

April 17, 2026

0320-4100-32640-02

Hugo A. Martinez, MSc. P.Eng. PE.
Manager, Reservoir Engineering
Pacific Canbriam Energy Limited
Suite 2100, 215 – 2nd Street SW
Calgary, AB T2P 1M4

Dear Mr. Martinez:

**RE: PRODUCED WATER DISPOSAL SPECIAL PROJECT APPROVAL; AMENDMENT #1
PACIFIC CANBRIAM HZ ALTAIRES A15-12-84-26 (WA# 42634)
ALTAIRES FIELD – BALDONNEL FORMATION**

The Regulator has reviewed the application submitted by Pacific Canbriam Energy Limited (PCE), dated March 10, 2026, requesting amendment to produced water disposal approval order 25-02-008 to increase the maximum wellhead injection pressure (MWHIP).

The subject well was drilled horizontally into the Baldonnel formation in October of 2024 for the purpose of disposal. The well was sidetracked at 1,597 mKD MD due to a string stuck in hole, then drilled to a total depth of 4,368 mKB MD, with a 992 m uncemented perforated liner disposal interval. PCE has installed several permanent downhole gauges that will enable enhanced monitoring and oversight of reservoir pressure. The well was approved for disposal and began injection in July of 2025, with a cumulative disposal of 87 e³m³ of water to date. Due to the uncertainty of the quality of the DFIT test that was originally done on the well, the approved MWHIP was calculated with a heightened safety factor of 15%.

PCE presented an analogous disposal well (WA 26949), located approximately 5.5 km to the southeast, where step-rate testing clearly indicated a Baldonnel fracture gradient of 21.8 kPa/m. PCE provided a geological review confirming the offset formation fracture test as a suitable analogue. The Regulator concurs that increasing the MWHIP is appropriate. This amendment revises the approved MWHIP to 10,400 kPa, as specified in Condition 2(b) of the Order.

Attached please find **Order 25-02-008 Amendment 1**, designating an area in the Altares field, Baldonnel formation, as a Special Project under section 75 of the Energy Resource Activities Act, for the operation and use of a storage reservoir for the injection of produced water. This Order includes several detailed operational, measurement and reporting conditions. Disposal wells are subject to regular field inspection and audit. Contravention of a condition of this Order may be subject to enforcement under section 62 of ERAA, or suspension or cancellation of the Order under section 75(2)(b).

Should you have any questions, please contact Logan Gray at (250) 419-4465 or the undersigned at (250) 419-4482.

Sincerely,



Michelle Gaucher, P.Eng.
Supervisor, Reservoir Engineering
BC Energy Regulator

Attachments



IN THE MATTER of the application from Pacific Canbriam Energy Limited, dated March 10, 2026, requesting amendment to the disposal approval:

ORDER 25-02-008 Amendment #1

1. Under Section 75(1)(d) of the Energy Resource Activities Act, the Regulator designates the operation and use of a storage reservoir for produced water, including flowback from fracturing operations, in the Altares Field – Baldonnel formation as a special project in the following area:

DLS Twp 84 Rge 25 Section 7 LSDs 1, 2, 7-10, 15, 16
Section 8 LSDs 3-6

2. Under section 75(2) of the Energy Resource Activities Act, the special project designation in this Order is subject to the following conditions. The Permit Holder shall:
 - a) Inject water into the well Pacific Canbriam HZ Altares A15-12-84-26; WA# 42634 Baldonnel formation from 3,369.6 – 4,361.4 mKB MD.
 - b) Not exceed an injection pressure, measured at the wellhead on the subject well, of 10,400 kPag or the pressure required to fracture the formation, whichever is lesser.
 - c) Inject only through tubing with a packer set as near as is practical above the injection interval.
 - d) Continually measure and record the wellhead casing and tubing pressures electronically.
 - e) Alarm the casing-tubing annulus pressure monitoring system to indicate when casing pressure varies outside the normal operating range.
 - f) Cease injection and notify the Regulator at Reservoir@bc-er.ca immediately if there are any indications that hydraulic isolation is lost in the wellbore or formation.
 - g) Conduct and submit an annual Surface Casing Vent Flow test to the Regulator within 30 days of the completion of the test.
 - h) Conduct an annual reservoir pressure test on the formation in the subject well, with a shut-in period of sufficient length to provide data for calculation of the reservoir pressure, and submit a report of the test within 60 days of the end of the test
 - i) Cease injection upon reaching a maximum formation pressure of 18,450 kPaa, measured at 1,602.6 mKB TVD.
 - j) Perform a casing inspection log on the subject well and submit results to the Regulator within 30 days of the completion of logging, at an interval of not more than every 10 years, commencing from the date of initial disposal.
 - k) Perform a hydraulic isolation temperature log on the subject well and submit results to the Regulator within 30 days of the completion of logging, at an interval of not more than every 5 years, commencing from the date of initial disposal.
 - l) Not conduct a hydraulic fracture stimulation on any formation in the subject well without prior Regulator approval.

Michelle Gaucher, P.Eng.
Supervisor, Reservoir Engineering
BC Energy Regulator

DATED AT the City of Victoria, in the Province of British Columbia, this 17th day of April, 2026.



Advisory Guidance for Order 25-02-008 Amendment #1

- I. A production packer must be set above the injection interval and the space between the tubing and casing filled with corrosion and frost inhibiting fluids, as per section 16(2) of the Drilling and Production Regulation.
- II. Annual packer isolation tests are required to be conducted and the associated report must be submitted to the Regulator within 30 days of test completion, as per section 16(3) of the Drilling and Production Regulation.
- III. Injected fluids must be metered and the injection pressure measured at the wellhead, as per section 74 of the Drilling and Production Regulation.
- IV. A monthly disposal statement including the volume of disposal fluid, maximum wellhead injection pressure, and total operating hours must be submitted to the Regulator via Petrinex not later than the 20th day of the month following the reported month, as per section 75 of the Drilling and Production Regulation.
- V. Seismic events must be reported and disposal operations suspended as per section 21.1 of the Drilling and Production Regulation.