# MORE WIDE NICKEL INTERCEPTS HIGHLIGHT SUBSTANTIAL RESOURCE UPSIDE

Multiple broad intersections of up to 117.9m of disseminated nickel sulphides

# HIGHLIGHTS

- Assays from seven (7) diamond drill-holes return further wide intersections of disseminated nickel sulphide mineralisation, with discrete higher grade zones.
- Assay highlights:
  - > <u>117.9m @ 0.22% Ni</u> from 4.1m *incl 2m @ 0.60% Ni from 96m*; and
    - 98m @ 0.21% Ni from 216m; and
    - 85m @ 0.22% Ni from 349m; and
    - 95.9m @ 0.20% Ni from 442m *incl 1.5m @ 0.86% Ni from 504m* in HOT013.
  - > <u>103.2m @ 0.19% Ni</u> from 37.55m in HOT019.
  - > 86.8m @ 0.22% Ni from 15.2m in HOT007.
  - > 72.4m @ 0.18% Ni from 126.4m; and
    - 60.3m @ 0.16% Ni from 243.6m; and
    - 33m @ 0.23% Ni from 425m incl 2m @ 0.50% Ni from 452m; and
    - 42m @ 0.26% Ni from 472m *incl* 4.15m @ 0.58% Ni from 483m in HOT012.
  - > 32.5m @ 0.24% Ni from 103.5m incl 2m @ 0.53% Ni from 132m in HOT011.
- Partial leach assaying confirms the predominance of nickel sulphide in the assays received to date.
- Results confirm the vast nickel sulphide system at Hotinvaara and the potential for a substantial increase in the current Mineral Resource Estimate (MRE) at Hotinvaara (133.6Mt @ 0.21% Ni, 0.01% Co).
- Hotinvaara Prospect represents just 2% of the total prospective mineralised belt within the broader Pulju Project.
- Assay results pending for an additional 14 drill-holes from the Phase 1 drilling program at Hotinvaara. Updated MRE scheduled for completion by the end of 2023.

Nickel sulphide explorer Nordic Nickel Limited (ASX: **NNL**; **Nordic**, or **the Company**) is pleased to report further significant assay results received from drilling completed at its 100%-owned flagship Pulju project, situated in Northern Finland (**Pulju**, or **the Project**) within the Central Lapland Greenstone Belt (**CLGB**). The Company completed 28 diamond drill-holes for 15,432m as part of its maiden drilling program at the Project.

New assays have been received for diamond drill-holes HOT007, HOT008, HOT009, HOT011, HOT012, HOT013 and HOT019, which targeted extensions to the current MRE and associated geophysical anomalies. Results have further confirmed and significantly expanded the footprint of disseminated nickel sulphide mineralisation at the Hotinvaara prospect (*Figures 1 and 2; Table 1*). On the basis of the assays received to date and logging of all the completed drillholes, the Company is optimistic about the potential to substantially increase the Mineral Resource Estimate (**MRE**) at Hotinvaara, which currently stands at **133.6Mt @ 0.21% Ni, 0.01% Co**<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup> ASX release "Nordic Delivers Maiden 133.6Mt Mineral Resource – 278,520t and 12,560t Co", 7<sup>th</sup> July 2022.



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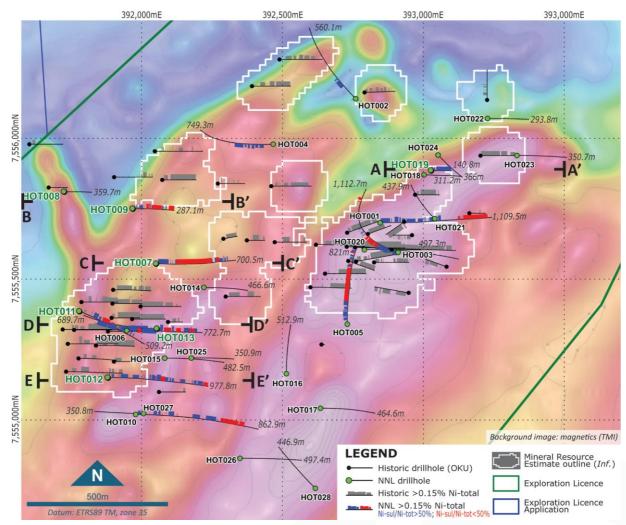


Figure 1. Collar plan showing Nordic's drilling (green dots) and historical drilling (black dots). Drill-holes reported in this release highlighted in green text. Composite assay intersections highlighted (cut-off: >1,500ppm Ni-total; max. 6m internal dilution). Cross-sections A – A', B – B', C – C', D – D' and E – E' see Figs. 3 – 7. Background image: TMI magnetics.

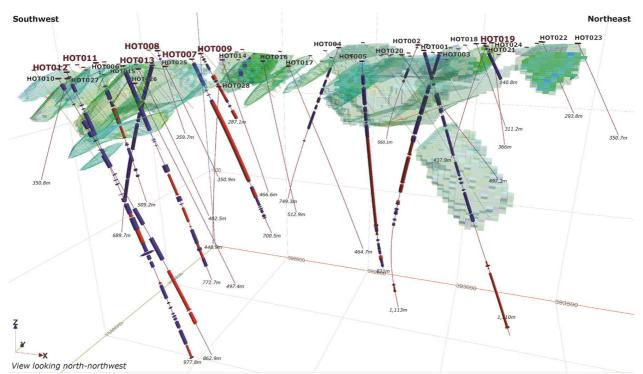
# **Management Comment**

Nordic Nickel Managing Director, Todd Ross, said: "The maiden drill program at Hotinvaara is continuing to deliver outstanding results, with extremely wide zones of disseminated nickel mineralisation encountered in almost every hole drilled. The sheer scale and extent of the deposit is what stands out from these drillholes. HOT013 was a particular standout, intersecting multiple intervals of above cut-off nickel sulphide mineralisation over a cumulative thickness of 428m within 538m of surface.

"Also of note is the discrete higher grade zones, with grades of up to 0.86% Ni in HOT013. This shows the potential of the system to carry higher grades, and an encouraging sign for our ongoing exploration at Hotinvaara. If we can vector into larger accumulations of higher grade massive sulphides that are known to be present in the system, that will be a game-changer for the project.

"We are looking forward to receiving the balance of assays for the outstanding 14 drillholes over the next month. In the meantime, work has already started on the MRE upgrade, which we plan to complete by the end of this year."





**Figure 2.** 3D oblique view (looking north-northwest) highlighting Nordic's drilling (purple traces) and historical drilling (dark grey traces) overlain on Hotinvaara Mineral Resource block model. Drillholes discussed in this release highlighted by purple text. Weighted average composite nickel intersections (see Appendix 1) 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.

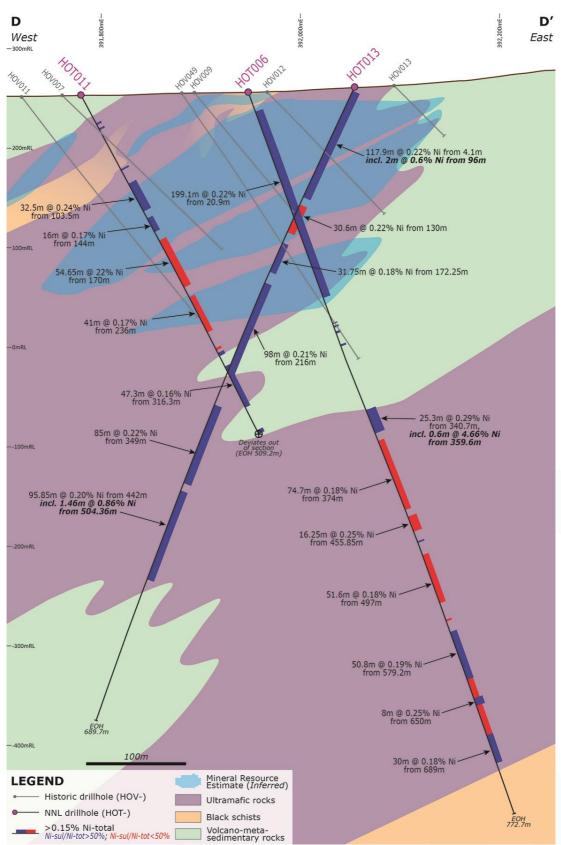
### **Drilling Summary**

Assay results continue to confirm the historical drilling and expand the extent of nickel mineralisation at Hotinvaara (*Figures 1 & 2*; *Appendix 1*). In the southwestern part of the MRE, in an area referred to by Outokumpu Oy as the "Seven Mineralization", drillholes HOT011 (*Figure 3*), HOT0012 (*Figure 4*) and HOT013 (*Figure 3*) further highlight the exceptional thickness of the nickel sulphide bearing host rocks, proximal to this region. Assay highlights from this area include:

Hole ID		From (m)	To (m)	Int (m)	Ni-total (%)*	Co (%)	Cu (%)
HOT011		103.50	136.00	32.50	0.240	0.008	0.003
	incl.	132.00	134.00	2.00	0.529	0.015	0.008
		144.00	160.00	16.00	0.169	0.006	0.001
		316.30	363.60	47.30	0.155	0.008	0.009
HOT012		37.00	62.00	25.00	0.165	0.011	0.054
		126.40	198.85	72.45	0.176	0.010	0.009
		243.65	304.00	60.35	0.162	0.009	0.006
		405.00	416.80	11.80	0.225	0.013	0.018
		425.00	458.00	33.00	0.226	0.008	0.002
	incl.	452.00	454.00	2.00	0.501	0.015	0.007
		472.00	514.00	42.00	0.263	0.014	0.015
	incl.	483.00	487.15	4.15	0.580	0.054	0.106
HOT013		4.10	122.00	117.90	0.217	0.008	0.003
	incl.	96.00	98.00	2.00	0.600	0.017	0.010
		172.25	204.00	31.75	0.184	0.011	0.007
		216.00	314.00	98.00	0.208	0.011	0.006
		349.00	434.00	85.00	0.223	0.009	0.003
		442.00	537.85	95.85	0.203	0.009	0.005
	incl.	504.36	505.82	1.46	0.861	0.030	0.028

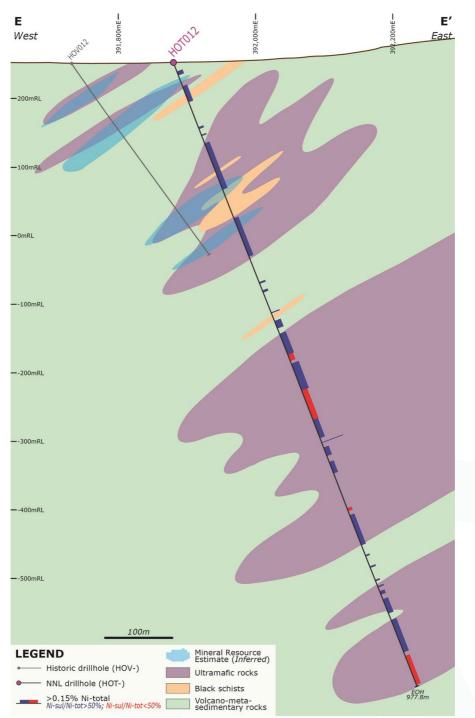
\* Nickel reported as total nickel; Primary cut-off: 0.15% Ni-total; max. 6m internal dilution; Secondary cut-off: 0.5% Ni-total; max. 1m internal dilution; Ternary cut-off: 1.0% Ni-total. True widths are estimated to be 70-90% for HOT011 and HOT012. True width is estimated to be 60-80% for HOT013.





**Figure 3.** Cross-section D – D' (7,555,350mN) showing downhole assays of HOT011 and HOT013 and interpreted solid geology. Assay results for HOT006 previously announced. View looking north. True width estimated to be 70-90% for HOT011 and 60-80% for HOT013. View looking north.



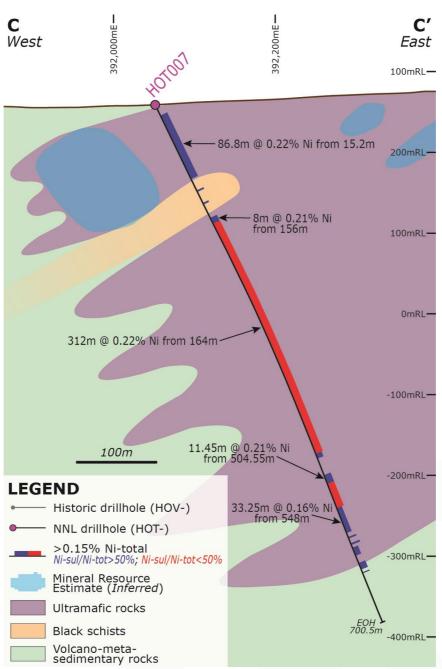


**Figure 4.** Cross-section E – E' (7,555,100mN) showing downhole assays of HOT012 and interpreted solid geology. View looking north. True width estimated to be 70-90%. View looking north.

Rocks intersected in drillholes HOT011, HOT012 and HOT013 included the nickel sulphide ultramafic hosts (peridotites and serpentinites); ultramafic skarn, including calc-silicates; amphibolite; metasedimentary and metavolcanic rocks. Sulphides when present are predominantly in disseminated and blebby form, consisting of pyrrhotite, minor pentlandite and trace chalcopyrite. Discrete pyrrhotite veins were also observed.

To the north of the Seven Mineralization area, drillhole HOT007 targeted extensions to the prospective ultramafic rocks (*Figure 1*). Sequences of peridotite and serpentinite were intersected near-surface, with assay highlights of 86m @ 0.22% Ni from 15.2m and 8m @ 0.21% Ni from 156m, after which the ultramafic became predominantly the more sulphide-poor variety (*Figure 5*; *Appendix 1*).





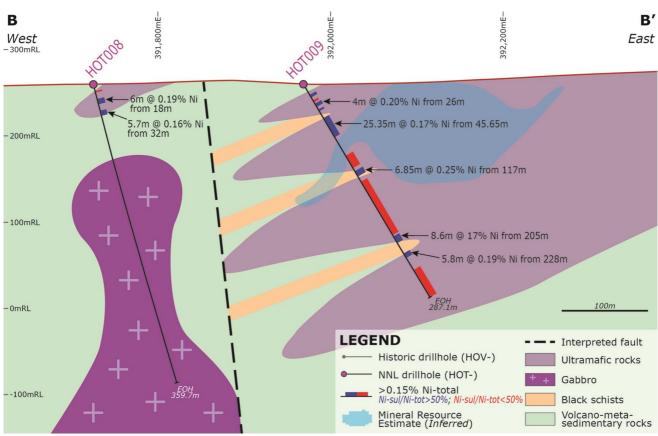
**Figure 5.** Cross-section C – C' (7,555,560mN) showing downhole assays of HOT007 and interpreted solid geology. True width estimated to be 70-90%. View looking north.

North-northwest of the Seven Mineralization area, drillholes HOT008 and HOT009 targeted extensions to the prospective ultramafic rocks and MRE (*Figure 1 & 6*). While HOT008 did not intersect significant widths of prospective ultramafic rocks, HOT009 did intersect minor intervals of disseminated nickel sulphide-bearing ultramafics (*Appendix 1*). It is anticipated that this will result in a modest increase in the MRE in this area. Assay highlights from HOT009 included:

Hole ID	From (m)	To (m)	Int (m)	Ni-total (%)*	Co (%)	Cu (%)
HOT009	45.65	71.00	25.35	0.165	0.006	0.002
	117.00	123.85	6.85	0.248	0.015	0.063
	205.00	213.60	8.60	0.174	0.006	0.002
	228.00	233.80	5.80	0.187	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. True widths are estimated to be 70-90%.





**Figure 6.** Cross-section B – B' (7,555,785mN) showing downhole assays of HOT008 and HOT009 and interpreted solid geology. True width estimated to be 70-90%. View looking north.

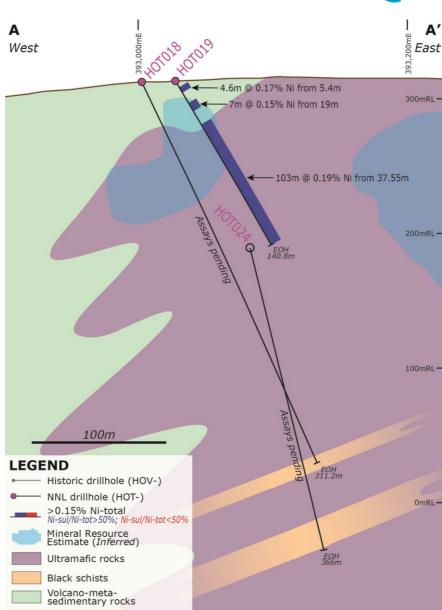
In the northeast extent of the MRE, drillhole HOT019 targeted discrete geophysical anomalies and extensions to the MRE along strike (*Figure 1 & 7*). A significant thickness of prospective ultramafic rock was intersected, with an assay highlight of 103.25m @ 0.19% Ni from 37.55m with the hole terminating in mineralisation (*Appendix 1*). It is anticipated that HOT019 will add to the MRE in this area with mineralisation likely to continue further to the east.

# Nickel-in-sulphide assays

Nickel-in-sulphide (Ni-S) partial leach assay results from drillholes discussed in this release further confirm preliminary mineralogical and chemical test work and previously announced partial leach assay results which indicated approximately 80% of Ni-total occurs as Ni-S<sup>2</sup>. For those intersections where Ni-S/Ni-total is >50%, between 65-85% of Ni-total occurs as Ni-S. Furthermore, the proportionally lower Ni-S ultramafic rocks typically occur at depths greater than that of a nominal open pit and are not anticipated to have a significant effect on recoverable nickel.

<sup>&</sup>lt;sup>2</sup> ASX release "Encouraging First Pass Test Work on Hotinvaara Nickel Mineralisation", 22<sup>nd</sup> June 2022.





**Figure 7.** Cross-section A – A' (7,555,885mN) showing downhole assays of HOT018 and HOT019 and interpreted solid geology. True width estimated to be 70-90%. View looking north.

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

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#### **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 – Assav summarv.

Hole ID		From (m)	To (m)	Int (m)	Ni-total (%)	Co (%)	Cu (%)
HOT007		15.20	102.00	86.80	0.215	0.013	0.014
		118.10	119.90	1.80	0.219	0.009	0.007
		135.25	137.15	1.90	0.182	0.011	0.018
		156.00	164.00	8.00	0.209	0.007	0.001
		164.00	476.00	312.00	0.221*	0.008	0.001
		476.00 504.55	482.20 516.00	6.20	0.184	0.007	0.002
		516.00	548.00	11.45 32.00	0.210	0.010	0.005
		548.00	581.25	33.25	0.155	0.010	0.004
		586.80	588.80	2.00	0.233	0.015	0.000
		595.15	597.15	2.00	0.281	0.014	0.008
		601.15	611.65	10.50	0.171	0.009	0.007
		621.65	629.75	8.10	0.209	0.012	0.018
		634.25	635.00	0.75	0.224	0.015	0.132
10T008		8.50	10.00	1.50	0.193*	0.006	0.002
		18.00	24.00	6.00	0.192	0.007	0.005
		32.00	37.70	5.70	0.164	0.011	0.022
10T009		14.10	17.30	3.20	0.190	0.007	0.002
		21.70 26.00	24.00 30.00	2.30	0.152* 0.195	0.006	0.001
		34.00	36.00	2.00	0.157	0.007	0.002
		45.65	71.00	25.35	0.165	0.007	0.001
		96.00	112.60	16.60	0.231*	0.007	0.002
		117.00	123.85	6.85	0.248	0.015	0.063
		131.00	203.00	72.00	0.191*	0.007	0.001
		205.00	213.60	8.60	0.174	0.006	0.002
		228.00	233.80	5.80	0.187	0.008	0.004
		250.25	287.10	36.85	0.208*	0.007	0.000
101011		33.00	35.00	2.00	0.156	0.007	0.005
		39.00	41.00	2.00	0.168	0.006	0.008
		86.50	88.25	1.75	0.247	0.016	0.023
	incl.	103.50 <b>132.00</b>	136.00 <b>134.00</b>	32.50 <b>2.00</b>	0.240 <b>0.529</b>	0.008 <b>0.015</b>	0.003 <b>0.008</b>
	mer.	144.00	160.00	16.00	0.169	0.006	0.001
		170.00	224.65	54.65	0.217*	0.007	0.001
		236.00	277.00	41.00	0.170*	0.007	0.001
		295.00	297.50	2.50	0.164*	0.007	0.000
		300.50	304.30	3.80	0.182	0.006	0.001
		316.30	363.60	47.30	0.155	0.008	0.009
		390.00	397.10	7.10	0.184	0.017	0.038
		412.10	418.00	5.90	0.171	0.009	0.004
10T012		14.00	20.00	6.00	0.207	0.010	0.030
		37.00	62.00	25.00	0.165	0.011	0.054
		101.00 113.00	104.10 115.00	3.10	0.180	0.009	0.008
		126.40	198.85	72.45	0.176	0.010	0.009
		243.65	304.00	60.35	0.162	0.009	0.005
		344.00	346.60	2.60	0.218	0.011	0.014
		356.90	360.40	3.50	0.186	0.009	0.006
		391.50	393.00	1.50	0.300	0.016	0.036
		405.00	416.80	11.80	0.225	0.013	0.018
	1	425.00	458.00	33.00	0.226	0.008	0.002
	incl.	452.00	454.00	2.00	0.501	0.015	0.007
		458.00	468.00	10.00	0.190*	0.008	0.002
	incl.	472.00 <b>483.00</b>	514.00 <b>487.15</b>	42.00 <b>4.15</b>	0.263 <b>0.580</b>	0.014 <b>0.054</b>	0.015 <b>0.106</b>
		514.00	560.00	46.00	0.206*	0.009	0.001
		560.00	588.50	28.50	0.181	0.009	0.006
		595.20	596.20	1.00	0.777	0.084	0.023
		603.18	616.50	13.32	0.181	0.008	0.006
		625.80	643.80	18.00	0.162	0.007	0.002
		698.00	702.93	4.93	0.161*	0.008	0.002
		708.95	756.00	47.05	0.165	0.008	0.022
		771.60	773.80	2.20	0.151	0.009	0.007
		789.25 810.50	791.75 812.85	2.50	0.203 0.159	0.008	0.005
		810.50	812.85	2.35	0.213	0.008	0.016
		828.46	833.85	5.39	0.176	0.010	0.008
		841.00	863.40	22.40	0.184	0.009	0.012
		873.70	924.00	50.30	0.185	0.009	0.009
		930.00	975.07	45.07	0.166*	0.008	0.005
IOT013		4.10	122.00	117.90	0.217	0.008	0.003
	incl.	96.00	98.00	2.00	0.600	0.017	0.010
		130.00	160.60	30.60	0.221*	0.008	0.002
		172.25	204.00	31.75	0.184	0.011	0.007
		216.00	314.00	98.00	0.208	0.011	0.006
	-	349.00	434.00	85.00	0.223	0.009	0.003
	incl.	442.00 <b>504.36</b>	537.85 505 82	95.85 <b>1.46</b>	0.203	0.009 <b>0.030</b>	0.005 <b>0.028</b>
10T019	mer.	5.40	505.82 10.00	4.60	0.861 0.173	0.014	0.026
		19.00	26.00	7.00	0.151	0.014	0.020
		37.55	140.80	103.25	0.187	0.009	0.005

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.

True widths are estimated to be 70-90% for HOT007, HOT008, HOT009, HOT011, HOT012 and HOT019.

True width is estimated to be 60-80% for HOT013. \* Nickel predominantly hosted by silicate minerals.



## Appendix 2 – Drillhole collar details.

Hole ID	Easting (mE)	Northing (mN)	Elev. (m)	Azi (°)	Dip (°)	Depth (m)
HOT001	392,847	7,555,700	298.9	90	-70	1,109.5
HOT002	392,760	7,556,140	285.2	315	-60	560.1
HOT003	392,910	7,555,595	301.1	290	-75	1,112.7
HOT004	392,467	7,555,979	278.6	270	-70	749.3
HOT005	392,730	7,555,340	294.1	0	-70	821.0
HOT006	391,947	7,555,317	256.4	90	-70	772.7
HOT007	392,052	7,555,555	259.1	90	-65	700.5
HOT008	391,725	7,555,810	260.1	90	-75	359.7
HOT009	391,969	7,555,750	259.8	90	-60	287.1
HOT010	391,979	7,555,020	254.9	90	-70	862.9
HOT011	391,779	7,555,386	253.5	110	-60	509.2
HOT012	391,880	7,555,150	252.9	90	-70	977.8
HOT013	392,054	7,555,324	261.5	270	-70	689.7
HOT014	392,221	7,555,471	269.6	90	-70	466.6
HOT015	392,082	7,555,219	262.3	90	-65	482.5
HOT016	392,514	7,555,164	304.0	0	-70	512.9
HOT017	392,635	7,555,042	308.3	90	-65	464.7
HOT018	393,002	7,555,870	312.4	90	-65	311.2
HOT019	393,027	7,555,885	313.5	90	-60	140.8
HOT020	392,791	7,555,604	291.1	87	-51	497.3
HOT021	393,041	7,555,715	315.8	315	-70	437.9
HOT022	393,228	7,556,070	311.0	90	-60	293.8
HOT023	393,332	7,555,939	316.4	90	-60	350.7
HOT024	393,052	7,555,940	312.3	135	-70	366.0
HOT025	392,177	7,555,220	272.9	90	-65	350.9
HOT026	392,349	7,554,864	280.2	90	-65	497.4
HOT027	392,007	7,555,023	255.6	270	-60	350.8
HOT028	392,617	7,554,758	300.9	315	-65	446.9



# **APPENDIX 3:**

# 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
<i>Sampling</i> <i>techniques</i>	<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 30<sup>th</sup> September 2023, 28 drillholes have been completed by NNL for a total of 15,482.6m</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.</li> <li>Collar locations for the NNL drilling were determined using a SatLab SLC6 RTK-Receiver DGPS and elevations by DEM.</li> <li>The 41 historic drillholes that exists in the Finnish National drill core archive in Loppi have been relogged by NNL.</li> <li>Mineralisation was determined using lithological changes. All core has been logged in detail and assayed 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 (HOV001-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>



<b>Criteria</b> <i>Drill sample</i> <i>recovery</i>	<ul> <li>JORC Code explanation</li> <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>Commentary</li> <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>
<i>Sub-sampling techniques and sample preparation</i>	<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 and 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 and style of the mineralisation and host lithologies.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<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 for drillholes HOT001-006 &amp; 010 were completed at Eurofins in Sodankylä. Assay methods employed include: <ul> <li>Four acid digestion to determine total Ni (Eurofins code 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>Assays for the remaining drillholes were completed at ALS Global in Sodankylä. Assay methods employed include:</li> </ul>



Criteria	JORC Code explanation	Commentary
	acceptable levels of accuracy (ie lack of bias) and precision have been established.	<ul> <li>Four acid digestion to determine total Ni (ALS code ME-MS61).</li> <li>Partial leach (Ni-in-sulphide; ALS code ICP05) completed on any samples &gt;1,500ppm Ni (total).</li> <li>Instruments and techniques used: <ul> <li>Handheld XRF measurements were done with Thermo 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> </li> </ul>
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<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>
<i>Location of data points</i>	<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> </ul>



Criteria	JORC Code explanation	Commentary
		<ul> <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 occurred.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the 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 is considered to have introduced a sampling bias, this should be assessed and reported if material.</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 orientation as possible and collect meaningful structural data.</li> <li>NNL drilling orientations and dips provided in Appendix 2.</li> <li>The mineralisation is generally dipping at 30°-40° to the northwest.</li> <li>Historical true thicknesses average 86% that of the downhole thickness. Estimates on true thicknesses of NNL's drilling are dependent on drill orientation and detailed in this release.</li> <li>Drilling orientations have not introduced any sampling bias.</li> </ul>
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	• The results of any audits or reviews of sampling techniques and data.	<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	Commenta	ry							
Mineral	• Type, reference name/number, location and	Name	Area Code	Tenement type	Status	Applic ant	Application date	Grant date	Expiry date	Area km <sup>2</sup>
tenement and	ownership including agreements or material issues	Tepasto	VA2020:0071	Reservation	Granted	PMO	31/10/2022	28/10/2022	01/11/2023	245.9
land tenure		Hotinvaara	ML2019:0101	Ore Explo.	Valid	PMO	11/11/2019	24/01/2020	24/01/2024	4.9
	with third parties such as joint ventures, partnerships, overriding royalties, native title	Holtinvaara	ML2013:0090	Ore Explo.	Valid	PMO	04/11/2013	05/07/2023	11/08/2027	15.0
status		Aihkiselki	ML2013:0092	Ore Explo.	Appealed	PMO	04/11/2013	18/11/2022	TBD	15.8
	interests, historical sites, wilderness or national	Kiimatievat	ML2019:0102	Ore Explo.	Appealed	PMO	11/11/2019	18/11/2022	TBD	24.2
	park and environmental settings.	Rööni-Holtti	ML2022:0009	Ore Explo.	Appealed	PMO	09/03/2022	18/11/2022	TBD	18.7
		Mertavaara1	ML2013:0091	Ore Explo.	Appealed	PMO	04/11/2013	18/11/2022	TBD	11.9
	• The security of the tenure held at the time of	Saalamaselkä	ML2022:0010	Ore Explo.	Appealed	PMO	09/03/2022	18/11/2022	TBD	6.0
		Kaunismaa	ML2022:0011	Ore Explo.	Appealed	PMO	09/03/2022 31/10/2022	18/11/2022	TBD	1.7
	reporting along with any known impediments to	Juoksuvuoma Kermasaajo	ML2022:0081 ML2022:0073	Ore Explo. Ore Explo.	Pending Pending	PMO PMO	31/10/2022			26.5 11.4
	obtaining a licence to operate in the area.	Kolmenoravanmaa	ML2022:0073	Ore Explo.	Pending	PMO	31/10/2022		1	15.5
	obtaining a neence to operate in the arear	Koppelojänkä	ML2022:0075	Ore Explo.	Pending	PMO	31/10/2022		1	19.4
		Kuusselkä	ML2022:0077	Ore Explo.	Pending	PMO	31/10/2022			17.6
		Lutsokuru	ML2022:0074	Ore Explo.	Pending	PMO	31/10/2022			11.3
		Marjantieva	ML2022:0079	Ore Explo.	Pending	PMO	31/10/2022			11.9
		Salmistonvaara	ML2022:0078	Ore Explo.	Pending	PMO	31/10/2022			18.2
		Vitsaselkä ML2022:0080 Ore Explo. Pending PMO 31/10/2022								9.8
done by other parties		The Hotir	the 1980s Ivaara area d 6 diamor	a was lat	er held	by Ang	jlo Americ	an (2003		) wh
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<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 sulphide veins with high nickel grades.</li> <li>The main mineralised rock types are komatiltes, dunites, serpentinites and 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	• 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:		nformatior ples were c nation has	diamond	cored.	ppendi	ix 2 of thi	s release		



Criteria	JORC Code explanation	Commentary
Data aggregation methods	<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> <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> <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>
<i>Relationship between mineralisation widths and intercept lengths</i>	<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 distribution 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	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should	No drill results being reported in this release.



Criteria	JORC Code explanation	Commentary
	include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	
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.	All available relevant information is reported.
<i>Other</i> <i>substantive</i> <i>exploration</i> <i>data</i>	<ul> <li>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.</li> </ul>	<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 269km<sup>2</sup>; 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</li> </ul>



Criteria	JORC Code explanation	Commentary
		utilised equivalent layer modelling (ELM).
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 two-year, ~22,000m drill program is progressing as planned to test the source of geophysical anomalies and expand the JORC (2012) Mineral Resource Estimate.</li> <li>Mineralisation appears to be open along strike and at depth.</li> </ul>