

June 2, 2006

Hon. Guy Boutilier
Legislature Office
#423 Legislature Building
10800 – 97 Avenue
Edmonton
T5K 2B6

Re: The Baseline Water Well Testing Standard

Dear Minister Boutilier,

Since the announcement of Alberta Environment's "Baseline Water Well Testing Standard" in April 2006, the Pembina Institute has received important feedback from a number of landowners. We wish to make clear our perspective on this standard in light of the comments expressed to us.

We continue to support Alberta Environment's decision to introduce on May 1, 2006 a mandatory requirement that companies conduct baseline testing of nearby water wells before drilling a shallow coalbed methane (CBM) well. We also support a comprehensive review of the standard in 6 months. Our support should not be construed as anything more than endorsing this as a first step – one of many – toward full protection of our groundwater resources. It is critical that the standard be carefully implemented and enforced. The Institute intends to continue to do research on this issue and work with landowners, government agencies and companies to identify solutions.

It is critical that Alberta Environment take very seriously the scale of the challenge ahead to ensure protection of landowners' water wells in the face of a growing CBM industry. With over 6,000 producing wells at the end of 2005 and tens of thousands more wells being proposed, CBM, more so than conventional gas production, has the potential to have a serious impact on fresh groundwater wells in Alberta.

We wish to draw to your attention our perspective on where Alberta Environment should focus in order **to build on the existing standard:**

1. **Comprehensive Review:** Alberta Environment has indicated that it will review the baseline water well data collected in 6 months, and conduct more comprehensive reviews at 12 months and 18 months. In our view, the 6-month review must be comprehensive in order to ensure that the standard is adequately protecting landowners. The review must cover all water well complaints that have been received by the government in regions where there has



been CBM development in the past 5 years. This means collecting not only the water well complaints submitted to Alberta Environment, but also any complaints sent to other government bodies, such as Alberta Sustainable Resource Development, the Farmers' Advocate and the Energy and Utilities Board (EUB). In order to be fully informed, the reviewers need to know the full nature of the complaint, the location, sampling results and the outcome of the investigation. The location of the complaints should be identified on a map, with appropriate classification to indicate the depth of CBM activity. This review process must be publicly accessible, timely, and provide opportunities for public input.

2. **Baseline standard radius:** Many landowners support mandatory baseline water testing but are not confident that the 600-metre minimum distance is adequate. It is critical that the 6-month review carefully evaluate, based on scientific evidence, what minimum radius for mandatory baseline water testing will ensure protection for landowners. If, after 6 months, the data collected does not provide an indication of what distance is appropriate we will be advocating for a significantly larger radius of testing based on the precautionary principle.
3. **Extension of baseline testing standard to all CBM wells:** As part of the 6-month review, Alberta Environment needs to decide whether or not the baseline testing standard should be extended to all CBM wells. The objective here is to address the concern that gas may migrate from deeper formations due to CBM wells drilled at greater depths posing a risk to shallow aquifers.
4. **Piezometer Testing:** Given that groundwater is a public resource and it is important to have baseline water data prior to CBM drilling, in situations where it is not possible to acquire a sample from a private landowner water well, one option is to require the company to conduct piezometer testing on the lease of the coalbed methane well. The desired outcome is to ensure that baseline water data is collected prior to drilling of every CBM well in Alberta.
5. **Isotopic Composition:** In order to ensure long-term protection for landowners and minimize the liability of companies, it is recommended that companies be required to provide samples of the isotopic composition of the gas at different zones when CBM wells are drilled. This information should be placed in a publicly accessible data bank, so that it is available to compare with any gas that is later found in water wells.
6. **Enforcement:** Alberta Environment is the Ministry tasked with protecting groundwater against contamination and meeting the objectives of this new baseline water standard. Appropriate funding and staffing resources should be allocated to ensure that the standard is fully enforced.
7. **Quality Control:** Given that arms-length professionals are conducting the water well tests, Alberta Environment needs to establish a transparent audit of the sampling process to verify

industry results. First, Alberta Environment must release a robust testing protocol and explain how it will ensure industry compliance with the protocol. Second, Alberta Environment must outline the steps that will be taken to investigate and respond to water well owner complaints. Third, the department should indicate what actions it will take in the case of non-compliance to the standard. These measures are critical to ensuring the standard meets the intended outcome.

8. **Public Registry of Information:** We support Alberta Environment's commitment to establishing a public registry of water well information. The registry should identify the locations of water wells, locations of CBM wells, the water well testing results, the isotopic testing results and the names of companies involved. We also recommend that it identify the locations of water well complaints.
9. **Water Well Retesting Program:** As part of the 6-month review, consideration should be given to establishing a mandatory water well retesting program. Such a program will further build confidence in protecting the water quality of Alberta landowners.

In our view, protecting well water and groundwater takes priority over enabling CBM development. The existing standard is an important foundational step that needs to be built upon to ensure protection of water quality in CBM areas. We believe careful consideration of the above aspects is an essential next step for Alberta Environment to advance environmental protection for Albertans.

We would be pleased to discuss these items and provide further detail on each. These requirements will help ensure that Alberta is able to develop coalbed methane while at the same time protecting our most vital natural resource – water.

Sincerely,



Marlo Reynolds, PhD
Executive Director

Chris Severson-Baker
Director, Energy Watch Program

cc. Greg Melchin, Minister of Energy
Neil McCrank, Chairman of the Alberta Energy and Utilities Board