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ASX CODE: LM8



# **RC DRILLING HITS HIGH GRADE NICKEL AT WARREN**

## 19th November 2021

### HIGHLIGHTS

- Nickel sulphides confirmed in Warren channel
- 4m @ 3.44% Nickel up plunge from old workings
- Down channel deeper Diamond Drilling underway also intersecting nickel sulphides (assays pending)

Lunnon Metals Limited (**ASX: LM8**) (the "**Company**" or "**Lunnon Metals**") is pleased to report on RC drilling results and the progress of ongoing deeper Diamond Drilling ("DD") on the Warren Shoot, at its Kambalda Nickel Project ("**KNP**"). Nickel sulphides have been confirmed both up and down plunge of the current Mineral Resource at Warren, highlighting the potential for these programmes to contribute to the Company's growth plans.

Assay results from the initial first pass RC drilling at Warren, completed in the September quarter, have now been returned recording significant nickel intercepts, which include:

- 4m @ 3.44% Ni from 163m (WRN21RC\_007 channel position)
- 5m @ 0.78% Ni from 175m (WRN21RC\_005 channel flank)
- 4m @ 1.58% Ni from 58m (WRN21RC\_004 oxide)
- 4m @ 1.15% Ni from 42m (WRN21RC\_001 oxide)

# WARREN NICKEL CHANNEL – THE OPPORTUNITY

The initial Mineral Resource at Warren stands at 211,000 tonnes at 3.1% Ni for 6,400 tonnes of nickel metal<sup>1</sup>. The exploration programme at Warren is designed to test the channel and surrounding area for nickel sulphides, both up and down plunge of the historical workings and demonstrate that Warren can mirror the main Foster channel, in length and prospectivity.

Foster has a current plunge length of 2.3km and runs parallel to Warren which is approximately 1.0km to the north-west. Foster produced over 60,000 tonnes of nickel metal from that 2.3km extent and has a current Mineral Resource of 32,600 tonnes of nickel metal.

By comparison, the Mineral Resource at Warren comes only from a combined length of 600m. The opportunity is clear and Lunnon Metals believes Warren is under-explored and inadequately tested by the past WMC drilling.

Commenting on these results Managing Director, Ed Ainscough said: "Warren has the potential to mirror the main Foster nickel channel which was mined between 1982 and 1994. The current programme is confirming nickel sulphides up- and down-plunge of our initial Mineral Resource and gives us great confidence that it can grow. If the Warren channel continues over the same plunge length as Foster, the opportunity for additional nickel metal is significant."

 $^1$  Full details of the Mineral Resource reported at Warren are included the Prospectus and associated ITAR lodged on the ASX on 11 June 2021



#### **RC DRILLING RESULTS**

RC drilling by Lunnon Metals has hit nickel sulphides above the historical mining at Warren on the margins of the present Mineral Resource boundary. Significant intercepts include:

- 4m @ 3.44% Ni from 163m (WRN21RC\_007 channel position, thicker, better grade than expected)
- 5m @ 0.78% Ni from 175m (WRN21RC\_005 test of flank position)
- 1m @ 0.99% Ni from 177m (WRN21RC\_006 channel position)
- 1m @ 0.65% Ni from 89m (WRN21RC\_002 conceptual test, down flank contact, fresh)

WRN21RC\_007 hit the interpreted channel some 20m above WRN21RC\_006. Analysis of these results and the nickel mineralisation in WRN21RC\_007, which was thicker and better grade than predicted and outside the current Mineral Resource boundary, indicates a possible steeper orientation to the nickel mineralised shoots.

This steeper orientation, angled across the main channel, was also seen in the upper levels at the Foster Mine where surface drilling alone could not define the orientation and number of shoots that were eventually mined. Recognising this is also the case at Warren enables the Company to plan follow up drilling with respect to the down plunge potential along these steeper trends which are open.

Figure 1 below presents a long projection of the upper Warren channel showing the location of the RC drilling results reported and the pierce points of historical WMC drill holes<sup>2</sup>.

A further objective of this first Warren RC programme was to track the channel up plunge to define the sulphideoxide boundary. This was successfully achieved with the following results recorded in oxide and transitional sulphide zones which were slightly deeper than modelled and also indicated an overall steeper orientation to the nickel mineralised zones as discussed above.

- 21m @ 0.74% Ni from 18m, including:
  - 2m @ 1.19% Ni from 25m; plus
  - 9m @ 0.88% Ni from 40m including 4m @ 1.15% Ni from 42m (all WRN21RC\_001 oxide)
- 8m @ 1.14% Ni from 56m, including 4m @ 1.58% Ni from 58m (WRN21RC\_004 oxide)

WRN21RC\_003 drilled below the Mineral Resource boundary within the channel environment and returned no significant assays. All results will be incorporated into the geological and mineralisation model to refine this oxide-sulphide boundary. The Company does not currently report oxide Mineral Resources.

<sup>&</sup>lt;sup>2</sup> The ITAR attached to the Prospectus lodged on the ASX on 11 June 2021 provides details of the basis for, and use of, all relevant WMC historical drilling in the Warren JORC'12 compliant Mineral Resource estimation.



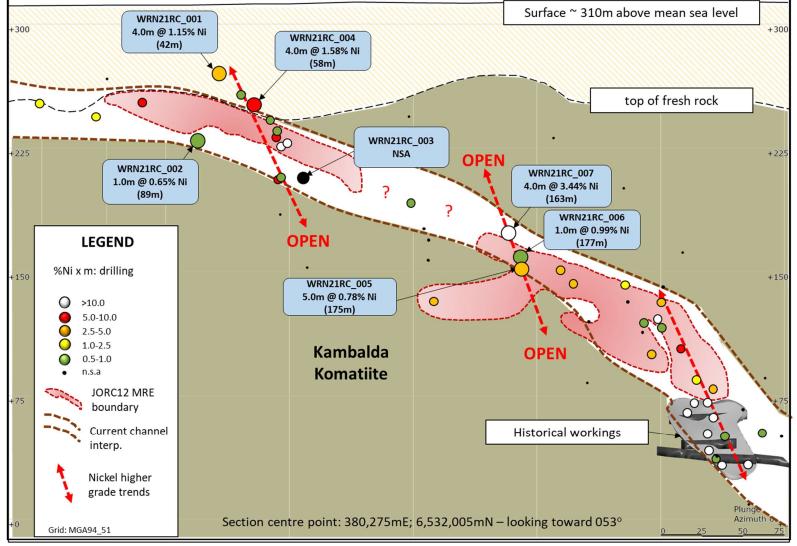


Figure 1: Longitudinal Projection of the upper Warren Channel highlighting location of recent RC drill results and historical WMC holes

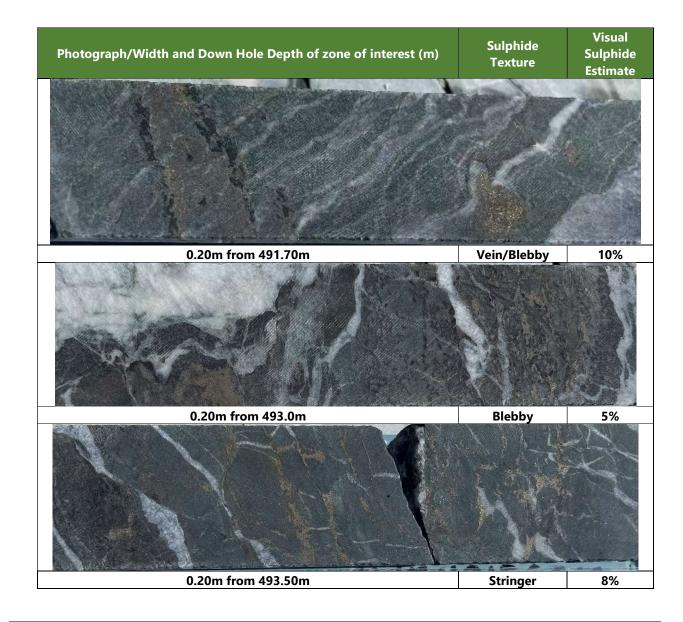


#### **DEEPER DIAMOND DRILLING AT WARREN**

After the RC drilling finished, diamond drilling started in November targeting the Warren channel deeper down its plunge. This programme is still underway and includes a parent hole and at least two "daughter" holes branching off the parent.

Drilling of the parent hole has been completed with vein/blebby, stringer and brecciated nickel sulphides confirmed in the footwall basalt (see Table 1 below for details). Analysis of these 10-20cm zones by portable XRF (pXRF) unit has confirmed the presence of nickel and the hole is being logged, cut and sampled for assay. The Company is encouraged by these preliminary indications.

This parent hole, WRN21DD\_001, is located 100m down plunge from the nearest part of the current Mineral Resource and over 400m down plunge of the historical workings. The Company believes it has hit the prospective nickel contact on the upper edge of the Warren channel. These nickel sulphides provide significant encouragement that a nickel mineralised channel is nearby.





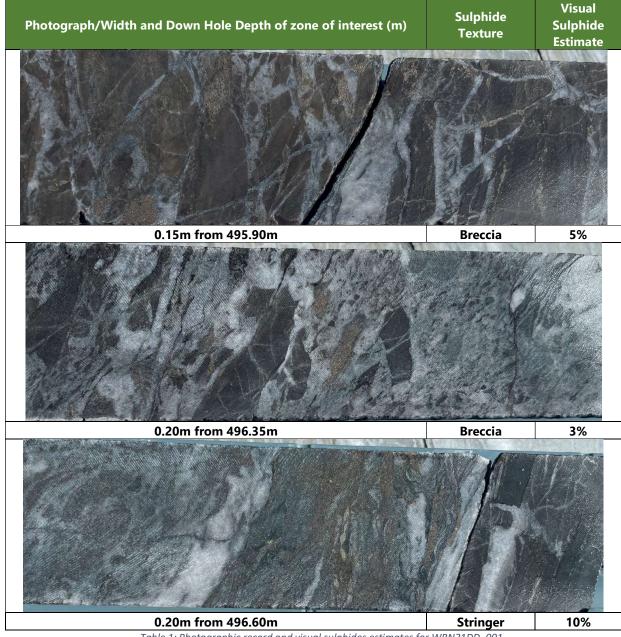


Table 1: Photographic record and visual sulphides estimates for WRN21DD\_001

The visual sulphide zones contain pentlandite, pyrrhotite, pyrite and chalcopyrite. These sulphides are present in variable quantities within the following estimated ranges; pentlandite 10-20%, pyrrhotite 50-70%, pyrite 5-10% and chalcopyrite 0-5%.

Figure 2 below is a long projection of the current interpreted Warren channel. It shows WRN21DD\_001 relative to the RC drilling reported above and historical mining. The figure illustrates the areas of untested down plunge potential on this channel.

Important Note: in relation to the reporting of visual mineralisation, the Company highlights that visual estimates of sulphide abundance, even when confirmed by pXRF analysis in the field, cannot be considered a substitute for laboratory analysis. Assay results are required to determine the exact widths and grades of the nickel sulphide mineralisation identified. When these results are available, the Company will provide an update to the market.



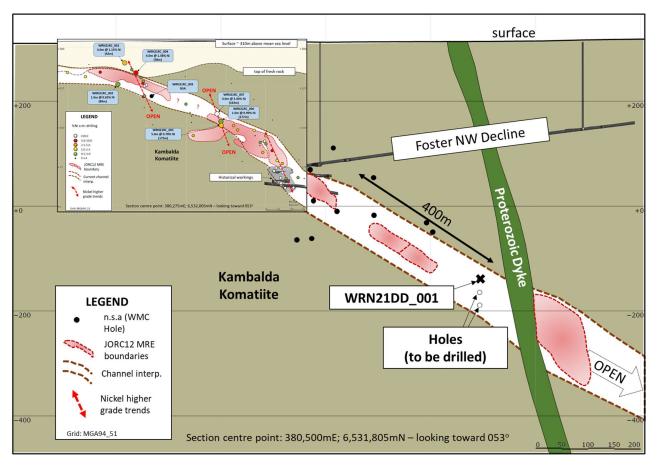


Figure 2: Location of WRN21DD\_001 in long projection showing insert location of Figure 1

#### **NEXT STEPS**

The above diamond hole will be surveyed by the DHTEM method and the wedge holes designed to target any conductive plates present in this channel setting. Assay results for the diamond hole will be reported when received. It is noted that current assay turnaround times being recorded are in the order of 10-12 weeks.

RC holes will be planned in the upper Warren channel to test the open plunge components of the steeper identified nickel trends.

This announcement has been approved for release by the Board of Lunnon Metals Ltd.

Edmund Ainscough Managing Director Phone: +61 8 9226 0887 Email: info@lunnonmetals.com.au



Hole ID	Easting^	Northing^	Elevation (m ASL)	Dip	Azimuth	EOH Drill Depth (m)	Hole Type	Grid
WRN21DD_001	380,485	6,531,440	312	-71.9	45.2	600	Surface D	MGA94_51
WRN21RC_001	380,251	6,532,111	313	-72.1	44.4	114	RC	MGA94_51
WRN21RC_002	380,178	6,532,086	312	-65.1	50.4	138	RC	MGA94_51
WRN21RC_003	380,329	6,532,069	314	-65.4	291.1	150	RC	MGA94_51
WRN21RC_004	380,255	6,532,108	313	-89.4	77.5	114	RC	MGA94_51
WRN21RC_005	380,293	6,531,928	312	-70.2	47.8	220	RC	MGA94_51
WRN21RC_006	380,305	6,531,940	314	-67.9	49.3	199	RC	MGA94_51
WRN21RC_007	380,317	6,531,952	313	-63.8	47.3	200	RC	MGA94_51

# Annexure 1: 2021 Warren – Drill Hole Collar Table – Lunnon Metals Drilling

<sup>^</sup>For current drilling, as pegged coordinates, final survey pick up of collar positions to occur on a campaign basis in the near future.

#### Annexure 2: 2021 Warren – Lunnon Metals Drill Results

Hole ID	From (drill depth) (m)	Width* (m)	Ni %	Cu %	Со %	Fe %	Mg %
Oxide - transition							
WRN21RC_001	18	21.0	0.74	0.10	0.08	9.7	14.1
			including	1			
	25	2.0	1.19	0.12	0.07	9.4	14.6
plus	40	9.0	0.88	0.17	0.03	15.2	10.5
			including	1			
	42	4.0	1.15	0.27	0.05	20.7	10.7
WRN21RC_003	no significant	assays					
WRN21RC_004	16	3.0	0.79	0.05	0.03	6.6	5.0
	52	1.0	1.29	0.19	0.03	12.5	13.2
	56	8.0	1.14	0.10	0.02	15.1	10.2
			including	1			
	58	4.0	1.58	0.10	0.03	18.2	10.4
Sulphide							
WRN21RC_002	89	1.0	0.65	0.06	0.01	9.7	12.6
WRN21RC_005	175	5.0	0.78	0.08	0.02	9.7	14.8
WRN21RC_006	168	1.0	0.55	0.05	0.02	8.2	18.4
plus	177	1.0	0.99	0.10	0.03	9.8	12.9
WRN21RC_007	163	5.0	2.94	0.34	0.07	21.4	5.8
			including				
	163	4.0	3.44	0.38	0.08	23.6	6.3
WRN21DD_001		Assays pendir	ng, hole being	g cut, sampled	d and dispatch	ned for assay	

\*true widths of the reported intercepts are estimated to approximate down hole widths closely



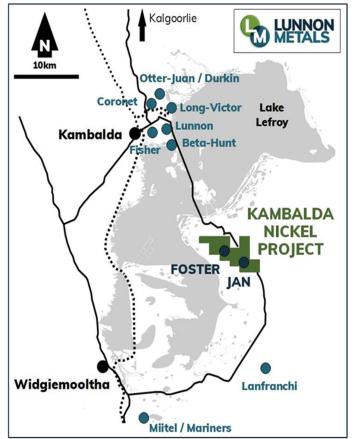


Figure 3: Regional Location of the Kambalda Nickel Project and other nearby nickel deposits

# ABOUT THE KAMBALDA NICKEL PROJECT ("KNP")

Lunnon Metals holds 100% of the mineral rights at KNP, subject to certain rights retained by St Ives\*. Full details of the Company's IPO and the transactions involved are in the Prospectus submitted to the ASX dated 22 April 2021 and lodged with the ASX on 11 June 2021.

KNP, shown in its regional location in Figure 3, is approximately 23 km<sup>2</sup> in size comprising 19 contiguous granted mining leases situated within the Kambalda Nickel District which extends for more than 70 kilometres south from the township of Kambalda ("Tenements").

This world-renowned nickel district has produced in excess of 1.4 million tonnes of nickel metal since its discovery in 1966 by WMC Resources Ltd ("WMC"). In addition, close to 15 Moz of gold in total has been mined with WMC accounting for 5.9 Moz and over 8.3 Moz produced by Gold Fields Ltd since the purchase of the operation in December 2001 from WMC, making the Kambalda/St lves district a globally significant gold camp in its own right.

\*St lves retains rights to explore for and mine gold in the "Excluded Areas" on the Tenements as defined in the subsisting agreements between Lunnon Metals and St lves. This right extends to gold mineralisation which extends from the Excluded Area to other parts of the Tenements with select restrictions which serve to prevent interference with, or intrusion on, Lunnon Metals' existing or planned activities and those parts of the Tenements containing the historical nickel mines. St lves enjoys select rights to gold in the remaining areas of the Tenements in certain limited circumstances as described in detail in the Company's Solicitor Report attached to the Prospectus submitted to the ASX dated 22 April 2021 and lodged with the ASX on 11 June 2021.



#### **COMPETENT PERSON'S STATEMENT & COMPLIANCE**

The information in this announcement that relates to geology, nickel Mineral Resources and Exploration Results, is based on, and fairly represents, information and supporting documentation prepared by Mr. Aaron Wehrle, who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr. Wehrle is a full time employee of Lunnon Metals Ltd, a shareholder and holder of employee options; he has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Wehrle consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

#### **MINERAL RESOURCES**

Foster	Mine		Indicated			Inferred			Total	
Shoot	<u>Cut-off</u> ( <u>Ni %</u> )	Tonnes	<u>% Ni</u>	<u>Ni metal</u>	<u>Tonnes</u>	<u>% Ni</u>	<u>Ni metal</u>	Tonnes	<u>% Ni</u>	<u>Ni metal</u>
85H	1%	387,000	3.3	12,800	300,000	1.3	3,800	687,000	2.4	16,600
Foster South	1%	223,000	4.7	10,500	116,000	4.8	5,500	340,000	4.7	16,000
Warren	1%	136,000	2.7	3,700	75,000	3.7	2,700	211,000	3.1	6,400
Tot	al	746,000	3.6	27,000	491,000	2.4	12,000	1,238,000	3.2	39,000

The detailed breakdown of the Company's Mineral Resources is as follows:

#### DISCLAIMER

References in this announcement may have been made to certain previous ASX announcements, which in turn may have included exploration results and Mineral Resources. For full details, please refer to the said announcement on the said date. The Company is not aware of any new information or data that materially affects this information. Other than as specified in this announcement and mentioned announcements, the Company confirms it is not aware of any new information included in the original market announcement(s), and in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original announcement.



# **JORC TABLE 1**

# SECTION 1 SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	Note code explanation         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.	<ul> <li>All drilling and sampling were undertaken in an industry standard manner.</li> <li>Reverse Circulation (RC) and Diamond Drill holes (DDH) at the Kambalda Nickel Project (KNP) were completed by Blue Spec Drilling Pty Ltd (Blue Spec) on behalf of Lunnon Metals following protocols and QAQC procedures aligned with industry best practice.</li> <li>RC</li> <li>RC samples were collected on a 1.0m basis from a cone splitter mounted on the drill rig cyclone. 1.0m sample mass typically averages 3.0kg.</li> <li>Industry prepared independent standards and blanks are each inserted, approximately every 50 samples.</li> <li>Duplicate samples were also collected from the drill rig cyclone , at a rate of 1 in every 25 samples.</li> <li>The independent laboratory then takes the samples which are dried, crushed and pulverized prior to analysis as described below.</li> <li>For sample weights &gt; 3kg the sample is dried, split and pulverised up to 3kg (with the reject discarded).</li> <li>Sample sizes are considered representative and appropriate for this type of drilling.</li> <li>RC camples are appropriate for use in a resource estimate.</li> <li>DDH</li> <li>Core samples were collected with a diamond rig drilling HQ3 (61mm) from surface within weathered and saprolite material before casing off within hard rock and completing the hole with NQ2 (51mm) diameter core.</li> <li>All DDH have been reconstructed and orientated over zones of interest, logged geologically, and marked up for assay at a typical minimum sample interval of 0.3m to ensure adequate sample weight and a typical maximum sample interval of 1.0m, constrained by geological boundaries.</li> <li>After logging and photographing, selected sample intervals of drill core were cut in half with a diamond saw, with one half sent to the laboratory for assay at the other half retained.</li> <li>Sample weights vary depending on sample width and density of the rock.</li> <li>All DDH core is stored in industry standard core trays labelled with the drill hole ID and core int</li></ul>



Criteria	JORC Code explanation	Commentary
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.).	<ul> <li><u>pXRF</u></li> <li>Where a handheld XRF tool was used, it was done so to verify the presence of nickel mineralisation. The XRF results themselves are not reported and used as a logging/ sampling verification and sulphide species identification aid only.</li> <li>Determination of materiality has been based on geological logging, visual inspection and the use of the pXRF unit.</li> <li><u>WMC Historical data</u></li> <li>Sampling procedures followed by Western Mining Corporation Ltd (WMC) in the drilling, retrieval, and storage of diamond drill core both surface and underground are considered to be in line with industry standards at the time (1966 to 2001).</li> <li>The drill core was typically collected in steel core trays of 1.0m lengths comprising five to seven compartments depending on drill core diameter. The core trays were numbered with the downhole meterage for the start of the first 1 m run and the end of the last 1 m run on the lip of the core tray and typically included core blocks within the core trays demarcating the depth meterage of rod pull breaks.</li> <li>The drillhole number and the 'from' and 'to' depth of the contained drill core was labelled on the front of the core tray. The earlier drilling was collected in wooden, and hybrid wooden/steel core trays and occasionally depths recorded in feet.</li> <li>RC holes were drilled from surface using HQ3 (61mm) diameter in weathered, broken ground before casing off and drilling NQ2 (51mm) to end of hole.</li> <li>Some DDH utilised historical or new RC pre-collars of typical depths of 100m to 150m.</li> <li>Although no documentation is available to describe the drilling techniques used by WMC at the time it is understood that the various drilling types used conventional drilling methods consistent with industry standards. None of the diamond drill core was oriented.</li> </ul>
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	<ul> <li>RC samples are routinely checked for recovery, moisture, and contamination.</li> <li>DDH core recovery is measured for each drilling run by the driller and then checked by the Company's geological team during the mark up and logging process.</li> <li>No sample bias is observed.</li> <li>There is no relationship between recovery and grade nor bias related to fine or coarse sample material.</li> <li>There are no available records for sample recovery for diamond drilling completed by WMC; however, re-logging exercises completed by Lunnon Metals of both underground and surface diamond drillholes from across the KNP between 2017 and 2021 found that on average drill recovery was very good and acceptable</li> </ul>
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource	<ul> <li>by industry standards.</li> <li><u>For both RC and DDH:</u></li> <li>Geology logging is undertaken for the entire hole recording lithology, oxidation state, mineralisation, alteration, and veining.</li> <li>DDH structural logging, recovery of core, hardness, and Rock</li> </ul>



Criteria	JORC Code explanation	Commentary
	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.	<ul> <li>Quality Designation (RQD's) are all recorded from drill core over intervals of interest.</li> <li>Geological logging (and where required, geotechnical logging) is completed in sufficient detail to support future Mineral Resource estimation, mining and metallurgical studies to be undertaken with confidence.</li> <li>Additional metallurgical testwork will be completed if warranted in the future in addition to the geological logging and element assaying detailed below.</li> <li>General logging data captured are qualitative (descriptions of the various geological features and units) and quantitative (numbers representing structural attitudes, vein and sulphide percentages, magnetic susceptibility and conductivity).</li> <li>DDH core is photographed in both dry and wet form.</li> </ul>
		<ul> <li>There is no available documentation describing the logging procedures employed by WMC geologists at the Foster nickel mine or in the KNP area generally; however, the historical graphical hardcopy logs and other geoscientific records available for the project are of high quality and contain significant detail with logging intervals down to as narrow as 0.01 m. The geological logs document lithology, textures, structures, alteration, and mineralisation observed in drill core captured both graphically and in a five-character logging code (Lunnon Metals notes that a previous logging legend employed at WMC's Kambalda nickel operations utilised a 3 letter code which is often represented on hard copy plan and cross sections of an older vintage and which was converted by WMC to the latter 5 character code at some later time). Stratigraphy is also captured in a three-character logging code. Sample intervals are recorded on the graphical log. These logging legends are well documented in lieu of a recorded procedure.</li> <li>In regard geotechnical logging or procedures, there is no record of any formal relevant procedures or logging and based on personal experience of the Competent Person, such logging was not routinely completed prior to the introduction of Regulation 10:28 in the WA Mine Safety and Inspection Act, requiring the same in approximately 1996.</li> <li>Based on the personal experience of the Competent Person(s) to this announcement, having worked for WMC in Kambalda between 1987 and 2001, it is known that WMC had a rigorous and regimented system for storing and archiving the graphical logs physically, microfilmed, and drafted on to master cross sections, plans, and long sections as well as capturing the interval data (logging and assays) digitally in database format.</li> <li>Lunnon Metals sourced historical diamond core from the St lves Kambalda core yard on Durkin Road where relevant to its investigations. A selection of high priority drillholes was typically identified based on proximity to the</li></ul>



Criteria	JORC Code explanation	Commentary
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.	<ul> <li>RC sampling was carried out every 1.0m by a cone splitter on a rig cyclone.</li> <li>1.0m calico samples taken directly from the cyclone were submitted for analysis.</li> <li>Field QAQC procedures involve the use of certified reference material (CRM) inserted approximately 1 in 50 samples.</li> <li>A field duplicate, namely a second identical cone split at the cyclone, is collected every 25 samples.</li> <li>DDH</li> <li>DDH core samples were collected with a diamond drill rig drilling NQ2 or HQ3 core. After logging and photographing, diamond core was cut within a Discoverer <sup>®</sup> Automatic Core Cutting Facility using a Corewise Auto Core Saw.</li> <li>DDH core was cut in half, with one half sent to the laboratory for assay and the other half retained.</li> <li>Holes were sampled over mineralised intervals to geological boundaries on a nominal 1.0m basis with a typical minimum of 0.3m and a typical maximum of 1.0m.</li> <li>Field QAQC procedures involve the use of certified reference material (CRM) and blank material, each inserted approximately 1 in every 50 samples.</li> <li>Field duplicates were collected at a rate of 1 in 25 samples by cutting the core into quarters and submitting both quarters to the laboratory for analysis.</li> <li>RC &amp; DDH</li> <li>At the assay laboratory, each sample was dried, split (if sample weight was &gt;3kg), crushed, and pulverised.</li> <li>Sample sizes are considered appropriate for the style of mineralisation (potentially nickeliferous massive, matrix and disseminated sulphides, hosted in komatiite and basalt; and altered quartz veins/shear structures considered potentially auriferous in all lithological types).</li> <li>WMC Historical data</li> <li>All historical core that was relevant to the mineralisation drilled and sampled by WMC as sighted by Lunnon Metals were samy with half or quarter core sampling practices. It is assumed that all samples reported or otherwise contributing to any estimation of nickel min</li></ul>



Criteria	JORC Code explanation	Commentary
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.	<ul> <li>were appropriate for the type, style and thickness of mineralisation being tested with sample breaks corresponding to lithological or mineralisation breaks being the norm. Although faded through time, sample depth intervals are evident as marked on the remaining half core as observed by Lunnon Metals and these correlate to sample interval depths in the original paper graphical drill logs and the database.</li> <li>While the WMC procedure for logging, sampling, assaying and QAQC of drillhole programs was not available at the time of this announcement it is interpreted that it was of high quality and in line with industry standards at that time.</li> <li>It is the opinion of the Competent Person(s) that the sample preparation, security, and analytical procedures pertaining to the above-mentioned historical WMC drilling are adequate and fit for purpose based on: <ul> <li>WMC's reputation of excellence in geoscience stemming from their discovery of nickel sulphides in Kambalda in the late 1960s;</li> <li>identification of procedures entitled "WMC QAQC Practices for Sampling and Analysis, Version 2 - adapted for St Ives Gold" dated February 2001 and which includes practices for nickel; and</li> <li>the first-hand knowledge and experience of the Competent Person(s) of this announcement whilst working for WMC at Kambalda between 1987 and 2001.</li> </ul> </li> <li>Samples were submitted to Intertek Genalysis in Kalgoorlie for sample preparation i.e. drying and pulverising.</li> <li>Pulverised samples were then transported to Intertek Genalysis in Perth for analysis.</li> <li>Samples were analysed for a multi-element suite including Ni, Cu, Co, Ag, Cu, As, Co, Fe, Mn, Pb, S, Zn. Analytical techniques used a four-acid digest (with ICPMS finish) of hydrofluori, nitric, perclioric and hydrochloric acids, suitable for near total dissolution of almost all minerals species including silica-based samples.</li> <li>Where considered necessary, Au was analysed using 50g lead collection fire assay and analysed by ICPOES.</li></ul>



Criteria	JORC Code explanation	Commentary
		• The extensive Lunnon Metals re-sampling programme of historical 1/2 or 1/4 core drill core applied the methodology and practices as recorded above for current RC & DDH.
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.         Accuracy and quality of surveys used to locate drillholes (collar and down-	$\frac{1}{2}$ or $\frac{1}{4}$ core drill core applied the methodology and practices as
- -	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.	<ul> <li>All drill holes were surveyed downhole at 5m intervals using the REFLEX gyro spirit-IQ system (north seeking gyro) for both azimuth and dip measurements.</li> <li>Downhole surveys are uploaded to the IMDEXHUB-IQ, a cloud-based data management program where surveys are validated and approved by the geologist before importing into the database.</li> <li>The grid projection is GDA94/ MGA Zone 51.</li> <li>Diagrams and location data tables are provided in the report where relevant.</li> </ul>



Criteria	JORC Code explanation	Commentary
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.	<ul> <li>WMC Historical data</li> <li>Historical methods of drill collar survey pick-up are not known. The easting, northing and elevation values were originally recorded in local KNO ('Kambalda Nickel Operations') grid and later converted to the currently used GDA94/MGA Zone 51 grid. Both the original KNO grid coordinates and the converted coordinates are recorded in the database. A representative number of historical drill collars were located in the field and their locations cross checked via differential GPS and/or handheld GPS to validate the database collar coordinates.</li> <li>Historical hardcopy downhole survey data is generally available for all surface drillholes and the records show that single shot magnetic instruments were used. A representative number of these hardcopy downhole survey records have been cross checked against the digital records in the database.</li> <li>No new downhole surveys have been conducted however Lunnon Metals has corrected where necessary incorrect data in the database where down hole measurements from the hardcopy data were incorrectly processed.</li> <li>No other significant errors or inconsistencies were deemed present or capable of being detrimental to any interpretation of nickel mineralisation including any MRE work.</li> <li>The RC and DDH programme at KNP comprises drillhole spacings that are dependent on the target style, orientation and depth. Drillholes are not drilled to set patterns or spacing at the exploration stage of the programme.</li> <li>If follow up drilling is warranted with the objective of progressing the prospect towards a data density sufficient to support a future Mineral Resource estimation, spacing may vary from 40m x 40m to 40m x 20m, again subject to the target style dimensions, orientation and depth.</li> <li>All holes have been geologically logged and provide a strong basis for geological control and continuity of mineralisation.</li> <li>No Mineral Resource or Ore Reserve estimations are presented for t</li></ul>
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	<ul> <li>drillhole depths were less than approximately 450m.</li> <li>The preferred orientation of drilling at KNP is designed to intercept the target approximately perpendicular to the strike and dip of the mineralisation where/if known. Subsequent sampling is therefore considered representative of the mineralised zones if/when intersected.</li> <li>At Warren the majority of historical drill holes were collared vertically and lifted/drifted in towards close to perpendicular with depth as the nickel contact was approached.</li> <li>The chance of bias introduced by sample orientation relative to structures, mineralised zones or shears at a low angle to the drillhole</li> </ul>



Criteria	JORC Code explanation	Commentary
	should be assessed and reported if material.	is possible, however quantified orientation of the intercepted interval allows this possible bias to be assessed. Where drilling intercepts the interpreted mineralisation as planned, bias is considered non-existent to minimal.
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples are collected by Company personnel in calico bags, which are in turn placed in bulka bags which are secured on wooden pallets and transported directly via road freight to the laboratory with a corresponding submission form and consignment note.</li> <li>The laboratory checks the samples received against the submission form and notifies the Company of any missing or additional samples. Once the laboratory has completed the assaying, the pulp packets, pulp residues and coarse rejects are held in the Laboratory's secure warehouse until collected by the Company or approved to be discarded.</li> </ul>
		<ul> <li>WMC Historical data</li> <li>There is no documentation available at the time of this announcement which describes the historical sample handling and submission protocols during the WMC drilling programmes; however, it is assumed that due care was taken with security of samples during field collection, transport and laboratory analysis. The historical drill core remaining after sampling was stored and catalogued at the KNO core farm (now Gold Fields, St Ives' core farm) and it remains at this location to the present day.</li> <li>All drill core retrieved from the core farm and samples collected as part of the Lunnon Metals historical drill core re-sampling programme was done so by the Lunnon Metals Exploration Manager, the Site Representative and/or the Lunnon Metals Field Services Superintendent over a period of time. Once samples had been collected Lunnon Metals staff personally transported the samples on a daily basis in a closed and secure vehicle directly to the Intertek sample preparation facility in Kalgoorlie along with the requisite sample submission forms. Occasionally, collected samples remained overnight at the core farm in a secure locked room before being transported to Intertek Kalgoorlie.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>No external audits or reviews have been undertaken at this stage of the programme.</li> </ul>
		<ul> <li>WMC Historical data</li> <li>Cube Consulting Pty Ltd are independent of Lunnon Metals and have been previously retained to complete the grade estimation for nickel mineralisation models and MRE exercises but also to review and comment on the protocols developed by Lunnon Metals to deal with, and thereafter utilise, the historical WMC Resources' data, in particular the re-sampling and QAQC exercise completed by Lunnon Metals such that the data is capable of being used in accordance with current ASX Listing Rules where applicable and JORC 2012 guidelines and standards for the generation and reporting of MREs.</li> <li>Cube has documented no fatal flaws in the work completed by Lunnon Metals in this regard.</li> </ul>



# **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 licence to operate in the area.	<ul> <li>The property is located on granted Mining Leases. Although all of the tenements wholly or partially overlap with areas the subject of determinations, the company notes that the original grant of the right to mine pre-dates 23 December 1996 and as such section 26D of the Native Title Act will be applied to exempt any future renewals or term extensions from the right to negotiate in Subdivision P of the Act.</li> <li>The complete area of contiguous tenements that are the subject of this announcement is collectively referred to as the Kambalda Nickel Project ('KNP') area. Gold Fields Ltd's wholly owned subsidiary, St lves Gold Mining Company Pty Ltd (SIGM) was the registered holder and the beneficial owner of the Project area until the Lunnon Metals IPO.</li> <li>The rights to nickel and gold on the Project area were governed by an Option and Joint Venture Agreement ('JVA') executed between Lunnon Metals and SIGM which, in summary, granted rights to nickel and gold to Lunnon Metals in such a manner and form as if Lunnon Metals and SIGM subsequently varied the JVA and executed a Sale and Purchase Agreement whereby Lunnon Metals, upon listing on the ASX, now holds 100% of the rights and title to the Project, its assets and leases, subject to certain select reservations and excluded rights retained by SIGM, principally relating to the right to gold in defined areas and the rights to process any future gold ore mined at their nearby Lefroy Gold Plant.</li> <li>The KNP comprises 19 tenements on which infrastructure may be placed in the future. The KNP area tenement numbers are as follows:</li> <li>M15/1546; M15/1548; M15/1556; M15/1557; M15/1557; M15/1559; M15/1550; M15/1556; M15/1557; M15/1559; M15/1550; M15/1557; M15/1559; M15/1550; M15/1577; M15/1590; M15/1577; M15/1577; M15/1577; M15/1590; M15/1577; M15/1577; M15/1570; M15/1577; M15/1577; M15/1570; M15/1577; M15/1577; M15/1576; M15/1577; M15/1576; M15/1577; M15/1577; M15/1577; M15/1577; M15/1577; M15/1577; M15/1577; M15/1577; M15/1576;</li></ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>In relation to nickel mineralisation, WMC, now BHP Nickel West Pty Ltd and a wholly owned subsidiary of BHP Ltd, conducted all relevant exploration, resource estimation, development and mining of the mineralisation at Foster and Jan mines from establishment of the mineral licences through to sale of the properties to SIGM in December 2001.</li> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <li>SIGM has conducted later gold exploration activities on the Project area since 2001, however until nickel focused work recommenced under Lunnon Metals management, no meaningful nickel exploration has been conducted since the time of WMC ownership and only one nickel focussed surface diamond core hole, with two 'daughter' wedge holes, have been completed in total since WMC ownership.</li> <li>Total production from Foster was 61,129 nickel tonnes and from Jan was 30,270 nickel tonnes.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The relevant area is host to both typical 'Kambalda' style, komatiitic hosted, nickel sulphide deposits and Archaean greenstone gold deposits such as routinely discovered and mined in Kambalda/St lves district.</li> </ul>
Drillhole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: <ul> <li>easting and northing of the drillhole collar</li> <li>elevation or RL (elevation above sea level in metres) of the drillhole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth hole length.</li> </ul> </li> </ul>	<ul> <li>Drill hole collar location and directional information is provided within the body of the report and also within the relevant Additional Details Table in the Annexures.</li> <li>RC and DDH drilling reported herein is included in plan and cross sectional orientation maps where relevant.</li> </ul>
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.	<ul> <li>Grades are reported as intervals recording down-hole length and interpreted true width where this estimation is able to be made.</li> <li>Any grades composited and reported to represent an interpreted mineralised intercept of significance are reported as drill-length weighted averages over that intercept.</li> <li>The Company currently considers that grades above 0.5% Ni are worthy of consideration for individual reporting in any announcement of additional details tables provided.</li> <li>Composite nickel grades may be calculated typically to a 0.5% Ni cut-off with intervals greater than 1.0% reported as "including" in any zones of broader lower grade mineralisation.</li> <li>Other composite grades may be reported above differing cut-offs however in such cases the cut off will be specifically stated.</li> <li>Reported intervals may contain internal waste however the resultant composite must be greater than either the 0.5% Ni or 1.0% Ni as relevant (or the alternatively stated cut-off grade).</li> <li>As per other Kambalda style nickel sulphide deposits the Lunnon Metals composites reported may include samples of very high nickel grades down to lower grades approaching the 0.5% Ni or 1.0% Ni cut-off as relevant.</li> <li>Gold assay results, if reported, are done so to a minimum cut-off grade of 1.0g/t Au and maximum internal dilution of 1.0m.</li> <li>No metal equivalent values have been reported.</li> <li>Other elements of relevance to the reported nickel mineralisation, such as Cu, Co, Fe, Mg and the like, are reported where the nickel grade is considered significant.</li> </ul>



Criteria	JORC Code explanation	Commentary
Relationship between mineralisation widths and intercept lengths	If the geometry of the mineralisation with respect to the drillhole 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').	<ul> <li>In regard nickel exploration, the general strike and dip of the Lunnon Basalt footwall contact and thus the zones of contact nickel sulphides are considered to be well defined by past drilling which generally allows for true width calculations to be made regardless of the density or angle of drilling.</li> <li>For nickel and gold exploration, drillhole design seeks to plan the drill holes to be approximately perpendicular to the strike of mineralisation.</li> <li>Reported intersections are approximate, but may not be true width, as drilling is not always exactly perpendicular to the strike/dip of mineralisation.</li> <li>Improved estimates of true widths will only be possible when all results are received, and final geological interpretations have been completed.</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 drillhole collar locations and appropriate sectional views.	<ul> <li>Plans, long projections and sections, where able to clearly represent the results of drilling, are provided in the main body of the report.</li> </ul>
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.	<ul> <li>Drill collar locations of drilling completed by Lunnon Metals are shown in figures and all results of that drilling, including those with no significant assays, are provided in this report.</li> <li>If relevant, drill holes with pending assays are also shown in figures.</li> <li>The report is considered balanced and in context.</li> <li>The Company highlights the historical drill database contains more than 5,000 drillholes and more than 100,000 nickel assays (and more than 145,000 gold assays) and thus summary tables are provided in the Appendices A through D to the independent Technical Assessment Report attached to the Company's Prospectus lodged with the ASX on 11 June 2021. These Appendices note and record:         <ul> <li>nickel drillholes with significant assays i.e. the number of drillholes containing at least one assay value greater than or equal to 1.0% Ni versus total number of holes in the database;</li> <li>number of drillholes containing at least one assay value greater than or equal to 1.0 ppm Au versus total number of holes in the database; and</li> <li>number of gold assay values greater than or equal to 1.0 ppm in the database.</li> </ul> </li> </ul>
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.	<ul> <li>Drilling across the KNP is on-going.</li> <li>The KNP has a long history of geological investigation, primarily for nickel, but also gold to a lesser degree.</li> <li>Datasets pertinent to the KNP that represent other meaningful and material information include:         <ul> <li>Geophysics - multiple ground and aerial based surveys of magnetic, gravity, SAM, characteristics</li> <li>Geochemistry - nickel and gold soil geochemistry datasets across the KNP</li> </ul> </li> <li>Historical production data recording metallurgical performance of Foster mine nickel delivered to the Kambalda Concentrator</li> </ul>



Criteria	JORC Code explanation	Commentary
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).	<ul> <li>The planned two year (June 2021 - June 2023) work programme is summarised in the Prospectus dated 22 April 2021 and announced on the ASX on 11 June 2021.</li> <li>In general terms, the current nickel mineral resources at Foster are not closed off down plunge and also have potential for further definition drilling up-plunge. Whilst some testing of these areas can be achieved via surface diamond and/or RC drilling, typically it would be undertaken from underground drill platforms which are yet to be established.</li> <li>In relation to the drilling results reported in this announcement, further RC and DDH (drill type will be subject to the estimated depth to target) will be planned to both infill the drill spacing (RC), collect material for metallurgical testing and provide litho-structural data to aid the geological modelling and grade estimation process.</li> </ul>