Intelligence MEMOS

From: Benjamin Dachis, Blake Shaffer and Vincent Thivierge

To: The Alberta Energy Regulator and the Orphan Well Association

Date: September 28, 2017

Re: **ALBERTA'S ORPHAN WELL CHALLENGE**

If Alberta doesn't change its oil and gas well cleanup policy, the energy industry and, ultimately, taxpayers in Alberta could face costs of up to $8 billion.

The recent downturn in energy prices has shone a spotlight on the issue. In Alberta, mounting insolvencies have caused the number of "orphaned" wells – i.e., without a financially accountable owner – to balloon from fewer than 100 to 3,200 in the past five years. With low energy prices, that list of wells risks growing longer.

Of the roughly 450,000 wells registered in the province, approximately 155,000 are no longer producing but not yet fully remediated. These wells impose potential risks and costs not borne by those who benefited during the productive phase. These include the opportunity cost of taking up land that can't be used for other purposes, risks to households from released gas and explosions, risks to the local environment from water and soil contamination, and broader risks due to leaking greenhouse gases. Moreover, the cost to clean up wells from no-longer-viable owners has the potential to spill over to surviving firms in the industry and, ultimately, citizens. In a stress test, we estimate the potential social cost of well liabilities to be as high as $8 billion.

Alberta, along with other energy producing provinces in Canada, has a system in place to manage the risk of end-of-life well liability. However, a system that worked in the past is now strained under the weight of low prices. In addition, a recent court decision placing financial creditors in higher priority than environmental liabilities has further degraded the efficacy of current policies. This speaks to the need for reform.

To its credit, the Alberta government is in the midst of consultations on reforming the province's well liability policies and is due to report by the end of this year. In our *Commentary* released today, we propose a two-part solution of partial bonding and mandated insurance for existing and new wells.

First, we recommend the province introduce an upfront bonding requirement. However, this bonding requirement should be less than that of the full expected liability cost. This recognizes that society should accept some risk in exchange for greater economic activity, as well as aligning with the time profile of a well's net asset value. To provide flexibility for firms with higher capital costs, we recommend that well owners have the option to purchase surety bonds from third parties.

Second, once a well enters the inactive phase, the province should require companies to hold insurance to cover the cost of cleaning up the well. In comparison to a strict time limit on inactive wells, an insurance requirement would allow firms to weigh the increased social cost of holding unproductive wells against the potential value of returning them to production. The effect would be both to hasten the transition to well plugging and reclamation and to increase production from late-stage wells by companies seeking to avoid the cost of suspended status. In conjunction with the above bonding recommendation, well owners would see progressively more stringent collateral requirements as both the value of the well diminishes and the risk of social well-liability costs increase.

We hope our recommendations are considered by the current Alberta review of end-of-life well policies.

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