



TABLE OF CONTENTS

INTRODUCTION	3
CLOSING DOWN OIL AND GAS WELLS: AN OVERVIEW	4
RECLAIMING OIL AND GAS WELLS	7
WHEN A COMPANY BECOMES INSOLVENT	9
OPERATOR INSOLVENCY & YOUR LAND: WHAT MIGHT HAPPEN?	11
NEGOTIATING A LEASE	16
PURCHASING LAND	17
IMPORTANT CONTACTS	18
OTHER RESOURCES	18

The Pembina Institute wishes to thank Daryl Bennet, Graham Gilchrist, Lars DePauw, Peter Dobbie, Peter Eggers, Rick Anderson, and Tracey McCrimmon for their contributions.

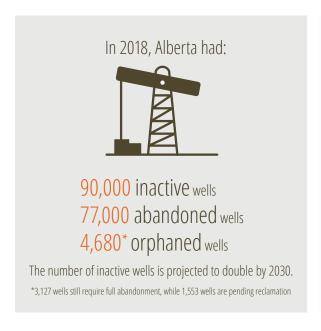
A special thank you to Jodi McNeill for her contributions to this primer.

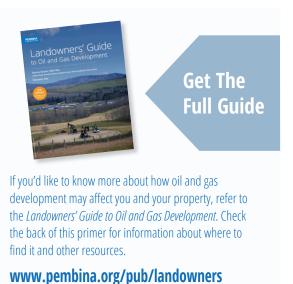
INTRODUCTION

Alberta is rich in natural resources. Large oil and natural gas deposits and resource extraction activities can be found throughout the province. Alberta has, on average, almost two wells per square kilometre. There is a good chance that if you're a rural landowner, or live on the outskirts of a community, **you have oil and gas infrastructure on your property**, or you may one day.

At some point, every well will become inactive. Either the well no longer produces hydrocarbons or the company can no longer financially support it. The Government of Alberta has **strict rules** on caring for a well site when a company ceases operations. While many companies abide by these rules, increasingly some do not. This is due partly to sustained low prices for oil and gas and regulations that don't include timelines for reclaiming the well. As more wells are not reclaimed due to companies going bankrupt, many landowners are nervous about what will happen to wells on their property.

This primer is a **tool for landowners** who find themselves with inactive, suspended, abandoned or orphaned wells on their property. While it focuses on wells, much of the content applies to other oil and gas infrastructure on your property, including pipelines and control sheds.





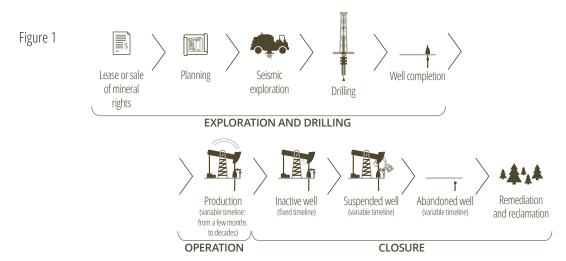


CLOSING DOWN OIL AND GAS WELLS: AN OVERVIEW

Closure is the last stage in the life of an oil or gas well in Alberta. This consists of a number of steps: the well becoming inactive, suspension and abandonment, followed by remediation and reclamation.

Figure 1 shows a general outline of the stages of a well from cradle to grave. Other types of oil and gas infrastructure (such as pipelines) have different life cycles.

Oil and gas activity in the province is regulated by the **Alberta Energy Regulator (AER)**.





Inactive well

An inactive well has not produced any oil or gas, had any fluids injected, or produced any wastewater for six to 12 months (although it may still be flared or vented). Generally, **wells are considered inactive after 12 months with no activity** (critical sour wells are considered inactive after six months with no activity). No action is required by the company for a well to be considered inactive. According to AER directives, a company has up to 12 months after a well is declared inactive before it must either resume operations or suspend the well (except for critical sour wells). Despite this time restriction, in practice wells may sit inactive for many years.



Suspended well

Once a well has been classified as inactive, if it doesn't start production again it must be suspended within 12 months. **Requirements will vary with the type of infrastructure on the pad**. For example, for a well head, the operator must ensure there are no leaks; service and pressure-test the well head after sealing it; ensure all valves are still functional; chain and lock all valve handles; install bull plugs on all outlets (except the surface casing vent); and ensure all wellheads are clearly marked or fenced so they are always visible.

The operator must inspect the site every year and report their findings to the AER. Specific requirements for well suspension and inspection are listed in AER Directive 013: *Suspension Requirements for Wells* and an overview is available on the <u>AER's</u> website, under "Regulating Development: Project Closure."



Abandoned well (decommissioned well)

Also known as decommissioning, abandoning a well involves permanently dismantling and sealing it after it's ceased production. The AER has guidelines for abandoning the parts of the well below the surface of the land (subsurface abandonment) and above the surface (surface abandonment). Surface abandonment includes wellheads.

Abandonment is necessary before site reclamation. There is no set timeline for when a company must complete abandonment after suspension. Once a well has been abandoned, it still has to go through the reclamation process.



Remediation

Remediation is the management and **clean-up of any spills or contamination** from a company's activities or facilities. This is supposed to be done at the time of the incident, even if the facility is still operating, but it's also an important part of the reclamation process.



Reclamation

Reclamation is the process through which a company returns the land it disturbed to a **functionally equivalent state** as it was prior to operations. It is the final step in closing a site. For a site to be certified "reclaimed" a company has to apply for a reclamation certificate.

While this life cycle outlines the process that's supposed to happen in Alberta, there can be significant problems when a company no longer takes responsibility for a well (or other infrastructure). This is referred to as 'orphaning' and is explored throughout the primer.



A well is **considered orphaned** when there is no longer a company that's legally or financially responsible for it. This can happen because a company has financial issues or the **AER suspends the well licence**. While the majority of wells in Alberta are not orphaned, an increase in companies declaring bankruptcy has led to an increase in orphaned wells. An orphaned well may be transferred to the authority of the Orphan Well Association (OWA) for suspension, abandonment and reclamation.

RECLAIMING OIL AND GAS WELLS





Landowner Story

A farmer found an area on his newly-purchased land where he had to double-seed because crops would not grow properly. The previous landowner asked whether he had "found the spot where nothing will grow." It turned out it was a well site that had been reclaimed. The new landowner investigated: "I contacted the company that had owned the well site, because I realized there was something wrong." The company claimed the new landowner had no rights because it had settled concerns with the original landowner.

How is reclamation supposed to work?

Reclamation is the end of the life of the well (see previous section). Depending on the age of the well, **different reclamation criteria** will apply. The AER says companies have a duty to:

- reduce land disturbance
- clean up contamination (known as remediation)
- salvage, store, and replace soil, and
- revegetate the area.

A company is eligible for a reclamation certificate when the land is functioning similarly to how it did prior to oil and gas development, and it no longer needs work to be remediated or reclaimed. Even then, the operator remains responsible for the land for 25 years after a reclamation certificate has been issued.

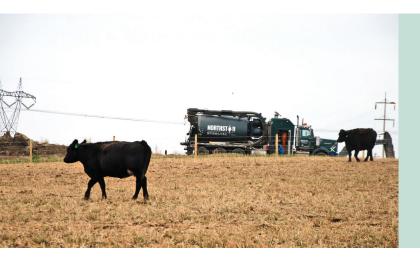
It's important to make sure your expectations are aligned with the actual reclamation process. Reclamation guidelines require that your land is returned to 85 per cent capacity, not full capacity. (Learn more about this in the in the Landowner's Guide to Oil and Gas Development).

Issues with reclamation

Reclamation can take years, even decades. There are **no required timelines for a company to complete reclamation**, so the well may sit suspended or abandoned for a long time before reclamation even begins — in some cases, it may sit inactive longer than legislation permits. The process may be further complicated if the well belongs to an operator that's no longer in business.

In some cases, even if the well is reclaimed, you may not be satisfied with the results. The operator is required to work to address your concerns and should provide you with a Reclamation Certificate Application Package the same day they submit it to the AER. If you feel your worries have not been addressed, you can **file a Statement of Concern** once the reclamation application has been submitted. If the reclamation certificate is granted anyway and you are still not satisfied, you have one year to appeal the decision. (The form to appeal is on the AER website. The Landowners' Guide to Oil and Gas Development, the Farmer's Advocate Office and Action Surface Rights also provide good information on appeals).

The AER may conduct desk based reviews or site visits before issuing reclamation certificates. Although previously the Ministry responsible for Environment aimed to visit 15% of sites, the AER does not have audit targets for reclamation certificates and instead it has been reported that AER field inspectors visit only about 3 per cent of sites given reclamation certificates. The vast majority of reclamation certificates are **approved by the AER online**, through the OneStop system, which is intended to streamline the application and approval process. This could mean that no AER field inspectors review or examine a site that's about to get a reclamation certificate. While this increases efficiency and saves costs for the regulator, it may further disadvantage landowners who feel that work has not been done properly.





Landowner Story

"I provided access to the company that did the reclamation work through my yard. They had to cross the field and some large transmission pipelines and they needed to get crossing agreements with the (pipeline) companies, so that was a bit of a nuisance."

WHEN A COMPANY BECOMES INSOLVENT



Basics of bankruptcy and receivership

If a company is no longer financially capable of operating its wells, a complicated process begins. This is a brief overview of the various stages and states of financial duress taken from the Farmer's Advocate Office publication *The language of insolvency:* what does this letter mean?

Insolvency: This occurs when a company can no longer pay for its debts.

Receivership: When a company moves into receivership, a receiver is appointed who is responsible for selling assets held as collateral on behalf of secured creditors. A privately appointed receiver will act only on behalf of the creditor with which it has an agreement while a court-appointed receiver will act on behalf of all creditors. The receiver will decide if operations should continue.

Bankruptcy: The goal of this process, led by an insolvency trustee, is to pay back as many secured and unsecured creditors as possible from money earned by selling assets once operations have ceased. Creditors can apply to have the company considered bankrupt, or a company can declare itself bankrupt.

While they have similar features, receivership and bankruptcy are fundamentally different. In receivership, assets put up as collateral against a particular debt are sold to satisfy a given creditor, with the possibility this might stabilize a company's finances and it can continue operations. In bankruptcy, operations have ceased, all assets are sold, and profits are used to repay creditors.

At any stage of a well's life cycle — planning and exploration, drilling, production, abandonment or reclamation — a company could become insolvent. The wells they operate then face a number of possibilities:

Licences are sold: If the well is still producing or considered to be an asset, the lease for the well site may be sold. The **landowner's consent is not required**, but you will normally be given notice ahead of a lease sale. **It's important to watch for this notice**, which may come through the mail shortly before the sale. However, some landowners find they are not notified at all. If you know the well identifier of the lease (found on the signage) you can look up the AER's monthly ST37 List of Wells in Alberta to see the most recent owner.

When a lease title is changed, as a landowner you should **immediately contact the new company**, introduce yourself, and remind them of the terms of the lease agreement with the previous company. This is so the company knows you're engaged and attentive to the activity on your land, and also to ensure the information on file is correct so you continue to receive rental payments without any issues.

Working interest participant takes on responsibility: If there is a working interest participant (WIP) — another oil and gas producer who has a stake in the lease and production lease — they will be responsible for the well and site including closure and reclamation. If there are multiple WIPs, they will share responsibility of the site. The well will not go to the Orphan Well Association.

When a lease is signed or updated, make sure to get the names and contact information for all WIPs. As with the initial operator, the WIPs can be contacted any time you have a guestion or concern.

Management is transferred to the Orphan Well Association (OWA): The OWA only receives wells from bankrupt operators that had a 100 per cent working interest. This means that if another company is a WIP, they're responsible for the site, and the well is not declared orphaned. You can check whether your well is orphaned on the list of wells in OWA's inventory on their website. If the well on your land is designated an orphan, the OWA will notify you. You will also be contacted before any field work starts.

The OWA is subject to the same suspension, abandonment, reclamation and remediation directives as any solvent company. The OWA has a lot of sites in its inventory. In order to increase efficiency and lower costs, it's participating in area-based closure programs, which encourage operators to work together to close oil and gas infrastructure in a given geographic location. However, the OWA will still prioritize decommissioning and reclamation of well sites if there are safety or environmental concerns.

Once the well is in the care of the OWA, the lease can still be transferred to another, solvent, operator. Through a process called Regulator Directed Transfer, the AER (not the OWA) transfers the well licence from the name of the insolvent operator to the new operator, after the new purchaser has acquired both mineral and surface leases.

Once the well on your land is under the care of the OWA, you as the landowner **must submit applications for recovery of rental** to the Surface Rights Board (SRB). The OWA is responsible only for the care and management of the site, not rental payments.





If the well is in the care of the OWA, restricting access to the well site may cause further delays in the reclamation process. It could also cause your Surface Rights Board (SRB) rental recovery payment to be lowered or not paid out.





"It was revealed that the company that owned the well on my property was no longer in business." The well was transferred to the OWA so it could get a reclamation certificate. However, during initial construction, the topsoil was not preserved and conserved. The company never made a plan outlining how topsoil for future reclamation would be dealt with.

OPERATOR INSOLVENCY & YOUR LAND: WHAT MIGHT HAPPEN?

There are about 90,000 inactive wells in Alberta. The vast majority of these will be closed by operators and not become orphaned. However, **inactive wells can represent a couple of risks**.

First, when a company ceases operations at a well site, they're supposed to suspend the well after one year of inactivity. In recent years, however, an increasing **number of wells remain un-suspended and un-reclaimed** after this one-year mark. This is an increased safety and financial risk. In 2015, the AER introduced the Inactive Well Compliance Program to force wells that have been inactive for more than 12 months to either be suspended or have activity resumed.

Second, the 2014 downturn in oil prices, coupled with years of low natural gas prices have put a strain on Alberta's oil and gas producers, especially smaller ones with less financial capacity. This has contributed to an increase in the **number of companies declaring bankruptcy**, and subsequently more inactive wells that are sold or orphaned.



Suspended Licences (Lexin Resources)

The AER may choose to suspend an operator's well licences even if a company is not insolvent or bankrupt. For example, in 2017 all licences of Lexin Resources were suspended after the company failed to properly and safely manage its sour gas sites. The AER took this action to "ensure public safey and limit environmental and financial risks".

Dealing with infrastructure on your property that is neglected

Whether inactive past the legal timeframe or orphaned, well infrastructure that's not maintained can cause issues on your property. Corrosion, rust, weeds and leaks can damage your property, harm animals, or potentially place your family's health at risk. You can read more about the potential issues in Chapter 7, 8, and 9 of the Landowners' Guide to Oil and Gas Development.

Who to contact about neglected infrastructure:

- If there is a working interest participant (WIP) for the site, they're also responsible for managing the issue. If the lease has been sold, the **new owner is responsible for all site care** and management. If the well has recently been sold, transferred to a WIP, or orphaned, the signage may not provide up to date info. You may need to call the AER to determine the new owners.
- If there is no WIP and the well is being cared for by the **OWA**, you can **contact them** about care and custody of the site.
- For damage or environmental concerns at the wellsite, **contact the AER**.
- If the damage spreads off the lease site and onto your property, contact **Alberta Environment & Parks immediately**.

It's not uncommon for the operator of a wellsite to hire the landowner as a contractor to manage weeds on the site. However, once the site is under management of the OWA, they're responsible for the care. All contracts that the operator held prior to insolvency, including with you, become void. See OWA website for a list of contractors OWA will hire to care for the well site on your property.

Orphan Well Association general inquiries / emergency: 1-403-297-6416

AER 24-hour emergency number: **1-800-222-6514**

Alberta Environment and Parks general line: 1-780-944-0313

Should you attempt to care for the site on your land?



If you want to care for the site, **exercise extreme caution**, as tampering with the site may have unintended consequences and you may be liable for any damage. The Farmers' Advocate Office (FAO), part of Alberta Agriculture and Forestry, provides advice and resources to landowners and advises that landowners not spray weeds on well sites for this reason. Contact the FAO for specific advice around caring for the site. (See Other Resources at the back of this primer.) If the well is an orphan you should contact the OWA.

What if lease payments are reduced or cease?

As a landowner, **you are owed rent** until a reclamation certificate is issued.

If a company begins to have financial trouble, it may approach the landowner of a well lease and ask to reduce rental payments. While it's **within your rights** to agree to reduced payments, the FAO advises against this. Agreeing to temporarily lower rental payments might lead the company to **offer landowners lower long-term payments**.

There have also been instances of a company "imposing" lower rental payments without the consent or agreement of the landowner. Payments may also stop completely. A company does not have the right to do this, and it is a **breach of their obligations and contract**. Your **first step** should be to write the company to assert your rights to the amount you are entitled to (the FAO provides letter templates for this; see Other Resources at the back of this primer). **If you're not satisfied** with the response, you can go to the Surface Rights Board (SRB) for compensation. (The SRB website, has the procedure for new applications, repeat applications and the Recovery of Rentals form.)

Once the **SRB rules** that you're eligible for recovery of rentals, it will contact the operator to demand full payment. If the company doesn't comply, the board can suspend the operator's right to access the well site. If this does not compel payment, the SRB can then compensate you. The payment you receive from the SRB will come from provincial tax dollars, not from the operator.

This **process may take years** and landowners **must reapply every year** for compensation. However, there is no retroactive limit — you can apply for compensation regardless of how much time has passed since a company has stopped payments. You must have documentation to show that payments have ceased.



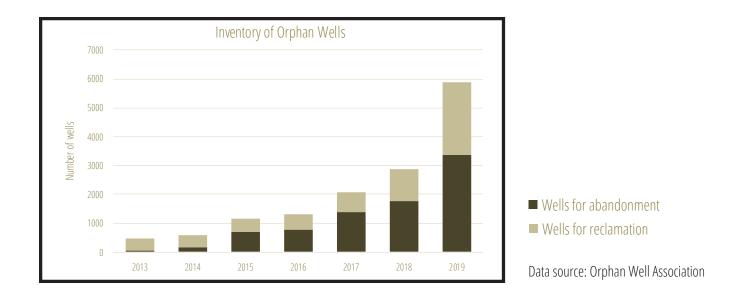


Farming part of a wellsite if the site is inactive or orphaned may result in lower lease payments. If you chose to farm on the leased area, when you apply for a recovery of rentals the SRB might refuse full rental payment, as rentals are meant to compensate a landowner for loss of use and general nuisance, and the board might consider this "unjust enrichment."

Orphan wells – a problem that affects thousands

The orphan well problem has exploded in recent years. Between 2012 and 2019, OWA's inventory of orphan wells has increased more than eleven times. As of April 2019, OWA had 5,279 orphan wells due to be suspended, abandoned, or reclaimed. It also had 242 oil and gas facilities for suspension or decommissioning and 3,283 pipeline segments for abandonment or suspension. More companies are orphaning thousands of wells at a time, which is unprecedented.

The **OWA has dramatically increased** its efforts with financial support from both the federal and provincial governments and an increased levy on industry. In 2018, about 800 orphan sites were abandoned.





Orphan pipelines

Pipeline abandonment involves emptying the pipeline, purging the pipeline of debris and residue and then, usually, leaving it in place underground. Pipelines too may be orphaned by a defunct company.

Pipelines that lie entirely within Alberta borders are under the jurisdiction of the AER. The majority of these are smaller pipelines used to connect wells to processing facilities. Pipelines that cross provincial borders lie under the jurisdiction of the National Energy Board and are not eligible for inclusion in the OWA.





"With time, more and more people in the province are touched by this. People initially thought I was over the top with how I described having oil and gas infrastructure on my land, but once it affected them, they said I didn't tell them enough."



The Redwater decision and environmental cleanup

In *Orphan Well Association v. Grant Thornton Ltd.,* also known as the Redwater Decision, the Supreme Court ruled in January 2019 that energy companies must fulfill their environmental obligations before paying back creditors when the company becomes insolvent. The decision overturned a previous 2015 lower court ruling that stated bankruptcy laws trumped environmental responsibilities laid out by the province. The 2015 decision led to a spike in the number of orphaned wells.

Although many may hope this Supreme Court decision will ensure environmental cleanup, the bankrupt company may not have enough assets to cover the costs. Some of the wells or infrastructure may remain abandoned and un-reclaimed. A notable example saw Trident Exploration turn over 4,400 wells to the AER in April 2019, many of which are likely to be taken under the OWA's care. The company estimated it had over \$329 million in reclamation and abandonment costs by the time it declared bankruptcy.



NEGOTIATING A LEASE

This primer provides a few key things to consider when facing oil and gas development on your land, given the increased number of wells being left inactive and orphaned. A more in-depth discussion can be found in the *Landowners' Guide to Oil and Gas Development*.

Here are some suggestions for negotiating a lease:

- Keep every piece of documentation or correspondence related to any well, pipeline or other oil and gas infrastructure on your land. This includes, but is not limited to, the lease, any notices a company has provided, and a log of interactions with the company. If you have to go to the SRB to recover missed rental payments, or escalate a concern with the AER, having all of these documents will be helpful. It is also important when re-negotiating the lease every five years.
- An invaluable resource is your community and local synergy group (see Important Contacts at the back of this primer). Ask your **neighbours** about their experiences with a given company — is there anything they wish they had known? Many issues may be specific to your area, and therefore can't all be covered by larger organizations. Get the perspective of people in your area, as well as advice from organizations such as those listed at the end of this primer.
- Ensure any company developing on your land **knows your farm plans** and make sure these plans are in writing. If you can incorporate these details into your surface lease, this may help protect you from unforeseen damages and losses, such as loss of use of a specific part of your land.



PURCHASING LAND

If you are looking to buy land in Alberta, the acres that you wish to purchase may have oil and gas development. While the development and lease negotiation have already occurred, the development still must be considered in the purchase and sale process.

- The **license holder must have a specific emergency response plan** for the geographic area surrounding a well, pipeline, or other type of oil and gas infrastructure. Developers and real estate agents are not required to tell you if the land you are buying is on or near this emergency planning zone. Make sure to ask specifically. If they are unsure, you should contact the AFR to find out
- If you know the land has a well, **contact the AER** or the well operator to find out the state of the well. Is the well inactive? Is it likely to be reclaimed soon? Is there a history of contamination on the property? Call the operator and inquire about their plans, and research how they are doing financially.
- If regular rental payments are being made by the operator when you purchase the land, **ensure the payments are tied to the land and not to the previous owner**. This will prevent the previous landowner from continuing to receive rental payments after selling the property.
- Consider using a **lawyer with experience in rural real estate law** for this purchase, as they should be aware of the more nuanced issues related to selling land with oil and gas infrastructure.

IMPORTANT CONTACTS

Alberta Energy Regulator

aer.ca

inquiries@aer.ca

24-hour emergency response line: 1-800-222-6514

General: 1-855-297-8311

Farmers' Advocacy Office

www.alberta.ca/farmers-advocate-office.aspx

Phone: 310-FARM (3276)

Suite 100, 7000-113 Street NW, Edmonton, AB T6H 5T6

Orphan Well Association

www.orphanwell.ca

info@orphanwell.ca

Phone: 403-297-6416

1005, 850 - 2nd Street SW, Calgary, AB T2P 0R8

Surface Rights Board

surfacerights.alberta.ca

srb.lcb@gov.ab.ca

Phone: 780-427-2444

1229-91st Street NW, Edmonton, AB T6X 1E9

Action Surface Rights Association

actionsurfacerights.ca

P.O. Box 4593, Taber, AB T1G 2C9

You can submit your questions on their website

Synergy Alberta

synergyalberta.ca

info@synergyalberta.ca

Phone: 780-461-1323 or 877-461-1323 Box 655, Rocky Mountain House, AB T4T 1A5 **Includes** a directory of Synergy Groups across the province so you can find your local group

OTHER RESOURCES

Pembina Institute

Landowners' Guide to Oil and Gas Development www.pembina.org/pub/landowners

Alberta Energy Regulator

Directive 013: Suspension Requirements for Wells www.aer.ca/documents/directives/Directive013.pdf

Directive 071: Emergency Preparedness and Response Requirements for the Petroleum Industry

www.aer.ca/documents/directives/Directive071.pdf

Regulating Development: Project Closure

https://www.aer.ca/regulating-development

- Liability Management Programs and Processes
 - Area Based Closure
- Suspension and Abandonment
- Remediation
- Reclamation
- Insolvency

Regulatory Appeal Process

www.aer.ca/regulating-development/project-application/regulatoryappeal-process

Request for Regulatory Appeal form

Orphan Well Association

Taking Orphans

www.orphanwell.ca/producers/taking-orphans

Orphan Inventory

www.orphanwell.ca/about/orphan-inventory/

Annual Reports

www.orphanwell.ca/about/annual-reports

WellWiki

Search the data, news and history for wells by name, region, or company wellwiki.org

Government of Alberta

Upstream Oil and Gas Liability and Orphan Well Inventory www.alberta.ca/upstream-oil-and-gas-liability-and-orphan-well-inventory.aspx

2010 Reclamation Criteria for Well Sites and Associated Facilities on Cultivated Land

www.alberta.ca/land-conservation-and-reclamation-guidelines-for-oil-and-gas.aspx

Understanding Reclamation in Alberta

www1.agric.gov.ab.ca/\$Department/deptdocs.nsf/all/ofa16017/\$FILE/reclamation.pdf

Government of Alberta/Farmers' Advocate Office

Agriculture energy, utilities and surface rights https://www.alberta.ca/agriculture-energy-utilities-and-surface-rights. aspx

- Bankruptcy and insolvency
- Compensation
- Resources
 - Letter templates for reduction in rentals
 - www.alberta.ca/agriculture-energy-utilities-and-surfacerights-publications.aspx

Surface Rights Board

Recovery of Rentals

https://surfacerights.alberta.ca/ApplicationTypes/RecoveryofRentals.html

BACKGROUND INFORMATION

Farmer's Advocate Office, The language of insolvency: what does this letter mean?

www.alberta.ca/the-language-of-insolvency-what-does-this-letter-mean. aspx

AER, "Project Life Cycle." <u>www.aer.ca/protecting-what-matters/holding-industry-accountable/how-does-the-aer-regulate-energy-development-in-alberta/project-life-cycle</u>

AER, "Liability Challenges in Alberta." www.scribd.com/document/405926219/Wadsworth-AER-Presentation-Liability-Challenges-in-Alberta

AER, "Redwater Decision." <u>www.aer.ca/protecting-what-matters/holding-industry-accountable/redwater</u>

Lucija Muehlenbachs, 80,000 inactive oil wells: a blessing or a curse? (University of Calgary School of Public Policy Briefing Paper, February 2017) www.policyschool.ca/wp-content/uploads/2017/03/Inactive-Oil-Wells-Muehlenbachs-1.pdf

Sharon Riley, "Alberta issues 97% of reclamation certificates without ever visiting oil and gas sites", <u>The Narwhal, March 29, 2019. thenarwhal.ca/alberta-issues-97-of-reclamation-certificates-without-ever-visiting-oil-and-gas-sites/</u>

Government of Alberta "Alberta Energy Regulator (AER) suspends over 1,660 licences belonging to Lexin Resources Ltd." www.alberta.ca/aersuspends-over-1660-licences-belonging-to-lexin-resources-ltd.aspx

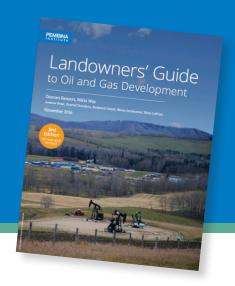
Orphan Well Association, Appointment of Receiver for Trident Exploration, Media release, May 3, 2019. wp-content/uploads/2019/05/OWA-Media-Release-Trident-Exploration 2019-05-03.pdf

Sarah Rieger, "Shuttered junior gas company simply walked away from 4,700 wells, says Alberta Energy Regulator," CBC News, May 01, 2019. https://www.cbc.ca/news/canada/calgary/trident-exploration-shuts-down-1.5119125

Get The Full Guide

This **primer** is an addendum to what you can find in the Landowners' Guide to Oil and Gas Development. Download the complete guide:

www.pembina.org/pub/landowners



PEMBINA institute



This primer was prepared by the Pembina Institute with the support of the Alberta Real Estate Foundation

pembina.org



pembina.org/subscription email updates



twitter.com/pembina



facebook.com/pembina.institute

Calgary

219 19 St. NW, Calgary, AB T2N 2H9

Edmonton

300, 9804 Jasper Ave., Edmonton, AB T5J 0C5

Toronto

600, 920 Yonge St., Toronto, ON M4W 2J2

Vancouver

610, 55 Water St., Vancouver, BC V6B 1A1