

## ACTION PLAN FOR ERCB DECISION 2006-102

### ENCANA CORP.

#### APPLICATIONS FOR LICENCES FOR 15 WELLS, A PIPELINE, AND A COMPRESSOR ADDITION, WIMBORNE/TWINING FIELD

| ACTION ITEM              | REQUIRED ACTION/COMMENTS  | DECISION: 2006-102                     | ERCB PROCESS TO ENSURE FOLLOW-UP  | STATUS & EVIDENCE  |
|--------------------------|---|--|---|--|
| 1 Fracturing Operations  | Measure the pressure between the tubing and casing annulus above the zones being fractured, note and explain any increased pressures, and report the findings to the EUB within five days of the fracturing operation.  | Section: 5.3.3<br>Paragraph 4<br>P. 14 | EnCana to provide the results of the tubing-casing annulus pressure monitoring to the Board within five days of completing the monitoring and to the interveners upon request.  | Completed -<br><br>March 1, 2007 - first three reports submitted for 14-32, 16-17, and 16-29.  |
| 2 Groundwater Monitoring | Install a groundwater monitoring well in the deepest aquifer immediately above the Battle Formation within 50 m of the EnCana well that has the shallowest surface casing depth. The water quality is to be determined prior to fracturing operations, and the water level is to be monitored continuously, commencing immediately prior to and continuing during and after fracturing operations, until the level has stabilized. The water quality testing is to be conducted in accordance with Alberta Environment's Standard for Baseline Water-Well Testing for Coalbed Methane/Natural Gas in Coal Operations, April 2006. The results of this monitoring are to be reported to the Board and interveners within 30 days. Thereafter, monitoring will be done on a yearly basis and reported by December 1 of each year.<br><br>This condition will be reviewed after the findings of the Shallow Fracturing Technical Committee are released or a period of five years. | Section: 5.3.3<br>Paragraph 5<br>P. 14 | EnCana to provide the results of the monitoring well drilling, the baseline water quality testing, the water levels while fracturing operations are ongoing, and the annual monitoring results. Results to be copied to the Board and to the interveners upon request.<br><br>Waiting for basic monitoring well data (depth, location, etc.) and results of baseline water quality testing. Waiting for results of water levels while fracturing operations are being done. Waiting for yearly monitoring to be conducted and reported on an annual basis (by December 1). Requirement to be reviewed after the findings of the Shallow Fracturing Technical Committee have been released for five years. | Completed - January 31, 2012<br>ERCB accepts 2011 monitoring report and is satisfied that the 5 year reporting requirement is met.<br><br>Annual groundwater monitoring reports have been provided to the ERCB for 2008, 2009, and 2010.<br><br>The recommendations of the Shallow Fracturing Technical Committee were incorporated into the revised version of Directive 027: Shallow Fracturing Operations, August 14, 2009. |

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|-------------|--|---|---|--|
| 3 Noise     | <p>Ensure the noise level at EnCana's facility remains within 25 dBA as measured at the Bauer residence under summertime conditions, as outlined in Table 3 of the Faszer Farquarson report, and within the EUB's PSLs at all other times.</p> <p>Alternatively, EnCana could comply by demonstrating that the facility, when operating under the above conditions, is not audible above the ambient sound level, or Mr. D. Bauer could agree that the noise from the facility is acceptable under conditions that the resident believes represents a worst-case scenario.</p> | <p>Section: 6.3<br/>Paragraph 4<br/>P. 19</p> | <p>EnCana to provide written documentation to demonstrate its compliance with this condition once the facility has been modified.</p> | <p>Completed -<br/>September 15, 2008 - Comprehensive Sound Survey Assessment indicates compliance with ERCB PSLs.</p> <p>November 23, 2009 - Written documentation provided by EnCana to demonstrate the requirement that the facility is not audible above the ambient level.</p> <p>December 8, 2009 - Response from Midnapore Field Centre to internal request confirms there have been no noise complaints for the EnCana Compressor Station at LSD 8-31-32-25 W4M since January 1, 2006. There have been two satisfactory inspections conducted at the compressor station: August 15, 2006 and July 8, 2009. Both inspections were conducted out of the Red Deer Field Centre.</p> |

*The conditions imposed in approvals/licence(s) are monitored by the Alberta Energy Resources Conservation Board (ERCB). The ERCB has developed a process whereby an action plan is developed internally to ensure that ERCB staff monitor conditions arising from decision reports for compliance. The conditions are managed in an action plan that is updated quarterly with statuses of conditions. The action plan defines the action required, timeframes for completion, and a summary of the evidence provided to confirm a condition was met. For more information, please contact the Action Plan Administrator at (403) 476-4783.*