

## Northcliff Reports on Critical Metal Technology Advances Faster Charging of Batteries

**October 11, 2022 Vancouver, BC** - Northcliff Resources Ltd. (“Northcliff” or the “Company”) (TSX: NCF) is pleased to report on new and interesting technology advancements using tungsten that could lead to faster charging of batteries, potentially solving a key hindrance in the transition to a greener economy.

Nyobolt Limited (“Nyobolt”) is commercializing lithium-ion batteries with record power density and ultra-fast charge capabilities. Nyobolt’s technology builds on a decade of fast charge lithium-ion battery research led by University of Cambridge battery scientist Professor Dame Clare Grey. Nyobolt’s unique niobium and **tungsten**-based anode systems show superior performance over other Li-ion anode technologies. Advantages include:

- Charging time: >90% charged in <5 minutes
- Higher input power density: 10x power addresses range anxiety and allows for smaller and lighter batteries
- Longer durability: 10x durability resulting in lower total cost of ownership for battery lifetime
- Improved safety: wider temperature performance and reduced fire risk

Such capabilities enable new applications and enhanced customer experience with target end uses being high performance and industrial vehicles, automation (robotics), consumer appliances, cordless tools, stationary storage and mobile rapid charging<sup>1</sup>.

Researchers at the Department of Energy's Oak Ridge National Laboratory and the University of Tennessee, Knoxville, discovered a key material needed for fast-charging lithium-ion batteries. The commercially relevant approach opens a potential pathway to improve charging speeds for electric vehicles. Results published in *Advanced Energy Materials* demonstrate a novel fast-charging battery anode material achieved by using a scalable synthesis method. The team discovered a novel compound of **molybdenum-tungsten**-niobate, or MWNO, with fast rechargeability and high efficiency that could potentially replace graphite in commercial batteries<sup>2</sup>.

Andrew Ing, Northcliff’s CEO, states “We are encouraged by the development of these technologies that may play an important part in the energy transition, further signifying the critical importance of tungsten and molybdenum. Tungsten and molybdenum are listed as critical metal in Canada, tungsten in the United States and numerous other countries, and successful commercialisation of the new technology could positively impact the demand for tungsten and molybdenum.”

### About Northcliff Resources Ltd.

Northcliff is a mineral resource company focused on advancing the feasibility-stage Sisson tungsten-molybdenum project located in New Brunswick, Canada, to production. Additional information on Northcliff is available on the website at [www.northcliffresources.com](http://www.northcliffresources.com). Investor services can be reached at (604) 684-6365 or within North America at 1-800-667-2114.

Andrew Ing  
President & CEO

<sup>1</sup> <https://www.hcstarck.com/en/h-c-starck-invests-in-nyobolt-an-ultra-fast-charging-ultra-high-power-density-battery-business/>

<sup>2</sup> <https://techxplore.com/news/2022-09-lithium-ion-battery-material-barrier-fast.html>

## Forward-Looking Information

This news release contains forward-looking information based on current expectations. Forward-looking information is provided for the purpose of presenting information about management's current expectations and plans relating to the future and readers are cautioned that such statements may not be appropriate for other purposes. Forward looking information may include, without limitation, the opinions or beliefs of management, prospects, opportunities, priorities, targets, goals, ongoing objectives, milestones, strategies, and outlook of Northcliff, and includes statements about, among other things, future developments, the future operations, strengths and strategy of Northcliff. Generally, forward looking information can be identified by the use of forward looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved". These statements should not be read as guarantees of future performance or results. These statements are based upon certain material factors, assumptions and analyses that were applied in drawing a conclusion or making a forecast or projection, including Northcliff's experience and perceptions of historical trends, the ability of Northcliff to maximize shareholder value, current conditions and expected future developments, as well as other factors that are believed to be reasonable in the circumstances.

Although such statements are based on management's reasonable assumptions at the date such statements are made, there can be no assurance that it will be completed on the terms described above and that such forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such forward-looking information. Accordingly, readers should not place undue reliance on the forward-looking information. Northcliff assumes no responsibility to update or revise forward-looking information to reflect new events or circumstances unless required by applicable law.

For additional information regarding forward-looking statements and their related risks, please refer to the "Risk Factors" section in the Annual Information Form of the Company for the year ended on October 31, 2021, which is available on the Company's SEDAR profile at [www.sedar.com](http://www.sedar.com).

