimate totalling **21.3Mt** @ **0.84% Ni**, **0.05% Co**, **2.4% Al** & **20.0% Fe** was completed by Resource Evaluation Services (RES) and is reported at a 0.6% Ni lower cut-off as detailed in the table below:

Deposit	Cut Off (Ni %)	Tonnes (Mt)	Ni %	Co %	Al %	Fe %
West Lynn	0.6	14.70	0.85	0.05	2.4	20.2
Summervale	0.6	6.64	0.82	0.04	2.4	19.7
TOTAL	0.6	21.3	0.84	0.05	2.4	20.0

Ore Type	Cut Off (Ni %)	Tonnes	Ni %	Co %	Al %	Fe %
Laterite	0.6	9.03	0.88	0.06	3.6	28.6
Saprolite	0.6	9.95	0.83	0.04	1.6	14.2
Transitional	0.6	2.35	0.73	0.03	1.1	12.1
TOTAL	0.6	21.3	0.84	0.05	2.4	20.0

The mineral resource is reported on a dry tonnage basis (see below and attached JORC Table 1 for details).

The resource estimate is subsequent to an intensive 3 phase drilling campaign completed by Alchemy during 2018 comprising 178 holes for 8,646m (including three diamond holes for 189m) and in line with Alchemy's Exploration Target<sup>1</sup>.

Nickel-cobalt mineralisation at West Lynn is flat lying and associated with variably lateritic clay, saprolite, and weathered serpentinite units. Mineralisation remains open both along and across strike, showing good potential to deliver additional resources.

Initial metallurgical testwork completed by Direct Nickel (DNi) using a nitric acid leach via the patented DNi Process™ returned very encouraging recoveries for both nickel and cobalt from composite samples, with averages of 91.5% Ni (saprolite), 88.3% Co (saprolite), 86.4% Ni (lateritic clays), and 82.1% Co (lateritic clays). DNi Process™ metallurgical testwork on blended laterite / saprolite samples is underway, and a scoping study is planned for the second half of 2019.

The West Lynn Project forms part of the Heron Resources Limited (ASX: HRR) Farm-in Agreement where Alchemy has earned 51% (earning up to 80%).

<sup>&</sup>lt;sup>1</sup> Refer to Alchemy Resources Limited ASX Announcement dated 13 April 2018

#### **Geology and Geological Interpretation**

The West Lynn deposit (comprising the West Lynn and Summervale Prospects) is directly associated with a north-south trending folded belt of serpentinised ultramafics known as the West Lynn Serpentinite surrounded by sediments of the Girilambone Group within the Girilambone-Wagga Anticlinal Zone in central NSW. The linear orientation of the belt suggests emplacement along regional deformation or faults of Alpine-type origin (ophiolite). The West Lynn Serpentinite is derived from the alteration of a medium grained dunite intruded into the metamorphosed Ordovician Girilambone Group. The serpentinite is strongly magnetic compared to the surrounding sediments of the Girilambone Group (Figure 1).

The Girilambone Group is comprised of phyllites, quartz-mica and chlorite schists, quartzite, laminated siltstone (all with pervasive quartz veins) and conglomerates of Cambrian-Ordovician age; with numerous late Silurian to early Devonian intrusives of ultramafic to intermediate composition. The area is topographically flat, covered by Quaternary-aged alluvium and dominated by wheat crops.

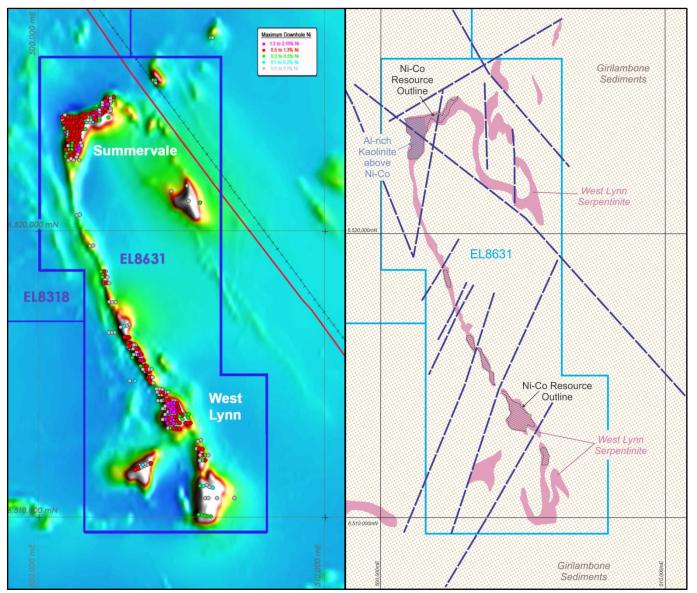


Figure 1: West Lynn Project showing all drilling coloured by maximum downhole Ni (%) over regional aeromagnetic image (left) and Ni-Co resource outlines (black cross-hatch) over interpreted structures and bedrock geology.

Mineralisation is the result of weathering processes concentrating Ni, Co and Al within clays and saprolite derived from the underlying serpentinite. The weathered serpentinite itself generally hosts Ni values of  $\sim 2,000$ ppm Ni. A thick alumina (Al<sub>2</sub>O<sub>3</sub>) rich kaolinite layer overlies the Ni-Co-Al resource in the western part of the Summervale Prospect (*Figures 1 & 2*). A separate inferred resource for the kaolinite hosted alumina mineralisation is expected to be released in Q2 2019.

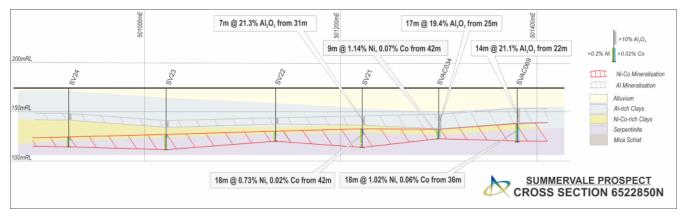


Figure 2: Summervale Prospect cross section showing Al-rich clay layer above Ni-Co mineralisation

The confidence in the current geological interpretation at West Lynn is considered to be good and is consistent with the mineralisation geometry and styles observed in the drill core. Assay data has been used to interpret mineralisation domains based on a nominal 0.2% Ni lower cut-off grade which was selected based on visual inspection of grade continuity between mineralised drill intersections. Mineralisation outlines were snapped to the drill holes and the resulting strings were used to construct wireframe solids to constrain resource estimation. The extrapolation distance used during wireframe construction was half the drill spacing distance unless the aeromagnetic signature strongly suggested the extrapolation distance should be more (or less).

#### **Sampling and Sampling techniques**

Sampling data considered in the Resource Estimate was derived from Reverse Circulation (RC), Aircore (AC) and diamond drilling completed by various project owners over a period dating back to 1999. Sampling information from historical data compiled from open file data and annual reports shows that 'industry standard' drill rigs, drilling equipment and sampling practices have been used. Listed below are the different generations of drilling with the detail of sampling techniques for each generation:

Anaconda N.S.W Pty Ltd (Anaconda) drilled 38 RC holes over 3 years (1999-2001). Samples from WLRC001 – 038 were recorded to have been either 1m samples obtained by two tiered riffle split in the field, or grab samples if composited or wet samples.

There were several historical generations of AC drilling completed by Jervois Mining Ltd (Jervois) between 2005 and 2015. Samples were 2m composites in the earliest "Na" series 2005 drilling, otherwise all other sampling was completed as 1m samples. There is no record of sample collection methods with the exception of the 2015 AC drilling (holes SV68-78) where the 1m samples were said to have been riffle split.

Alchemy conducted the most recent AC drilling with holes pre-fixed with SVAC or WLAC. AC drilling was used to obtain 1m samples that were collected in plastic buckets via an industry standard cyclone. Each 1m sample was then split via a 3 tier splitter into large green plastic bags (87.5%) stored onsite as reference samples, and numbered calico bags (12.5%) for laboratory analysis. A grab sample was carefully obtained where material was too wet to be passed through the sample splitter. Both green bags and calico samples were weighed onsite for sample recovery recognition. The AC samples obtained are considered to be representative of the material drilled.

Alchemy diamond core drill samples, were obtained using an 'industry standard' drill rig (Atlas Copco CT14), drilling equipment and sampling practices. Diamond drilling was used to obtain core samples collected in 3m runs and transferred into plastic core trays. The core was wrapped in plastic to retain moisture for SG "wet" weight measurements. The diamond core samples obtained are considered to be representative of the material drilled.

All Alchemy sampling was carried out using documented Alchemy sampling and QAQC procedures.

#### **Drilling Techniques**

The first phase of Anaconda RC drilling was completed by Anderson Contractors for holes WLRC001-028 in 1999. No rig details were included in the report (GS2000/28). The second phase WLRC029 – 038 was completed by Swick Drilling in 2001. No rig details were included in the report (GS2001/414).

Jervois used different drill contractors over the years as follows – there is no record of drill rig details:

Na001 – Na30 2005 G.O.S Drilling Na122 – 154 2008 No record SV01 – 44 2009 AMWD Drilling SV45 – 59 2011 All Search Drilling SV67 – 80 2015 Collings Drillers

Alchemy AC drilling was completed by McLeod Drilling using a MD150 drill rig with an on board 2 stage Airman Compressor (250 - 320psi / 700 - 850cfm) using an industry standard 90mm diameter aircore blade bit. The Aircore drilling method was chosen in preference to RC drilling in order to achieve the best possible sample recovery of the lateritic clay and saprolite material hosting the Ni-Co-Al mineralisation. RC hammer drill bits tend to clog up in clay and if subsequent drill penetration is slow a wet sample can result. Aircore drilling is designed for rapid recovery of clay achieving a high quality, dry, contamination free sample.

For the Diamond drilling AC "pre-collar" drill holes were completed to pre-determined base of alluvium depths by Drillit Consulting Pty Ltd using a track mounted Multidrill 600 with a Sullair 900 cfm x 500 psi compressor, 3.5" rods and a 100 mm diameter aircore blade bit.

Diamond drilling "tails" were completed from the base of each aircore pre-collar hole using an Atlas Copco CT14 drill rig and a conventional triple tube barrel in order to obtain PQ3 core samples down to 64.9m (SVDD001), 49.1m (WLDD001), and 75.4m (WLDD002). PQ3 core samples were wrapped in plastic and put into plastic PQ3 core trays. Due to the shallow hole depths no down hole surveys were collected, and due to the supergene nature of the mineralisation the core was not oriented. The diamond core was reconstructed into continuous runs on an angle iron cradle for down hole depth marking.

#### **Data spacing and distribution**

At the West Lynn prospect aircore holes are spaced at  $100m \times 100m$  and  $100m \times 200m$  lines for a length of  $\sim 3.8 km$  in a NNW-SSE direction (Figure 3). At Summervale aircore holes have been drilled at  $100m \times 100m$  spacings over a 2.7 km NE-SW trending strike length (Figure 3). The three diamond holes twinned 3 separate aircore holes and were drilled no more than 5m from the original air core hole.

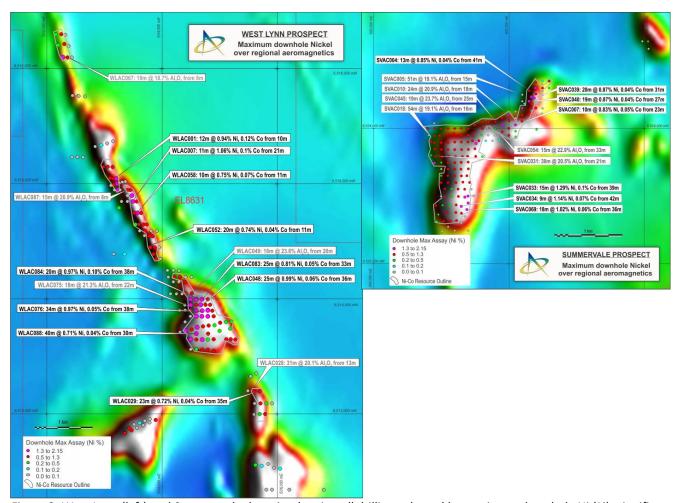


Figure 3: West Lynn (left) and Summervale deposits showing all drilling coloured by maximum downhole Ni (%), significant drill intercepts, and Ni-Co resource outlines (grey lines) over regional aeromagnetic image.

#### Sample analysis method

The Anaconda drill samples (1999-2001) were analysed by Ultratrace in Perth by ICP-OES for Ni, Cu, Cr, Co, Fe, Mn, Mg, As, Zn, Al and Ca. The pulps were also analysed by Fire Assay for Au, Pd, and Pt.

Jervois used ALS in Orange (NSW) for all drill sample analysis (2005-2015). The Jervois analysis details vary for each generation as follows:

Na001-030 samples were analysed by XRF with unknown method code for Ni, Co and Sc.

Na122 – 130 were analysed by method code ME-ICP93 for Nickel Laterites by Fusion ICPAES for a suite of 20 elements and ME-GRA05 for LOI determination. Described as H2O/LOI by TGA furnace. Original laboratory results are available.

SV01-80 were analysed by method code ME-XRF-12n which involves fused disc XRF for a suite of 29 elements and ME-GRA05 for LOI determination. Described as H2O/LOI by TGA furnace. Original laboratory results are available.

All Alchemy drill samples were sent to the ALS Laboratory in Orange for analysis. Preparation of the samples follows industry laboratory best practice method PUL-21 involving logging of sample weights, drying the entire sample in an electric oven set at  $105^{\circ}\text{C}+5^{\circ}\text{C}$  for several hours (drying time dependent on moisture content), then crushing the entire sample (>70% -6mm). A split of 2.5 to 3kg (AC) and 250g – 1kg (core) was taken and then pulverized to 85% passing 75 $\mu$ m using an Essa LM5 grinding mill. A representative sample was split and

bagged as the analytical sample. AC and core pulps were analysed using ALS method code ME-XRF-12n for Nickel laterite deposits. ME-XRF-12n involves fused disc XRF on a 0.70g pulp producing results for a total of 18 analytes. In conjunction these samples were also analysed using ALS method code ME-GRA05 for LOI determination (described as H2O/LOI by TGA furnace).

Eight Alchemy core samples were also selected for Au analysis using ALS method code Au-AA24. This method involves a 50g pulp subjected to fire assay with an AAS finish.

Laboratory QAQC involves the use of internal laboratory standards using certified reference material (CRM), blanks, splits and replicates as part of in-house procedures.

Commercially available reference materials (Lab Standards) with a suitable range of values for testing elements related to Nickel laterite ores and additional multi-element analysis were used by the lab. Lab standards LAT-CS19, LEA-16, NCSDC73303, OREAS 15b, OREAS 184, OREAS 195, OREAS 197, OREAS 198, OREAS 199, OREAS 215, OREAS 61f, OREAS 907, OREAS-45e and SARM-5 were used.

Alchemy used CRMs (Lab Standards) with a suitable range of values and blanks that were inserted every 50 samples. Standards used were OREAS 186, 197, 198, 199 and 44e. Results indicate that assay values are within acceptable error limits.

AC samples and field duplicates were represented as 1m intervals. Diamond core samples were 1m ¼ core samples except for where lithological boundaries were better represented by smaller or larger sample lengths (no less than 0.4m and no greater than 2m). Duplicates were 1m ½ core samples.

Results indicate that all Lab Standard assay values are within 1 standard deviation and within acceptable error limits. Analysis of duplicate samples indicates that assay repeatability is also within acceptable limits.

#### **Estimation methodology**

This Mineral Resource estimate is based on a number of factors and assumptions:

- All the available RC and AC drilling data as at 30 January 2019 was used for the Mineral Resource estimation. Assay data from two Diamond drill holes was not used in the estimation.
- The deposit was interpreted on vertical sections to define the mineralised geological domains and material type domains (laterite and saprolite) that were used to flag the density and grade sample data for statistical analysis and estimation. Sections were spaced a nominal 100 m apart. A 2000 ppm edge cut off was used to define the mineralised domains.
- The survey control for collar positions was considered adequate for the purposes of this study. Drill
  hole collars were registered to the topographic surface to eliminate minor elevation discrepancies,
  particularly in the historical data.
- A review of the quality assurance and quality control (QAQC) data was completed. The QAQC program
  included company standards and blanks as well as a comparison of six twinned holes. Overall, the data
  was deemed satisfactory for the current resource classification.
- Statistical and geostatistical analysis was carried out on drilling data composited to 1 m intervals downhole. Variogram structures were considered by RES to be of insufficient quality to undertake a kriged estimation.
- An Inverse Distance interpolation method (ID<sup>2</sup>) was used for the estimation of Ni, Co, Fe<sub>2</sub>O<sub>3</sub>, Al<sub>2</sub>O<sub>3</sub> and MgO.

#### Cut-off grade(s) incl. basis for selected cut-off grades

A nominal modelling grade cut-off grade of 0.2 % Ni was used to interpret and model 3-D wireframes outlining the mineralised domains. A reporting cut-off of 0.6 % Ni was used representing a cut-off grade that reports a tonnage and grade at an expected mineable level.

#### Mining and metallurgical methods or parameters and other material modifying factors

It is anticipated that the mining of the West Lynn resource will be by traditional open pit mining methods. No metallurgical assumptions or predictions are reflected in the resource block model.

#### **Mineral Resource Statement**

The resource estimates are classified in accordance with the Australasian Code for Reporting of Identified Mineral Resources and Ore Reserves (JORC, 2012).

The West Lynn estimate was completed by Stephen Godfrey of Resource Evaluation Services, who is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Godfrey has sufficient and relevant experience in modelling and resource estimation be considered a "Competent Person" as defined the JORC Code (2012).

The resource is classified as Inferred. The classification was considered appropriate based on drill hole spacing, sample intervals, geological interpretation and representativeness of all available assay and density data. The classification reflects the low confidence in short range grade estimations in the model.

The resource is based on the interpolated block model  $wl_022019.mdl$ . The resource is reported within the interpreted mineralised domains. The resource is reported at a cut-off grade of 0.6% Ni (6000 ppm Ni) by prospect and material type (*Tables 1- 3*). Figure 4 illustrates the grade-tonnage curve for the full deposit.

Table 1- West Lynn and Summervale Prospects All Material - 0.6% Ni Cut-Off

Material	Tonnes	Ni%	Co%	Fe%	Al%	MgO%
Laterite	9,037,112	0.88	0.06	28.5	3.7	3.5
Saprolite	9,954,379	0.83	0.04	14.2	1.5	18.9
Transition	2,348,965	0.73	0.03	12.1	1.1	24.1
Total	21,340,456	0.84	0.05	20.0	2.4	12.9

Table 2 West Lynn Prospect All Material - 0.6% Ni Cut-Off

Material	Tonnes	Ni%	Co%	Fe%	Al%	MgO%
Laterite	5,853,273	0.92	0.07	29.9	3.7	3.7
Saprolite	7,185,072	0.82	0.04	14.3	1.5	19.4
Transition	1,663,081	0.71	0.03	11.5	1.1	25.1
Total	14,701,426	0.85	0.05	20.2	2.4	13.8

Table 3- Summervale Prospect All Material - 0.6% Ni Cut-Off

Material	Tonnes	Ni%	Co%	Fe%	Al%	MgO%
Laterite	3,183,839	0.81	0.05	25.9	3.5	3.0
Saprolite	2,769,307	0.85	0.04	14.1	1.5	17.7
Transition	685,884	0.79	0.03	13.4	1.3	21.6
Total	6,639,030	0.82	0.04	19.7	2.4	11.1

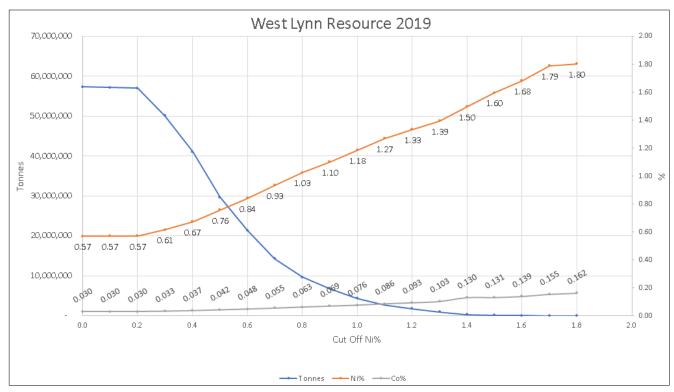


Figure 4 - Grade Tonnage Curve - All Domains All Material

#### **Compliance with the JORC Code Assessment Criteria**

The JORC Code (2012) describes a number of criteria, which must be addressed in the documentation of Mineral Resource estimates, prior to public release of the information. These criteria provide a means of assessing whether the data inventory used in the estimate is adequate for that purpose. The resource estimate stated in this document was based on the criteria set out in Table 1 of that Code. These criteria have been discussed in the main resource report and are summarised below. Only sections relevant to the reported resource have been addressed.

Please direct enquiries to:

Mr Leigh Ryan – Managing Director

Telephone: +61 8 9481 4400 Email: Leigh@alchemyresources.com.au

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Mr Leigh Ryan, who is the Managing Director of Alchemy Resources Limited and holds shares and options in the Company. Mr Ryan is a Member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ('JORC Code 2012'). Mr Ryan consents to the inclusion in this report of the matters based on his information in the form and context in which it

appears.

The information in this report that relates to Mineral Resources at the West Lynn Project is based on information compiled by Stephen Godfrey, who is an employee of Resource Evaluation Services Pty Ltd, a consultant to Alchemy Resources Limited. Mr Godfrey is a Fellow of the Australasian Institute of Mining and Metallurgy and a member of the Australian Institute of Geoscientists, and has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ('JORC Code 2012'). Mr Godfrey consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

## **JORC Code, 2012 Edition – Table 1**

### **Section 1 Sampling Techniques and Data**

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	The samples referred to in this Public Report were Reverse Circulation (RC), Aircore (AC) and diamond drill samples obtained using an 'industry standard' drill rig, drilling equipment and sampling practices.  Anaconda N.S.W Pty Ltd (Anaconda) drilled 38 RC holes over 3 years (1999-2001). Samples from WLRC001 – 038 were recorded to have been either 1m samples obtained by two tiered riffle split in the field, or grab samples if composited or wet samples.  There were several historical generations of AC drilling completed by Jervois Mining Ltd (Jervois) between 2005 and 2015. Samples were 2m composites in the earliest 2005 "Na" series drilling, otherwise all other sampling was completed as 1m samples. There is no record of sample collection methods with the exception of the 2015 AC drilling (holes SV68-78) where the 1m samples were said to have been riffle split.  Alchemy Resources Ltd (ALY) conducted the most recent AC drilling with holes pre-fixed with SVAC or WLAC. AC drilling was used to obtain 1m samples that were collected in plastic buckets via an industry standard cyclone. Each 1m sample was then split via a 3 tier splitter into large green plastic bags (87.5%) stored onsite as reference samples, and numbered calico bags (12.5%) for laboratory analysis. A grab sample was carefully obtained where material was too wet to be passed through the sample splitter. Both green bags and calico samples were weighed onsite for sample recovery recognition. The AC samples obtained are considered to be representative of the material drilled.  ALY Diamond core drill samples, were obtained using an 'industry standard' drill rig (Atlas Copco CT14), drilling equipment and sampling practices. Diamond drilling was used to obtain core samples collected in 3m runs and transferred into plastic core trays. The core was wrapped in plastic to retain moisture for SG "wet" weight measurements. The diamond core samples obtained are considered to be representative of the material drilled.  All ALY sampling was carried out using document
Drilling techniques	<ul> <li>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).</li> </ul>	The first phase of Anaconda RC drilling was completed by Anderson Contractors for holes WLRC001-028 in 1999. No rig details were included in the report (GS2000/28). The second phase WLRC029 – 038 was completed by Swick Drilling in 2001. No rig details were included in the report (GS2001/414).  Jervois used different drill contractors over the years as follows – there is no record of drill rig

Criteria	JORC Code explanation	Commentary
		details:
		Na001 – Na30 2005 G.O.S Drilling
		Na122 – 154 2008 No record
		SV01 – 44 2009 AMWD Drilling
		SV45 – 59 2011 All Search Drilling
		SV67 – 80 2015 Collings Drillers
		ALY AC drilling was completed by McLeod Drilling using a MD150 drill rig with an on board 2 stage Airman Compressor (250 - 320psi / 700 - 850cfm) using an industry standard 90mm diameter aircore blade bit.
		The Aircore drilling method was chosen in preference to RC drilling in order to achieve the best possible sample recovery of the lateritic clay and saprolite material hosting the Ni-Co-Al mineralisation. RC hammer drill bits tend to clog up in clay and if subsequent drill penetration is slow a wet sample can result. Aircore drilling is designed for rapid recovery of clay achieving a high quality, dry, contamination free sample.
		For the Diamond drilling AC "pre-collar" drill holes were completed to pre-determined base of alluvium depths by Drillit Consulting Pty Ltd using a track mounted Multidrill 600 with a Sullair 900 cfm x 500 psi compressor, 3.5" rods and a 100 mm diameter aircore blade bit.
		Diamond drilling "tails" were completed from the base of each aircore pre-collar hole using an Atlas Copco CT14 drill rig and a conventional triple tube barrel in order to obtain PQ3 core samples down to 64.9m (SVDD001), 49.1m (WLDD001), and 75.4m (WLDD002). PQ3 core samples were wrapped in plastic and put into plastic PQ3 core trays. Due to the shallow hole depths no down hole surveys were collected, and due to the supergene nature of the mineralisation the core was not oriented. The diamond core was reconstructed into continuous runs on an angle iron cradle for down hole depth marking.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample</li> </ul>	There were no available records of historical recoveries for RC or AC samples obtained by Anaconda or Jervois.  ALY AC sample recoveries and moisture content estimates were logged / recorded into spreadsheets by the supervising geologist.
	recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Each 1m sample (split green plastic and calico sample bag) was weighed after being collected. This gives an indication of recovery of drill material relative to all other 1m samples.

Criteria	JORC Code explanation	Commentary
		ALY Diamond core RQD measurements were not collected as the core was entirely lateritic and saprolitic clay, except for the lower part of the hole below the higher Ni grades where weathered serpentinite was encountered.
		Diamond core recoveries were recorded as a percentage every metre interval. Recoveries were sufficient through the upper section of each hole but were difficult to maintain in places where the drilling encountered 'crumbly sandy lateritic material'.
		No relationship exists between sample recovery and grade, and accordingly no bias has occurred as a result of loss/gain of material for either AC or diamond core samples.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource	Anaconda completed geological logging for all RC holes recording colour, hardness, moisture and rock code.
	estimation, mining studies and metallurgical studies.	Jervois completed geological logging for all AC holes recording lithology and a sample description.
	<ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant</li> </ul>	For all ALY drilling geological logging was completed on all AC and diamond holes, with colour, weathering, grain-size, lithology, alteration, mineralogy, veining, textures/structure and comments on other significant features noted. Logging of mineralisation and veining is quantitative. All holes were logged in full.
	intersections logged.	No structural or geotechnical logs were completed.
	interessant reggen.	No judgement has yet been made by independent qualified consultants as to whether both AC and diamond samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.
		100% of relevant intersections have been logged.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.  If you are to be a selfful to	Anaconda samples were riffle split if samples were dry and grab sampled if composited or samples were wet.
	<ul> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representivity of the sample of the</li></ul>	There is no record of Jervois's sampling techniques except for holes SV68-78 where the 1m samples were said to have been riffle split.
		ALY AC samples were riffle split if sample was dry, and carefully grab sampled by hand when wet. Wet samples were rarely encountered. Sample preparation is considered appropriate with respect to quality of aircore sample collection.
		ALY diamond core samples were cut in half along the core axis then quartered using a paint scraper or in less weathered zones an Almonte diamond core saw.
	Measures taken to ensure that the sampling is	For both AC and Diamond samples one commercial laboratory standard, one blank sample (blue metal) and one duplicate was inserted every 50 samples (i.e. 6% QAQC samples).

Criteria	JORC Code explanation	Commentary
	representative of the in situ material collected, including for instance results for field	Statistical analysis of duplicate sample data for Ni, Co, Zn, Al <sub>2</sub> O <sub>3</sub> , Fe <sub>2</sub> O <sub>3</sub> and Cr <sub>2</sub> O <sub>3</sub> shows a high level of repeatability and a lack of bias between the original and duplicate samples.
	Whether sample sizes are appropriate to the	Sample sizes are considered appropriate for the style of drilling, mineralisation, the thickness and consistency of the intersections, the sampling methodology and the assay ranges for the primary elements analysed.
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld</li> </ul>	Anaconda drill samples (1999-2001) were analysed by Ultratrace in Perth by ICP-OES for Ni, Cu, Cr, Co, Fe, Mn, Mg, As, Zn, Al and Ca. The pulps were also analysed by Fire Assay for Au, Pd, and Pt.  Jervois used ALS in Orange (NSW) for all drill sample analysis (2005-2015). The Jervois
	XRF instruments, etc, the parameters used in	analysis details vary for each generation as follows:  Na001-030 samples were analysed by XRF with unknown method code for Ni, Co and Sc.
	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	Na122 – 130 were analysed by method code ME-ICP93 for Nickel Laterites by Fusion ICPAES for a suite of 20 elements and ME-GRA05 for LOI determination. Described as H2O/LOI by TGA furnace. Original laboratory results are available.
		SV01-80 were analysed by method code ME-XRF-12n which involves fused disc XRF for a suite of 29 elements and ME-GRA05 for LOI determination. Described as H2O/LOI by TGA furnace. Original laboratory results are available.
	been established.	All ALY drill samples were sent to the ALS Laboratory in Orange for analysis. Preparation of the samples follows industry laboratory best practice method PUL-21 involving logging of sample weights, drying the entire sample in an electric oven set at 105°C+5°C for several hours (drying time dependent on moisture content), then crushing the entire sample (>70% -6mm). A split of 2.5 to 3kg (AC) and 250g – 1kg (core) was taken and then pulverized to 85% passing 75µm using an Essa LM5 grinding mill. A representative sample was split and bagged as the analytical sample. AC and core pulps were analysed using ALS method code ME-XRF-12n for Nickel laterite deposits. ME-XRF-12n involves fused disc XRF on a 0.70g pulp producing results for a total of 18 analytes. In conjunction these samples were also analysed using ALS method code ME-GRA05 for LOI determination (described as H2O/LOI by TGA furnace).
		Eight ALY core samples were also selected for Au analysis using ALS method code Au-AA24. This method involves a 50g pulp subjected to fire assay with an AAS finish.
		Laboratory QAQC involves the use of internal laboratory standards using certified reference material (CRM), blanks, splits and replicates as part of in-house procedures.
		Commercially available reference materials (Lab Standards) with a suitable range of values for testing elements related to Nickel laterite ores and additional multi-element analysis were used by the lab. Lab standards LAT-CS19, LEA-16, NCSDC73303, OREAS 15b, OREAS 184, OREAS 195, OREAS 197, OREAS 198, OREAS 199, OREAS 215, OREAS 61f, OREAS 907, OREAS-45e and SARM-5 were used.
		West Lynn Resource Estimate February 2010

Criteria	JORC Code explanation	Commentary
		ALY used CRMs (Lab Standards) with a suitable range of values and blanks that were inserted every 50 samples. Standards used were OREAS 186, 197, 198, 199 and 44e. Results indicate that assay values are within acceptable error limits.
		AC samples and field duplicates were represented as 1m intervals. Diamond core samples were 1m ¼ core samples except for where lithological boundaries were better represented by smaller or larger sample lengths (no less than 0.4m and no greater than 2m). Duplicates were 1m ½ core samples.
		Results indicate that all Lab Standard assay values are within 1 standard deviation and within acceptable error limits. Analysis of duplicate samples indicates that assay repeatability is also within acceptable limits.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Reported drill hole intercepts are compiled by the Company's Managing Director (MD) who is also the competent person.
	<ul> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry</li> </ul>	Each of the 3 diamond holes twinned Alchemy aircore holes as follows; SVDD001 – SVAC033, WLDD001 – WLAC010 and WLDD002 – WLAC045.
	procedures, data verification, data storage (physical and electronic) protocols.	The original data is collected by qualified geologists and geo-technicians working under the supervision of a qualified geologist, and entered onto paper or Excel spreadsheets.
		Validation rules are in place to ensure no data entry errors occurred. Data is loaded into a Microsoft Access database by an experienced database administrator, stored on the company server in Perth and reviewed by the ALY MD, who is a competent person.
		No assay data adjustments have been made.
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	A Trimble GeoExplorer 6000 DGPS was used to locate all ALY AC collar positions, with an expected <1m vertical and horizontal accuracy.
	in Mineral Resource estimation.  • Specification of the grid system used.	The grid system used for all collar locations is the UTM Geocentric Datum of Australia 1994 (MGA94 Zone 55).
	Quality and adequacy of topographic control.	The drill collar and down hole location accuracy is considered appropriate for inferred and indicated resource estimations for this style of mineralisation.
Data spacing and distribution	Whether the data spacing and distribution is	At the West Lynn prospect aircore holes are spaced at 100m x 100m and 100m x 200m lines for a length of ~3.8km in a NNW-SSE direction.
	sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation	At Summervale aircore holes have been drilled at 100m x 100m spacings over a 2.7km NE-SW trending strike length.
	<ul><li>procedure(s) and classifications applied.</li><li>Whether sample compositing has been applied.</li></ul>	The three diamond holes twinned 3 separate aircore holes and were drilled no more than 5m from the original air core hole.
		The distribution is considered sufficient to establish geological and grade continuity suitable

Criteria	JORC Code explanation	Commentary
		for an inferred resource status.
		No sample compositing was used at West Lynn.
Orientation of data in relation to geological	unbiased sampling of possible structures and the	Holes have been drilled vertically to achieve unbiased sampling of the flat lying lithologies and mineralisation.
structure	<ul> <li>extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures</li> </ul>	Each hole was setup on surface at a -90 degree inclination. At the ore zone the drill hole azimuth was ~90 degrees to the strike of mineralisation, and the hole inclination was ~90 degrees to the dip of mineralisation. True width is therefore the same as the downhole intercept widths reported.
	is considered to have introduced a sampling bias, this should be assessed and reported if material.	No orientation based sampling bias has been identified.
Sample security	The measures taken to ensure sample security.	Sample security measures are unknown for historical drilling.
		All ALY AC drill samples were collected in pre-numbered calico bags and transported to the ALS laboratory in Orange via courier and company vehicles. Drill spoils collected into large green bags are stored in a farm shed at Gundaur Station near the Summervale deposit.
		Core trays were palletised and trucked from site to Orange, NSW. The core trays are stored in a secure storage shed in Orange. Calico sample bags were used for core samples. Five calico sample bags were put into large green plastic bags for transport to ALS Orange. Residual core samples and sample pulps are stored at ALS Orange until they are re-located to the RME office in Orange for permanent storage.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	An internal review of the sampling techniques, and sample data capture concluded that both are of sufficient quality to carry out a resource estimation.
		No external audit or review of the sampling techniques or sample data capture has been conducted to date other than that conducted by RES during the current inferred resource estimate.

## **Section 2 Reporting of Exploration Results**

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	a material results of material results	

Criteria	JORC Code explanation	Commentary
	partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.	Reference numbers – EL8631.  Location – 25km northwest of Nyngan, in north central NSW.
	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.	Ownership – 49% Ochre Resources Pty Ltd, 51% Alchemy Resources (NSW) Pty Ltd (Stage 1 earn-in recently achieved by Alchemy – Stage 2 allows Alchemy to earn 80% by spending an additional \$0.5M prior to 30 May 2021).
		Overriding royalties - none
		The land is 95% freehold.
		No Wilderness Reserves, National Parks, Native Title sites or registered historical sites are known.
		No environmental issues are known.
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	Exploration work completed across the West Lynn and Summervale areas has been limited to exploration targeting gold and base metals since the late 1970's.
		38 RC holes were drilled by Anaconda in 1999/2000 to a max depth of 60m over West Lynn. These holes were successful in discovering nickel and cobalt mineralisation in lateritic clays associated with underlying serpentinites.
		Jervois applied for the ground in 2007 and began to explore for nickel-cobalt mineralisation over magnetic anomalies related to underlying ultramafic serpentinite units.
		AC drilling programs conducted over a period of 8 years has defined two prospects (West Lynn and Summervale) containing Ni-Co-Al mineralisation within clay and saprolite derived from the underlying weathered serpentinite units.
Geology	Deposit type, geological setting and style of mineralisation.	Deposit Type – Nickel-Cobalt Laterite
	mineralisation.	Geological setting – The West Lynn deposit (comprising the West Lynn and Summervale Prospects) is directly associated with a north-south trending folded belt of serpentinised ultramafics known as the West Lynn Serpentinite surrounded by sediments of the Girilambone Group within the Girilambone-Wagga Anticlinal Zone in central NSW. The linear orientation of the belt suggests emplacement along regional deformation or faults of Alpine-type origin (ophiolite). The West Lynn Serpentinite is derived from the alteration of a medium grained dunite which intruded into the metamorphosed Ordovician Girilambone Group. The serpentinite is strongly magnetic compared to the surrounding sediments of the Girilambone Group.
		The Girilambone Group is comprised of phyllites, quartz-mica and chlorite schists, quartzite, laminated siltstone (all with pervasive quartz veins) and conglomerates of Cambrian-Ordovician age; with numerous late Silurian to early Devonian intrusives of ultramafic to intermediate composition. The area is topographically flat, covered by Quaternary-aged

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:  a 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	alluvium and dominated by wheat crops.  Mineralisation is the result of weathering processes concentrating Ni, Co and Al within clays and saprolite derived from the underlying serpentinite. The weathered serpentinite itself generally hosts Ni values of ~2,000ppm Ni.  Drill results form the basis of the inferred resource estimate, however specific Alchemy drill results and details are tabulated within the body of previous ASX announcements including:  • Alchemy Resources Limited ASX announcement dated 13 April 2018  • Alchemy Resources Limited ASX announcement dated 27 August 2018  • Alchemy Resources Limited ASX announcement dated 22 October 2018  • Alchemy Resources Limited ASX announcement dated 10 December 2018
Data aggregation methods  Relationship between mineralisation widths and intercept lengths	the report, the Competent Person should clearly explain why this is the case.  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.  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.	Intercepts are from 1m individual samples. Any averaged intercepts are down hole length weighted averages (as per tables in the body of previous ASX announcements).  Lower cut off grades include 2000ppm for nickel intercepts, 200ppm for cobalt intercepts, and 15% for Al intercepts.  No upper cut off grades have been used to calculate intercepts.  Due to the nature of the targeted mineralisation being flat lying, all drilling was vertical (-90 <sup>0</sup> ), and subsequently all intercepts reported are downhole widths.

Criteria	JORC Code explanation	Commentary
	<ul> <li>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').</li> </ul>	
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.	Appropriate plans and cross sections have been included in the body of this 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.	Exploration results reported in Alchemy's public announcements and this report are comprehensively reported in a balance manner.
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.	Specific gravity (SG) was determined using the wet immersion method on whole PQ diameter core. Core was wrapped in plastic film to retain in situ moisture and to protect core during transport.  Individual core samples weighed in air and subsequently weighed while immersed in water using calibrated digital scales for in situ specific gravity. The sample was then placed in a gas-fired drying over at approximately 80 degrees Celsius for 48 hours. Poorly consolidated samples were coated in lacquer or wax to minimise sample desiccation during drying. On removal from the oven the sample was again weighed in air and subsequently weighed while immersed in water for determination of a dry specific gravity. In situ and dry specific gravity was calculated using the formula SG (gcm³) = weight of sample in air / (weight in air − weight immersed in water).  Sufficient samples were selected from the range of lithologies for specific gravity determination for the purposes of calculating resources for the range of resource lithological categories expected.  Initial metallurgical testwork was completed by Direct Nickel (DNi) using a nitric acid leach via the patented DNi Process™. Three (2kg) saprolite samples and two (2kg) lateritic clay samples each comprised of four selected (500g) 1m aircore samples were submitted to DNi
		for single batch leach tests (no kinetic sampling) using a leach time of 5 hours.  Sample preparation included crushing to 100% passing 0.5mm.
		Percentage extraction for each of the composite samples can be seen in the table below. Average recoveries were 91.5% Ni (saprolite), 88.3% Co (saprolite), 86.4% Ni (lateritic clays), and 82.1% Co (lateritic clays).

Criteria	JORC Code explanation	Commentary								
		Ore Type	Temp	Time		Percent	tage ext	raction 9	6	
		Laterite Leaches	°c	Hours	Ni	Co	Al	Fe	Mg	
		Comp 001 WL (Lat clay)	110	5	87.9%	81.4%	63.0%	64.7%	89.6%	
		Comp 002 WL (Saprolite)	110	5	91.9%	90.7%	49.6%	51.7%	103.3%	
		Comp 003 SV (Lat clay)	110	5	85.0%	82.8%	83.8%	73.9%	46.9%	
		Comp004 SV (Saprolite)	110	5	90.5%	87.5%	70.5%	44.7%	99.8%	
		Comp006 SV (Saprolite)	110	5	92.0%	86.8%	79.8%	50.8%	95.1%	
		Avg All			89.5%	85.85%	69.36%	57.16%	86.97%	
		Avg Lat clay			86.4%	82.1%	73.4%	69.3%	68.3%	
		Avg Saprolite			91.5%	88.3%	66.6%	49.1%	99.4%	
		DNi Process™ metallurg is underway. The blende which approximately mar Ni lower grade cut-off.	d later	rite / sa	prolite	sample	s have	been ble	ended a	t a ratio of 45:55
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible</li> </ul>	improve resource confidence levels to an indicated category and resource extension aircore drilling to expand the current JORC Code 2012 compliant inferred resource estimate.								
extensions, including the main geologica interpretations and future drilling areas, provided this information is not commercially sensitive.		understanding of the deposit.  Additional metallurgical testwork is planned for the West Lynn and Summervale ore including kinetic leach testwork.								

## **Section 3 Estimation and Reporting of Mineral Resources**

Criteria	JORC Code explanation	Commentary
Database integrity	<ul> <li>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.</li> <li>Data validation procedures used.</li> </ul>	Provisional manual data validation checks were run by ALY.  RES undertook internal referential integrity checking of the database including:  • Visual checking of drill hole collar locations relative to surface topography  • Consistency of end of hole depths in the collar, survey, geology and assay datasets;  • Gaps and overlapping sampling and logging intervals in the geology and sample/assay datasets
Site visits	<ul> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	No site visit undertaken by the Competent Person due to logistical constraints.  A site visit is proposed during the next exploration program.
Geological interpretation	<ul> <li>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	The confidence in the current geological interpretation of the West Lynn area is considered to be good. The geology of the lateritic nickel deposits is relatively simple and drilling information is supported by geophysical data.  Assay data has been used to interpret mineralisation domains based on a nominal 0.2% Ni lower cut-off grade which was selected based on visual inspection of grade continuity between mineralised drill intersections.  Mineralisation outlines were snapped to the drill holes and the resulting strings were used to construct wireframe solids to constrain resource estimation. The extrapolation distance used during wireframe construction was half the drill spacing distance, unless the aeromagnetic signature strongly suggested the extrapolation distance should be more (or less).  Some faulting of the deposit has been interpreted but is considered to have no material impact on the current model.
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.	are 100 m to 750 m wide. In addition, there are several smaller pods ~500 m long by 100 to 250 m wide.  Summervale is more continuous with the main pod being 1500 m by 500 m and the eastern pod being s~ 800 m by 150 m.  Pods are 10 to 40 m thick.
Estimation and modelling	The nature and appropriateness of the	Statistical and geostatistical analysis was carried out on drilling data composited to 1m

Criteria	JORC Code explanation	Commentary
techniques	estimation technique(s) applied and key assumptions, including treatment of extreme	intervals downhole. Variogram structures were considered by RES to be of insufficient quality to undertake a kriged estimation.
	grade values, domaining, interpolation parameters and maximum distance of	An un-rotated block model of the deposit was created using 50x50x5m parent cells and 6.25x6.25x0.625 sub-cells.
	extrapolation from data points. If a computer assisted estimation method was chosen	An Inverse distance algorithm (ID2) was used to estimate grades into the model using Surpac software.
	include a description of computer software and parameters used.	A 3-pass estimate was used, with each pass relaxing the search criteria. Pass 2 doubled the size of the search radius; Pass 3 doubled the radius again and reduced the minimum samples
	The availability of check estimates, previous estimates and/or mine production records and	to 1.  A minimum of 2 and maximum of 32 samples was used for each estimate.
	whether the Mineral Resource estimate takes	A first pass search radius of 100x50x5 m was used.
	<ul> <li>appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> </ul>	Ni and Co grades were estimated into most blocks. Due to lower sample frequency the other analytes were not estimated into all blocks. The grades estimated for these analytes were applied to the tonnes estimated for Ni.
	Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage)	The same search parameters were used for each analyte in order to maintain as best possible the statistical relationship between the analytes. There is a poor to medium correlation between the analytes.
	characterisation).	No top cutting was applied due to the absence of significant outlier samples.
	In the case of block model interpolation, the block size in relation to the average sample	The estimation was run by domain and material type using only samples from within the domain/material boundary
	<ul> <li>spacing and the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> </ul>	The model and estimation were validated visually, and statistically comparing the model to the drill data. The model was considered to be a robust representation of the drilling data.
	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.	

Criteria	JORC Code explanation	Commentary
		Cut Off Ni % Cum Tonnes Ni % Co % Al% Fe% MgO%
		0.0 57,300,561 0.57 0.0304 2.0 15.8 15.9
		0.1 57,167,832 0.57 0.0304 2.0 15.8 16.0
		0.2 56,999,629 0.57 0.0305 2.0 15.8 16.1
		0.3 50,110,973 0.61 0.0329 2.1 16.7 15.4
		0.4 41,032,830 0.67 0.0367 2.2 17.7 14.6
		0.5 29,709,492 0.76 0.0422 2.4 19.2 13.5
		0.6 21,340,456 0.84 0.0482 2.4 20.0 12.9
		0.7 14,328,652 0.93 0.0548 2.4 20.7 12.4
		0.8 9,657,771 1.03 0.0627 2.4 21.2 11.7
		0.9 6,777,828 1.10 0.0692 2.5 22.4 10.5
		1.0 4,397,922 1.18 0.0763 2.5 22.9 9.8
		1.1 2,707,126 1.27 0.0859 2.6 23.1 9.4
		1.2 1,788,562 1.33 0.0932 2.6 22.8 9.7
		1.3 978,904 1.39 0.1026 2.7 23.3 9.0
		1.4 320,645 1.50 0.1304 2.8 24.8 6.8
		1.5 126,880 1.60 0.1309 2.3 23.2 8.1
		1.6 48,601 1.68 0.1388 1.6 20.4 12.0
		1.7 18,394 1.79 0.1546 1.3 19.2 15.2
		1.8 15,813 1.80 0.1621 1.3 19.5 14.9
		Resource grades and tonnes - all domains all material
Moisture	Whether the tonnages are estimated on a dry	All tonnages are dry.
	basis or with natural moisture, and the	
	method of determination of the moisture	
	content.	
Cut-off parameters	<ul> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	A nominal modelling grade cut-off grade of 0.2 % Ni was used to interpret and model 3-D wireframes outlining the mineralised domains.
		A reporting cut-off of 0.6 % Ni was used representing a cut-off grade that reports a tonnage
		and grade at an expected mineable level.
Mining factors or		It is anticipated that the mining of the West Lynn resource will be by traditional open pit mining
assumptions	methods, minimum mining dimensions and	methods.
,	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	

Criteria	JORC Code explanation	Commentary
	potential mining 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.	No metallurgical assumptions or predictions are reflected in the resource block model.
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 significant environmental constraints are envisaged.

Criteria	JORC Code explanation	Commentary
Bulk density	<ul> <li>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.</li> <li>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.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> </ul>	Dry Bulk density was assigned by material type based on values measured from the diamond drill hole samples. Although statistically unrepresentative the values obtained were reasonably consistent and within the ranges expected for the laterite and saprolite material. Laterite was assigned a value of 2.0 tm <sup>-3</sup> , saprolite a value of 1.7 tm <sup>-3</sup> and transition material 2.1 tm <sup>-3</sup> .
Classification	<ul> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie 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).</li> <li>Whether the result appropriately reflects the Competent Person's view of the deposit.</li> </ul>	The West Lynn resource has been classified as Inferred. This is primarily a reflection of the drill spacing and the low confidence in the short-range estimation of grades.  The resource classification constraints take into account all of the JORC Table 1 assessment parameters.  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.	Audits and reviews are confined to internal corporate procedures, and desktop review by RES.
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	The public reporting of the Mineral Resource estimate is in accordance with JORC Code (2012 edition) guidelines.  The statement relates to global estimates of tonnes and grade.  The competent person regards this global estimate as being a robust representation of the insitu tonnes and grade.

Criteria	JORC Code explanation	Commentary
	<ul> <li>and confidence of the estimate.</li> <li>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.</li> <li>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</li> </ul>	