



NWT OFFICE OF THE REGULATOR OF OIL AND GAS OPERATIONS

Office of the Regulator of Oil and Gas Operations

P.O. Box 1320, Yellowknife, NT X1A 2L9

Tel: 867-767-9097 • Fax: 867-920-0798 • Web: www.oroogo.gov.nt.ca

Courier Address: 4th floor, 5201 – 50th Avenue, Yellowknife, NT X1A 3S9

John Hawkins
Director, Asset Management
Paramount Resources Ltd.
SUITE 2800, 421 – 7 AVE SW
CALGARY AB T2P 4K9

October 31, 2022

Dear John Hawkins:

**Information Request No. 2:
Liard K-29A Well Abandonment (ACW-2022-PAR-K-29A-WID2030)**

On October 19, 2022, the Office of the Regulator of Oil and Gas Operations (OROGO) received Paramount Resources Ltd's response to Information Request No. 1 associated with its application to Alter the Condition of a Well (ACW) for the abandonment of the Liard K-29A well (WID2030) in the Fort Liard area of the Northwest Territories.

OROGO has reviewed the information provided by Paramount in its original application and in response to Information Request No. 1 and requires additional information to complete its review of Paramount's ACW application, as set out in the attached Information Request No. 2.

Please send your written responses and any associated correspondence to OROGO at oroogo@gov.nt.ca or through OROGO's secure file transfer site, on or before 4:00 pm on November 22, 2022. If you are unable to respond within this timeframe or have any questions, please contact OROGO at 867-767-9097 or by email at oroogo@gov.nt.ca.

Sincerely,

Pauline de Jong
Regulator

Encl. Information Request No. 2

Information Request No. 2
Liard K-29A Well Abandonment
ACW-2022-PAR-K-29A-WID2030

2.1 Level I Well

Preamble:

Step 33 of Paramount's revised well abandonment program, submitted on October 19, 2022, refers to placing a 15m balanced cement plug over the retainer as part of remedial cementing.

Section 6 of the *Well Suspension and Abandonment Guidelines and Interpretation Notes* requires a 30m cement plug as the Liard K-29A well is a Level I well.

Request:

Submit an updated well abandonment program that corrects the size of cement plug in step 33.

2.2 Use of Coiled Tubing Unit

Preamble:

In response Information Request No. 1, Paramount revised its original program, which proposed using a coiled tubing unit to remove the shallow wellbore plug in the Liard K-29A well, to incorporate the use of a service rig and snubbing unit as required under OROGO-SB-01.

On October 28, 2022, I accepted using coiled tubing unit to remove a shallow wellbore plug as a safe alternative to a service rig and snubbing unit where it is possible to do so.

Request:

If Paramount prefers to use a coiled tubing unit to remove the shallow wellbore plug in the Liard K-29A well, submit an updated well abandonment program that reflects this change.

2.3 Flaring

Preamble:

Section 67 of the *Oil and Gas Drilling and Production Regulations* prohibits flaring of gas unless it is permitted by the Regulator in advance or is required because of an emergency.

Step 3 of the revised well abandonment program, submitted on October 19, 2022, indicates that flaring may be required during the abandonment operation, but does not state the maximum anticipated flare volume and duration.

Paramount's Production Operations Authorization for the Liard West field, which includes the Liard K-29A well, does not explicitly approve flaring of a specified volume and duration.

If flaring is not approved in the Well Approval, Paramount may not flare during the abandonment operation without first obtaining a variation to its Well Approval from the Regulator.

Request:

If Paramount believes flaring may be required during the abandonment operation, submit an updated well abandonment program that specifies the maximum anticipated flare volume and duration.

2.4 Existing Wellbore Diagram

Preamble:

Paramount submitted a revised existing wellbore diagram and revised well history for the Liard K-29A well on October 19, 2022.

The revised well history states "a second permanent BP was set in tubing and not capped with cement at 57.0 mKB". The revised existing wellbore diagram does not show a bridge plug at 57.0 mKB.

Request:

Submit an updated existing wellbore diagram showing the bridge plug at 57.0 mKB.