MERCER CAPITAL

BUSINESS VALUATION &
FINANCIAL ADVISORY SERVICES

VALUE FOCUS

Exploration & Production

First Quarter 2021 // Region Focus: Eagle Ford

EXECUTIVE SUMMARY

The first quarter of 2021 saw generally increasing commodity prices, a welcome change from the volatile price environment seen during 2020. WTI increased from approximately $48/bbl to $59/bbl during the first quarter. Natural gas was volatile but started and ended the quarter at approximately $2.60/mmbtu. With a more constructive commodity price backdrop, some see a recovery in sight, but ongoing uncertainty looms as the Biden Administration begins implementing its oil & gas policies. In this newsletter, we examine the macroeconomic factors that have affected the industry in the first quarter of 2021 and peek behind the curtain on what the remainder of 2021 might hold.

MERCER CAPITAL

Oil and Gas Industry Services

Mercer Capital provides business valuation and financial advisory services to companies throughout the U.S. in the oil & gas industry.

Services Provided

- 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

Industry Segments

Mercer Capital serves the following industry segments:

- Exploration & Production
- Oilfield Services
- Midstream
- Refining & Marketing

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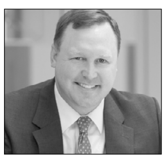

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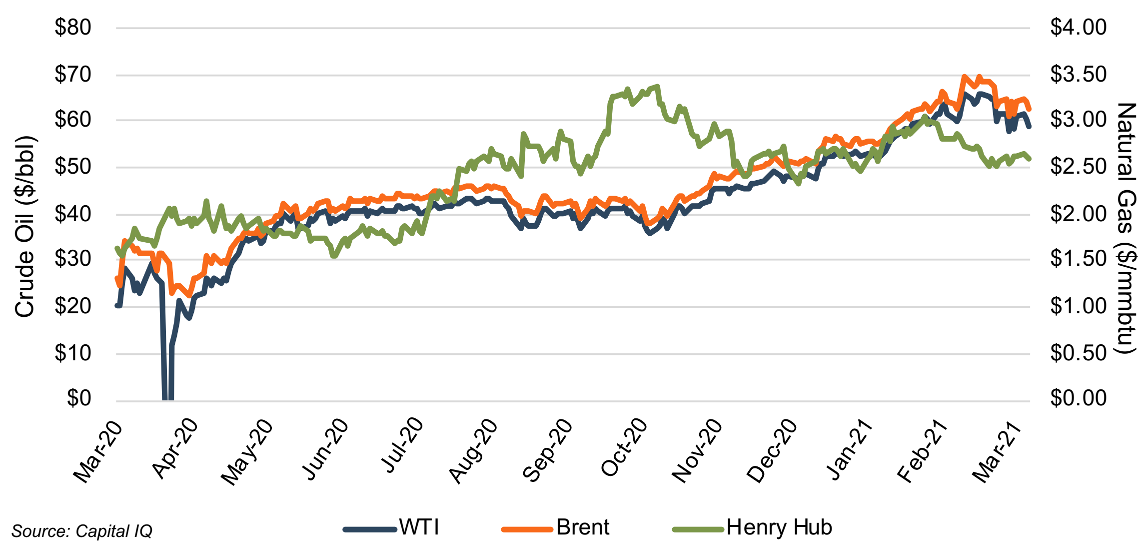
Oil and Gas Commodity Prices

Crude prices increased during Q1, with WTI starting January at approximately $48/bbl and ending March at roughly $59/bbl. Brent followed the same pattern as WTI and ended the quarter at approximately $64/bbl. In March 2021's ***Short Term Energy Outlook,*** the U.S. Energy Information Administration ("EIA") cited positive news regarding COVID-19 vaccines as a potential driver for the increase, as well as ongoing petroleum supply limitations by OPEC+. In addition, supply disruptions from extreme winter weather conditions (notably in Texas) put upward pressure on crude prices in February.

Natural gas prices were much more volatile, though prices started and ended the quarter at approximately $2.60/mmbtu. Natural gas prices reached over $3.00/mmbtu in February but were also lower than $2.50/mmbtu for some of the quarter. Prices rose in January and February as seasonal demand for heating increased but moderated later in the quarter as warmer-than-normal temperatures reduced heating demand. Regional spot prices were **much more volatile** as cold weather disrupted gas production and transmission while also increasing demand for heat and electricity.

Crude Oil and Natural Gas Prices



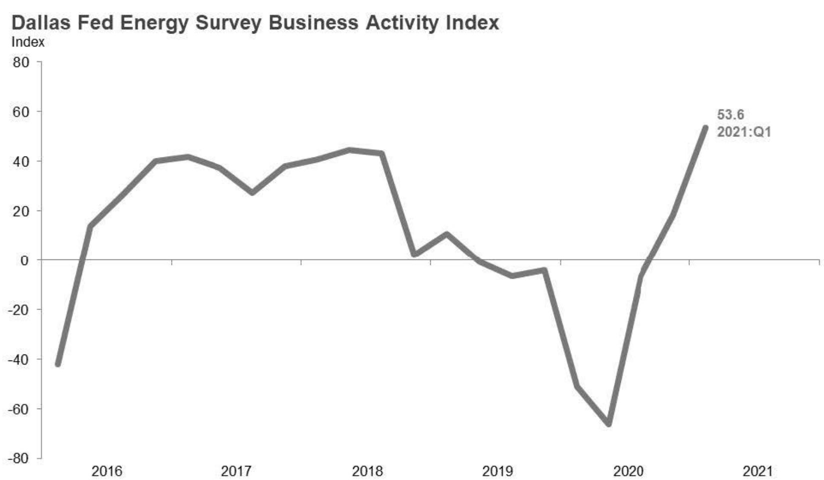
Source: Capital IQ

Macro Update

It has been almost a year since crude prices went into the abyss on April 20, 2020. What a day that was: OPEC's shoe had already dropped, and the realities of COVID-19's short term consequences panicked the global oil market into a historic backlog. Crude tankers were stranded on the seas, storage filled up, and for a short while production had nowhere to go.

The havoc wreaked on markets was severe. Demand was projected to drop **between 20% and 35% by some** (consumption actually dropped about 22% per the EIA). Reserve lives for some major producers dropped by around 10 years and between them reported losses north of $60 billion in 2020. To be fair, there are a couple of ways to look at this: one is a market decline in interest in these commodities; another could be rooted in the demand from investors for more nimble balance sheets coupled with the growing ability to develop acreage relatively quickly. Beyond the decline of reserves, (both through production decline and economic characterization), the bankruptcy casualty counts also skyrocketed as we have discussed before. According to the latest **Haynes & Boone data**, there were eight new bankruptcies in the first quarter of 2021 and over $1.8 billion in aggregate debt.

What a difference a year makes. WTI has recently hovered around $60/bbl. Many analysts now predict oil to stay in the $60's (or higher) for the rest of 2021 (EIA on the other hand projects the mid-$50's). It appears that low prices may have been a cure for low prices. The Dallas Fed came out with their quarterly **Energy Survey** on March 24th and its results were quite shocking to many. Its business activity index was at its highest reading ever in the five-year history of the survey.



SOURCE: Federal Reserve Bank of Dallas.

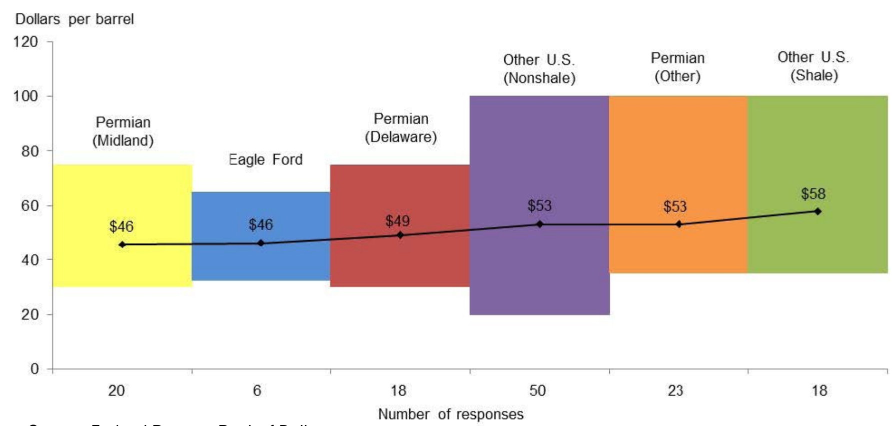
Macro Update

Guarded optimism among industry players is creeping back into the picture: "We are optimistic that we will have a weaning of excess oil supply, and more importantly, suppliers of oil and gas, that will lead to a slightly higher sustainable price," said a respondent to the Dallas Fed. **The S&P's SPDR Oil and Gas Production ETF** which dropped to around $30 (split adjusted) in March 2020 is now trading around $80. Production and capex spending are emerging as well in response to rising demand. Global oil demand and supply are moving towards balance in the second half of this year, per the **IEA's latest monthly report.** In fact, producers may then need to pump a further 2 million bbl/d to meet the demand. OPEC, which has been withholding supply in tandem with other producers including Russia, this week raised its forecast for global oil demand this year. OPEC expects demand to rise by 70,000 bbl/d from last month's forecast and global demand is likely to rise by 5.95 million bbl/d in 2021.

Upstream Economics: Back in Black

It must be a relief to be "let loose from the noose" of low prices. A lot of producers should be singing AC/DC nowadays. It is now profitable to drill a lot more wells than a year ago. Back then existing wells were not profitable, much less undrilled ones. In terms of reserve metrics, we have said before that value erosion usually starts at the bottom categories of a reserve report and moves upwards. Value accretion moves in reverse. The increased pricing is making larger swaths of reserves economic again.

In the top two areas in which your firm is active:
What WTI oil price does your firm need to profitably drill a new well?



NOTES: Lines show the mean, and bars show the range of responses. Executives from 92 exploration and production firms answered this question during the survey collection period, March 10-18, 2021.

Source: Federal Reserve Bank of Dallas

Macro Update

Upstream Economics: Back in Black (cont.)

Even though compared to last year, the survey chart on the previous page has not changed dramatically, there is nonetheless a lot of pressure off of producers to find new economical wells to drill.

Even so, one thing that is different this time around may be the cautiousness of investors and producers to jump back on the drill bit right away. Investors have already been pulling valuations down as their standard tilted more towards shorter term returns as opposed to longer term reserves. Additionally, the Fed Survey was littered with comments expressing concern about the Biden administration's policies being more aggressive towards regulation and ESG, thus promoting caution for aggressive drilling. In fact, the American Petroleum Institute (of all organizations) is now considering **carbon pricing frameworks.** Lastly, OPEC+ could yank the rug out from shale producers again if they are perceived as ramping up too quickly, **according to Scott D. Sheffield, Pioneer's CEO,** . (It is notable though that Pioneer just **bought West Texas producer DoublePoint** for $6.4 billion. That's approximately $30,000 per flowing barrel and $40,000 per undeveloped acre).

Next Steps

So where does this leave us? Well, in a lot better place for producers and investors than last year – that's to be sure. The companies that have hung in this past year and made it are starting to see some improvement. That's also good because those that utilized PPP money have been in need of price help once the government subsidies ran out. In addition, with all of the attention towards electric vehicles replacing the combustion engine, we must remind ourselves that only 1% of the U.S. light fleet is EV and that light vehicles only make up 25% of crude oil use. Demand will not be pulled out from under oil's feet just yet.

Markets are fast moving and unforgiving at times, but it appears with $60+ oil prices for 2021, that the upstream business can now start to slow down, look around, and evaluate what direction to go next.

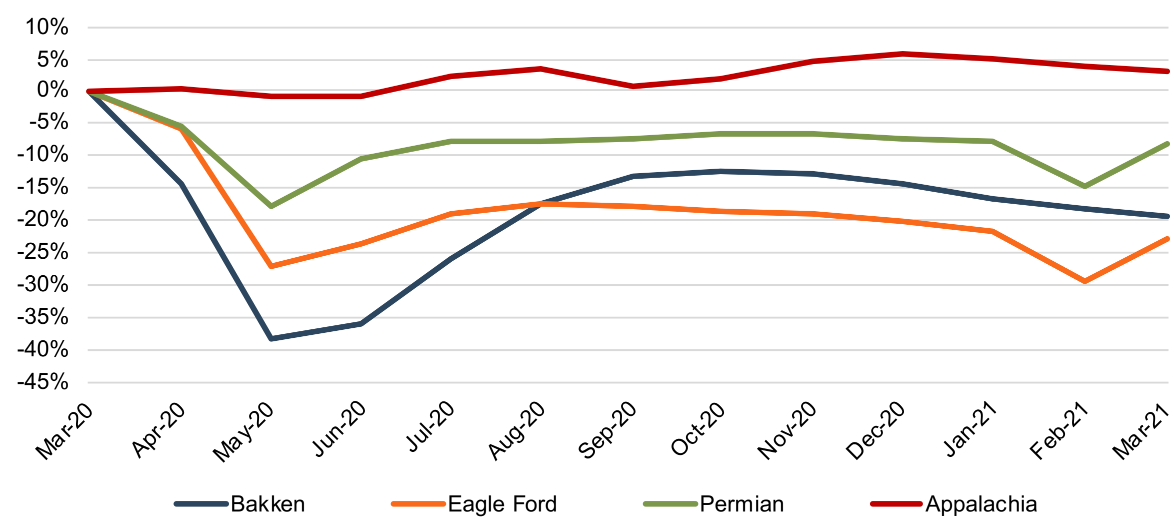
Eagle Ford

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 Eagle Ford.

Estimated Eagle Ford production declined approximately 23% year-over-year through March. This is the most severe decline observed for all of Mercer Capital's coverage areas, with production in the Bakken, Permian, and Appalachia down 19%, down 8%, and up 3%, respectively. In the immediate aftermath of the **Saudi/Russian price war** and **historic rout in oil prices**, the Eagle Ford's production decline was less severe than what was seen in the Bakken, though the rebound in the Eagle Ford was also more muted. During the fourth quarter of 2020, Eagle Ford production trended downward once again, and appears to have been materially impacted in February 2021 by the cold weather that disrupted power supplies throughout Texas.

1-Year Change in Production



Source: Energy Information Administration

Eagle Ford

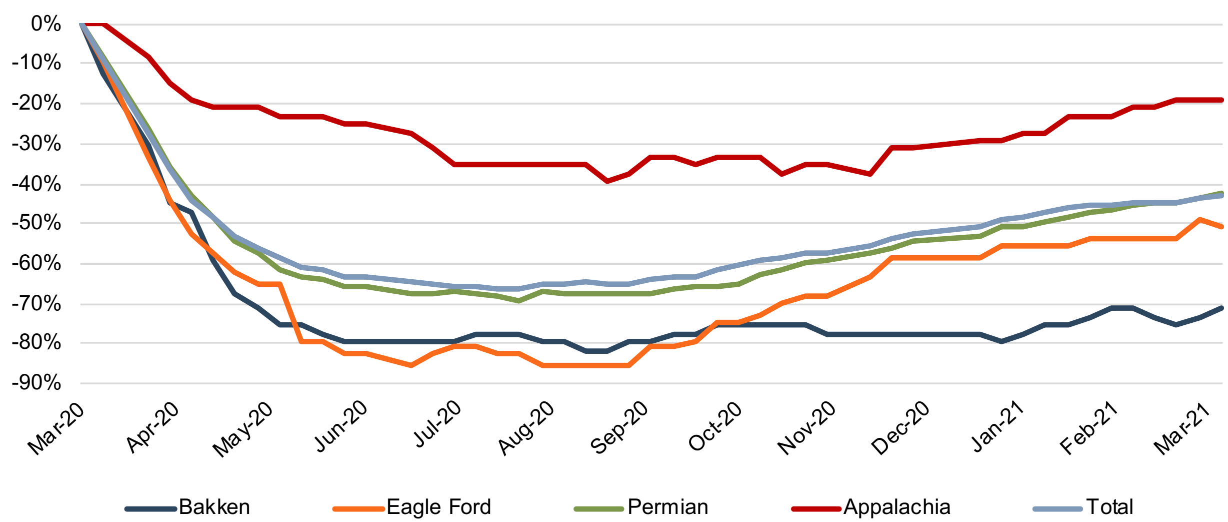
Production and Activity Levels (cont.)

However, the Eagle Ford's rig count has generally been rising over the past six months. Total rigs in the Eagle Ford stood at 31 as of March 26, down over 50% from the prior year, but more than 3x higher than the low of 9 rigs observed in September 2020. Bakken, Permian, and Appalachia rig counts were down 71%, 42%, and 19% year-over-year, though have all rebounded from the September lows (though not as dramatically as the Eagle Ford's rise since then).

While **recent data has been noisy**, the Eagle Ford's current rig count should keep production relatively flat, based on legacy production declines and new-well production per rig.

The Eagle Ford public comp group had a banner year for stock price performance over the past twelve months, with Penn Virginia, Silverbow, Mongolia, and EOG up 334%, 215%, 187%, and 102%, respectively. All except EOG out-

1-Year Change in Rig Count



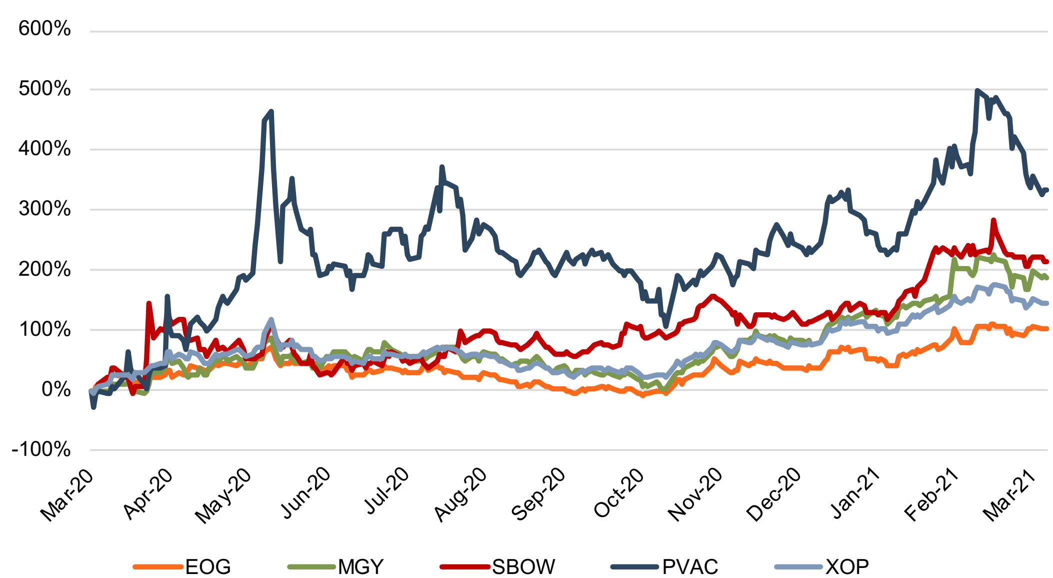
Eagle Ford

Financial Performance

performed the broader E&P sector, as proxied by XOP (which was up 157% during the past twelve months). However, that stock price performance is largely driven by the exceptionally low starting point in March 2020, as the Saudi/Russian price war and reduced demand due to COVID-19 lockdowns created significant concern among investors regarding the financial position of E&P companies, especially those with significant leverage. Stock prices for the four companies remain below all-time highs.

In their Q4 2020 earnings call and presentation, EOG touted its inventory of "Double Premium" locations, which meet EOG's new return hurdle of 60% Direct After-Tax Rate of Return (ATROR) at $40 oil and $2.50 natural gas. While

1-Year Change in Stock Price



Source: Capital IQ

Eagle Ford

EOG Doubles Down on "Double Premium" Locations

not clearly defined, EOG describes Direct ATROR as including "the costs associated with drilling and completion operations and wellsite facilities." All-In ATROR, which is more akin to a full-cycle calculation, "includes such costs as well as (i) the costs associated with other facilities, lease acquisitions, delay rentals and gathering and processing operations and (ii) geological and geophysical costs, exploration G&A costs, capitalized interest and other miscellaneous costs." Per EOG's presentation, roughly half of EOG's 11,500 premium locations fit the underwriting criteria to be classified as "double premium."

However, E&P companies have long been criticized for touting well-level IRRs and other bespoke financial metrics that imply phenomenal economics, but don't seem to result in corresponding corporate-level returns. We'll see if EOG's more stringent underwriting standards translate to shareholder returns.

The Eagle Ford was among the regions hardest hit by low commodity prices. The recent increase in rig count bodes well for stemming production declines, though more rigs are likely needed for material production growth given natural declines in existing production. However, with investors and E&P management teams focused on returns rather than growth, current commodity prices may not lead to the expansion in activity that's been seen in previous cycles.

Market Valuations & Transaction History

Transaction Activity Slows Amid Challenging 2020

Over the last year, deal activity in the Eagle Ford was relatively muted after the impact that the Saudi-Russian conflict and COVID-19 had on the price environment. M&A deals were largely halted in the second quarter of 2020 as companies turned to survival mode amid the challenging realities. Frankly, transaction due diligence was most likely last on companies' agendas. However, announced, and rumored transactions in the Eagle Ford picked up, towards the second half of the year, relative to early 2020, as a price recovery began to take hold.

Recent Transactions in the Eagle Ford

A table detailing E&P transaction activity in the Eagle Ford over the last twelve months is shown below. **Relative to 2019**, deal count decreased by four and median deal size declined by roughly $74 million, however it is important to note the small sample of disclosed deal metrics.

Transactions in the Eagle Ford

Announced Date	Buyer	Seller	Deal Value ($MM)	$ / Acre	$ / Boepd
3/24/21	Validus Energy	Ovintiv Inc.	$880	$20,952	$41,905
4/13/20	Silverbow Resources	Undisclosed	na	nm	nm
5/12/20	Magnolia Oil & Gas	Undisclosed	70	nm	87,500
7/20/20	Chevron Corp	Noble Energy, Inc.	13,000	28,078	37,143
8/18/20	Ensign Natural Resources LLC	Newpek LLC	na	nm	nm
11/2/20	BWC Terminals	NuStar Energy L.P.	106	nm	nm
11/3/20	Penn Virginia Corp	Rocky Creek Resources, LLC	38	9,366	41,921
11/11/20	Easton Energy LLC	ExxonMobil	na	nm	nm
Median			**$106**	**$20,952**	**$41,913**
Average			**$2,819**	**$19,465**	**$52,117**

Source: Shale Experts

Market Valuations & Transaction History (cont.)

Chevron Adds to Eagle Ford Play and Global Portfolio with Noble Acquisition

On July 20, 2020, Chevron **announced** that it was acquiring Noble Energy, Inc. in an all-stock transaction valued at $10.38 per Noble share, based on Chevron's stock price just prior to announcement and an exchange ratio of 0.1191 Chevron shares per Noble share, representing an approximate premium of nearly 12% on a 10-day average based on the closing prices on July 17, 2020. The total enterprise value of the deal (including debt) was pegged at $13 billion in the **transaction press release.** The deal **closed** on October 5, 2020, marking the completion of the first big-dollar energy deal since the market turmoil began in March 2020. The acquisition makes Chevron the **second U.S. shale oil producer** behind EOG Resources, Inc. Noble's international plays also add 1 Bcf of international natural gas reserves to Chevron's portfolio. Noble Energy's domestic plays include the Permian Basin, Denver-Julesburg Basin, and the Eagle Ford.

Ovintiv Further Deleverages with Eagle Ford Asset Sale

On March 24, 2021, Ovintiv Inc. **agreed** to sell its South Texas assets for $880 million to Validus Energy (portfolio company of Pontem Energy Capital), a privately owned operator. The transaction occurred roughly two weeks after **sources** rumored that Ovintiv was in advanced discussions to divest its Eagle Ford assets. The deal announcement comes shortly after Ovintiv's debt reduction initiative outlined in February 2021, which includes generating approximately $1 billion by divesting certain domestic and international assets. In 2019, Ovintiv's debt had increased to roughly $7 billion after its purchase of Newfield Exploration. The company aims to reduce debt by 35% to about $4.5 billion by 2022 in order to gain investor confidence. The company **announced** that the transaction will allow them to reach the debt target by the middle of next year. Ovintiv has divested two geographic positions in consecutive quarters, with the **first sale** being their Duvernay position in Q4 2020. The company's Eagle Ford position was purchased for $3.1 billion in 2014 from Freeport-McMoRan Inc. The company expects the deal to close in the second quarter of 2021.

M&A transaction activity in the Eagle Ford was fairly quiet throughout 2020 before Chevron's $13 billion deal with Noble Energy. The Chevron-Noble Energy transaction and the Ovintiv-Validus deal could be foreshadowing a busier M&A market in 2021, whether companies try to bolt on to previous acreage, or are forced to divest to pay down debt.

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 March 31, 2021		
Company Name	**Ticker**	**3/31/2021 Enterprise Value**	**YoY % Change in Stock Price**	**EBITDAX Margin**	**EV/ EBITDAX**	**Daily Production (mboe/d)**	**Price per Flowing Barrel***
Global Integrated Oil and Gas Companies							
Exxon Mobil Corp	XOM	$303,292	47.04%	nm	12.3x	3,789	$80,037
Royal Dutch Shell PLC	RDS/A	$74,623	12.38%	19.2%	2.2x	3,485	$21,412
Chevron Corp	CVX	$241,407	44.62%	13.8%	18.3x	3,223	$74,904
BP PLC	BP	$117,600	-14.40%	12.5%	5.1x	3,459	$33,995
Equinor ASA	EQNR	$557,785	27.56%	35.0%	34.0x	2,163	$257,852
Group Median			**27.56%**	**16.5%**	**12.3x**	**3,459**	**$74,904**
Global E&P Companies							
Marathon Oil Corp	MRO	$12,833	224.62%	40.9%	9.6x	355	$36,151
Hess Corp	HES	$29,769	112.49%	60.1%	9.7x	310	$96,092
ConocoPhillips	COP	$83,151	71.98%	29.2%	12.5x	1,341	$62,008
Occidental Petroleum Corp	OXY	$70,675	129.88%	44.0%	9.7x	1,152	$61,358
APA Corp	APA	$16,649	nm	51.3%	6.5x	381	$43,705
Murphy Oil Corp	MUR	$6,154	167.70%	44.5%	7.9x	159	$38,646
Group Median			**129.88%**	**44.2%**	**9.7x**	**368**	**$52,531**

Source: Bloomberg L.P.

- Price per Flowing Barrel is EV/daily production ($/boe/d)
- 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	3/31/2021 Enterprise Value	YoY % Change in Stock Price	EBITDAX Margin	as of March 31, 2021 EV/ EBITDAX	Daily Production (mboe/d)	Price per Flowing Barrel*
Bakken							
Continental Resources Inc/OK	CLR	$4,996	238.61%	74.2%	2.4x	301	$16,576
Whiting Petroleum Corp	WLL	$284	nm	26.9%	1.3x	88	$3,240
Oasis Petroleum Inc	OAS	$681	nm	14.6%	4.6x	61	$11,204
Group Median			**238.61%**	**26.86%**	**2.4x**	**88**	**$11,204**
Appalachia							
Range Resources Corp	RRC	$3,139	nm	18.5%	8.5x	365	$8,602
EQT Corp	EQT	$4,806	162.80%	28.1%	5.7x	747	$6,433
Cabot Oil & Gas Corp	COG	$1,079	9.25%	52.0%	1.4x	395	$2,730
Antero Resources Corp	AR	$5,119	nm	41.6%	3.1x	572	$8,949
Southwestern Energy Co	SWN	$3,171	175.15%	15.9%	7.1x	495	$6,404
Group Median			**162.80%**	**28.1%**	**5.7x**	**495**	**$6,433**
Permian Basin							
Diamondback Energy Inc	FANG	$7,656	180.50%	39.8%	6.5x	345	$22,211
Centennial Resource Development Inc/DE	CDEV	$1,066	nm	37.1%	5.0x	59	$17,988
Callon Petroleum Co	CPE	$2,937	nm	12.2%	21.8x	91	$32,358
Laredo Petroleum Inc	LPI	$1,163	295.73%	7.6%	21.3x	84	$13,835
Pioneer Natural Resources Co	PXD	$6,560	126.40%	17.3%	4.7x	474	$13,831
Cimarex Energy Co	XEC	$2,168	252.88%	36.8%	3.4x	239	$9,075
Group Median			**216.69%**	**27.1%**	**5.7x**	**165**	**$15,912**

Source: Bloomberg L.P.

- Price per Flowing Barrel is EV/daily production ($/boe/d)
- 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	3/31/2021 Enterprise Value	YoY % Change in Stock Price	EBITDAX Margin	EV/ EBITDAX	Daily Production (mboe/d)	Price per Flowing Barrel*
					as of March 31, 2021		
Eagle Ford							
EOG Resources Inc	EOG	$5,402	101.92%	47.6%	1.1x	808	$6,685
Magnolia Oil & Gas Corp	MGY	$397	187.00%	66.3%	1.1x	61	$6,556
SilverBow Resources Inc	SBOW	$399	214.98%	47.0%	4.0x	na	na
Penn Virginia Corp	PVAC	$378	nm	34.0%	4.3x	23	$16,137
Group Median			**187.00%**	**47.3%**	**2.6x**	**61**	**$6,685**
OVERALL MEDIAN			**129.88%**	**35.92%**	**5.7x**	**373**	**$17,282**

Source: Bloomberg L.P.

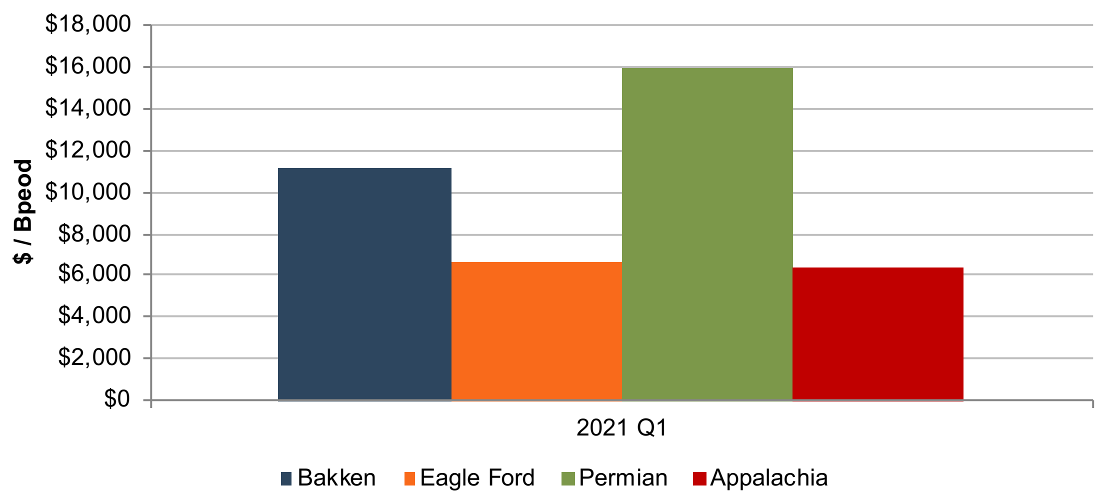
- Price per Flowing Barrel is EV/daily production ($/boe/d)
- We review 10-K's and annual reports from guideline companies to ensure companies continue to operate in the regions and groups we have identified.

Appendix A

Selected Public Company Information

The following graph depicts the median of EV/production multiples, also known as price per flowing barrel for Q1 2021. The Permian led the group at approximately $16,000/Bpoed and the Eagle Ford ranked third at approximately $6,700.

Price per Flowing Barrel



Source: Bloomberg and Capital IQ

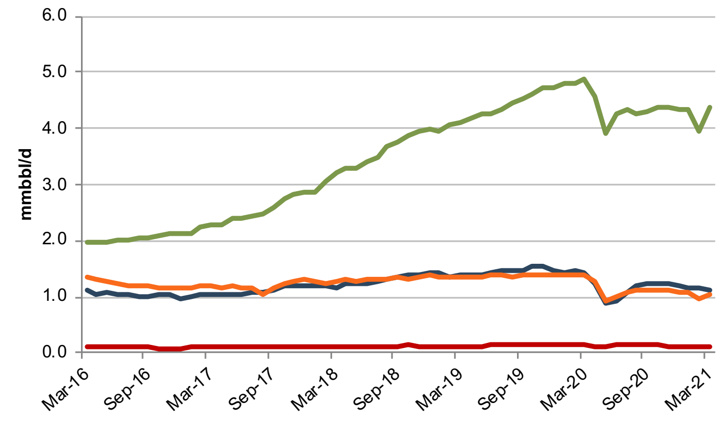
- Price per Flowing Barrel is EV/ daily production ($/boe/d)
- This is simply a graphic depiction of median figures of our selected public companies for each region. This should be interpreted solely in the context of relative valuation between the various basins over time. Bloomberg aggregates this 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

Production

Daily Production of Crude Oil

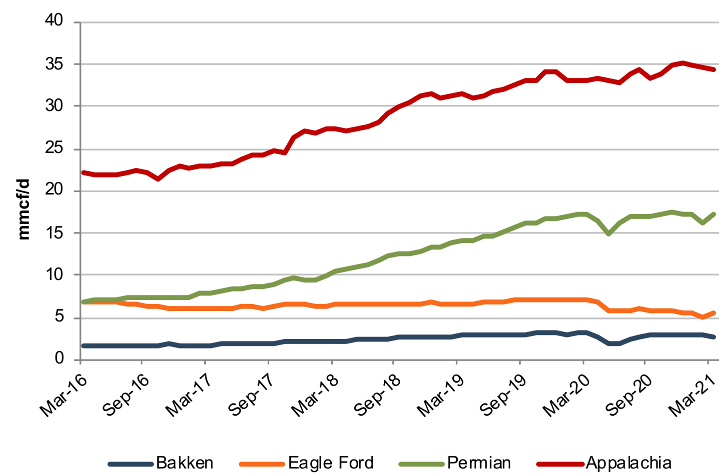
Oil production in the Permian, Eagle Ford, Bakken, and Appalachia all experienced negative production growth over the last year, 10.3%, 24.4%, 21.7%, and 6.1% respectively.



Source: EIA

Daily Production of Natural Gas

Natural gas production in the Appalachia has increased 3.4% over the last year. Growth in the Permian, Eagle Ford, and Bakken have decreased 1.0%, 20.1%, and 12.3%, respectively.



Source: EIA

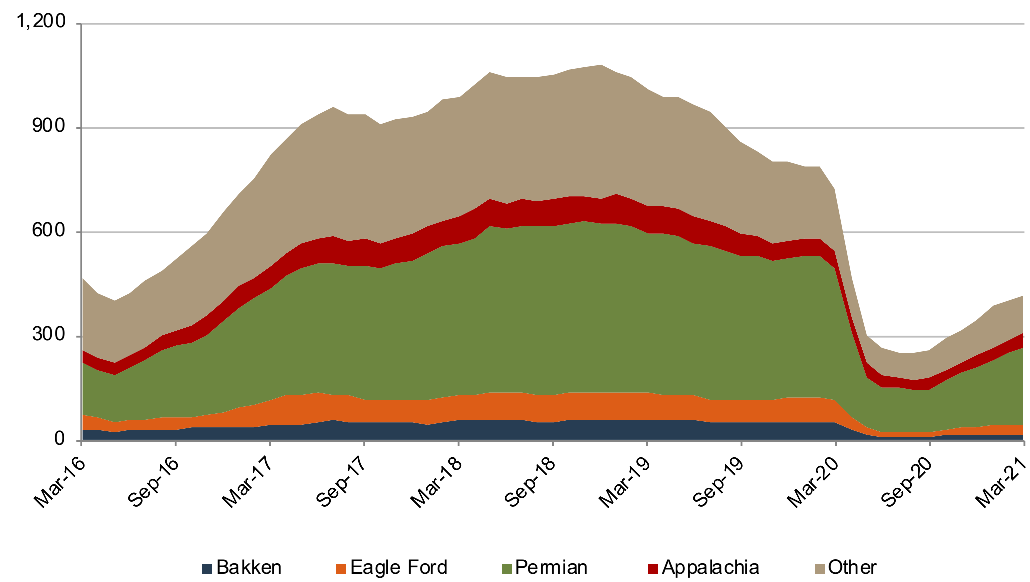
Appendix B

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 March 31, 2021 stood at 416, a 19.9% increase from December 31, 2020, and a 42.7% decrease from March 2020. The rig count in the Eagle Ford decreased from 63 to 31 rigs over the last year as E&P operators are cutting rigs in light of recent issues. However, rig count in the Eagle Ford has increased from 26 to 31 in the last quarter.

Rig Count by Region

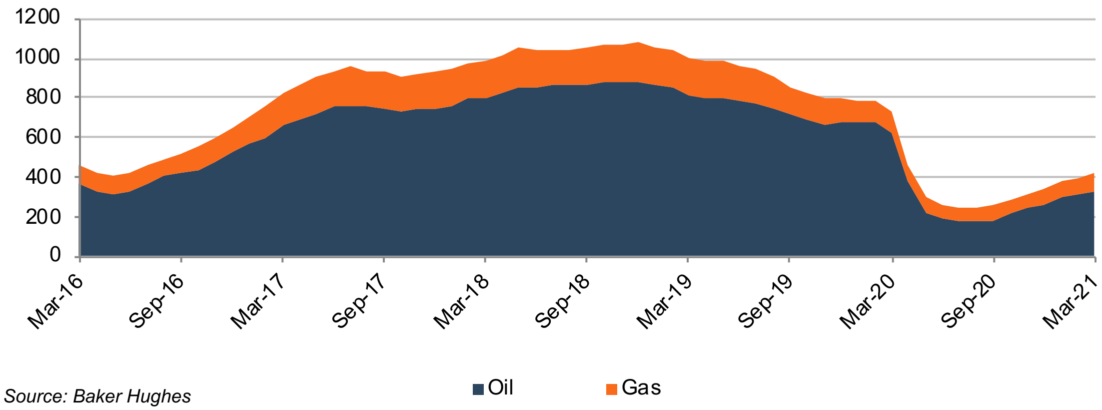


Source: Baker Hughes

Appendix B

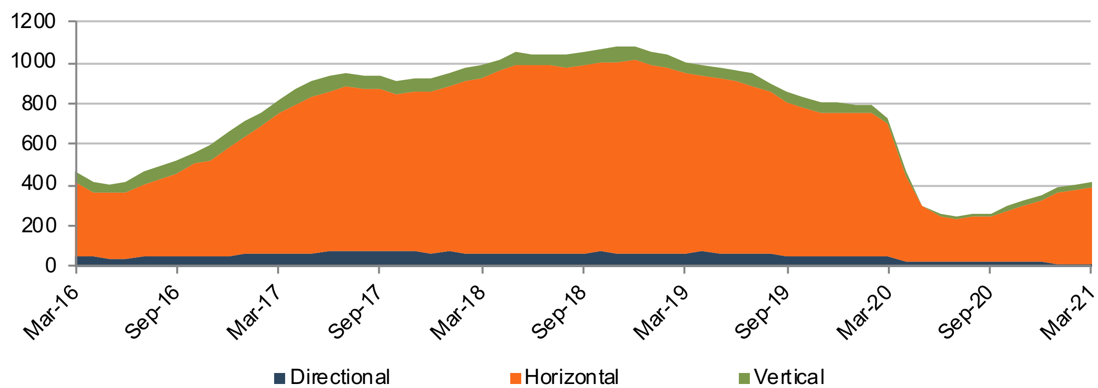
Rig Count

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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