

February 3, 2010

3600-2800-32640-02

Randy Wolsey  
Orefyn Energy Advisors Corp.  
P.O. Box 6100  
Fort St. John, BC, V1J 4H6

Dear Mr. Wolsey:

**RE: DEEP WELL DISPOSAL OF NON-HAZARDOUS WASTE AND  
SALT WATER DISPOSAL APPROVAL  
OREFYN FT ST JOHN 6-24-84-19 W6M (WA# 3060); CADOMIN FORMATION**

Commission staff have reviewed the supplemental application dated January 6, 2010 requesting permission to dispose of non-hazardous waste and produced water into the Cadomin formation of the subject well.

The initial disposal application, dated April 27, 2009, resulted in an OGC water injectivity test approval dated May 20, 2009 for a total volume of 500 m<sup>3</sup>. A test was conducted into the Cadomin formation over a period of October and November 2009. The conditions of the injectivity test approval were met, with nominal natural gas evident. There are no indications of commercial production potential from the Cadomin from wells within a significant radius. Notice of your application was posted on the OGC website, with no written objections received.

Attached please find Approval 10-02-001 for the application granted under Part 8, Division 3, Section 94 of the *Drilling and Production Regulation*, for the Cadomin formation. The form Notice of Commencement or Suspension of Operations (BC-11) must be submitted upon injection operation.

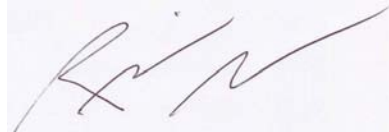
This application addresses a need in the area for disposal of non-hazardous waste liquids. However, it is noted that both a high pressure acid treatment and a fracture stimulation were required to enable the zone to accept commercial injection rates. This indication of relatively low permeability of the Cadomin zone is a concern as to suitability for long term disposal operation. Condition #4 stipulates the maximum injection pressure. Monitoring is required to ensure this value is not exceeded and that continued operation at this pressure is not having adverse impacts.

The Commission identifies the type of effluent approved for injection (and maximum rate of injection) in a separate Permit. The effective date of this approval is the date of issuance of the Waste Discharge Permit, granted under the Environmental Management Act.

The subject well has been operated for water disposal service into the Halfway formation. As this interval was abandoned in the well bore October 19, 2009, the approval for the Halfway zone is hereby rescinded.

Should you have any questions please contact Ron Stefik at (250) 419-4430.

Sincerely,



Richard Slocomb, P.Eng.  
Supervisor, Reservoir Engineering  
Resource Conservation

Attachment

cc: Murray Reynolds, RPS Energy Canada Ltd.  
Devin Scheck, Director - Waste Management, OGC

**APPROVAL 10-02-001**

**THE PROVINCE OF BRITISH COLUMBIA  
PETROLEUM AND NATURAL GAS ACT  
DRILLING AND PRODUCTION REGULATION  
OIL AND GAS COMMISSION**

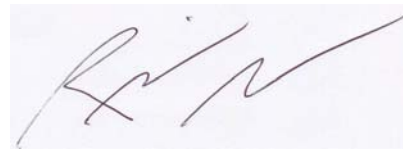
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IN THE MATTER of a scheme of Orefyn Energy Advisors Corp. (Orefyn) for Salt Water and Non-Hazardous Waste (SW/NHW) disposal into the Cadomin formation in the well Orefyn Ft St John 6-24-84-19 W6M (WA# 3060).

NOW, THEREFORE, pursuant to Part 8, Division 3, Section 94 of the *Drilling and Production Regulation*, the SW/NHW disposal scheme is hereby approved, as such scheme is described in

*an application from RPS Energy Canada Ltd, on behalf of Orefyn, to the Commission dated April 27, 2009 and January 6, 2010 and related submissions.*

1. The salt water and non-hazardous waste disposal interval must be in the Cadomin.
2. A record of volume of SW/NHW 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 Oil and Gas Commission not later than the 25th day of the month following the reported month.
3. The disposal of non-hazardous waste must be in accordance with the approval conditions of a Waste Discharge Permit, issued under the Environmental Management Act.
4. The disposal/injection pressure must not exceed the formation fracture pressure, with the maximum sandface injection pressure not to exceed 22,000 kPag (maximum wellhead pressure of 10,850 kPag for disposal fluid gradient 10.2 kPa/m).
5. This approval may be modified or rescinded if deemed appropriate through a change in circumstances.



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Richard Slocomb  
Supervisor, Reservoir Engineering  
Resource Conservation  
Oil and Gas Commission

DATED AT the City of Victoria, in the Province of British Columbia, this 3rd day of February 2010.