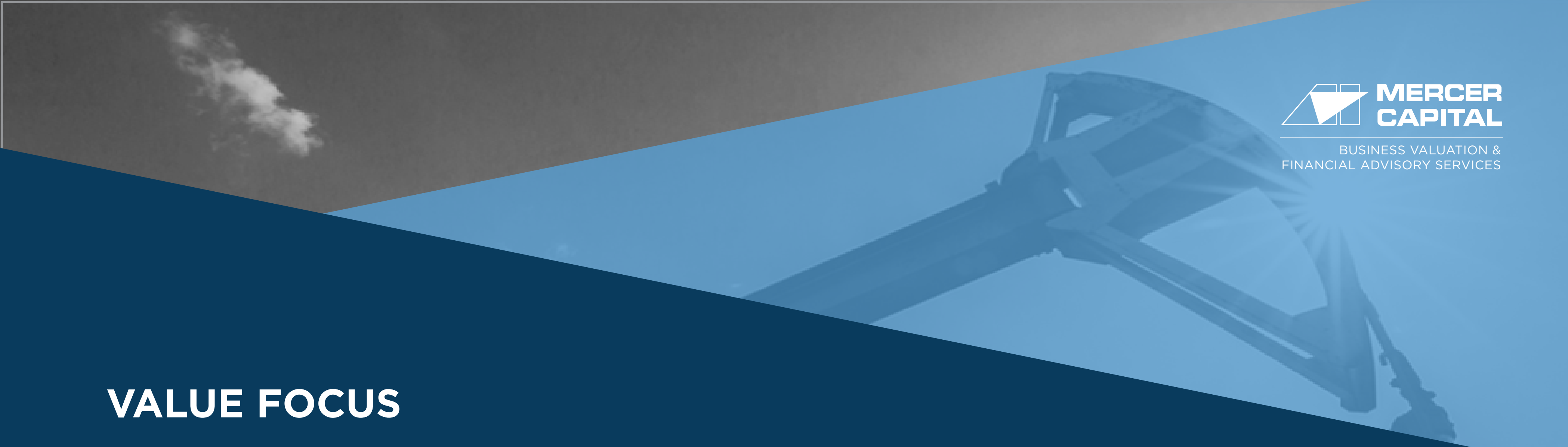

MERCER CAPITAL

BUSINESS VALUATION &
FINANCIAL ADVISORY SERVICES

VALUE FOCUS

Exploration & Production

Second Quarter 2021 // Region Focus: Permian Basin

EXECUTIVE SUMMARY

The second quarter of 2021 saw rising commodity prices across the board, with WTI and Henry Hub surpassing $70/bbl and $3.50/mmbtu, respectively. However, the second quarter experienced a hiccup caused by the **shutdown of the Colonial Pipeline** in response to a ransomware attack, leading to short-term price dislocations. Overall, industry sentiment was high as a commodity price recovery seemed to be taking place. The question seems to be whether the price environment is sustainable in the near to intermediate future. In this newsletter, we examine the macroeconomic factors that have affected the industry in the second quarter and take a closer look at the Permian Basin.

MERCER CAPITAL

Oil and Gas Industry Services

Mercer Capital provides business valuation and financial advisory services to companies in the energy industry.

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- Valuation of oil & gas companies
- Transaction advisory for acquisitions and divestitures
- Valuations for purchase accounting and impairment testing
- Fairness and solvency opinions
- Litigation support for economic damages and valuation and shareholder disputes

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- Oil Field Services
- Midstream Operations
- Alternative Energy

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In This Issue

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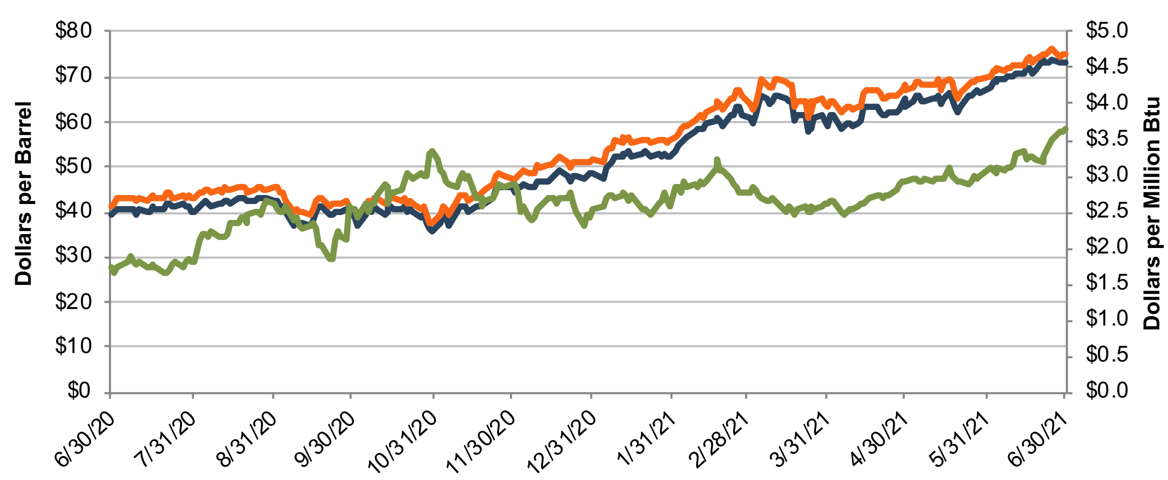
Oil and Gas Commodity Prices

The second quarter of 2021 saw rising commodity prices, driven largely by accelerating travel and economic activity amid the vaccine rollout and fewer COVID cases in many parts of the world. WTI began the quarter at roughly $61.50/bbl and ended the quarter above $70/bbl. The rise in prices was generally slow and steady, with the exception of a dip in mid-May, though that was likely driven by short-term dislocations caused **by the shutdown of the Colonial Pipeline** in response to a ransomware attack. Henry Hub began the quarter at $2.64/mmbtu and ended the quarter at $3.65/mmbtu.

However, the current commodity price environment may be short-lived. WTI futures prices are in backwardation (meaning that current prices are higher than future prices), implying some near-term tightness that is expected to subside. This sentiment is echoed by the U.S. Energy Information Administration, which stated that "continuing growth in production from OPEC+ and accelerating growth in U.S. tight oil production—along with other supply growth—will outpace decelerating growth in global oil consumption and contribute to declining oil prices" in their **June 2021 Short-term Energy Outlook.**

Crude Oil and Natural Gas Prices



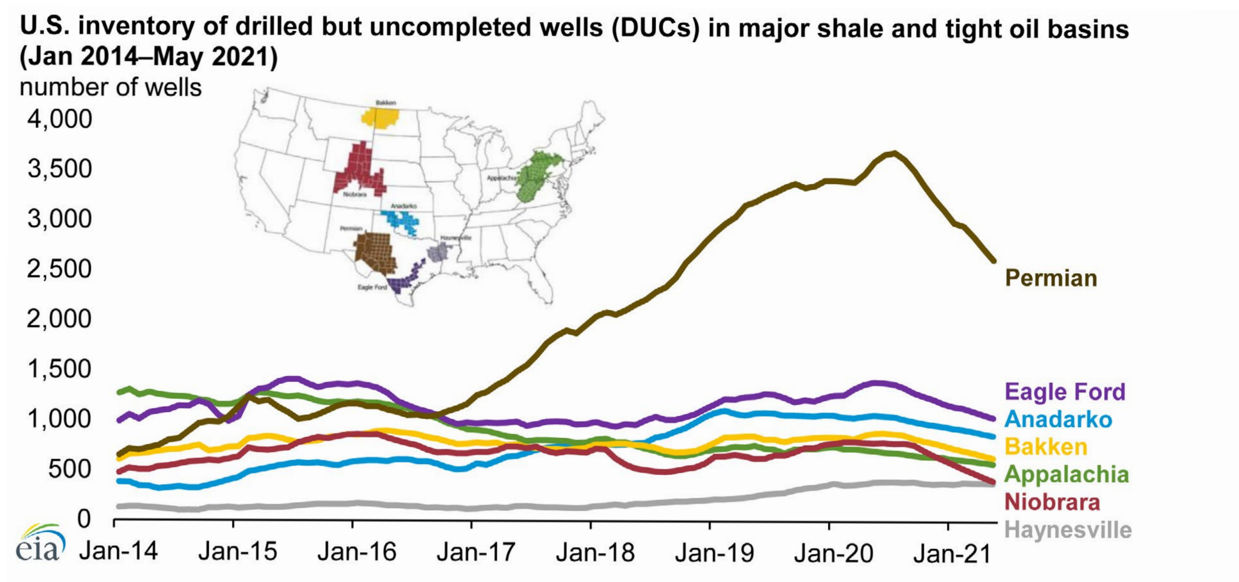
Source: Bloomberg

Macro Update

As we await second quarter earnings for publicly traded upstream producers, there are several markers and trends that suggest cash flows and profits will swell. Investment austerity and the recently resulting profits will almost certainly be bandied about on management calls. However, what might not be touted as loudly will be how much longer this can last? Existing U.S. production, much of it horizontal shale, is declining fast, operational costs and inflationary pressure are rising again, and the only way to augment production is through some combination of drilling and fracking.

Cash Flow Crowned King

According to the latest **Dallas Fed Energy Survey,** business conditions remain about as optimistic as they were in the first quarter while oil and gas production has jumped. In the meantime, U.S. shale companies are on the precipice of delivering superior profits in 2021: in the neighborhood of $60 billion **according to Rystad.** How are they doing that? A combination of revenue boosts and near static investment levels. Analysts are pleased and management teams are crowing about cash. The industry should be able to keep it up, but only for a finite period. How long is that? Nobody knows for sure, but a good proxy may be the shrinking drilled but uncompleted ("DUC") count of wells in the U.S.



Cash Flow Crowned King (cont.)

Overall **DUC counts** peaked in June of 2020 at 8,965, with the Permian leading the way. June 2021 statistics show DUCs at 6,252 or a 2,713 (30%) drop in one year. Just last month 269 DUCs disappeared with nearly half of those coming out of the Permian. This matters because DUC wells are much cheaper to bring online than fully undeveloped locations. Around half the drilling costs are already sunk and therefore it is incrementally cheap to complete (frack) and then produce from a DUC well. It's low hanging fruit and producers with high DUC counts can profitably take advantage of recent price surges. However, these easily accessed volumes can't be tapped forever. Last month's DUC drawdown pace leaves less than a two-year backlog of DUC's remaining, and it's worth remembering that companies like to keep some level of inventory on their books, so the more realistic timing may be before 2022 ends.

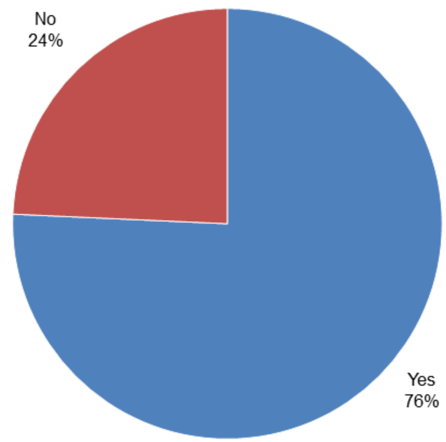
Inventory on the Decline

All this is in conjunction with permit counts way below even 2019 levels (although rising – particularly among private companies). There's likely going to be supply shortages in the future, as most producers in the **Dallas Fed Survey** suggest – but who will pick up that slack? OPEC may not be the only answer here. Granted, not every OPEC country has the spigot capability Saudi Arabia does and some other OPEC+ members have not been above cheating on their production limits in the past.

Nonetheless, global inventories continue to decline. The U.S. Energy Information Administration's **short term energy outlook** expects production to catch up due to OPEC+ recent production boost announcements, but nobody exactly knows what that will look like in the U.S. The EIA acknowledged that pricing thresholds at which significantly more rigs are deployed are a key uncertainty in their forecasts.

Inventory on the Decline (cont.)

Do you believe there will be a global crude oil supply gap in the next two to four years?



NOTE: Executives from 140 oil and gas firms answered this question during the survey collection period, Jude 9-17, 2021.

Source: Federal Reserve Bank of Dallas

There's no certainty the U.S. shale industry will be able to pick up the demand slack either. They are preparing to live on what they have already drilled. Producers are under immense pressure to keep capital expenditure budgets under wraps and focus on investor returns. As such not much external capital is chasing the sector right now. A good example is this respondent to the **Dallas Fed's Survey:**

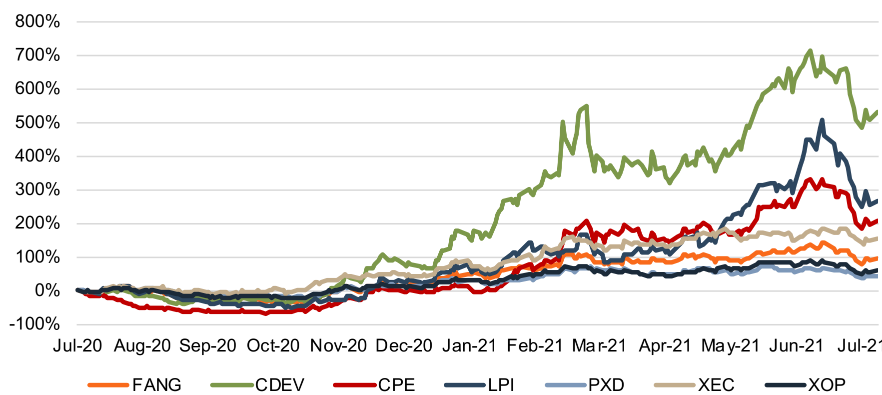
> *"We have relationships with approximately 400 institutional investors and close relationships with 100. Approximately one is willing to give new capital to oil and gas investment...This underinvestment coupled with steep shale declines will cause prices to rocket in the next two to three years. I don't think anyone is prepared for it, but U.S. producers cannot increase capital expenditures: the OPEC+ sword of Damocles still threatens another oil price collapse the instant that large publics announce capital expenditure increases."*

Pretty well said. As a result industry analysts at **Wood Mackenzie** say U.S. crude production will grow very modestly during 2021 and likely 2022. OPEC+ is **adding production**, but not a lot – only 400,000 barrels per day being added back compared to the nearly 10 million per day cut in 2020. That leads to price pressure and the market has been catching on.

Valuations on the Ascent

These industry forces have contributed to the E&P sector having an outstanding year from a stock price and valuation perspective. Returns have outpaced most other sectors, and Permian operators have performed at the top of the sector. However, it is important to note that much of this gain is recovery from years of prior losses.

Permian Operators-Stock Price Surge



Source: Capital IQ

Proved undeveloped reserves ("PUDs") appear to be the biggest beneficiary of this value boost. As production from existing wells declines, the value from tomorrow's wells is getting a big bump. Mergers and acquisitions in the past year at what now appear to be attractive valuations, often paid very little if anything for PUDs, but buyers got them anyway. They are gaining valuation steam now. What were out of the money options are now moving into the money. Acreage values are intrinsically going up in West Texas (both Delaware and Midland basins), South Texas (Eagle Ford) and recovering in other areas such as the Anadarko basin in Oklahoma.

Companies like Diamondback Energy have **acquired acreage** recently (QEP and Guidon deals) that surrounds or is contiguous with legacy acreage positions. This will come in handy when new wells come into view of capex budgets, and as I mentioned – there is a visible path whereby they could come into view in the next couple of years with oil above $70 per barrel.

Investors appear to be cautious in view of OPEC+ perceived sword of Damocles hanging overhead, which is logical. However, the fundamentals remain lopsided towards high prices for some time, barring another catastrophic event, which of course could always be lurking around the corner.

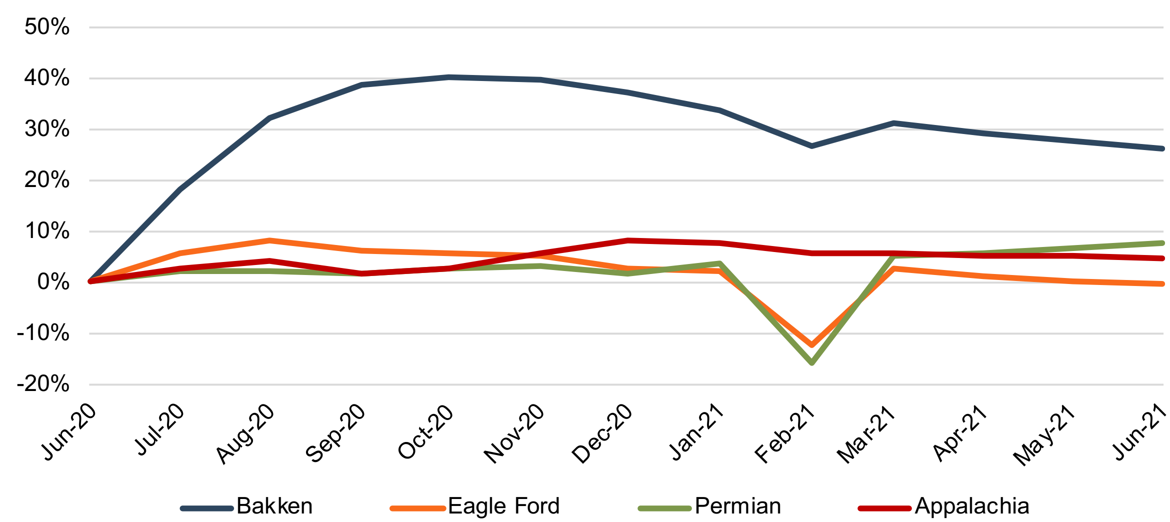
Permian

Production and Activity Levels

The economics of oil and gas production varies by region. Mercer Capital focuses on trends in the Eagle Ford, Permian, Bakken, and Marcellus and Utica plays. The cost of producing oil and gas depends on the geological makeup of the reserve, depth of reserve, and cost to transport the raw crude to market. We can observe different costs in different regions depending on these factors. This quarter we take a closer look at the Permian.

Estimated Permian production (on a barrels of oil equivalent, or "boe" basis) increased approximately 8% year-over-year through June, though current production remains below the peak observed in March 2020. Production in Appalachia increased 5% year-over-year, while the Eagle Ford's production was essentially flat. The largest production gain was observed in the Bakken (up 26%), as the Bakken saw a high level of **shut-in wells** (in response to low commodity prices) which have subsequently been brought back online.

1-Year Change in Production



Source: Energy Information Administration

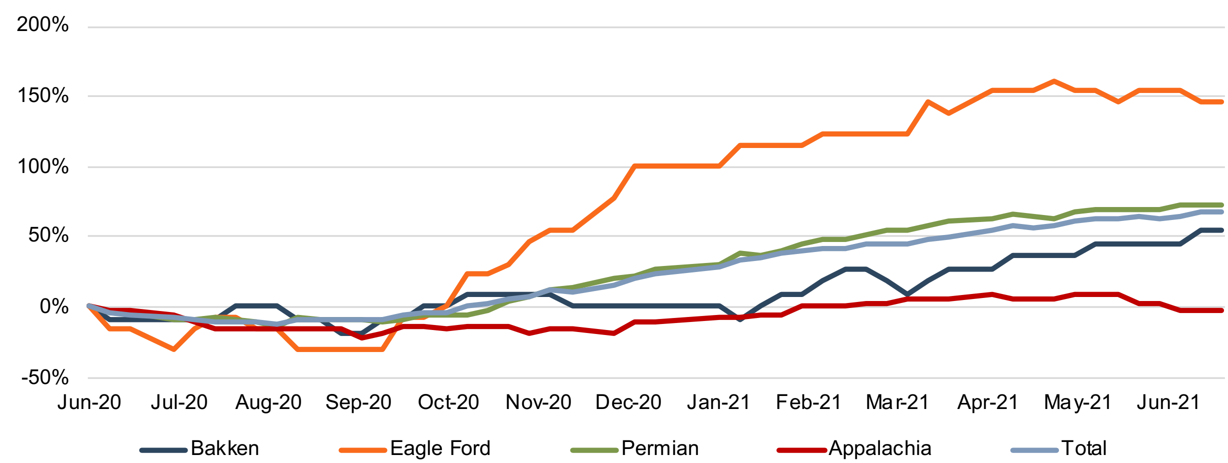
Production and Activity Levels (cont.)

Permian production has generally been increasing over the past year, but there was a meaningful decline in February driven by Winter Storm Uri that disrupted power supplies throughout Texas.

The Permian's production increase is the result of more drilling activity in the basin. There were 236 rigs in the Permian as of June 30, up 80% from June 30, 2020. Bakken and Eagle Ford rig counts were up 70% and 191%, respectively, while the Appalachia rig count was unchanged.

Permian production should continue to **increase modestly** over the next several months based on the current rig count, legacy production declines, and new-well production per rig.

1-Year Change in Rig Count

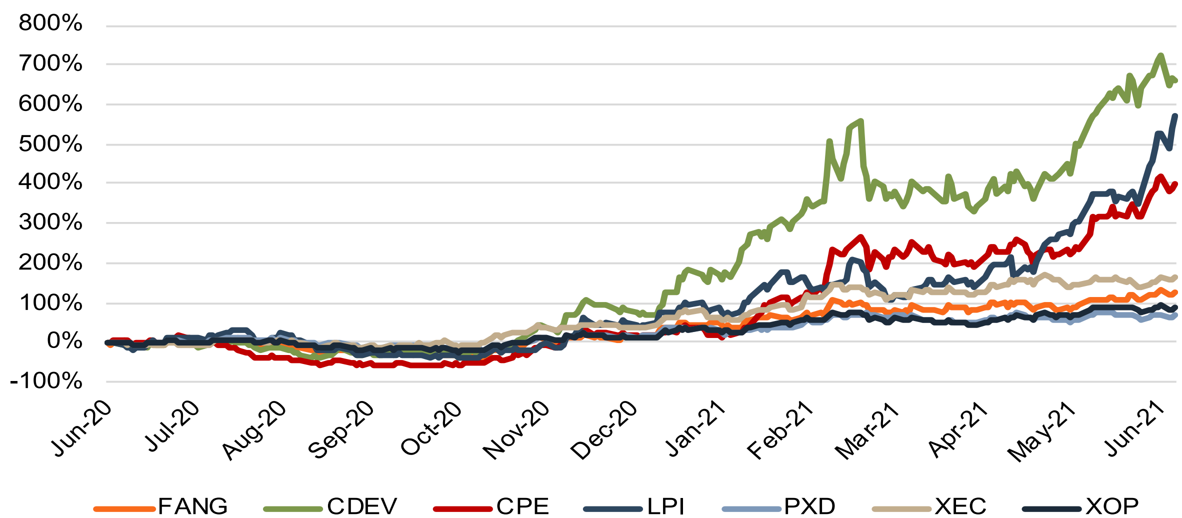


Source: Baker Hughes

Financial Performance

In a nice change of pace for energy investors, the Permian public comp group saw strong stock price performance over the past year (through June 30th). All of the Permian companies except Pioneer outperformed the broader E&P sector, as proxied by XOP (which was up 85% during the past twelve months). That stock price performance is probably more reflective of the dire straits of some companies last year in the aftermath of the Saudi/Russian price war and COVID-19 lockdowns, as small, leveraged companies like Centennial and Laredo have had the biggest gains. However, stock prices for all of the Permian comp group companies remain below all-time highs.

1-Year Change in Stock Price



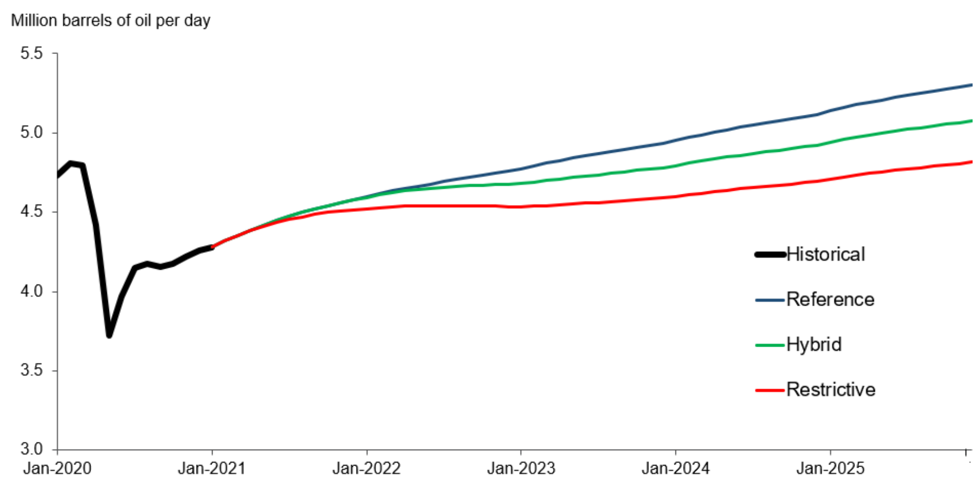
Source: Capital IQ

Federal Lands Drilling Ban Could Shift Production Within the Basin

Part of President Biden's environmental platform was banning new oil and gas permitting on public lands. An initial action under this platform was a **60-day moratorium** on permitting activity, though that was **recently blocked** by a federal judge. While many think a ban would have **relatively modest impacts** at a macro level, the impacts could be more severe for companies and areas with a high level of exposure to federal lands.

The Federal Reserve Bank of Dallas **performed an analysis** to look at the potential impact to the Permian Basin. Under a restrictive policy scenario, production growth would slow (relative to no change in policy), though overall production from the basin is still expected to increase.[1]

Total Permian Basin Production Scenarios



Source: Kayrros; WellDatabase; Federal Reserve Bank of Dallas estimates.

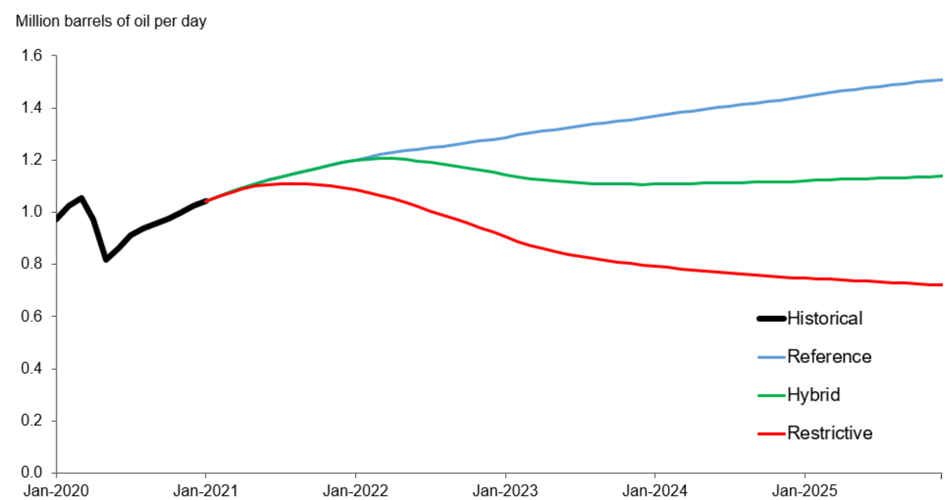
[1] The Dallas Fed describes the policy scenarios as follows:

- Reference Case: This serves as the benchmark and assumes little-changed leasing, permitting and drilling from first-quarter 2021 levels.
- Hybrid Case: It assumes no new federal leasing, but existing leaseholders continue receiving drilling permits. Permit reviews are more rigorous, leading to slower approvals and a costlier operating environment beginning in 2022. Based on companies' public statements, firms that hold acreage across the basin gradually relocate drilling rigs and completion crews to their nonfederal locations.
- Restrictive Case: No new federal permits or extensions are granted starting in 2023. This is when the most-recently issued permits will expire. The existing permitting freeze adversely affects production in the near-term due to a lack of approvals of permit modifications and pipeline rights-of-way. As in the Hybrid Case, companies shift their focus to nonfederal acreage.

Federal Lands Drilling Ban Could Shift Production Within the Basin (cont.)

However, approximately half of New Mexico's oil & gas production comes from federal acreage. As such, the impacts to New Mexico are much more acute under a restrictive policy scenario. The consequence is a shifting of drilling activity (and associated employment and spending) from New Mexico to Texas.

New Mexico Permian Basin Production Scenarios



Source: Kayrros; WellDatabase; Federal Reserve Bank of Dallas estimates.

The Permian was not immune to the impacts of historically low oil prices observed in 2020, though it has proven to be resilient. Production, while still below peak levels, is growing, and growth is generally expected to continue. Activity levels are improving, though companies' current emphasis on returning cash to shareholders may lead to less investment than has been seen in previous periods with similar commodity price environments.

Market Valuations and Transaction Activity

A Buyer's Market: Pocketbooks Open for More Deals and Larger Positions

Transaction activity in the Permian Basin picked up in earnest this past year, indicating greater optimism in extracting value from the West Texas and Southeast New Mexico basin.

A table detailing E&P transaction activity in the Permian over the last twelve months is shown on **page 13**. **Relative to June 2019-June 2020**, the number of deals announced increased by six transactions, representing an increase of 27% over the 22 transactions in the prior period. Furthermore, median deal size more than doubled from $138 million to $294 million, period-over-period. The median acreage among these transactions increased 2.24x from 14,500 acres to 32,500 acres (not shown below). Given the concurrent increase in transaction values and greater acreages acquired, the median price per net acre was down a slight 1% period-over-period.

The big story, though, was production. The median production among transactions from June 2018 to June 2019 was 2,167 barrel-oil-equivalent per day ("Boepd"); while over the past twelve months, the median production value was 9,000 Boepd (not shown). As buyers "purchased in bulk" this period relative to the prior twelve-month period, the median transaction value per production unit declined 42% from $53,584 per Boepd to $30,941 per Boepd. Transactions came in waves. There was one transaction announced regarding Permian properties between June and August 2020. September saw three deal announcements, and 10 transactions were announced during Q4 2020. Deal announcements went silent in Q1 2021 as the industry waited for the Biden Administration to settle in Washington. Deal announcements then resumed in earnest in Q2 as WTI crude oil and Henry Hub natural gas prices showed signs of fairly stable upward trajectories, with the exception of a temporary spike in gas prices due to the mid-February freeze.

Looking more closely at the data, it appears as though there may have been an inflection point in deal valuations over the past twelve months. First and foremost, there was a notable concentration of larger-than-average deals, in terms of transaction values, in the period of July to October 2020. With the exception of the Pioneer Natural Resources DoublePoint Energy transaction in early April, all deal values after October 2020 pale in comparison to those in the early period. As presented in the comparative statistical tables below, bifurcating the presented metrics further between the periods of July to October 2020 and November 2020 to the present reveals the potential pivot in valuations.

A Buyer's Market: Pocketbooks Open for More Deals and Larger Positions (cont.)

The post-October median transaction value declined 97% to just $182 million from the pre-November median value of $5.6 billion. However, more tellingly, the cost per acre nearly halved with the median metric value declining from $20,449/acre in the July-October 2020 transactions to $14,616/acre in the post-October transactions. If you remove the outlier value of the Northern Oil and Gas transaction ($180,303/acre), the nearly 50% decline is slightly reduced to an indicated decline of 23% in the price per acre. I am not a gambler, but without soliciting direct commentary from the respective management of the buyers listed in the chart, I would wager that the inbound Biden Administration and the uncertainty surrounding potential regulatory changes was a significant factor in this valuation decline.

One noteworthy pair of transactions which may receive further Mercer Capital analysis sooner than later relates to acquisitions made by Pioneer Natural Resources, including its **October 2020 announcement** of a definitive agreement to acquire Parsley Energy and its **April 2021 announcement** of a definitive agreement to purchase the leasehold interests and related assets of DoublePoint Energy. Pioneer was the only buyer to appear more than once on our list of transactions with a major transaction before November and one after (for which deal metrics were available), with indications of significant increases in the cost-per-net-acre and cost-per-Boepd valuation metrics.

Transactions in the Permian Basin

Announced Date	Buyer	Seller	Deal Value ($MM)	$ / Acre	$ / Boepd
6/16/21	Northern Oil and Gas, Inc.	Undisclosed Seller	$102	35,241	2,200
6/10/21	Colgate Energy Partners III LLC	Occidental Petroleum Corp	500	20,000	50,000
6/9/21	Independence Energy Corp.	Contango Oil & Gas Co.	Undisclosed	nm	nm
6/2/21	Colgate Energy Partners III LLC	Luxe Energy Llc	Undisclosed	nm	nm
5/24/21	Cabot Oil & Gas Corp	Cimarex Energy Co.	Undisclosed	nm	nm
5/20/21	Percussion Petroleum II, LLC	Oasis Petroleum Inc.	450	18,750	62,622
5/18/21	Empire Petroleum Corp.	XTO Energy Inc. , ExxonMobil	18	445	16,182
5/10/21	Sixth Street Partners LLC	Laredo Petroleum Inc.	405	nm	nm
5/10/21	Laredo Petroleum Inc.	Sabalo Energy, LLC	715	34,048	49,310
5/4/21	Undisclosed Buyer	Diamondback Energy, Inc.	87	10,482	32,830
4/30/21	Vencer Energy	Hunt Oil Company	Undisclosed	nm	nm
4/1/21	Pioneer Natural Resources Co.	DoublePoint Energy LLC	6,400	65,979	64,000
4/1/21	Earthstone Energy Inc.	Tracker Resource Development III Llc	127	6,232	16,218
2/1/21	Surge Operating, LLC	Grenadier Energy Partners II LLC	420	23,320	46,667
12/21/20	Diamondback Energy, Inc.	Guidon Energy	821	25,262	45,866
12/18/20	Earthstone Energy Inc.	Independence Resources Management	182	4,194	20,729
11/30/20	Contango Oil & Gas Co.	Undisclosed Seller	58	319	7,733
11/30/20	Point Energy Partners Petro LLC	Battalion Oil Corp.	26	7,108	30,941

Source: Shale Experts and company filings.

Transactions in the Permian Basin (cont.)

Announced Date	Buyer	Seller	Deal Value ($MM)	$ / Acre	$ / Boepd
11/9/20	Ameredev, LLC	Lilis Energy Inc.	47	2,330	9,134
10/23/20	Laredo Petroleum Inc.	Undisclosed Seller	Undisclosed	nm	nm
10/21/20	Tengasco Inc.	Riley Exploration Permian Inc.	Undisclosed	nm	nm
10/20/20	Pioneer Natural Resources Co.	Parsley Energy Inc.	7,600	30,400	41,530
10/19/20	ConocoPhillips	Concho Resources, Inc.	9,700	17,636	30,408
10/1/20	Kimmeridge Energy	Callon Petroleum Co.	140	nm	87,500
9/28/20	Devon Energy Corp	WPX Energy, Inc.	5,630	20,449	27,198
9/11/20	Northern Oil and Gas, Inc.	Undisclosed Seller	12	180,303	8,500
9/8/20	Zarvona Energy LLC	Approach Resources, Inc.	116	1,023	12,989
7/20/20	Chevron Corp	Noble Energy, Inc.	13000	nm	37,143
Median	**Count:28**		**$294**	**$18,750**	**$30,941**
Average			**$2,116**	**$26,501**	**$33,319**

Source: Shale Experts and company filings.

	Count	Deal Value ($MM)	$ / Acre	$ / Boepd
Median-All Transactions	**28**	**$294**	**$18,750**	**$30,941**
Average-All Transactions		**$2,116**	**$26,501**	**$33,319**
Median - November 2020 to mid-June 2021	19	$182	$14,616	$31,886
Average - November 2020 to mid-June 2021		$42,545	$25,291	$32,459
Median - July to October 2020	9	$5,630	$20,449	$30,408
Average - July to October 2020		$5,171	$49,962	$35,038

Source: Shale Experts, Mercer Capital analysis

Northern Oil and Gas Enters the Delaware Basin

In September 2020, Northern Oil and Gas **announced** its entrance into the Permian with its acquisition of non-operated working interests in Lea County, New Mexico, from an undisclosed seller. The deal consisted of 66 net acres, with an initial 1.1 net wells proposed to be spud in late-2020 to early-2021 and production expected to start in Q2 2021. The total acquisition costs (including well development costs) was expected to be $11.9 million. At first these metrics indicate a cost per net acre of approximately $180,300, which suggests a notable premium. The next highest cost per net acre value among the transactions listed was $67,000 for the **Pioneer Natural Resources-DoublePoint Energy deal** announced in April. Clearly, a premium was paid as far as net acreage acquired is concerned. However, at the expected peak production rate of 1,400 Boepd, the cost per production unit was $8,500 per Boepd, the second lowest metric after Contango Oil & Gas's acquisition in late November, and one third of the minimum $-per-Boepd metric among the transactions listed in the June 2019-2020 season. Despite recent volatility in the industry due to energy prices and domestic regulatory changes–whether real or proposed–the economics of the Permian have remained attractive enough to induce Northern Oil and Gas, a stalwart Bakken E&P company, to try its hand in Southeast New Mexico.

Vencer Energy Acquires Hunt Oil Company's Midland Basin Assets

In late April, Vencer Energy, the U.S. upstream oil & gas subsidiary of the Dutch energy and commodity trading giant, Vitol, **announced its first investment in the Midland Basin.** While the total transaction value was not disclosed, the acquisition included approximately 44,000 net acres with total estimated production of 40,000 Boepd. This represents an estimated total annualized production of approximately 332 Boe per net acre. This "production density" value (annualized production per net acre) is the second highest value among the listed transactions, only behind the comparable metric of 376 Boe per-net-acre indicated from the Pioneer-Double Point deal (with acquired/estimated production of 100,000 Boepd across 97,000 net acres).

Vencer Energy Acquires Hunt Oil Company's Midland Basin Assets (cont.)

Ben Marshall, Head of Americas – Vitol, commented on the transaction: "This is an important day for Vencer as it establishes itself as a significant shale producer in the U.S. Lower 48. We expect U.S. oil to be an important part of global energy balances for years to come, and we believe this is an opportune time for investment into an entry platform in the Americas. This acquisition represents an initial step to building a larger, durable platform in the U.S. Lower 48."

M&A transaction activity in the Permian was a bit of a roller coaster over the past year in terms of deal timing, but the overall story is one of resurgence over the past twelve months relative to the twelve month period before it. Still, despite a renewed interest in acquiring greater acreage and production positions, even greater changes could be on the horizon. This past week, it came to light that **Shell was reviewing its Permian holdings for potential sale,** according to certain people familiar with the matter. However, it is pure speculation at this juncture as to what option(s) Shell may pursue regarding the partial or full sale of the company's estimated more-than-$10 billion of Permian holdings. Assuming any dispositions, though, this news could portend even more opportunities for continued buy-in into the Permian by existing regional E&P companies and potential new entrants.

Appendix A

Selected Public Company Information

Mercer Capital tracks the performance of Exploration and Production companies across different mineral reserves in order to understand how the current pricing environment affects operators in each region. We created an index of seven groups to better understand performance trends across reserves and the industry. The current pricing multiples of each company in the index are summarized below.

					as of 6/30/2021		
Company Name	**Ticker**	**6/30/2021 Enterprise Value**	**YOY % Change in EV**	**EBITDAX Margin**	**EV/ EBITDAX**	**Daily Production (mboe/d)**	**Price per Flowing Barrel***
Global Integrated							
Exxon Mobil Corp	XOM	$333,986	41.06%	13.5%	13.5x	3,710	$90,018
Royal Dutch Shell PLC	RDS/A	$74,623	23.59%	19.2%	2.2x	3,430	$21,759
Chevron Corp	CVX	$241,322	17.38%	13.8%	18.3x	3,132	$77,050
BP PLC	BP	$121,377	2.54%	12.5%	5.3x	3,362	$36,100
Equinor ASA	EQNR	$601,150	33.37%	31.9%	33.2x	1,961	$306,486
Group Median			**23.59%**	**13.8%**	**13.5x**	**3,362**	**$77,050**
Global E&P							
Marathon Oil Corp	MRO	$15,141	122.55%	41.0%	11.3x	343	$44,098
Hess Corp	HES	$34,322	68.54%	94.4%	6.3x	313	$109,720
ConocoPhillips	COP	$93,708	44.93%	29.9%	13.8x	1,476	$63,509
Occidental Petroleum Corp	OXY	$75,014	70.87%	44.9%	10.1x	1,145	$65,511
Apache Corp	APA	$18,061	60.22%	53.4%	6.8x	389	$46,391
Murphy Oil Corp	MUR	$7,216	68.70%	44.5%	9.3x	162	$44,619
Group Median			**68.62%**	**44.7%**	**9.7x**	**366**	**$54,950**

Source: Bloomberg L.P.

- Price per Flowing Barrel is EV/ daily production ($/boe/d)
- Companies included in the Guideline Group are not meant to be an exhaustive list. The selected companies' market caps exceed $1 billion and/or revenues exceed $500 million.
- We review 10-K's and annual reports from guideline companies to ensure companies continue to operate in the regions and groups we have identified

Appendix A

Selected Public Company Information

Company Name	Ticker	6/30/2021 Enterprise Value	YOY % Change in EV	EBITDAX Margin	EV/ EBITDAX (as of 6/30/2021)	Daily Production (mboe/d) (as of 6/30/2021)	Price per Flowing Barrel* (as of 6/30/2021)
Bakken							
Continental Resources Inc/OK	CLR	$19,012	116.94%	74.5%	9.2x	324	$58,757
Whiting Petroleum Corp	WLL	$2,389	nm	26.9%	11.2x	86	$27,769
Oasis Petroleum Inc	OAS	$2,686	nm	14.6%	18.3x	44	$61,349
Group Median			**116.94%**	**26.86%**	**11.2x**	**86**	**$58,757**
Appalachia							
Range Resources Corp	RRC	$7,225	197.69%	15.9%	19.8x	358	$20,174
EQT Corp	EQT	$10,978	87.06%	nm	nm	754	$14,566
Cabot Oil & Gas Corp	COG	$7,883	1.63%	52.3%	10.0x	392	$20,096
Antero Resources Corp	AR	$9,930	491.73%	45.6%	6.6x	565	$17,566
Southwestern Energy Co	SWN	$7,004	121.48%	15.9%	15.8x	507	$13,822
Group Median			**121.48%**	**15.9%**	**10.0x**	**507**	**$17,566**

Source: Bloomberg L.P.

- Price per Flowing Barrel is EV/ daily production ($/boe/d)
- Companies included in the Guideline Group are not meant to be an exhaustive list. The selected companies' market caps exceed $1 billion and/or revenues exceed $500 million.
- We review 10-K's and annual reports from guideline companies to ensure companies continue to operate in the regions and groups we have identified

Appendix A

Selected Public Company Information

					as of 6/30/2021		
Company Name	**Ticker**	**6/30/2021 Enterprise Value**	**YOY % Change in EV**	**EBITDAX Margin**	**EV/ EBITDAX**	**Daily Production (mboe/d)**	**Price per Flowing Barrel***
Permian Basin							
Diamondback Energy Inc	FANG	$25,508	124.51%	39.8%	21.8x	366	$69,646
Centennial Resource Development Inc/DE	CDEV	$2,949	661.80%	38.5%	13.2x	60	$49,123
Callon Petroleum Co	CPE	$5,582	401.65%	12.2%	41.5x	91	$61,454
Laredo Petroleum Inc	LPI	$2,279	569.48%	7.6%	41.7x	83	$27,534
Pioneer Natural Resources Co	PXD	$45,362	66.35%	17.0%	33.0x	531	$85,428
Cimarex Energy Co	XEC	$8,931	163.55%	36.8%	13.9x	244	$36,618
Group Median			**282.60%**	**26.9%**	**27.4x**	**167**	**$55,288**
Eagle Ford							
EOG Resources Inc	EOG	$50,710	64.71%	47.6%	10.1x	823	$61,640
Magnolia Oil & Gas Corp	MGY	$3,196	157.92%	165.1%	3.5x	64	$49,627
SilverBow Resources Inc	SBOW	$678	623.36%	47.0%	6.8x	na	na
Penn Virginia Corp	PVAC	$951	147.74%	34.0%	10.8x	23	$40,726
Group Median			**152.83%**	**47.3%**	**8.5x**	**64**	**$49,627**
OVERALL MEDIAN			**87.06%**	**34.03%**	**11.2x**	**378**	**$47,757**

Source: Bloomberg L.P.

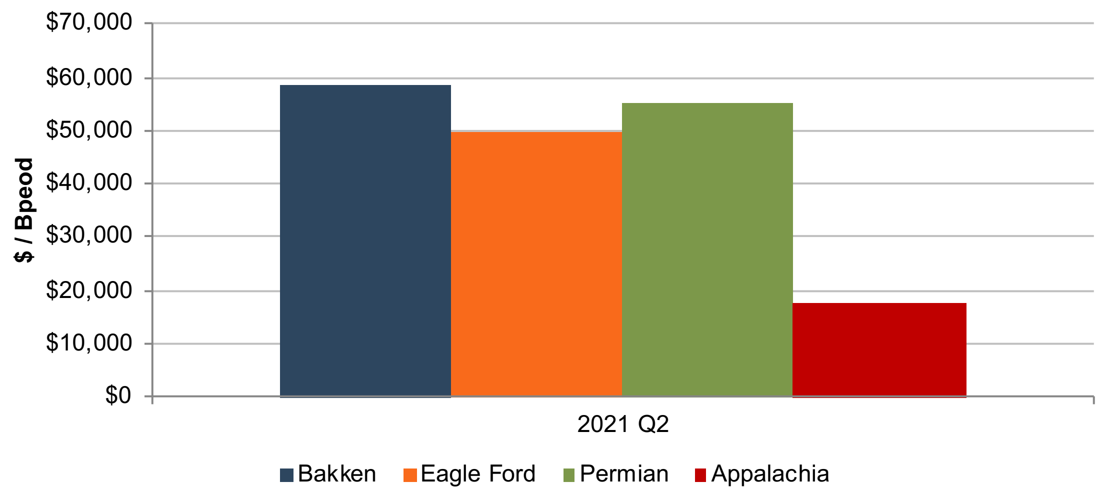
- Price per Flowing Barrel is EV/ daily production ($/boe/d)
- Companies included in the Guideline Group are not meant to be an exhaustive list. The selected companies' market caps exceed $1 billion and/or revenues exceed $500 million.
- We review 10-K's and annual reports from guideline companies to ensure companies continue to operate in the regions and groups we have identified

Appendix A

Selected Public Company Information

The following graph depicts the median of EV/production multiples, also known as price per flowing barrel for Q2 2021.

Price per Flowing Barrel



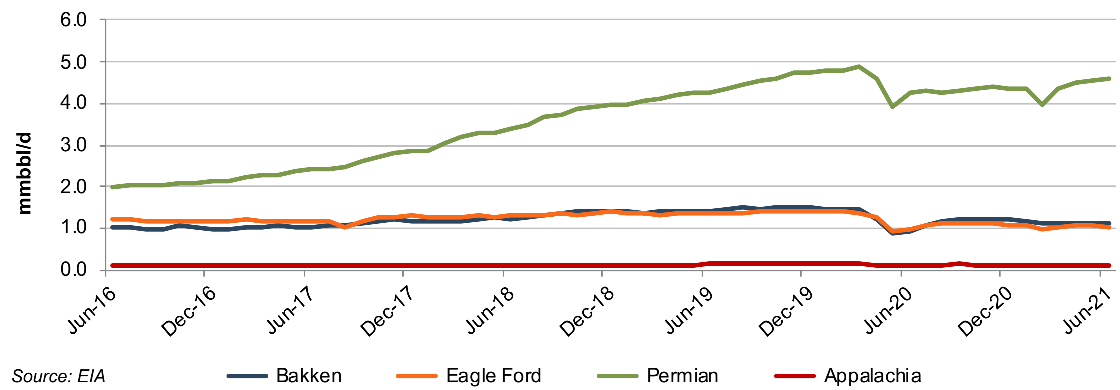
- Price per Flowing Barrel is EV/ daily production ($/boe/d)
- This is simply a graphic depiction of median figures of our selected public companies for each region. This should be interpreted solely in the context of relative valuation between the various basins over time. Bloomberg aggregates this raw data, and Mercer Capital does not represent or warrant these figures as indicative of valuation multiples attributable to E&P companies or other interests.

Appendix B

Oil Production

Oil production in the Permian, Eagle Ford, and Bakken all experienced positive production growth over the last year, 7.7%, 5.1%, and 21.0%, respectively. The Appalachia experienced negative production growth of 3.2% year-over-year.

Daily Production of Crude Oil

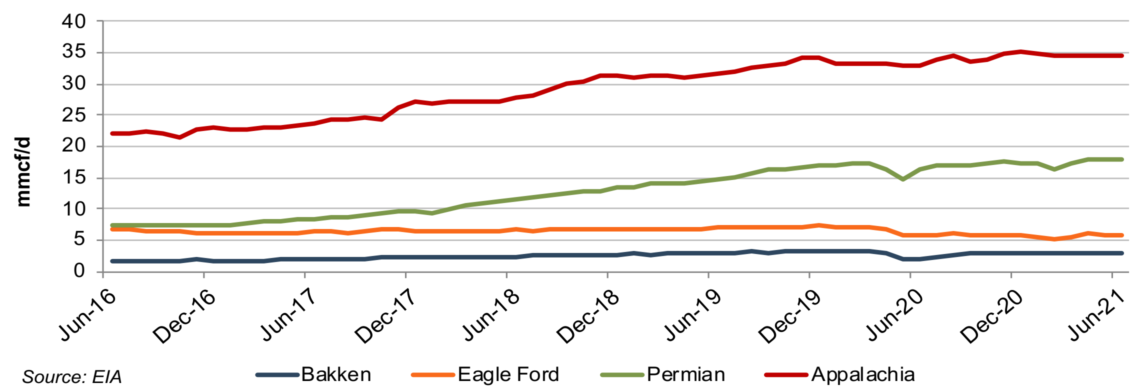


Source: EIA

Natural Gas Production

Natural gas production in the Permian, Eagle Ford, Bakken, and Appalachia have increased over the last year 11.2%, 1.8%, 40.2%, and 4.5%, respectively.

Natural Gas Production



Source: EIA

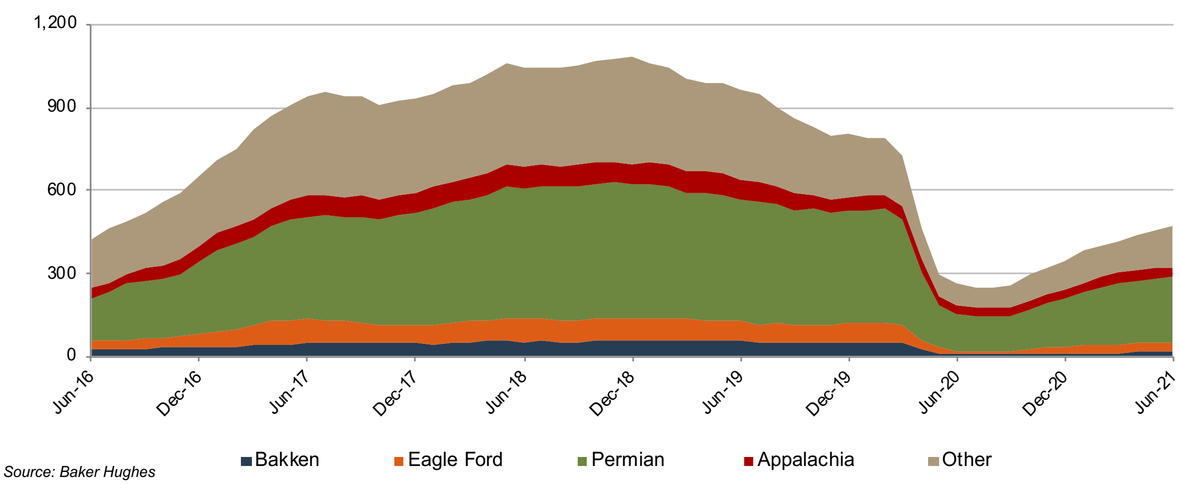
Appendix B

Rig Count

Baker Hughes collects and publishes information regarding active drilling rigs in the United States and internationally. The number of active rigs is a key indicator of demand for oilfield services & equipment. Factors influencing rig counts include energy prices, investment climate, technological changes, regulatory activity, weather, and seasonality.

The number of active rigs in the United States as of June 30, 2021 stood at 470, a 78.7% increase from June 30, 2020, and a 13.0% increase from March 2021. The rig count in the Permian increased from 131 to 236 rigs over the last year as E&P operators are increasing production as of late.

Rig Count by Region

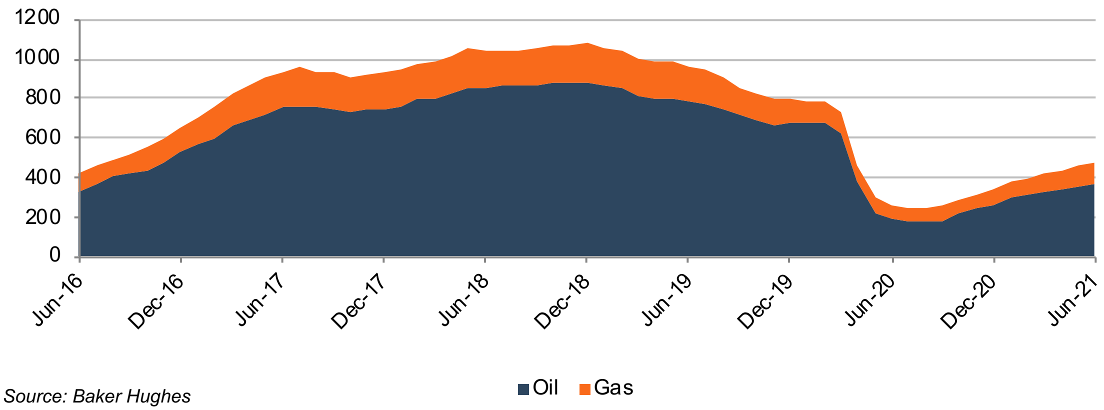


Source: Baker Hughes

Appendix B

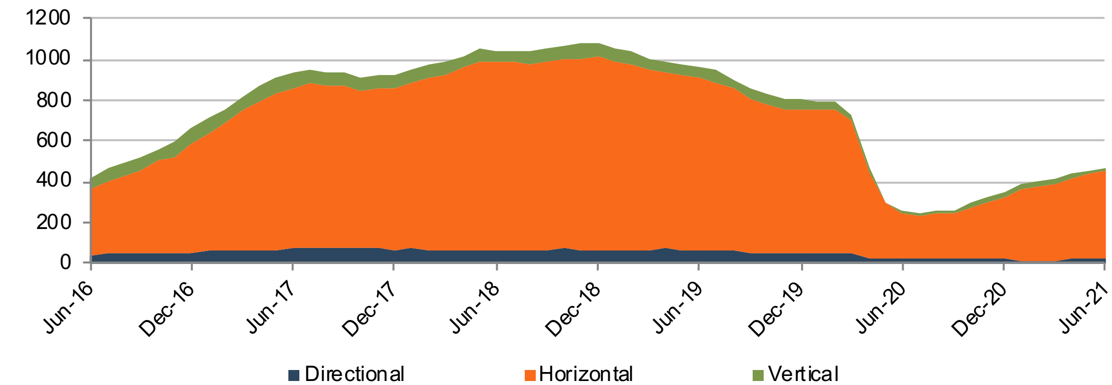
Rig Count

U.S. Rig Count by Oil vs. Natural Gas



Source: Baker Hughes

U.S. Rig Count by Trajectory



Source: Baker Hughes

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