# A SIGNIFICANT FUTURE GLOBAL PRODUCER OF CRITICAL METALS TUNGSTEN & MOLYBDENUM IN CANADA, MAJOR PERMITS IN HAND

## SECURING DEFENSE SUPPLY CHAINS<sup>1</sup>

The Sisson Tungsten-Molybdenum Project is the solution to securing the United States of America's defense supply chain for tungsten, a critical mineral from action by the People's Republic of China.

## KEY POINTS FROM THE H. REPT. 118-125 - NATIONAL DEFENSE AUTHORISATION ACT FOR FISCAL 2024 (118TH CONGRESS, 2023-2024)

- Overreliance on China: The Department of Defense relies heavily on China for critical minerals and rare earth elements, posing a national security risk
- Defense Industrial Base Vulnerability: Current supply chain visibility remains insufficient to identify and address potential disruptions
- Report Required: The Department must provide a report by December 15, 2023 (pending), addressing:
  - Vulnerability reporting requirements for industry partners
  - Feasibility and cost-benefit analysis of improving data collection for top 3 critical minerals
  - Progress and future efforts in diversifying supply chains away from China
  - Elements for a successful partnership with industry to enhance supply chain security

## SISSON PROJECT NEW BRUNSWICK

## **RESERVE AND RESOURCE**

- One of the largest western-world resource of tungsten
- Tungsten-molybdenum deposit amenable to open-pit mining

## OFFTAKE

- Indicative offtake interest (in excess of 100%) received from key western offtakers for both tungsten & molybdenum
- Samples provided to key offtakers confirming quality & specifications

## **SECURE TUNGSTEN SUPPLY<sup>1</sup>:**

- Committee's Concern: Supply disruptions remain a risk for tungsten ores and concentrates
- Briefing Required: The National Defense Stockpile Administrator must brief the Committee by December 31, 2023 (pending), on:
  - Maintaining sufficient tungsten in the stockpile while ensuring non-Chinese feedstocks for US industry
  - 🗞 A five-year plan for tungsten acquisitions and disposals.
  - ✤ Supporting domestic tungsten production

## **BENEFITS:**

- Enhanced national security by reducing reliance on China Sisson Tungsten-Molybdenum Project has the potential to be the largest producer of tungsten outside of China
- Increased supply chain visibility and resilience *Canada is considered a domestic source by the US government*
- Strengthened domestic critical mineral production All major approvals received, pre-construction conditions currently being addressed, construction start deadline December 2025
- Supporting a close partner and ally, Canada Sisson Tungsten-Molybdenum Project is located in eastern Canada

## **ACTIONABLE STEPS:**

- Implement the committee's directives DPA is currently reviewing Northcliff's Whitepaper submission (June 2023) for its Title III Funding Opportunity Announcement (FOA) FA8650-19-S-5010
- Develop and implement a comprehensive strategy for diversifying critical mineral supply chains *Canada is considered a domestic source by the US government*
- Invest in domestic production and processing capabilities *Production from the Sisson Tungsten-Molybdenum Project could be further processed or used in downstream supply chain activities in the US*
- Collaborate with allies and partners to secure critical minerals *Canada is considered a domestic source by the US government*
- H. Rept. 118-125 NATIONAL DEFENSE AUTHORIZATION ACT FOR FISCAL YEAR 2024, 118th Congress (2023-2024) https://www.congress.gov/congressional-report/118th-congress/house-report/125/1

#### SISSON DEPOSIT MINERAL RESERVES (JANUARY 2013 AT \$8.83/TONNE NSR CUT-OFF<sup>2</sup>)

Category	Cut-OffGrade (NSR \$/t)	Tonnes (Mt)	NSR (\$/t)	WO3 (%)	Mo (%)	Tungsten (WO3) (million mtu)	Contained Mo (MIb)	
Proven	8.83	105.4	25.48	0.069	0.023	73	53.0	
Probable	8.83	228.9	23.54	0.065	0.020	14.9	101.7	
Total	8.83	334-4	24.15	0.066	0.021	22.2	154.8	

<sup>2.</sup> Contained within Ultimate PitLimit. Metal Prices: W03 – U\$350/ mtu, Mo – U\$\$15/lb: ASSumed Concentrator Recoveries: W03 – variable with feed grade, Mo – 82%, APT Plant Recovery of W03 – 97%; U\$\$:CDN\$0.9:1; NSR = (W03% \* NSP W03\*Recovery MO3\*22.046) + (Mo%\*NSP Mo Recovery MO\*22.046); Net Smelter Price (NSP) W03 = CDN\$17.46/lb; Mo = CDN\$45.50/lb. Reserve estimate by independent qualified person Jim Gray, P.Eng, Moose Mountain Technical Services. For further details see March 2013 Technical Report filed under the Northchift profile at www.sedarplus.ca

**MARCH 2024** 

#### **TECHNICAL STUDIES**

- Conventional open-pit mining at strip ratio 1:1 (LOM)
- LOM 27 years at 30,000 tpd
- Three-stage crushing, grinding and flotation
- Owner operated, contractor option
- Project projected to be in the lowest quartile of cash cost curve

## INDICATIVE PROJECT DEVELOPMENT PHASES PHASE 1

- ENVIRONMENTAL: Addressing EIA conditions & update studies
- MINOR PERMITTING: Minor permits to be applied for as required by stage of activities
- ENGINEERING & DESIGN: Advance project engineering & design to construction stage

## PHASE 2

- REVIEW/UPDATE FEASIBILITY STUDY: Finalize project engineering & design to construction stage
- OPERATIONAL PERMITS: Required at start of construction & operations
- OFFTAKE AGREEMENTS: Secure offtake agreements for tungsten & molybdenum
- OWNERS EQUITY: Secure sources of owners equity required for construction
- PROJECT FINANCE: Secure project finance (debt) to fund balance of construction costs

## PHASE 3

- FINAL INVESTMENT DECISION
- FUNDING DRAWDOWN
- OPERATIONAL PERMITS: Required at start of construction & operations
- CONSTRUCTION START

## PHASE 4

OPERATIONS START

## **EXISTING INFRASTRUCTURE & WORKFORCE**

- Well established power, roads & rail lead to Project site
- · Access to low-cost power & qualified workforce
- Deep sea ports located both north and south of Sisson accessible year-round by road & rail
- Close proximity to urban areas accessing local skilled workforce
- New Brunswick can supply all considerable supplies & commercial services for site preparation, mining & construction
- Daily international commercial air service from Fredericton, as well as rail, bus, courier & truck transport
- Principal water requirements for mine operation will be supplied by recycling & reuse of water captured in the tailings storage facility

## **PROJECT FINANCING CONSIDERATIONS**

- Tungsten & Molybdenum concentrates (offtaker-based) eligible for untied Export Credit Agency (ECA) support to guarantee commercial bank debt (up to 90%)
- Tied ECA financing available depending on EPC strategy and equipment sourcing

## **OWNERSHIP**

- NCF holds 88.5% interest in the Sisson Partnership
- Todd Corporation owns 11.5% in the Sisson Partnership & 80.86% of Northcliff
- Issued shares 589,112,000



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This document contains "forward-looking statements" that are based on Northcliff's expectations, estimates and projections as of the dates as of which those statements were made. Generally, these forward-looking statements are bubject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking statements. The assumptions used by Northcliff to develop forward-looking statements include the following: the Sisson Project will obtain or retain all required licences, leases and permits for construction of the mine, the Sisson Project will achieve targeted goed unknown risks, no material labour slow downs or strikes are incurred; plant and equipment functions as specified; geological or financial parameters do not necessitate future mine plan changes; and no geological or technical problems occur; and that we will be able to secure sufficient capital necessary for construction. The factors used include, but are not limited to uncertainties and cost prelated to process and the Company's exploration and development retivities, such as sociated which must be completed prior to any potential development of the Sisson Project which would and till for development projects; operation and divelopment activities; uncertainties related to process and the Company's exploration and development returives; such as those associated with determining whether mineral resources or reserves exist on a property; uncertainties related to the ability to obtain necessary licenses, project which may development trojects; operating and financial difficulties in connection with mining development returities; uncertainties related to the ability to obtain necessary licenses, premis, electricity, surface rights and title development prioets; operating and the fancial difficulties in connection with mining development antilling; curranzy of our mineral reserves; uncertaintie

#### CAUTIONARY NOTE TO U.S. INVESTORS CONCERNING RESOURCE AND RESERVE ESTIMATES

The mineral resource and reserves and other technical terms used in this presentation are defined under the CIM Definition Standards on mineral resources and reserves (the "CIM Definition Standards") adopted by the Canadian Institute of Mining, Metallurgy and Petroleum in 2014, in accordance with Canadian Institute of Josciosure for Mineral Projects ("NI 43-101"), as required by Canadian securities regulatory authorities. Although the Company is not subject to the reporting requirements of section 13(a) of section 15(d) of the United States Securities Exchange Act of 1934, as amended, the Company's U.S. investors should be aware that the SEC has adopted amendments to modernize the mineral property disclosure requirements for issuers whose securities are registered with the SEC (the "SEC Modernization Rules") with definitions which are "substantially similar" to the corresponding terms under the CIM Definition Standards on the SEC move recognizes estimates of "measured mineral resources", "indicated mineral resources" and "inferred mineral resources" and a samended its definitions of "proven mineral reserves" and "probable mineral resources" to be "substantially similar" to the corresponding CIM Definitions. Accordingly, there is no assurance any mineral resources or mineral resources that we may report under 43-101 would be the same had we prepared the resource estimates on the standards adopted under the SEC Modernization Rules.

Technical information contained in this presentation has been reviewed and approved by Tanya Yang PEng (engineering) and James Lang, PGeo, (geology). Both are qualified persons and are not independent of Northcliff Resources Ltd.