

November 4, 2016

1950-4060-55140-13

Florin Hategan, P. Eng
Exploitation Engineer
Canadian Natural Resources Limited
2100, 855 – 2nd Street SW
Calgary, AB T2P 4J8

Dear Mr. Hategan:

**RE: TEMPORARY NATURAL GAS INJECTION APPROVAL
SECTION 75, OIL AND GAS ACTIVITIES ACT
CNRL BOULDER FIELD**

Commission staff have reviewed the application, dated October 24, 2016, requesting approval for temporary injection of natural gas into 2 wells; CNRL Boulder a-61-K/093-O-08 (WA 06683) and CNRL et al HZ Boulder c-39-J/093-O-08 (WA 08577).

The removal of a pipeline segment from service will require the pipeline to be completely depressurized. Canadian Natural Resources Ltd. is proposing to depressurize the segment by reversing pipeline flow using the compressor at Boulder d-72-G/093-O-08 and injecting the gas into the Boulder Field, Pardonet-Baldonnel "A" and/or "B" pools via the well CNRL Boulder a-61-K/093-O-08 (WA 06683), with the well CNRL et al HZ Boulder c-39-J/093-O-08 (WA 08577) acting as a backup injector. It is estimated that approximately $24.2 \times 10^3 \text{ m}^3$ of gas will be injected into the Boulder, Pardonet-Baldonnel "A" and/or "B" pools and that the duration of injection will be one to two days, commencing on or around December 5, 2016. The injection will result in gas conservation and eliminate the need to flare the gas to depressurize the pipeline. In June 2014 a similar temporary re-injection approval was granted to Canadian Natural Resources Ltd. for the Pine River plant turnaround.

Attached, please find Order 16-13-001, granted under Section 75 of the Oil and Gas Activities Act.

The Commission also reminds Canadian Natural Resources Ltd. that the single well Boulder field, Pardonet-Baldonnel "A" and "B" pools are subject to annual pressure testing requirements, as outlined in Section 73 of the Drilling and Production Regulation. The last pressure tests on file for these two pools are from 2004 (Boulder, Pardonet-Baldonnel "A") and 2007 (Boulder, Pardonet-Baldonnel "B"). Pressure testing or application for pressure testing exemption is required to be compliant with the Drilling and Production Regulation.

Should you have any questions, please contact Kathryn Archibald at (250) 419-4457 or the undersigned at (250) 419-4430.

Sincerely,



Ron Stefik, Eng. L.
Supervisor, Reservoir Engineering
Oil and Gas Commission

IN THE MATTER of an application from Canadian Natural Resources Ltd. to the Commission dated October 24, 2016 for a temporary holding of natural gas project.

ORDER 16-13-001

- 1 Under Section 75(1)(a) of the *Oil and Gas Activities Act*, the Boulder Pardonet-Baldonnel "A" and "B" pools are designated as a special project for temporary holding of natural gas within the following area;

93-O-8 Block K – Units 51, 61.
 Block J – Units 38, 39, 48, 49, 60, 70

- 2 Under section 75(2) of the *Oil and Gas Activities Act*, I specify the following:
- a) Natural gas may be injected and re-produced through the wells CNRL Boulder a-61-K/093-O-08 (WA 6683) and CNRL et al HZ Boulder c-39-J/093-O-08 (WA 8577).
 - b) Metering of the injected gas is not required.
 - c) The gas injection period shall not exceed 2 days, within the month of December 2016.
 - d) The injection pressure at the surface must not exceed 18,800 kPa.
 - e) This project approval may be subject to review and modification, if deemed appropriate.
 - f) This operation is subject to any other related approvals that may be issued by the Oil and Gas Commission or the Ministry of Finance.



Ron Stefik, EngL
Supervisor, Reservoir Engineering
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 4th day of November, 2016.