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December 13, 2023

File: W2022C0004

Mark Cliffe-Phillips
Mackenzie Valley Review Board
200 Scotia Centre
Box 938, 5102-50th Avenue
Yellowknife NT X1A 2N7

Sent by email

Dear Mark Cliffe-Phillips,

Re: Tharsis Project – Northern Critical Minerals Corp. – Notice of Preliminary Screening Determination – Amendment Application for Land Use Permit – Mineral Exploration – Squalus Lake, NT

The Wek'èezhì Land and Water Board (Board) met on December 13, 2023 and considered the Application Package from Northern Critical Minerals Inc. (NCM) for Land Use Permit (Permit) W2022C0004 for the Tharsis Project at Squalus Lake, NT (Project) in accordance with the *Mackenzie Valley Resource Management Act* (MVRMA).

The Board conducted a preliminary screening based on the public record for the proceeding. Based on the evidence provided, the Board is satisfied the screening has been completed according to section 125 of the MVRMA and has decided **not to refer** the changes to the Project to environmental assessment. The Board's Preliminary Screening Determination and Reasons for Decision, as required by section 121 of the MVRMA, is attached.

If the Board does not receive notice of referral to environmental assessment, it can proceed with issuance of Permit W2022C0004 on **Sunday, December 24, 2023**.

The Board and staff look forward to continued communications throughout the pause period. Please contact Ryan Fequet via [email](#) or at (867) 765-4589 with any questions or concerns regarding this letter.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Mason Mantla', written in a cursive style.

Mason Mantla
Chair, Wek'èezhì Land and Water Board

BCC'd to: Wek'èezhì Distribution List
Jared Suchan, NCM

Attached: Preliminary Screening Determination and Reasons for Decision



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Preliminary Screening Determination and Reasons for Decision

Land Use Permit Application	
File Number	W2022C0004
Company	Northern Critical Minerals Corp.
Project	Tharsis Project
Location	Squalus Lake, NT
Activity	Mining Exploration
Date of Decision	December 13, 2023

1.0 Decision

In accordance with subsection 124(1) of the [Mackenzie Valley Resource Management Act](#) (MVRMA), the Wek'èezhì Land and Water Board (WLWB or Board) met on December 13, 2023 to make a preliminary screening determination on the Amendment Request from Northern Critical Minerals Corp. (NCM)(Applicant) for Land Use Permit W2022C0004 (Permit)¹ for the Tharsis Project located at Squalus Lake, NT (Project).²

The Board has determined that some Project activities and/or areas are exempt from preliminary screening, because they were previously screened. The Applicant has proposed new Project areas,

¹See WLWB Online Registry [www.wlwb.ca] for [Tharsis Project – Amendment Request – Nov 17, 23](#).

² The Project is the Tharsis Project, which is the proposed development, where “development” is defined in Part 5 of the [MVRMA](#) as:

“any undertaking, or any part or extension of an undertaking, that is carried out on land or water and includes an acquisition of lands pursuant to the *Historic Sites and Monuments Act* and measures carried out by a department or agency of government leading to the establishment of a park subject to the *Canada National Parks Act* or the establishment of a park under a territorial law.”

however, and the Board has decided not to refer the proposed changes to the Project to the Mackenzie Valley Environmental Impact Review Board (the Review Board) for Environmental Assessment because, based on the evidence, it is the Board's opinion that the proposed changes to the Project will not have a significant adverse impact on the environment or be a cause of public concern.

The Board's determination, including reasons for its decision, are detailed in sections [3.0](#) and [4.0](#).

2.0 Background and Scope of Screening

The WLWB issued Permit W2022C0004 on July 8, 2022 for a period of five years commencing July 8, 2022 and expiring July 7, 2027.³ The Permit is to conduct Mineral Exploration activities including: diamond drilling and Reverse-Circulation drilling; use of equipment, vehicles, and machines; use and storage of fuel; construction, operation, and maintenance of a temporary camp and potential satellite camps; and, establishment and maintenance of winter-access trails within the property. The Tharsis Project is located at Squalus Lake, the area is traditionally known as Saàhmjiti, NT.

On November 17, 2023, the WLWB received an application to assign the Permit to Northern Critical Minerals Corp. (NCM).⁴ On November 17, 2023, the company also submitted a complete Request to amend the Type A Land Use Permit.⁵ In NCM's submission, the Company stated its Request to amend the Permit is to include an additional five mineral claims that are staked contiguous to the claims in the existing permit adding them to the exploration property known as Tharsis. Each area of the mineral claims is 1,250 hectares, the five claims equal a total of 6,250 hectares in additional claims.

The Assignment Application and Amendment Request were distributed for public review on November 17, 2023, along with the previous Preliminary Screening, inviting Parties to provide comments and recommendations using the Online Review System (ORS).⁶ A draft Permit was also circulated for review.⁷ The Amendment Request is subject to preliminary screening, as required under subsection 124(1) of the *Mackenzie Valley Resource Management Act* (MVRMA). Parties were encouraged to provide comments and recommendations (e.g., on impacts and mitigation measures) to assist with the completion of the preliminary screening. Reviewer comments were due December 6, 2023. Comments and recommendations were received by the Government of the Northwest Territories Department of Environment and Climate Change (GNWT-ECC)-Inspector. Reviewer recommendations and the proponent responses are available on the WLWB Online Registry.⁸

Since no concerns regarding timelines were received during the public review and no requests to extend the reviewer comment deadline were received, the Board is satisfied that a reasonable period of notice was given to affected communities and First Nations, as required by subsection 63(2) of the *Mackenzie*

³ See WLWB Online Registry for [Tharsis Project – Land Use Permit – Jul 8 22](#)

⁴ See WLWB Online Registry [Tharsis Project – Assignment Application – Nov 17 23](#)

⁵ See WLWB Online Registry [Tharsis Project – Amendment Request – Nov 17 23](#); [Tharsis Project - Amendment Request- Assignment Application - Engagement Log – Nov 17 23](#)

⁶ See WLWB Online Registry for [Tharsis Project - Preliminary Screening Determination and Reasons for Decision - Jun 27 22](#)

⁷ See WLWB Online Registry for [Tharsis Project – Draft Land Use Permit – Nov 17 23](#)

⁸ See WLWB Online Registry for [Tharsis Project – Assignment Application and Amendment Request](#)

Valley Resource Management Act (MVRMA). The Board is also satisfied that the Tłı̨chǫ Government has been consulted in accordance with section 63(3) of the MVRMA.

On December 13, 2023, the Board decided to assign Permit W2022C0004 from Voyageur Exploration Ltd. to Northern Critical Minerals Corp., in accordance with the *Mackenzie Valley Resource Management Act* (MVRMA).⁹ The Board subsequently considered NCM’s request to amend W2022C0004 to include the additional mineral claims.

The Application include proposed changes to the Project. Under Part 1, Schedule 1, section 2.1 of the Exemption List Regulations to the [MVRMA](#), project areas and activities that have already been subject to Part 5 of the MVRMA are exempt from preliminary screening. The new Project areas require screening by the Board in accordance with subsection 124(1) of the MVRMA.

In accordance with paragraph 125(1)(a) of the [MVRMA](#), the Board must conduct a preliminary screening of the proposed changes to the Project to determine and report to the Review Board whether, in its opinion, the proposed changes to the Project might have a significant adverse impact on the environment, or might be a cause of public concern. The details of the Board’s analysis are set out in section [4.0](#) below.

3.1 Scope of Screening:

Previously Screened or Assessed Areas and Activities:

Activities that the Board understands to have been previously considered,¹⁰ and which therefore do not require preliminary screening at this time, are listed below.

Voyageur Exploration Ltd. submitted an application for a Type A Land Use Permit to the Wek’èezhìi Land and Water Board (WLWB) on May 18, 2022. The purpose of that application was to conduct mineral exploration including diamond drilling and Reverse-Circulation drilling; use of equipment, vehicles, and machines; use and storage of fuel; construction, operation, and maintenance of a temporary camp and potential satellite camps; and establishment and maintenance of winter-access trails within the property. The area was previously screened, including the mineral claims included in the screening, are outlined in the Preliminary Screening that was conducted on June 27, 2022.

Previously Screened areas:

	Tenure #	Mineral Claim #	Previously Held by:	Owners:	Issued Date	Anniversary Date	Hectares
1	M10374	THARSIS 3	Voyageur Exploration Ltd.	(20594) Northern Critical Minerals Corp. 100.00%	2021-07-06	2023-07-06	1,250.00
2	M10375	THARSIS 2	Voyageur Exploration Ltd.	(20594) Northern Critical Minerals Corp. 100.00%	2021-07-06	2023-07-06	1,250.00

⁹ See WLWB Online Registry for [Tharsis Project - Land Use Permit - Assignment - Dec 13 23](#)

¹⁰ See WLWB Online Registry for [Tharsis Project – Preliminary Screening Determination and Reasons for Decision – Jun 27 22](#)

These proposed activities will occur on 2 mineral claims owned by Voyageur Exploration Ltd. in the vicinity of Squalus Lake (traditionally known as Saàhmjiti). The mineral claims total an area of 2,500 hectares, and up to 100 drill holes are expected per year with 15 drill holes expected for the first year. The Tharsis campsite will tentatively be located at the following coordinates: 63 54' 34.8"N and 113 09' 19.7"W, the exact locations for the potential satellite camp, fuel cache, drilling locations, and associated water sources have yet to be finalized, though it is expected that Squalus Lake will be the primary source of water for the camp and drilling activities. The capacity for the camp will be a maximum of 30 people with the average being around 15 people for the majority of the exploration program. The Applicant also stated that there is a potential for ground access via a winter road to the site via the Tłıchǫ Community of Wekweètì or the Tibbit-Contwoyto Winter Road.

New Areas:

No new activities are being requested by NCM. The Applicant has stated in the Amendment Request that the reasons for the Amendment to the condition is because five additional mineral claims have been staked adjacent to the original mineral claims. NCM emphasized that the scope of work remains unchanged from the original application, such as that there is no additional equipment or volume of fuel planned. Furthermore, NCM states that there are no changes to the proposed camp, regulated/hazardous materials, hydrocarbon storage and transfer, land disturbance, or equipment, the final security determination remains unchanged and an updated closure cost estimate from the original application is not warranted.

New Areas being Screened:

	Tenure #	Mineral Claim #	Owners:	Issued Date	Anniversary Date	Hectares
1	M12245	THARSIS 1	(20594) Northern Critical Minerals Corp. 100.00%	2022-11-07	2024-11-07	1,250.00
2	M12246	THARSIS 4	(20594) Northern Critical Minerals Corp. 100.00%	2022-11-07	2024-11-07	1,250.00
3	M12247	THARSIS 5	(20594) Northern Critical Minerals Corp. 100.00%	2022-11-07	2024-11-07	1,250.00
4	M12248	THARSIS 6	(20594) Northern Critical Minerals Corp. 100.00%	2022-11-07	2024-11-07	1,250.00
5	M12249	THARSIS 7	(20594) Northern Critical Minerals Corp. 100.00%	2022-11-07	2024-11-07	1,250.00

3.2 Public Record and Regulatory Proceeding

To assist the Board in its preliminary screening determination for the Project, the Board distributed the Application and a draft Permit for public review on November 17, 2023, inviting reviewers to provide comments and recommendations on the Application and the preliminary screening (e.g., on impacts and mitigation measures) using the Online Review System (ORS). Comments were due December 6, 2023, with responses from the Applicant due December 7, 2023. The Board received a comment and recommendation from the Government of the Northwest Territories Department of Environment and

Climate Change (GNWT-ECC)-Inspector and Tłıchǫ Government (TG). GNWT-Environment and Climate Change (GNWT-ECC) stated they had no comments or recommendations at the time.¹¹

Since there were no requests to extend the reviewer comment deadline, the Board is satisfied that a reasonable period of notice was given to affected communities and First Nations, as required by subsection 63(2) of the [MVRMA](#).

The Board is also satisfied that notice of the Application was provided to the Tłıchǫ Government (TG) and that a reasonable period of time was provided for the TG to make representations to the Board in accordance with section 63 of the [MVRMA](#).

3.0 Potential Impacts and Proposed Mitigations

Table 1 below summarizes:

- the potential impacts of the proposed changes to the Project;
- the concerns that were identified during the regulatory proceeding and how the Applicant addressed those concerns;
- the proposed and potential mitigations for the potential impacts; and
- the Board’s analysis of the potential impacts and proposed mitigations.

¹¹ See WLWB Online Review System for [Tharsis Project – Assignment Application and Amendment Request – Nov 17 23](#).

Table 1: Potential Impacts and Proposed Mitigations for the Proposed Changes to the Project

Potential Impact	Activity	Proposed Mitigations <i>Description of measures to reduce potential impacts, including consideration of cumulative impacts and climate change.</i>	Board Analysis and Determination
Land Use Area	Drilling activities	<ul style="list-style-type: none"> • The Applicant proposed the following mitigations in the Application: <ul style="list-style-type: none"> o Drilling operations will be restricted to a very small footprint which will subsequently be reclaimed to its natural state using CCME and industry best practices. o Applicant will remove or cut off and seal each drill casing at ground level. • The Board has standard permit conditions that are typically used to mitigate the described impacts. These standard conditions include: <ul style="list-style-type: none"> o LOCATION OF ACTIVITIES o DRILLING NEAR WATER OR ON ICE o DRILLING WASTE o DRILLING WASTE DISPOSAL o DRILLING WASTE CONTAINMENT o FLOWING ARTESIAN WELL o DRILL LOCATIONS o SUMP SETBACK 	Based on the described mitigations, it is the Board's opinion that the proposed activities will not have a significant adverse impact on the environment or be a cause of public concern.
Soil Compaction; compaction of vegetation	Drilling	<ul style="list-style-type: none"> • The existing Permit has conditions which is used to mitigate the described impact: <ul style="list-style-type: none"> o Prevention of Rutting o Suspend Overland Travel o Vehicle Movement Freeze-up 	Based on the described mitigations, it is the Board's opinion that the proposed activities will not have a significant adverse impact on the environment or be a cause of public concern.

Water table alteration	Drilling	<ul style="list-style-type: none"> • The existing Permit has a condition which is used to mitigate the described impact: <ul style="list-style-type: none"> o Flowing Artesian Well 	Based on the described mitigations, it is the Board's opinion that the proposed activities will not have a significant adverse impact on the environment or be a cause of public concern.
Change to or loss of heritage resource	Drilling	<ul style="list-style-type: none"> • The existing Permit has conditions which are used to identify and prevent destruction of heritage resources. These include: <ul style="list-style-type: none"> o Archaeological Buffer o Site Disturbance o Site Discovery and Notification o Archaeological Overview o AIA - High Potential 	Based on the described mitigations, it is the Board's opinion that the proposed activities will not have a significant adverse impact on the environment or be a cause of public concern.
Drainage pattern changes	Drilling and Associated Water Use	<ul style="list-style-type: none"> • The existing Permit has conditions which are used to mitigate the potential for drilling to alter the drainage pattern: <ul style="list-style-type: none"> o Drilling Near Water or on Ice o Drilling Waste o Natural Drainage 	Based on the described mitigations, it is the Board's opinion that the proposed activities will not have a significant adverse impact on the environment or be a cause of public concern.
Change in water quality; Soil Contamination	Trenching, diamond drilling, geotechnical borehole drilling; Transfer, storage, and use of petroleum products and/or chemicals; On-site storage or disposal of wastes (domestic garbage, sewage, waste petroleum products, drilling waste and hydraulic flowback fluids, hazardous wastes, etc.)	<ul style="list-style-type: none"> • The existing Permit has conditions which are used to mitigate the described impact: <ul style="list-style-type: none"> o Spill Contingency Plan o Drilling Waste o Drilling Waste Disposal o Drilling Waste Containment o Report Spills o Waste Petroleum Disposal o Waste Management o Sewage Disposal - Plan 	Based on the described mitigations, it is the Board's opinion that the proposed activities will not have a significant adverse impact on the environment or be a cause of public concern.

Changes in water quality; Soil Contamination	Direct or indirect disposal of waste into water; Transfer, storage, and use of petroleum products and/or chemicals near a watercourse; On-site storage or disposal of wastes (domestic garbage, sewage, waste petroleum products, drilling waste and hydraulic flowback fluids, hazardous wastes, etc.)	<ul style="list-style-type: none"> • The existing Permit has conditions which are used to mitigate the described impact: <ul style="list-style-type: none"> o Fuel On Land o Fuel Cache Secondary Containment o Secondary Containment - Refueling o Fuel Containment o Maximum Fuel On Land o Report Fuel Location o Seal Outlet o Spill Response o Drip Trays o Clean Up Spills 	Based on the described mitigations, it is the Board's opinion that the proposed activities will not have a significant adverse impact on the environment or be a cause of public concern.
Increased greenhouse gases	Drilling, Transportation	<ul style="list-style-type: none"> • The existing Permit has a condition which is used to mitigate the described impact: <ul style="list-style-type: none"> o The Proponent did not propose any mitigations however, the amendment does not propose an increase in activities, only additional land area in which activities can be conducted therefore the proposed impact does not exceed what has been previously screened. 	Based on the described mitigations, it is the Board's opinion that the proposed activities will not have a significant adverse impact on the environment or be a cause of public concern.

4.1 Consideration of Potential Impacts

Based on the potential impacts and proposed mitigations identified above in Table 1, the Board considered whether the changes to the Project might have a significant adverse impact on the environment. In general, impacts of the changes to the Project on the environment can be mitigated through the use of permit conditions of two general types:

1. conditions in the existing Permit, including requirements for management and monitoring plans, with revisions where necessary; and
2. new or unique conditions that may be needed to mitigate potential impacts of the changes to the Project that may not be addressed by the conditions in the existing Permit, and which may be from the Board's standard conditions list or established by the Board as per the LWB [Standard Process for Creating New Conditions](#).

These conditions may include requirements for management and monitoring plans that provide detailed information regarding the implementation of mitigation measures and the evaluation of their effectiveness.

A draft Permit was circulated for review during the regulatory proceeding, and all Parties were given the opportunity to provide comments and recommendations on the draft conditions. In finalizing the conditions, the Board will consider all of the evidence provided through the regulatory proceeding.

4.2 Consideration of Public Concern

In addition to considering the potential impacts of the changes to the Project, the Board considered whether the changes to the Project might be a cause of public concern. Based on the evidence provided during the regulatory proceeding, the Board did not identify any comments or issues that indicate that the Project is a cause of public concern.

4.0 Conclusion

The Board completed a preliminary screening of the Project on June 27, 2022;¹² however, the Application include proposed changes to the Project. Accordingly, the Board has determined that Project activities that have already been subject to Part 5 of the [MVRMA](#) are exempt from preliminary screening under Part 1, Schedule 1, section 2.1 of the Exemption List Regulations to the MVRMA. The Board has conducted a preliminary screening of the proposed changes to the Project. The Board has reviewed all the evidence received during the regulatory process with respect to the Preliminary Screening of the proposed [changes to the] Project. Based on the evidence, it is the Board's opinion that the proposed [changes to the] Project will not have a significant adverse impact on the environment or be a cause of public concern, as set out in paragraph 125(1)(a) of the [MVRMA](#). If the Board does not receive a notice of referral to environmental assessment by December 23, 2023, the Board can issue the Permit on December 24, 2023.

¹² See WLWB Online Registry for [Tharsis Project - Preliminary Screening Determination and Reasons for Decision - Jun 27 22](#).

SIGNATURE



December 13, 2023

Mason Mantla, Chair
Wek'èezhìi Land and Water Board

Date