

February 19, 2020

8100-4800-59240-16

Cassandra Lai, P.Eng.
Exploitation Manager, BC North
Canadian Natural Resources Limited
2100, 855 – 2nd St. S.W.
Calgary, AB T2P 4J8

Dear Ms. Lai:

**RE: ACID GAS DISPOSAL APPROVAL ORDER 98-16-003
CNRL W STODDART 7-34-87-21; WELL PERMIT 11398
HALFWAY FORMATION**

The subject well was approved for acid gas disposal in April 1998 and has consistently operated within approval conditions. The reservoir pressure increased over time and in July 2014 the Commission asked Canadian Natural Resources Limited (CNRL) investigate alternative disposal options. CNRL complied with this request. The Commission and CNRL have had multiple meetings to discuss development progress near the CNRL West Stoddart plant and alternate disposal options, including disposal at another location, CNRL HZ W Stoddart 8-29-87-21 (WA10347).

In March, 2017, the Commission approved disposal operations in the Stoddart West Doig E pool at the well CNRL HZ W Stoddart 8-29-87-21 (WA10347). The Commission recognizes that several engineering/technical challenges have delayed continuous disposal into the Doig E pool, necessitating ongoing disposal into the Halfway formation. This has now resulted in a disposal reservoir pressure far in exceedance of good engineering practice. While Order 98-16-003 for CNRL W Stoddart 7-34-87-21 (WA 11398) does not include a specific maximum storage pressure limit value, the disposal reservoir pressure is in excess of the limit the Commission has imposed for other operating acid gas disposal projects.

The Commission and CNRL last discussed the status of the acid gas disposal wells on November 21, 2019. At that time, CNRL indicated that another equipment change was required prior to switching to full time use of 8-29 well. CNRL indicated during that discussion that the equipment change would occur during Q1 of 2020, as significant lead time was required for procurement. On January 24, 2020, CNRL (via email) requested continued disposal into the Halfway pool to June 30, 2020.

Having considered the above points, the Commission is unable to allow continued disposal into the Halfway pool to June 30th, 2020, as requested in the email from CNRL dated January 24, 2020. Pursuant to section 75(2)(b) of the *Oil and Gas Activities Act*, I am suspending Order 98-16-003 beginning March 31, 2020 and continuing until further notice.

I have determined that the suspension is required for, inter alia, public safety and protection of the environment. I have concluded that continued disposal is contrary to good engineering practice, and that continued disposal would contribute unacceptably to the risk that existing natural fractures, faults, planes of weakness and wellbores within the areas of influence may provide migratory paths for fluids at a pressure below the formation fracture pressure. This, in turn, could lead to a well drilling and operating safety hazard in the area, and the potential for losses to the surface or subsurface.

As of March 31, 2020 and until further notice, CNRL must suspend disposal operations at the well 7-34-87-14 (WA 11398). CNRL must obtain a stabilized reservoir pressure and submit the results to the Commission within 60 days of obtaining the pressure.

Should you have any questions, please contact Michelle Gaucher at (250) 419-4482 or Ron Stefik at (250) 419-4430.

Sincerely,

A handwritten signature in blue ink, appearing to read 'R. Slocomb', is positioned above a horizontal line.

Richard Slocomb, M.A. Sc., P.Eng.
Vice President, Reservoir, Drilling Engineering and Technical Svcs
Oil and Gas Commission