

VALUE FOCUS

Exploration & Production

Fourth Quarter 2023 // Region Focus: The Haynesville

EXECUTIVE SUMMARY

Haynesville production held-up reasonably well during the 2023 review period, particularly considering the sharp fall-off in the basin's rig count. Despite the Henry Hub natural gas front month futures prices ending the year well below their starting point, the outlook for the Haynesville basin is favorable. **Bhautik Gajera, writing for ADI Analytics**, notes that Haynesville production is anticipated to continue growing due to rising demand from LNG facilities and petrochemical plant development along the U.S. Gulf Coast. In addition, Gajera notes that while existing Haynesville-to-Gulf Coast pipelines are adequate for 16 Bcf/d capacity, three new pipelines to support LNG facilities under development will add 5 Bcf/d of capacity by the end of 2024.



Oil and Gas Industry Services

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

Services Provided

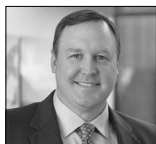
- Valuation of oil & gas companies
- Transaction advisory for acquisitions and divestitures
- Valuations for purchase accounting and impairment testing
- Fairness and solvency opinions
- Litigation support for economic damages and valuation and shareholder disputes

Industry Segments

Mercer Capital serves the following industry segments:

- Exploration & Production
- Oil Field Services
- Midstream Operations
- Alternative Energy
- Downstream
- Retail

Contact Us



Bryce Erickson, ASA, MRICS
214.468.8400
ericksonb@mercercapital.com
Dallas Office



J. David Smith, ASA, CFA
713.239.1005
smithd@mercercapital.com
Houston Office



Sebastian S. Elzein
214.468.8400
elzeins@mercercapital.com
Dallas Office



Derek P. Smith
932.966.0307
derek.smith@mercercapital.com
Houston Office



Don Erickson, ASA
214.468.8400
ericksond@mercercapital.com
Dallas Office



Andrew B. Frew, ASA, ABV
832.966.0345
frewa@mercercapital.com
Houston Office



Thomas G. Kasierski
281.378.1510
kasierskit@mercercapital.com
Houston Office

In This Issue

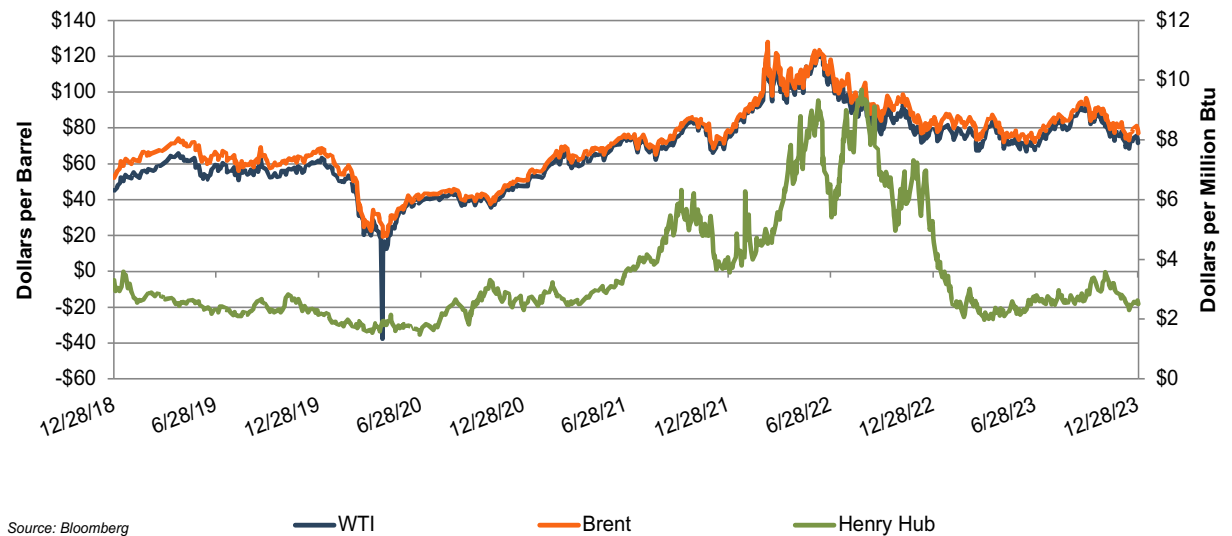
Oil and Gas Commodity Prices	1
Macro Update	
2024 Oil and Gas Outlook	
Region Focus: Haynesville Basin	8
Production and Activity Levels	8
Financial Performance	10
Market Valuations & Transaction History	11
Slim M&A Activity in 2023	11
Chesapeake and Southwestern Merger	12
Selected Public Company Information	14
Production	18
Rig Count	19

Learn More about Mercer Capital &
our Oil and Gas Industry Services at
mer.cr/oilgas

Oil and Gas Commodity Prices

Henry Hub natural gas front month futures prices generally pushed downward through early April (albeit with a two-week upward run in late February), from \$4.10 to \$2.01, before beginning an April to October run-up to \$3.80 in the first week of November. The natural gas benchmark turned “south” for the next nine weeks reaching a second half 2023 low of \$2.14 in mid-December. While the Henry Hub pricing generally followed the same pattern of change as the West Texas Intermediate (WTI) and Brent Crude (Brent) oil benchmark prices, as is typical, the Henry Hub pricing showed much greater volatility with more pronounced directional changes and larger percentage runs in both directions.

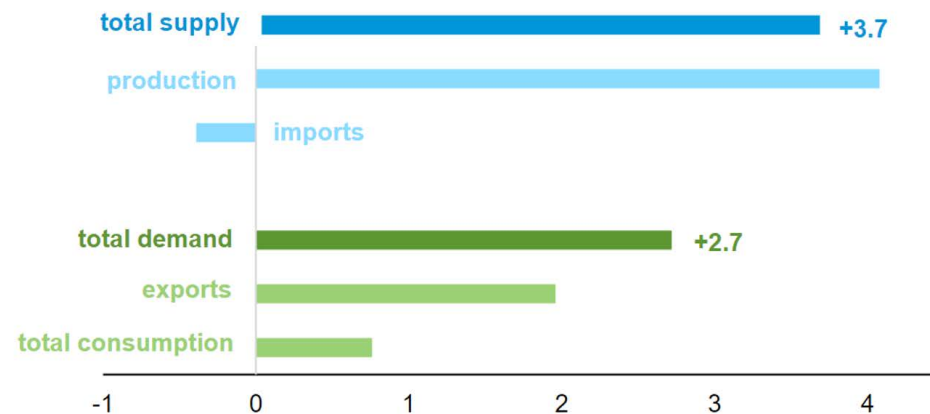
Crude Oil and Natural Gas Prices



Oil and Gas Commodity Prices (cont.)

The EIA attributed the 2023 natural gas pricing decline to **record production** that outpaced consumption, as indicated in its January 2024 *In Brief Analysis* and as depicted below.

Natural gas supply and demand balance, 2023 versus 2022 (Bcf/d)



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook*

Oil prices, as benchmarked by WTI and Brent, showed much less volatility than natural gas prices during the year, generally varying between \$67 and \$82 (WTI) and \$73 and \$89 (Brent) through early March. The price range narrowed a bit during May and June with WTI only ranging from \$67 to \$76 and Brent from \$71 to \$80. Beginning in late June, the benchmarks began a three-month upward run reaching their 2023 highs – only to reverse course to head downward through mid-December.

Macro Update

2024 Oil and Gas Outlook

A Year Of Divergence

Reprint of Bryce Erickson's
Forbes.com column.

Originally published January 19, 2024

January, and the new year in general, is a time of planning and setting expectations. We all do it (or should anyway). We attempt to evaluate where we're going based on where we are, who we are, and where we have been. When it comes to the oil and natural gas upstream markets, it appears each commodity and its producers are heading to different places in 2024. We can see it through market sentiment, prices, production, and corporate actions such as mergers.

U.S. oil seems to be headed toward a period of decreasing growth and increasing upward price pressure. U.S. natural gas on the other hand, appears to be back in a somewhat oversupplied position while hoping that LNG market channels ease the price pressure that has pushed it back under \$3 per Mcf again. U.S. oil's drilling inventory and reserves are showing some signs of increasing in value and relative attractiveness. The top shale locations are dwindling, and quality reserves are coming at more of a premium.

On the other hand, natural gas's drilling inventories remain vast across several plays in the Lower 48 and unless there are first-class characteristics to a company's PUD inventory (such as being economically strong and proximate to LNG market channels such as perhaps the Haynesville Shale play) the market appears to be less interested in paying a whole lot extra for it. This dichotomy extends not only to the broader markets themselves, but also to the larger firms and smaller firms within them. Larger companies, like the majors and large independents have a different view on how to approach 2024 than smaller firms. Let us look at some of these dynamics and how they might play into the upstream outlook for this year.

Oil — Production Growth Waning

Crude oil prices rose recently due to a surprise weekly draw due to the cold weather. However, overall production for the year according to the **EIA**, while rising, is expected to wane. Other market players expect that production will fall this February everywhere except the Permian Basin. The latest **Dallas Fed Survey** from December presents a similar sentiment. Oilfield services firms are reporting a downward drift in activity, while capital expenditure planning presents a flat yet mixed picture. Smaller firms are seeking to grow or at least maintain production mostly, while larger firms are focusing more on acquiring assets with their cash flow and at the same time reducing debt.

Macro Update

(cont.)

2024 Oil and Gas Outlook

A Year Of Divergence

Reprint of Bryce Erickson's
Forbes.com column.

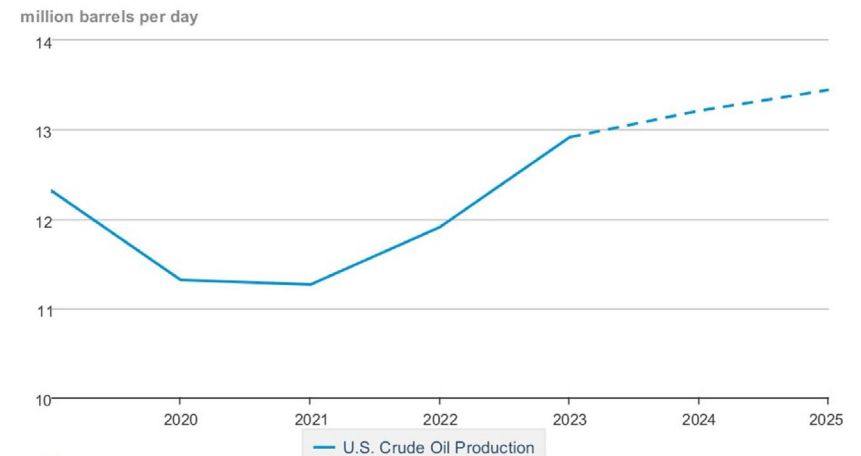
Originally published October 13, 2023

There does appear to be some stability on the oil side from a corporate planning standpoint as the Dallas Fed Survey suggests that firms are preparing their capital expenditures around a \$70-75 per barrel pricing environment this year. However, a complicating factor is that the shift of institutional development capital away from the oil space due to ESG and carbon emission concerns will continue to hamper capital flow that firms might otherwise want to deploy in the space. One Dallas Fed Survey respondent's remarks centered around the idea that inventory for U.S. onshore oil drilling will be extremely valuable in five years, due in part to the dearth of capital, and that young people in the industry should learn about offshore and international exploration sooner rather than later. That is not exactly a ringing endorsement of today's upstream investment conditions.

In addition, the past year's increases in interest rates will disincentivize debt capital in the upstream space; not that the industry has been relying much on it anyway in recent years. In fact, a lot stay away from debt if they can. It comes with too many restrictive provisions. Many producers, particularly natural gas producers, privately (and sometimes publicly) gripe about the pricing hedges, swaps and collars that bankers demand from firms these days which are sometimes perceived as a handcuff on equity holders' upsides.

On the international front, OPEC announced "voluntary" cuts in late 2023. I'm not exactly sure what that means and how effective it will be. However, it does signal that OPEC is not seeking to boost production either, so the pressure for U.S. shale producers to ramp up production in the name of maintaining global market share may not be weighty this year. That's also not to mention the possibility of OPEC announcing more cuts in 2024 leading up to the U.S. election. Some speculate that OPEC would rather have petroleum and gasoline prices rising before the election as opposed to falling.

U.S. Crude Oil Production



Data source: U.S. Energy Information Administration

Macro Update

(cont.)

2024 Oil and Gas Outlook

A Year Of Divergence

Reprint of Bryce Erickson's
Forbes.com column.

Originally published October 13, 2023

This may also be fueling some of the perceived rationale for the majors' acquisitions in 2023, particularly Chevron's acquisition of Hess. More on that in a moment.

Natural Gas – Still Plentiful and Cheap

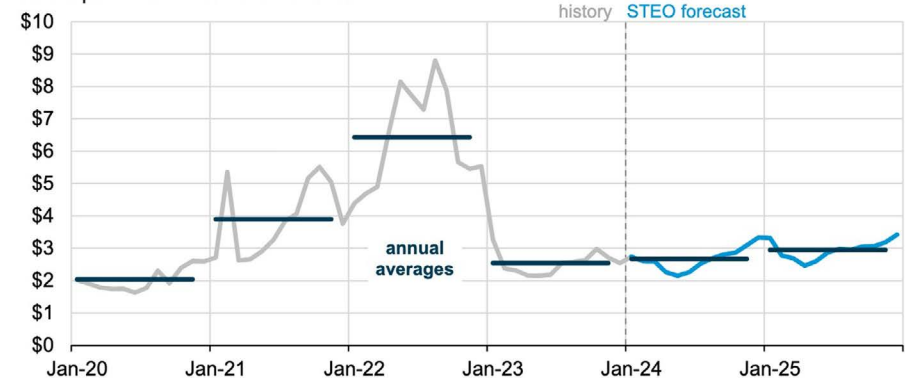
The US is expected to have 1.9 trillion cubic feet of natural gas stored by March, which is 15% above its storage levels at the same time in 2023. For those of you who are slow on the uptake, this is a sign of oversupply. The inventory levels are the result of sharply increasing production as well as warmer-than-expected temperatures throughout the winter thus far. On top of those short-term impacts, multiple LNG export terminals have been experiencing delays to their startup times, such as ExxonMobil's Golden Pass. These delays may cause lower-than-expected demand until they become operational. Once they are online there will likely be high demand, but exports may remain artificially limited up until 2025.¹

The EIA's U.S. natural gas market outlook states that the U.S. benchmark natural gas spot price at the Henry Hub is expected to average under \$3.00 per million British thermal units (MMBtu) in 2024 and 2025 due to strong natural gas production and storage inventories. This is more in line with gas prices in recent years except for 2022. It also forecasts that

U.S. natural gas demand will eventually increase over that period, driven by growth in LNG exports and colder winter weather. The EIA suggests that the demand growth will be partially offset by less consumption in the industrial and electric power sectors. In other words, despite increasing demand, the EIA believes the natural gas market is expected to remain relatively low-priced in the next two years.

Monthly Henry Hub natural gas spot price (Jan 2020–Dec 2025)

dollars per million British thermal units



Data source: U.S. Energy Information Administration, *Short-Term Energy Outlook* (STEO), January 2024

Macro Update

(cont.)

2024 Oil and Gas Outlook

A Year Of Divergence

Reprint of Bryce Erickson's
Forbes.com column.

Originally published October 13, 2023

Reading the Merger and Acquisition Tea Leaves

Another indication of industry direction can be observed in the merger and acquisition markets, which have been more active in the past six months. Large deals such as the Exxon acquisition of Pioneer, Chevron's purchase of Hess, and the Chesapeake and Southwestern merger can give insight into where the upstream industry is headed.

As the consolidation trend continues in the oil and gas industry heading into 2024, Exxon and Chevron have made the biggest splashes in a few years by acquiring Pioneer and Hess for around \$60 billion each. The transactions have several things in common. First, they bought companies from a dwindling pool of large publicly traded strategic targets that are even available. As one may see it, there are only a couple of targets out there now worth over \$50 billion (Oxy, EOG) and a handful more worth \$20 to \$40 billion (Marathon, Apache, Diamondback, EQT Coterra). However, as the size gets smaller the business model fit for a buyer like Exxon or Chevron tends to become less diversified and basin-specific. Almost coincidentally, the prices for Pioneer and Hess were almost on top of each other (\$65 billion vs. \$60 billion). They also were both bought for a modest premium to the 30-day stock price leading up to the announcement of the deal.

One notable item observed from these deals, particularly the Chevron and Hess deal, was the increasing premiums paid for future drilling inventory. Most transactions in recent years have been mostly centered around current production and profitability, with future inventories tending to be less of a valuation focus. However, Chevron's purchase of Hess had a significant theme of future inventories in its investor communications, namely Hess' Guyana offshore Strabroek Block. A significant part of the purchase price was attributable to this upside opportunity and the Strabroek Block is expected to be one of the central growth engines in Chevron's future production plans. Now there are risks to be sure, but most deals have been valued primarily on the production and EBITDA at the time of the deal, not five years from the time of the deal. It makes me wonder if the majors and larger acquirers might be investing on the notion that the tail end of the forward curve is wrong, and that reserve inventory will increase in value as quality shale locations decline.

On the natural gas side of the ledger, Chesapeake and Southwestern announced a merger in January 2024. Investors have reacted positively towards the transaction, even though some analysts perceived both companies as "not all that appealing on their own." This is a little unusual, as typically, acquirers will experience a temporary decline in their stock due to taking on debt for the acquisition and the burden of paying a premium for the acquired firm.

Macro Update

(cont.)

2024 Oil and Gas Outlook

A Year Of Divergence

Reprint of Bryce Erickson's
Forbes.com column.

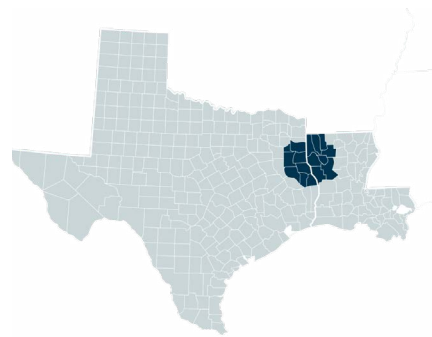
Originally published October 13, 2023

The theme in this deal was more oriented towards cost synergies and immediate cash flow accretion. Do not mistake me, the other deals highlight this too, but this feature was more of a bedrock item for the natural gas companies. In addition, the combined company's positioning around future LNG markets was a big rationale for the deal. In recent times, investors have moved away from small and mid-size operators in favor of larger entities. This is one of the primary drivers behind recent consolidation in the upstream energy sector, although until now natural gas producers have lagged oil-focused operators in terms of acquisitive activity due to low bid-ask spreads. It seems likely that part of the appeal that Wall Street sees in the deal is the creation of a large new operator that can compete with more established players. Nonetheless, it is easier to characterize this as a defensive move by the natural gas companies who are waiting for LNG markets to reinforce them, whereas the majors' acquisitions appear more strategically oriented from a future growth perspective on the oil side.

Overall, it appears that oil is positioning itself as an increasingly valuable commodity in 2024 whereas natural gas remains closer to neutral. Smaller players are trying to stay cash flow positive and get a good return on their new wells, while larger players are spending more time sharking around and eyeing smaller companies to get growth and cost synergies. Either way, until the delayed LNG markets get ramped up, oil appears to have valuation's upper hand over natural gas in 2024. We will see where it goes from here.

Haynesville Shale

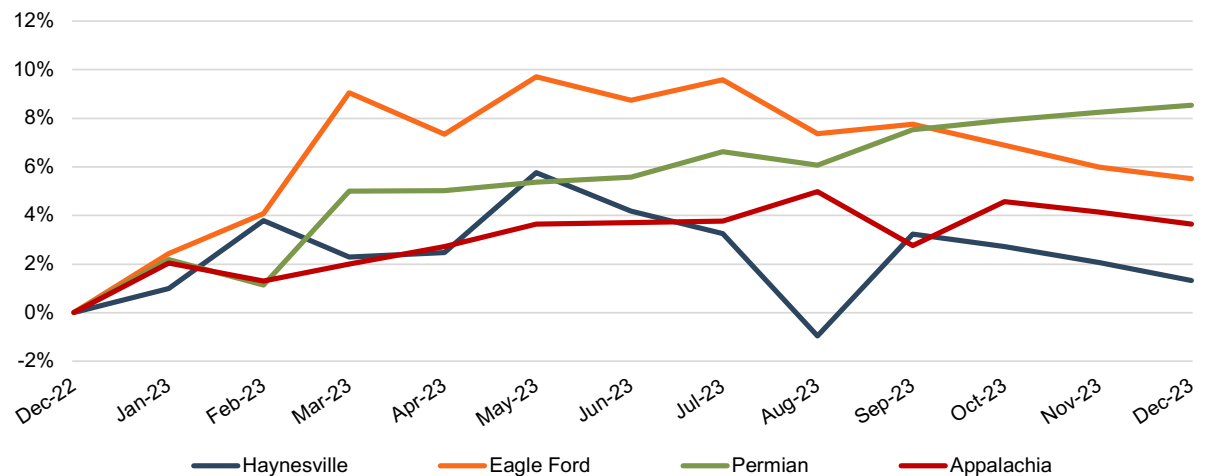
Production and Activity Levels



The economics of oil and gas production varies by region. Mercer Capital focuses on trends in the Eagle Ford, Permian, Haynesville, 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 Appalachian Basin.

Estimated Haynesville production (on a barrels of oil equivalent, or “boe” basis) rose by 1.3% year-over-year through November – marking it as the basin with the smallest increase among those included in our analysis. While Haynesville production growth over December 2022 levels generally crept upward through April (reaching a high of 5.8% through April), the trajectory turned downward thereafter with only a single uptick month during the remainder of the year. Production growth in the remaining basins (the Eagle Ford, Permian, and Appalachia) was more robust with the Eagle Ford posting the 2023 growth highmark at 9.7% in April. Year-over-year oil equivalent production growth for those basins showed increases of 5.5%, 8.5% and 3.6%, respectively. The slower expansion of the Haynesville can be attributed to its significant decline in rig count throughout 2023, surpassing the declines observed in the other three regions.

1-Year Change in Production



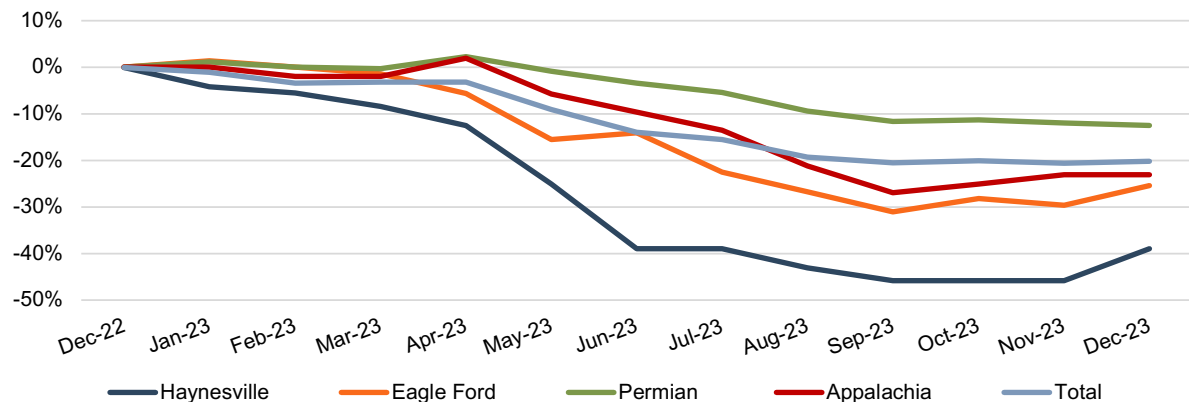
Source: Energy Information Administration

Production and Activity Levels (cont.)

Achieving higher production in the face of declining rig counts (as discussed in the next section of our analysis) may seem contrary to logic. However, Robert Rapier (a senior Forbes contributor) points out that **DUCs (drilled but uncompleted wells) declined from 5,300 near year-end 2022 to 4,500 in December 2023**, for an 800 DUC decline. This represents 800 wells that began production during 2023, but without the need for any new drilling. Therefore, the basins were able to post increased production, despite the decline in rig count.

Rig counts fell by 20% over the course of the year, from 777 at year-end 2022 to 620 in the last week of 2023. Haynesville led the decline over the other basins with a year-over-year drop of 39% from 72 rigs to 44 with the Eagle Ford and Appalachia falling a much more modest 25% and 23%, respectively. The Permian, with its lower production costs, posted the smallest decline at 13%, from 353 to 309 rigs. The sharpest declines occurred in May and the July-August period for the Eagle Ford, Permian and Appalachia basins. The Haynesville's heavy decline period ran from February to June with only 8 weeks of no-change, and one weekly increase, during that 21-week period. That marked a rig count decline of 36%. EDA attributed the Haynesville decline to a **rebalancing of the oversupplied natural gas market**.

1-Year Change in Rig Count

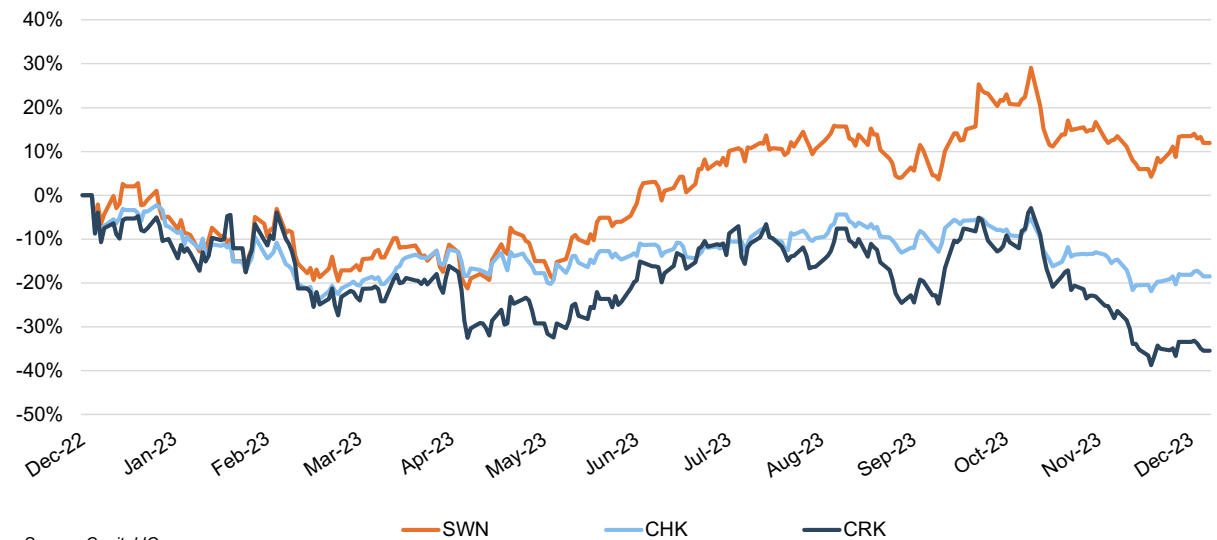


Source: Baker Hughes

Financial Performance

The Haynesville public comp group showed materially divergent stock price performance over the course of the year with Southwestern leading the group with a price increase of 12%. Chesapeake followed with an 18% decline, leaving Comstock with a 35% price plunge. Hedging strategies seem to explain a portion of the price performance differential in that **Southwestern maintained** a significant hedge book to protect cash flows, while Comstock had limited hedge coverage. All three companies showed equity value declines coinciding with Henry Hub pricing declines over the course of the year, but highly-hedged Southwestern's stock price showed a much smaller reaction to the commodity price dips than did the modestly-hedged Comstock.

1-Year Change in Stock Price



Market Valuations & Transaction History

Slim M&A Activity in 2023

Per the Shale Experts database, the Haynesville shale saw no meaningful M&A activity in 2023. This compares to seven deals in 2022, with the most recently closed deal occurring in July 2022 (Tellurian Inc.'s acquisition of natural gas assets from Ensign IV Energy Management LLC for \$125.0 million).

M&A activity in 2023, however, was not completely dead despite the volatility in natural gas prices. WhiteHawk Energy LLC purchased mineral and royalty interests in the Haynesville basin from Mesa Minerals Partners II, LLC in August. WhiteHawk Energy previously acquired up to \$105 million of natural gas mineral and royalty assets in the Haynesville basin in January 2023, covering approximately 350,000 gross acres.

As recently as November 15, 2023, **Chevron was considering** the sale of its assets in the eastern Texas portion of the Haynesville in response to its recent acquisition of Hess. Those Haynesville assets Chevron is considering selling produce approximately 40,000 cubic feet of natural gas per day and encompass approximately 70,000 acres of land. The potential sale is part of a larger plan by Chevron to divest approximately \$15 billion of assets over the next five years. Considering the assets' close proximity to LNG terminals along the Gulf Coast, the potential sale could be an attractive investment for prospective buyers as demand for U.S. LNG exports spiked upon Russia's invasion of Ukraine in 2022. The estimated acreage value is in the low hundreds of millions of dollars.

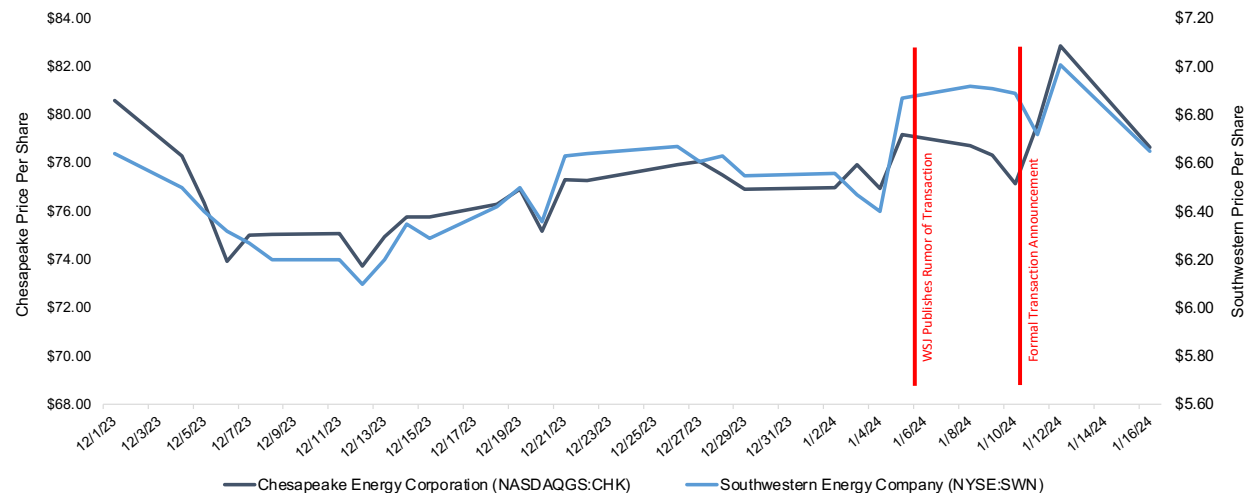
On December 18, 2023, **TG Natural Resources agreed to purchase** 100% of the assets of Rockcliff Energy II, a portfolio company of Quantum Energy Partners, for \$2.7 billion. Rockcliff operates over 200,000 net acres with more than 1.3 bcf/d of gross operated natural gas production. Per Akira Inukai, president and CEO of Tokyo Gas America, which owns the parent companies of TG Natural Resources, "The Texas and Louisiana areas where TGNR owns assets are in close proximity to new LNG export terminals where future gas demand is expected to increase, and TGNR has been seeking to acquire superior assets in those areas."

Market Valuations & Transaction History

Chesapeake and Southwestern Merger (2024)

On January 11th, 2024, Chesapeake Energy Corporation and Southwestern Energy Company announced that they would be merging, with the resulting (currently unnamed) company becoming the largest natural gas producer in the country. **The deal is the largest merger** for a natural gas company since 2017 and the culmination of Chesapeake's comeback from its Chapter 11 bankruptcy several years ago. The combined company is expected to produce 7.9 billion cubic feet of gas per day, making it the largest natural gas-focused producer in the United States. The companies already collectively account for 7% of domestic natural gas production, according to the Energy Information Administration (EIA). A presentation from Chesapeake promised that 20% of its production would be linked to international markets after the merger.

The total transaction value is \$7.4 billion, paid entirely via stock. Per the terms of the deal, Southwestern investors will receive 0.0867 shares of Chesapeake for each share of Southwestern they own, implying a value of \$6.69 for shares of Southwestern based on the close price of Chesapeake stock as of the transaction's announcement. The merger **implies an enterprise value** of approximately \$23 billion for the combined entity. The deal is expected to close in the second quarter of 2024.



Market Valuations & Transaction History

Chesapeake and Southwestern Merger (2024) (cont.)

Chesapeake and Southwestern's merger will likely transform domestic and international natural gas trade significantly, provided it navigates potential antitrust interests. Investors appear to have welcomed the transaction on account of the new company's international reach and as much as \$400 million in synergistic cost savings unlocked through reducing personnel redundancy and taking advantage of the two companies' interlocking areas of operation. Going forward, it will be interesting to see the broader impacts of the transaction and the reaction to it on Wall Street and among E&P operators. Refer to the original publication on our blog, [**The Chesapeake and Southwestern Merger**](#), for our full discussion of the merger.

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.

pricing multiples of each company in the index are summarized below.

						as of 12/31/2023	
Company Name	Ticker	12/31/2023 Enterprise Value	YoY % Change in Stock Price	EBITDAX Margin	EV/ EBITDAX	Daily Production (mboe/d)	Price per Flowing Barrel*
Global Integrated & Gas							
Exxon Mobil Corp	XOM	\$415,737	-9.4%	18.1%	6.5x	3,738	\$111,234
Shell PLC	SHEL	254,556	16.9%	21.0%	3.6	2,728	93,298
Chevron Corp	CVX	296,330	-16.9%	23.2%	6.3	3,313	89,435
BP PLC	BP	144,615	3.8%	26.5%	2.4	2,319	62,362
Equinor ASA	EQNR	108,685	-11.0%	45.9%	2.1	1,994	54,497
Group Median			-9.4%	23.2%	3.6x	2,728	\$89,435
Global E&P							
Marathon Oil Corporation	MRO	\$19,702	-10.7%	68.1%	4.5x	402	\$48,949
Hess Corporation	HES	51,452	1.6%	52.3%	9.6	410	125,543
ConocoPhillips	COP	147,439	-1.6%	42.0%	5.7	1,887	78,117
Occidental Petroleum Corporation	OXY	79,897	-5.2%	49.8%	5.5	1,214	65,795
APA Corporation	APA	17,523	-23.1%	65.3%	3.2	408	42,952
Murphy Oil Corporation	MUR	7,789	-0.8%	63.0%	3.6	188	41,527
Group Median			-3.4%	57.7%	5.0x	409	\$57,372

Source: Capital IQ

- Price per Flowing Barrel is EV/ daily production (\$/boe/d). Market data per Capital IQ. Daily Production based on Q4 2023 estimates per Capital IQ as available
- 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 12/31/2023	
Company Name	Ticker	12/31/2023 Enterprise Value	YoY % Change in Stock Price	EBITDAX Margin	EV/ EBITDAX	Daily Production (mboe/d)	Price per Flowing Barrel*
Haynesville							
Southwestern Energy Company	SWN	\$11,301	12.0%	80.6%	1.7x	746	\$15,151
Chesapeake Energy Corporation	CHK	11,404	-18.5%	69.7%	2.1	574	19,871
Comstock Resources, Inc.	CRK	4,948	-35.4%	60.2%	4.0	249	19,841
Group Median			-18.5%	69.72%	2.1x	574	\$19,841
Appalachia							
Range Resources Corporation	RRC	\$8,953	21.7%	76.8%	3.8x	365	\$24,520
EQT Corporation	EQT	21,761	14.3%	92.8%	3.8	1,018	21,381
Coterra Energy Inc.	CTRA	20,537	3.9%	70.8%	4.5	671	30,605
Antero Resources Corporation	AR	8,663	-26.8%	40.3%	4.1	574	15,087
Group Median			9.1%	73.8%	4.0x	623	\$22,951
Permian Basin							
Diamondback Energy, Inc.	FANG	\$34,095	13.4%	78.4%	5.6x	459	\$74,268
Permian Resources Corporation	PR	11,665	44.7%	65.9%	6.4	266	43,866
Callon Petroleum Company	CPE	4,141	-12.6%	57.6%	2.9	102	40,635
Vital Energy, Inc.	VTLE	2,568	-11.5%	57.7%	3.0	105	24,410
Pioneer Natural Resources Company	PXD	57,117	-1.5%	48.4%	6.1	730	78,226
Group Median			-1.5%	57.7%	5.6x	266	\$43,866

Source: Capital IQ

- Price per Flowing Barrel is EV/ daily production (\$/boe/d). Market data per Capital IQ. Daily Production based on Q4 2023 estimates per Capital IQ as available
- 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 12/31/2023	
Company Name	Ticker	12/31/2023 Enterprise Value	YoY % Change in Stock Price	EBITDAX Margin	EV/ EBITDAX	Daily Production (mboe/d)	Price per Flowing Barrel*
Eagle Ford							
EOG Resources, Inc.	EOG	\$69,012	-6.6%	58.0%	5.0x	1,019	\$67,728
Magnolia Oil & Gas Corporation	MGY	3,900	-9.2%	72.8%	4.3	85	45,776
SilverBow Resources, Inc.	SBOW	1,383	2.8%	91.6%	2.4	68	20,340
Group Median			-6.6%	72.8%	4.3x	85	\$45,776
OVERALL MEDIAN			-3.4%	59.1%	4.0x	574	\$44,821

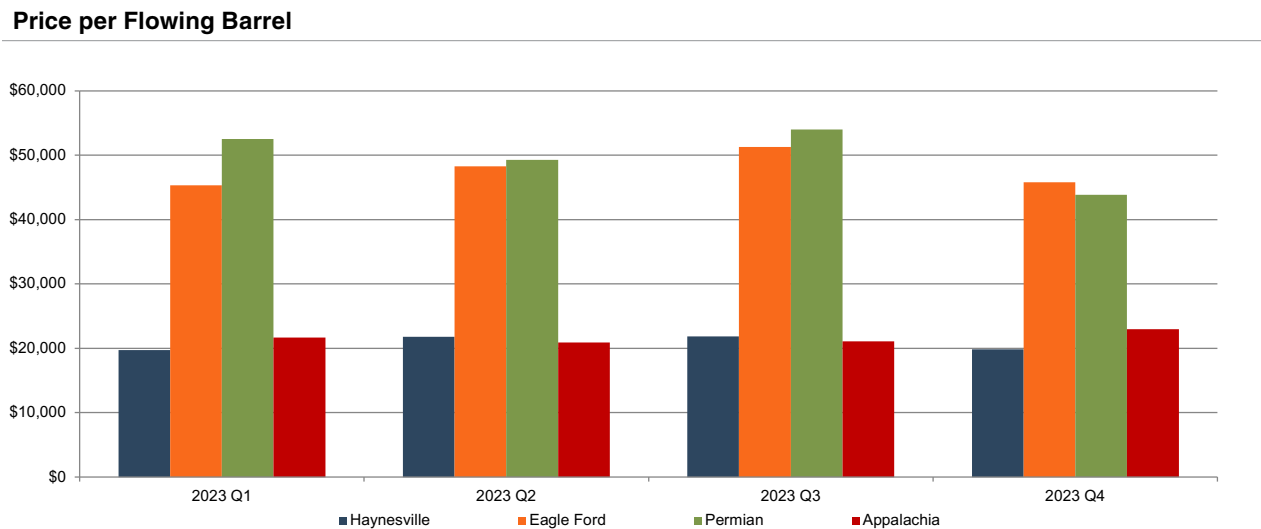
Source: Capital IQ

- Price per Flowing Barrel is EV/ daily production (\$/boe/d). Market data per Capital IQ. Daily Production based on Q4 2023 estimates per Capital IQ as available
- 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, from Q1 2023 through Q4 2023.



Source: Capital IQ

Price per Flowing Barrel is EV/ daily production (\$/boe/d)

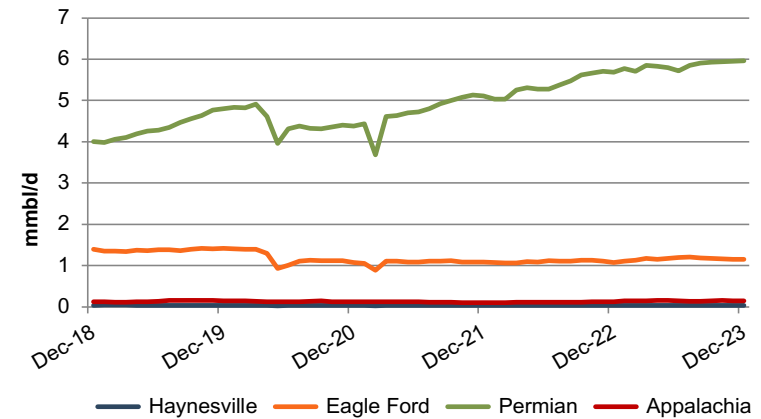
This is simply a graphic depiction of median figures of our selected public companies for each region. This should be interpreted solely in the context of relative valuation between the various basins over time. Capital IQ aggregates this raw data, and Mercer Capital does not represent or warrant these figures as indicative of valuation multiples attributable to E&P companies or other interests.

Appendix B

Production

Daily Production of Crude Oil

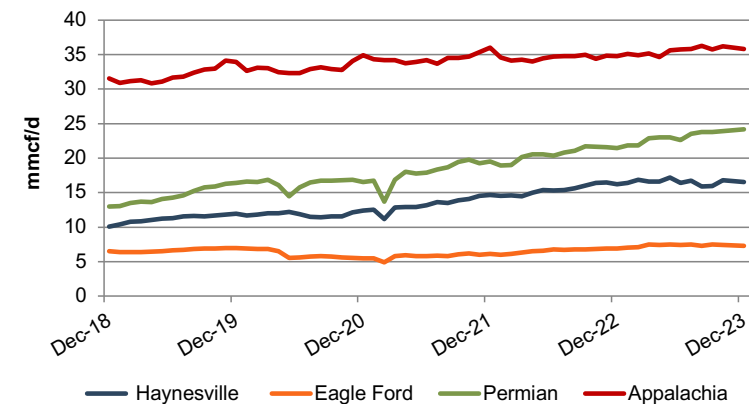
Oil production in the Appalachian basins increased by 22.4% over the last year, (although oil production in Appalachia is negligible) followed by increases of 7.2% in the Eagle Ford, 4.9% in the Permian. Haynesville oil production declined by 7.3% year-over-year.



Source: EIA

Daily Production of Natural Gas

The Permian led the analyzed regions in natural gas production growth at 12.7% over the last year, followed by growth of 5.9% in the Eagle Ford, 3.0% in the Appalachian basins, and 1.7% in the Haynesville.



Source: EIA

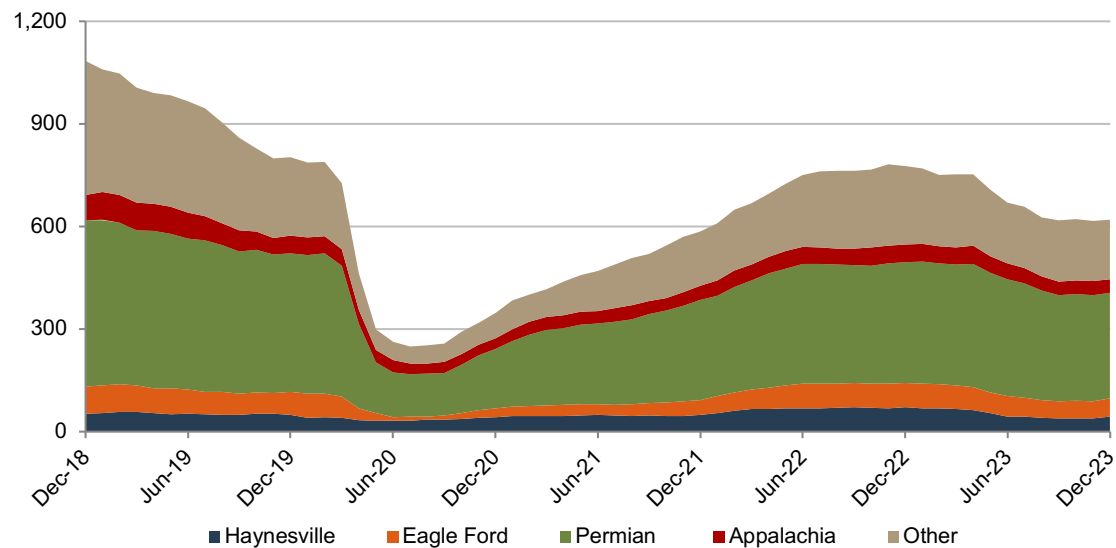
Appendix C

Rig Count

Baker Hughes collects and publishes information regarding active drilling rigs in the U.S. 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 U.S. during December 2023 was 620, which represents a 20.2% decrease from 777 in December 2022. The number of active rigs in the fourth quarter of 2023 was at notably lower levels than those in 2022 and the first half of 2023. Year-over-year, the rig count in the Haynesville region experienced a decrease of 38.9%, from 72 to 44, representing the largest decline of the regions analyzed. Rig counts in the Eagle Ford, the Appalachian basins, and the Permian declined by 25.4%, 23.1%, and 12.5%, respectively.

Rig Count by Region

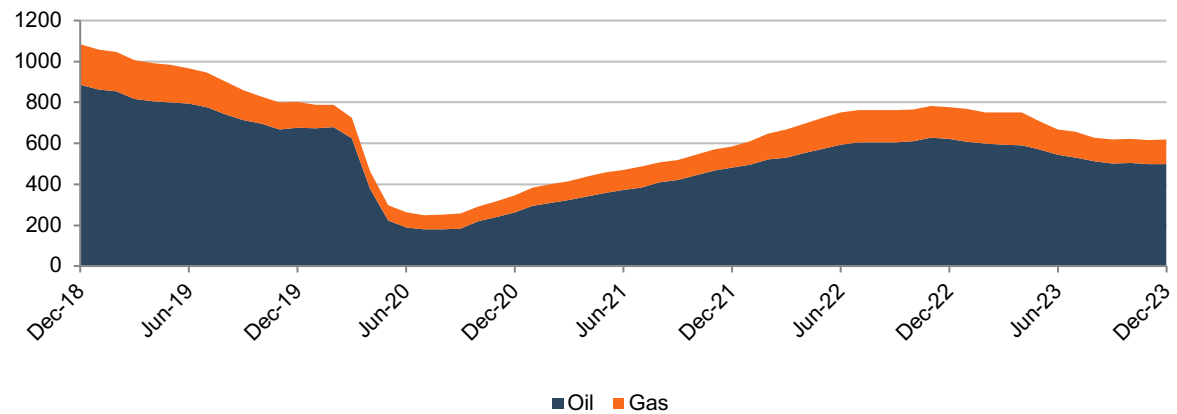


Source: Baker Hughes

Appendix C

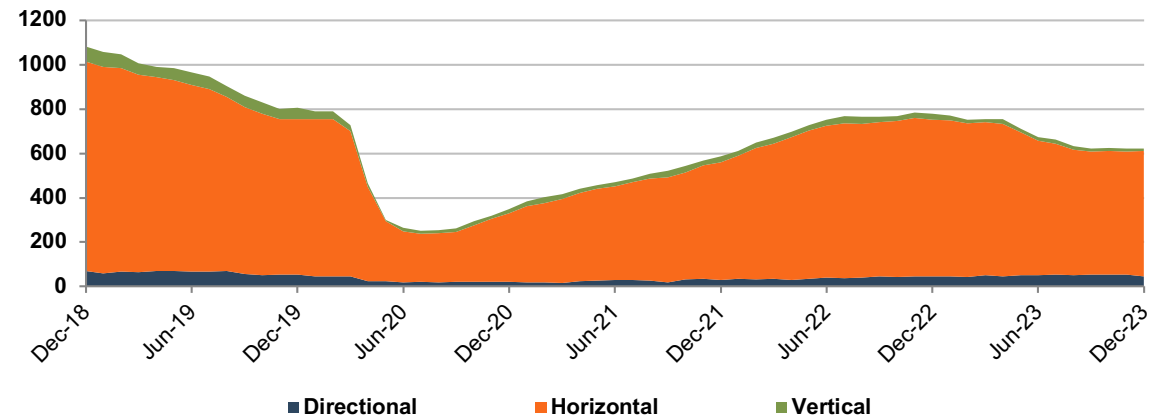
Rig Count

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



Source: Baker Hughes

U.S. Rig Count by Trajectory



Source: Baker Hughes



Mercer Capital

www.mercercapital.com

