



June 11, 2010

3425-6200-59240-16

Harvey Heinrichs, P.Eng.
Canadian Chemical Technology Inc.
3740A – 11A St. N.E.
Calgary AB T2E 6M6

Dear Mr. Heinrichs:

**Re: ACID GAS DISPOSAL APPROVAL; BELLOY FORMATION
ARC DOE 5-35-079-14 W6M; WA 25345**

Commission staff have reviewed the application dated April 19, 2010 requesting approval to operate the subject well for acid gas disposal into the Belloy formation. A meeting was held with staff from ARC Petroleum Inc. in Victoria on June 2, 2010.

The well 5-35, rig released April 14, 2009, was completed and successfully injection tested in the Belloy. Several wells are disposing of acid gas into the wet Belloy formation in this region. The immediate source of acid gas is the processing of natural gas produced from the Montney formation, a current focus of intense development in the general area.

Approval for disposal will support continued gas production growth. Attached is Approval 10-16-002 for the application, granted under section 100 of the Petroleum and Natural Gas Act.

The Commission has concern that injection into the Belloy may have a negative impact on future production potential of the directly overlying Montney. Also, the path of migration of the acid gas in the subsurface can not be predicted with confidence.

The application requested a disposal rate and volume that would support potential exploitation of other formations, expected to contain higher H₂S values. As a future development scenario, the OGC would accept an application to amend this approval at such time as capacity is required and performance data on injection operation is available. It is the expectation of the Commission that such amendment would include a commitment for an observation well completed in the Belloy.

The Commission must be notified, in writing, of the date of commencement of acid gas injection into the subject well.

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

Sincerely,

A handwritten signature in blue ink, appearing to read 'Richard Slocomb'.

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

Attachment

APPROVAL 10-16-002

THE PROVINCE OF BRITISH COLUMBIA
PETROLEUM AND NATURAL GAS ACT
OIL AND GAS COMMISSION

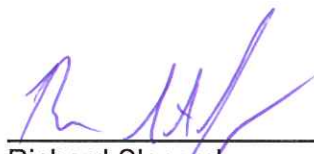
IN THE MATTER of a proposal (the Scheme) by ARC Petroleum Inc. (the Operator) to inject acid gas into the Belloy Formation in the well ARC Doe 5-35-79-14 W6M; WA# 25345 (the well).

NOW THEREFORE, The Commission, pursuant to section 100 of the Petroleum and Natural Gas Act, R.S.B.C. 1996, c.361 hereby orders as follows:

The Scheme of the Operator for injection of acid gas into the Belloy Formation in the well, as such proposal is described in an application dated April 19, 2010 by Canadian Chemical Technology Inc. on behalf the Operator, to dispose of acid gas is hereby approved, subject to terms and conditions herein contained:

1. Acid gas shall be injected only into the Belloy formation through the well.
2. The area of the Scheme shall consist of Section 35 of Township 79 Range 14 W6M.
3. The wellhead injection pressure must not exceed 21,000 kilopascals gauge.
4. The injection rate must not exceed $10 \times 10^3 \text{m}^3/\text{d}$ expressed at 101.325 kilopascals absolute and 15 degrees Celsius.
5. The cumulative volume injected must not exceed $55.0 \times 10^6 \text{m}^3$ expressed at 101.325 kilopascals absolute and 15 degrees Celsius.
6. The Operator must monitor the casing, conduct annular packer isolation tests and implement appropriate corrosion protection measures to maintain the hydraulic isolation of the injection zone.
7. The Operator must monitor the acid gas concentration in offsetting wells within a 3 kilometer radius producing from formations at or above the Belloy, for increases in the acid gas content.
8. A Wellhead Emergency Shut-Off Device and Subsurface Check Valve must be installed. The Wellhead Emergency Shut-Off Device must be linked to hydrogen sulphide detectors at the wellhead.
9. A barricade, satisfactory to the Director, Drilling and Production, must be installed around the wellhead to withstand vehicle collision.
10. All injection operations must be immediately suspended if any injection equipment, monitoring equipment or safety devices considered necessary for safe operation should fail.

11. A record of volume of acid gas 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 (Victoria) not later than the 25th day of the month following the reported month.
12. The Operator must submit a progress report to the Commission annually. The progress report is due within 60 days after the end of each period and must contain:
 - a) details of any workover or treatment program done on the well with reasons for the workover and results of the workovers,
 - b) a discussion of any changes in injection equipment and operations,
 - c) a general review of the operation of the Project including identification of problems, remedial action taken and results of the remedial action on project performance,
 - d) a discussion of the overall performance of the Project,
 - e) an evaluation of all monitoring done during the reporting period including corrosion protection, fluid analyses, logs and any other data collected,
 - f) a table showing monthly volumes of injected acid gas, corresponding maximum wellhead injection pressures, maximum daily injection rates, average wellhead temperatures and hours on injection,
 - g) the volume-weighted average composition and formation volume factor for the injected acid gas,
 - h) a plot showing monthly injection volume and average pressure versus time on an on-going basis, and
 - i) a table showing tonnes of sulphur and carbon dioxide disposed on a monthly and cumulative basis.
12. The operations of the Scheme will be subject to periodic review by the Commission. The Director, Drilling and Production or the Supervisor, Reservoir Engineering, may issue general guidelines regarding the operations of the Scheme.
13. This approval or any condition of it may be modified or rescinded for noncompliance of the conditions or unsafe operations.



Richard Slocomb
Supervisor, Reservoir Engineering
Resource Conservation

DATED AT the City of Victoria, in the Province of British Columbia, this 11th day of June, 2010.