



January 24, 2013

9021-4100-59240-16

Aaron White, EIT
Exploitation Engineer
Murphy Oil Company Ltd.
4000, 520 – 3rd Avenue SW
Calgary, AB T2P 0R3

Dear Mr. White:

**RE: ACID GAS DISPOSAL APPROVAL ORDER 10-16-004
MURPHY HERITAGE b-69-E/93-P-09; WELL PERMIT # 24480
BALDONNEL FORMATION**

Commission staff have reviewed the Progress Report dated October 22, 2012 for the subject well.

This well, rig released December 3, 2008, commenced disposal in March 2011 and has consistently been operated within the approval conditions. Initially intended as a back-up injection well, this wellbore now operates as a primary disposal location. Because of concerns with the viability of the Baldonnel formation as a disposal formation, the Order specified a limit on injection rates along with reservoir pressure testing and observation well requirements.

With 17 months of injection data and pressure fall-off test results, the Commission has concern regarding the increase in the continuous injection pressure and average reservoir pressure. An approximate 2,000 kPa rise in average injection pressure and the 3,200 kPa increase in average reservoir pressure (116% of the initial reservoir pressure) appear to indicate poor storage capacity in the Baldonnel formation. With only 10% of the maximum allowed disposal volume utilized, continued disposal is a concern.

Requirement #1

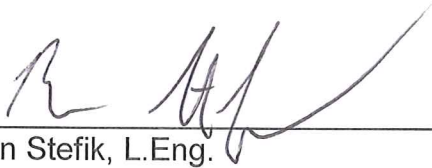
We note that average wellhead injection pressure values have been missing from Monthly Injection or Disposal Statement (BC-S18), which must be submitted to the Oil and Gas Commission no later than the 25th day of the month in which activity occurred. Measurement and recording of this data is a condition of the Order. A record of the average monthly wellhead pressures, from the date of initial injection, must be submitted to this office, and included on any future Statements.

Requirement #2

The OGC considers the highly stratified Baldonnel aquifer a poor acid gas disposal zone for long term operation. The sustained increase in average reservoir pressure is a potential drilling hazard and containment concern. The OGC is currently engaged in a comprehensive policy review that will result in upcoming approval amendments for acid gas disposal wells. An average reservoir pressure value of 120% of initial pressure will be the maximum acceptable pressure. This well is approaching that maximum. Though bi-annual history matches and model updates are planned, it would be prudent to also conduct a fall-off test within 6 months. Should the average reservoir pressure increase, Murphy would be advised to seek other disposal options. We remain open to further dialogue to address this situation.

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

Sincerely,



Ron Stefik, L.Eng.
A/Supervisor, Reservoir Engineering
Oil and Gas Commission