Class Nickel 1 Plans to Build on 2.7Mt 1.0% Ni Resources at their Alexo-Dundonald Nickel Sulphide Project, Timmins, Canada

04.12.2024 | GlobeNewswire

TORONTO, Dec. 04, 2024 - Class 1 Nickel and Technologies Ltd. (CSE: NICO | OTCQB: NICLF) ("Class 1 Nickel" or the "Company") is pleased to provide an update on its exploration plans and operations with respect to its Alexo-Dundonald Nickel Sulphide Project, covering about 3,093 hectares (30.93 km^2), and located about 45 km northeast of the mining centre and City of Timmins, Ontario.

Over the past two years, the Company has focused on a comprehensive effort to refine the Project's resource base, underscoring Class 1 Nickel's commitment to build a robust portfolio of nickel sulphide resources in one of Canada's premier mining districts.

Key Updates on the Alexo-Dundonald Nickel Sulphide Project:

The Company has retained Caracle Creek Chile SpA ("Caracle") to complete an updated 3D model, reinterpretation, and updated mineral resource estimate for the Dundonald North Deposit ("D-N") which contains about 1.8Mt at 1.01% Ni (Stone *et al.*, 2020).

To date, the Company, through its primary geological consultants Caracle and their strategic partner Atticus Geoscience Consulting Ltd. ("Atticus") (together the "Consultants"), have completed the following major milestones:

- Updated Mineral Resource Estimate for the Dundonald South Deposit (Class 1 news release 14 November 2024).
- Updated Mineral Resource Estimate for the Alexo North Deposit (Class 1 news release 9 July 2024).
- Updated Mineral Resource Estimate for the Alexo South Deposit (Class 1 news release 11 June 2024).

CEO David Fitch emphasized the importance of these updates, stating: "Finalizing the Dundonald North Deposit's resource update achieves a significant objective for Class 1 Nickel. This comprehensive initiative reflects our strategy to expand and enhance the known mineralization and resources within our four high-grade magmatic nickel sulphide deposits. These updates are vital steps toward unlocking the Project's full potential."

Two-Pronged Exploration Strategy

The Company is pursuing a dual approach to maximize the value of the Alexo-Dundonald Nickel Sulphide Project:

1. High-Grade Nickel Sulphide Development: Building on >1.0% Ni grades, targeting traditional nickel sulphide deposits for near-term growth.
2. Large-Tonnage Low-Grade Exploration: Identifying "Crawford-type" deposits to complement high-grade nickel resources, inspired by success in the Timmins area with projects like Canada Nickel Company's Crawford, EV Nickel's CarLang, and Aston Minerals' Boomerang.

Class 1 Nickel's David Fitch added: "By combining the development of high-grade sulphide resources with exploration for large-tonnage, low-grade deposits, we're aligning with industry trends and maximizing our footprint in the Timmins Mining Camp."

Comprehensive Work Achieved

Class 1 Nickel has made substantial progress across its exploration and development initiatives, including:

- Compiling and validating a geological database of over 120,000 metres of drilling (Class 1 news releases 18 April 2024 and 13 December 2023).
- Completing 3D geological modelling (lithology, mineralization, structure, alteration and metal domains) and detailed interpretation of the Alexo North and South and the Dundonald South deposits (Class 1 news release 23 September 2024).
- Phase 2 Drilling: planning and targeting for resource expansion at the Alexo North and South and the Dundonald South and North deposits (minimum of 5,000 m).
- Property-wide target generation and drill hole planning outside of the 4 known nickel sulphide deposits.
- Planned exploration program to examine the underexplored areas of the Project including the numerous nickel-copper sulphide occurrences that exist outside of the known deposit areas. Much of this exploration will be guided by recently completed airborne geophysics and historical drilling, with new ground geophysics and remote sensing surveys.
- Phase 3 Drilling: plan to target and develop large-tonnage, low-grade nickel deposits ("Crawford-type" deposit) on the Project (approx. 4,500 m).
- Environmental and permitting requirements, initially focusing on Alexo South and Alexo North, are being reviewed with an aim toward evaluating the return to small-scale nickel production.

A summary of the work completed on all the Class 1 nickel sulphide projects (Alexo-Dundonald, Ontario and Somanike, Quebec) can be found in the news release dated 13 December 2023.

Exploration and Development Plans - 2025

Class 1 Nickel has developed several exploration plans for 2025:

- Update of Dundonald North geo-model, interpretation and mineral resource estimate.
- Phase 2 drilling campaign to delineate and increase high-grade (>1.0% Ni) mineral resources within the 4 known nickel sulphide deposits.
- Borehole Pulse-EM and Induced Polarization surveys to test for off-hole anomalies related to accumulations of sulphide.
- Drilling campaign to delineate low-grade, large-tonnage nickel deposit (Crawford-style) followed up by maiden mineral resource estimate.
- Exploration program to follow up on historical Ni-Cu-PGE occurrences through geological mapping and sampling.
- Exploration ground-truthing program to follow up on anomalies identified by 2020 Geotech Heliborne Mag-EM survey (examine, interpret, prioritize for drilling).
- Initial surface geophysical surveys targeting (e.g., Induced-Polarization/Resistivity) specific areas of known sulphides and in areas deemed high priority by 2020 Heliborne VTEM survey (Mag-EM anomalies).
- Scout drilling campaign to test targets developed from geological mapping and sampling, ground geophysical surveys, and 2020 VTEM survey.
- Comprehensive drill core inventory and organization of all historical and current drill core at the Company's core storage compounds near Timmins.
- Initiate new metallurgical and mineralogical studies on mineralized material from all 4 nickel sulphide deposits - minimum requirements for Preliminary Economic Assessment (PEA) level study.
- Continue with environmental monitoring and initiate baseline environmental studies to meet requirements for small-scale open pit production.
- Initiate PEA study to examine the economics around mining the higher grade mineralized material form the 4 nickel sulphide deposits.

Alexo-Dundonald Nickel Sulphide Project

The Alexo-Dundonald Nickel Sulphide Project ("A-D Project") is located about 45 km northeast of the mining centre and City of Timmins, Ontario, covers an area of approximately 3,093 hectares (30.93 km^2), and was acquired by the Company in September 2018. The A-D Project includes four foundation nickel deposits (Alexo North and South and Dundonald North and South) of which the Alexo North and Alexo South (aka Kelex) were small-scale past producers of nickel (*i.e.*, 1957; 2004-2005). The deposits are located on a near-continuous folded komatiite-ultramafic rock sequence that extends for at least 14 km within the Property. The 4 nickel sulphide deposits at >1.0% Ni grade and calculated at various %Ni cut-off grades are

shown in Table 1. The 4 mineral resources (Table 2) are open at depth and along strike and could increase in size with additional drilling.

For more information, please refer to the current NI 43-101 Technical Reports and Mineral Resource Estimates on the Alexo-Dundonald Nickel Project posted to the Company's SEDAR+ profile.

Table 1. High-grade Mineral Resources for the 4 nickel sulphide deposits at various %Ni cut-offs.

Deposit	Type	Ni (%) Cut-Off	Grade (%Ni)	Tonnage (t)	Ni Metal (lbs)
Dundonald South	Pit-Constrained	0.67	1.00	776,000	17,107,851
Dundonald North	Global (no pit)	0.19	1.01	1,820,000	40,525,325
Alexo South	Pit-Constrained	0.52	1.00	77,700	1,712,990
Alexo North	Pit-Constrained	0.28	1.00	35,900	791,459
Total:			1.01	2,710,000	60,137,625

[1]cut-off grade calculation based on data provided by Stone *et al*. (2020).

Table 2. Summary of Mineral Resources in Alexo North and South and Dundonald South and North Deposits.

Deposit	Resource Category	NSR Cut-Off	Tonnage (t)	Grade					Contained Metal		
				Ni (%)	Cu (%)	Co (%)	NiEq (%)	NSR (C$/t)	Ni (k lbs)	Cu (k lbs)	Co (k lbs)
Pit-Constrained											
Alexo North	Indicated	C$52.5/t	35,100	0.98	0.11	0.04	1.08	205.9	759	83	33
	Inferred	C$52.5/t	500	0.32	0.04	0.02	0.36	68.0	3	0	0
Alexo South	Indicated	C$52.5/t	275,000	0.58	0.02	0.02	0.62	123.4	3,490	133	133
Dundonald South	Indicated	C$52.5/t	2,540,000	0.49	0.02	0.01	0.52	103.0	27,400	911	755
	Inferred	C$52.5/t	3,600,000	0.42	0.01	0.01	0.11	88.0	33,000	1,100	1,100
Total:	Indicated		2,850,100	0.50	0.02	0.01	0.53	106.0	31,700	1,130	921
Total:	Inferred		3,600,000	0.42	0.01	0.01	0.44	88.0	33,000	1,100	1,100
Out-of-Pit (Underground)											
Alexo North	Indicated	C$96.0/t	7,500	0.63	0.08	0.03	0.70	133.7	105	12	5
Alexo South	Indicated	C$96.0/t	297,000	0.65	0.03	0.02	0.69	138.7	4,240	190	157
	Inferred	C$96.0/t	130,000	0.54	0.03	0.02	0.58	116.1	1,500	75	52
Dundonald North	Inferred	C$90.0/t	1,821,000	1.01	0.03	0.02	-	-	41,000	1,200	800
Dundonald South	Indicated	C$96.0/t	200,000	0.95	0.03	0.02	0.99	198.0	4,210	145	80
	Inferred	C$96.0/t	390,000	0.57	0.02	0.01	0.60	120.0	4,900	160	120
Total:	Indicated		504,500	0.77	0.03	0.02	0.81	162.0	8,560	347	242
Total:	Inferred		2,341,000	0.91	0.03	0.02	0.60	120.0	47,000	1,400	980
Totals Pit-Constrained and Out-of-Pit (Underground) Resources											
Total:	Indicated		3,354,600	0.54	0.02	0.01	0.58	115.0	40,200	1,470	1,160
Total:	Inferred		5,941,000	0.61	0.02	0.01	0.50	100.0	80,000	2,600	2,000

Notes to Table 2: Alexo South and North and Dundonald South Mineral Resources (Jobin-Bevans et al., 2024a, b, c):

(1) The independent Qualified Person for the 3 MREs, as defined by NI 43-101, is Mr. Simon Mortimer (FAIG #7795) of Atticus Geoscience Consulting Ltd., working with Caracle Creek Chile SpA. The effective dates for the 3 MREs are: Alexo North - 21 May 2024; Alexo South - 19 April 2024; Dundonald South - 1 October 2024.
(2) Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
(3) The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
(4) The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that

the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
(5) The Mineral Resources were estimated following the 2019 CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines prepared by the CIM Mineral Resource & Mineral Reserve Committee and the 2014 CIM Definition Standards for Mineral Resources & Mineral Reserves prepared by the CIM Standing Committee on Reserve Definitions.
(6) Geological and block models for the MRE used core assays (497 samples from 2021 drilling) and data and information from 273 surface diamond drill holes (16 from Class 1 Nickel and 257 historical). The drill hole database was validated prior to resource estimation and QA/QC checks were made using industry-standard control charts for blanks, core duplicates and commercial certified reference material inserted into assay batches by Class 1 Nickel.
(7) The block model was prepared using Micromine 2020. A 6 m x 6 m x 6 m block model was created, with sub blocks to 0.5 m x 0.5 m x 0.5 m. Drill composites of 1.0 m intervals were generated within the estimation domains, and subsequent grade estimation was carried out for Ni, Cu and Co using Inverse of distance Weighting interpolation method.
(8) Grade estimation was validated by comparison of input and output statistics (Nearest Neighbour), swath plot analysis, and by visual inspection of the assay data, block model, and grade shells in cross-sections.
(9) As a reference, the average estimated density value (specific gravity) within the mineralized domain is 2.90 g/cm^3 (t/m^3).
(10) Estimates have been rounded to 3 significant figures for Indicated resources and 2 significant figures for Inferred resources.
(11) The MRE considers a geological dilution of 5% and a mining recovery of 95%.
(12) US$ metal prices of $8.00/lb Ni, $3.25/lb Cu, $13.00/lb Co were used in the NSR calculation with respective process recoveries of 85%, 70%, and 80%; gold, platinum and palladium are not considered in the current NSR calculation.
(13) Pit-constrained Mineral Resource NSR cut-off considers processing, and G&A costs, applying a factor of 5% for mining dilution, that respectively combine for a total of (($45.00 + $5.00) * (1 + 5%)) = C$52.5/tonne processed.
(14) Out-of-Pit Mineral Resource (underground) NSR cut-off considers ore mining, processing, and G&A costs that respectively combine for a total of ($46.00 + $45.00 + $5.00) = C$96.0/tonne processed.
(15) The Out-of-Pit Mineral Resource grade blocks were quantified above the $96.0/t cut-off, below the constraining pit shell and within the constraining mineralized wireframes. Additionally, only groups of blocks that exhibited continuity and reasonable potential stope geometry were included. All orphaned blocks and narrow strings of blocks were excluded. The long-hole stoping with backfill mining method was assumed for the Out-of-Pit (underground) MRE calculation.
(16) The NSR calculation is as follows: NSR C$/t = ((Ni% x 199.89) + (Cu% x 66.87) +(Co% x 305.71)) x 95%.
(17) The NiEq% calculation is as follows: NiEq% = (Ni% x 1) + (Cu% x 0.33) + (Co% x 1.53).

Notes to Table 2: Dundonald North Mineral Resources (Stone et al., 2020):

(1) The independent Qualified Persons for the Dundonald North MRE, as defined by NI 43-101, are Yungang Wu (P.Geo.) and Eugene Puritch (P.Eng., FEC, CET) of P&E Mining Consultants Inc. (Stone et al., 2020), both Independent Qualified Persons as defined by NI 43-101 Standards of Disclosure for Mineral Projects.
(2) Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
(3) The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
(4) The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
(5) The Mineral Resources were estimated following the 2019 CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines prepared by the CIM Mineral Resource & Mineral Reserve Committee and the 2014 CIM Definition Standards for Mineral Resources & Mineral Reserves prepared by the CIM Standing Committee on Reserve Definitions.
(6) US$ metal prices of $7.35/lb NI, $3/lb Cu, $20/lb Co, $1,500/oz Au, $900/oz Pt and $1,650/oz Pd were used in the NSR calculation with respective process recoveries of 89%, 90%, 40%, 50%, 50% and 50%.
(7) Pit constrained Mineral Resource NSR cut-off considers ore crushing, transport, processing and general and administration (G&A) costs that respectively combine for a total of ($2 + $6 + $20 + $2) = CAD$30/tonne processed.
(8) Out-of-Pit (underground) Mineral Resource NSR cut-off considers ore mining, crushing, transport, processing and G&A costs that respectively combine for a total of ($58 + $2 + $6 + $20 + $4) = CAD$90/tonne processed.
(8) The Out-of-Pit Mineral Resource grade blocks were quantified above the $90/t NSR cut-off, below the

constraining pit shell and within the constraining mineralized wireframes. Additionally, only groups of blocks that exhibited continuity and reasonable potential stope geometry were included. All orphaned blocks and narrow strings of blocks were excluded. The long-hole stoping with backfill mining method was assumed for the out-of-pit (underground) Mineral Resource Estimate calculation.

Qualified Person

Technical information and data in this news release has been reviewed and approved by Dr. Scott Jobin-Bevans (P.Geo., PGO #0183), a geological consultant to the Company, and a Qualified Person under the definitions established by National Instrument 43?101.

About Class 1 Nickel

Class 1 Nickel and Technologies Limited (CSE: NICO | OTCQB: NICLF) is a Mineral Resources Company focused on the exploration and development of its 100% owned komatiite-hosted nickel sulphide projects: the Alexo-Dundonald Project, neat Timmins, Ontario (4 nickel sulphide deposits) and the Somanike Project, near Val-d'Or, Quebec (includes the historical Marbridge Ni-Cu Mine). Both projects comprise extensive property packages covering past-producing nickel mines, offering near-term production opportunity and excellent exploration upside.

Class 1's current focus is to advance the Alexo-Dundonald Project back into production and at the same time continue brownfield and greenfield exploration on its large property package to aggregate additional nickel resources. The A-D Project sits on a 14+ km strike-length, folded komatiite unit containing several nickel-copper-cobalt and PGE Mineral Resources plus numerous underexplored sulphide occurrences. Decades of successful capital expenditure and investment into the Project has resulted in the discovery and delineation of four main nickel Mineral Resources that occur along the folded komatiite unit. The A-D Project was previously mined (ca. 2005) via a direct shipping model, and the Company will soon commence a Preliminary Economic Assessment (PEA) study to determine the best path forward.

In addition, the Company also holds 100% interest in its River Valley PGE Project located about 65 km northeast of the City of Sudbury, the world's largest and longest operating nickel-copper-cobalt-PGE mining camp. See the Company's 13 December 2023 new release for additional information.

For more information, please contact:

Mr. David Fitch, President & CEO
T: +61.400.631.608
E: info@class1nickel.com

For additional information please visit our website at www.class1nickel.com and our Twitter feed: @Class1Nickel.

Neither the Canadian Securities Exchange nor its regulation services provider has reviewed or accepted responsibility for the adequacy or accuracy of this press release.

This news release contains forward-looking information which is not comprised of historical facts. Forward-looking information is characterized by words such as "plan", "expect", "project", "intend", "believe", "anticipate", "estimate" and other similar words, or statements that certain events or conditions "may" or "will" occur. Forward-looking information involves risks, uncertainties and other factors that could cause actual events, results, and opportunities to differ materially from those expressed or implied by such forward-looking information. Factors that could cause actual results to differ materially from such forward-looking information include, but are not limited to, changes in the state of equity and debt markets, fluctuations in commodity prices, delays in obtaining required regulatory or governmental approvals, and other risks involved in the mineral exploration and development industry, including those risks set out in the Company's management's discussion and analysis as filed under the Company's profile at SEDAR+ (www.sedarplus.ca). Forward-looking information in this news release is based on the opinions and assumptions of management considered reasonable as of the date hereof, including that all necessary governmental and regulatory

approvals will be received as and when expected. Although the Company believes that the assumptions and factors used in preparing the forward-looking information in this news release are reasonable, undue reliance should not be placed on such information. The Company disclaims any intention or obligation to update or revise any forward-looking information, other than as required by applicable securities laws.