

Nuinsco Demonstrates Potential to Increase Neodymium Grade in Concentrate at Prairie Lake Project

Toronto, May 6, 2021 – Nuinsco Resources Limited (“Nuinsco” or “the Company”) (CSE: NWI) today reported that metallurgical testing has demonstrated the potential to significantly upgrade the neodymium grade in concentrate, along with other rare earth elements (“REE”s), at its 100%-owned Prairie Lake project.

Neodymium (“Nd”) is an element vital in the global conversion to renewable energy and electric vehicle manufacture. Over the past 12 years Nd has ranged in price from a low of US\$15.47/kg in 2009 to a high of US\$251.74 in 2010; it currently trades at US\$66.10/kg, an increase of US\$17.06/kg over the past year¹. In addition to numerous other high-value REEs (see table below) as well as phosphate, these metallurgical findings increase the Company’s optimism for the economics of Prairie Lake. The enrichment in Neodymium is significant because of the anticipated increase in demand for this element to meet requirements for the expanding electrification of the world’s vehicle fleet and conversion to renewable energy sources.

New analyses were conducted on a suite of samples obtained from a historic metallurgical program conducted by the Company using gravity pre-concentration and flotation processes to evaluate the potential to produce a high-grade phosphate (P₂O₅) concentrate from Prairie Lake raw phosrock (carbonatite - see table below); as such the tests were optimized for phosphate recovery. The tests demonstrate the feasibility to upgrade raw Prairie Lake phosrock from circa 3.5% P₂O₅ to >30% P₂O₅ (34.03% and 32.03% in the case of the mean grade from the two tests reported here²). It is important to note that P₂O₅ is a vital non-renewable resource essential for sustaining the life of plants and animals.

While the phosphate grade was clearly enhanced in the metallurgical test by a factor of nearly 10 the REE content was also substantially increased. Although the tests were **not** optimized to REE recovery the concentrates produced still showed a substantial upgrade in REE concentration. In the case of neodymium (Nd), raw phosrock in the Prairie Lake carbonatite contains an average of 350 ppm Nd, while the average grade of the concentrates reported here are 1745 ppm Nd and 1659 ppm Nd – a concentration factor of approximately 4.5. Similar concentration factors are observed for other rare earth elements.

“The Prairie Lake project has the potential to create products that span a range of markets,” said Paul Jones, CEO. “The ability to produce a high-grade P₂O₅ concentrate from the Prairie Lake phosrock is a significant project milestone in itself; the added presence of by-product or co-product REEs cannot be overstated. The metallurgical results from Prairie Lake, coupled with the large scope of the project (refer to the technical report dated November 30, 2018 and filed on SEDAR), the excellent logistics, increased market demand for REEs, and supply chain and jurisdictional security make the project a very desirable asset. Additional sampling of Prairie Lake drill core will be conducted to continue to add detail to our understanding of the mineralization at the project.”

Amongst the REEs, Nd is particularly valued because of the critical importance of Nd-based permanent magnets in the manufacture of a range of new technological products including the high-performance electric motors and generators used in, for example, hybrid-electric vehicles and megawatt-scale wind turbines. However Nd is but one of the high-value minerals at Prairie Lake. Demand for REEs, as well as niobium, tantalum and phosphate, is projected to continue to rise as their use in a host of applications in the automotive, high-tech, clean-energy, telecommunication and global agriculture industries expands.

Prairie Lake consists of forty-six mineral claims covering an area of 630 ha which are superbly located, with ready access to power, road, rail and shipping infrastructure; it is easily accessed by an all-weather road from the TransCanada Highway, 28 kilometres to the south. The mineralization identified is entirely contained within the Prairie Lake carbonatite complex.

Element	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Y	Nb	Ta	P ₂ O ₅	
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	
Detection Limit	0.1	0.1	0.05	0.1	0.1	0.05	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.04	0.2	2	1	0.1	0.01	
	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS	FUS-MS
655274	943	2140	272	1100	190	51.1	121.0	14.6	66.1	9.6	19.4	2.0	9.8	1.25	3.3	219	471	10.7	17.88	
655275	1210	2870	369	1510	258	69.1	162.0	19.3	87.7	12.2	24.7	2.5	12.1	1.45	4.1	298	746	14.2	28.88	
655276	1470	3540	456	1830	317	84.4	201.0	23.7	106.0	14.8	30.3	3.0	13.4	1.71	2.4	359	326	6.6	37.62	
655277	1610	3840	496	2050	347	91.5	217.0	25.6	115.0	16.0	32.2	3.3	15.0	1.75	1.7	373	226	3.0	40.35	
655278	1510	3730	487	1950	337	88.6	214.0	25.0	109.0	15.4	30.8	3.1	13.7	1.64	1.4	370	204	2.8	41.26	
655279	1550	3830	500	2030	351	90.9	216.0	25.1	111.0	15.3	30.1	3.1	13.5	1.66	1.6	352	216	3.6	38.18	
Mean	1382	3325	430	1745	300	79.3	188.5	22.2	99.1	13.9	27.9	2.8	12.9	1.58	2.4	329	365	6.8	34.03	
655281	697	1580	202	796	137	37.2	88.7	10.8	48.7	7.1	14.9	1.6	7.7	0.99	3.1	183	412	9.1	13.77	
655282	1080	2570	331	1330	225	60.4	143.0	17.2	77.9	11.1	23.0	2.3	10.9	1.33	2.9	271	452	9.9	25.07	
655283	1430	3390	444	1790	305	81.4	194.0	22.7	104.0	14.5	29.0	3.0	13.5	1.66	2.1	352	269	5.0	36.17	
655284	1600	3840	503	2050	351	93.1	220.0	25.9	115.0	16.3	32.7	3.4	15.0	1.84	1.8	374	214	2.6	39.92	
655285	1560	3770	488	2030	350	91.0	214.0	24.9	112.0	15.6	32.0	3.1	14.2	1.75	1.8	367	228	3.8	39.27	
655286	1530	3690	487	1960	339	89.1	209.0	24.5	110.0	15.5	30.7	3.1	14.0	1.67	1.9	361	220	4.3	37.95	
Mean	1316	3140	409	1659	285	75.4	178.1	21.0	94.6	13.4	27.1	2.7	12.6	1.54	2.3	318	299	5.8	32.03	
655280	438	885	101	391	67.5	19.5	46.1	5.8	27.8	4.3	9.6	1.04	5.8	0.73	0.2	109	68	2.3	3.51	

¹Source: www.statista.com

² The rare earth elements, niobium, tantalum and P₂O₅ determinations reported here are from two metallurgical tests conducted by COREM in Quebec City, Quebec from a series of tests constituting a metallurgical program conducted on Prairie Lake carbonatite between 2009 and 2012. The results were produced from a metallurgical program designed to optimize P₂O₅ recovery using gravity pre-concentration followed by flotation; the tabulated results show recovery at six grind-size distributions for each metallurgical test. The mean grades reported for each test are the average grade of the analytical results for each of the six separate grind sizes. Sample 655280 is the raw, unprocessed, carbonatite phosrock. The analyses were generated by Activation Laboratories, Ancaster, Ontario using the analytical methods identified in the table and submitted to the laboratory under the 8REE analysis code with XRF option for Nb and Ta. Elements analyzed are La – Lanthanum, Ce – Cesium, Pr – Praesodymium, Nd – Neodymium, Sm – Samarium, Eu – Europium, Gd – Gadolinium, Tb – Terbium, Dy – Dysprosium, Ho – Holmium, Er - Erbium, Tm – Thulium, Yb – Ytterbium, Lu – Lutetium, Hf – Hafnium, Y – Yttrium, Nb – Niobium, Ta – Tantalum. P₂O₅ is the oxide of phosphorus.

L.A. Giroux, P.Geo., is a qualified person as defined by NI 43-101 and has reviewed and approved the technical contents of this press release regarding the Prairie Lake project.

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 two properties in Ontario – the high-grade Sunbeam gold prospect near Atikokan and the large, multi-commodity (rare-earths, niobium, tantalum, phosphorus) Prairie Lake project near Terrace Bay. In addition, Nuinsco has completed an agreement for gold exploitation at the El Sid project in the Eastern Desert of Egypt and has completed a metallurgical sampling and testing program on the project (August 12, 2020 Press Release).

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 commodities 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 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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