



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  
INVUVIK NT X0E 0T0

July 27, 2023

Dear Jonathon Michel:

**Information Request No. 7: Aurora Training Well Abandonment (OA-2022-001-AC)**

On December 12, 2022, the Office of the Regulator of Oil and Gas Operations (OROGO) received a complete Operations Authorization (OA) application from Canadian Petroleum Engineering Inc., on behalf of Aurora College, for the abandonment of the Aurora Training Well G-04 (WID1915) in the Gwich'in Settlement Area. OROGO also received Aurora College's response to Information Requests (IRs) as follows:

IR No. 1 – received on February 6, 2023	IR No. 4 – received on May 26, 2023
IR No. 2 – received on March 1, 2023	IR No. 5 – received on June 16, 2023
IR No. 3 – received on May 1, 2023	IR No. 6 - received on July 25, 2023

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. 7.

Please send your written responses and any associated correspondence to OROGO at [oroogo@gov.nt.ca](mailto:oroogo@gov.nt.ca) or through OROGO's secure file transfer site, on or before 4:00 pm August 4, 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 [oroogo@gov.nt.ca](mailto:oroogo@gov.nt.ca).

Sincerely,



Pauline de Jong  
Regulator

Encl. Information Request No. 7

c Jeff O'Keefe, Vice-President, Aurora College  
Glenda Vardy Dell, President, Aurora College  
Lorne Hammer, Canadian Petroleum Engineering Inc.  
Ron McCosh, Canadian Petroleum Engineering Inc.

**Information Request No. 7**  
**Aurora Training Well G-04 Abandonment**  
**OA-2022-001-AC**

**7.1 Wellbore Fluid Replacement**

**Preamble:**

Section 6A of the *Well Suspension and Abandonment Guidelines and Interpretation Notes* (Guidelines) requires the wellbore above the uppermost bridge plug in an abandoned well be filled with non-saline water containing no inhibitors.

In its response to Information Request No. 1 for ACW-2023-AC-G-04-WID1915, the well approval associated with OA-2022-001-AC, Aurora College stated that the wellbore is currently filled with fresh water with a “non-freezing additive” mixed into it in the upper few meters of the wellbore. Aurora College was not able to provide additional information on the nature of the “non-freezing additive” in the wellbore.

As the fluid in the suspended wellbore does not meet the requirements of the Guidelines for an abandoned well, OROGO requested an updated well abandonment program to replace the fluid in the wellbore. The program received in response to Information Request No. 2 for ACW-2023-AC-G-04-WID1915 contains the following steps:

*5. Move in and rig up swabbing unit and support equipment. Remove well cap on wellhead above master valve and rig in swabbing lubricator. Pressure test lubricator to 7000 kPa.*

*6. Run in hole to about 50 meters depth with swab mandrel and cups and pull test swab. Flow swabbed fluid back to storage tank. Adjust depth of swab pulled based on fluid flowback. Swab well down as far as possible. Record total volume removed. Total wellbore volume = 7.45 m<sup>3</sup>*

*7. Fluid from well should be pumped from storage tank to an identified tank that can be transported to an approved wastewater disposal site as described in the waste management plan. Plastic totes with a 1m<sup>3</sup> capacity may be the simplest solution for storage and transport.*

*8. Refill well with fresh water from Inuvik water system.*

This approach is acceptable to OROGO.

In its response to Information Request No. 6 for OA-2022-001-AC, received on July 25, 2023, Aurora College proposes an alternative approach to meeting this Guidelines requirement:

“...we suggest that Aurora College pump out as much fluid as possible out of the wellbore and dispose of that fluid at an approved disposal site. The wellbore would be topped up with noncorrosive fresh water prior to conducting the cut and cap operation.”

Aurora College’s rationale for this request is that obtaining the equipment to replace the wellbore fluid as it previous proposed would be a “significant cost to the organization” and that “the total volume of fluid contained in this well is 7.0m<sup>3</sup> making the possibility of contamination of groundwater minimal.”

Section 1 of the Guidelines states “applicants may suggest alternative approaches, where those approaches are demonstrated to meet or exceed the same standards [as the Guidelines] for the protection of human safety and the environment”. OROGO requires additional information to assess whether Aurora College’s proposed approach meets this threshold.

**Request:**

Please submit the following:

1. A detailed description of the steps to pump out the fluid from the wellbore, including an explanation of how Aurora College will ensure that the water containing a “non-freezing additive”, which appears to be floating on top of the water column in the well, will be fully removed from the wellbore.
2. Information on the composition of the “noncorrosive fresh water” Aurora College proposes to place in the wellbore prior to abandonment.