



A New Theory of ARO Creditor Rights



About Carbon Tracker

The Carbon Tracker Initiative is a team of financial specialists making climate risk real in today's capital markets. Our research to date on unburnable carbon and stranded assets has started a new debate on how to align the financial system in the transition to a low carbon economy.

www.carbontracker.org | hello@carbontracker.org

Contributors and Special Thanks

Dwayne Purvis, P.E., contributed the holdback analysis on Painted Pegasus Petroleum LLC. Theron Horton provided data sets and analytics based off data from the COGCC. Well transfer visualizations were produced by Stephen Greenslade. Special thanks to Thom Allen and Maurizio Carulli for their review and feedback.

About the Author

Greg Rogers – Senior Adviser

Greg is a practitioner-scholar in accounting for climate change. He wrote the seminal desk book on financial reporting of environmental liabilities and risks. In addition, Greg is a Fellow and Advisor to the Master of Accounting Program at Cambridge Judge Business School. He worked as an advisor to BP and its auditors Ernst & Young on liability estimates and disclosures arising from the Deepwater Horizon disaster. He has consulted/ testified as an expert in environmental and climate-related litigation.

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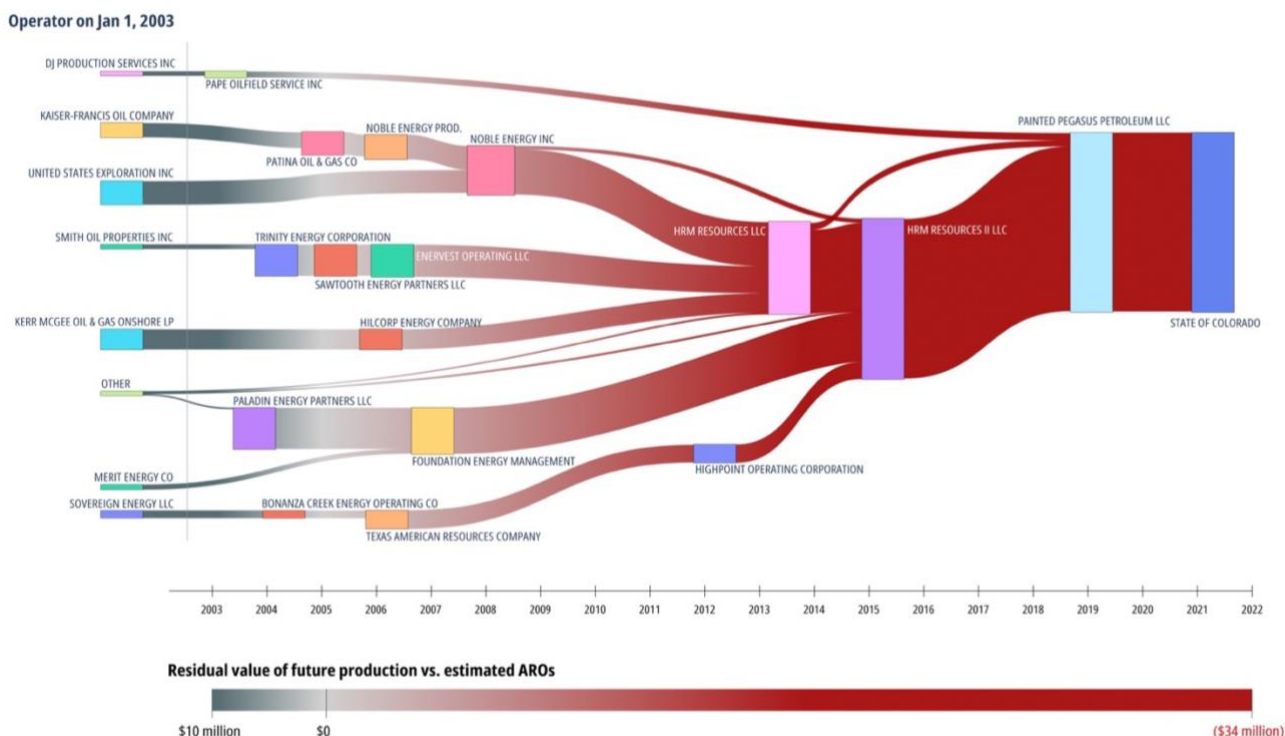
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1 Key Findings

- An oil and gas well is “upside-down” when its ARO exceeds its future net cash flows from production. Oil and gas wells are often operated and sold to undercapitalized firms long past the point where future cash flows could be reasonably expected to fund AROs.
- The amount of financial assurance required by U.S. state and federal oilfield regulators is typically only a small fraction of estimated AROs. If settlement of AROs by undercapitalized firms cannot be funded from future cash flows, eventual default is predictable.
- A recent federal class action lawsuit asserts that landowners whose property is burdened by inactive wells are “creditors” with legal rights against operators for decommissioning costs.
- The suit could expose current *and former* operators to legal liability for AROs, reducing the incentives for late-life sales of upside-down wells to undercapitalized firms.
- A successful outcome for landowners could provide a significant source of funding for decommissioning wells that will otherwise become wards of the state.

FIGURE 0.1 - OWNERSHIP TIMELINE AND RESIDUAL VALUE OF PAINTED PEGASUS WELLS SINCE 2003.

Figure shows the approximate flow of well ownership for all Painted Pegasus wells, with declining residual value of the group indicated by color gradient.



Data: COGCC

2 Introduction

With approximately **2.1 million** abandoned wells across the U.S.,¹ there is growing concern about unfunded asset retirement obligations (AROs) to decommission oil and gas wells. Fueling the rise in abandoned and orphan wells are the perverse regulatory incentives for operators to strip the last remaining resources from mature wells before defaulting on AROs and filing bankruptcy. A recent class action lawsuit on behalf of West Virginia landowners offers a potential judicial solution to this regulatory failure. This paper describes the new theory of ARO creditors' rights asserted in the lawsuit and how it might be applied elsewhere.

ARO Overview

Asset retirement obligations (AROs) are legal obligations associated with the retirement of long-lived assets. AROs specific to the oil and gas industry include the statutory obligation of current well operators to decommission oil and gas wells at the end of their useful life. Decommissioning includes down-hole plugging and surface reclamation.

AROs generally arise from government regulations. However, the "reasonably prudent operator" standard of care recognized in some states may create a constructive ARO in favor of lessees and landowners. Regardless, the failure to fulfill decommissioning obligations in a timely manner may harm landowners as well as government interests. Inactive and low producing oil and gas wells are often improperly maintained. Such wells may leak brine, oil, methane, and hydrogen sulfide. These releases can impair agricultural land, harm livestock, pollute groundwater, and sicken residents. Derelict wells can restrict property use and diminish property values, especially where mineral rights have been severed from the surface estate. If regulators don't require operators to decommission such wells, what legal rights, if any, do landowners have? A new lawsuit suggests they may have rights as "ARO creditors".

ARO Creditor Rights

The term "creditor rights" is a generic term for a collection of legal rights that a creditor has to collect outstanding debts from a debtor. A federal class action lawsuit filed by West Virginia landowners seeks to recover decommissioning costs from the current and former operators of inactive wells on their property. The plaintiff-landowners assert that they are properly *creditors* because they hold claims for relief against the debtor-operators for damages resulting from trespass, nuisance, and negligence. They assert that, as creditors, they have all the rights afforded to creditors under federal bankruptcy law and state fraudulent conveyance statutes.

The lawsuit threatens the common industry practice of transferring upside-down wells to ever smaller entities and distributing production cash flows to owners, without adequate holdback for AROs. It is routine for major operators to drill wells, profit from the best years of production, and then sell them as their value-to-ARO ratio declines. AROs follow assets, and former operators generally have no financial responsibility to decommission previously owned wells. So, the transfer of upside-down wells makes economic sense for sellers. But how does it make economic sense for buyers?

In Section 3, we examine the novel theory of ARO creditors' rights asserted in the West Virginia lawsuit. This section is intended for a legal audience. For non-lawyers, the key take-away is that landowners whose property is burdened by inactive and upside-down wells may have previously unrecognized legal rights to hold current and former operators financially responsible for AROs.

In Section 4, we provide a case study involving a small bankrupt operator in Colorado to show how this new theory of ARO creditors' rights might be replicated on a large scale.

¹ April 2018 [Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2016: Abandoned Oil and Gas Wells](#). US Environmental Protection Agency.

3 The Diversified Suit

3.1 Overview

In July 2022, West Virginia landowners on behalf of a proposed class of similarly situated landowners filed a federal lawsuit in the U.S. District Court for the Northern District of West Virginia against Diversified Energy Company Plc and EQT Production Company. *McEvoy et al v. Diversified Energy Company PLC et al*, Case 5:2022cv00171 (N.D. W. Virginia) (the “Diversified Suit”).

The case centers on thousands of inactive gas wells in West Virginia operated by Diversified, some of which were acquired from EQT. Diversified is a public limited corporation incorporated in the United Kingdom and headquartered in Alabama.

The plaintiffs are members of a proposed class of landowners whose properties are burdened by these wells. The complaint asserts common law claims for trespass, nuisance, and negligence on grounds that: (a) state law requires operators to decommission wells that remain inactive for one year; and (b) inactive wells are hazardous to human health, damage the environment, contribute to climate change by leaking significant amounts of methane, interfere with plaintiffs’ use and enjoyment of their property, and impair plaintiffs’ property values.

The complaint states that Diversified owns 23,309 wells in West Virginia, including more than 2,000 wells acquired from EQT in two separate transactions in 2018 and 2020. Plaintiffs assert that Diversified has an obligation to plug more than 2,000 wells in West Virginia that are abandoned or otherwise not productive.

The suit aims in the first instance to enforce the landowners’ common law right to have inactive wells decommissioned by Diversified in accordance with state law. The case also asserts that the acquisitions of wells from EQT were fraudulent and should be voided.

Below we provide an overview of Alabama creditor rights law upon which the landowners’ claims are based.

3.2 Alabama creditor rights laws

It is a foundational principle of corporate and bankruptcy law that creditors have priority over owners. A transfer by a debtor to owners or others may be fraudulent if made with ‘actual intent’ to defraud creditors or if it is ‘constructively’ fraudulent as to a specific creditor. In this case, landowners whose property is burdened by inactive wells are the creditors, and Diversified is the debtor.

Under both the Alabama Uniform Fraudulent Transfers Act (UFTA) and its successor statute, the recently passed Alabama Uniform Voidable Transactions Act (UVTA),² a creditor (e.g., landowners) who can establish that a transaction by a debtor (e.g., Diversified) was either an actual fraudulent transfer or a constructive fraudulent transfer can void the transaction. A party commits an actual fraudulent transfer when it transfers assets or incurs liabilities with the intent to hinder, delay, or defraud its creditors’ claims. In determining actual intent, consideration may be given to, among other things, whether:

1. the transfer was to an insider;
2. the debtor retained possession or control of the property transferred after the transfer;
3. the transfer was concealed or not disclosed;
4. before the transfer was made, the debtor had been sued or threatened with suit;
5. the transfer was of substantially all the debtor’s assets;
6. the debtor absconded;
7. the debtor removed or concealed assets;
8. the value of the consideration received by the debtor was not reasonably equivalent to the value of the asset transferred;
9. the debtor was insolvent or became insolvent shortly after the transfer was made;
10. the transfer occurred shortly before or shortly after a substantial debt was incurred; and

² Ala. Code §§ [8-9A-5](#) and [8-9B-5](#).

11. the debtor transferred the essential assets of the business to a lienor that transferred the assets to an insider of the debtor.

A party commits a constructive fraudulent transfer when it fails to receive reasonably equivalent value for assets transferred or obligations incurred, and it is “insolvent” at the time of the transfer or becomes so shortly after the transfer was made.

3.3 The Complaint

The pending second amended *Diversified* complaint³ asserts that the value of the consideration received by Diversified in two transactions with EQT was not reasonably equivalent to the amount of the obligations Diversified incurred. Plaintiffs ask the court to void the EQT transfers and seek damages for decommissioning costs as well as compensation for their lost use of the property and the annoyance, inconvenience, and aggravation associated with the undecommissioned wells.

3.3.1 A new legal theory applied to a familiar fact pattern

It is common practice in the oil and gas industry to package inactive and low producing wells with a few good wells and sell them to a smaller, often undercapitalized company as a way to offload AROs. Each company in the chain strips the remaining assets until it's no longer profitable to do so. At that point – when no savings or cash flows are available for decommissioning – producers dump their AROs onto the lap of landowners and taxpayers.

The transfer of oil wells with declining and ultimately negative value benefits all parties up the chain of title, each of whom hopes to escape financial responsibility for decommissioning. Each transfer allows the seller to cleanse its balance sheet of low-quality assets and associated AROs. AROs follow well ownership, and sellers usually have no trailing liability for formerly owned wells. Each transfer places more legal distance and reputational space between the seller and future ARO default.

Unlike the fact pattern, which is well-worn, the legal theory in the *Diversified* case is novel. First, it asserts a new theory of creditor rights: **Common law claims for damages arising from inactive wells can create a debtor-creditor relationship between operators and landowners.** As service obligations, AROs are not typically “debts” within the meaning of bankruptcy law and fraudulent conveyance statutes. However, a common law claim for relief is a “debt” because it can be reduced to a monetary payment for damages. This imbues landowners with legal standing as “ARO creditors” against debtor-operators (Figure 1.1).

FIGURE 1.1 - THEORY OF ARO CREDITOR RIGHTS FOR LANDOWNERS



Second, the lawsuit posits that, as “creditors,” landowners can hold current *and former* operators accountable for transferring wells without adequate consideration for AROs.

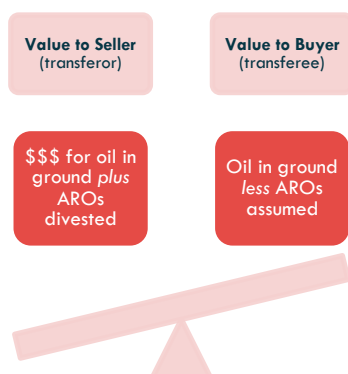
3.3.2 Reasonably equivalent value

A key concept in creditor rights law is the notion of “reasonably equivalent value”. As shown in Figure 1.2, in a transfer of wells the value received by the seller includes the sales proceeds plus the fair value of AROs transferred to the buyer. The value received by the buyer includes the fair value of recoverable hydrocarbons (less production and transportation costs) minus the fair value of AROs assumed. If a well is upside-down – i.e., the value of the ARO assumed by the buyer exceeds the value of the hydrocarbons

³ The plaintiffs’ second amended complaint is pending court approval to replace the first amended complaint.

acquired – the seller must pay the buyer for the difference. Otherwise, the values exchanged by the parties are not reasonably equivalent. If a buyer (transferee) assumes AROs without receiving reasonably equivalent value to settle them, the transaction may be voided, returning liability for decommissioning to the seller (transferor).

FIGURE 1.2 - REASONABLY EQUIVALENT VALUE



If landowners whose property is burdened by nonproducing wells are “creditors” within the meaning of these laws, operators that distribute property to owners or others before adequately provisioning for AROs may be accountable.

For landowners seeking to hold operators accountable for AROs, time is of the essence, because the limitations period for fraudulent transfers is generally **four years** after the transfer when the creditor’s claim arose before the transfer was made.⁴ Each transfer starts a new four-year limitations period further insulating from liability prior operators who are more likely to have the ability to pay. From the operator perspective, frequent transfers are desirable with the last one taking place at least four years before ARO default.

3.4 Unlawful dividends

Although not alleged in the Diversified Suit, in addition to claims for fraudulent conveyance, landowners may have claims against corporate directors and shareholders for unlawful dividends. **Dividends and other distributions to owners made when a corporation is insolvent, or which render a corporation insolvent, are unlawful under state corporation laws.** This harkens back to the principle that creditors must be repaid before equity holders.

Importantly, in this context, **a debt owed to a creditor need not yet be due** in order to challenge unlawful distributions. The Delaware Court of Chancery recently considered this issue, answering whether to have standing as a “creditor” a party must have been a judgment creditor at the time of the challenged dividends. The court answered ‘no’, holding that it is sufficient that a party have a claim against the corporation at the time of the challenged dividends, whether or not reduced to a judgment.⁵

3.5 Scope of the class

The proposed class in the Diversified Suit is limited to nonproducing wells and wells that had been inactive for one year or more at the time of the lawsuit.⁶ A much larger class would include all upside-down wells, whether active or inactive, for the reason that they are likely to be accompanied by fraudulent conveyances, unlawful dividends, and latent landowner claims for trespass, nuisance, and negligence arising from poor maintenance and improper operation.

⁴ A one-year limitations may apply when the action is brought by a creditor whose claim arose after the transfer was made. See Ala. Code § 8-9A-9. Section 174 of the Delaware General Corporation Law provides for director liability at any time within six years after paying such unlawful dividend.

⁵ [Chancery Decides Questions of First Impression Regarding Statutory Claims for Unlawful Dividends and Fraudulent Transfers](#), Morris James (August 2019).

⁶ Plaintiffs assert that West Virginia Code § 22-6-19 establishes that Diversified owes them a duty to “promptly” plug any wells on Plaintiffs’ properties once those wells are abandoned, i.e., have not produced oil or gas for twelve consecutive months.

4 Painted Pegasus case study

The Diversified Suit involves two public corporations including one of the largest owners of onshore wells in the U.S. However, there are millions of onshore wells and thousands of private operators, often owning merely hundreds of wells. These companies are too small to participate in the public capital markets but with hundreds of wells and potentially tens of millions in liability, they could nonetheless be subject to legal actions like those in the Diversified Suit. This would be of concern for those companies, their shareholders and directors, and prior operators in the chain of title.

To illustrate the broad potential application of the *Diversified* theory of ARO creditors' rights, we next present a case study on a small, recently bankrupt Colorado operator—Painted Pegasus Petroleum LLC.

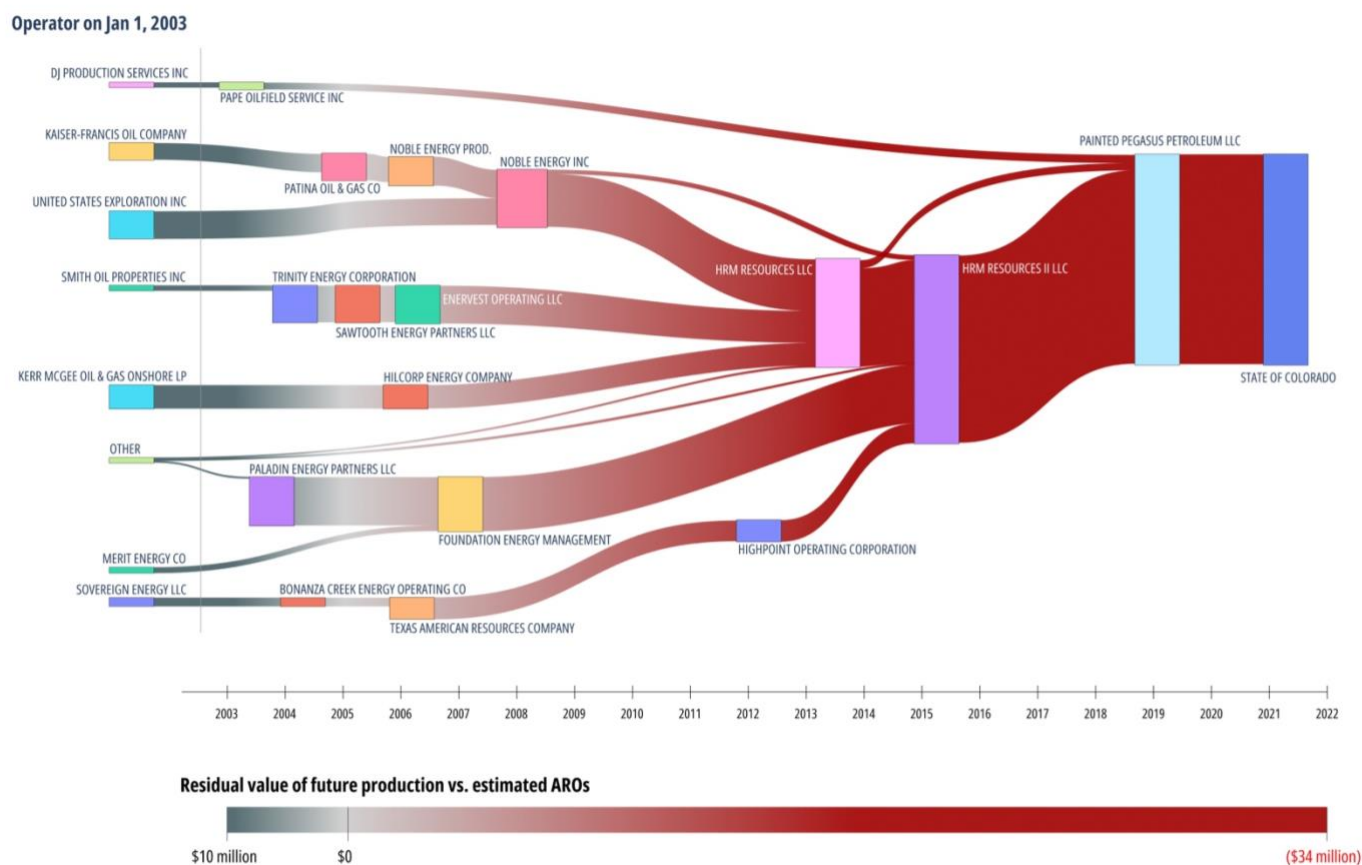
Painted Pegasus – Description of Operator

The Colorado Oil & Gas Conservation Commission's (COGCC) Orphan Well Program lists Painted Pegasus Petroleum as the current operator of 196 sites and 189 inactive conventional oil wells in the Denver-Julesburg basin in Weld and Adams counties in Colorado.⁷ The wells, which were drilled between 1957 and 2011, have a median age of 41 years.

Figure 2.1 shows the many transfers of ownership between the original drillers and interim operators of these wells before they landed in the hands of Painted Pegasus.

⁷ COGCC [Orphan Well Program data](#).

FIGURE 2.1 – OWNERSHIP TIMELINE AND RESIDUAL VALUE OF PAINTED PEGASUS WELLS SINCE 2003. THE FIGURE SHOWS THE APPROXIMATE FLOW⁸ OF WELL OWNERSHIP FOR ALL PAINTED PEGASUS WELLS, WITH DECLINING RESIDUAL VALUE OF THE GROUP INDICATED BY COLOR GRADIENT.



Data: COGCC

In June 2018, the Third Creek gathering pipeline that transported oil from the Painted Pegasus wells to market shut down.⁹ The wells on the Third Creek system produce mainly oil and a little bit of gas, but the oil can't be produced unless something is done with the gas. The Third Creek line gathered those small amounts of natural gas and sold them into an interstate pipeline.

In September 2018, three months after the gathering pipeline closed, Painted Pegasus took ownership of 189 wells from HRM Resources.¹⁰ The wells have produced an average of only 0.4 boe/day each since the date of transfer.¹¹ By taking ownership of the wells, Painted Pegasus assumed financial responsibility for decommissioning under state law. The legal and financial terms of the transfer are not publicly available.

⁸ To simplify the visualization, some minor transactions were grouped together. For operators on the receiving end of multiple transactions, timeline location is roughly the average receiving transaction date.

⁹ [Anadarko Permanently Shuttles One DJ Basin Gas Gathering System](#), Natural Gas Intelligence (June 1, 2018).

¹⁰ COGCC Daily Activity Dashboard: "[Export of Data](#)": Operator Change Tab

¹¹ Derived from COGCC production reports

4.1 Well status

Today, all of the Painted Pegasus wells are enrolled in the Colorado Orphan Well Program. The COGCC has commenced decommissioning 14 of the wells. Based on costs incurred to date of \$1.4 million,¹² we estimate the total cost to decommission all of the Painted Pegasus wells to be \$18 million.

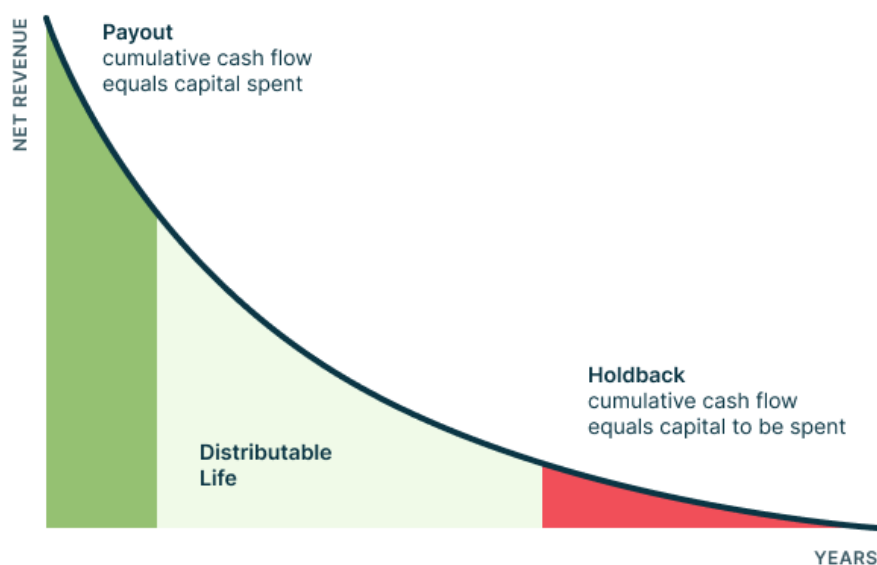
98% of AROs fall to the state

The Painted Pegasus AROs are secured by \$305,000 in surety bonds.¹³ Assuming total decommissioning costs of \$18 million, the average bond coverage ratio (surety bonds divided by decommissioning costs) for the Painted Pegasus wells is under two percent (<2%). That leaves the State of Colorado and its taxpayers unsecured for over 98% of estimated decommissioning costs.

4.2 Cash flow analysis

When operators defer saving for AROs by instead distributing cash flows to owners, the liabilities accumulate. Meanwhile production, and expected future cash flows, decline. As illustrated in Figure .2 below, *holdback* is the estimated time to fund AROs from cash flow in the final years of a well's life. **The holdback period begins when cumulative cash flows from remaining production equal AROs. It is the point just when a well turns upside-down.**

FIGURE 2.2 – PHASES IN THE ECONOMIC LIFE OF A WELL



Holdback is the end-of-life analogue to payout. During payout, upfront capital expended on exploration and drilling is recovered from early cash flow. The payout period is followed by a period of distributable cash flows that represent a return on the initial capital investment. During holdback, 100% of cash flows must be withheld for future decommissioning costs.¹⁴ Distribution of cash to owners or others during holdback violates the principle that creditors have priority over owners.

¹² The COGCC's average per well cost to date to decommission 14 wells orphaned by Painted Pegasus began in 2021 is \$96,000. The final cost to complete the work and the full scope of work to be completed is not known at this time. Our estimate of downhole plugging costs using our depth-based cost model is \$178,000 per well.

¹³ COGIS [surety information for Painted Pegasus](#) and COGCC [Orphan Well Program data](#).

¹⁴ The holdback model is not the optimum method of managing cash flow for decommissioning—rather, the framework enables clear assessment of ARO management and risk on a sound cash flow basis.

4.3 Painted Pegasus - Analysis

We performed a cash flow analysis of the Painted Pegasus wells to identify the point in time at which they turned upside-down.

To estimate the historical cash flows from the wells, we started with actual data for the two most important figures: production volumes as reported in regulatory filings since 1999 and spot market prices for the commodities sold. We assumed price differentials, taxes, and royalty burdens based on local trends. A range of operating costs were estimated using professional judgment and tested under several alternative scenarios.

Most Painted Pegasus wells traded hands three to five times just in the last 20 years while the properties were producing and, mostly, generating positive cash flows, but in an amount too low to fund future decommissioning. For each generation of sale, the large majority of the wells were active and producing “stripper” well levels which exempted them from paying severance taxes.¹⁵ Production quantities declined slowly but prices increased part of the time, extending the life of the wells.

Viewed in hindsight, all generations of trades since 2005 occurred when the wells were upside-down – i.e., no longer financially capable of funding their AROs from future cash flow.

4.3.1 Painted Pegasus acquired wells when they were already upside-down and losing money

When Painted Pegasus acquired the wells in 2018, the wells were already operating at a loss assuming low-side operating costs. It may have been possible to eke out some free cash flow by cutting costs and maintenance, but our analysis shows that there could not have a reasonable expectation of settling AROs (see Figure 2.3 below). In 2021, less than three years later, the company filed for bankruptcy.

Painted Pegasus acquired the properties from HRM Resources which assembled the collection in six transactions from 2013 to 2015, mostly from larger companies like Noble Energy.

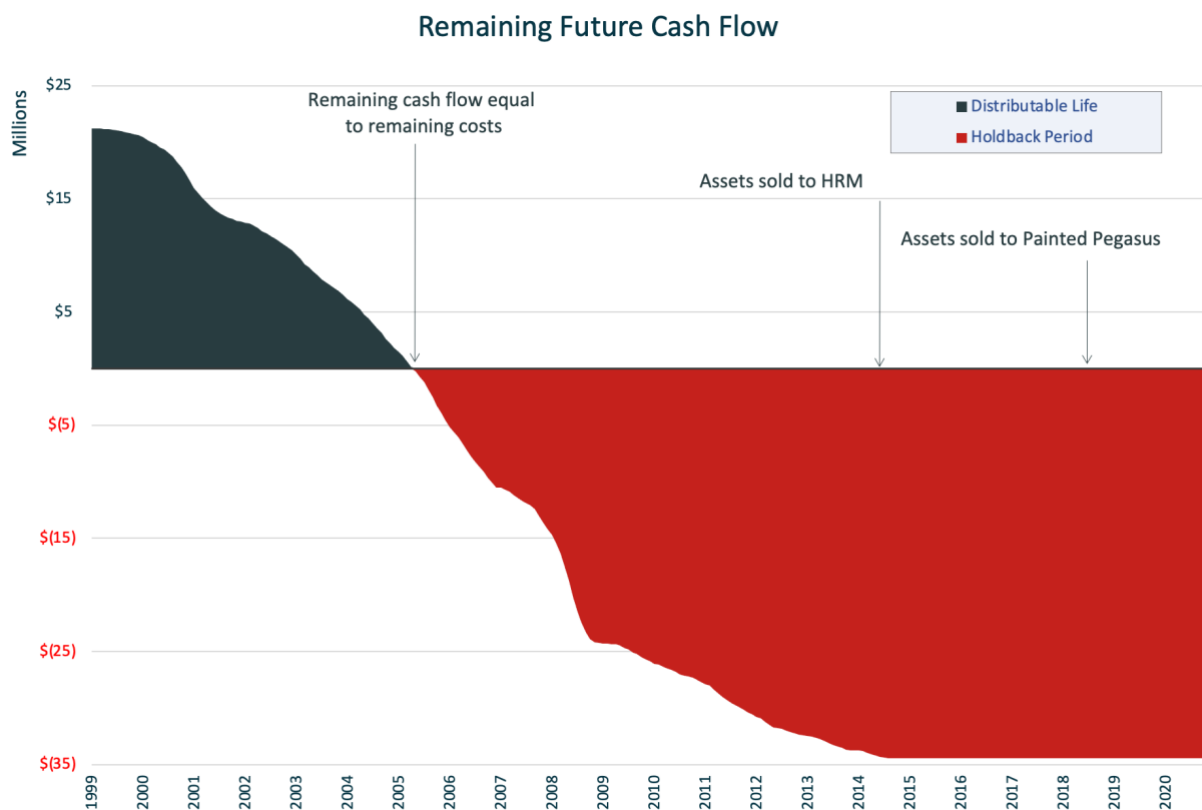
To conduct this holdback analysis, we used 2015 as a proxy date for the transactions, forecasted production as could have been expected at the time, and held recent prices constant for the forecast at \$94 per barrel. Even projecting these extraordinarily high oil prices, we estimate that at least four and possibly all six packages were already operating at a loss given normal operating costs. As with its successor Painted Pegasus, the operator likely planned to profit from the wells by cutting costs for things like maintenance – and deferring decommission costs indefinitely.

The previous generation of transactions occurred as eight sales between 2003 and 2006. Operating costs were changing rapidly during this period, but we estimate that the wells were likely cash flow positive. Nonetheless, these wells were still upside-down with regard to decommissioning costs during this time period.

Even given the buoyant oil prices from the mid-2000s to 2015, decommissioning costs likely exceeded all cash flow generated since the 2005 sales. These properties thus changed hands three or more times while they were upside-down. Bond coverage on the wells is less than 2 percent. Now the state orphan well program must bear the cost and/or the landowners must live with the blight of unplugged orphaned wells.

¹⁵ [Colorado Stripper Well Exemption from Oil & Gas Severance Tax.](#)

FIGURE 2.3 – TIME SERIES OF ESTIMATED RESIDUAL VALUE OF THE PAINTED PEGASUS WELLS SINCE 1999



Data: COGCC

Painted Pegasus provides is an extreme illustration of common industry practice. The case is extreme due to the self-evident absence of economic substance in the company’s acquisition of wells after the shut-in of a gathering line needed to transport production to market. Painted Pegasus assumed insufficiently bonded AROs with little or no associated asset value. Yet our analysis of well histories in Colorado indicate that the case is largely representative of the oil and gas industry’s version of the Peter Principle: Once drilled, wells tend to be transferred to the operator with the least ability pay.

5 Conclusion

The Diversified Suit signals that landowners whose property is burdened by upside-down and inactive wells may have standing as *creditors* – with rights against current and former operators – under laws designed to protect creditors against fraudulent conveyances and unlawful dividends. This legal development has the potential to threaten the pervasive industry practice of transferring mature oil and gas wells as a means to evade financial responsibility for AROs.

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