

Bill Peterson
Senior VP, Development Operations
Canadian Natural Resources Ltd.
Suite 2100, 8800 – 2ST SW
CALGARY AB T2P 4J8

November 26, 2019

Dear Bill Peterson

**Letter of Decision: Application for an
Operations Authorization for the Fort Liard Region (OA-2018-005-CNRL)**

On November 26, 2018, the Office of the Regulator of Oil and Gas Operations (OROGO) received a complete application from Canadian Natural Resources Limited (CNRL) for an Operations Authorization for well and infrastructure maintenance and abandonment / decommissioning activities leading to the closure of twelve wells in Fort Liard Region.

CNRL also filed additional information with OROGO in response to the following Information Requests:

- Information Request No. 1 – received from CNRL on December 13, 2018
- Information Request No. 2 – received from CNRL on December 12, 2018
- Information Request No. 3 – received from CNRL on December 7, 2018
- Information Request No. 4 – received from CNRL on June 25, 2019
- Information Request No. 5 – received from CNRL on July 8, 2019
- Information Request No. 6 – received from CNRL on August 7, 2019
- Information Request No. 7 – received from CNRL on September 13, 2019
- Information Request No. 8 – received from CNRL on October 2, 2019
- Information Request No. 9 – received from CNRL on October 10, 2019

The Regulator, designated under section 121 of the *Oil and Gas Operations Act* (OGOA), may issue an Operations Authorization under section 10(1)(b) of that act. The Regulator has delegated the power to issue authorizations under section 10(1)(b) of OGOA to me, in accordance with section 8 of that act.

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The Regulator, or its delegate, must fulfill its obligations as a regulatory authority under the *Mackenzie Valley Resource Management Act* (MVRMA). It must also determine the adequacy of Aboriginal consultation, where a decision has the potential to adversely impact an asserted or existing Aboriginal right.

I make the following findings with respect to CNRL's application for an Operations Authorization:

1. CNRL's application and supplemental information submissions satisfy the application requirements of OGOA and the *Oil and Gas Drilling and Production Regulations* in relation to the proposed activities. I am persuaded that CNRL intends to conduct the proposed activities in a manner consistent with the purposes set out in OGOA.
2. Preliminary Screening – CNRL applied to the Mackenzie Valley Land and Water Board (MVLWB) for a new Land Use Permit (LUP) MV2019X0014 to conduct abandonment work for the 12 wells in the Fort Liard Area. The MVLWB conducted a preliminary screening of the application and approved issuance of the LUP on August 27, 2019. OROGO has determined that the preliminary screening of LUP MV2019X0014 conducted by the MVLWB meets OROGO's obligations as a regulatory authority under the MVRMA and hereby adopts the preliminary screening. OROGO will notify the Mackenzie Valley Environmental Impact Review Board of this determination.
3. Land Use Plan Conformity – The proposed activities take place in the Fort Liard area of the NWT. They do not fall within the boundaries of a Land Use Plan approved under the MVRMA. Therefore, there is no requirement to assess land use plan conformity under the MVRMA.
4. Indigenous and community consultation – CNRL has conducted consultation and engagement activities with the relevant organizations representative of Aboriginal rights holders. The MVLWB also undertook a public process for the issuance of the Land Use Permit associated with the 12 well abandonment program. Taking into account the nature and scale of the activity and the concerns raised, consultation undertaken by CNRL on the activities proposed under OA-2018-005-CNRL is adequate.

5. **Proof of Financial Responsibility** – CNRL has provided satisfactory proof of financial responsibility in accordance with sections 13 and 64(1) of OGOA. This proof of financial responsibility must remain in force for the duration of the activity.
6. **Safety** – I have consulted with the Chief Safety Officer, in accordance with section 12 of OGOA, and am satisfied with the safety of the proposed activities.

CNRL's application is approved, subject to the terms contained in the attached Operations Authorization.

CNRL must post a copy of the attached Operations Authorization in a clearly visible location at the work site.

Sincerely,



Pauline de Jong
Chief Conservation Officer

Encl. Operations Authorization OA-2018-005-CNRL

c. Arly Castillo, Regulatory Coordinator, Canadian Natural Resources Ltd.

OPERATIONS AUTHORIZATION

Subject to the terms listed below, authorization is granted under Section 10 of the *Oil and Gas Operations Act* and Part 2 of the *Oil and Gas Drilling and Production Regulations* to

Company Name	Company Operating Licence #
Canadian Natural Resources Limited	NWT-OL-2014-001
Responsible Officer and Title	
Bill Peterson, Senior Vice President, Development Operations	


to proceed with the works and activities described in its November 26, 2018 application for

Scope of Work	Settlement Area or Region
Maintenance, monitoring, inspection and abandonment of 12 suspended wells in the Fort Liard Region.	Dehcho

This authorization may be varied by the Regulator or its delegate under Section 10 of the *Oil and Gas Operations Act*.

This authorization expires on October 31, 2024.

Dated at Yellowknife, Northwest Territories on November 26, 2019.

Name of Regulator / Delegate	Signature of Regulator / Delegate
Ms. Pauline de Jong	
Title	
Chief Conservation Officer	

ADDITIONAL TERMS

1. Canadian Natural Resources Limited shall cause the approved work and activities to be conducted in accordance with the requirements of the *Oil and Gas Operations Act* and the *Oil and Gas Drilling and Production Regulations*, as well as any other acts or legislation as may apply.
2. Canadian Natural Resources Limited shall cause the approved work and activities to be conducted in accordance with any guidelines and/or interpretation notes issued by the Regulator under section 18 of the *Oil and Gas Operations Act*.
3. Canadian Natural Resources Limited shall cause the approved work and activities to be conducted in accordance with the specifications, standards and other information referred to in its application and subsequent submissions.
4. Canadian Natural Resources Limited shall request approval from the Chief Conservation Officer prior to undertaking any change to or deviation from the authorized work or activities, including but not limited to key personnel, the safety plan, the environmental protection plan and contingency plans.
5. Canadian Natural Resources Limited shall submit to OROGO an updated operator contact list for this program prior to any work or activity.
6. Canadian Natural Resources Limited shall provide all staff and contractors for this program with its Emergency Response Plan and the OROGO 24-hour Incident Reporting phone number (867-445-8551) prior to commencing any work or activity.
7. Pursuant to section 67 of the *Oil and Gas Drilling and Production Regulations*, Canadian Natural Resources Limited is approved to conduct controlled flaring utilizing separator packages and/or flare stacks as part of well kill operations at a maximum daily flow rate of 30 x 103m³/day and maximum daily duration of 4.0 hours per day. CNRL is also approved to conduct controlled venting of sweet gas as part of well kill operations at a maximum daily flow rate of 900 m³/day and maximum daily duration of 4.0 hours per day. CNRL shall include the volume and composition of any amount of flared and/or vented gas in its daily report to OROGO. Flaring and/or venting of any volume, daily volume rate and/or duration greater than the approved maximum daily flow shall be reported to OROGO as an incident under section 75 of the *Oil and Gas Drilling and Production Regulations*.

8. Canadian Natural Resources Limited shall submit to OROGO an updated Safety and Emergency Response Plan at least sixty (60) days prior to the start of any 24 hour operations schedule that describes potential hazards, risk evaluations and safety measures to avoid, prevent, reduce and manage safety risks associated with a 24 hour operations work schedule.
9. Canadian Natural Resources Limited shall submit to OROGO by noon (MDT) on January 9, 2020, completed applications to Alter the Condition of a Well (ACW) and supporting documentation for the abandonment of the following nine non-compliant wells, with the abandonments to be completed by April 1, 2021:
 - I. Arrowhead River J-74 (WID 1987)
 - II. Emile Lake A-77 (WID 1964)
 - III. SW Arrowhead M-35 (WID 1989)
 - IV. Netla K-77 (WID 1862)
 - V. Arrowhead River I-75 (WID 1981)
 - VI. Liard P-16 (WID 1976)
 - VII. Arrowhead River K-35 (WID 1991)
 - VIII. Netla C-07 (WID 0191)
 - IX. Arrowhead River O-38 (WID 1983)
10. In accordance with OROGO's *Well Suspension and Abandonment Guidelines and Interpretation Notes (Guidelines)*, no industrial waste, including waste cement, is allowed to be disposed of at a suspended or abandoned well centre or surrounding area.
11. In accordance with the Department of Environment and Natural Resources *Guidelines for Disposal of Hazardous Waste*, any disposal of hazardous waste, including well bore fluids or contaminated water, outside of the NWT shall be done at a registered facility that is authorized to receive that waste.
12. Any planned discharge of fresh water from storage tanks utilized in well abandonment operations must comply with the approved Waste Management Plan as outlined in the conditions of Land Use Permit MV2019X0014 issued by the Mackenzie Valley Land and Water Board.