The US Oil Market: Dead or Alive?

TRISHA CURTIS – PRESIDENT AND CEO

TRISHA@PETRONERDS.COM

OPEC-IEA-IEF

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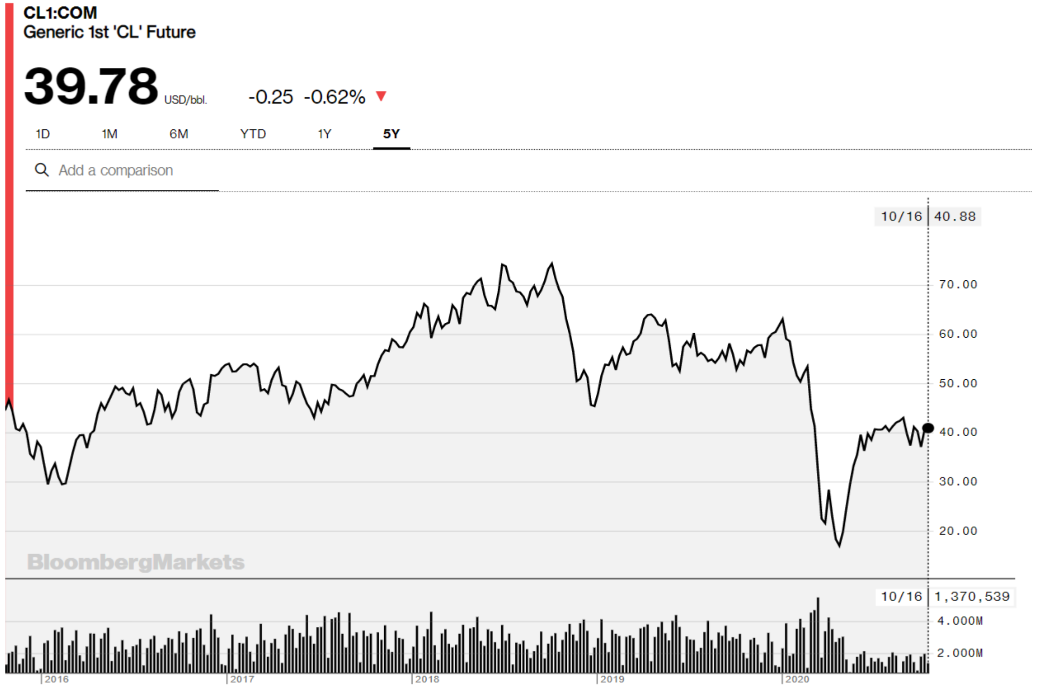
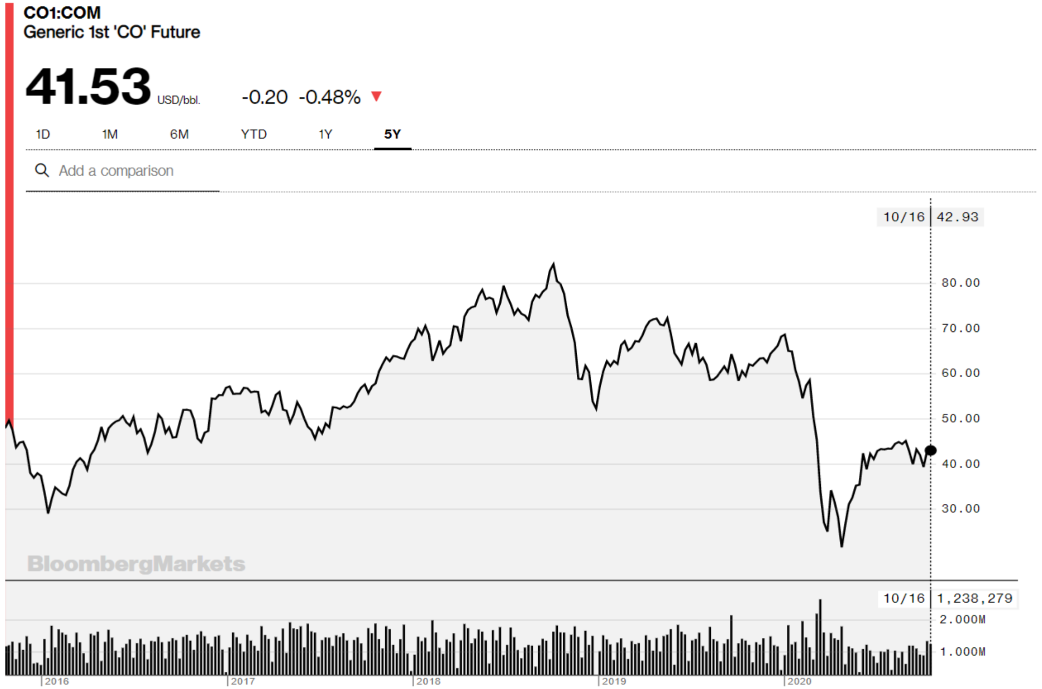
Appreciating the Depth of the Fall





1. Operators were well positioned in early 2020 to capture profits from $60 plus dollar oil seen in January, hedge at those price levels, and work around negative investor sentiment which weighed on stock price performance.
2. Prices were ultimately going to dictate activity levels, not share price performance.

This Downturn Must be Thought about Differently

1. This downturn is unlike any the world or industry has experienced.
2. Trying to forecast activity based on prior understandings of basins, especially the Permian Basin, may yield incorrect results.
3. Oil price corrections, as in any economic correction, create lasting changes and shifts in behavior.
4. Oil prices, WTI, averaged just $53 a barrel for the past 5 years until February of 2020 (Brent averaged $57).

Perfect Storm of Investor Pressure

ESG/Climate Change + Returns + COVID/Price War Collapse in Oil Prices = Extremely Negative Sentiment on Oil and Gas and Fossil Fuels

A Different and Compounded Correction Fueled by a Demand Drop and Continued Negative Sentiment

1. This price correction is different, and it is compounded by a green energy push and agenda that has helped turn already negative sentiment on the sector to a massive weight and burden on the industry.

2. Energy now composes just 2.5 percent of the S&P 500 and Exxon has dropped out of the DOW.

3. As prices rebounded during the spring, operators expressed optimism, but the weight and pressure from the public market, the overall sentiment on oil and gas, pending election results, and the overwhelming concerns and fears of Covid impacts in the fall and winter are impacting concerns about the stability of future price increases.

4. Sentiment and future concerns, driven by the worst price collapse in oil's history, are jading the analytical trajectory of this market.

Negative Sentiment – Bill Thomas

I've never ever seen the industry in a lower morale mode than they are this year then tremendous amounts of layoffs and office closures throughout the industry.

…And going forward, crystal clear, we're not going to be growing oil into an oversupplied market.

But I think our stock has been in undue pressure, because of the federal acreage issue. I think it's been discounted too heavily. As we view the matter, like you said, we got eight plus years of growing on non-federal acreage that will not take away from the each ability to generate higher returns or reduce our capital efficiency.

Source: Barclays CEO Energy Power Conference, September 9, 2020

The Impact of a Biden Win is *Not* Fully Appreciated by the Market and the Industry

FINANCIAL TIMES

US COMPANIES TECH MARKETS GRAPHICS OPINION WORK & CAREERS LIFE & ARTS HOW TO SPEND IT

Gas industry

US oil groups grow less fearful of a Biden presidency

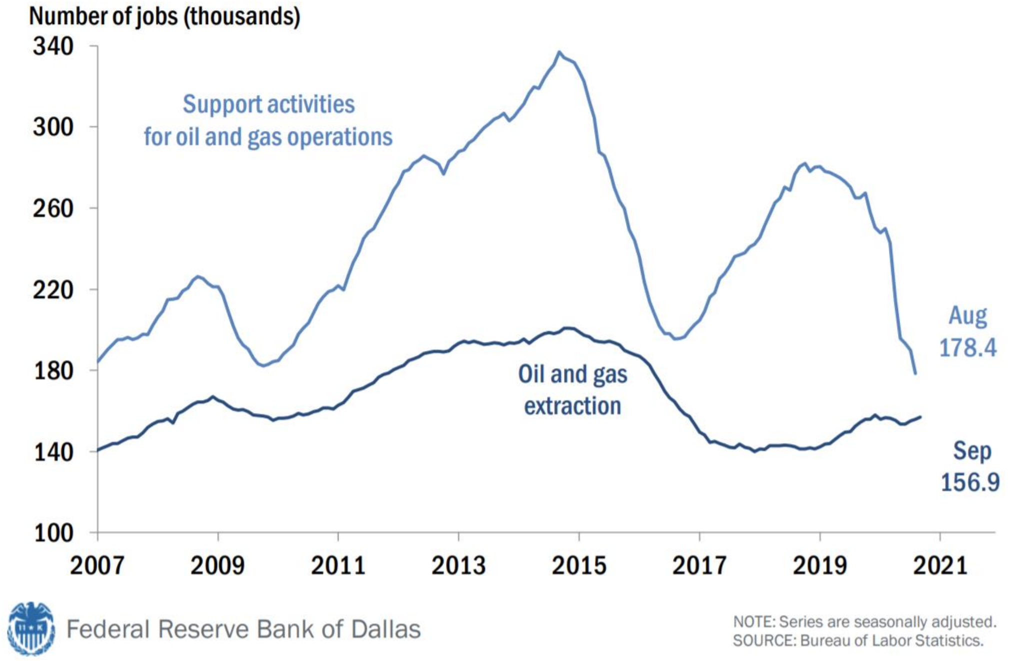
Industry's preference in November's election has become less clear cut

US oil output, which hit a peak of almost 13m barrels a day last November, has collapsed since the coronavirus pandemic hit global demand © AFP /AFP via Getty Images

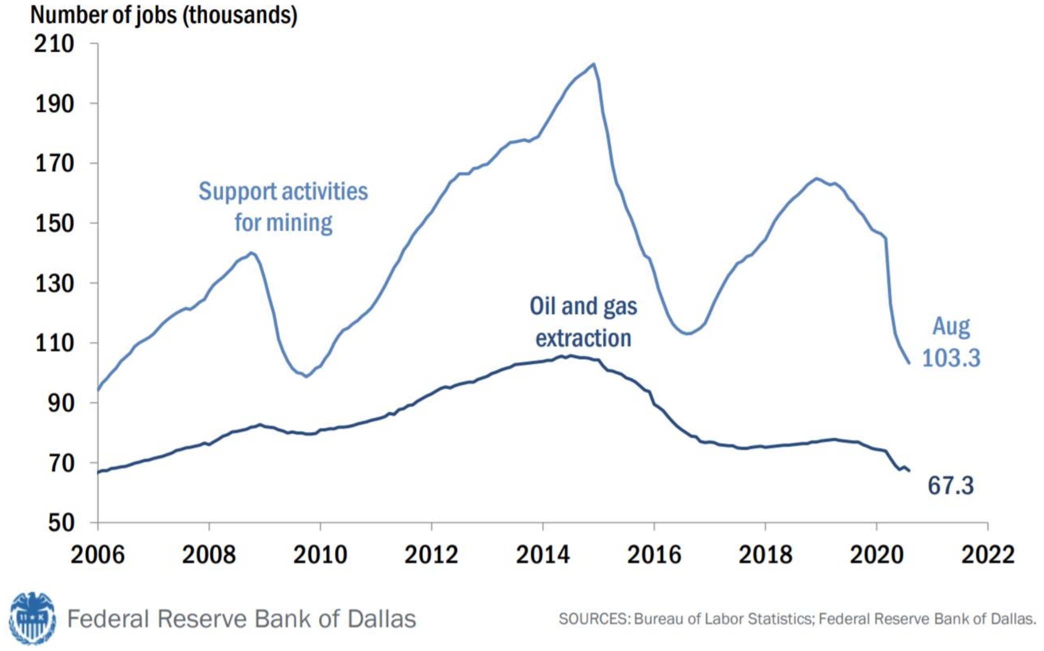
Derek Brower, US energy editor SEPTEMBER 26 2020

Oil and Gas Employment

US



Texas



Source: Federal Reserve Bank of Dallas, Energy Slideshow, October 2020

ESG Green Push

INDUSTRY NEWS

Apollo Bets on Royalty Financing to Unlock More Renewable-Energy Deals

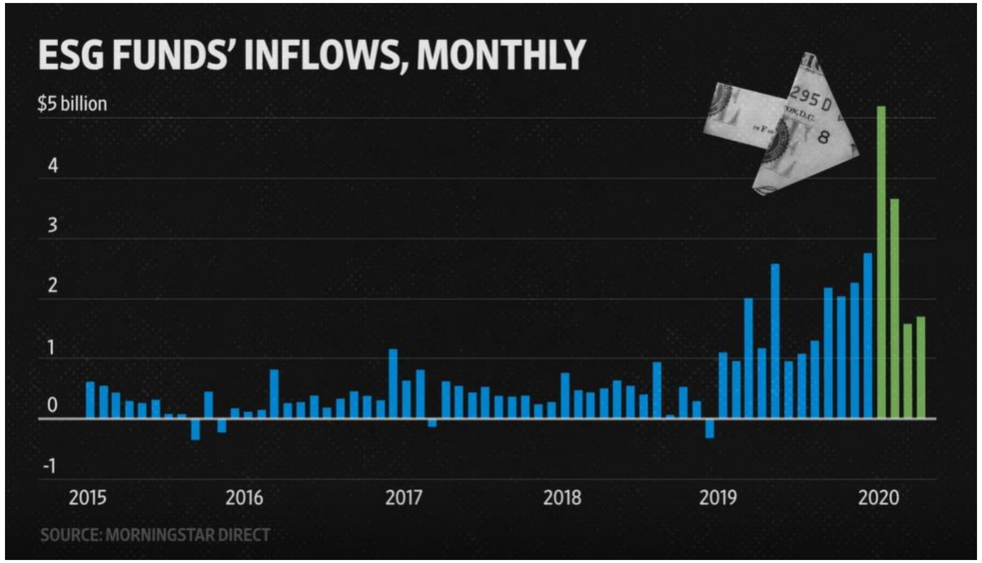
The New York firm said it expects to invest as much as $200 million in Great Bay Renewables, which funds solar and wind projects in exchange for a cut of the projects' revenue streams

By Luis Garcia
Oct. 16, 2020 6:33 pm ET

Apollo Global Management Inc. is betting that a popular form of oil and gas financing—royalty investing—can help it expand its reach in the renewable-energy sector.

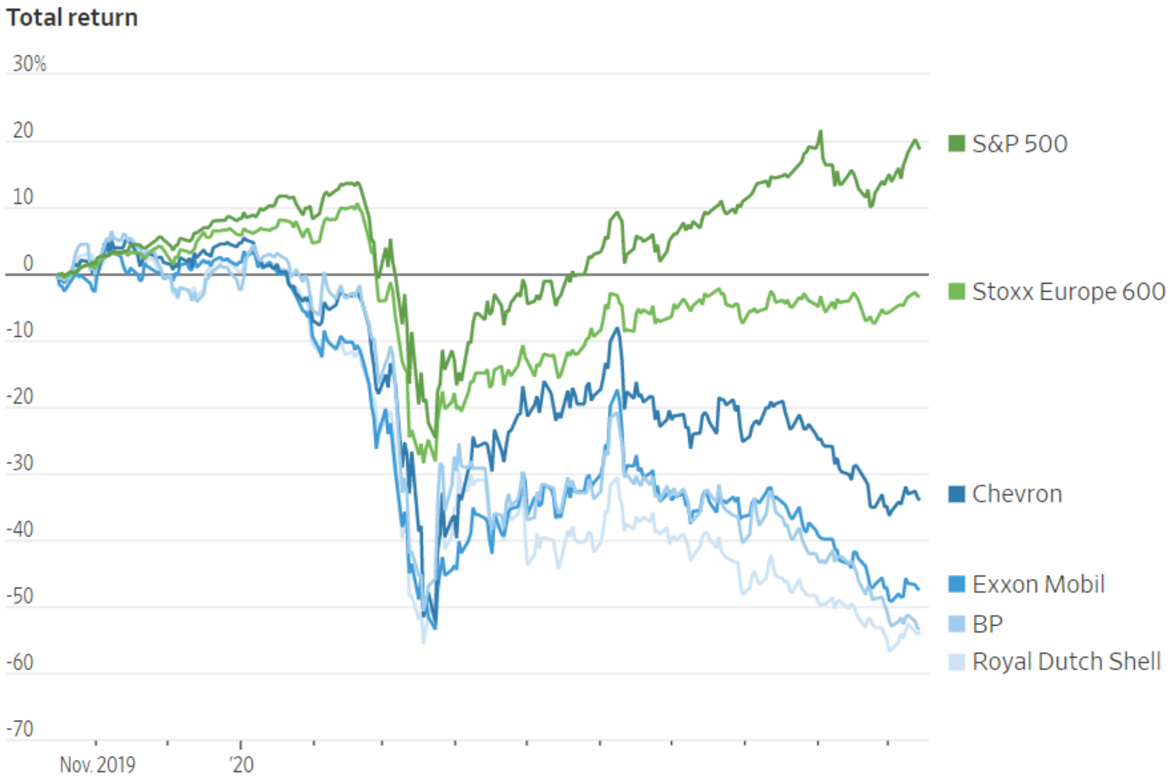
The New York-based asset manager said Tuesday that it has backed Altius Renewable Royalties Corp.'s subsidiary Great Bay Renewables Inc., which funds solar and wind farms in exchange for a percentage of the revenue they generate after they start operating.

Apollo...



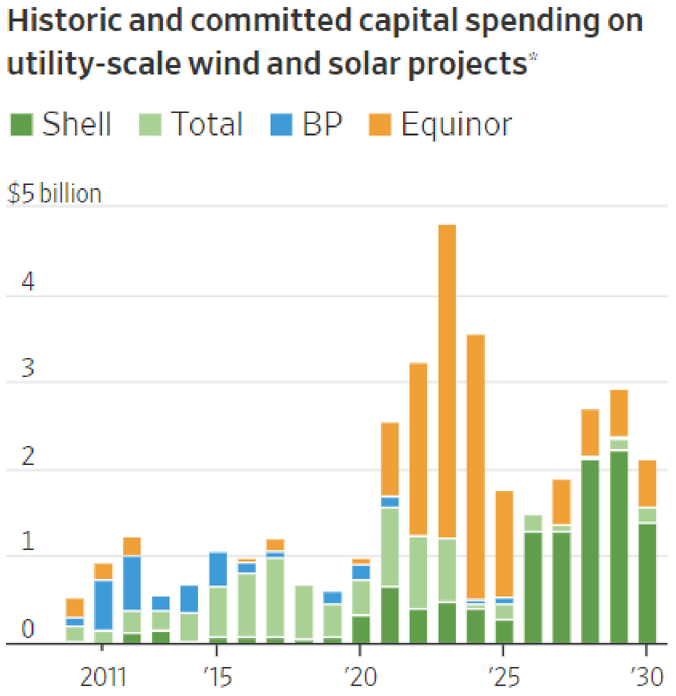
Source: WSJ

But Going Green Is Not Working for Oil



Source: FactSet

https://www.wsj.com/articles/divestment-campaigns-move-beyond-oil-11602759652?st=iiz5ji925mcilko

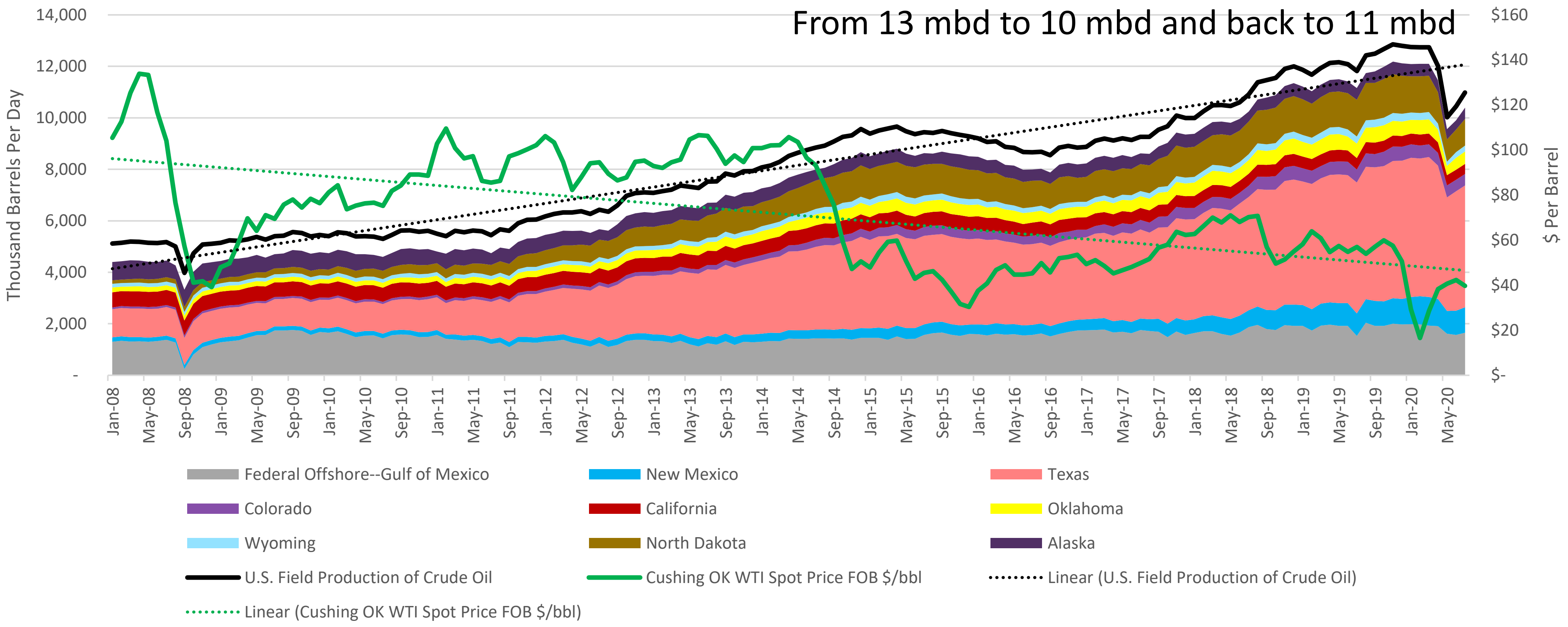


*Includes existing portfolio projects only. Targets or ambitions are excluded. Chevron and ExxonMobil have no spend nor material plans.

Source: Rystad Energy

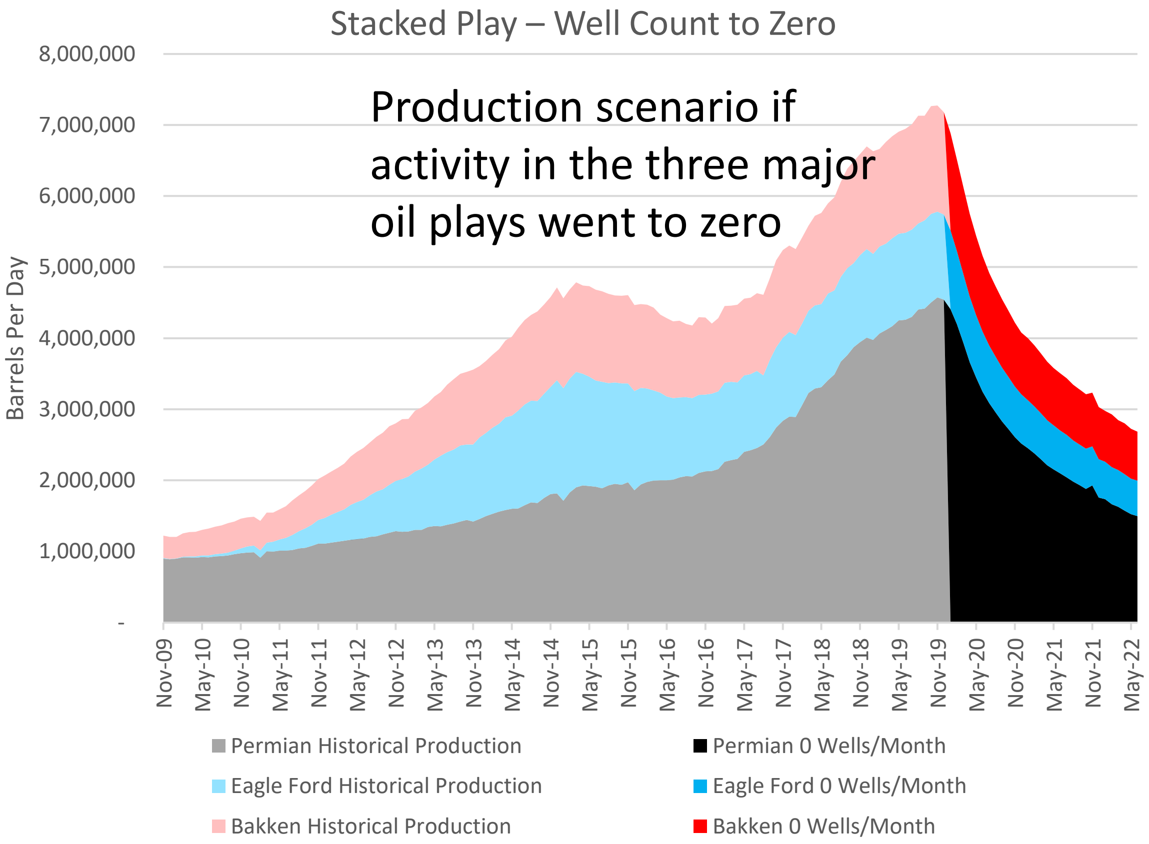
https://www.wsj.com/articles/big-oils-slippery-strategies-for-a-greener-future-11593685441?st=xo761es5zgkw4rg

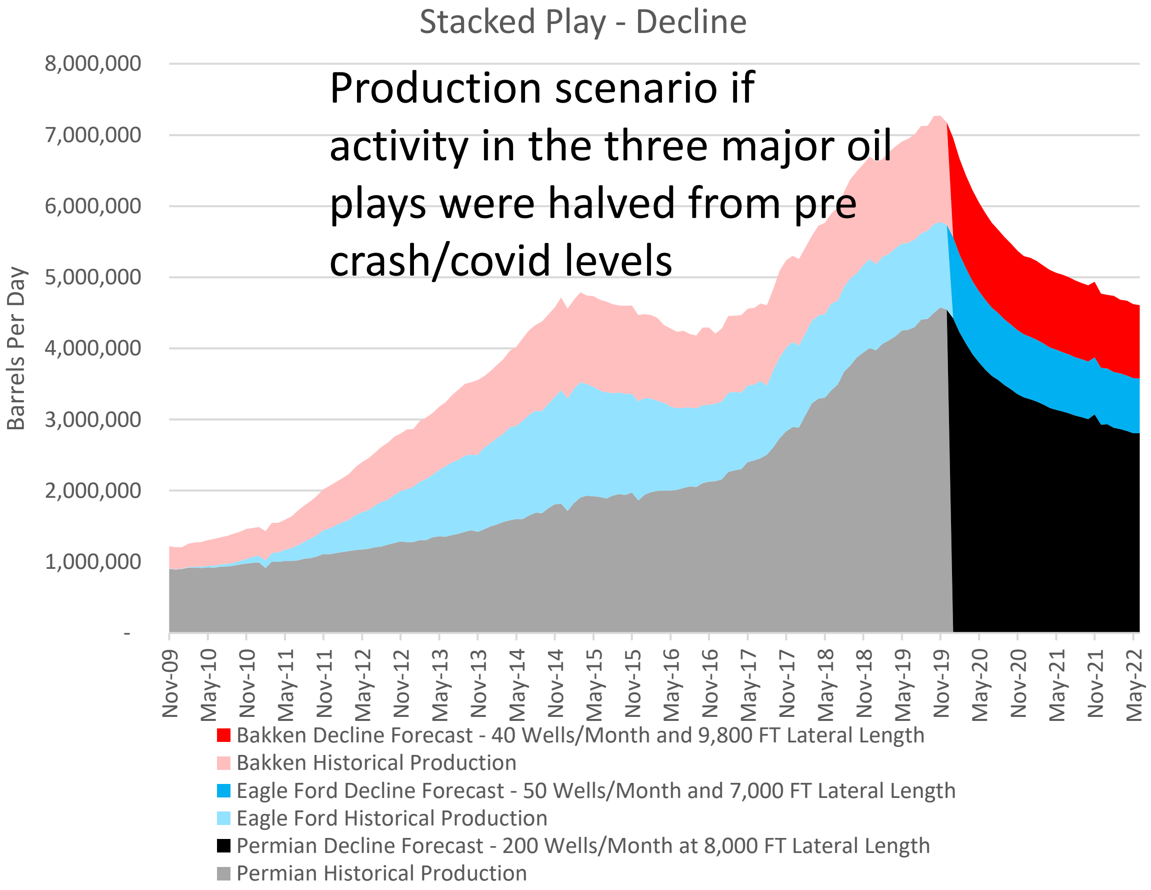
US Production Climbing Back



Source: EIA

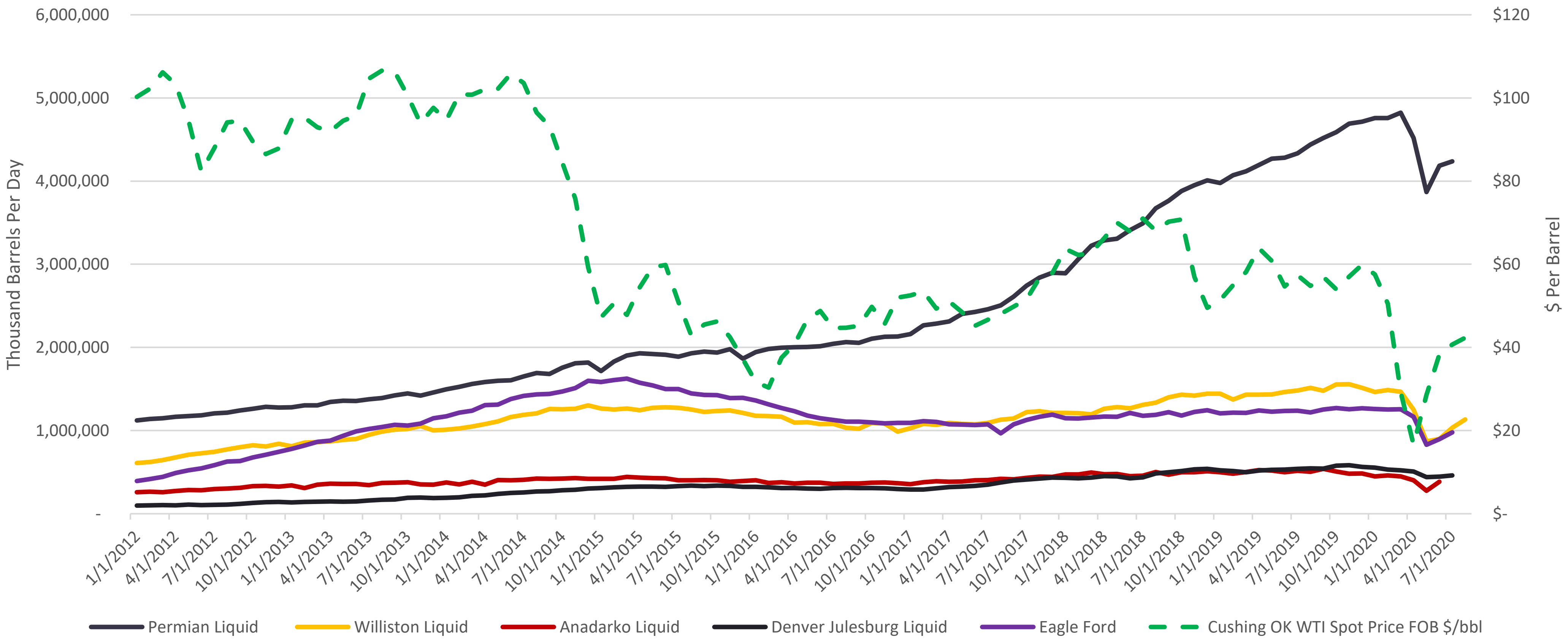
PetroNerds' Forecast in March





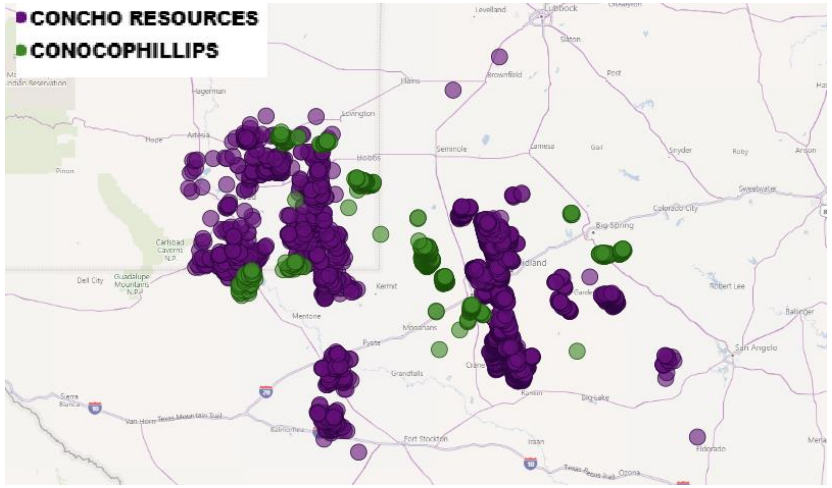
Source: PetroNerds, raw data DrillingInfo/Enervus

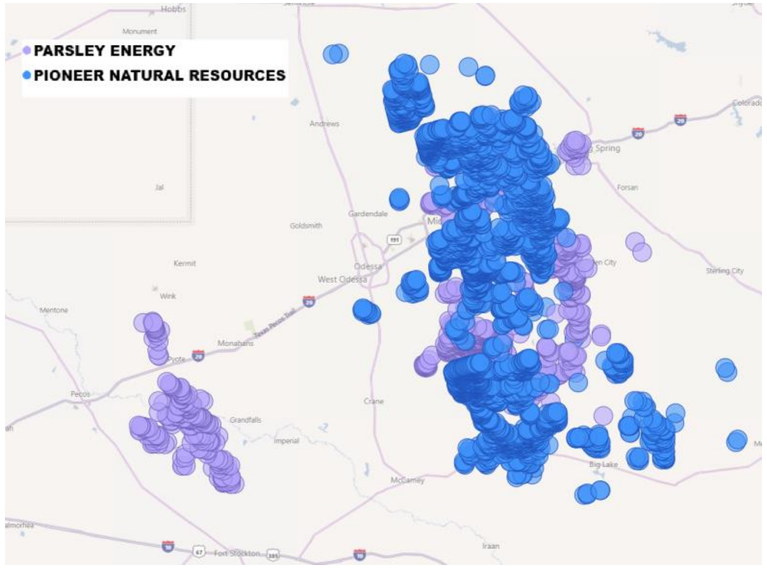
Shale Production - 7.4 mbd

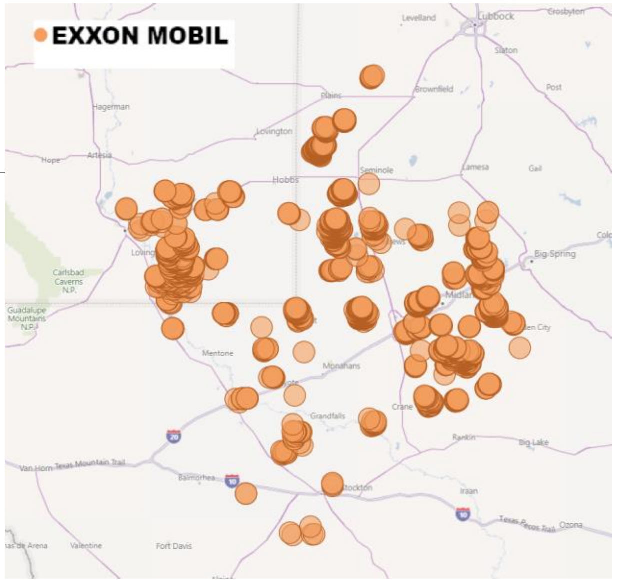


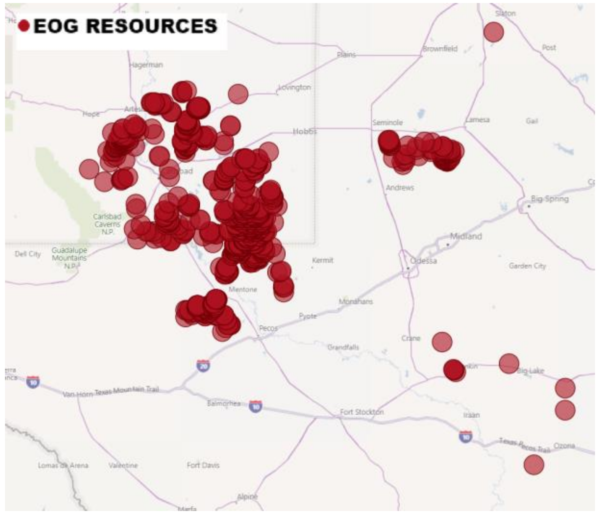
Source: EIA

Consolidation….



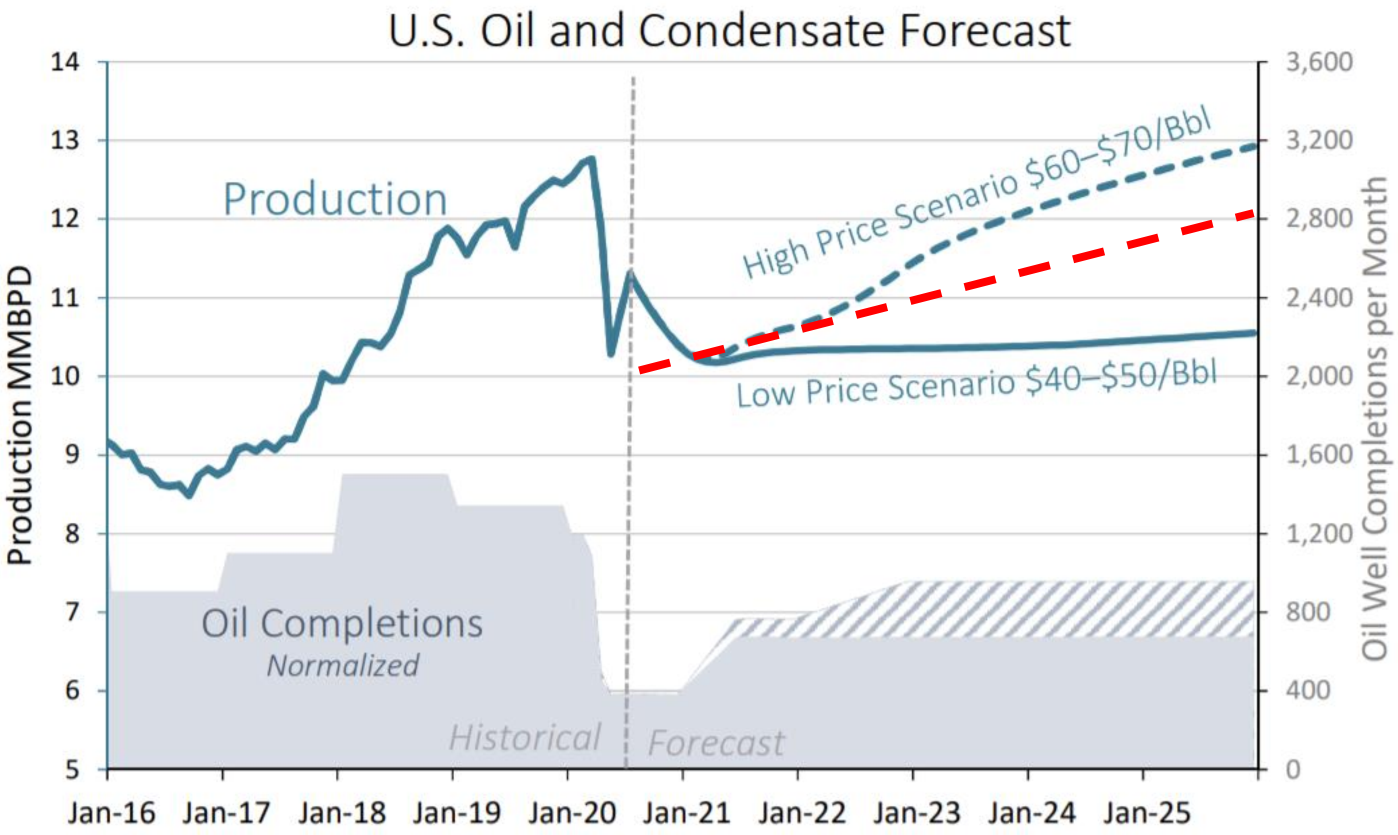






Source: PetroNerds, raw data DrillingInfo/Enervus

Enterprise Product Partners US Production Outlook



Imposed red line by PetroNerds

Source: September 2020 Investor Presentation

Putting Rigs Back to Work – “I don’t think you need $50 Plus”

Waqar Syed

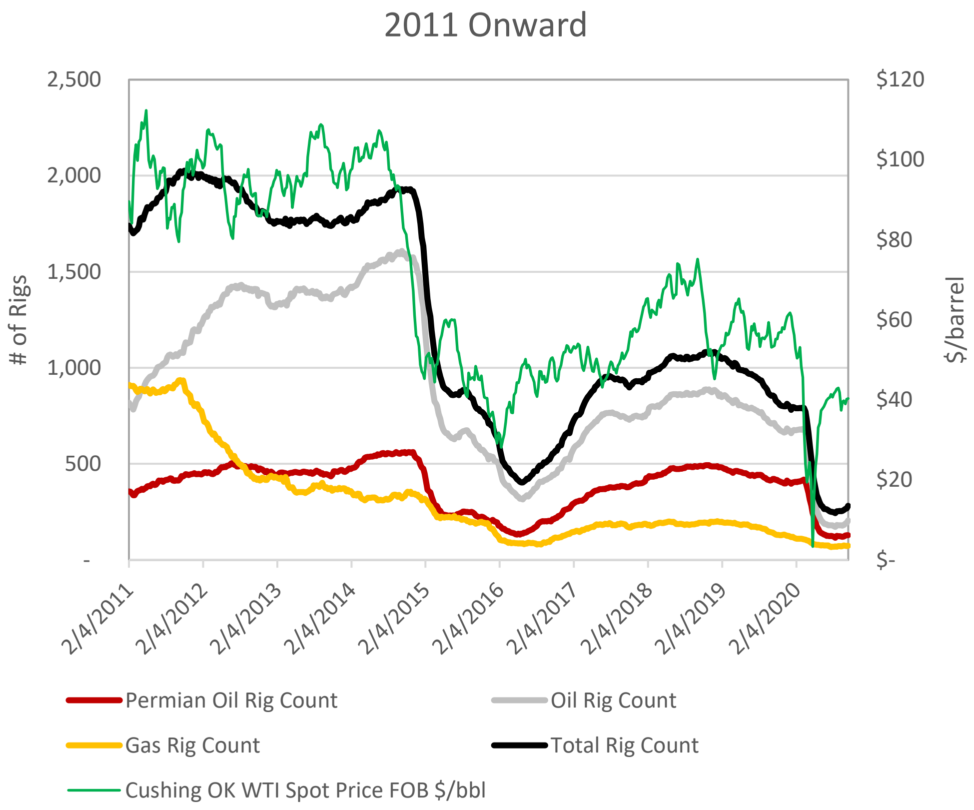
Okay, great. And then, Andy, if oil prices should stay in this range of like $40 to $45 over the next six to eight months, do you expect to see rig count pick up in any magnitude from current levels?

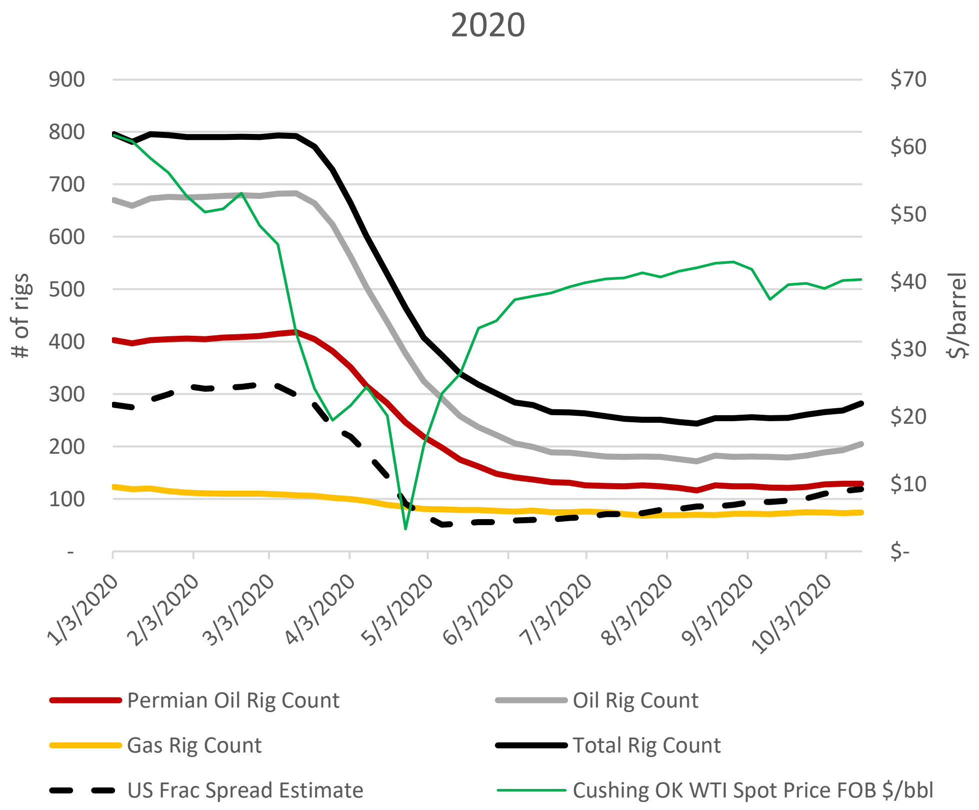
Andy Smith

I don’t think you need $50 plus. I think if WTI moves up into the upper 40s that there are number of operators that economically could put rigs back to work and be profitable drilling wells at those levels. So I don’t think you have to get to $50 a barrel. I think that there’s certainly areas of West Texas, New Mexico, with operators that have held their land positions for a long time that could be economical if we get north of $45.

Source: Patterson UTI, Q2 2020 Earnings Call

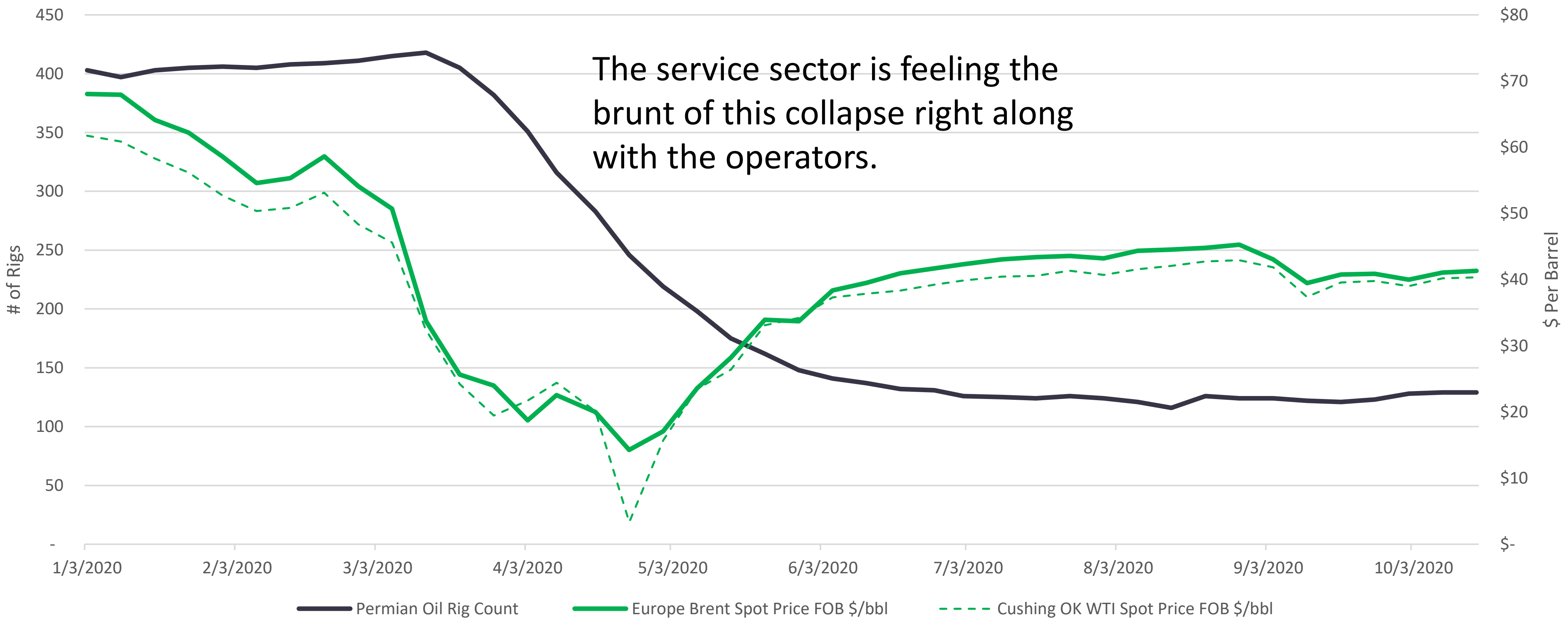
Putting the Rig Count in Perspective





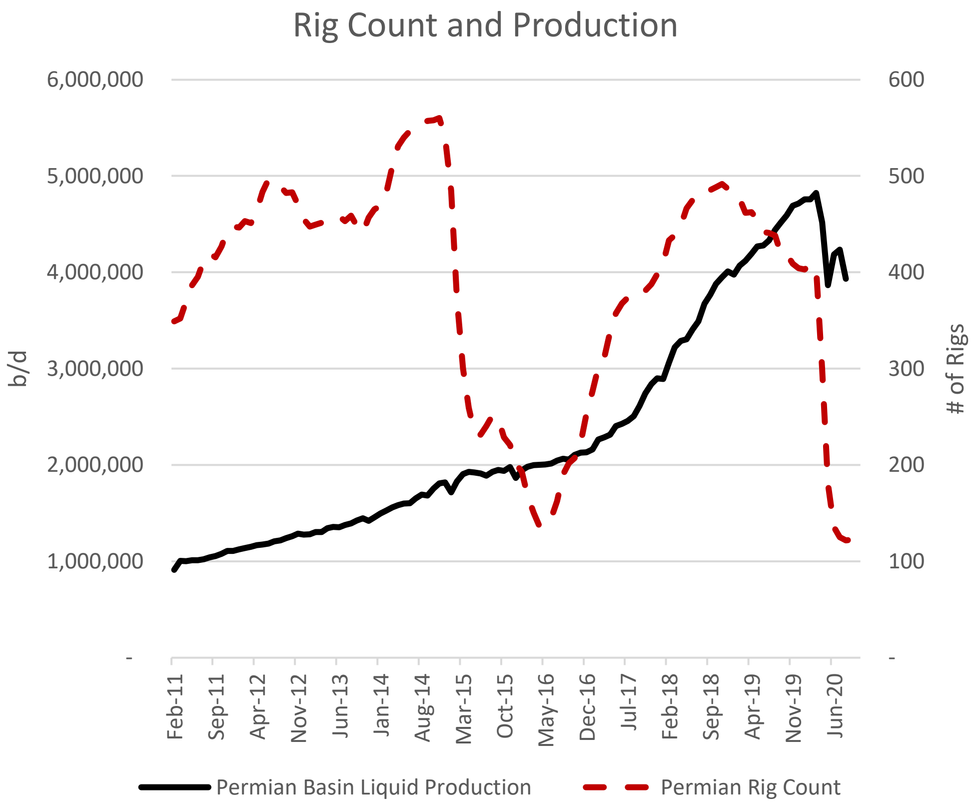
Source: EIA, Baker Hughes

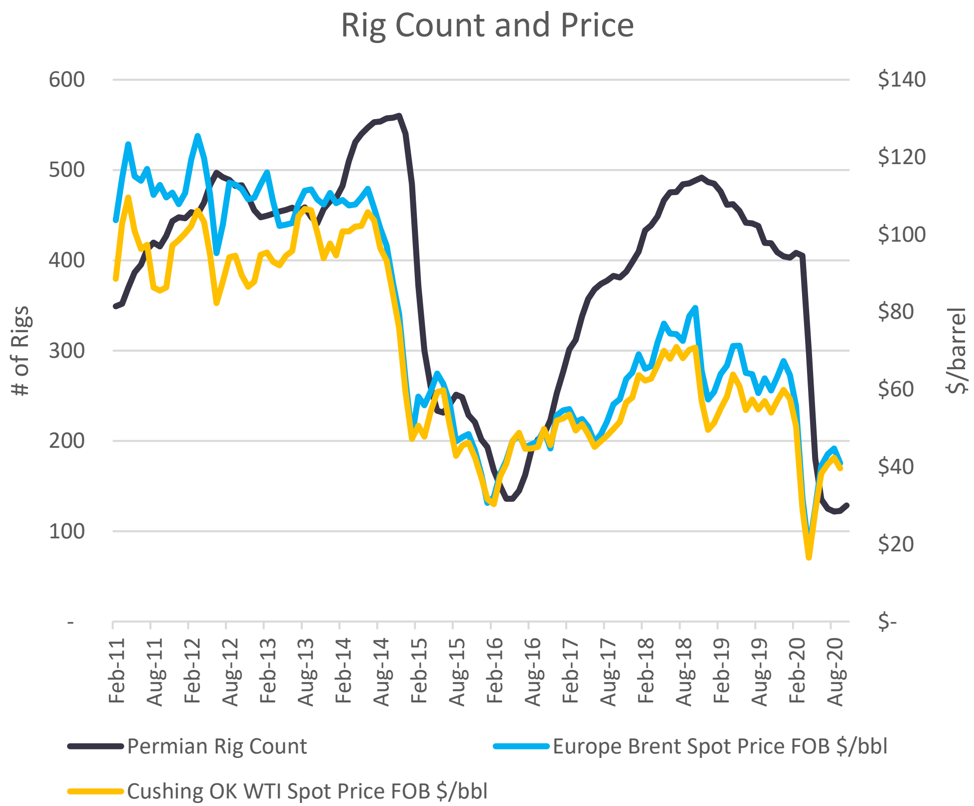
Permian Oil Rig Count and Oil Prices



Source: EIA, Baker Hughes

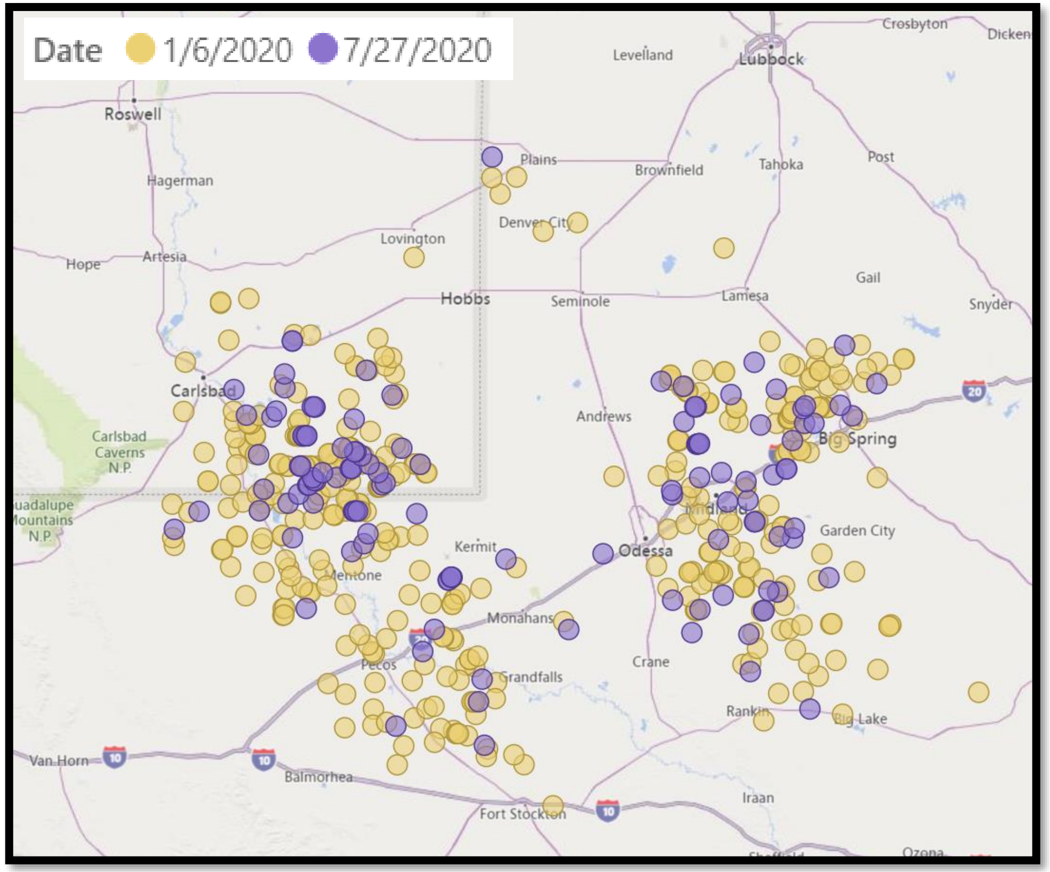
Permian Basin Production and Rig Count





Source: PetroNerds, EIA, Baker Hughes, Enervus

Rig Count Shifts in the Permian



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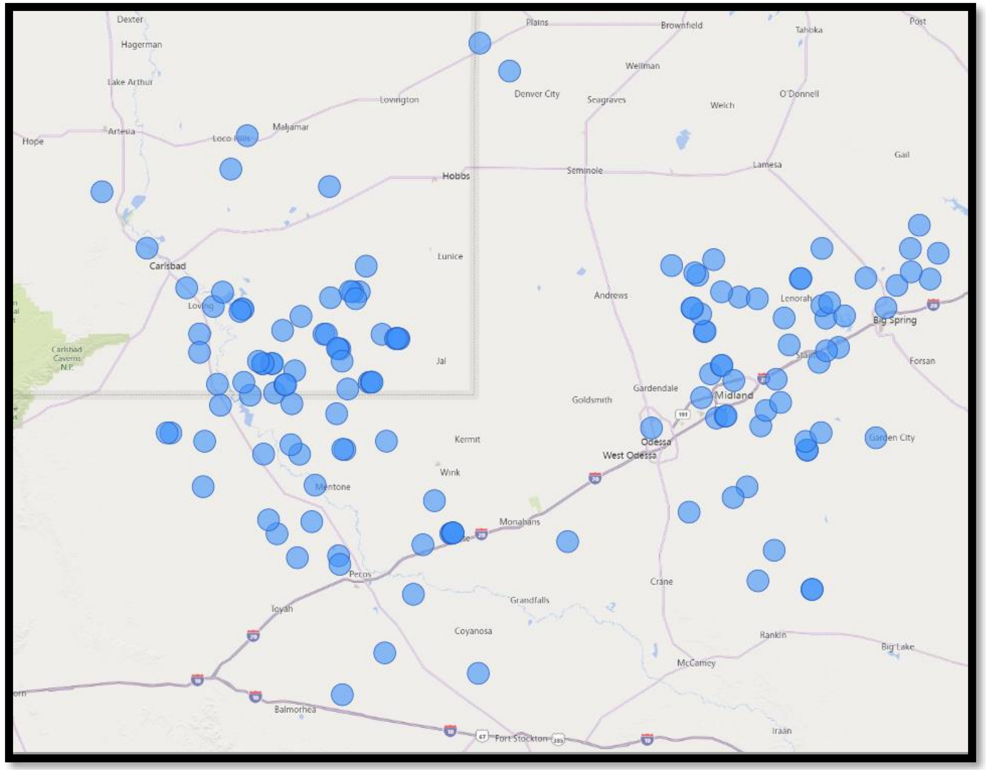
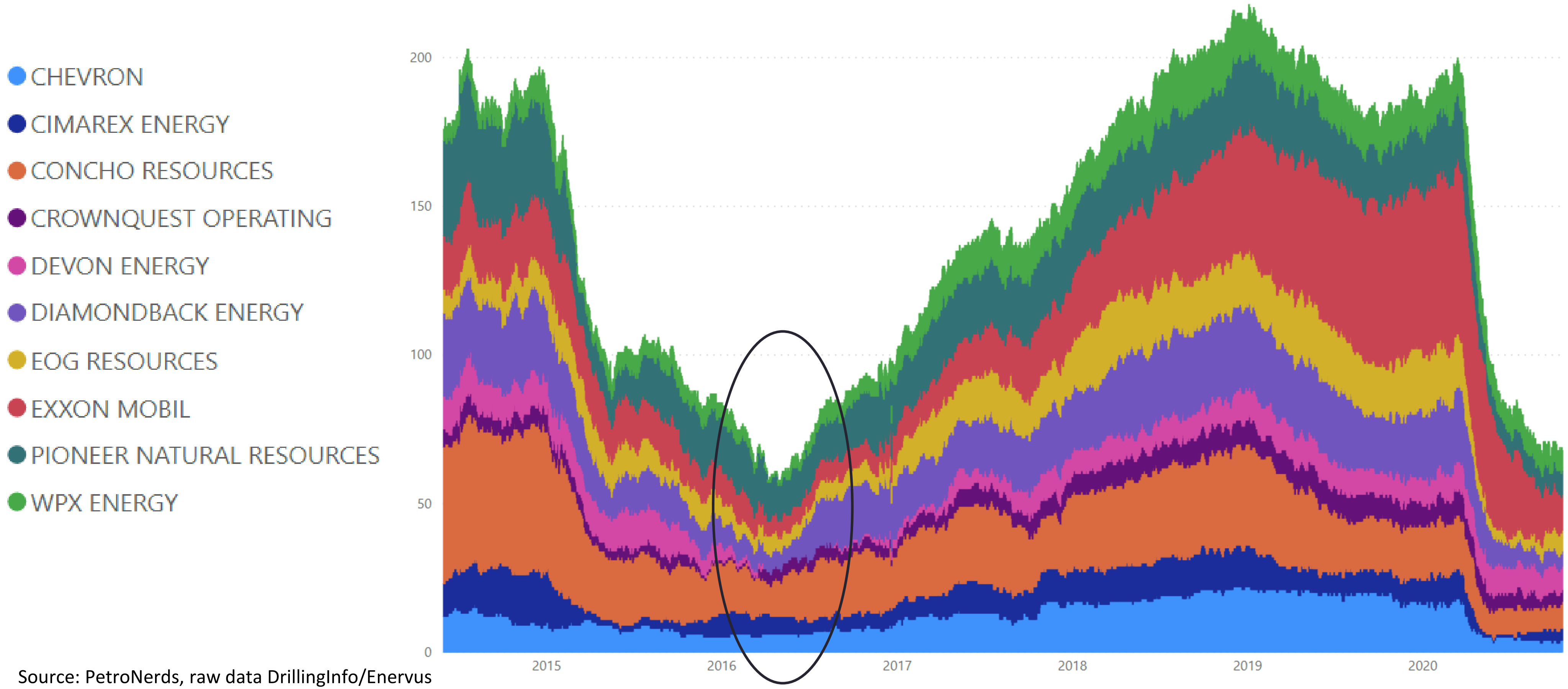


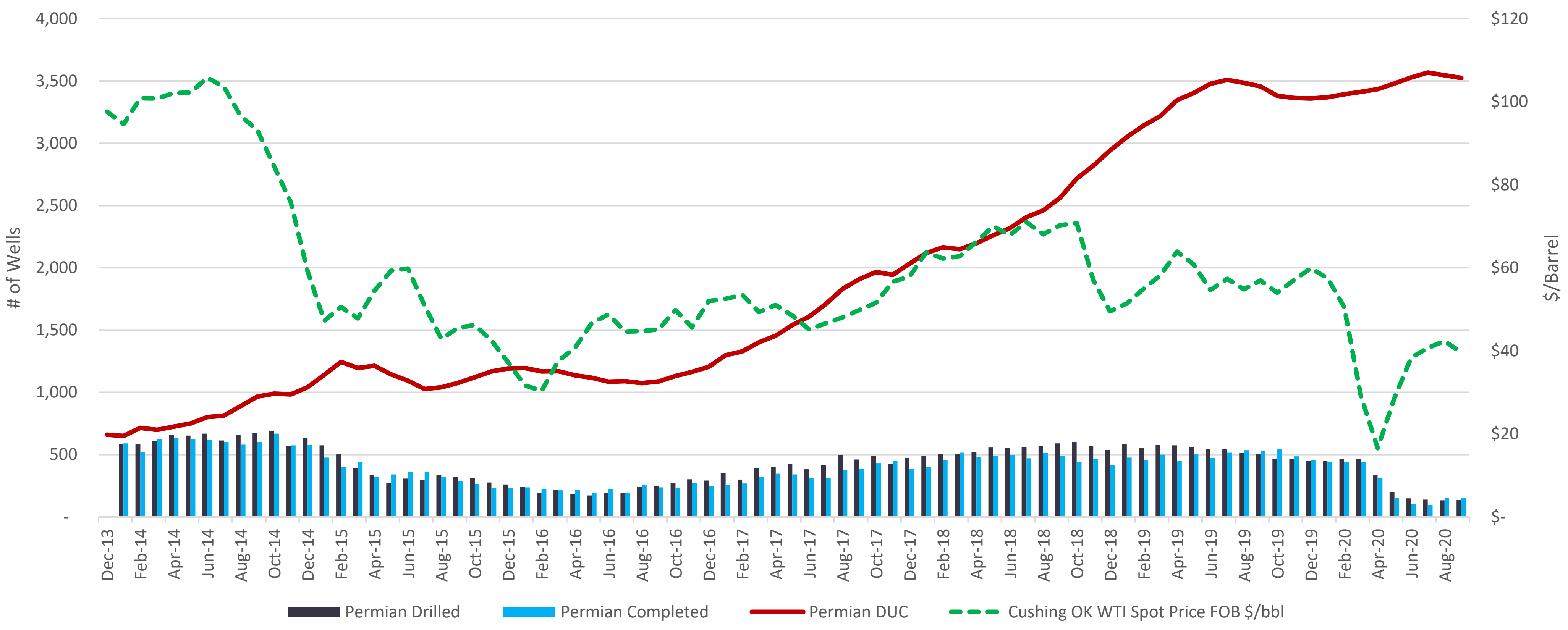
Source: PetroNerds, raw data DrillingInfo/Enervus

Permian Basin Rig Count by Top Ten Most Active Drillers



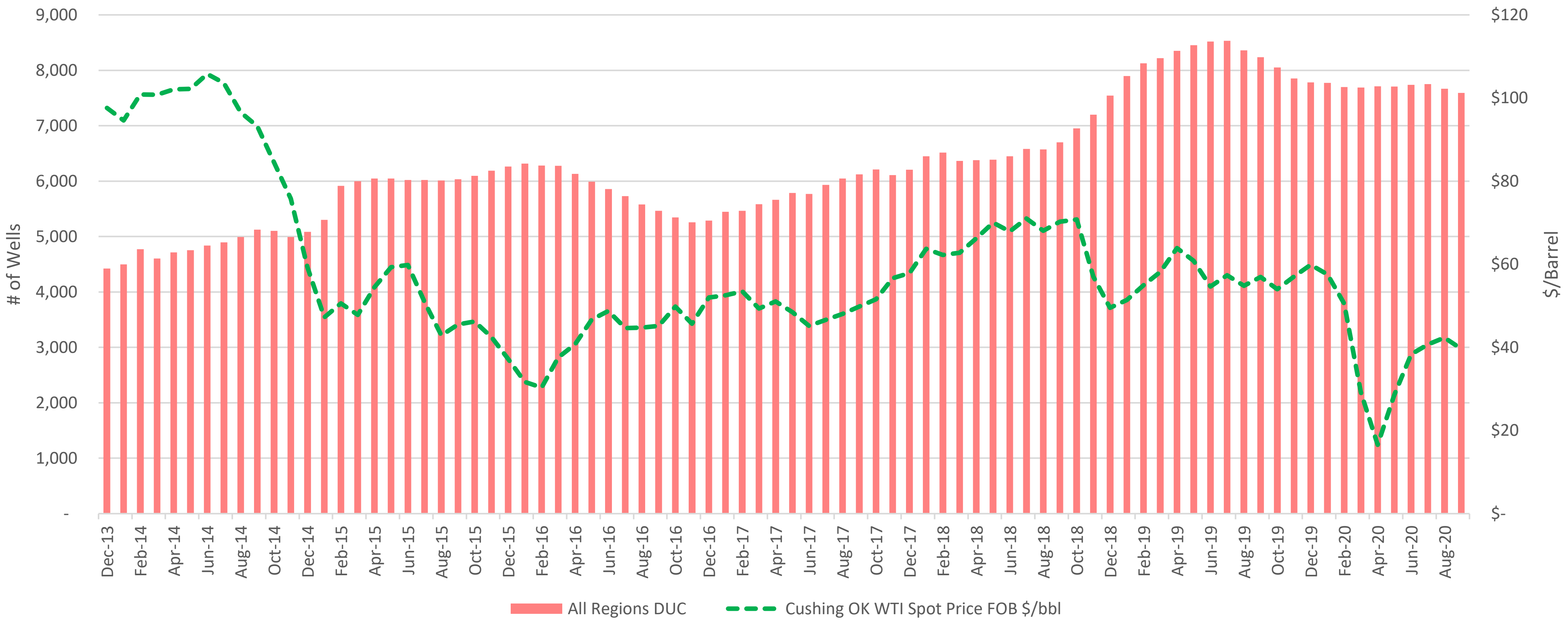
Source: PetroNerds, raw data DrillingInfo/Enervus

Permian DUC Data



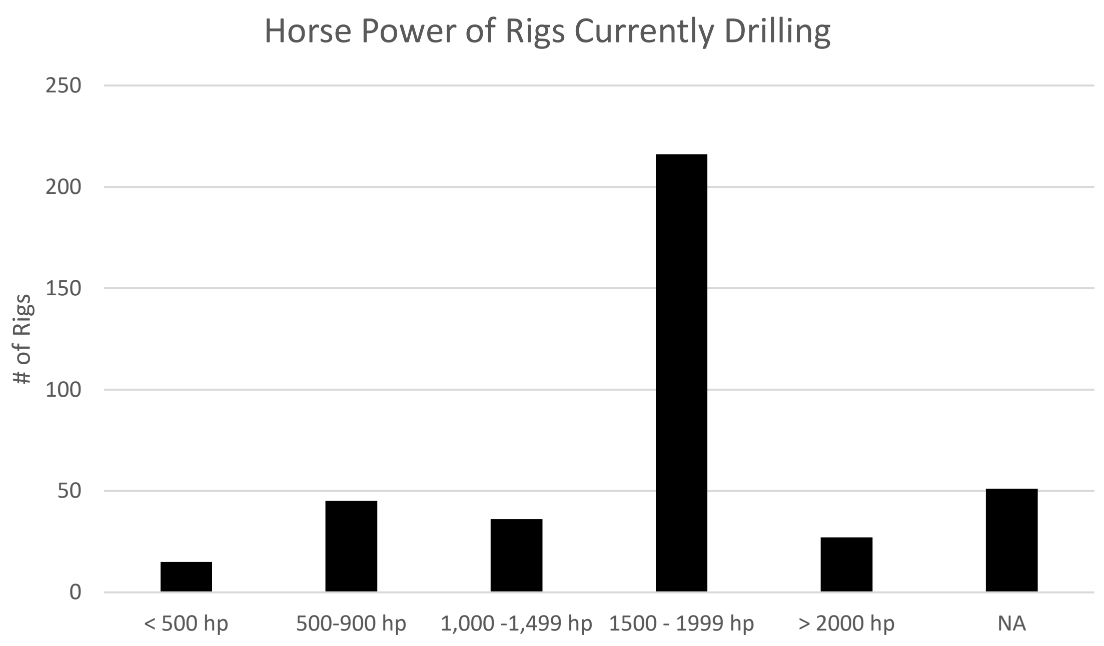
Source: EIA

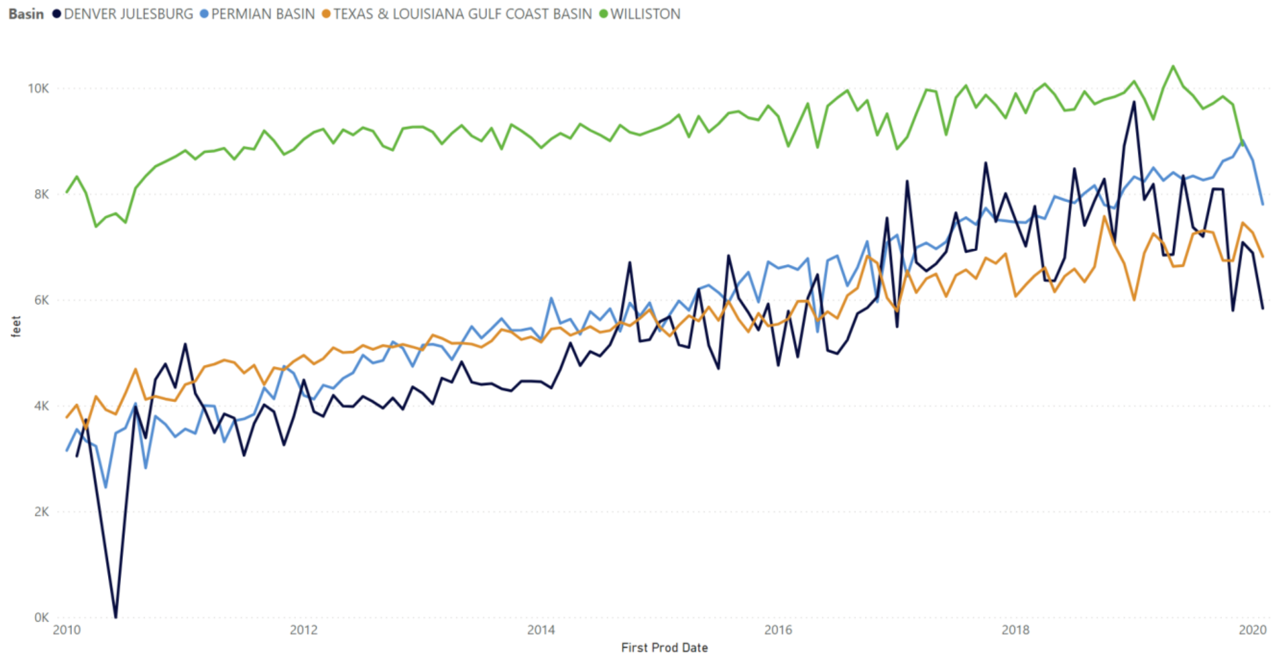
US DUC Data



Source: EIA

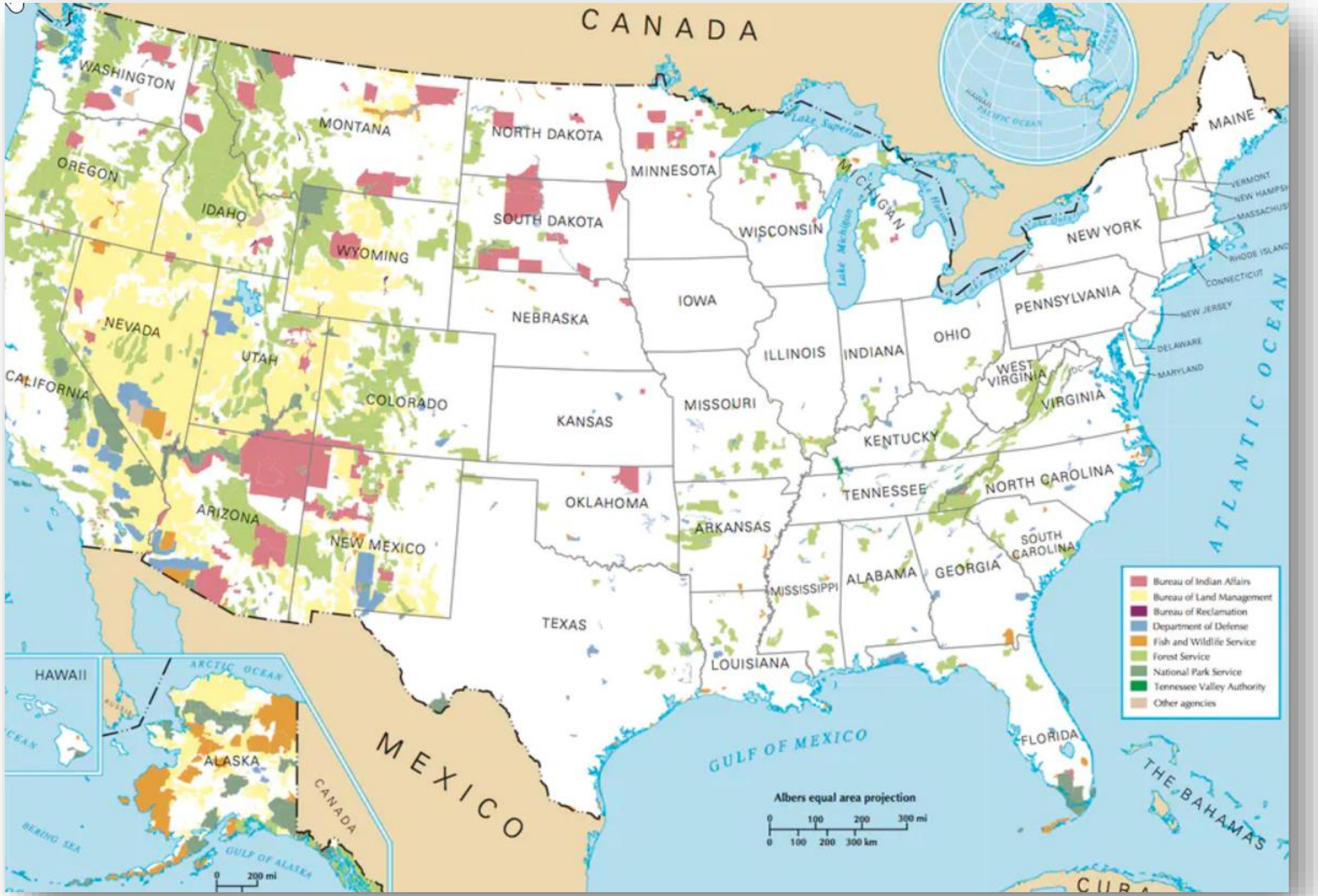
Do Not Underestimate Efficiency





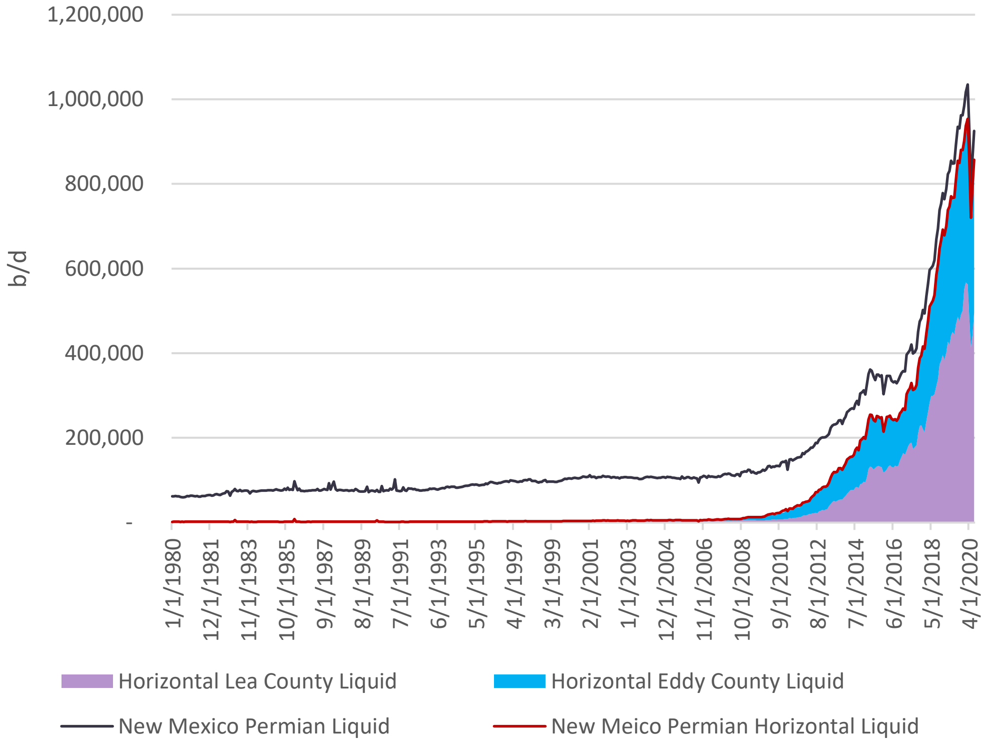
Source: PetroNerds, Enervus raw data

A Biden Win Most Likely Means US Federal Land is Off Limits

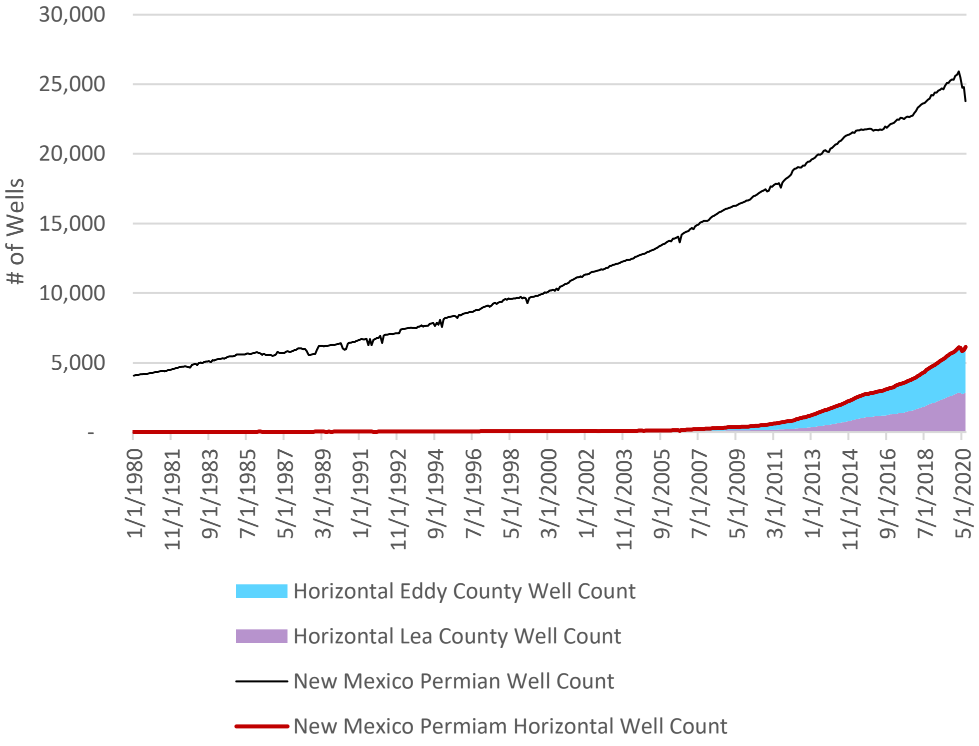


New Mexico Permian Basin Production – 1 mbd Pre Covid

All the production is coming from two counties

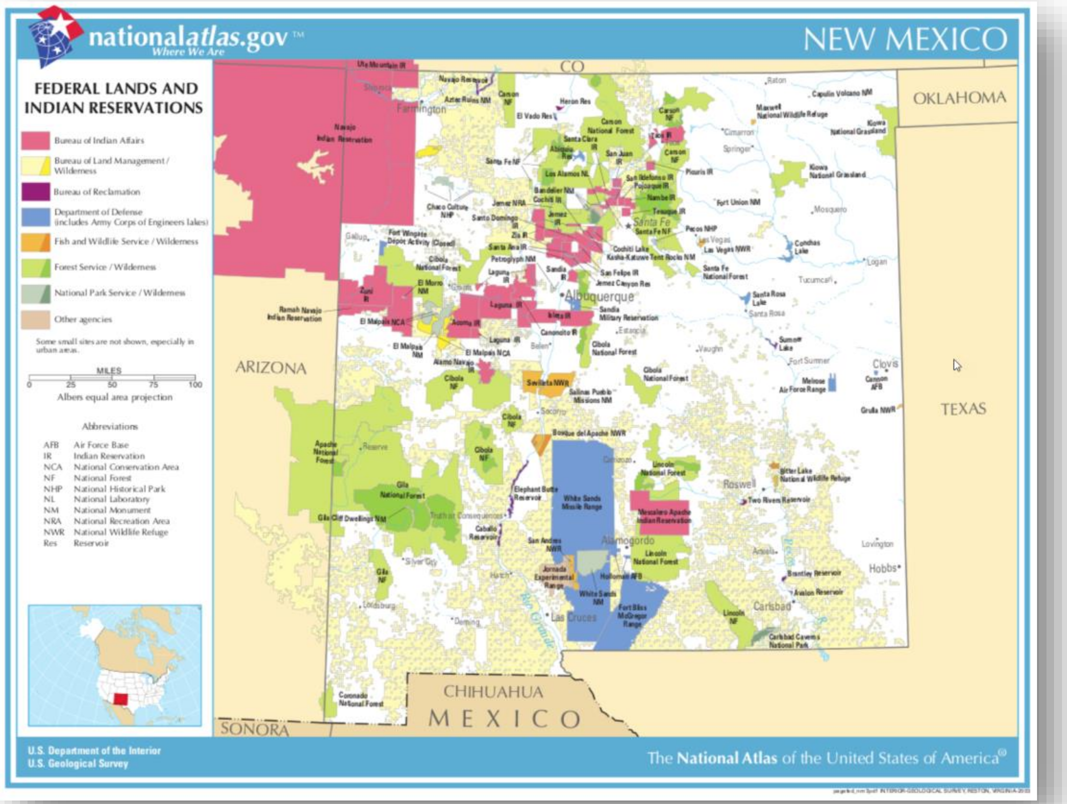


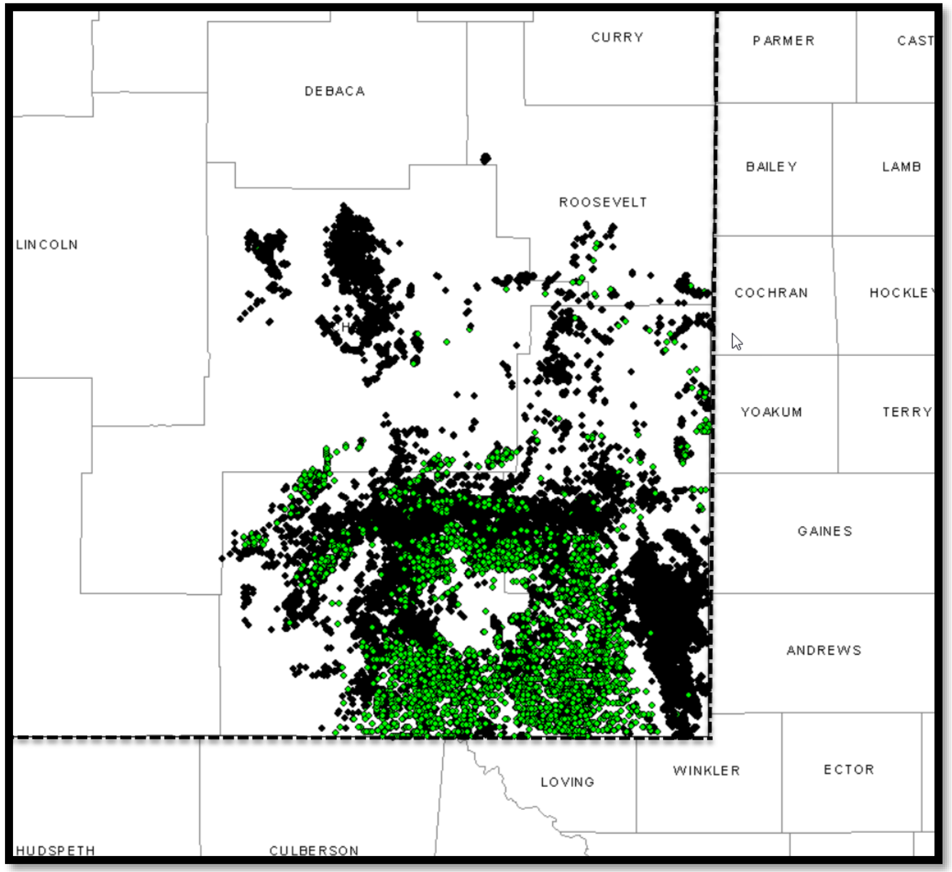
And roughly 6,000 horizontal wells



Source: PetroNerds, Enervus raw data

New Mexico Federal Land and Wells





Source: PetroNerds, Enervus raw data

‘Fracking’ Used to Be the Future of Oil Drilling. This Company Is Betting It’s Not Dead Yet.

“The internet was massively transformative, but the original investments in those companies massively destroyed capital,” he said. “And then eventually the industry matured, and you’ve got strong businesses and not a crazy amount of unprofitable companies. Today the shale industry is going through that.”

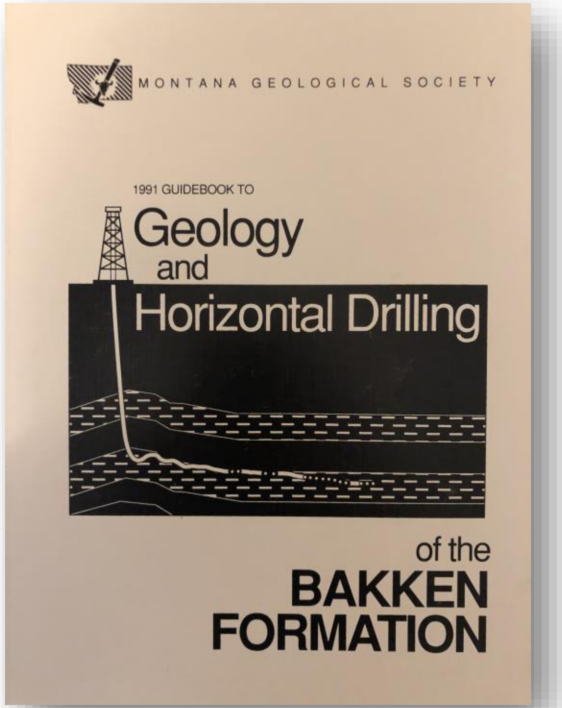
“It’s a little bit of both,” Wright told Barron’s. “The depth of this downturn was May and June, and pricing was just outrageous. It’s actually still terrible, but it’s better today than June. You’ll see a gradual, slow recovery in pricing. And it doesn’t take a lot of movement and pricing to help. I think there’s some of that that will come because capacity is shrinking from people going out of business.”

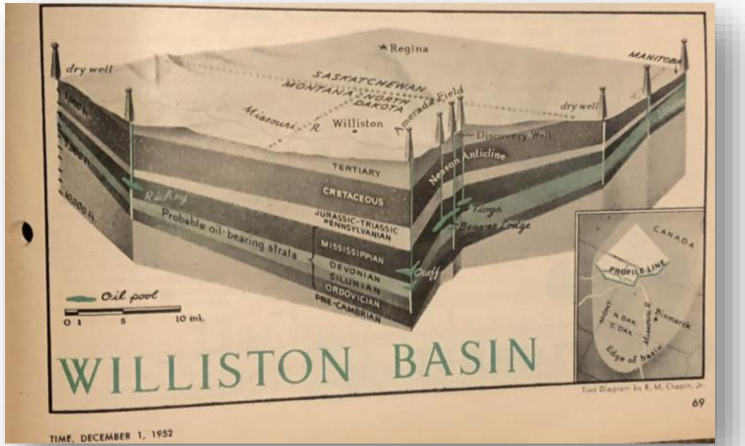
At the same time, Wright said that “with technology and with some scale, we’ll be able to deliver the same thing at a lower price than we can today. So our profitability at a certain price will be enhanced. I wouldn’t hang our hat just on increasing pricing.”

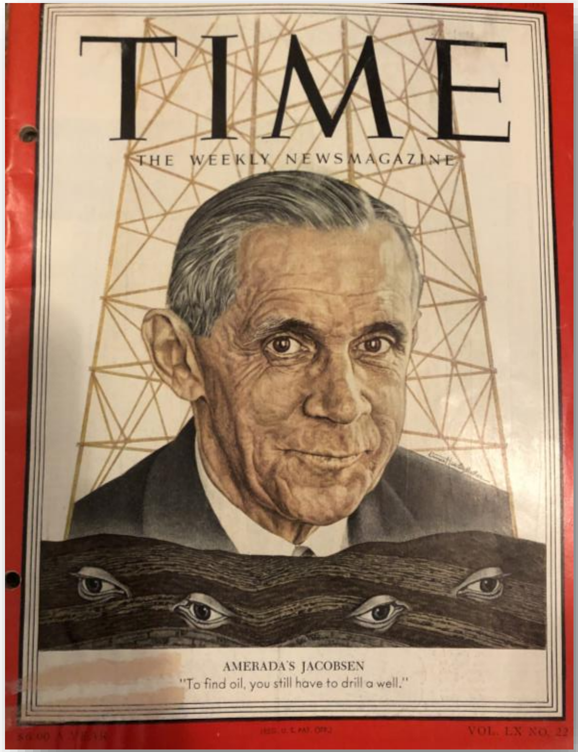
Barrons,Avi Salzman Sept. 22, 2020 10:02 am ET / Original Sept. 22, 2020 8:19 am ET

What is Old Will be New Again.

The US Shale Patch is Not Dead. Nor is Oil.







Appendix

Liberty had an Optimistic Outlook in their Earnings Call (setting themselves up well for SLB deal)

….outlook for us next year actually pretty good, you got a reshuffling of the deck, customers and even percent of work for larger customers. So outlook for us next year. Yes, I would say quite positive.

Let me give a little math will end this year with probably in the oil basins maybe 100 frac fleets working. By our bottom up analysis basin by basin of crews. It takes about 165 crews in the oil basins, to keep US oil production flat at our now projected end of year oil production rate.

Probably need 25 or 30 crews to run the gas basins, to keep gas production roughly flat. So we've got to go from it, and again, if you add in the gas basin, maybe we'll end this year 125, 130 crews, probably need 190 to 200 just to hold U.S. production flat. You need another 80 or 85 crews to grow U.S. production by a million barrels a day.

So which I do not believe will happen next year. I think we've seen tremendous discipline from the customers I think that message and that push to get returns up. But the average active frac crews nationwide next year will likely be meaningfully higher than it will be at the end of this year. And Liberty's market share or whatever activity is there will probably continue to migrate up.

Source: Liberty Oilfield Services, Q2 2020 Earnings Call