



# TALON METALS CONFIRMS HIGH-GRADE MINERALIZATION IN THE NEW RAPTOR ZONE WITH ASSAYS GRADING UP TO 6.93% NICKEL

Validates that the United States hosts additional high-grade nickel and progresses towards permitting for the underground mine and processing facility to supply Tesla

**Tamarack, Minnesota (April 19, 2023)** – Talon Metals Corp. ("**Talon**" or the "**Company**") (TSX:TLO/OTC:TLOFF), the majority owner and operator of the Tamarack Nickel-Copper-Cobalt Project ("**Tamarack Nickel Project**") in central Minnesota, confirms the presence of high-grade nickel in the newly discovered "Raptor Zone", with grades up to 6.93% nickel intersected.

Over the past several months, Talon has been advancing its dual strategy of (i) new exploration along the Tamarack Intrusive Complex, with the primary goal of discovering additional high-grade nickel-copper resources at the Tamarack Nickel Project; and (ii) progressing the requisite drilling, data collection, modelling, and engineering studies and designs to enable Talon to commence the environmental review process that starts the permitting process in the state of Minnesota and completing a feasibility study for the Tamarack Nickel Project. Talon is also progressing planning, design and permitting of its Battery Minerals Processing Facility in Mercer County, North Dakota, which was selected by the US Department of Energy for \$114m in grant funding under the Bipartisan Infrastructure Law in October of 2022.

Talon CEO Henri van Rooyen commented: "Today's assay results further demonstrate that the United States has additional high-grade nickel growth potential in its mineral endowment. In 1997, the Department of the Interior and US Geological Survey predicted that there were high-grade nickel mineralization zones in the US that are similar to zones in Canada and Russia. They focused on the US Mid-Continental Rift (MCR), which extends from Kansas up through Michigan. Talon is singularly focused on exploring for additional high-grade nickel in the United States to help meet the goals set by Congress and President Biden for a domestic supply chain for electric vehicles and batteries from mining through to recycling."

## **Exploration Update: Confirmed High-Grade Nickel in the New Raptor Zone**

Talon has received assay results for the newly drilled Raptor Zone, located nearly 2 miles (3.2 km) outside of the Tamarack Nickel Project's resource area. Talon believes it has confirmed a new "system" of high-grade nickel-copper mineralization within the Tamarack Intrusive Complex and consequently, is planning to drill an additional 20,000 meters within the Raptor Zone to determine if the 1-2 meters of identified high-grade massive nickel sulphide mineralization further thickens (similar to the Company's initial discovery within the CGO West area).





Figure 1: High-grade massive nickel sulphide mineralization intersected in 3 new holes within the Raptor Zone (Assays below in Table 1)

Assay results have been received for the 6 holes in the newly identified Raptor Zone that all intersected basal massive nickel mineralization (see Tables 1 and 2 below). These assays confirm that high-grade nickel mineralization exists well outside the Tamarack Nickel Project's resource area in the largely unexplored Raptor Zone.

Drill Hole	From	То	Length	Assay					
#	(m)	(m)	(m)	Ni (%)	Cu (%)	Co (%)	Pd (g/t)	Pt (g/t)	Au (g/t)
Raptor Zone: Head Area									
22TK0430	670.05	673.15	3.1	2.48	1.01	0.06	0.43	0.65	0.23
including	672.23	673.15	0.92	6.93	2.73	0.16	1.24	1.75	0.64
22TK0440	651.61	653.42	1.81	4.03	1.20	0.11	0.34	0.37	0.04
including	651.61	652.86	1.25	5.35	1.51	0.15	0.43	0.44	0.04
Raptor Zone: Crest Area									
22TK0439	539.86	542.49	2.63	2.20	1.14	0.06	0.29	0.38	0.34
including	541.94	542.49	0.55	4.96	2.76	0.13	0.83	0.89	1.13

<sup>\*</sup>See Table 3 for further technical information

Table 1: Notable Assay Results from New Drill Holes in the Raptor Zone

Brian Goldner, Chief Exploration and Operations Officer of Talon said: "These assays confirm that the mineralization drilled in the Raptor Zone is high-grade and that there is exciting potential for additional discoveries within the Raptor Zone. To me, it's exciting that we have 1500 meters of prospective ground, bookended by intercepts of high-grade nickel mineralization, that has not yet been drilled. There is



enough room in this undrilled portion of the Raptor Zone to fit more than 50 of the CGO West resource footprint (discovered by Talon in 2021). The Raptor Zone has all of the criteria needed for a top tier exploration target area – high grades, ample room and within just a few miles of the current Tamarack Nickel Project resource area. The primary objective of the Company's additional exploration efforts along the Tamarack Intrusive Complex is to enable Talon to identify future mineral resources to support the developing domestic battery manufacturing supply chain from mining through to recycling."

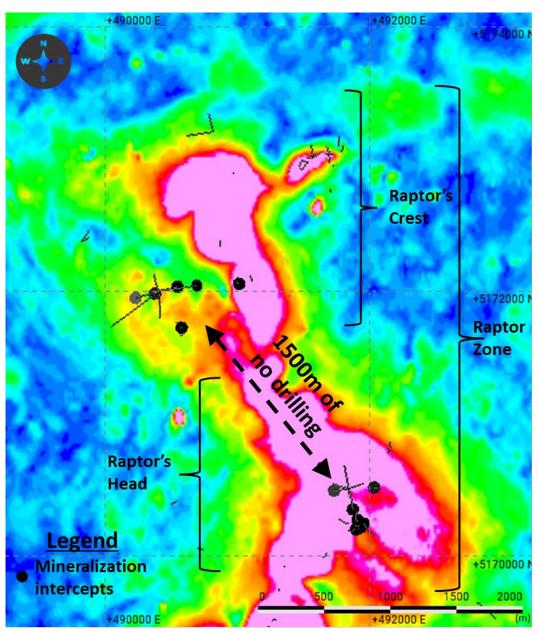


Figure 2: Analytical signal magnetic map showing the location of the Raptor Zone (red = highly magnetic)



During the winter drilling program, Talon had 2 drill rigs (of a total of 8 drill rigs operating, as further discussed below) focused solely on exploration drilling. In addition to drilling within the new Raptor Zone, exploration drilling during the winter season has also focused on drilling various geophysical targets located within and outside of Tamarack Nickel Project's resource area. Drilling of these targets remains ongoing.

## **Exploration: Next Steps**

With the completion of the Company's winter drilling program, the Company has plans for additional exploration drilling, with three to four drill rigs turning for the remainder of 2023. Exploration will focus on further drilling within the new Raptor Zone, with an additional 20,000 meters of drilling planned. In addition, the Company plans to drill between 3,000-5,000 meters in an area located approximately 1 km south of the Tamarack Nickel Project's resource area (currently referred to as the 164 Zone) where historic high-grade massive nickel sulphides have been identified but not yet followed up on.



Figure 3. Illustration to scale of the Tamarack Intrusive Complex and the areas of interest for the 2023 drilling program



## Significant Progress Towards Feasibility Study, Environmental Review and Permitting in Minnesota

### Winter Program (Production-related) Drilling Activities

Talon has had 8 drill rigs operating during the winter season in Minnesota, with 6 of these rigs dedicated to helping progress the Tamarack Nickel Project towards production.

Drilling and investigation activities have included, among other things, the following:

- 3 drill rigs conducting drilling activities for geotechnical characterization. This information will be used to inform the feasibility design of the surface and rail facilities.
- 1 vibrating sonic drill rig conducting overburden classification. This information will be used to do a feasibility design for the soil portion of the access tunnels to the underground mine.
- 1 truck rig conducting hydrophysical work for groundwater studies. This information will be used
  to supplement existing hydrogeological studies to inform feasibility design of water handling
  systems and water treatment.
- 1 diamond drill rig evaluating bedrock conditions for underground access and development. This
  information will be used to inform feasibility design of the rock portion of the access tunnel to the
  underground mine.

#### **Environmental Review and Permitting**

Talon has progressed studies and models to estimate potential environmental impacts that will form the basis for the Company's submission of documents for the State of Minnesota's environmental review process, inclusive of the Environmental Impact Statement (EIS), and to inform the feasibility study. More particularly, Talon has conducted data collection for the following:

- Groundwater studies (flow and quality);
- Surface water studies (flow and quality);
- Wetlands studies (flow and quality);
- Vegetation studies;
- Materials characterization studies (static and kinetic testing);
- Sound and vibration;
- Biological studies; and
- Archaeological reconnaissance survey and a historic architectural survey and assessment.

Talon also plans to further progress the following for the Tamarack Nickel Project:

- Evaluation of potential environmental resource impacts, including:
  - Air modelling;
  - Groundwater modelling;





- Surface water and wetland modelling;
- Geochemical modelling;
- Multimedia assessment modelling;
- Visual impact analysis;
- Traffic study;
- Cultural surveys;
- Wetland delineation study; and
- Reports and plans to support the development of the Environmental Impact Statement and environmental permitting.

Talon continues to conduct quarterly community meetings to share information and listen to concerns from the community. At the most recent community meeting, Talon representatives shared information about the new Raptor Zone and provided an update in respect of Talon's ongoing exploration efforts. Talon has also been sharing information with proximate tribal sovereign governments, consistent with the Company's <u>statement on tribal respect and engagement</u>. The environmental review process provides extensive opportunity for public feedback and government-to-government consultation.

## **Engineering and Feasibility Study**

Talon has completed significant engineering work for the underground mine and the surface facilities to inform the initial stages for Minnesota environmental review.

Talon believes that there is sufficient resource knowledge, geotechnical data, and environmental knowledge and data for Talon to continue to advance engineering work towards a feasibility study for the development of a mine and rail loadout facility at the Tamarack Nickel Project.

Environmental and regulatory considerations will be integrated during every step of the engineering design. The aim of early engagement and integration of environmental and regulatory considerations is to streamline the environmental review and permitting phase of the project.

Talon also intends to complete a similar package of initial engineering and environmental work for the Battery Minerals Processing Facility in North Dakota to support any applicable permitting reviews.

#### Quality Assurance, Quality Control and Qualified Persons

Please see the technical report entitled "November 2022 National Instrument 43-101 Technical Report of the Tamarack North Project – Tamarack, Minnesota" with an effective date of November 2, 2022 prepared by independent "Qualified Persons" (as that term is defined in National Instrument 43-101 ("**NI 43-101**")) Brian Thomas (P. Geo), Roger Jackson (P. Geo), Oliver Peters (P. Eng) and Christine Pint (P.G) for information on the QA/QC, data verification, analytical and testing procedures at the Tamarack Nickel Project. Copies are available on the Company's website (www.talonmetals.com) or on SEDAR at (<a href="www.sedar.com">www.sedar.com</a>). The laboratory used is ALS Minerals who is independent of the Company.

Lengths are drill intersections and not necessarily true widths. True widths cannot be consistently calculated for comparison purposes between holes because of the irregular shapes of the mineralized zones. Drill intersections have been independently selected by Talon. Drill composites have been independently calculated by Talon. The geological interpretations in this news release are solely those of the Company. The locations and distances highlighted on all maps in this news release are approximate.





Dr. Etienne Dinel, Vice President, Geology of Talon, is a Qualified Person within the meaning of NI 43-101. Dr. Dinel is satisfied that the analytical and testing procedures used are standard industry operating procedures and methodologies, and he has reviewed, approved and verified the technical information disclosed in this news release, including sampling, analytical and test data underlying the technical information.

#### **About Talon**

Talon is a TSX-listed base metals company in a joint venture with Rio Tinto on the high-grade Tamarack Nickel-Copper-Cobalt Project located in central Minnesota. Talon's shares are also traded in the US over the OTC market under the symbol TLOFF. The Tamarack Nickel Project comprises a large land position (18km of strike length) with high-grade intercepts outside the current resource area. Talon has an earn-in right to acquire up to 60% of the Tamarack Nickel Project, and currently owns 51%. Talon is focused on (i) expanding and infilling its current high-grade nickel mineralization resource prepared in accordance with NI 43-101 to shape a mine plan for submission to Minnesota regulators, and (ii) following up on additional high-grade nickel mineralization in the Tamarack Intrusive Complex. Talon has an agreement with Tesla Inc. to supply it with 75,000 metric tonnes (165 million lbs) of nickel in concentrate (and certain by-products, including cobalt and iron) from the Tamarack Nickel Project over an estimated sixyear period once commercial production is achieved. Talon has a neutrality and workforce development agreement in place with the United Steelworkers union. Talon's Battery Mineral Processing Facility in Mercer County was selected by the US Department of Energy for \$114m funding grant from the Bipartisan Infrastructure Law. Talon has well-qualified experienced exploration, mine development, external affairs and mine permitting teams.

For additional information on Talon, please visit the Company's website at www.talonmetals.com

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## **Forward-Looking Statements**

This news release contains certain "forward-looking statements". All statements, other than statements of historical fact that address activities, events or developments that the Company believes, expects or anticipates will or may occur in the future are forward-looking statements. These forward-looking statements reflect the current expectations or beliefs of the Company based on information currently available to the Company. Such forward-looking statements include statements relating to future exploration, drilling, assays and the results thereof, including discovering additional high-grade nickel-copper resources at the Tamarack Nickel Project and discovering a new "system"; commencing environmental review and undertaking further work and studies to support environmental review; completing a feasibility study; funding from the Department of Energy; Forward-looking statements are subject to significant risks and uncertainties and other factors that could cause the actual results 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 the Company.

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, the Company 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 the Company 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.



Table 2: Collar Locations of New Drill Holes Disclosed in this Press Release

Drill Hole (#)	Easting (m)	Northing Elevation (m) (masl) Azimut		Azimuth	Dip	End Depth (m)		
Raptor's Head (formerly 221 Zone)								
22TK0430	491840.7	5170512.7	388.0	169.2	-74.9	735.0		
22TK0438	491840.7	5170512.7	388.0	169.7	-83.0	698.3		
22TK0440	491840.7	5170510.0	388.0	260.7	-79.6	679.9		
Raptor's Crest (formerly 264 Zone)								
22TK0419	490407.0	5171997.0	388.0	160.9	-73.0	638.4		
22TK0426	490407.0	5171997.0	388.0	66.8	-73.0	530.4		
22TK0432	490404.0	5172003.4	388.0	341.5	-73.7	596.2		
22TK0436	490404.0	5172003.4	388.0	251.8	-73.8	666.9		
22TK0439	490404.0	5172003.4	388.0	0.0	-90.0	551.1		
22TK0441	490404.0	5172003.0	388.0	80.0	-52.0	595.4		

Collar coordinates are UTM Zone 15N, NAD83

Azimuths and dips are taken from survey record at collar unless otherwise noted

Table 3: Assay Results of New Drill Holes Referred to in this Press Release

Drill Hole	From	То	Length	Assay						
#	(m)	(m)	(m)	Ni (%)	Cu (%)	Co (%)	Pd (g/t)	Pt (g/t)	Au (g/t)	
Raptor Zone: Head Area										
22TK0430	670.05	673.15	3.1	2.48	1.01	0.06	0.43	0.65	0.23	
including	672.23	673.15	0.92	6.93	2.73	0.16	1.24	1.75	0.64	
22TK0440	651.61	653.42	1.81	4.03	1.20	0.11	0.34	0.37	0.04	
including	651.61	652.86	1.25	5.35	1.51	0.15	0.43	0.44	0.04	
Raptor Zone: Crest Area										
22TK0426	486.13	487.56	1.43	1.73	0.94	0.06	0.29	0.32	0.14	
22TK0436	625.37	626.42	1.05	3.23	1.15	0.10	0.21	0.17	0.03	
22TK0439	539.86	542.49	2.63	2.20	1.14	0.06	0.29	0.38	0.34	
including	541.94	542.49	0.55	4.96	2.76	0.13	0.83	0.89	1.13	
22TK0441	519.4	520.14	0.74	1.52	1.43	0.04	0.24	0.35	0.53	
Other holes in the Raptor Zone										
22TK0419			·							
22TK0432	No Significant mineralization observed									
22TK0438										

Length refers to drill hole length and not True Width.

True Width is unknown at the time of publication.

All samples were analysed by ALS Minerals. Nickel, copper, and cobalt grades were first analysed by a 4-acid digestion and ICP AES (ME-MS61). Grades reporting greater than 0.25% Ni and/or 0.1% Cu, using ME-MS61, trigger a sodium peroxide fusion with ICP-AES finish (ICP81). Platinum, palladium and gold are initially analyzed by a 50g fire assay with an ICP-MS finish (PGM-MS24). Any samples reporting >1g/t Pt or Pd trigger an over-limit analysis by ICP-AES finish (PGM-ICP27) and any samples reporting >1g/t Au trigger an over-limit analysis by AAS (Au-AA26).



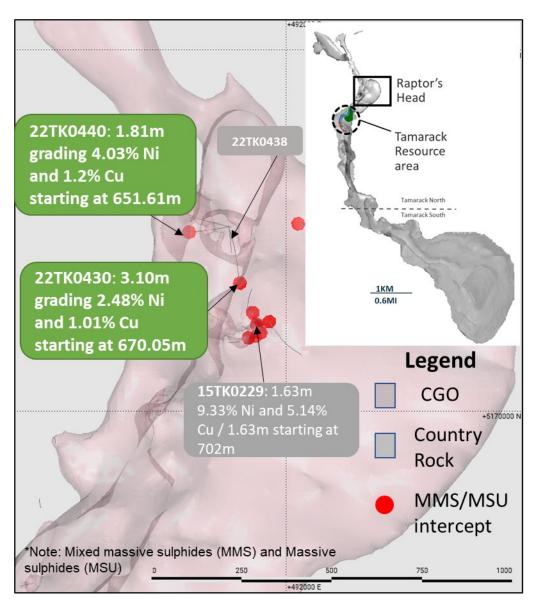


Figure 4. Plan view of the Raptor's Head showing the location of the new drill holes (in green) with intercepts of highgrade nickel mineralization



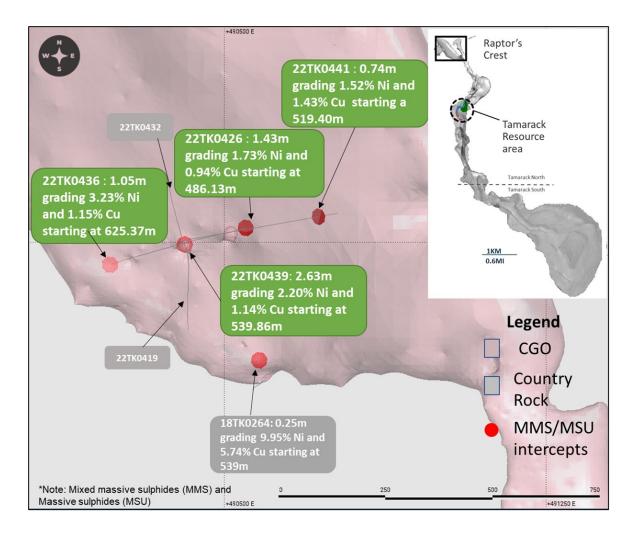


Figure 5. Plan view of the Raptor's Crest showing the location of the new drill holes (in green) with intercepts of highgrade nickel mineralization