

The Inactive Well Compliance Program: Alberta's latest attempt to bring the inactive well problem under control¹

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On July 4, 2014, the Alberta Energy Regulator (“AER”) announced the Inactive Well Compliance Program (“IWCP”).³ The IWCP is the latest attempt by the AER and its predecessors to address the growing backlog of inactive oil and gas wells which have not been abandoned or reclaimed.⁴ In announcing the IWCP program, the AER stated that approximately 37,000 inactive wells, out of a total of 80,000 inactive wells in Alberta, were non-compliant with the requirements of AER *Directive 013: Suspension Requirements for Wells*.⁵

Subsection 3.020(1) of the *Oil and Gas Conservation Rules* (“OGCR”) provides that a licensee shall suspend a well, in accordance with the requirements established by the AER, within 12 months after the last producing or injection operations have occurred unless the well is produced only to supply a seasonal market or the well is classed as an observation well.⁶ *Directive 013* defines inactive wells as critical sour gas and acid gas wells that have not reported production, injection or disposal activity for 6 consecutive months, and other wells that have not reported production, injection or disposal activity

¹ This paper is an update of a previously released paper by the same author on the inactive well problem. See Barry Robinson, “Well Abandonment and Reclamation in Alberta: the Failure of the Licensee Liability Rating Program”, paper prepared for the *Well and Pipeline Abandonment, Suspension and Reclamation Conference*, Canadian Institute, (Calgary: 17 March 2010).

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³ Alberta Energy Regulator, *AER Bulletin 2014-19*, (Calgary: AER, 4 July 2014) [*Bulletin 2014-19*].

⁴ An inactive well is a well that has not reported any production, injection or disposal activities for a period of 12 consecutive months or longer. Abandonment means the permanent dismantling of a well and related facilities to leave the well in a permanent safe and secure condition. Reclamation means the restoration of the ability of the associated surface lands to support similar land uses to that which existed before the well was established.

⁵ Alberta Energy Regulator, *Inactive Well Compliance Program (IWCP)*, in addition to *Bulletin 2014-19*, Closure and Liability Branch, Well Abandonment Group (Calgary: AER, 14 July 2014) at 1 [*IWCP Document*].

⁶ *Oil and Gas Conservation Rules*, A.R. 151/71, s. 3.020(1).

for 12 consecutive months. *Directive 013* requires specified periodic inspection, pressure testing and maintenance of inactive wells.⁷

Inactive wells that are not suspended in accordance with *Directive 013* pose an increased risk of undetected and continuing soil and groundwater contamination. For the oil and gas industry, inactive wells that are not abandoned or reclaimed represent a significant financial and environmental liability. For landowners and the public, inactive wells that are not abandoned or reclaimed in a timely manner represent a loss of productive farmland, forest land or native grasslands.

The IWCP is the latest attempt by Alberta's energy regulators to address the growing backlog of inactive wells which have not been abandoned or reclaimed. However, the IWCP does not address how the AER, whose predecessor the Energy Resources Conservation Board ("ERCB") identified itself as a "world-class energy regulator" in 2010⁸, now reports that there are over 37,000 wells out of compliance with a single mandatory Directive. In June 2014, the Minister of Energy stated that Alberta has "a rich history...of strict environmental regulations and safety standards".⁹ One month later, the AER announced that 47 percent of the inactive wells in the province, or almost 9 percent of all the wells ever drilled in Alberta, were out of compliance with *Directive 013*.

This paper reviews the history of inactive wells in Alberta and the various attempts by the energy regulator to address the issue. The paper then reviews the strengths and weaknesses of the IWCP and the likelihood that this latest program will successfully address the problem. The paper then proposes a possible remedy to this longstanding problem.

⁷ Alberta Energy Regulator, *Directive 013: Suspension Requirements for Wells* (Calgary: AER, 24 July 2007) at 2-3.

⁸ Energy Resources Conservation Board, *Business Plan 2010-2013* (Calgary: ERCB, 2010) at 5.

⁹ Government of Alberta, News Release, "Albertans invited to provide input on energy development in and near urban areas" (16 June 2014).

History of Inactive Wells in Alberta

The problem of inactive wells in Alberta is not new. In the latter half of the 1980's, the ERCB expressed concern about the dramatic increase in the number of inactive wells and the risks they posed to public and environmental safety.¹⁰ In February 1986, the ERCB instituted a special well fund to be directed to abandoning "orphan" wells.¹¹

By 1989, there were over 25,000 inactive wells in Alberta.¹² The ERCB continued to be concerned that financial responsibility for these wells would fall to the public purse as companies became bankrupt or defunct. In response to these concerns, the ERCB established the Abandonment Fund in May 1994 to deal with the backlog of orphan wells that had not been abandoned.¹³

In July 1995, the Alberta Energy and Utilities Board ("AEUB") (which replaced the ERCB as Alberta's energy regulator from 1995 to January 2008) sent a letter to all oil and gas well operators expressing concern over the number of wells that had been inactive for more than 10 years.¹⁴ As of 1995, over 12,000 wells had been inactive for more than 10 years without being abandoned or reclaimed. The AEUB expressed concern that inactive wells posed an increasing risk to the public and to the environment because the care and attention directed to inactive wells had traditionally been less than that given to producing wells.¹⁵

In response to this growing problem, the AEUB introduced the Long Term Inactive Well Program ("LTIWP") effective November 1997.¹⁶ The LTIWP required operators to reduce the number of wells that had been inactive for more than 10 years by abandoning

¹⁰ Alberta Energy and Utilities Board, *History of the Orphan Fund* (Calgary: AEUB, 2006) at 1 [*History*].

¹¹ *Ibid.*

¹² Energy Resources Conservation Board, *Recommendations to Limit the Public Risk from Corporate Insolvencies Involving Inactive Wells* (Calgary: ERCB, December 1989) at i.

¹³ *History*, *supra* note 10 at 2.

¹⁴ Alberta Energy and Utilities Board, "Letter to All Operators" (Calgary: AEUB, July 1995).

¹⁵ *Ibid.*

¹⁶ Alberta Energy and Utilities Board, *Long Term Inactive Well Program*, Interim Directive ID 97-8 (Calgary: AEUB, November 1997).

the wells, resuming production, paying an abandonment deposit or transferring the wells to other operators over a five-year period. In the first year of the program, 673 long term inactive wells were abandoned, 172 wells were returned to active service and \$6.1 million in deposits were paid to retain 471 wells in inactive status.¹⁷ However, the number of inactive wells continued to increase, reaching 34,318 as of March 31, 1999.¹⁸

In June 2000, the Government of Alberta and the AEUB initiated significant changes to the environmental liability regime for oil and gas wells in Alberta.¹⁹ The *Energy Statutes Amendment Act, 2000* (“ESAA”), proclaimed in force on June 30, 2000, introduced changes intended to reduce the risk to the public purse and to the Abandonment Fund for orphan wells, facilities and pipelines.²⁰ The ESAA amended the *Oil and Gas Conservation Act* to include an obligation on the licensee to suspend inactive wells.²¹ Further, the ESAA replaced the Abandonment Fund with the Orphan Fund and expanded the scope of the Orphan Fund to include pipelines and upstream production and processing facilities in addition to wells. Also, the ESAA expanded the scope of the activities covered by the Orphan Fund to include the suspension of wells, the discontinuance of pipelines and the reclamation of the associated surface lands in addition to abandonment.

In support of these changes, the AEUB introduced the Licensee Liability Rating Program (“LLRP”) in October 2000.²² The purpose of the LLRP was to reduce the risk to the Orphan Fund resulting from the expanded scope of the fund and to reduce the risk of a

¹⁷ Alberta Energy and Utilities Board, *Long Term Inactive Well Program: Year 1 Progress Report*, General Bulletin GB 99-16 (Calgary: AEUB, 30 September 1999).

¹⁸ Alberta Energy and Utilities Board, *1998/99 Orphan Fund Annual Report* (Calgary: AEUB, 1999) at 13.

¹⁹ Nickie Vlavianos, “Liability for Suspension/Discontinuation, Abandonment and Reclamation in Alberta: An Update”, (2002) 39 *Alta L Rev* 864.

²⁰ *Energy Statutes Amendment Act*, SA 2000, c 12.

²¹ Suspension means taking the steps necessary to ensure that a well at which activities have been temporarily halted is maintained in a safe and secure condition.

²² Alberta Energy and Utilities Board, *Interim Directive ID 2000-11: Energy Development Licence Transfer Requirements and Monthly Corporate Licensee Liability Rating* (Calgary: AEUB, 20 October 2000).

well or facility becoming orphaned.²³ Under the LLRP, the ratio of deemed assets to deemed liabilities is calculated for each licensee on a monthly basis to estimate the degree of risk associated with that licensee's abandonment and reclamation obligations.²⁴ Licensees whose deemed liabilities exceed their deemed assets (that is, whose assets to liability ratio is less than 1.0) are required to either reduce their liabilities or to post security deposits for abandonment and reclamation costs. The Long Term Inactive Well Program terminated upon the introduction of the LLRP.

The intent of the LLRP was that licensees would abandon and reclaim their wells, facilities and pipelines in a timely manner in order to maintain a satisfactory assets to liabilities ratio and avoid the need to make security deposits. The primary problem with the LLRP program was, and remains, the method by which the deemed assets and deemed liabilities of the licensee are determined. In simplest terms, deemed assets are calculated by multiplying a licensee's reported production of oil and gas from the preceding 12 calendar months by the rolling 3-year average industry netback, and then multiplying the result by 3 years.²⁵ By using average industry netbacks, the calculation assumes that all operations are equally profitable, when in fact a licensee may be losing money on every barrel of production due to the difficulty of accessing the resource, the quantity of production or simply poor management.

Similarly, deemed liabilities are calculated as the sum of the costs to suspend, abandon, remediate and reclaim all wells and facilities held by the licensee. The calculation uses regional average costs for abandonment and reclamation with adjustments for the depth of the well and the steps required to complete downhole abandonment. The problem with

²³ Danielle Brezina and Bradley Gilmour, "Protecting and Supporting the Orphan Fund: Recent Legislative and AEUB Policy Amendments Designed to Address Unfunded Liabilities of Oil and Gas Facilities in Alberta", (2003) 41 Alta L Rev 29 at 31.

²⁴ Alberta Energy Regulator, *Directive 001: Requirements for Site-Specific Liability Assessments in Support of the ERCB's Liability Management Programs* (Calgary: AER, 6 June 2012); Alberta Energy Regulator, *Directive 006: Licensee Liability Rating (LLR) Program and Licence Transfer Process* (Calgary: AER, 12 March 2013); Alberta Energy Regulator, *Directive 013: Licensee Liability Rating (LLR) Program Updated Industry Parameters and Liability Costs* (Calgary: AER, 10 April 2014).

²⁵ *Directive 006*, *supra* note 24 at 13.

this calculation is that it ignores all of the licensee's financial liabilities other than the estimated cost to abandon and reclaim the wells.

This weakness is illustrated by the case of one company that the author is familiar with. The licensee in question produced oil and gas and therefore had positive deemed assets under the LLRP program. The licensee also held several inactive wells that had not produced for fifteen years or more. As of December 31, 2008, the company had approximately \$130,000 in unrestricted cash assets and over \$2.0 million in accounts payable. The company was facing over \$500,000 in law suits for unpaid bills. The company had a net loss of just under \$1.0 million in conducting its operations in 2008. The company stayed afloat in 2009 by selling \$1.3 million in assets. By the end of 2009, the company was facing a further \$2.0 million law suit from a working interest partner. This was clearly a company in financial trouble, yet throughout 2008 and 2009, the company's Liability Management Rating ("LMR") (the ratio of deemed assets to deemed liabilities) under the LLRP remained above 1.0, ranging between 1.2 and 1.4. Even when this financial information was provided to the ERCB and a review of the LMR requested, the ERCB determined that the licensee had a LMR of 1.28. Further, the ERCB stated that they did "not have the mandate or resources to evaluate the corporate health of companies holding licences for upstream oil and gas activities in Alberta." Therefore, no security deposit was required and there was no incentive for this company to abandon or reclaim any of its inactive properties other than insignificant surface lease payments. In the year ending December 31, 2013, this same company had total assets of just under \$300,000 and an accumulated deficit of \$5.6 million. The company lost \$156,000 on its 2013 operations. Despite holding an interest in 10 wells, the company reported decommissioning liabilities of only \$129,000. Despite this financial situation, the company's LMR remains at 1.48 and no security deposit is required.

By 2004, there were approximately 42,000 inactive wells in Alberta that had not been abandoned.²⁶ Many of these had been inactive for more than 25 years.²⁷ The AEUB

²⁶ Alberta Energy and Utilities Board, *Bulletin 2004-29: Suspension Requirements for Wells* (Calgary: AEUB, 1 December 2004) at 1 [*Bulletin 2004-29*].

expressed concern that, with the transfer of inactive wells between licensees, knowledge of wellbore conditions and in some cases even knowledge of the well's existence, was lost.²⁸ To address these issues, the AEUB introduced *Directive 013: Suspension Requirements for Wells* in December 2004.²⁹ *Directive 013* introduced new inspection, testing, repair and reporting requirements for suspended wells with the objective of ensuring continued public safety, environmental protection and resource conservation at inactive wells.³⁰ *Directive 013* stated that all high risk wells were to be brought into compliance with the directive by December 31, 2005 and that all low and medium risk wells were to be brought into compliance by December 31, 2006.³¹ While *Directive 013* was not intended to directly address the timely abandonment and reclamation of inactive wells, licensees may have been encouraged to abandon and reclaim inactive wells in a timely manner to avoid the costs associated with the more stringent suspension requirements.

By April 2005, the number of inactive wells that had not yet been abandoned increased to 44,820. Over 10,000 of these wells had been inactive for ten or more consecutive years.³² By June 2009, the number of inactive wells reached 61,945.³³ By the end of 2012, the number of inactive wells was 65,020.³⁴

In March 2013, the ERCB announced changes to the LLRP to address concerns that the LLRP significantly underestimated abandonment and reclamation liabilities.³⁵ The changes updated the deemed well abandonment costs based on a consultant's report and

²⁷ *Ibid.*

²⁸ *Ibid.*

²⁹ Alberta Energy and Utilities Board, *Directive 013: Suspension Requirements for Wells* (Calgary: AEUB, December 2004).

³⁰ *Bulletin 2004-29*, *supra* note 26 at 1.

³¹ *Directive 013*, *supra* note 29, at 6.

³² Alberta Energy and Utilities Board, *Well and Pipeline 2006 Conference: If You Aren't Handling Your Liabilities; Your Liabilities Are Handling You!*, (Calgary: AEUB, 2006), on-line at <<http://www.ercb.ca/docs/programs/Lmp/2006Conference.pdf>>, accessed 12 January 2010, at 9.

³³ Energy Resources Conservation Board, *Monthly Inactive and Active Well Licence Statistics*, on-line at <<http://www.ercb.ca/docs/programs/lmp/MonthlyInactiveWellLicences.pdf>>, accessed 23 December 2009.

³⁴ Energy Resources Conservation Board, *ST57-2013- Field Surveillance and Operations Branch – Field Operations Provincial Summary 2012* (Calgary: ERCB, June 2013) at 6 [ST57-2013].

³⁵ Energy Resources Conservation Board, *Bulletin 2013-09: Licensee Liability Rating (LLR) Program Changes and Implementation Plan* (Calgary: ERCB, 12 March 2013).

increased the deemed reclamation costs by 25 percent.³⁶ The LLRP changes became effective on May 1, 2013 with the increased abandonment and reclamation cost estimates to be phased in over three years to give licensees time to adjust to the revised program.³⁷

On May 30, 2013, one month after introducing the changes to the LLRP, the ERCB announced that it would extend the grace period before commencing an enforcement process for non-payment of LLRP security fees from 30 days to 90 days in response to concerns from licensees about their ability to comply with the new program.³⁸ The extended grace period would be effective until October 2013, at which time the ERCB would return to its standard enforcement process for non-payment of LLRP security.³⁹

On February 28, 2014, the AER announced a further plan to allow licensees to meet their LLRP security requirements over a set period of time.⁴⁰ Under the newly announced Licensee Liability Rating (LLR) Program Management Plan (“Management Plan”), licensees whose deemed liabilities exceed their deemed assets, who owe more than \$25,000 in financial security or who have been issued closure or abandonment orders as a result of unpaid LLRP security, may apply for the Management Plan.⁴¹ Under the Management Plan, a licensee may pay outstanding security amounts by quarterly payments until December 30, 2017 subject to meeting certain obligations.⁴² Those obligations include providing additional financial information to the AER and submitting and carrying out plans to abandon and reclaim outstanding inactive wells.⁴³

The required financial information under a Management Plan includes forecast revenues and operating costs for the individual licensee rather than relying on industry averages.⁴⁴

³⁶ *Ibid*, at 1.

³⁷ *Ibid*, at 2.

³⁸ Energy Resources Conservation Board, *Bulletin 2013-22: Licensee liability Rating (LLR) Program Changes Security Payment Time Extension*, (Calgary: ERCB, 30 May 2013) at 1.

³⁹ *Ibid*.

⁴⁰ Alberta Energy Regulator, *Licensee Liability Rating (LLR) Program Management Plan* (Calgary: AER, 28 February 2014).

⁴¹ *Ibid*, at 1.

⁴² *Ibid*, at 6.

⁴³ *Ibid*, at 3-5.

⁴⁴ *Ibid*, at 3-4.

However, the Management Plan does not go so far as to require full income statements or balance sheets, nor does it require the licensee to reveal other real or potential liabilities such as accounts payable or legal claims against the licensee.

As of July 9, 2014, sixteen licensees had been approved to proceed under the Management Plan.⁴⁵

The IWCP

The AER announced the Inactive Well Compliance Program on July 4, 2014.⁴⁶ In announcing the IWCP, the AER acknowledged that there were approximately 80,000 inactive wells in Alberta, of which 47 percent or approximately 37,000 wells were not in compliance with the suspension requirements of *Directive 013*.⁴⁷ The AER further identified that 9 percent, or 3,300 of the inactive wells, had identified wellbore integrity problems such as surface casing vent flow, gas migration or casing failures.⁴⁸ Wells with serious integrity problems have the potential of contaminating the land surface, surface water and groundwater.

The objective of the IWCP is to bring all noncompliant inactive wells under the program into compliance with *Directive 013* within 5 years after the commencement of the program on April 1, 2015.⁴⁹ As of April 1, 2015, each licensee under the program will be required to bring 20 percent of its inventory of noncompliant wells into compliance each year by either suspending the wells in compliance with *Directive 013*, abandoning the well or bringing the well back into production.⁵⁰ The AER will prepare a compliance report for each licensee on April 1 of each year. If fully implemented, the backlog of noncompliant inactive wells would be fully addressed by March 31, 2020.

⁴⁵ Alberta Energy Regulator, on line at www.aer.ca/abandonment-and-reclamation/liability-management/reporting, accessed on September 17, 2014.

⁴⁶ *Bulletin 2014-19*, *supra* note 3.

⁴⁷ *IWCP Document*, *supra* note 5, at 1.

⁴⁸ *Ibid.*

⁴⁹ *Ibid.*

⁵⁰ *Bulletin 2014-19*, *supra* note 3 at 1.

After April 1, 2015, all inactive wells that are not part of the IWCP must fully meet the requirements and timeframes of *Directive 013*.⁵¹ Further, wells with wellbore integrity issues must continue to be dealt with in accordance with AER *Interim Directive 2003-01: 1) Isolation Packer Testing, Reporting, and Repair Requirements; 2) Surface Casing Venting Flow/Gas Migration Testing, Reporting, and Repair Requirements; 3) Casing Failure Reporting and Repair Requirements*.⁵² Generally, *Interim Directive 2003-01* requires that serious surface casing vent flows or gas migration issues, as well as any casing leak or failure, be addressed within 90 days of detection of those problems. Non-serious surface casing vent flows and gas migration problems must be monitored and are required to be repaired at abandonment.

Review of the IWCP

Both the IWCP and the March 2013 changes to LLRP indicate that previous attempts to address the backlog of inactive and not yet abandoned or reclaimed wells have not been effective. Like *Directive 013*, the IWCP is not intended to directly address the timely abandonment and reclamation of inactive wells. Rather, the IWCP is intended to bring inactive wells into compliance with *Directive 013*. However, under the IWCP, licensees may choose to abandon wells as one means to remedy wells that are not in compliance with *Directive 013*. While the IWCP, if fully enforced, should bring inactive wells into compliance with *Directive 013*, it remains to be seen whether the IWCP will result in any reduction in the number of inactive wells through abandonment and reclamation.

The IWCP and the LLRP Management Plan must be recognized for what they are and what they are not. The IWCP and the Management Plan are not examples of strict enforcement. They are amnesty programs. Rather than requiring current compliance with *Directive 013*, the IWCP offers a phased 5-year amnesty on compliance. Instead of

⁵¹ *IWCP Document*, *supra* note 5 at 2.

⁵² Alberta Energy and Utilities Board, *Interim Directive 2003-01: 1) Isolation Packer testing, Reporting, and Repair Requirements; 2) Surface Casing Venting Flow/Gas Migration Testing, Reporting, and Repair Requirements; 3) Casing Failure Reporting and Repair Requirements* (Calgary: AEUB, 30 January 2003).

enforcing the security requirements of the LRPP, the Management Plan offers a phased 4-year amnesty on security payments.

The AER's phased approach recognizes certain realities with respect to the backlog of inactive, unabandoned and unreclaimed wells. Immediate strict enforcement of the LLRP security program would likely drive many licensees into bankruptcy and leave the wells to be dealt with by the Orphan Well program. Likewise, immediate enforcement of the *Directive 013* requirements for the backlog of noncompliant wells would likely place a significant financial burden on noncompliant licensees. There may also be practical limitations as to equipment and personnel available to immediately address this backlog.

Further, the IWCP fails to identify or address the root cause of the backlog of noncompliant inactive wells. One has to ask how the energy regulator, with any reasonable amount of resources for monitoring, compliance and enforcement, ends up with 37,000 wells out of compliance. Why did the regulator fail to enforce full compliance by December 31, 2006 as anticipated by *Directive 013*? Where has the regulator been every year since? The AER states only that well suspension activities "have been delayed by multiple extension requests, voluntary self-disclosures and volumetric data manipulations".⁵³ Claims of a "world-class regulator" with a history of "strict enforcement" ring hollow in the face of this problem developing over the last ten years.

The 1997 Long Term Inactive Well Program had the potential to eliminate the backlog of long term inactive wells by 2002, but was abandoned within two years of initiation. The introduction of the LLRP in 2000 was a tepid and ineffective replacement for the LTIWP. Will the AER have the monitoring, compliance and enforcement resources and the political backing to strictly enforce the IWCP and the LLRP Management Plan? Or will the threat of companies being forced into bankruptcy for not having met their IWCP or Management Plan commitments be enough for the AER to renege on its commitment to enforcement?

⁵³ *IWCP Document, supra* note 5, at 1.

As discussed above, it must be recognized that neither the IWCP nor the LLRP Management Plan directly addresses the abandonment and reclamation of wells. Even if wells are brought into compliance with *Directive 013*, they may be held in an unabandoned and unreclaimed state indefinitely.

Concurrent with the problem of increasing numbers of unabandoned inactive wells is the problem of a lack of timely reclamation of well sites following abandonment. As of April 1992, there were 29,580 wells in Alberta that had been abandoned but not yet certified as reclaimed.⁵⁴ It was the ERCB's and industry's position that a significant number of these sites had been fully reclaimed and were awaiting certification.⁵⁵ By June 2005, the number of abandoned but not yet certified sites had increased to 33,207.⁵⁶ In their annual State of the Environment Report in 2009, Alberta Environment reported that there were 45,248 abandoned but not yet certified sites.⁵⁷ By 2014, there were 52,831 abandoned but not yet reclaimed well sites.⁵⁸ Of those well sites, 16,975 or 32 percent had been abandoned for more than 10 years but not yet reclaimed.⁵⁹ Alberta Environment and Sustainable Resource Development ("AESRD") noted that oil and gas well reclamation certification is progressing at a much slower rate than abandonment resulting in a buildup of unreclaimed sites.⁶⁰

The 2013 increases to the LLRP estimates of abandonment and reclamation costs may encourage some licensees to undertake more well abandonment and reclamation in order to maintain a favourable assets to liabilities ratio. However, for licensees that have LMRs

⁵⁴ Alberta Land Conservation and Reclamation Council, *Conventional Oil and Gas Wellsite Reclamation*, LCRC/IL/93-1 (Edmonton: LCRC, March 1993) at 2.

⁵⁵ *Ibid.*

⁵⁶ Steven A. Kennett et al., *Managing Alberta's Energy Futures at the Landscape Scale*, Paper No. 18, Alberta Energy Futures Project (Calgary: Institute for Sustainable Energy, Environment and Economy, November 2006) at 75.

⁵⁷ Alberta Environment, *State of the Environment – Land: Oil and Gas Well Reclamation*, on-line at <http://www3.gov.ab.ca/env/soe/land_indicators/40_oilgas_reclamation.html>, accessed 16 July 2009.

⁵⁸ Alberta Environment and Sustainable Resource Development, *Oil and Gas Wells Reclamation*, on-line at <<http://esrd.alberta.ca/focus/state-of-the-environment/land/response-indicators/oil-and-gas-wells-reclamation.aspx>>, accessed 16 September 2014.

⁵⁹ *Ibid.*

⁶⁰ *Ibid.*

of 1.0 or greater, the costs of maintaining an inactive well are minimal and include only the costs of periodic testing of the well pursuant to *Directive 013* and the cost of annual surface lease payments. Once a well is abandoned, the cost of maintaining the well includes only the surface lease payments and the cost of site maintenance, if any, that is carried out. These costs are often far less than the cost to abandon and reclaim the well. Therefore, in many cases, there remains little financial incentive to abandon or reclaim the well in a timely manner and the LLRP is likely to remain ineffective in encouraging well abandonment and reclamation. Further, the impact of the 2013 increases in LLRP abandonment and reclamation cost estimates on licensees with LMRs less than 1.0 has been blunted by the LLRP Management Program.

As of March 2014, the AER assumed responsibility from AESRD for the regulation of the reclamation and remediation of oil and gas well sites. The AER could therefore, as a condition of the IWCP program, require that the reclamation of well sites occur concurrent with the abandonment of wells under that program.

The impact of the IWCP on wells with integrity issues is unclear. The IWCP identifies that 3,300 inactive wells have reported wellbore integrity issues.⁶¹ *Bulletin 2014-19* states that any existing wellbore integrity issues must be dealt with in accordance with *Interim Directive 2003-01*.⁶² *Interim Directive 2003-01* requires that serious wellbore integrity issues be corrected within 90 days of identification. The AER has not provided any information on the number of wells with identified serious wellbore issues. The AER has stated only that they have identified 227 high risk wells and that these are getting immediate attention.⁶³ Therefore, the number of wells with serious wellbore issues and the level of compliance with *Directive 2003-01* is unclear.

The AER has indicated that the list of inactive wells and the annual compliance report for each licensee under the IWCP will not be made public. This list will be shared with licensees. This seems inconsistent with the AER's commitment to transparency and

⁶¹ *IWCP Document*, *supra* note 5 at 1.

⁶² *Bulletin 2014-19*, *supra* note 3 at 2.

⁶³ R.P. Stastny, "Five-Year Plan" (2014) 65:10 Oilweek 45 at 46.

accountability.⁶⁴ The intent of *Directive 013* is to ensure that inactive wells are held in a safe and secure condition. Under the IWCP, any landowner with an inactive well on their land will have no way of accessing the AER's list of non-compliant wells to determine whether a well on their property is compliant with *Directive 013*, or whether it remains outstanding and subject to the amnesty program. Landowners should have the right to know the status of inactive wells on their property, including whether there are known wellbore integrity issues. Investors should be informed of which licensees have outstanding inactive well commitments. Public release of the inactive well lists and the annual compliance reports would also allow the public to hold licensees and the AER accountable for the commitments made under the IWCP.

Alternative Approaches

If fully enforced over the next five years, the IWCP and the LLRP Management Plan have the potential to bring suspended wells into compliance with *Directive 013* and to reduce the backlog of inactive wells. However, neither the IWCP nor the LLRP Management Plan directly addresses the timely abandonment and reclamation of inactive wells.

Subsection 27(1) of the *Oil and Gas Conservation Act* (“*OGCA*”) provides that a licensee shall suspend or abandon a well when directed by the AER or required by the regulations or rules.⁶⁵ Subsection 27(3) of the *OGCA* provides that the AER may order that a well be suspended or abandoned when the Board considers that it is necessary to do so to protect the public or the environment.⁶⁶ *AER Directive 020: Well Abandonment* requires that surface abandonment must be completed within twelve months after downhole abandonment.⁶⁷ Otherwise, the *OGCA*, *OGCR* and *Directive 020* do not specify any time limit for carrying out the abandonment of an inactive well.

⁶⁴ Jim Ellis, “Alberta’s full life-cycle regulator”, AER Blog – April 2014, on-line at <www.aer.ca/april-2014>, accessed on 18 September 2014.

⁶⁵ *Oil and Gas Conservation Act*, RSA 2000, c O-6, s 27(1).

⁶⁶ *Ibid*, s 27(3).

⁶⁷ Alberta Energy Regulator, *Directive 020: Well Abandonment* (Calgary: AER, 9 June 2010) at 41.

Section 3.012 of the *OGCR* requires a licensee to abandon a well:

- (a) on the termination of the mineral lease, surface lease or right of entry;
- (b) where the licensee fails to obtain the necessary approval for the intended purpose of the well, if the licensee does not hold the right to drill for and produce oil or gas from the well;
- (c) if the licensee has contravened an Act, a rule, a regulation or an order or direction of the AER and the AER has suspended or cancelled the licence;
- (d) if the AER notifies the licensee that in the opinion of the AER the well may constitute an environmental or a safety hazard;
- (e) if the licensee is not or ceases to be a working interest participant in the well;
- (f) if the licensee is not or ceases to be resident in Alberta and has not appointed an agent or obtained an exemption in accordance with the Act;
- (g) if the licensee is
 - (i) a corporation registered, incorporated or continued under the *Business Corporations Act* whose status is not active or has been dissolved or if the corporate registry status of the corporation is struck or rendered liable to be struck under any legislation governing corporations, or
 - (ii) an individual who is deceased;

(h) if the licensee has suspended the well in contravention of the requirements established by the AER under section 3.020, or

(h) where otherwise ordered to do so by the AER.⁶⁸

Between 2000 and 2009, the ERCB issued on average 29 Abandonment Orders per year, ordering the abandonment of on average 44 wells per year.⁶⁹ In 2013, the AER issued Abandonment Orders against 26 licensees covering 688 wells. The vast majority of the Abandonment Orders were issued for failure to pay required amounts under the LLRP, perhaps reflecting a more aggressive approach to enforcement on the part of the AER.⁷⁰ The aggressive rate of Abandonment Orders appears to continue into 2014.⁷¹

In March 2014, the AER took over responsibility for the regulation of the reclamation and remediation of well sites as required under Parts 5 and 6 of the *Environmental Protection and Enhancement Act* (“*EPEA*”). Subsection 137(1) of *EPEA* requires that an operator reclaim specified lands, including well sites, but does not contain any time limit for carrying out such reclamation.⁷² Section 140 of *EPEA* provides that an inspector may, subject to applicable codes of practice, approvals and regulations, issue an environmental protection order requiring an operator to carry out reclamation work.⁷³

Further, section 113 of *EPEA* provides that a Director may issue an environmental protection order where the release of a substance into the environment may cause, is causing or has caused an adverse environmental effect.⁷⁴

⁶⁸ *OGCR*, *supra* note 6, s. 3.012.

⁶⁹ Energy Resources Conservation Board, *Abandonment Orders*, on-line at <<http://www.ercb.ca/docs/documents/orders/AbandonmentOrders.pdf>>, accessed 6 January 2010.

⁷⁰ Alberta Energy Regulator, *AER Abandonment Orders*, on-line at <<http://www.aer.ca/documents/orders/ibo/AbandonmentOrders.pdf>>, accessed on 18 September 2014.

⁷¹ *Ibid.*

⁷² *Environmental Protection and Enhancement Act*, R.S.A. 2000, c. E-12, s. 137(1).

⁷³ *Ibid.*, s. 140.

⁷⁴ *Ibid.*, s. 113.

Prior to March 2014, AESRD issued environmental protection orders with respect to well sites pursuant to sections 113 and 140 of *EPEA*.⁷⁵ These orders generally were issued where there had been a release that caused an adverse effect. The orders were often issued in conjunction with an Abandonment Order issued by the AER or its predecessors or a Termination Order issued by the Surface Rights Board with respect to the well. The environmental protection orders typically required the operator to submit and implement an Investigation Plan, a Remedial Plan and a Reclamation Plan, and to apply for a reclamation certificate. Since taking over responsibility for the regulation of the reclamation and remediation of well sites in March 2014, the AER website records one order for the reclamation of a well site and one order for the remediation of a well site in conjunction with an adjacent gas plant.⁷⁶

While environmental protection orders have been used effectively by AESRD and its predecessors to require the remediation and reclamation of well sites where there were significant contamination problems, they have not been used routinely for all contaminated well sites. Also, the use of environmental protection orders is a cumbersome and inefficient tool for addressing the backlog of uncontaminated sites that have not been reclaimed in a timely manner.

Given that the IWCP and the LLRP do not directly address the timely abandonment and reclamation of inactive wells, there remains a need for regulated timelines for the completion of these activities. While Abandonment Orders and environmental protection orders are useful tools on a case by case basis, it would be an inefficient use of AER

⁷⁵ Alberta Environment, *Enforcement of the Environmental Protection Act and Water Act, 1 January 2009 – 31 March 2009*, (Edmonton: Environmental Management Division, May 2009) on-line at <http://environment.alberta.ca/documents/Enforcement_Actions_Q1_2009.pdf>; Alberta Environment, *Enforcement of the Environmental Protection Act and Water Act, 1 October 2008 – 31 December 2008*, (Edmonton: Environmental Management Division, April 2009) on-line at <http://environment.alberta.ca/documents/Enforcement_Actions_Q4_2008.pdf>; Alberta Environment, *Enforcement of the Environmental Protection Act and Water Act, 1 Jul 2008 – 30 Sep 2008*, (Edmonton: Environmental Management Division, November 2008) on-line at <http://environment.alberta.ca/documents/Enforcement_Actions_Q1_2009.pdf>; all accessed 6 January 2010.

⁷⁶ Alberta Energy Regulator, *Compliance Orders*, on-line at <www.aer.ca/data-and-publications/orders/compliance-orders>, accessed on 18 September 2014.

resources to rely on these mechanisms to address the timely abandonment and reclamation of inactive wells.

Subsection 3.020(1) of the *OGCR* and *Directive 013*, which set timelines for the suspension of inactive wells, provide a useful starting point for a regulated framework. Similar regulated timelines are required for the abandonment and reclamation of wells.

The idea of regulated timelines for well abandonment and reclamation is not new. As early as 1989, the ERCB recommended that suspended wells be reviewed every five years and that suspended wells be abandoned after five years unless the operator could justify the continued suspension of the well beyond five years.⁷⁷

Similarly, in 1996, an advisory committee to the AEUB recommended that facilities and infrastructure be safely suspended within six months of becoming inactive and that the abandonment of facilities be completed within 18 months of becoming inactive.⁷⁸ Further, the committee recommended that decontamination and reclamation be completed within three years of a facility becoming inactive, or that reclamation must be in progress according to a plan that provides details of the reclamation program and the reasons for the reclamation not being completed within the three-year period.⁷⁹

Further, the Auditor General of Alberta noted in their 2004-2005 Annual Report that the “EUB has no directives or guidelines for timely abandonment of wells, pipelines and facilities.”⁸⁰

Examples of regulated timelines for abandonment and reclamation may be found in other jurisdictions. The Colorado Oil and Gas Conservation Commission *Amended Rules* provide a comprehensive regulated timeframe for the suspension, abandonment and

⁷⁷ Energy Resources Conservation Board, *Recommendations to Limit the Public Risk from Corporate Insolvencies Involving Inactive Wells*, (Calgary: ERCB, December 1989) at i.

⁷⁸ Alberta Energy and Utilities Board, *Report and Recommendations of the Orphan Facilities, Pipelines and Reclamation Subcommittee*, (AEUB: Calgary, July 1996 (Rev'd October 1997)) at 7-8.

⁷⁹ *Ibid.* at 8.

⁸⁰ Auditor General of Alberta, *Annual Report of the Auditor General of Alberta, 2004-2005*, (Edmonton: 2005) at 175.

reclamation of well sites. Pursuant to article 319(b)(1) of the *Amended Rules*, a well may be temporarily abandoned (suspended) upon approval of the Director, for a period not exceeding six months.⁸¹ If an operator requests temporary abandonment status in excess of six months, the operator must state the reason for requesting such extension and state the plans for future operation.⁸² A well which has ceased production or injection and is incapable of production or injection must be abandoned within six months unless the time is extended by the Director upon application by the owner.⁸³

Under the Colorado *Amended Rules*, reclamation work must be completed within three months of the final abandonment of a well on crop land and within twelve months on non-crop land.⁸⁴ The Director may grant an extension where unusual circumstances are encountered, but every reasonable effort must be made to complete the reclamation before the next local growing season.⁸⁵

The effectiveness of the Colorado regulated timelines is demonstrated by the fact that in that state the ratio of active to inactive wells is approximately 18:1.⁸⁶ In Alberta, the ration of active to inactive wells is approximately 3:1.⁸⁷

Similarly, the State of New Mexico has regulated timelines for the suspension, abandonment and reclamation of well sites. Pursuant to article 19.15.25.8 of the New Mexico *Administrative Code*, the operator must either properly abandon or temporarily abandon (suspend) a well within 90 days after:

1. a 60 day period following suspension of drilling operations;

⁸¹ Colorado Oil and Gas Conservation Commission, *Amended Rules*, (1 February 2014), § 319(b)(1).

⁸² *Ibid.*

⁸³ *Ibid.*, § 319(b)(3).

⁸⁴ Colorado Oil and Gas Conservation Commission, *Amended Rules*, (1 April 2009), § 1004(a).

⁸⁵ *Ibid.*

⁸⁶ Colorado Oil and Gas Conservation Commission, *Oil and Gas Staff Report, October 27, 2014*, at page 20, online: Colorado Oil and Gas Conservation Commission, <http://cogcc.state.co.us/Staff_Reports/2014/20410_StaffReport.pdf.

⁸⁷ *ST57-2013*, *supra* note 34 at 6.

2. a determination that a well is no longer usable for beneficial purposes; or
3. a period of one year in which a well has been continuously inactive.⁸⁸

A well may be temporarily abandoned for a period of up to five years.⁸⁹ Prior to the expiration of the five-year period, the operator must return the well to beneficial use under an approved plan, permanently abandon the well and restore and remediate the location, or apply for a new approval to temporarily abandon the well.⁹⁰

Pursuant to the New Mexico *Administrative Code*, the operator must level and leave the well site in a safe and clean condition within one year of the abandonment of the well.⁹¹

The State of Montana does not have a comprehensive regulated timeframe for well abandonment and reclamation, but *Administrative Rule 36.22.1307* requires that the owner of a well restore the surface of the location to its previous grade and productive capability as soon as weather or ground conditions permit.⁹²

On federal lands in the United States and on private lands over federally owned minerals, the *Code of Federal Regulations* requires that a well operator remove all structures, equipment and other facilities, and clean up the site of operations, within a reasonable time following the cessation of operations.⁹³ The operator is required to reclaim the disturbed surface upon exhaustion of the mineral deposit, at the earliest practicable time during operations or within one year of the conclusion of operations, unless a longer time is authorized by an officer.⁹⁴

Guidelines issued by the United States Department of the Interior indicate that reclamation work should begin as soon as possible after disturbance and continue until

⁸⁸ State of New Mexico, *Administrative Code*, tit. 19, c. 15, pt. 25, § 8.

⁸⁹ *Ibid.*, § 12.

⁹⁰ *Ibid.*

⁹¹ *Ibid.*, § 10(D).

⁹² State of Montana, *Administrative Rules*, tit. 36, c. 22, § 1307.

⁹³ 36 C.F.R. §228.10 (1 July 2013 ed.)

⁹⁴ 36 C.F.R. §228.8(g) (1 July 2013 ed.)

successful reclamation is achieved. Further, earthwork for interim and final reclamation generally must be completed within six months of well completion or plugging, weather permitting.⁹⁵

There is also a model for regulatory timelines within Alberta. Under the *Timber Management Regulations*, pursuant to the *Forests Act*, the holders of timber dispositions are required to carry out reforestation activities within two years after the end of the year of cut.⁹⁶ The disposition holder must then conduct an establishment survey between the fourth and eighth year after cut.⁹⁷ If the reforestation standard has not been met at the time of the establishment survey, the disposition holder must carry out additional reforestation work before the end of the following year.⁹⁸ The disposition holder must also conduct a performance survey between the eleventh and fourteenth year after cut to confirm that the reforestation standards continue to be met and that the established trees are growing as expected.⁹⁹ If the disposition holder fails to meet the reforestation standards, the Minister may suspend the operations of the disposition holder.¹⁰⁰

In summary, regulated timelines for abandoning wells and reclaiming land are found in other jurisdictions and a regulated timeline for restoring the productive capacity of lands is found within the forest industry in Alberta. A reasonable solution to the backlog of unabandoned and unreclaimed inactive wells in Alberta would be regulated timelines for carrying out well abandonment and reclamation.

A proposed model for a regulated timeline for well abandonment and reclamation in Alberta is as follows:

⁹⁵ United States Department of the Interior, *Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development: The Gold Book*, 4th ed., (Bureau of Land Management, 2007) at 44.

⁹⁶ *Timber Management Regulation*, AR 60/73, s 141.1(1).

⁹⁷ *Ibid.*, s 141.6(1); Alberta Environment and Sustainable Resource Development, *Reforestation Standard of Alberta*, (Edmonton: AESRD, 8 May 2014) at 36 [*Reforestation Standard*].

⁹⁸ *Timber Management Regulation*, *supra* note 96, s 141.6(2).

⁹⁹ *Ibid.*, s. 141.7(1); *Reforestation Standard*, *supra* note 97 at 62-63.

¹⁰⁰ *Timber Management Regulation*, *supra* note 96, s 142(1).

1. Inactive wells must be suspended after six or twelve consecutive months of inactivity, depending on the type of well, as currently required by *Directive 013*.
2. A well may be suspended for a maximum of five years. Prior to the end of the five-year period, the licensee must bring the well back into beneficial use, abandon the well, or apply to the AER, with justification, to suspend the well for a further maximum period of five years. This condition recognizes that there may be legitimate market or technical reasons to suspend a well for more than five years, but these situations should be the exception and must be justified to the AER.
3. The licensee must undertake the work necessary to reclaim the well site within one year after the abandonment of the well. The licensee must carry out an investigation of the site within five years after the initial reclamation work to determine the success or failure of the reclamation effort. If the investigation indicates that the well site does not meet the standards for a reclamation certificate by the fifth year, the licensee must prepare, submit and implement a supplementary reclamation plan within the following year. It is recognized that remediation of some contaminated well sites may require longer than five years. However, this requirement will ensure that the reclamation plan for the site is reviewed at least once every five years.

Conclusion

The number of inactive but not yet abandoned or reclaimed wells in Alberta has continued to increase despite of the efforts of the regulatory agencies since the mid-1980's. In particular, the introduction of the LLRP in 2000 has not had the desired effect of encouraging licensees to reduce the number of inactive wells or to abandon and reclaim wells in a timely manner. A failure to monitor and enforce well suspension requirements has resulted in 37,000 inactive wells out of compliance with *Directive 013*.

While the IWCP may, if strictly enforced, result in a reduction of the number of wells out of compliance with *Directive 013*, it will not directly address the timely abandonment and reclamation of inactive wells. As a result, land may remain out of productive agricultural or forestry use, or remain unreclaimed for its environmental value for many years.

In addition to the environmental and safety risks associated with inactive wells, the number of unabandoned and unreclaimed inactive wells must be recognized as a failure to internalize the true cost of oil and gas production in Alberta. As of September 2014, the AER estimated the outstanding abandonment and reclamation liabilities for oil and gas wells and facilities in Alberta at over \$33 billion.¹⁰¹ Alberta's oil and gas industry has been subsidized by the energy regulators' failure to require timely well abandonment and reclamation and failure to enforce *Directive 013*.

The IWCP is unlikely to effectively address the serious issue of the lack of timely abandonment and reclamation of well sites in the absence of legislated and strictly enforced timelines for these activities.

¹⁰¹ Alberta Energy Regulator, "Liability Management Programs Results Report", (Calgary: AER, 6 September 2014), on-line at <www.aer.ca/data/facilities/LLR_Report.pdf>, accessed 19 September 2014.