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Energy Industry Data & Trends

COLORADO OIL & GAS FACES A *MAJOR* SETBACK

Oil and gas companies in Colorado are facing an existential threat in Proposition 112, which will impose larger setback requirements on oil and gas activity in the state. With the vote approaching rapidly and polling indicating a nearly even level of support and opposition, firms operating and investing in Colorado cannot ignore the proposition.

Proposition 112 requires all new oil and gas development be located at least 2,500 feet from "occupied structures, including homes, schools and hospitals, as well as vulnerable areas." The measure defines "vulnerable areas" as "playgrounds, permanent sports fields, amphitheaters, public parks, public open space, public and community drinking water sources, irrigation canals, reservoirs, lakes, rivers, perennial or intermittent streams, and creeks, and any additional vulnerable areas designated by the state or a local government."

This broad definition is open-ended, empowering local governments to set a wide range of areas as off-limits to new development. The measure also allows local governments to enact larger setbacks, leaving open the possibility of outright bans through massive setback requirements. The measure does not apply to federal land, however.

Current laws impose several different setback requirements, 1,000 feet from high occupancy buildings, 500 feet from most occupied buildings, and 350 feet from "Designated Outside Activity Areas," the first five locations listed as vulnerable areas in Proposition 112. All are well below 2,500 feet, though, and there are no setbacks from bodies of water. This measure, then, entails a major expansion of setbacks.

In this Report – KEY SUMMARY POINTS:

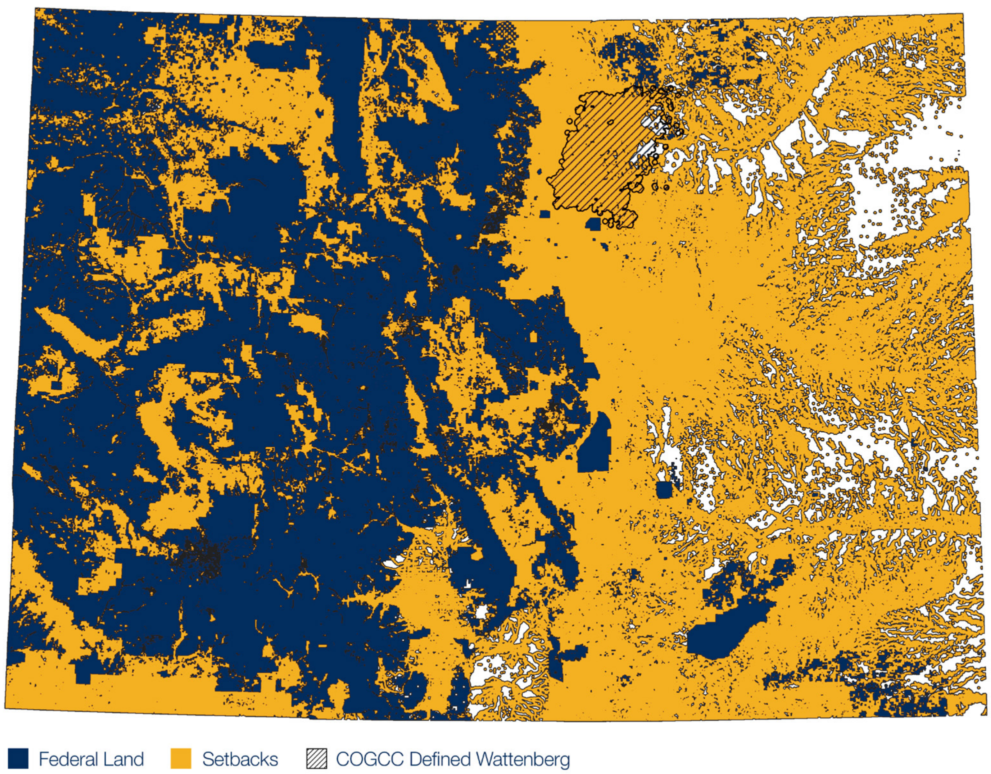
- Proposition 112 bans drilling on vast majority of non-federal land
- Key activity centers would be heavily impacted by the measure
- E&P companies are attempting to secure continued drilling opportunities by getting as many permits as possible
- Approved permits will be grandfathered in, permits awaiting approval may or may not
- Permit inventories give public DJ companies 1.5-5 years of drilling inventory at current rates
- Oil and gas companies in Colorado have hard choices to make if 112 passes
- Equity markets are cautious, and are pricing in significant risk
- Political risk makes investors reluctant to put capital into Colorado
- Amendment 74 may provide payday for impacted companies

Vast majority of land is cut off under 112

Proposition 112 will profoundly curtail the land available for E&P companies. Approximately 36% of the land area of Colorado is federal land, and not subject to the measure. What remains, however, would be severely restricted. State-wide, just over 85% of non-federal land will be off-limits to drilling overall, primarily due to the "vulnerable areas" provision of the measure. In Weld County, which covers the vast majority of the DJ-Niobrara and is the top producing county in the state, 85% of non-federal land would be off-limits to drilling, matching the broader state number. The setbacks are even more prohibitive in the other major oil and gas producing areas, as over 95% of non-federal land in the next four top-producing counties would be off limits.

Colorado Under Prop 112

Source: EnerCom Analytics



Federal land is a factor in plays other than the DJ, as significant portions of the Piceance and San Juan are on federally-owned acreage. Overall, 17% of Colorado oil and gas production came from federal land last year. This is not the case for the DJ, though, as the federal land in Weld County is not near the core of the play. A mere 0.01% of 2017 Weld County production comes from federal lands.

Companies hope to lock in inventory via permits

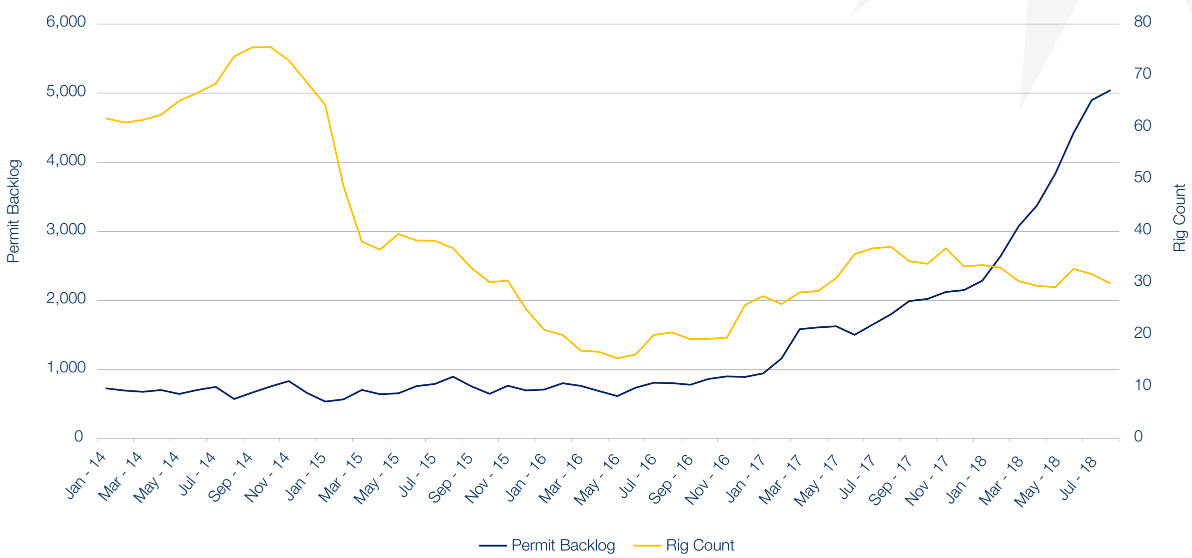
Drilling permits can provide a glimpse of the potential effect of Proposition 112, as they represent a snapshot of anticipated development. There are 4,584 approved drilling permits for locations in Colorado, plus an additional 5,715 awaiting approval. Proposition 112 will not impact well locations that have already been approved, but there is uncertainty regarding permits that are pending approval. Discussion around previous setback measures from past election cycles implied both approved and pending permits would be grandfathered in, but 112 will not allow this as it is currently written. If 112 passes, the fate of pending permits will likely be up to the Colorado legislature which may alter the measure if it sees fit.

Companies appear to be hoping that pending permits will also be allowed if the measure passes and have been applying for as many permits as possible this year. The backlog of drilling permit applications has skyrocketed at the Colorado Oil & Gas Conservation Commission (COGCC), which regulates oil and gas activity in the state.

The permit backlog was relatively steady in Colorado before and during the downturn, ranging between 500 to 900 permits waiting for approval. The resurgence of drilling activity in late 2016 and early 2017 led to a rapid jump in the permit backlog as companies applied for numerous permits to support their expanded drilling programs. The permit backlog expanded through 2017, as strengthening oil prices drove higher drilling activity.

Colorado Permits and Rig Count

Source: EnerCom Analytics

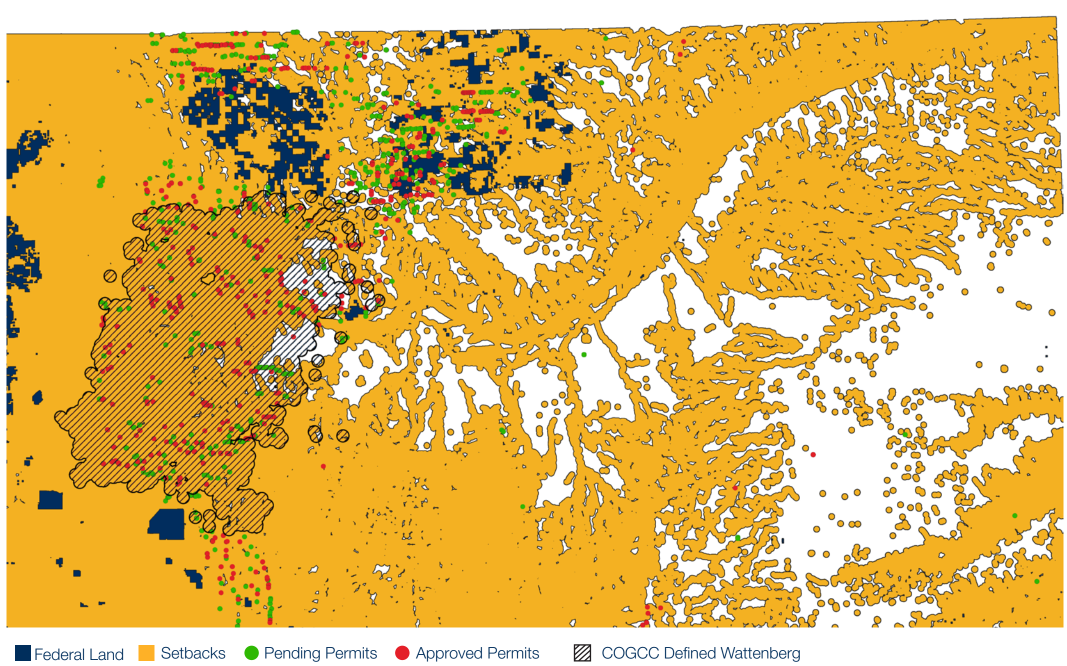


The backlog has grown at an accelerating rate in 2018, though, more than doubling since January—from approximately 2,200 pending permit applications at the beginning of the year to more than 5,700 today.

This growth cannot be totally explained by an increase in activity, as the rig count in Colorado has actually fallen slightly this year.

DJ Basin Under Prop 112

Source: EnerCom Analytics

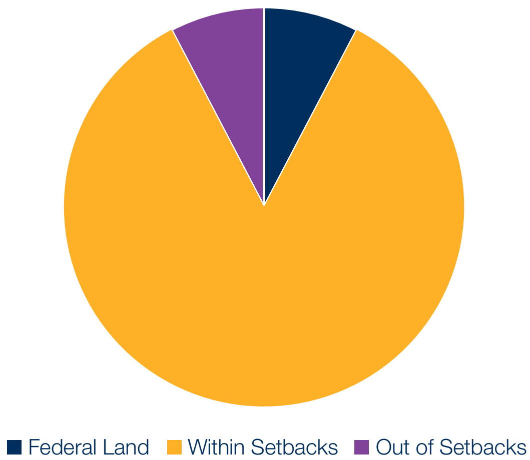


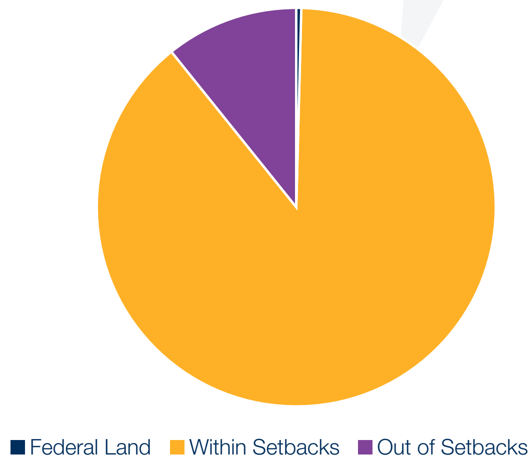
Drilling programs target areas that would be off-limits under 112

While Proposition 112 would cut off a large share of surface area, it would have an even larger impact on current drilling. Out of the 4,584 approved drilling permits in Colorado, only 351 are for locations out of federal land and allowed by Prop 112. Only 8.3% of permits on non-federal land, then, would be allowed by this measure. The situation for pending drilling permits is nearly as severe. A total of 615 pending permits are for locations outside of the setbacks and on non-federal land and would be allowed under 112. This is a significant number, but nearly 5,100 pending permits would be rejected if the measure is enacted.

Approved Drilling Permits (Left) and Pending Drilling Permits (Right)

Source: EnerCom Analytics





On a company-by-company basis, the effect of Proposition 112 varies widely. Some firms hold acreage out of the setbacks, some companies' acreage is entirely off-limits. Overall, private companies appear better-off under 112, but none could be said to be in a strong position. Several private companies, such as Verdad Resources, Mallard Exploration and Bison Oil & Gas, have more than 100 pending or approved permits that would be allowed by 112. This is only a fraction of each firms' drilling permits, however.

Of the private E&P companies in Colorado, Mallard Exploration has the highest share of drilling permits that are outside of setbacks, suggesting that in terms of obstacles to development this company may be the least affected by 112. Only 31% of Mallard's permits would be allowed under the measure, though. Several major operators, such as Great Western, Caerus and Longs Peak Resources, would have virtually all of their planned drilling within the setbacks, suggesting any development beyond these permits would be minimal.

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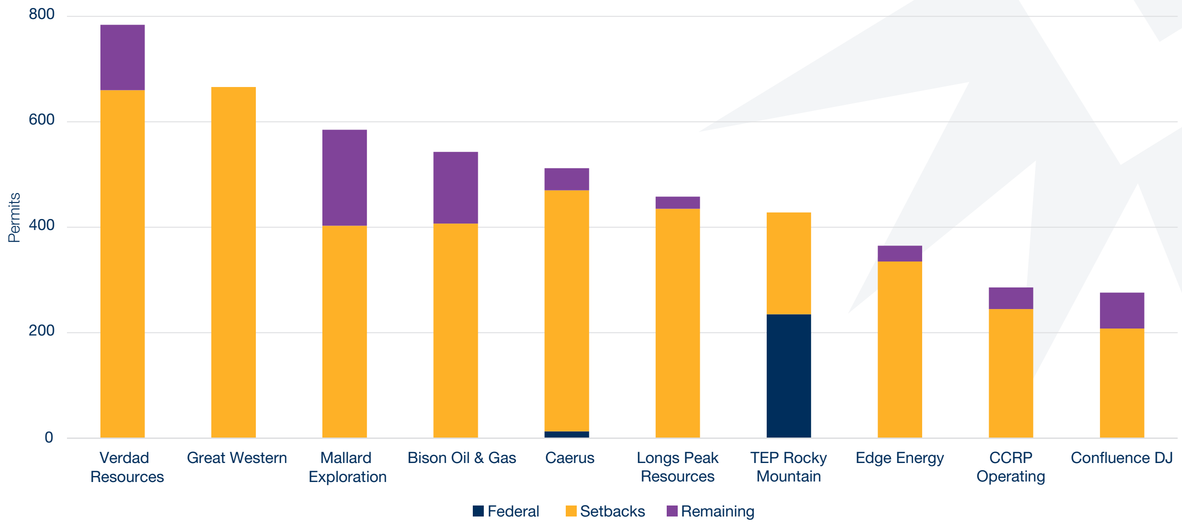
Private E&P Permit Inventory

Source: EnerCom Analytics

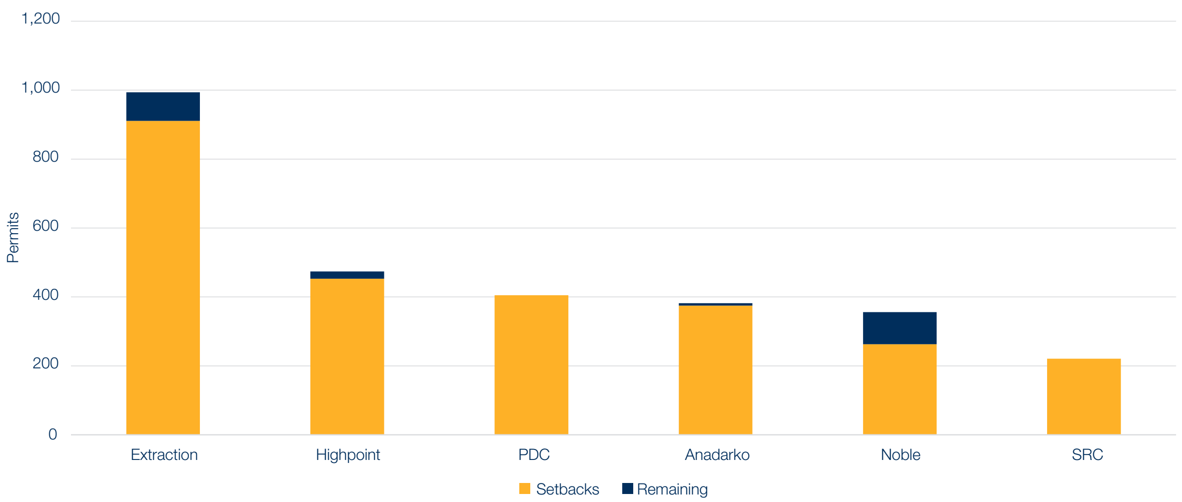


The public E&P companies appear to be even more affected by Proposition 112, based on drilling permits. The six main publicly-traded E&P companies in the Niobrara, Anadarko, Extraction, Highpoint, Noble, PDC and SRC, all hold acreage primarily in areas that will be off-limits. Only Noble holds a significant contiguous acreage position in the Eastern Niobrara that would be outside of the setbacks. Extraction and several others hold Northeast DJ acreage that would be allowed under 112, but these areas are patchy and irregular. Bonanza Creek also holds a contiguous position in the Eastern DJ that is outside of the setbacks, but that company is currently in a transition period and does not have the extensive permit inventory and drilling plans of other public DJ players.

Despite the portions of acreage that would be drillable under 112, all the public companies would have major restrictions to their development plans. With just over 25% of permits allowed, Noble's drilling would be least effected by the measure. Only 8% of Extraction's permit inventory is outside of setbacks, while Highpoint and Anadarko have less than 5% allowed. The entire drilling program for PDC and SRC would not be allowed under 112.

Public E&P Permit Inventory

Source: EnerCom Analytics



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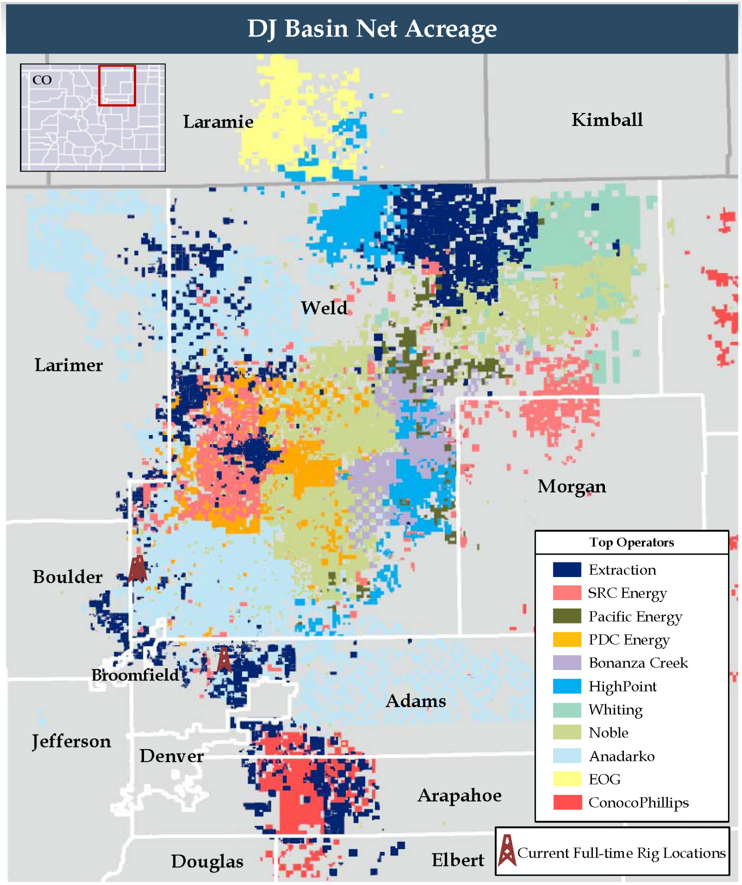
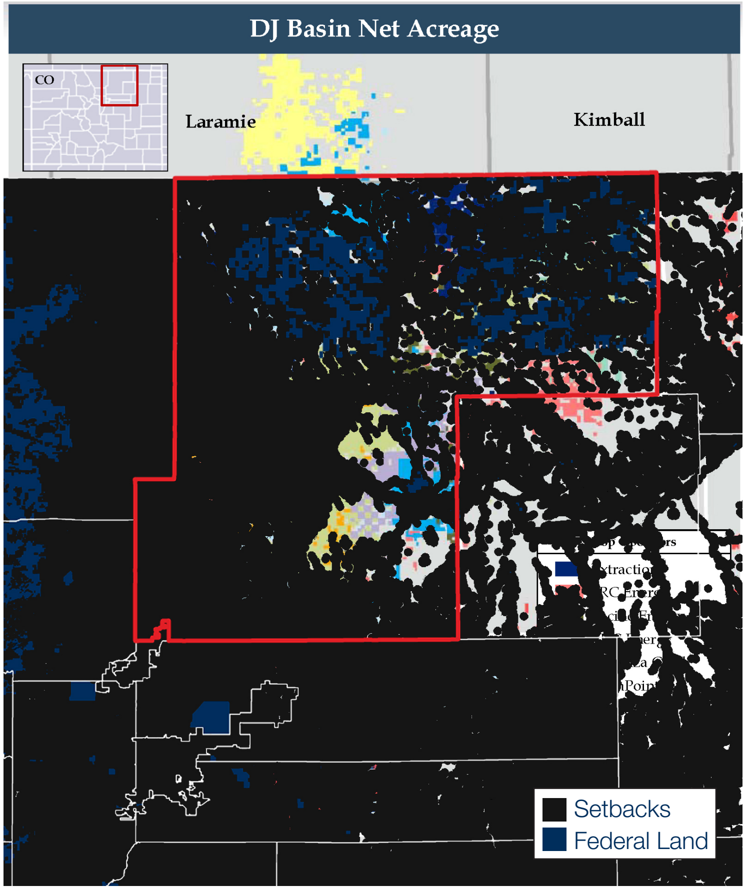
DJ Basin Operators (Top) and DJ Basin with Setbacks (Bottom)

Source: Extraction Oil & Gas





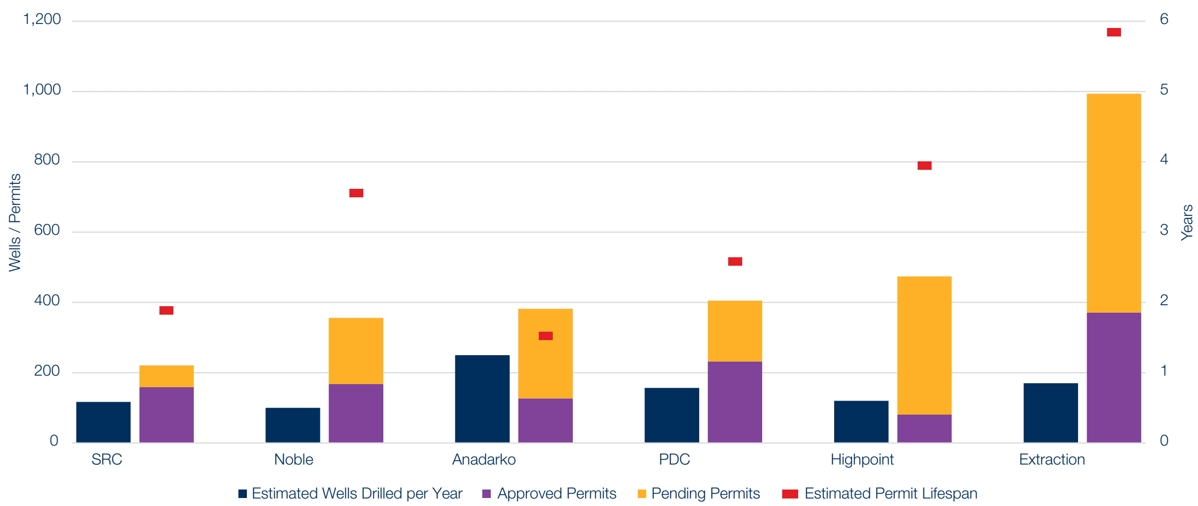
What Happens if 112 Passes?

Assuming both approved and pending permits are grandfathered in, as companies seem to be hoping, these will represent each operator's minimum drilling inventory. Even if a company's acreage is entirely off-limits, it will still at least be able to drill the wells it has already permitted. This "potential drilling inventory" can be used to determine each public company's lifespan, based on current drilling rates.

Extraction has the longest permit lifespan of the major public DJ companies by a significant margin, as the company's extensive permit inventory gives it nearly six years of drilling opportunities. Noble and Highpoint also have long permit inventories, as at current drilling rates each has over three years of wells permitted. Anadarko has the shortest drilling lifespan, primarily due to the high number of wells the company is currently drilling. Despite having a larger permit inventory than either Noble or SRC, this inventory will only last Anadarko 18 months.

Public E&P Permit Lifespan

Source: EnerCom Analytics



As a whole, the 10,300-permit inventory in the state of Colorado will last an estimated 5.7 years, based on current drilling rates. However, the majority of permits in the state are held by private companies, which have vastly differing and uncertain drilling plans. This permit inventory means both company and regional production may not drop significantly until several years after the measure passes, depending on how companies allocate capital.

The precise timing and slope of Colorado's production decline under 112 is highly uncertain, as it is dependent upon how companies respond to the measure. If public companies drill all the wells they have permitted, production could fall 55% by 2023, according to S&P. If companies such as Anadarko and Noble redirect capital to other basins, and if pending permits are not grandfathered in, this decline could be significantly more severe.

Capital providers also see serious risk to providing new capital to Colorado operators if Proposition 112 passes. Based on conversations EnerCom had with members of the buyside ahead of November, many felt uneasy about putting more money to work in the region. With investors unsure about returns in the state, companies will also need to consider how future investments into Colorado assets will be perceived by markets. Without a positive business environment, operators will need strong justification for further capital allocation in the state regardless of their permit backlog.

Companies have a choice to make

For individual E&P companies there are several options management must choose between. A company such as Noble and Anadarko, which have extensive operations in other basins, may drill its available inventory and allow its DJ position to generate any cash it can. Once the drilling inventory is expended, the company will have the choice to either reduce capex to cover maintenance costs, or to sell its assets to pull capital out of the play for use elsewhere.

Pure-play firms have less appealing options. Management may attempt to move into a different basin, creating a new position that would make growth and continued operations possible. A company's ability to execute on this is likely dependent on its current balance sheet and its permit inventory. A longer permit inventory gives a firm time to assess its options and buy in at a favorable price, while a company with a short inventory must buy just to stay alive.

Finally, management may simply wind down the company, taking what cash flows are available. Practically speaking, this is only an option for private companies, as investors in public firms are not likely to approve of management making this choice.

Most public companies in the region have two or more years-worth of inventory in their backlogs, giving them enough time to mount a fight to repeal 112 in two years should it pass. Between a thinning backlog and the political risk of hoping for a repeal, companies that pursued this option could face the compounding hardships of a declining asset lifespan and little support from investors looking for safer bets.

Midstream and service companies will also be impacted

The effects of 112 will, of course, stretch beyond just E&P firms. Midstream companies are in the midst of a significant buildout in the DJ, as gas processing constraints have led to several major firms investing in new processing plants. These will be heavily impacted if 112 passes and constrains production from the basin. The need for new midstream facilities and the possibility of constraining legislation provide totally contrary pressures for midstream companies planning expansion.

Companies are attempting to balance these factors by working incrementally, as DCP emphasized on its most recent conference call. As DCP head Wouter van Kempen put it, "We're executing a business model that allows for stages of growth. We are not a go-all-in, put-every-chip-on-the-table, but we are working in increments."

This sort of business model will likely remain popular for midstream providers in the DJ even if 112 is rejected, as companies attempt to balance demand and risks of future legislation. Midstream companies in the basin as a whole are less likely to overbuild, as is commonly seen in other major basins during growth surges. Instead, the DJ will continue to have insufficient takeaway capacity as companies avoid building beyond what immediate growth plans call for.

Oilfield service companies are unique in that they have the option to move basins relatively easily. Because many of their assets are on wheels, it is a simpler process for them to move to new areas. If Proposition 112 does cause a major reduction of drilling in Colorado, this hardware will likely be transferred to basins like the Bakken, Permian and SCOOP/STACK. The Powder River Basin, in particular, looks like an attractive destination for potentially disused DJ service equipment as activity in the nearby basin picks up.

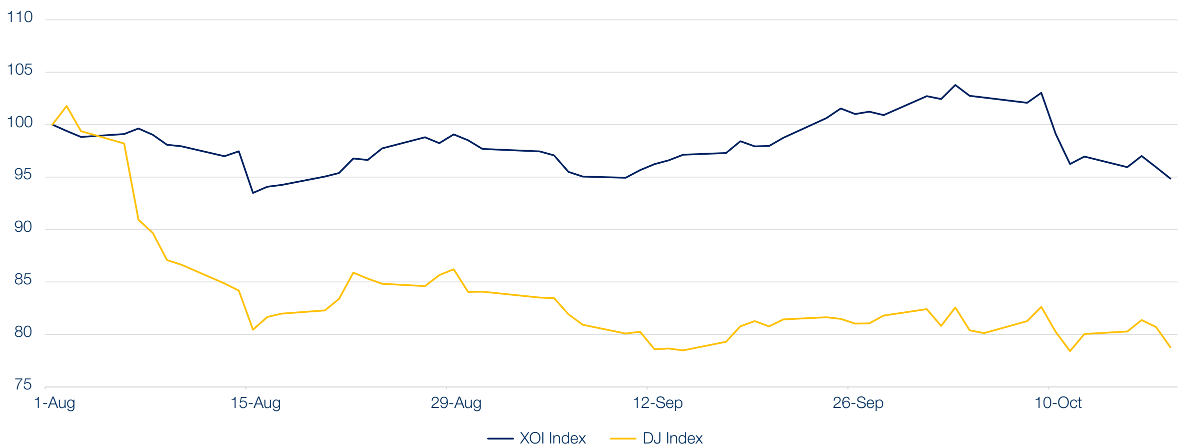
Markets Already Cautious about the DJ

The possibility of 112 passing is weighing on the stock price of operators in Colorado. Investors first took serious notice of 112 when it was announced the measure would be on the ballot in early August. Companies operating in Colorado saw a major decrease in stock price as investors evaluated the potential effects of setbacks.

Developments in the past two months have done little to impact investor sentiment on the measure, as the stock price of Colorado E&P companies have not shown significant divergence from the overall market since the early August decline, and have actually underperformed since then. This reverses the trend from earlier in the year, as DJ companies outperformed the overall E&P index through much of the first half of 2018.

Relative Performance

Source: EnerCom Analytics



One major private equity company has informed potential management teams that it is unwilling to invest in the DJ until after the election, as the risk of 112 passing is too concerning. This sentiment was echoed by our interviews with the buyside, as one investment director mentioned the regulatory environment has become an obstacle to putting capital to work in Colorado.

Buyside players interviewed were uncertain about if the measure would pass but could best be described as nervous. Perhaps most importantly, many believe this will continue to be an issue in the state. There is a general feeling that while 112 may not become law, it will continue to be a risk for operators in the state.

The success of the initiative in this year's ballot process was particularly surprising to the investors interviewed for this report. Many shared a similar anecdote in which news of Initiative 97 (the name of Proposition 112 before it was official on the ballot) came across mostly as white noise. Many felt it would not have a serious chance at making the ballot, and so when it received the required support to become a ballot proposition investors were caught off guard.

Prop 112 may become blueprint for other states

Over the longer term, 112 may have effects well beyond Colorado. The measure is seen as a template for environmental groups in other states, particularly if it passes. Analysts interviewed mentioned several states that may see similar measures on future ballots, but there was little consensus on which specific states might propose a setback measure.

Perhaps unsurprisingly, California was the most commonly mentioned state that might pass a setback bill. This possibility generated little concern, though, as the West Coast oil market is relatively isolated from the rest of the country. As one analyst put it, "they'd only be hurting themselves." Other states floated as potential setback adopters would have more severe implications, as Pennsylvania, Virginia and New Mexico are all possibilities. A severe setback measure like 112 in Pennsylvania or New Mexico would have wide-ranging effects, cutting off parts of the most important shale basins in the world. The particular wording of the ballot in Colorado would be less-effective in less densely populated states, however, one investor pointed out.

Amendment 74 offers possible payday for hindered companies

With November 6 just around the corner, support for and against Proposition 112 is essentially split 50/50 with some polls giving a slight edge to the proposition passing.

Amendment 74, which is also up for a vote alongside Proposition 112, would be a positive for the industry if it passes. Amendment 74 proposes amending the Colorado Constitution to require the state or a local government to compensate a property owner if a law or regulation reduces the fair market value of property. This would include mineral owners, which would see the value of such holdings drop dramatically if 112 is passed.

As of this writing, Amendment 74 is polling strongly with more than 60% in favor of passage. It's unclear how the state might balance payments to property owners no longer able to produce from their mineral interests on top of the reduced tax revenue associated with less drilling activity.

A Word of Thanks

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