

# **RESOURCE DRILLING CONTINUES TO EXPAND** MINERALISED NICKEL FOOTPRINT AT PULJU

Step-out drilling intersects additional extensive near-surface nickel at Hotinvaara, highlighting near term growth in the current Mineral Resource

## HIGHLIGHTS

- Assays received for an additional three diamond drillholes with multiple wide mineralised intercepts returned in: HOT004, HOT005 and HOT010.
- Latest assay highlights include:
  - 25.7m @ 0.20% Ni from 179m; and
  - 86m @ 0.18% Ni from 286m in HOT004
  - 54m @ 0.19% Ni from 81.5m; and
  - 40m @ 0.19% Ni from 204m in HOT005
  - 37.4m @ 0.21% Ni from 231.6m;
  - 51m @ 0.17% Ni from 398m; and
  - 70m @ 0.18% Ni from 491m in HOT010
- Pervasive disseminated nickel sulphide mineralisation confirmed and supported via partial leach assay results.
- Peak assayed nickel grade from drilling to date of 4.66% Ni obtained in HOT006.
- Results support the potential to significantly expand the current Mineral Resource Estimate (MRE) at the Hotinvaara Prospect, with an updated MRE scheduled for later this year.
- The Hotinvaara Prospect represents just 2% of the total prospective mineralised belt within the Pulju Project.
- Twenty (24) diamond drillholes now completed for a total of 13,836.6m.

Nickel sulphide explorer Nordic Nickel Limited (ASX: NNL; Nordic, or the Company) is pleased to report further assay results from drilling completed at its flagship Pulju Nickel Project (the **Project**) in the Central Lapland Greenstone Belt (CLGB) of northern Finland.

Assays from diamond drillholes HOT004, HOT005 and HOT010, which form part of the Company's maiden diamond drilling program at the Hotinvaara Prospect (Hotinvaara), have confirmed and extended the footprint of nickel mineralisation intersected by historical drilling (Figure 1 & Appendix 1).

HOT004, HOT005 and HOT010 all encountered multiple near-surface disseminated sulphide zones that complement and extend disseminated sulphide zones and discrete zones of semi-massive and net-textured massive sulphides intersected in previous drilling<sup>2</sup>. The grade of the mineralisation intersected is consistent with the current Mineral Resource Estimate (MRE) for Hotinvaara of 133.8Mt @ 0.21% Ni and 0.01% Co3.

<sup>&</sup>lt;sup>3</sup> ASX release "Nordic Delivers Maiden 133.6Mt Mineral Resource – 278,520t Ni and 12,560t Co", 7<sup>th</sup> July 2022.





<sup>&</sup>lt;sup>1</sup> HOT004, HOT005 and HOT010 true widths estimated to be 60-80% and 80-90% of downhole widths, respectively.

<sup>&</sup>lt;sup>2</sup> ASX release "Drilling at Hotinvaara Indicates Further Sulphide Mineralisation and Expands Prospective Footprint", 10<sup>th</sup> February 2023.



The Phase 1, 22,000m drilling program at Hotinvaara is focused on a dual exploration strategy of targeting high-grade massive nickel-copper sulphides of a similar style to the nearby world-class Sakatti Deposit and bulk tonnage-style disseminated nickel sulphide mineralisation with the potential to host long-life Mineral Resources.

### **Management Comment**

Nordic Nickel Managing Director, Todd Ross, said: "Our maiden drilling campaign at Pulju continues to deliver, with consistently wide zones of disseminated nickel sulphide mineralisation returned in the latest batch of assays from three diamond drillholes, HOT004, HOT005 and HOT010. These latest results continue to confirm historical drill results within the current 133.8Mt MRE, while importantly also stepping out significantly beyond the current MRE boundary.

"Pulju is continuing to emerge as a very large nickel sulphide project, with all drilling completed to date pointing to a significant increase in the MRE, due for an update later this year.

"In addition, we are pleased to see indications of higher grade zones beginning to show through in the drilling, with a peak assay of 4.66% returned in HOT006. This shows that the system is capable of hosting higher grade zones, and finding larger accumulations of these zones remains a core objective of our exploration program. It is also worth noting that the current drill program and MRE covers just 2% of the total area of the Pulju Nickel Project, highlighting the enormous scale of the opportunity in front of us."

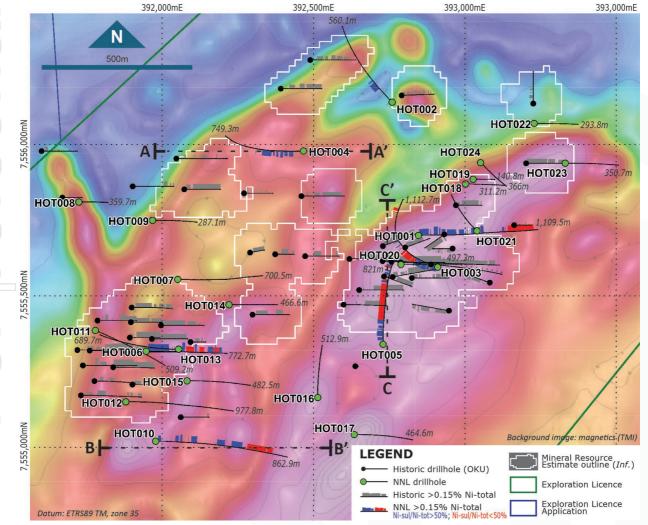


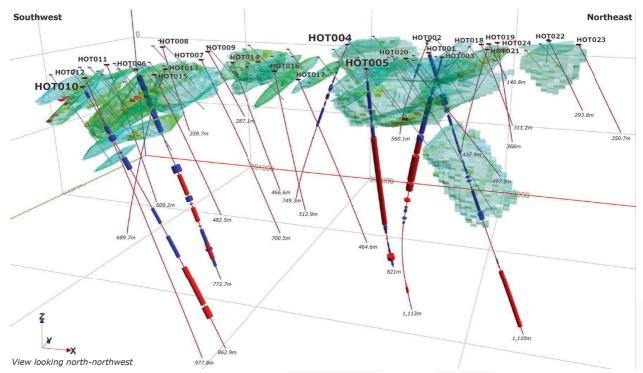
Figure 1. Collar plan showing Nordic Nickel's drilling (green dots) and historical drilling (black dots). Composite assay intersections highlighted (cut-off: >1,500ppm Ni-total; max. 6m internal dilution). Nordic Nickel's assay results highlighted in blue and red. Cross-sections A – A', B – B' and C – C' see Figs. 3, 4 & 5, respectively.



#### **Drillhole summaries**

The assay results from the 2023 diamond drilling campaign have confirmed those from the historical drilling at the Hotinvaara Prospect, while also increasing the mineralised footprint of the deposit and geological confidence levels in the current Mineral Resource Estimate (MRE) (*Figure 2*).

Significantly, near-surface disseminated nickel mineralisation has been intersected consistently along with narrow high-grade intersections. Following is a brief description of the three new drillholes, HOT004, HOT005 and HOT010. Full details of the assay results are provided in *Appendix* 1.



**Figure 2**. 3D oblique view highlighting Nordic Nickel drilling (purple traces) and historical drilling (black traces) overlain on JORC (2012) MRE block model. Weighted average composite nickel intersections highlighted by blue (Ni-sulphide/Ni-total>50%) and red cylinders (Ni-sulphide/Ni-total<50%). Cut-off: >1500ppm Ni-total with max. 6m internal dilution.

#### **Drillhole HOT004**

HOT004 was positioned toward the northern portion of the mineralised zone to extend the continuity of the mineralised ultramafic packages. More specifically, HOT004 was designed to intersect mineralised serpentinised ultramafic packages by targeting a distinct gravity low (often associated with serpentinised ultramafics), between two known in-situ MRE shells, to facilitate resource expansion (*Figure 1*).

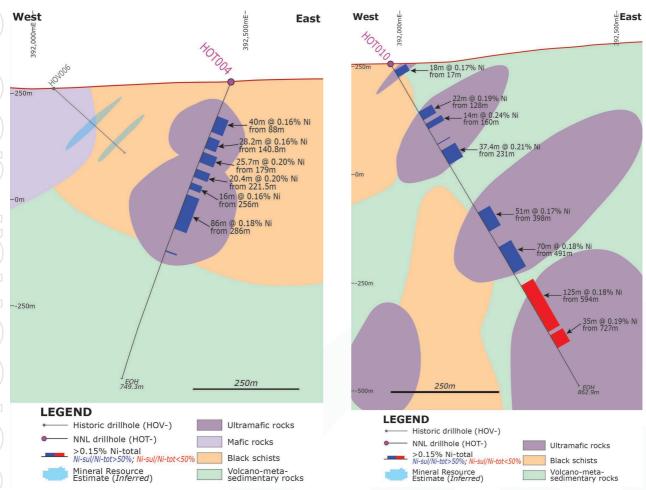
Discrete, geological and geophysical targets controlled the hole design, whereby deep westerly drilling was required not only to constrain the geometry of the ultramafic and extent of mineralisation in the area; but also, to develop an understanding of the host stratigraphic package. Additionally, the hole tested the basal footwall contact together with a series of EM conductor plates derived from surface geophysical surveys (FLEM) and down-hole EM from prior holes (BHEM).

Drillhole HOT004, intersected a lithostratigraphic package representative of, and analogous to, other drill holes within the system, portraying robust geological continuity. The upper portions of the hole displayed this typical volcanic to sub-volcanic depositional setting, interleaved and intercalated with; serpentinised, mineralised and metasomatised meta-peridotites (ultramafics) (*Figure 3*; *Table 1*).



Relative to mineralisation, the upper intercalated package appears to be correlated with the more intermittent nickel sulphide mineralisation that can be seen in *Figure 3*, whereas the lower, more continuous nickel sulphide intercept shown in *Figure 3* is hosted within a more contiguous, less intercalated ultramafic unit (*Table 1*). However, this unit still possesses significant alteration intermittently throughout the unit, with pervasive serpentinisation and calc-silicate alteration provoked via granitic intrusives.

All significant intersections are situated outside of the current known in-situ MRE and will contribute to resource expansion. This will also assist in refining and constraining the geometry of the ultramafic package in the area, relative to prospective footwall environments.



**Figure 3.** Cross-section A – A' (7,555,980mN) showing drill trace of HOT004 and assay highlights. View looking North

**Figure 4.** Cross-section B - B'(7,555,000mN) showing drill trace of HOT010 and assay highlights. View looking North.

**Table 1**. Assay highlights from HOT004<sup>3</sup>. Full assay results detailed in Appendix 1.

Hole_ID	From (m)	To (m)	Int (m)	Ni-total (%)	Co (%)	Cu (%)
<b>HOT004</b>	88.00	128.00	40.00	0.164	0.007	0.005
	140.80	169.00	28.20	0.156	0.008	0.010
	179.00	204.70	25.70	0.201	0.032	0.064
	221.50	241.90	20.40	0.195	0.014	0.067
	256.00	272.00	16.00	0.158	0.008	0.011
	286.00	372.00	86.00	0.179	0.009	0.006

True widths are estimated to be 60-80% of downhole widths.

<sup>&</sup>lt;sup>3</sup> Nickel reported as total nickel; Assay highlights only include results with Ni-S / Ni-total >50%; Primary cut-off: 0.15% Ni-total; max. 6m internal dilution; Secondary cut-off: 0.5% Ni-total; max. 1m internal dilution; Ternary cut-off: 1.0% Ni-total.



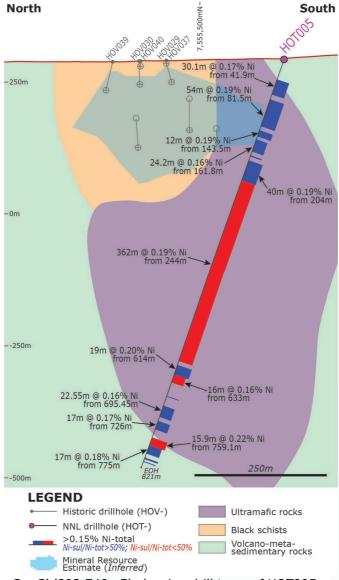
#### **Drillhole HOT005**

HOT005 was positioned within the eastern portions of the project area and designed to assist with constraining the geometry of the ultramafic package in the region and begin to define either gravitational traps or keel-like structures, favourable for massive sulphide mineralisation.

Core material produced within HOT005 clearly displays extensive ultramafic packages in the upper portion of the system to a depth of approximately 653m, with the upper portion displaying some level of ultramafic fractionation typically observed within extrusive komatilitic systems. The lower sections of the package displayed three distinct types of alteration.

Interestingly, the more basal sections of the hole appear intercalated with a series of volcanosedimentary mafic tuffitic packages in which the nickel mineralisation appears to be more sulphide dominant which, is analogous to the more fractionated upper portion of the hole (**Table 2**).

Footwall basal contacts were intersected within HOT005; however, lacked any massive sulphide mineralisation but enabled the refinement of a rather prospective ultramafic geometry, relative to a keel-like structure forming toward the base (*Figure 5*).



**Figure 5**. Cross-section C – C' (392,740mE) showing drill trace of HOT005 and assay highlights. View looking east.

**Table 2**. Assay highlights from HOT005<sup>3</sup>. Full assay results detailed in Appendix 1.



Hole_ID	From (m)	To (m)	Int (m)	Ni-total (%)	Co (%)	Cu (%)
<b>HOT005</b>	41.90	72.00	30.10	0.167	0.008	0.003
	81.50	135.50	54.00	0.193	0.010	0.006
	143.50	155.50	12.00	0.187	0.007	0.002
	161.80	186.00	24.20	0.158	0.007	0.003
	204.00	244.00	40.00	0.194	0.008	0.003
	614.00	633.00	19.00	0.201	0.010	0.005
D	695.45	718.00	22.55	0.157	0.007	0.013
	726.00	743.00	17.00	0.168	0.007	0.006
	775.00	792.00	17.00	0.176	0.007	0.007

True widths are estimated to be 20-40% of downhole widths.

#### **Drillhole HOT010**

The HOT010 drillhole collar was spatially positioned in the south-western portion of the project area outside of currently modelled in-situ MRE shell outline. This drillhole was designed to test a variety of prospective geological and geophysical targets/features, while simultaneously expanding upon the in-situ resource.

The volcanic to subvolcanic ultramafic packages logged in the upper portions of the hole display nickel sulphide rather than nickel silicate mineralisation, whereas the basal ultramafic unit, which is much more continuous, appears to be possess nickel silicate only (*Figure 4*).

**Table 3**. Assay highlights from HOT010<sup>3</sup>. Full assay results detailed in Appendix 1.

	Hole_ID	From (m)	To (m)	Int (m)	Ni-total (%)	Co (%)	Cu (%)
	HOT010	17.00	35.00	18.00	0.172	0.009	0.011
		128.00	150.00	22.00	0.192	0.010	0.008
//		160.00	174.00	14.00	0.235	0.012	0.010
		231.60	269.00	37.40	0.207	0.010	0.026
		398.00	449.00	51.00	0.172	0.009	0.006
		491.00	561.00	70.00	0.184	0.007	0.003

True widths are estimated to be 80-90% of downhole widths.

#### Nickel-in-sulphide assays

Nickel-in-sulphide (Ni-S) partial leach assay results from HOT004, HOT005 and HOT010 support similar assay results from Nordic's previously announced assay results and first-pass mineralogical and chemical test work completed by Metso:Outotec on the project that determined between 83% and 94% of the measured total nickel was Ni-S<sup>4</sup>.

For drillhole HOT004, an average of 89% of total nickel occurs as Ni-S in the prospective rock units (*Figure 3*). For drillhole HOT005, an average of 79% of total nickel occurs as Ni-S to a depth of 244m downhole. Thereafter, HOT005 intersected low Ni-S/Ni-total ultramafics to 606m before intersecting interbedded sequences of both high and low Ni-S/Ni-total ultramafics to 808.65m (*Figure 5*). Drillhole HOT010 intersected an average of 94% Ni-S to 561m down-hole, thereafter intersecting low Ni-S/Ni-total rock units to a depth of 762m down-hole (*Figure 4*).

#### **Drilling update**

As of 19<sup>th</sup> August 2023, twenty (24) drillholes for 13,836.6m had been completed at Hotinvaara (**Figure 1**, **Appendix 2**). All drillholes in the current program are designed to test geological and geophysical targets (MLEM, BHEM, fixed loop EM, gravity and magnetics) and expand the MRE.

Batches of samples are being regularly submitted for core cutting and assaying. Assay results are anticipated to be received every 3-4 weeks.

<sup>&</sup>lt;sup>4</sup> ASX release "Encouraging First Pass Test Work on Hotinvaara Nickel Mineralisation", 22<sup>nd</sup> June 2022.



#### Authorised for release by: Todd Ross - Managing Director

For further information please contact:

**Nordic Nickel** 

**Todd Ross - Managing Director** 

T: + 61 416 718 110

E: info@nordicnickel.com

W: nordicnickel.com

#### **Competent Person Statement**

The information in this announcement that relates to Exploration Results is based on, and fairly represents, information and supporting documentation compiled under the supervision of Dr Lachlan Rutherford, a consultant to the Company. Dr Rutherford is a Member of the Australasian Institute of Mining and Metallurgy. He has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Dr Rutherford consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

#### **Forward Looking Statement**

This announcement contains forward-looking statements that involve a number of risks and uncertainties, including reference to the conceptual Exploration Target area which surrounds the maiden Hotinvaara MRE described in this announcement. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.



#### **APPENDIX 1 - Assay summary.**

Hole_ID	From (m)	To (m)	Int (m)	Ni-total (%) <sup>1</sup>	Co (%)	Cu (%)
HOT004 <sup>2</sup>	88.00	128.00	40.00	0.164	0.007	0.005
	140.80	169.00	28.20	0.156	0.008	0.010
	179.00	204.70	25.70	0.201	0.032	0.064
	221.50	241.90	20.40	0.195	0.014	0.067
$\mathcal{D}$	256.00	272.00	16.00	0.158	0.008	0.011
	286.00	372.00	86.00	0.179	0.009	0.006
	427.00	430.00	3.00	0.157	0.007	0.003
HOT005 <sup>3</sup>	41.90	72.00	30.10	0.167	0.008	0.003
	81.50	135.50	54.00	0.193	0.010	0.006
	143.50	155.50	12.00	0.187	0.007	0.002
	161.80	186.00	24.20	0.158	0.007	0.003
	194.00	196.00	2.00	0.158	0.007	0.002
	204.00	244.00	40.00	0.194	0.008	0.003
	244.00	606.00	362.00	0.191*	0.007	0.001
	614.00	633.00	19.00	0.201	0.010	0.005
	633.00	649.00	16.00	0.163*	0.006	0.002
	675.80	677.00	1.20	0.166	0.016	0.029
	695.45	718.00	22.55	0.157	0.007	0.013
	726.00	743.00	17.00	0.168	0.007	0.006
	759.10	775.00	15.90	0.217*	0.007	0.003
	775.00	792.00	17.00	0.176	0.007	0.007
	800.10	803.00	2.90	0.184	0.010	0.012
	807.35	808.65	1.30	0.169	0.009	0.021
HOT010⁴	17.00	35.00	18.00	0.172	0.009	0.011
	128.00	150.00	22.00	0.192	0.010	0.008
	160.00	174.00	14.00	0.235	0.012	0.010
	214.00	216.00	2.00	0.185	0.011	0.034
	231.60	269.00	37.40	0.207	0.010	0.026
	398.00	449.00	51.00	0.172	0.009	0.006
	491.00	561.00	70.00	0.184	0.007	0.003
	594.00	719.00	125.00	0.179*	0.007	0.001
	727.00	762.00	35.00	0.188*	0.008	0.004

Nickel reported as total nickel; Primary cut-off: 0.15% Ni-total; max. 6m internal dilution; Secondary cut-off: 0.5% Ni-total; max. 1m internal dilution; Ternary cut-off: 1.0% Ni-total.

<sup>&</sup>lt;sup>2</sup> True widths are estimated to be 60-80% of downhole widths.

<sup>&</sup>lt;sup>3</sup> True widths are estimated to be 20-40% of downhole widths.

<sup>&</sup>lt;sup>4</sup> True widths are estimated to be 80-90% of downhole widths.

<sup>\*</sup> Nickel predominantly hosted by silicate minerals.



#### **APPENDIX 2 - Drillhole collar locations.**

Hole ID	Easting	Northing	Elev. (m)	Azi. (°)	Dip	Depth (m)
HOT001	392,847	7,555,700	298.9	90	-70.0	1,109.5
HOT002	392,760	7,556,140	285.2	315	-60.0	560.1
HOT003	392,910	7,555,595	301.1	290	-75.0	1,112.7
HOT004	392,467	7,555,979	278.6	270	-70.0	749.3
НОТ005	392,730	7,555,340	294.1	0	-70.0	821.0
НОТ006	391,947	7,555,317	256.4	90	-70.0	772.7
HOT007	392,052	7,555,555	259.1	90	-65.0	700.5
HOT008	391,725	7,555,810	260.1	90	-75.0	359.7
HOT009	391,969	7,555,750	259.8	90	-60.0	287.1
HOT010	391,979	7,555,020	254.9	90	-70.0	862.9
HOT011	391,779	7,555,386	253.5	110	-60.0	509.2
HOT012	391,880	7,555,150	252.9	90	-70.0	977.8
HOT013	392,054	7,555,324	261.5	270	-70.0	689.7
HOT014	392,221	7,555,471	269.6	90	-70.0	466.6
HOT015	392,082	7,555,219	262.3	90	-65.0	482.5
HOT016	392,514	7,555,164	304.0	0	-70.0	512.9
HOT017	392,635	7,555,042	308.3	90	-65.0	464.7
HOT018	393,002	7,555,870	312.4	90	-65.0	311.2
HOT019	393,027	7,555,885	313.5	90	-60.0	140.8
HOT020	392,789	7,555,604	291.1	87	-51.0	497.3
HOT021	393,040	7,555,715	315.8	315	-70.0	437.9
HOT022	393,229	7,556,070	310.9	90	-60.0	293.8
HOT023	393,332	7,555,939	316.4	90	-60.0	350.7
HOT024	393,052	7,555,941	312.3	135	-70.0	366.0

Datum: ETRS89 zone 35



# APPENDIX 2 JORC Code, 2012 Edition – Table 1 report Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

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>	<ul> <li>Main sampling method has been diamond coring. 51 historic drillholes were completed by Outokumpu Oy. In total, 9,621.45m of drilling was completed by Outokumpu Oy. As of 19th August 2023, 24 drillholes have been completed by NNL for a total of 13,836.6m.</li> <li>Drill collar locations have been provided by Outokumpu Oy. Collar locations were re-checked by NNL in June 2021 and surveyed using a SatLab SLC6 RTK-Receiver DGPS. It was noted that there was a consistent 95m NW shift in true collar locations relative to the Outokumpu collar table. Corrections were made to account for this shift. Collar locations for the NNL drilling were determined using a SatLab SLC6 RTK-Receiver DGPS and elevations by DEM.</li> <li>Mineralisation was determined using lithological changes. All core has been logged in detail and assayed by NNL. The 41 historic drillholes that exists in the Finnish National drill core archive in Loppi have been relogged by NNL. Measurements were also made with a pXRF, Susceptibility and density measurements taken for each lithology.</li> </ul>
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>	<ul> <li>Historic diamond drilling contractors: Maa ja Vesi Oy (HOV002) HOV008); Rautaruukki Oy (HOV009-HOV027); contractor unknown for remaining holes (HOV028-HOV051).</li> <li>Historic diamond drill core is 32mm in diameter.</li> <li>Historic core is not oriented.</li> <li>All historic drilling in Hotinvaara was commissioned and managed by Outokumpu Oy.</li> <li>Diamond drilling contractors for NNL drilling are Kati Oy.</li> <li>NNL diamond drill core is NQ sized (32mm diameter).</li> <li>NNL diamond core is oriented.</li> <li>NNL drilling was commissioned and managed by NNL.</li> </ul>



Criteria	JORC Code explanation	Commentary
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 recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul> <li>Core loss was measured for each drilling run and recorded.</li> <li>Recoveries were determined to be very good.</li> <li>There was no evidence of sample bias or any relationship between sample recovery and grade.</li> </ul>
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <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 intersections logged.</li> </ul>	<ul> <li>The core was logged to a level consistent with industry standards and appropriate to support Mineral Resource Estimation.</li> <li>Logging is both qualitative and quantitative.</li> <li>100% of the drill core sampled by the NNL drilling has been logged.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>Samples were selected by NNL geologists for assaying.</li> <li>Core is logged in Kittilä and taken to Sodankylä for cutting ar sampling at Palsatech Oy.</li> <li>Half core samples were selected for composite sampling and assaying. Sample sizes range between 0.3 – 4.35m (average 2.25m).</li> <li>Control samples (duplicates, blanks and standards) were submitted with the NNL samples to industry standards.</li> <li>Samples sizes are considered appropriate for the grain size a style of the mineralisation and host lithologies.</li> </ul>
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 XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether</li> </ul>	<ul> <li>Assays are being completed at Eurofins in Sodankylä. Assay methods employed include:         <ul> <li>Four acid digestion to determine total Ni (Eurofins cod ICP-MS, 304M or ICP-OES, 304P), Au, Pd, Pt (Eurofins code 703P) and occasionally XRF (175-Xa).</li> <li>Partial leach (Ni-in-sulphide; Eurofins code 240P) completed on any samples &gt;1,500ppm Ni (total).</li> </ul> </li> <li>Instruments and techniques used:         <ul> <li>Handheld XRF measurements were done with Thermo</li> </ul> </li> </ul>



Criteria	JORC Code explanation	Commentary
	acceptable levels of accuracy (ie lack of bias) and precision have been established.	<ul> <li>Scientific Niton Xlt3 XRF analyser, Mining Cu/Zn mode, in 38 holes; a total of 378 measurements were taken. Measurements were done separately for rock matrix (duration 60s) and sulphides (duration 10-20s).</li> <li>Susceptibility measurements were made with GF instruments SM20 from 41 holes with 1 or 2m intervals.</li> <li>Density measurements are made periodically using Archimedes' principle (measuring dry and wet weight (g) of drill core in air and water). Density measurements were done with whole core with intervals and depths recorded.</li> </ul>
Verification of sampling and assaying		<ul> <li>No external verification done.</li> <li>No specific twin holes were drilled.</li> <li>Drill logging data is entered in Excel spreadsheet templates.</li> <li>Logging is completed in-line with industry standards</li> <li>No adjustments have been made to the assay data.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Drill hole collar locations were determined by DGPS (SatLab SLC6 RTK-Receiver accurate to +/- 2 cm (using correction service Leica Geosystems HxGN SmartNet).</li> <li>Elevations were determined from GTK's LiDAR digital terrain model (DEM).</li> <li>All collar locations are in ETRS89 Zone 35, Northern Hemisphere.</li> <li>Downhole surveys are made following completion of drilling using a DeviGyro instrument.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Historic drill traverses were completed on nominally 50m spacing. NNL drilling is either infill or extensional to historic drilling.</li> <li>Historic individual drill holes spaced nominally 100m apart within each traverse. NNL drilling is either infill or extensional to historic drilling.</li> <li>It is considered that the spacing of samples used is sufficient for the evaluation of a MRE (JORC, 2012).</li> <li>No sample compositing has occureed.</li> </ul>
Orientation of data in	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this</li> </ul>	<ul> <li>Historic drillholes were predominantly oriented 90° (E) with dips of -45° to -60° to get as near perpendicular to the lode</li> </ul>



Criteria relation to geological structure	<ul> <li>is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul> <li>Commentary orientation as possible and collect meaningful structural data.</li> <li>NNL drilling orientations and dips provided in Appendix 1.</li> <li>The mineralisation is generally dipping at 30°-40° to the northwest.</li> <li>Historical true thicknesses average 86% that of the downhole</li> </ul>
	ana reported ir materiali	thickness. Estimates on true thicknesses of NNL's drilling are outlined in the body of this report.  • Drilling orientations have not introduced any sampling bias.
Sample security	The measures taken to ensure sample security.	<ul> <li>Core is couriered to Palsatec Oy in Sodankylä for core cutting.</li> <li>The samples were bagged with hard plastic bags and then tied off with zip ties and then shipped to Eurofins Labtium lab in containers by courier.</li> <li>Sample security of blanks and standards was managed by the Company, by bagging them in zip lock bags and taking them directly to the laboratory in Sodankylä.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>Independent consultant resource geologist and mining engineer Mr Adam Wheeler audited sampling techniques and data on site in May-June 2023. Mr Wheeler is a professional fellow (FIMMM), Institute of Materials, Minerals and Mining.</li> </ul>

**Section 2 Reporting of Exploration Results**(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentar	У							
Mineral	Type, reference name/number, location and	Name	Area Code	Tenement type	Status		Application date	Grant date		Area km²
tenement and	ownership including agreements or material issues	Tepasto		Reservation	Valid	PMO	31/10/2022			245.89
land tenure	with third parties such as joint ventures,	Holtinvaara		Exploration	Application		04/11/2013			14.99
) ]		Mertavaara1	ML2013:0091	Exploration	Application	PMO	04/11/2013			11.88
status	partnerships, overriding royalties, native title	Aihkiselki	ML2013:0092	Exploration	Application	PMO	04/11/2013			15.75
	interests, historical sites, wilderness or national	Kiimatievat	ML2019:0102	Exploration	Application	PMO	11/11/2019			24.21
	interests, historical sites, whiterness of hational	Hotinvaara	ML2019:0101	Exploration	Valid	PMO	11/11/2019	24/01/2020	24/01/2024	4.92
	park and environmental settings.	Rööni-Holtti	ML2022:0009	Exploration	Application	PMO	09/03/2022			18.65
¥)	,	Saalamaselkä	ML2022:0010	Exploration	Application	PMO	09/03/2022			6.02
	<ul> <li>The security of the tenure held at the time of</li> </ul>	Kaunismaa	ML2022:0011	Exploration	Application	PMO	09/03/2022			1.68
_	reporting along with any known impediments to	Juoksuvuoma		Exploration	Application	PMO	31/10/2022			26.53
		Kermasaajo		Exploration	Application	PMO	31/10/2022			11.37
1	obtaining a licence to operate in the area.	Kolmenoravanmaa		Exploration	Application	PMO	31/10/2022			15.49
<i>D</i> )	-	Koppelojänkä		Exploration	Application	PMO	31/10/2022			19.42
<i>V</i> )		Kuusselkä		Exploration	Application	PMO	31/10/2022			17.63
		Lutsokuru		Exploration	Application	PMO	31/10/2022			11.33



Criteria	JORC Code explanation	Commentary
		Marjantieva   Exploration   Application   PMO   31/10/2022   11.
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Outokumpu Oy did regional exploration in the area which was followed drilling in the 1980s and 1990s (51 drillholes completed).</li> <li>The Hotinvaara area was later held by Anglo American (2003 - 2007) w completed 6 diamond drillholes and regional bottom-of-till sampling.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The main commodity of economic interest at Hotinvaara is nickel. Minor copper has also been intersected. The main economic minerals are pentlandite and chalcopyrite. The bulk of the mineralisation occurs as disseminated sulphides but there is also semi-massive to massive sulphides with high nickel grades.</li> <li>The main mineralised rock types are komatiites, dunites, serpentinites a metaperidotites (ultramafic cumulates). Also, some mineralisation is hosted by ultramafic skarn.</li> <li>The Pulju greenstone Belt is located in the western part of the Central Lapland greenstone Belt. The Pulju Belt covers an area of ~10km x 20km</li> </ul>
Drill hole 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 drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>Holes reported on this release are detailed above and in Appendix 2.</li> <li>All drill holes were diamond cored.</li> <li>No information has been excluded.</li> </ul>



Criteria	JORC Code explanation	Commentary
Data aggregation methods	<ul> <li>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.</li> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Weighted average grades determined by the following rules:</li> <li>Primary cut-off: 0.15% Ni-total; max. 6m internal dilution.</li> <li>Secondary cut-off: 0.5% Ni-total; max. 1m internal dilution.</li> <li>Ternary cut-off: 1.0% Ni-total.</li> <li>No metal equivalent grades are reported.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <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>	<ul> <li>Holes are predominantly inclined to get as near to perpendicular intersections as possible unless orientations of specific targets or topography required otherwise.</li> <li>During MRE modelling, the mineralised drillhole intersections were modelled in 3D in Datamine to interpret the spatial nature and distributi of the mineralisation.</li> <li>In the historical drilling by Outokumpu, true thicknesses of mineralisation average ~86% that of the downhole thickness.</li> <li>The true thickness of mineralisation intersected by NNL is outlined in the body of this release.</li> </ul>
Diagrams	<ul> <li>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.</li> </ul>	Figures in this release shows the relative position and trajectory of the drillholes reported in this release.
Balanced reporting	<ul> <li>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.</li> </ul>	All available relevant information is reported.



Criteria	JORC Code explanation	Commentary
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>Historical gravity data measured by Outokumpu was purchased from GTK in 2020.</li> <li>Ground magnetics was done by Magnus Minerals in 2019 with GEM's GSM-19 (Overhauser) magnetometer and data was processed by GRM-services Oy.</li> <li>BHEM was completed by GRM-Services in 2021 with EMIT's DigiAtlantis survey equipment and data was modelled by NNL. Modelling indicates two target conductors in the vicinity of HOV040.</li> <li>FLEM was completed by Geovisor in December 2021 and January 2022 with EMIT's SMART Fluxgate survey equipment and data was modelled by NNL. Modelling indicates deep-seated conductors at about 400m, 800m and 1500m depths. The conductor at 400m correlates with the deeper plate identified from BHEM.</li> <li>A petrology, geochemical and mineral liberation study was undertaken by Metso:Outotec. Full details of this study are provided in NNL ASX release "Encouraging First Pass Test Work on Hotinvaara Nickel Mineralisation", 22 June, 2022.</li> <li>Ground magnetics was completed by Nordic Nickel Limited in 2023 with GEM's GSM-19 (Overhauser) magnetometer and data was processed by Nordic Nickel Limited.</li> <li>BHEM was completed by Astrock and Magnus Minerals in 2023 with EMIT's DigiAtlantis survey equipment and data was modelled by NNL.</li> <li>UAV magnetic survey completed by Radai Oy over 269km²; survey consisted of 846 lines at 40m line spacing for a total of 7,430 line kilometres; flight speed 13-30 m/s; fluxgate sensor – 3 orthogonal components, noise level ±0.5 μT, dynamic range ±100 μT, sampling freq. up to 137 Hz; base station – 3 component fluxgate magnetometer and barometer, resolution ±0.5 μT, sampling frequency 1 Hz; data processing utilised equivalent layer modelling (ELM).</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>A ~22,000m drill program is progressing as planned to test the source of the modelled conductors and expand the JORC (2012) Mineral Resource Estimate.</li> <li>Mineralisation appears to be open along strike and at depth.</li> </ul>

