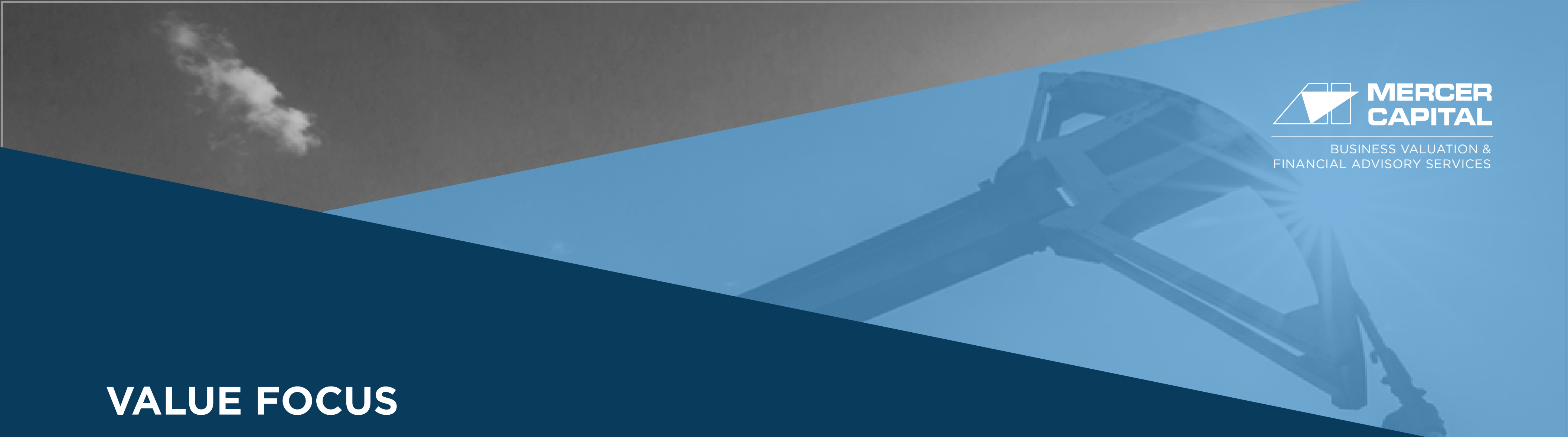

MERCER CAPITAL

BUSINESS VALUATION &
FINANCIAL ADVISORY SERVICES

VALUE FOCUS

Exploration & Production

Second Quarter 2020 // Region Focus: Permian Basin

EXECUTIVE SUMMARY

WTI front-month futures prices increased over 90% during the second quarter of 2020, though it was a bumpy road getting there. Prices at the beginning of the quarter were ~$20/bbl, still depressed in the wake of the **Saudi/Russian price war and demand destruction caused by COVID-19.** In early April, prices generally increased, approaching nearly $30/bbl by the middle of the month. However, on April 20, WTI futures prices collapsed, falling below $0 to settle at negative $37/bbl. While there are numerous **technical reasons for the collapse,** there was significant **concern regarding crude storage capacity** as production had not declined in tandem with demand. However, crude futures prices **generally increased thereafter,** driven by supply cuts from OPEC+, curtailments by U.S. producers, and a recovery in demand. WTI front-month futures prices ended the quarter at $39.34/bbl.

Oil and Gas Industry Services

Mercer Capital provides business valuation and financial advisory services to companies in the energy 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
- Oil Field Services
- Midstream Operations
- Alternative Energy

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In This Issue

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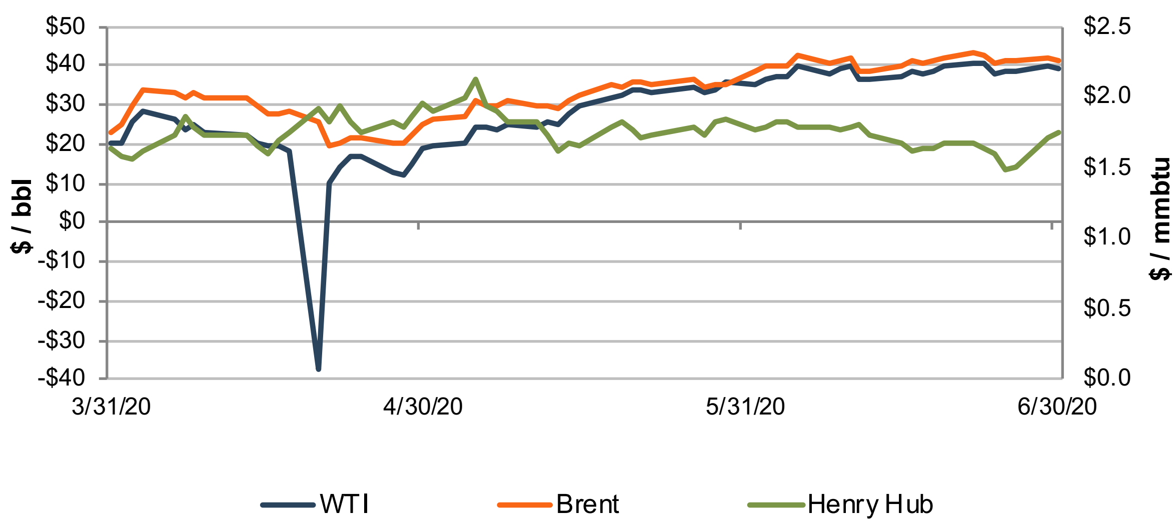
Oil and Gas Commodity Prices

Crude prices started the quarter at approximately $20/bbl before descending at an unprecedented rate, with WTI closing at negative $37/bbl in mid-April. WTI recovered throughout the rest of the quarter and closed just shy of $40/bbl. Brent crude prices gradually recovered and closed just above $40/bbl at the end of the quarter. Natural gas prices started the quarter just above $1.50/mmbtu and reached $2/mmbtu in early May but declined to $1.70/mmbtu to end the quarter. Natural gas prices ended the quarter on a positive note, however, increasing from $1.50/mmbtu to $1.70/mmbtu in the last week of June.

Crude Oil and Natural Gas Prices



Source: Bloomberg

Macro Update

Global Economics: OPEC+ and COVID-19

On June 6, OPEC+ members reached an **agreement** to continue cutting 9.7 million barrels a day, or about 10% of global output under normal circumstances, through July. The extended supply cuts helped oil prices continue their recovery from their drastic drop in April due to the demand issues caused by COVID-19. The original agreement that OPEC+ reached on April 12 stated that production was set to increase gradually after June, but members refined that plan and continued their supply cuts for another month.

Short-Term Outlook

The EIA expressed a heightened level of uncertainty in their **latest release** due to the mitigation and reopening efforts related to COVID-19. Reduced economic activity has had a major impact on energy supply and demand patterns in 2020, which leads to further price uncertainty moving forward. The EIA forecasts the supply of liquid fuels globally will average 92.6 million b/d in the second quarter of 2020, down 7.9 million b/d year-over-year. The declines are due to the supply cuts by OPEC+ and reductions in drilling activity in the Unites States because of low oil prices. Supply of oil fell by less than demand as a percentage in the second quarter, and the EIA expects supply to be slower to increase than demand. The EIA forecasts OPEC to drive supply growth in 2021.

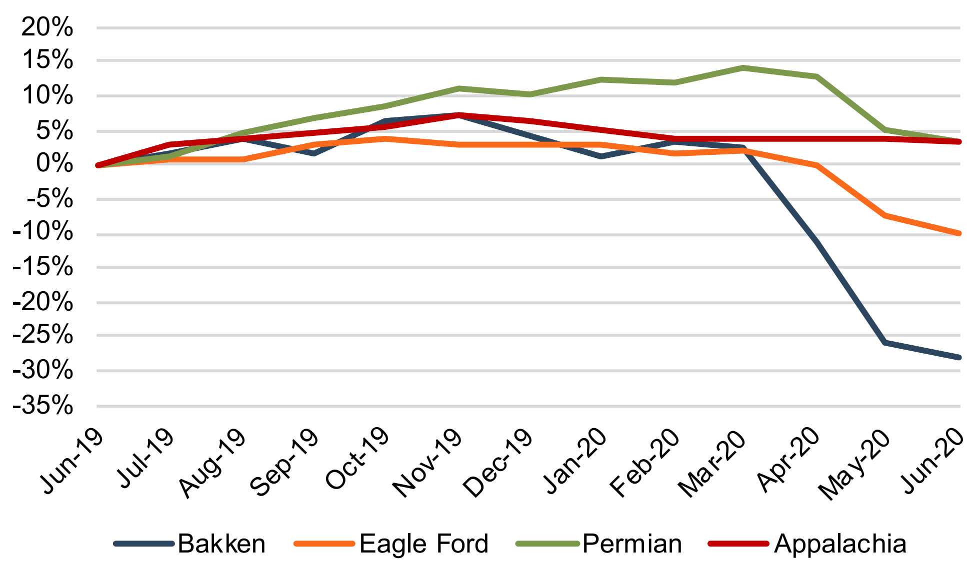
Permian

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 Appalachia 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 Basin.

Permian production grew approximately 3% year-over-year through June, in line with Appalachia and contrasting the declines observed in the Bakken and Eagle Ford (down 28% and 10%, respectively). The Permian is still one of the focus areas of supermajors Exxon and Chevron, and also relatively well-capitalized independents such as Concho, Diamondback, Parsley, and Pioneer. As such, it has been more resilient than other oil-focused basins and **experts expect to see production growth.**

1-Year Change in Production

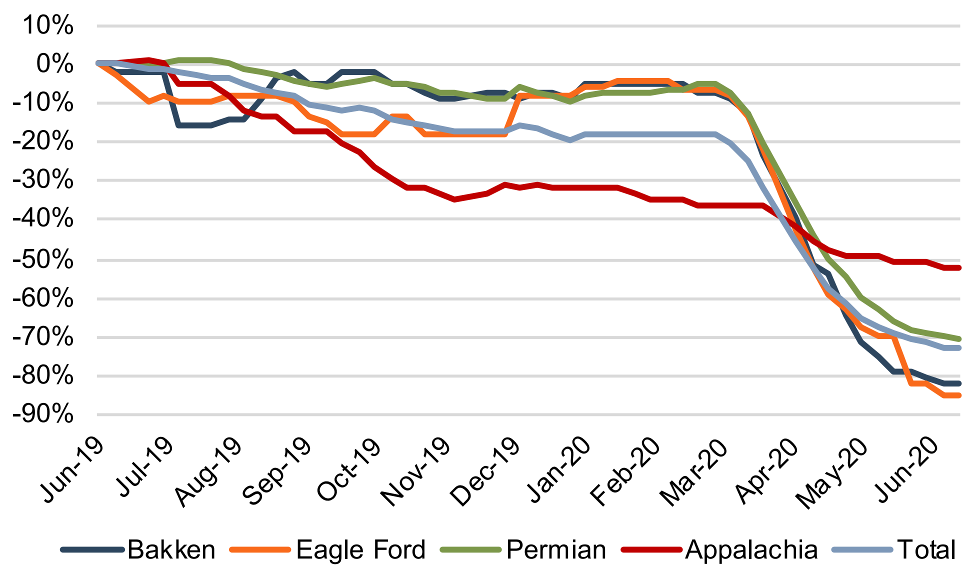


Source: Energy Information Administration

Production and Activity Levels (cont.)

The rig count in the Permian on June 26th stood at 131, down 70% from the prior year. While significant, this decline is less severe than reductions seen in the Bakken and Eagle Ford of 82% and 85%, respectively. Appalachia rig counts declined by a more modest 52%, though the gas-focused basin had fewer rigs to drop and faced a more benign commodity price environment. With companies beginning to bring **production back online,** this may be a nadir, though significantly **lower E&P capex budgets** will likely keep a lid on rig counts in the near term.

1-Year Change in Rig Count

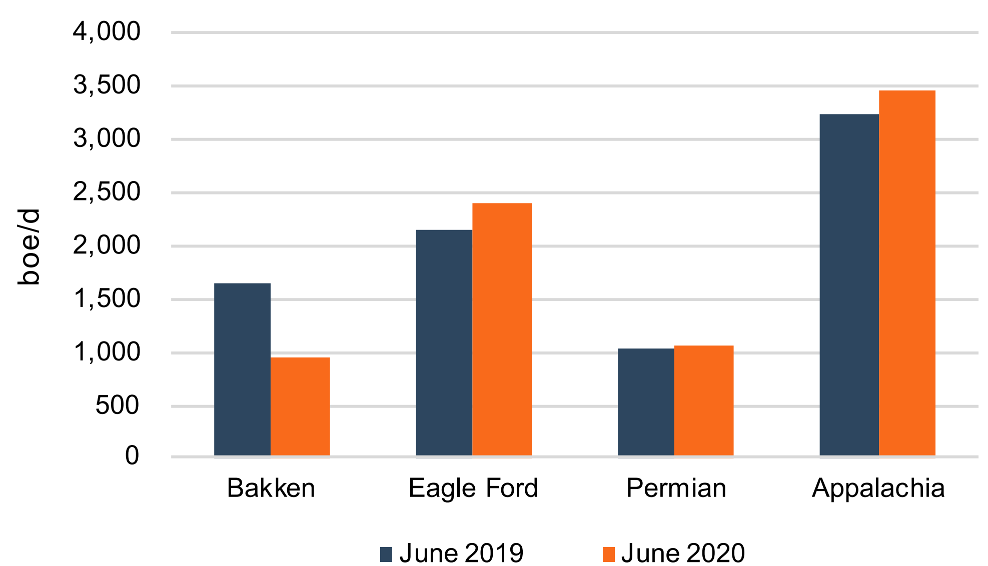


Source: Baker Hughes

Production and Activity Levels (cont.)

The Permian is also seeing gains in new-well production per rig. While this metric doesn't cover the full life cycle of a well, it is a signal of the increasing efficiency of operators in the area. New-well production per rig in the Permian increased 2% on a year-over-year basis through June, compared to changes of -42%, 12%, and 6% in the Bakken, Eagle Ford, and Appalachia, respectively. (Note that the decline in Bakken production is an artifact of the significant production curtailments in the basin. The EIA forecasts a **normalization in July**.)

New-Well Production per Rig

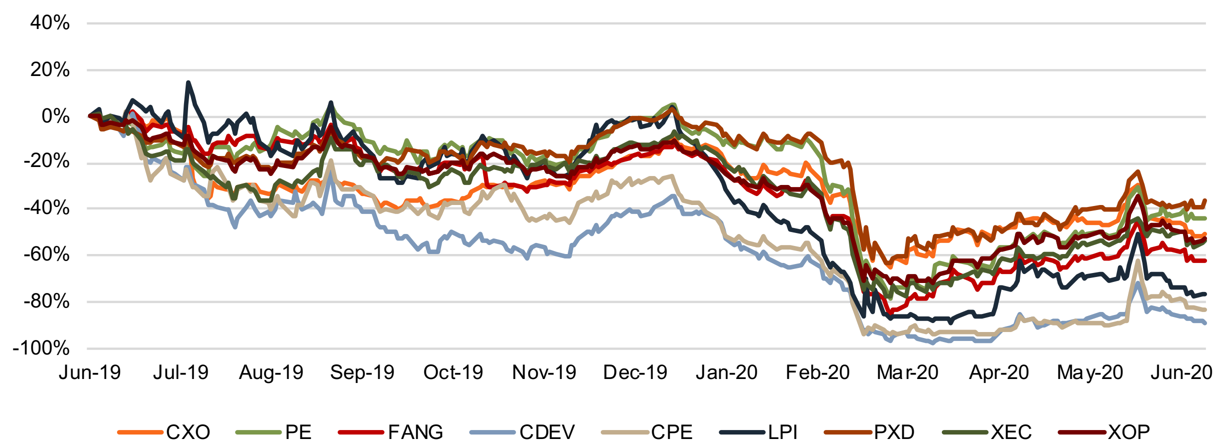


Source: Energy Information Administration

Financial Performance

All Permian E&P operators analyzed have had year-over-year stock price declines. Pioneer and Parsley were the best performers in the Permian group, only down 37% and 44%, respectively. Concho also outperformed the broader E&P index (XOP), down 50% compared to the XOP's 52% decline. Centennial was the worst performer in the group, down 88% year-over-year, though it has rebounded significantly since its lows in early April.

1-Year Change in Stock Price



Source: Capital IQ

While the Permian has been less affected by the most recent batch of E&P bankruptcies, it has not been immune. At the end of June, two Permian operators filed for bankruptcy. Sable Permian **filed for bankruptcy on June 25th** with approximately $1.3 billion of interest-bearing debt. The company previously underwent debt restructurings in 2017 and 2019. On June 29th, Lilis Energy **filed for Chapter 11.** The company entered proceedings with a Restructuring Support Agreement with certain investors. Under the terms of the agreement, common equity holders will not receive any consideration in the restructured entity.

Though commodity prices have recovered from recent lows, they remain below levels at which certain operators can cover operating expenses on existing wells (and well below prices required to drill new wells), according to a **Dallas Fed survey.** As such, more Permian bankruptcies are likely coming.

Texas Railroad Commission Decides Against Proration

On April 14th, the Texas Railroad Commission (which, despite its name, regulates oil & gas activities in the state of Texas) **held a meeting** to discuss prorating production in the state in light of significant demand destruction and concerns regarding oversupply. Proponents of proportion, led by Scott Sheffield of Pioneer and Matt Gallagher of Parsley, **argued** that proration was needed to save American jobs and ensure that the energy industry is able to respond once demand returns. Opponents argued that government mandates were unnecessary and that operators should adjust production in response to market prices. Some, specifically midstream operators, were concerned that such a mandate would allow E&P companies to eschew contractual commitments.

On May 5th, the two of the three Texas Railroad commissioners **voted against proration.**

Market Valuations and Transaction Activity

The Road Ahead: Deal Count and Deal Motives Changing in Challenging Times

Transaction activity in the Permian Basin, and frankly elsewhere as well, is in a unique and potentially critical situation as companies are facing unpredictable consequences and uncertain futures. A table detailing E&P transaction activity in the Permian over the last twelve months is shown on the next page. **Relative to 2018-2019,** deal count decreased by ten and median deal size declined by roughly $60 million year-over-year. Although this table looks busy with a number of deals, the transactions that occurred before March are most likely not indicative of the road ahead. Industry participants are much more concerned with deals that have been announced following the dramatic fall in oil price due to COVID-19 and the Russian-Saudi price war, which in this case was determined to be after March 1, 2020. Looking at the table, only four deals have been announced post-March. Although the sample is small, they could be the best indication of what is to come, assuming prices remain depressed.

Transactions in the Permian Basin

Announced Date	Buyer	Seller	Deal Value ($MM)	$ / Acre	$ / Boepd
6/4/20	Pegasus Resources	Black Stone Minerals, LP	$100	nm	$55,556
6/4/20	Undisclosed Buyer	Black Stone Minerals, LP	55	nm	nm
5/4/20	Pure Acquisition Corp.	HighPeak Energy	845	16,569	281,667
4/14/20	Undisclosed Buyer	Ring Energy Inc.	32	1,575	34,692
2/17/20	Undisclosed Buyer	Lilis Energy Inc.	24	20,338	nm
2/12/20	Laredo Petroleum Inc.	Undisclosed Seller	23	20,455	nm
1/23/20	BlackGold Capital Management	Undisclosed Seller	Undisclosed	nm	nm
1/9/20	Kimbell Royalty Partners LP	Springbok Energy	175	nm	69,088
12/16/19	WPX Energy, Inc.	Felix Energy LLC	2,500	42,735	41,667
12/9/19	Laredo Petroleum Inc.	Pioneer Natural Resources Co.	65	14,525	46,429
11/5/19	Laredo Petroleum Inc.	Cordero Energy Resources LLC	130	17,663	nm
10/14/19	Parsley Energy Inc.	Jagged Peak Energy Inc.	2,270	29,103	59,269
10/3/19	Undisclosed Buyer	Abraxas Petroleum Corp.	8	nm	25,484
9/13/19	Viper Energy Partners LP	Santa Elena Minerals, LP	150	110,457	107,143
9/3/19	Spur Energy Partners LLC	Concho Resources, Inc.	925	13,214	37,000
8/15/19	Undisclosed Buyer	Panhandle Oil and Gas Inc.	18	23,974	nm
8/6/19	Undisclosed Buyer	Earthstone Energy Inc.	Undisclosed	nm	nm
8/1/19	Ecopetrol S.A.	Occidental Petroleum Corp	1,500	15,464	nm

Source: Shale Experts

Transactions in the Permian Basin (cont.)

Announced Date	Buyer	Seller	Deal Value ($MM)	$ / Acre	$ / Boepd
7/31/19	Undisclosed Buyer	Lilis Energy Inc.	56	nm	nm
7/15/19	Callon Petroleum Co.	Carrizo Oil & Gas Inc.	3,200	26,122	51,613
6/24/19	Alliance Resource Partners LP	Wing Resources LLC	145	16,111	315,217
6/19/19	Development Capital Resources	Undisclosed Seller	165	nm	nm
Median			**$138**	**$19,000**	**$53,584**
Average			**$619**	**$26,307**	**$93,735**
Median After 3/1/2020			**$78**	**$9,072**	**$55,556**
Average After 3/1/2020			**$258**	**$9,072**	**$123,971**

Source: Shale Experts

Black Stone Minerals Letting Go of Core Permian Acreage

In early June, Black Stone Minerals **announced** that they were selling a total of $155 million of royalty interest assets in two separate transactions to strengthen their balance sheet and liquidity position. This appeared to be core acreage in the Permian as the price per flowing barrel was a premium **compared** to average private transactions of $40,000 per flowing barrel in March and April. The deal with Pegasus Resources **included** a 57% undivided interest across parts of the company's Delaware Basin position and a 32% undivided interest across parts of the company's Midland Basin position. Black Stone **noted** that proceeds from the sale will be used to reduce the balance outstanding on the company's revolving credit facility. Black Stone expects its total debt levels to be under $200 million after closing the two transactions.

HighPeak Energy & Pure Acquisition Combine Forces After Early Complications

Pure Acquisition, a blank-check company, **announced** in early May that it was acquiring Howard County focused HighPeak Energy in a deal worth $845 million. The **original deal,** which was terminated due to the crash in oil prices and market uncertainty, included a three-way merger agreement with private-equity-backed Grenadier Energy Partners. The new business combination between HighPeak Energy and Pure Acquisition will hold a pure-play 51,000-net-acre position in the northern Midland Basin. Jack Hightower, HighPeak Energy's Chairman and CEO, **commented,** "With the decline of energy prices over the last few months, several energy companies are struggling. However due to our low drilling and completion costs and our low operating costs, our breakeven prices are much lower than our competitors which enables us to operate profitably at lower price levels." Time will tell whether the merger will be able to capitalize. The transaction is expected to close in the third quarter of 2020, with the combined company trading on the NASDAQ.

Ring Energy Taking a Conservative Approach Moving Forward

In mid-April, Ring Energy **agreed** to sell its Delaware Basin asset located in Culberson and Reeves Counties, Texas for $31.5 million to an undisclosed buyer. The asset included a 20,000 net-acre position with current production of 908 boepd (63% oil) at the time of the deal. Kelly Hoffman, CEO of Ring Energy **stated,** "The proceeds from this transaction will be used to reduce the current balance on the company's senior credit facility. The current environment mandates a cautious, conservative approach going forward, and strengthening our balance sheet is a step in the right direction." Ring Energy continues to hold positions in the Permian and Central Basin Platform and the Northwest Shelf. The company **recently** completed a redetermination of its senior credit facility and expects the transaction to close before the end of July.

M&A transaction activity in the Permian was skewed in terms of deal count, as most activity during the last twelve months occurred in the second half of 2019. Deal motives moving forward will be interesting to monitor as companies may be forced to let go of premium acreage, notably in the Permian Basin, to improve their liquidity positions. It does not appear to be a seller's market, as sellers realize the intrinsic value associated with acreage. If companies have the luxury, and are not forced to sell, they seem to be holding on tight searching for light at the end of the tunnel.

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 6/30/2020		
Company Name	**Ticker**	**6/30/2020 Enterprise Value**	**YOY % Change in EV**	**EBITDAX Margin**	**EV/ EBITDAX**	**Daily Production (mboe/d)**	**Price per Flowing Barrel***
Global Integrated							
Exxon Mobil Corp	XOM	$215,560	-48.50%	12.3%	7.0x	3,879	$55,577
Royal Dutch Shell PLC	RDS/A	$209,823	-43.60%	14.7%	4.4x	3,697	$56,751
Chevron Corp	CVX	$160,969	-39.90%	23.3%	5.1x	3,065	$52,525
BP PLC	BP	$144,442	-38.55%	6.6%	8.0x	3,722	$38,809
Equinor ASA	EQNR	$53,220	-35.64%	26.7%	3.2x	2,192	$24,275
Group Median			**-39.90%**	**14.7%**	**5.1x**	**3,697**	**$52,525**
Global E&P							
Marathon Oil Corp	MRO	$7,472	-76.55%	64.7%	2.3x	406	$18,385
Hess Corp	HES	$17,992	-46.80%	14.1%	20.3x	333	$54,038
ConocoPhillips	COP	$40,438	-48.51%	46.1%	3.0x	1,245	$32,494
Occidental Petroleum Corp	OXY	$57,851	-75.35%	28.6%	8.9x	1,325	$43,656
Noble Energy Inc	NBL	$11,349	-72.55%	-30.0%	nm	386	$29,404
Apache Corp	APA	$11,888	-85.14%	-62.1%	nm	447	$26,569
Murphy Oil Corp	MUR	$4,526	-74.24%	47.3%	3.0x	194	$23,327
Group Median			**-74.24%**	**28.6%**	**3.0x**	**406**	**$29,404**

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 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	6/30/2020 Enterprise Value	YOY % Change in EV	EBITDAX Margin	EV/ EBITDAX (as of 6/30/2020)	Daily Production (mboe/d) (as of 6/30/2020)	Price per Flowing Barrel* (as of 6/30/2020)
North American E&P							
Devon Energy Corp	DVN	$5,794	-75.33%	5.0%	17.0x	332	$17,431
QEP Resources Inc	QEP	$1,991	-95.28%	66.0%	2.6x	87	$22,964
WPX Energy Inc	WPX	$4,888	-73.50%	53.8%	4.0x	234	$20,914
Group Median			**-75.33%**	**53.8%**	**4.0x**	**234**	**$20,914**
Bakken							
Continental Resources Inc/OK	CLR	$8,628	-81.79%	65.4%	3.0x	332	$25,980
Whiting Petroleum Corp	WLL	$2,949	-96.41%	56.0%	3.7x	112	$26,383
Oasis Petroleum Inc	OAS	$2,950	-93.84%	-209.5%	nm	81	$36,385
Group Median			**-93.84%**	**56.0%**	**3.4x**	**112**	**$26,383**
Appalachia							
Range Resources Corp	RRC	$3,804	-67.03%	-50.8%	nm	380	$10,018
EQT Corp	EQT	$6,824	-54.79%	10.0%	18.0x	672	$10,161
Cabot Oil & Gas Corp	COG	$7,904	-23.84%	62.3%	7.0x	400	$19,771
Antero Resources Corp	AR	$6,729	-87.11%	30.1%	5.6x	576	$11,690
Gulfport Energy Corp	GPOR	$1,979	-90.94%	-76.4%	nm	189	$10,467
Southwestern Energy Co	SWN	$3,334	-46.52%	-18.1%	nm	354	$9,416
Group Median			**-60.91%**	**-4.1%**	**7.0x**	**390**	**$10,314**

Source: Bloomberg L.P.

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- Companies included in the Guideline Group are not meant to be an exhaustive list. The selected companies' market caps exceed $1 billion and revenues exceed $500 million.
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Selected Public Company Information

Company Name	Ticker	6/30/2020 Enterprise Value	YOY % Change in EV	EBITDAX Margin	EV/ EBITDAX (as of 6/30/2020)	Daily Production (mboe/d) (as of 6/30/2020)	Price per Flowing Barrel* (as of 6/30/2020)
Permian Basin							
Concho Resources Inc	CXO	$12,220	-58.20%	-170.1%	nm	327	$37,317
Parsley Energy Inc	PE	$5,447	-69.61%	-135.4%	nm	194	$28,041
Diamondback Energy Inc	FANG	$11,183	-75.70%	31.0%	8.7x	296	$37,805
Centennial Resource Development Inc/DE	CDEV	$1,206	-96.53%	64.2%	2.0x	71	$16,985
Callon Petroleum Co	CPE	$3,528	-91.69%	66.6%	6.6x	109	$32,374
Laredo Petroleum Inc	LPI	$1,312	-86.90%	-8.1%	nm	81	$16,104
Pioneer Natural Resources Co	PXD	$13,754	-53.75%	29.8%	4.8x	361	$38,106
Cimarex Energy Co	XEC	$3,927	-71.23%	-4.3%	nm	270	$14,541
Group Median			**-73.47%**	**12.7%**	**5.7x**	**232**	**$30,207**
Eagle Ford							
EOG Resources Inc	EOG	$23,545	-45.62%	54.5%	2.6x	851	$27,672
Magnolia Oil & Gas Corp	MGY	$1,260	-47.67%	-81.9%	nm	66	$19,146
SilverBow Resources Inc	SBOW	$486	-76.82%	33.8%	5.3x	35	$13,942
Penn Virginia Corp	PVAC	$587	-68.94%	73.1%	1.8x	25	$23,231
Group Median			**-58.30%**	**44.1%**	**2.6x**	**50**	**$21,188**
OVERALL MEDIAN			**-71.89%**	**25.0%**	**4.8x**	**333**	**$25,127**

Source: Bloomberg L.P.

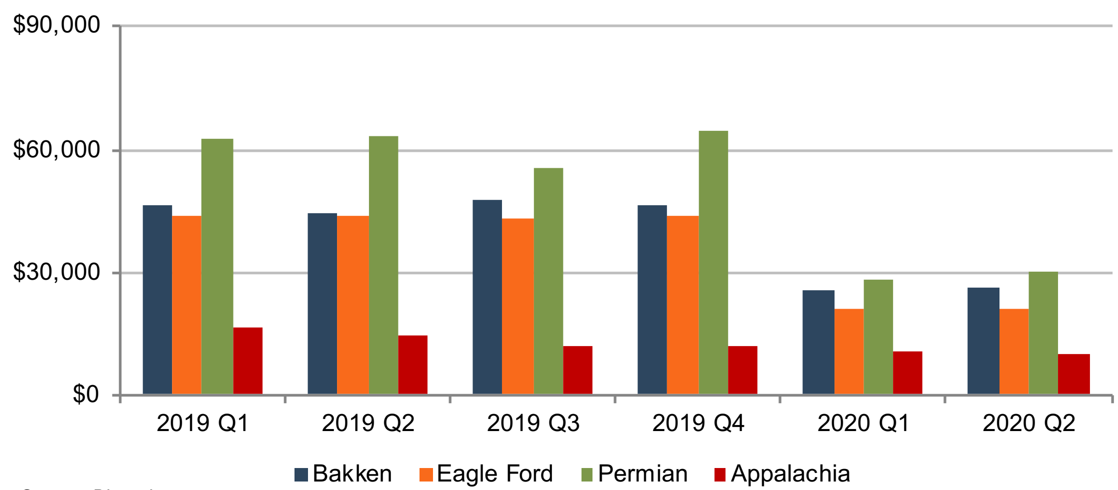
- Price per Flowing Barrel is EV/ daily production ($/boe/d)
- Companies included in the Guideline Group are not meant to be an exhaustive list. The selected companies' market caps exceed $1 billion and revenues exceed $500 million.
- We review 10-K's and annual reports from guideline companies to ensure 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, at the end of the past six quarters. As has been the case for some time now, operators in the Permian continue to lead the other regions in terms of valuation, although this margin is decreasing. The Permian, Eagle Ford, and Bakken saw an increase in their price per flowing barrel in the second quarter of 7%, 1%, and 2% respectively. The Appalachia saw a decrease of 3% in the second quarter. Low commodity prices have negatively impacted operators regardless of region, as all four basins have seen a decline in price per flowing barrel in the range of 39% to 52% since Q1 2019.

Price per Flowing Barrel



Source: Bloomberg

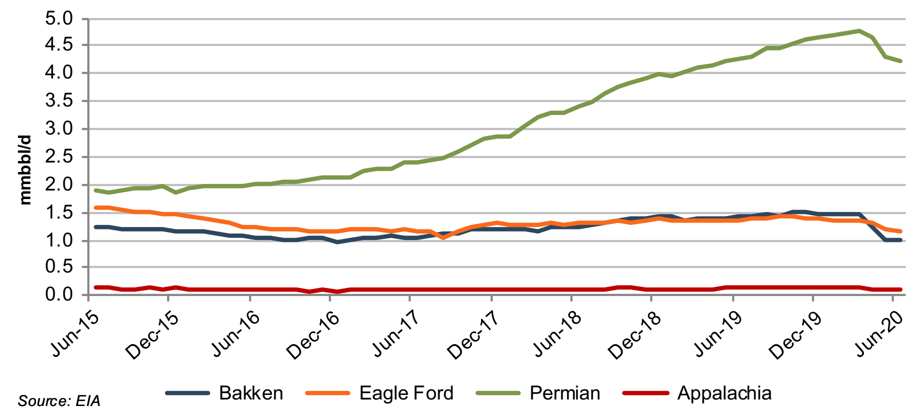
- Price per Flowing Barrel is EV/ daily production ($/boe/d)
- This is simply a graphic depiction of median figures of our selected public companies for each region. This should be interpreted solely in the context of relative valuation between the various basins over time. Bloomberg aggregates this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

Crude Oil Production

The Permian, Eagle Ford, Bakken, and Appalachia all experienced negative production growth over the last year, .7%, 15.4%, 28.6%, and 15.8% respectively.

Daily Production of Crude Oil

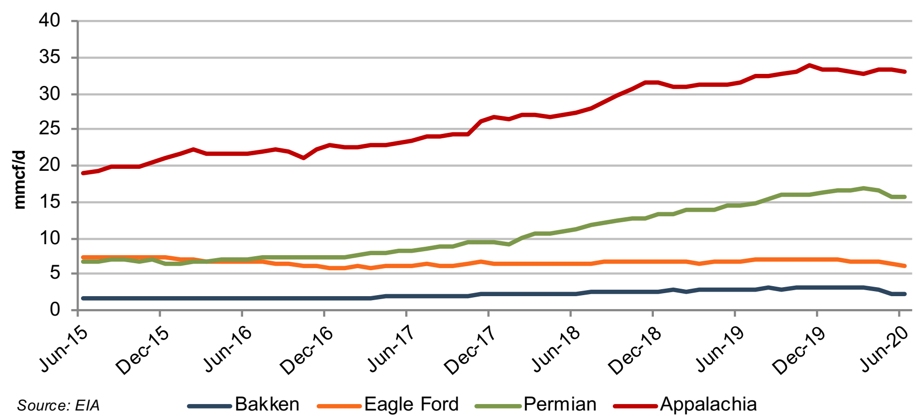


Source: EIA

Natural Gas Production

Natural gas production in the Appalachia has increased 5.0% over the last year, whereas Permian production has grown 6.8% in the same time frame. Growth in the Eagle Ford decreased 10.0% year over year, and growth in the Bakken decreased 19.5%.

Daily Production of Crude Oil



Source: EIA

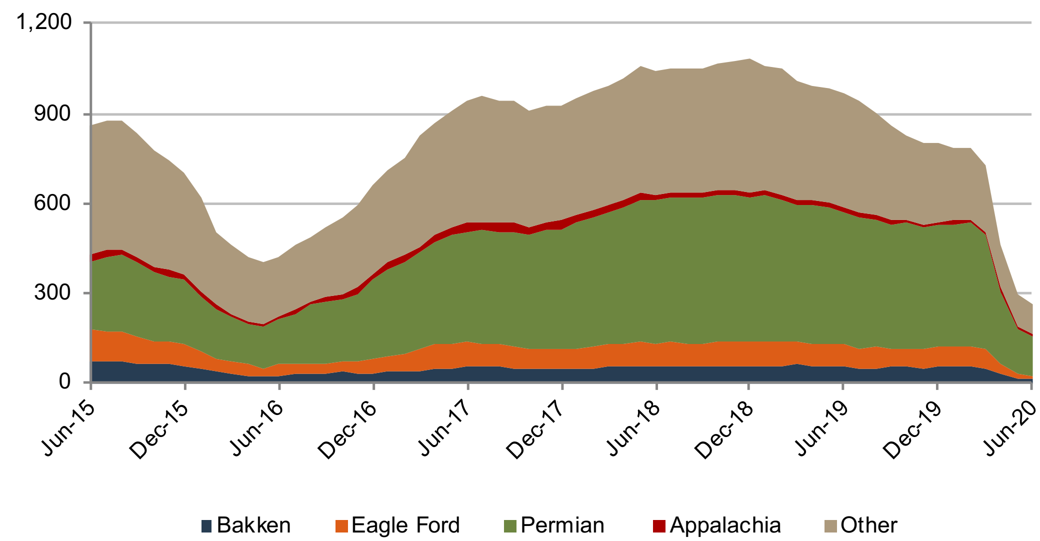
Appendix B

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, 2020 stood at 263, a 72.8% decrease from March 31, 2020, and a 72.8% decline from June 2019. The rig count in the Permian decreased from 441 to 131 rigs in over the last year as E&P operators are cutting rigs in light of recent demand issues.

Rig Count by Region



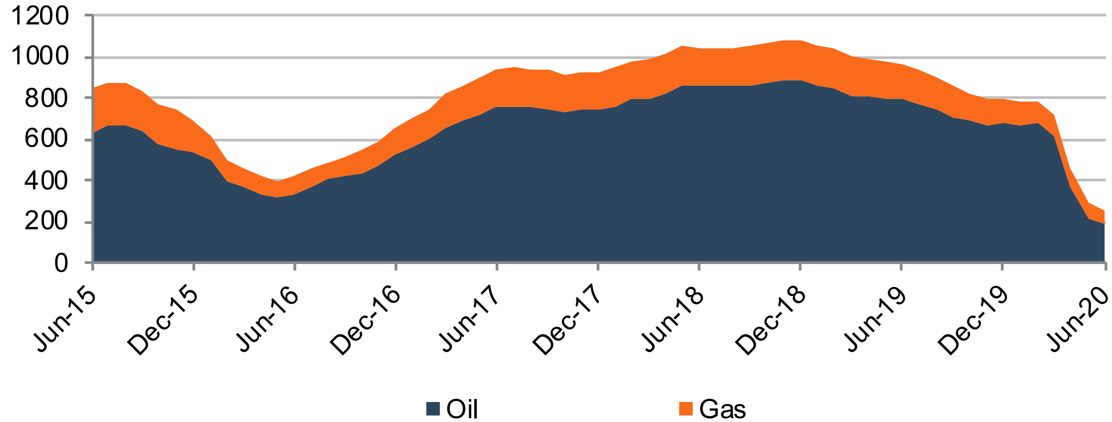
Source: Baker Hughes

[1] Calculations based on monthly crude oil and gas production and EIA drilling report by region.

Appendix B

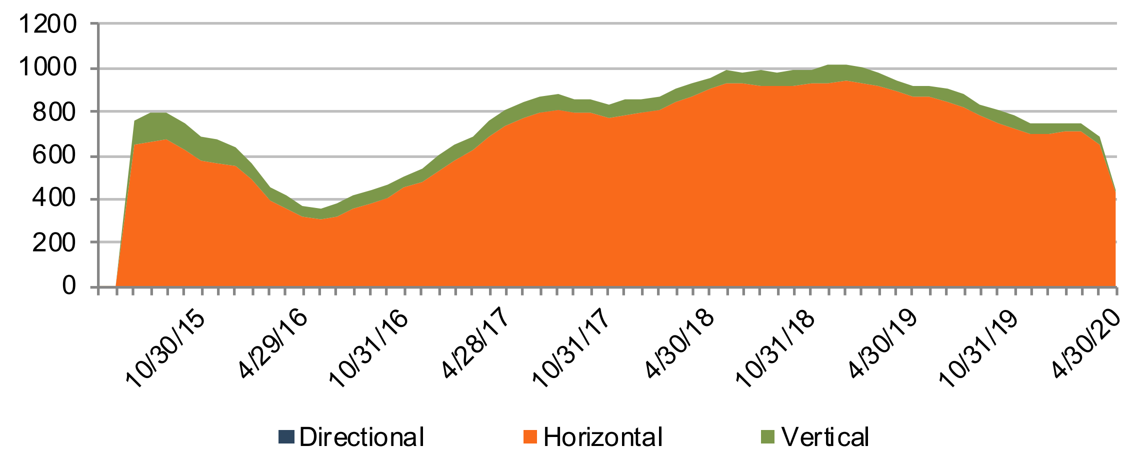
Rig Count

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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