



May 24, 2012

4700-8600-32640-02

Thomas Litchfield, EIT
Exploitation Engineer
Nexen Inc.
801 - 7th Avenue S.W.
Calgary, AB T2P 3P7

Dear Mr. Litchfield:

**RE: SALT WATER DISPOSAL SPECIAL PROJECT
NEXEN INC. HELMET a-45-B/094-P-15; WA#25134
HELMET FIELD – PINE POINT FORMATION**

Commission staff have reviewed the application dated December 16, 2011, to dispose of produced water and recovered completions fluids from Horn River shales into the Helmet field – Pine Point formation.

A leak off test conducted on the well indicates a formation fracture pressure of 38,600 kPa (BH) for the Pine Point. An injectivity test was conducted February 12, 2011 (1290 m³ over 24hr @ 12,600 kPag, 0.5-1m³/min) and reservoir properties were determined (Pi 19.1 MPa, 345mD, s+22). We concur that the subject well appears to be a good candidate for salt water disposal in the Pine Point formation. Notice of your application was posted on the Commission website from May 3-24, 2012 with no objections received.

Attached please find Order 12-02-014, designating the Helmet field – Pine Point formation a Special Project under section 75 of the *Oil and Gas Activities Act*, for the operation and use of a storage reservoir for the disposal of salt water.

The form Notice of Commencement or Suspension of Operations (BC-11) must be submitted upon commencing disposal operations. A record of the volume of salt water disposed of through this well must be included on a Monthly Injection or Disposal Statement (BC-S18), which must be submitted to the Commission no later than the 25th day of the month in which activity occurred. Also, the operation of the salt water disposal project will be subject to periodic review and the Commission may modify the Order, if deemed appropriate.

Should you have any questions, please contact Ron Stefik at (250) 419-4430 or Kelly Okuszko at (250) 419-4433.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Ken Paulson'.

Ken Paulson, P.Eng.
Chief Operating Officer
Oil and Gas Commission

Attachments


IN THE MATTER of the application from Nexen Inc. to the Oil and Gas Commission (Commission) dated December 16, 2011 for the operation and use of a storage reservoir.

ORDER 12-02-014

- 1 Under Section 75(1)(d) of the *Oil and Gas Activities Act*, the Commission designates the operation and use of a storage reservoir for the disposal of salt water and recovered fluids from a well completion, in the Helmet field – Pine Point formation as a special project in the following area:

NTS 094-P-15 Block B - Unit 45.

- 2 Under section 75(2) of the *Oil and Gas Activities Act*, the special project designation in this Order is subject to the following conditions:
 - a) Salt water shall be injected only into the Pine Point formation through the well NEXEN INC. HELMET a-45-B/094-P-15 (WA 25134).
 - b) The wellhead injection pressure must be continually measured and recorded, and must not exceed 13,200 kPag.
 - c) The operator must submit a form BC11 Notice of Commencement or Suspension of Operations, within 25 days of beginning of the month following commencement of disposal.
 - d) A record of volume disposed of through this well must be included on a Monthly Injection/Disposal Statement, in the prescribed form (BC-S18), which must be submitted to the Commission not later than the 25th day of the month following the reported month.



Ken Paulson, P.Eng.
Chief Operating Officer
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 24 day of May 2012.