



NWT OFFICE OF THE REGULATOR OF OIL AND GAS OPERATIONS

Office of the Regulator of Oil and Gas Operations

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Jonathon Michel  
Director, Aurora Campus  
Aurora College  
PO BOX 1008  
INUVIK NT X0E 0T0

February 27, 2023

Dear Jonathon Michel:


**Information Request No. 1:**  
**Aurora Training Well Abandonment (ACW-2023-AC-G-04-WID1915)**

On February 14, 2023, the Office of the Regulator of Oil and Gas Operations (OROGO) received a complete well approval application from Aurora College for the abandonment of the Aurora Training Well G-04 (WID1915) in the Gwich'in Settlement Area.

OROGO has reviewed the information provided by Aurora College and requires additional information to complete its review of Aurora College's OA application, as set out in the attached Information Request No. 1.

Please send your written responses and any associated correspondence to OROGO at [oro.go@gov.nt.ca](mailto:oro.go@gov.nt.ca) or through OROGO's secure file transfer site, on or before 4:00 pm on March 7, 2023. If you are unable to respond within this timeframe or have any questions, please contact OROGO at 867-767-9097 or by email at [oro.go@gov.nt.ca](mailto:oro.go@gov.nt.ca).

Sincerely,



Pauline de Jong  
Regulator

Encl. Information Request No. 1

c Lorne Hammer, Canadian Petroleum Engineering Inc.  
Ron McCosh, Canada Petroleum Engineering Inc.

**Information Request No. 1**  
**Auroral Training Well G-04 Abandonment**  
**ACW-2023-AC-G-04-WID1915**

**1.1 Existing Wellbore Plug**

**Preamble:**

The Detailed Well History provided in Aurora College's application makes two references to a plug in the wellbore, stating "the plug was down at 0522 on 8/1/01" and "the plug was bumped with 5000 kPa at 0930 on 8/4/01". The type of plug and its location in the wellbore are not clear.

The existing wellbore diagram provided on February 14, 2023, does not show a plug in the wellbore.

**Request:**

Please submit an updated wellbore diagram that shows the depth, size and nature of the existing wellbore plug.

**1.2 Nature of Fluid in Wellbore**

**Preamble:**

Step 2 of Aurora College's proposed Abandonment Program states "it is possible the fluid in the upper portion of the well may be frozen".

Aurora College's application does not provide information on the nature of the fluid currently in the wellbore. The fluid in the wellbore of a suspended well should be corrosion-inhibiting, with non-freezing liquid used within the permafrost zone. The statement in Step 2 of the proposed Abandonment Program suggests this may not be the case.

If the fluid in the wellbore is not corrosion-inhibiting and non-freezing, the casing may have been damaged in the more than 20 years since the well was suspended.

If the fluid in the wellbore is corrosion-inhibiting and non-freezing, it must be circulated out to fresh water, as required in section 6A of the *Well Suspension and Abandonment Guidelines and Interpretation Notes*.

**Request:**

Please submit confirmation of the nature of the fluid currently in the wellbore.

If the fluid in the wellbore is not corrosion-inhibiting and non-freezing, please submit an updated Abandonment Program that includes contingency steps for repairing possible casing damage resulting from the use of this fluid.

If the fluid in the wellbore is corrosion-inhibiting or non-freezing, please submit an updated Abandonment Program that includes steps to circulate the well over to fresh water before abandonment.

### **1.3 Use of Well Control Equipment**

#### **Preamble:**

Aurora College's proposed Abandonment Program states that it will run a cement bond log (step 5), pressure test the wellhead and the casing string (step 6) and then begin excavations prior to cutting and capping the wellbore. Steps 5 and 6 will occur with the wellhead on the well (the wellhead is removed in step 11).

On February 14, 2023, Aurora College provided additional information to complete its application, including a statement that "well control equipment will not be utilized during the surface cut and *[sic]* cap abandonment operations on the Aurora College Training Well G-04".

OROGO agrees that steps 5 and 6, as well as additional steps required to circulate over to fresh water if needed (see Information Request 1.2, above), can be conducted safely through the wellhead without the use of additional well control equipment.

However, if the cement bond log indicates the need for remedial cementing or the well fails the pressure test, the wellhead must be removed to repair the well, requiring appropriate well control equipment. To do so, Aurora College would have to request a variation from the Regulator to its Abandonment Program, which may delay abandonment operations.

#### **Request:**

Please submit an updated Abandonment Program, including contingency steps to be used in the event remedial cement or other repairs are required prior to completing the well abandonment. The contingency steps must include the use of appropriate well control equipment.