

GENERAL ORDER 2017-008 Amendment 1
Section 49 Oil and Gas Activities Act

Issued to:

Canada Energy Partners Inc.
PO Box 49139, Three Bentall Centre
3123-595 Burrard Street
Vancouver, BC V7X 1J1

Attention: Mr. Benjamin Jones, CEO

Order:

Pursuant to section 49(7) of the *Oil and Gas Activities Act* (the Act), I, Lance Ollenberger, amend Item 1 of General Order 2017-008 issued on March 16, 2017 to Canada Energy Partners Inc. as follows:

1. Suspend all disposal activities at WA# 22031, (the Subject Well) located at A-20-D/094-A-04, except up to 200m³ of produced water may be injected into the Subject Well for the purpose of testing the integrity of the well and reservoir. All injection for testing purposes must be completed by August 31, 2018.

Conditions:

- A. This order shall remain in effect until amended or terminated in whole or in part by the Commission.

Reasons:

I make this order for the following reasons:

- i. Canada Energy Partners Inc. is the permit holder of the Subject Well.
- ii. The Subject Well has been inactive since issuance of General Order 2017-008.
- iii. Canada Energy Partners Inc. has requested permission to test the integrity of the Subject Well and formation by injecting a limited quantity of produced water into the Subject Well.

- iv. Commission staff are of the opinion that the limited testing does not present a risk of an induced seismic event.

Review and Appeal

Canada Energy Partners Inc. may request a review of this order under section 70 of the Act by submitting a request for review to: ogc.determinationreviews@bcogc.ca.

Canada Energy Partners Inc. may appeal this order to the Oil and Gas Appeal Tribunal under section 72 of the Act. The process for appeals may be found at www.ogat.gov.bc.ca and a notice of appeal may be sent to the Oil and Gas Appeal Tribunal at:

Oil and Gas Appeal Tribunal
PO Box 4925 Stn Prov Govt
Victoria, BC V8W 9V1



Lance Ollenberger
Vice President, Compliance Operations
Oil and Gas Commission

DATED AT Fort St. John, in the Province of British Columbia, this 17th day of July 2018.

GENERAL ORDER 2017-008
Section 49 Oil and Gas Activities Act

Issued to:

Canada Energy Partners Inc.
PO Box 49139, Three Bentall Centre
3123-595 Burrard Street
Vancouver, BC V7X 1J1

Attention: Mr. Benjamin Jones, CEO

Order:

Pursuant to section 49(1)(b) of the *Oil and Gas Activities Act* (the Act), I, Lance Ollenberger, order that Canada Energy Partners Inc. must:

1. Suspend all disposal activities at WA# 22031, (the Subject Well) located at a-20-D/094-A-04.

Conditions:

- A. This order shall remain in effect until amended or terminated in whole or in part by the Commission.

Reasons:

I make this order for the following reasons:

- i. Canada Energy Partners Inc. is the permit holder of the Subject Well.
- ii. A special project disposal order for disposal of produced water into the Baldonnel formation for the Subject Well was issued in 2008 (the Special Project Order).
- iii. Disposal activities occurred between December 2008 and April 2010. In August 2011 the Subject Well was suspended. In March, 2014, the Special Project Order was amended to add further conditions that needed to be met before the Subject

- Well could be used for disposal. Canada Energy Partners Inc. has met the further conditions and has recently commenced disposal operations.
- iv. The Subject Well is located approximately within 3.3 km of the Peace Canyon dam near Hudson's Hope.
 - v. Faulting is known in the area surrounding the Peace Canyon dam. Disposal activities have been known to trigger movement of pre-existing faults resulting in induced events.
 - vi. The disposal zone in the Subject Well is the Baldonnel formation. Induced seismic events have been noted in association with Baldonnel water disposal in the Altares area to the north.
 - vii. During the disposal activities occurring between December 2008 and April 2010 at the Subject Well, the Natural Resources Canada regional grid was not sufficient to detect low level seismicity as such there would be no record of whether or not those disposal activities did in fact cause low level seismicity.
 - viii. BC Hydro informed the Oil and Gas Commission on March 15, 2017, that the Peace Canyon dam is susceptible to relatively low level peak ground accelerations.
 - ix. Increased cumulative volumes of disposal, including disposal operations at the Subject Well, increases the risk of seismic events where faults exist.
 - x. There is a risk of an induced event sufficient to generate the peak ground accelerations necessary to cause damage to the Peace Canyon dam. This level of ground motion has already been recorded in association with induced seismicity in other areas of north east BC. If such an event were to occur the consequences would be severe.
 - xi. I am of the opinion that disposal activities must be suspended pending a review of additional technical information, including, if desired, a meeting with Canada Energy Partners Inc. as soon as practicable. In my opinion this action is necessary to mitigate a risk to public safety and to protect the environment.

Review and Appeal

Canada Energy Partners Inc. may request a review of this order under section 70 of the Act by submitting a request for review to: ogc.determinationreviews@bcogc.ca.

General Order 2017-008

Canada Energy Partners Inc. may appeal this order to the Oil and Gas Appeal Tribunal under section 72 of the Act. The process for appeals may be found at www.ogat.gov.bc.ca and a notice of appeal may be sent to the Oil and Gas Appeal Tribunal at:

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PO Box 4925 Stn Prov Govt
Victoria, BC V8W 9V1



Lance Ollenberger
Vice President, Compliance Operations
Oil and Gas Commission

DATED AT Fort St. John, in the Province of British Columbia, this 16th day of March 2017.