



NWT OFFICE OF THE REGULATOR OF OIL AND GAS OPERATIONS

Office of the Regulator of Oil and Gas Operations

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Greg Heffel
Specialist Engineering - Completions
Suncor Energy Inc.
150 – 6 AVE SW
CALGARY AB T2P 3E2

July 17, 2024

Dear Greg Heffel:

Decision: Proposed Abandonment Methodology for the Tweed Lake M-47 (WID1476), Tweed Lake A-67 (WID1555), and Bele O-35 (WID1600) Wells (ACW-2021-SUN-M-47-WID1476; ACW-2021-SUN-A-67-WID1555; and ACW-2021-SUN-O-35-WID1600)

On July 5, 2024, Suncor Energy Inc. (Suncor) submitted a request to the Office of the Regulator of Oil and Gas Operations (OROGO) to change its proposed abandonment methodology for three wells in the Sahtu Settlement Area:

- Tweed Lake M-47 (WID1476) (ACW-2021-SUN-M-47-WID1476)
- Tweed Lake A-67 (WID1555) (ACW-2021-SUN-A-67-WID1555)
- Bele O-35 (WID1600) (ACW-2021-SUN-O-35-WID1600)

The current abandonment methodology for these wells was approved by the Regulator on October 17, 2022. Suncor's proposed methodology includes placing an additional permanent bridge plug in each well and circulating the wellbore above this bridge plug over to fresh water. If this methodology is approved, Suncor is proposing to amend its program for these abandonments to reflect heli-portable operations rather than operations using winter roads for wellsite access.

Suncor's proposed methodology relies on existing cement bond logs for the Tweed Lake M-47 and A-67 wells for the placement of the additional permanent bridge plug. Suncor proposes to run a cement bond log for the Bele O-35 well prior to abandonment operations to determine where to set the additional bridge plug in that well.

I have reviewed Suncor's description of its proposed methodology and find that it meets the requirements of the *Oil and Gas Drilling and Production Regulations* and the *Well Suspension and Abandonment Guidelines and Interpretation Notes*. However:

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- OROGO has not received the existing cement bond logs for the Tweed Lake M-47 and A-67 wells to confirm the appropriate isolation of all oil and gas bearing zones and groundwater zones. If OROGO does not find these zones are appropriately isolated after reviewing the cement bond logs, remedial cementing may be required.
- Similarly, if the cement bond log conducted for the Bele O-35 well does not demonstrate appropriate isolation of all oil and gas bearing zones and groundwater zones, remedial cementing may be required.

In its July 5, 2024, submission, Suncor also states that it anticipates submitting a request for extension to the existing March 31, 2025, deadline for abandonment of the three wells in question to allow for a spring/summer 2025 operation. Should an extension be approved, the change to Suncor's planned operations would also require amendments to the Environmental Protection Plan, Safety Plan, and Contingency Plan associated with OA-2021-003-SUN to reflect snow-free operations.

If Suncor wishes to proceed with changes to the abandonment programs for the Tweed Lake M-47, Tweed Lake A-67, and Bele O-35 wells based on this decision, Suncor must submit the following information to OROGO at orogo@gov.nt.ca by 4:00 p.m. on August 6, 2024:

- Existing cement bond logs for the Tweed Lake M-47 and A-67 wells.
- Variation requests for ACW-2021-SUN-M-47-WID1476, ACW-2021-SUN-A-67-WID1555, and ACW-2021-SUN-O-35-WID1600 reflecting the change in abandonment methodology approved in this decision.
- A request for extension to the abandonment deadline for the Tweed Lake M-47, Tweed Lake A-67, and Bele O-35 wells, including a comprehensive explanation of steps taken to meet the existing deadline and rationale for the extension request.

If you have any questions, please contact OROGO at 867-767-9097 or by email at orogo@gov.nt.ca.

Sincerely,



Pauline de Jong
Regulator