

Nuinsco Teams with McGill University Researchers to Evaluate Potential Economic Significance of Niobium Mineralization at Prairie Lake

Highlights:

- Extensive domains of strong niobium (“Nb₂O₅”) mineralization exposed at surface.
- Closely associated with phosphate and rare earth element (REE) mineralization.
- The domains are tens to hundreds of metres wide with grades up to 0.198% Nb₂O₅.
- Such extensive mineralization has implications for the economics of project development.

Toronto, November 13, 2024 – Nuinsco Resources Limited (“Nuinsco” or the “Company”) (CSE: NWI, FRA: NJX) today announced that ongoing study of the niobium mineralization in collaboration with McGill University researchers led by Professor Anthony Williams-Jones has confirmed the economic potential of Nb₂O₅ as a significant co-product at the Prairie Lake Critical Minerals Project (“Prairie Lake” or the “Project”).

Nuinsco’s exploration at Prairie Lake has identified widespread niobium endowment, both at surface and underground in drill holes, of sufficiently high grade to warrant its economic evaluation as a co-product. A re-evaluation of the geology of the Prairie Lake Complex by Professor Williams-Jones and his team is documenting the occurrence of large volumes of previously unrecognized biotite-rich rocks (pyroxenitic glimmerite), which they have shown controlled the occurrence of the niobium ore mineral, pyrochlore, at St Honoré (Québec), one of only three operating niobium mines in the World; glimmerite is also a major rock unit at the Araxá and Catalão mines (Brazil) which produce over 90% of the World’s niobium.

“The trenching and drilling at the Project contemplated for delineating the predicted pyroxenitic glimmerite-pyrochlore association, could potentially lead to the Prairie Lake Complex becoming Canada’s economically most important REE-Niobium deposit after St Honoré and the first major producer of phosphate in the country, rivalling the giant Kovdor and Phalaborwa phosphate deposits in Russia and South Africa, respectively,” said Professor Williams-Jones.

“The ongoing evaluation of Prairie Lake continues to provide increasing indications of economic potential. It is a source of a suite of vitally important Critical Minerals located in the heart of North America capable of providing a secure supply chain to these minerals. In addition to the enormous significance of the phosphate and rare earth mineralization, niobium is a component of such importance to a myriad of applications in today’s high-tech economy that it cannot be ignored when evaluating the economic potential of the project.” said Paul Jones, Nuinsco’s CEO.

Extensive trenching conducted by the Company has identified domains of surface niobium mineralization across the exposed Prairie Lake Complex rocks. In the little explored northeast quadrant of the complex niobium mineralized domains occur in adjacent trenches 200m apart (the Grouse Trench and Raspberry Hill Trench), that are up to tens to hundreds of metres thick and grade up to 0.198% Nb₂O₅ (see table below). Such mineralization, occurring at surface as it does, can be exploited using low-cost methods and has great economic significance as a potential co-product to the phosphate-REE mineralization that also occurs throughout the Complex and has been extensively reported on by the Company. By incorporating multiple commodities into the project’s resource modelling, the Company expects to substantially improve the outlook for eventual development.

TRENCH	From (m)	To (m)	Interval (m)	P2O5 (5)	Nb2O5 (%)	Ta2O5 (ppm)	U3O8 (ppm)	REE (ppm)
GROUSE	0.1	19.5	19.4	3.883	0.146	8.2	19.3	2072.4
	24.9	80.5	55.6	3.166	0.156	9.1	29.4	1963.5
	82.8	83.85	1.05	4.130	0.058	2.0	49.6	4930.0
	84.6	103	18.4	2.590	0.071	6.0	25.4	2919.8

includes	86	89	3	6.140	0.028	1.8	49.4	10820.5
	105.5	145	39.5	3.425	0.198	12.8	34.8	2404.2
	166.2	181.5	15.3	2.417	0.100	6.1	22.6	1510.3
	183.5	188	4.5	1.770	0.059	8.8	6.1	852.1
	191.5	308.2	116.7	3.154	0.100	3.5	48.9	2389.4
	308.2	408	99.8	Sampling gap, cedar swamp				
	408	417	9	3.172	0.071	9.3	28.4	1450.0
	426	498	72	3.608	0.092	8.6	78.0	1818.4
	498	613	115	Sampling gap, swamp, steep hill and glacial sand deposit				
	613	679	66	3.357	0.105	6.1	46.6	1331.6
679	685	6	Metasediments					
DRAGONFLY	0	96	96	5.040	0.067	14.5	44.2	1711.2
	96	102	6	Sampling gap, clay & pebble deposits				
	102	107.2	5.2	3.515	0.129	10.8	33.0	1662.3
	111	136.5	25.5	2.552	0.144	7.2	50.4	1225.6
	138	175.5	37.5	3.454	0.117	7.6	65.6	1234.7
	175.5	240	64.5	Sampling gap, ravine				
	240	286.5	46.5	3.028	0.157	23.7	56.4	1761.9
	286.5	320	33.5	Sampling gap, trail & steep hill				
	320	392	72	3.032	0.083	14.3	41.3	2067.5
	392	402	10	Sampling gap, mud & clay deposits				
	402	414	12	1.745	0.079	4.2	13.2	713.2
	416	466.5	50.5	2.020	0.104	8.6	14.1	832.9
472.5	505	32.5	2.514	0.076	16.7	19.1	1126.6	
RASPBERRY HILL	0	21	21	2.428	0.166	6.6	20.4	1452.5
	21	38	17	Sampling gap, clay & pebble deposits				
	38	48	10	2.710	0.268	8.7	22.0	1938.9
	48	52.5	4.5	Sampling gap, clay & pebble deposits				
	52.5	63.3	10.8	3.103	0.146	3.9	16.5	1917.3
	64.5	90.75	26.25	2.402	0.103	8.2	14.7	1877.7
	90.75	93.5	2.75	Sampling gap, clay deposit				
93.5	343.5	250	3.087	0.117	6.8	33.8	1806.7	
TRAILSIDE	0	71.5	71.5	1.768	0.049	12.9	23.5	879.0
WOLLASTONITE	0	169.5	169.5	4.352	0.082	9.6	28.9	1568.8
	169.5	250.0	80.5	Sampling gap, swamp				
	250	313.0	63.0	2.794	0.044	13.0	26.1	1171.4
	313	319.0	6.0	Sampling gap, trailway				
	319	332.5	13.5	2.888	0.044	11.5	23.7	1240.2
	332.5	344.5	12.0	Sampling gap, clay deposit				
	344.5	407.5	63.0	3.135	0.032	8.8	19.9	1289.2
410.5	463.0	52.5	1.673	0.062	12.4	29.9	998.4	

All samples were analysed by Activation Laboratories. Activation Laboratories is accredited under the Canadian Association For Laboratory Accreditation (CALA), ISO 9001:2015 and ISO 17025:2017. Samples were analysed for a whole rock and trace element ICP analytical package. An internal program of QA/QC was followed including the inclusion of blank material and standard reference materials into the sampling sequence.

Niobium is a vital alloying agent in steel production. The biggest application of this element is in the production of structural steel and the automotive and aerospace industries. Other applications affecting niobium demand include the niobium-bearing magnets that will be employed in very high-speed mag-lev trains, currently beginning to enter service; a potential replacement for air travel with substantial CO₂ reduction benefits. Current global demand of 107 kilotons per annum is expected to grow at a rate of 10% per annum to 2030 when the market is estimated to be US\$3B. The Prairie Lake project hosts a significant endowment of niobium (and phosphate and rare earth elements) in a logistically ideal location in central North America.

Prairie Lake is a major Critical Minerals asset located close to the major urban centres of North America. It hosts a very substantial Mineral Resource of phosphate mineralization, has amongst the world's highest known light rare earth element content in apatite and contains a host of other REE bearing minerals, as well as the niobium mineral, pyrochlore. Metallurgical studies demonstrate that a clean phosphate concentrate, grading 26% P₂O₅ at 76% process recovery with ample room for improvement, and with valuable rare earth element co-concentrate, can be reliably produced from the Prairie Lake feed.

The elements found at Prairie Lake are essential for applications in transportation, power distribution and storage, green technologies and agriculture, to name a few. The Project is of immense value to a secure Critical Minerals supply chain, and presents substantial logistical benefits, including easy access to:

- The Towns of Marathon, Terrace Bay, and other affected communities - all able to supply a local, skilled workforce.
- An all-weather forest access road crossing the project and deposit.
- Paved Highways 17 and 11 to the south and north.
- Canadian Pacific Railway and Canadian National Railway networks.
- A high capacity (230kV) electrical power transmission line.
- The Marathon deep water port project (50 km away). Deep-water ports able to handle ocean-going ships are also located at Thunder Bay and Sault Ste. Marie.
- The Marathon airport.

Laura Giroux, P.Geol, Chief Geologist, acts as Nuinsco's Qualified Person under National Instrument 43-101. Ms. Giroux has reviewed and approved the technical content of this news release

About Nuinsco Resources Limited

Nuinsco Resources has over 50 years of exploration success and is a growth-oriented, multi-commodity mineral exploration and development company focused on prospective opportunities in Canada and internationally. Currently the Company has the large multi-commodity (phosphate, rare earth element, niobium, tantalum) Prairie Lake Project near Marathon-Terrace Bay, the Zig Zag Lake Property (lithium, tantalum) near Armstrong optioned to First Class Metals PLC and retains a NSR royalty on the Sunbeam Gold Property near Atikokan.

Forward-Looking Statements

This news release contains certain "forward-looking statements." All statements, other than statements of historic fact, that address activities, events or developments that Nuinsco believes, expects or anticipates will or may occur in the future are forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as "seek," "anticipate," "believe," "plan," "estimate," "expect," and "intend" and statements that an event or result "may," "will," "can," "should," "could," or "might" occur or be achieved and other similar expressions. These forward-looking statements reflect the current expectations or beliefs of Nuinsco based on information currently available to Nuinsco. Forward-looking statements are subject to a number of risks and uncertainties that may cause the actual results of Nuinsco to differ materially from those discussed in the forward-looking statements, and even if such actual results are realized or substantially realized, there can be no assurance that they will have the expected consequences to, or effects on Nuinsco. Factors that could cause actual results or events to differ materially from current expectations include, among other things, failure to successfully complete financings, capital and other costs varying significantly from estimates, production rates varying from estimates, changes in world copper and/or gold markets, changes in equity markets, uncertainties relating to the availability and costs of financing needed in the future, equipment failure, unexpected geological conditions, imprecision in Mineral Resource Estimates, success of future development initiatives, competition, operating performance of facilities, environmental and safety risks, delays in obtaining or failure to obtain tenure to properties and/or necessary permits and approvals, and other development and operating risks. Any forward-looking statement speaks only as of the date on which it is made and, except as may be required by applicable securities laws, Nuinsco disclaims any intent or obligation to update any forward-looking statement, whether as a result of new information, future events or results or otherwise. Although Nuinsco believes that the assumptions inherent in the forward-looking statements are reasonable, forward-looking statements are not guarantees of future performance and accordingly undue reliance should not be put on such statements due to the inherent uncertainty therein.

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