



December 13, 2013

9045-7400-32640-02

Christopher Di Capua, P. Geo.
Geologist
Quicksilver Resources
2000, 125 – 9th Ave SE
Calgary AB T2G 0P6

Dear Mr. Di Capua:

**RE: INJECTIVITY TEST SPECIAL PROJECT
QUICKSILVER HORN RIVER B-097-D/094-O-16; WA# 29616
DEBOLT FORMATION**

Oil and Gas Commission staff have reviewed your application, dated November 21, 2013, requesting approval to conduct a water injectivity test into the Debolt formation of the subject well. This well is licensed but not yet drilled.

Attached please find Order 13-02-005, designating an area in the Horn River field – Debolt formation a Special Project under section 75 of the *Oil and Gas Activities Act*, for the temporary operation and use of a storage reservoir for the disposal of salt water. The Commission understands that potential disposal at this location is intended to accommodate produced salt water and fracture stimulation flowback from area shale gas operations.

Please note this is a temporary approval. Wellbore integrity confirmation, hydrocarbon testing, initial pressure and injectivity testing are required with full application. Decision on a final disposal approval will not be made until well results are reviewed by this office.

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

Sincerely,



Richard Slocomb, P.Eng.
Deputy Commissioner, Engineering
Oil and Gas Commission

Attachment

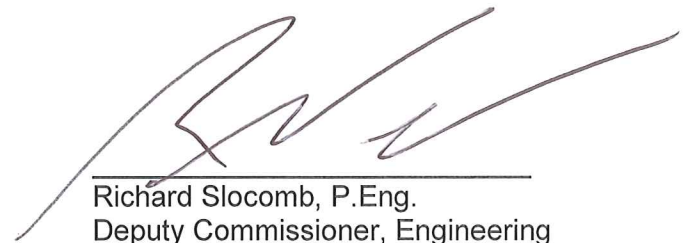
IN THE MATTER of the application from Quicksilver Resources, to the Oil and Gas Commission (Commission) dated November 21, 2013 for the temporary operation and use of a storage reservoir.

ORDER 13-02-005

- 1 Under Section 75(1)(d) of the *Oil and Gas Activities Act*, the Commission designates the temporary operation and use of a storage reservoir for the disposal of produced salt water or recovered fluids from well completions in the Horn River area – Debolt formation as a special project in the following area:

NTS 94-O-16 Block D – Unit 97

- 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 Debolt formation through the well QUICKSILVER FORTUNE b-97-D/094-O-16 (Well Permit # 29616).
 - b) A production test, including swabbing, must be attempted to evaluate hydrocarbon potential. If a measureable quantity of hydrocarbons is encountered, testing operations must cease immediately and the Commission must be contacted.
 - c) The total volume of injected water must not exceed 2,500 m³.
 - d) The injection test should be designed with an attempt to establish the fracture gradient or maximum injection pressure for final disposal operations.



Richard Slocomb, P.Eng.
Deputy Commissioner, Engineering
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 13th day of December 2013.