

Monitor

Oil & Gas

VOLUME
368



OIL PRICES COOL AFTER HOT SUMMER

LNG IMPORTS, STORES KEEP EUROPE WARM

Europe used U.S. LNG imports to replenish stocks ahead of winter and fill void left by lack of Russian natural gas

OIL, GAS PRICES FALL FROM SUMMER HIGHS

After a boost from the war in Ukraine and a warm summer, fossil fuel prices fell throughout most of the U.S.

U.S. OIL PRODUCTION TO BREAK RECORDS

U.S. oil production is slated to reach consecutive record highs in 2023 and 2024 to meet rising demand

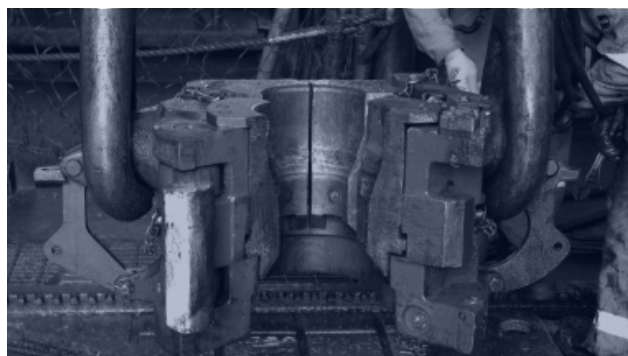
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Deals are a moving target. A constantly shifting mix of people, numbers and timing. We're here to simplify this process for you. Our experts are dedicated to tracking down and flushing out the values you need even on the most complex deals, so you can leverage our hard-won knowledge to close the deal.

Trend Tracker - Inventory

Trends (Since Publication of Prior Monitor in August 2022)	
NOLVs	Increasing ▲
Sales Trends	Increasing ▲
Gross Margin	Increasing ▲
Inventory	Increasing ▲



- **NOLVs:** NOLVS increased amid strong oilfield activity and demand in the energy sector as oil and gas prices remain elevated as a result of a global supply imbalance that will likely require multiple years of investment in new and expanded production capabilities to address. Customer demand remained high and backlogs remained strong, which contributed to margin expansion and improvements in inventory mix as companies have been able to continue working down levels of slower-moving inventory.
- **Sales Trends:** The second half of 2022 saw sales continue to increase as customer demand remained strong, as reflected by higher drilling, completion, and production activity. The high level of oilfield activity has been supported by elevated oil and natural gas prices, in relation to pre-pandemic levels, as the global supply imbalance persists, which has resulted in higher capital equipment spending and modestly increasing rig counts. Sales levels were also positively impacted by inflationary pricing pressures.
- **Gross Margin:** In the face of inflationary cost increases, companies were generally able to pass much of the increases along to customers and avoid margin degradation. Through improved pricing efforts, many management teams were able to take advantage of tight supplies and particularly strong customer and market demand to raise pricing above the rate of rising costs. Managers' efforts to focus on a more profitable mix of product sales, as well as operational efficiency improvements and production cost reductions, have also contributed to higher margins. More recently, margins have been positively impacted by reductions in shipping costs, moderating material costs, and favorable currency exchange rates with China.
- **Inventory:** Inventory levels have increased to support the increase in demand and strong backlogs, as well as to mitigate longer lead times, supply chain disruptions, delays, and shortages. Higher commodity material costs also contributed to increased inventory levels.



Trend Tracker - Machinery & Equipment

Trends (Since Publication of Prior Monitor in August 2022)	
Used Pricing	Increasing ▲
Used Trade Movement	Increasing ▲
OEM Pricing	Increasing ▲
Technological Advancement	Consistent —
Auction Activity	Consistent —



- **Used Pricing/Trade Movement:** Used equipment pricing has continued to gain ground, although not at the level of the first half of 2022. Late-model equipment that has utility continues to actively trade through alternative channels, while older, less-utilized equipment is being sent to auction. As new opportunities continue to present themselves for operators, companies look to expand offerings through the acquisition of used equipment.
- **OEM Pricing:** While demand for new equipment continues to outpace the supply, shorter lead times are being reported. Overall, new equipment offered by OEMs has continued to see a slight increase in pricing, although not at the hurried pace of the first half of 2022.
- **Technological Advancement:** There is a continued emphasis in the areas of real-time data management, remote operation, and analytics. In an age where real-time and accurate information is key, the way companies manage this data becomes more important.
- **Auction Activity:** Auction activity continues to be focused on older, underutilized equipment in need of refurbishment or overhaul. The sale of land rigs remains very slow; however, there has been increased activity for workover rigs.



Overview

The war between Russia and Ukraine has dominated the energy picture in recent months, primarily due to concerns about Europe's natural gas supplies heading into winter as natural gas pipeline flows into the continent from Russia slowed to a trickle. Europe was able to turn to other sources of natural gas and, so far, has avoided a winter energy crunch.

Among the countries that stepped in to provide Europe with much-needed natural gas was the U.S., which became the world's top exporter of liquified natural gas ("LNG") in the process. LNG represents natural gas that has been cooled into a low-volume liquid state, allowing it to be transported overseas via tankers.

Europe's energy concerns began soon after European countries placed sanctions on Russian energy and other products in response to the country's invasion of its neighbor Ukraine in late February 2022, which was followed by Russia turning off the natural gas tap to Europe. Then, in September 2022, explosions damaged Russia's Nordstream 1 and Nordstream 2 pipelines, which carry natural gas to Europe. Officials throughout Europe say the explosions were the result of sabotage, though the responsible party remains a mystery. European buyers paid hefty prices as winter approached as they raced to fill their natural gas stores via non-Russian gas sources.

Real prices for natural gas futures for delivery at Europe's benchmark Title Transfer Facility ("TTF") in the Netherlands were over \$99 per million British thermal units ("MMBtu"), or roughly \$338 per megawatt-hour, in late August 2022, a record high.

However, driven by a relatively mild winter in much of northern Europe and well-stocked natural gas storage facilities, front-month natural gas futures at the TTF fell to pre-invasion levels of approximately \$24 per MMBtu, or roughly \$82 per megawatt-hour, in late December 2022. Prices continued to fall in January 2023 on news that China is overstocked on LNG, which could result in more LNG supplies being diverted to Europe. However, with China recently ending the COVID-19 lockdowns it had in place throughout much of 2022, the country's level of natural gas consumption could increase, which could decrease its stocks and place upward pressure on natural gas prices in the future.

In the U.S., the price of natural gas averaged \$5.45 per MMBtu at the U.S. benchmark Henry Hub in Louisiana in November 2022. Henry Hub natural gas prices then rose slightly to \$5.53 per MMBtu in December 2022. However, according to the U.S. Energy Information Administration ("EIA"), high natural gas prices have hit the West Coast this winter, where lower-than-normal temperatures, coupled with low natural gas stores, brought prices to above \$50 per MMBtu at some West Coast natural gas trading hubs in December 2022.

Per EIA forecasts, Henry Hub natural gas prices will decline slightly in the coming months, likely averaging \$5.00 per MMBtu in the first quarter of 2023.

Overview

The reopening of the Freeport LNG export facility in Texas, which was closed following a fire in June 2022, has been pushed back to February 2023. The reopening was originally expected in late 2022. The EIA notes that a reopening of the facility, which is awaiting regulatory approval, could place upward pressure on domestic natural gas prices as more U.S. natural gas is converted to LNG for export.

In addition, five new projects, including one that is under construction, will increase the natural gas takeaway capacity out of the Permian Basin, located primarily in Texas, by a combined 4.18 billion cubic feet per day over the next two years, further boosting supplies, according to the EIA.

Oil prices have followed a similar trajectory as natural gas prices, with prices rising over the first several months of 2022, driven largely by the war in Ukraine and a post-pandemic economic revival, followed by a decline later in the year as supply and demand rebalanced and concerns about an economic slowdown took hold.

U.S. oil prices for 2022 peaked at roughly \$130 per barrel for West Texas Intermediate (“WTI”), the U.S.’s benchmark grade of crude oil, in March.

The peak followed an announcement by the U.S. regarding plans to ban Russian oil imports due to Russia’s invasion of Ukraine, prompting concerns about oil supply levels. Gasoline and diesel prices followed suit, reaching record highs in the summer of 2022. The U.S. then unleashed oil from its Strategic Petroleum Reserve to help ease the pricing surge.

As of January 9, 2023, the price of WTI was approximately \$75 per barrel, well below the March high. Gasoline and diesel prices have normalized as well. The EIA expects WTI to average around \$73 per barrel through 2023 and decrease slightly in 2024 to average \$72 per barrel. European oil prices are expected to follow a similar trend.

Certain geopolitical factors could impact oil supplies and prices, such as plans by the Organization of the Petroleum Exporting Countries (“OPEC”) and its allies to reduce oil production, Venezuela’s recent resumption of oil shipments to the U.S. after a lifting of sanctions, a resurgence of unrest in Libya, a pending E.U. ban on seaborne imports of Russian petroleum products, and the ongoing war in Ukraine.



Rig Counts

U.S. RIG COUNT - JANUARY 13, 2023

	Current Week	Weekly Change	Prior Week	12-Month Change	12 Months Prior
Location					
Land	754	0	754	173	581
Inland Waters	2	0	2	0	2
Offshore	19	3	16	1	18
Total	775	3	772	174	601
Type					
Oil	623	5	618	131	492
Gas	150	(2)	152	41	109
Miscellaneous	2	0	2	2	0
Total	775	3	772	174	601
Directional	49	3	46	14	35
Horizontal	700	0	700	159	541
Vertical	26	0	26	1	25
Total	775	3	772	174	601
State					
Alaska	9	0	9	3	6
California	5	1	4	(3)	8
Colorado	20	(1)	21	8	12
Louisiana	67	1	66	12	55
New Mexico	103	3	100	8	95
North Dakota	39	0	39	12	27
Ohio	14	0	14	3	11
Oklahoma	64	(2)	66	15	49
Pennsylvania	21	0	21	1	20
Texas	379	1	378	98	281
Utah	12	0	12	3	9
West Virginia	17	0	17	6	11
Wyoming	20	0	20	4	16

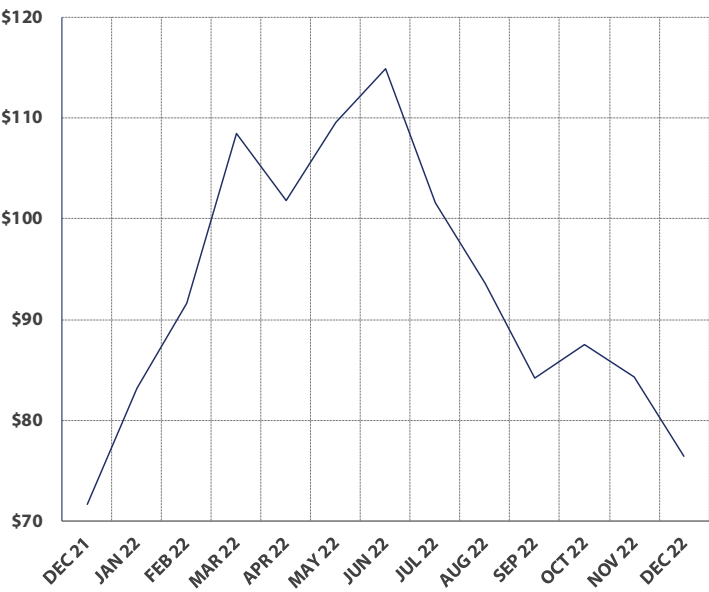
Source: Baker Hughes

	Current Week	Weekly Change	Prior Week	12-Month Change	12 Months Prior
Major Basins					
Ardmore Woodford	7	0	7	6	1
Arkoma Woodford	2	0	2	0	2
Barnett	2	(1)	3	2	0
Cana Woodford	24	(2)	26	(2)	26
DJ-Niobrara	16	(1)	17	4	12
Eagle Ford	73	2	71	23	50
Granite Wash	10	0	10	6	4
Haynesville	68	(1)	69	16	52
Marcellus	38	0	38	7	31
Mississippian	4	1	3	4	0
Permian	356	3	353	63	293
Utica	14	0	14	3	11
Williston	42	0	42	15	27

The U.S. drilling rig count for the week of January 13, 2023 totaled 754 rigs, which is consistent with the prior week but represents an increase of 173 rigs versus the prior year, according to data from Baker Hughes. The number of drilling rigs operating in the U.S. is approaching levels seen just prior to the COVID-19 pandemic, which resulted in a drastic reduction in demand for energy and culminated in a record low rig count in August 2020. The rig count has surged over the past year, driven by the ongoing economic recovery from the pandemic, as well as elevated energy prices stemming from Russia's invasion of Ukraine in early 2022. In the January 13, 2022 count, oil rigs totaled 623 units versus 150 units for natural gas. The count for oil rigs increased five and 131 units versus the prior week and year, respectively, while the count for natural gas rigs decreased two units versus the prior week but increased 41 units versus the prior year.

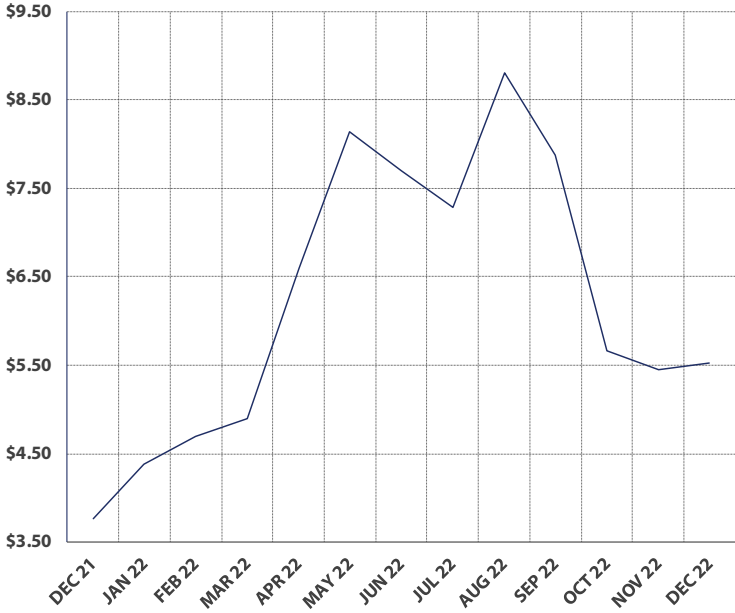
Oil and Natural Gas Prices

1 Average Monthly WTI Crude Oil Prices
December 2021 to December 2022 (\$ Per Barrel)



Source: EIA

2 Average Monthly Henry Hub Natural Gas Prices
December 2021 to December 2022 (\$ Per MMBtu)



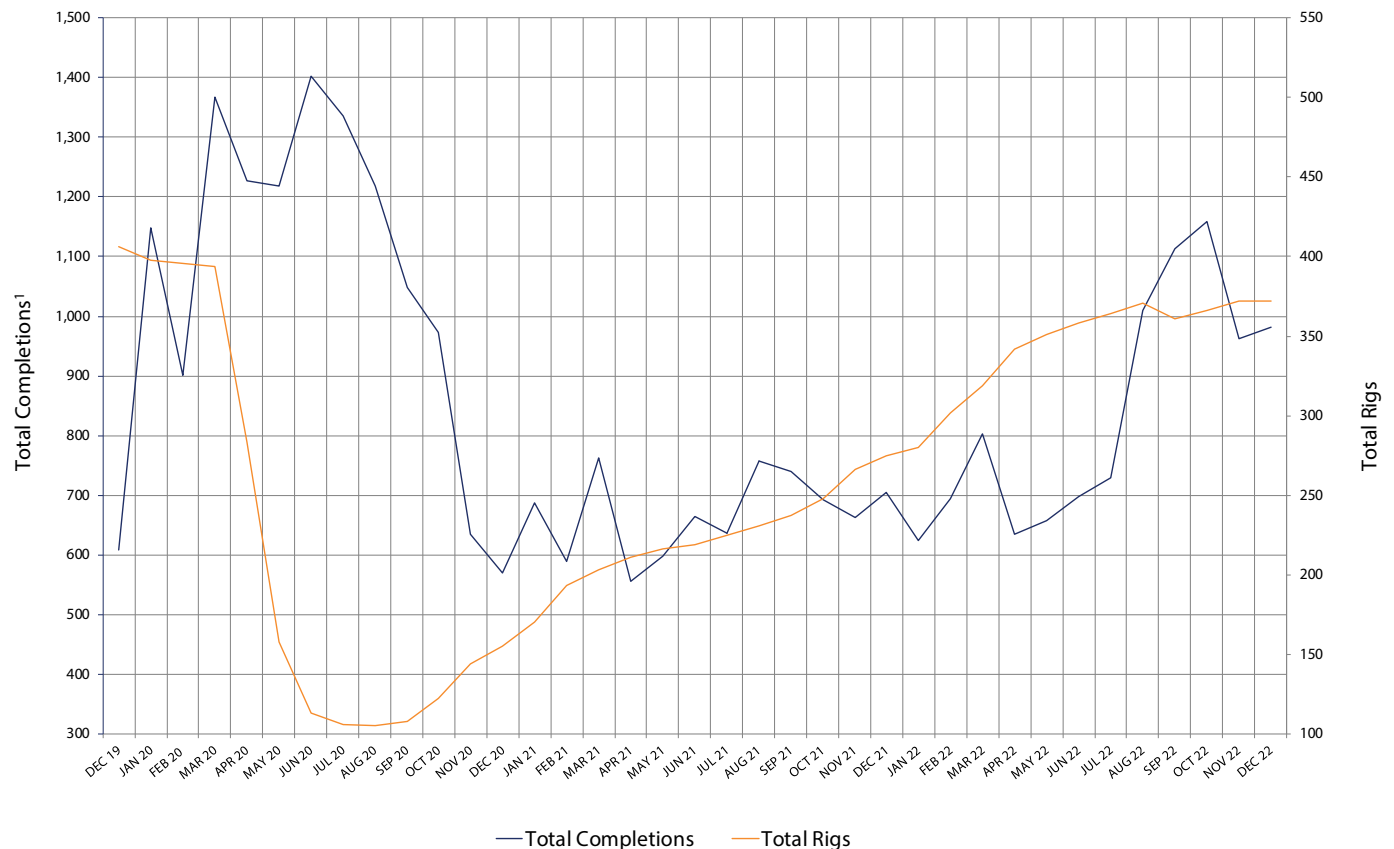
Source: EIA



Texas Drilling Activity

The number of drilling rigs in the U.S.'s top oil-producing state, Texas, marched upward throughout 2022, though growth largely leveled off during the last two months of the year as rig levels approached pre-pandemic levels. Completion levels spiked in the summer of 2022 before tapering off in the fall and winter.

3 Texas - Total Completions versus Rigs December 2019 to December 2022



Note:

(1) Includes new drill, re-enter, and re-completions

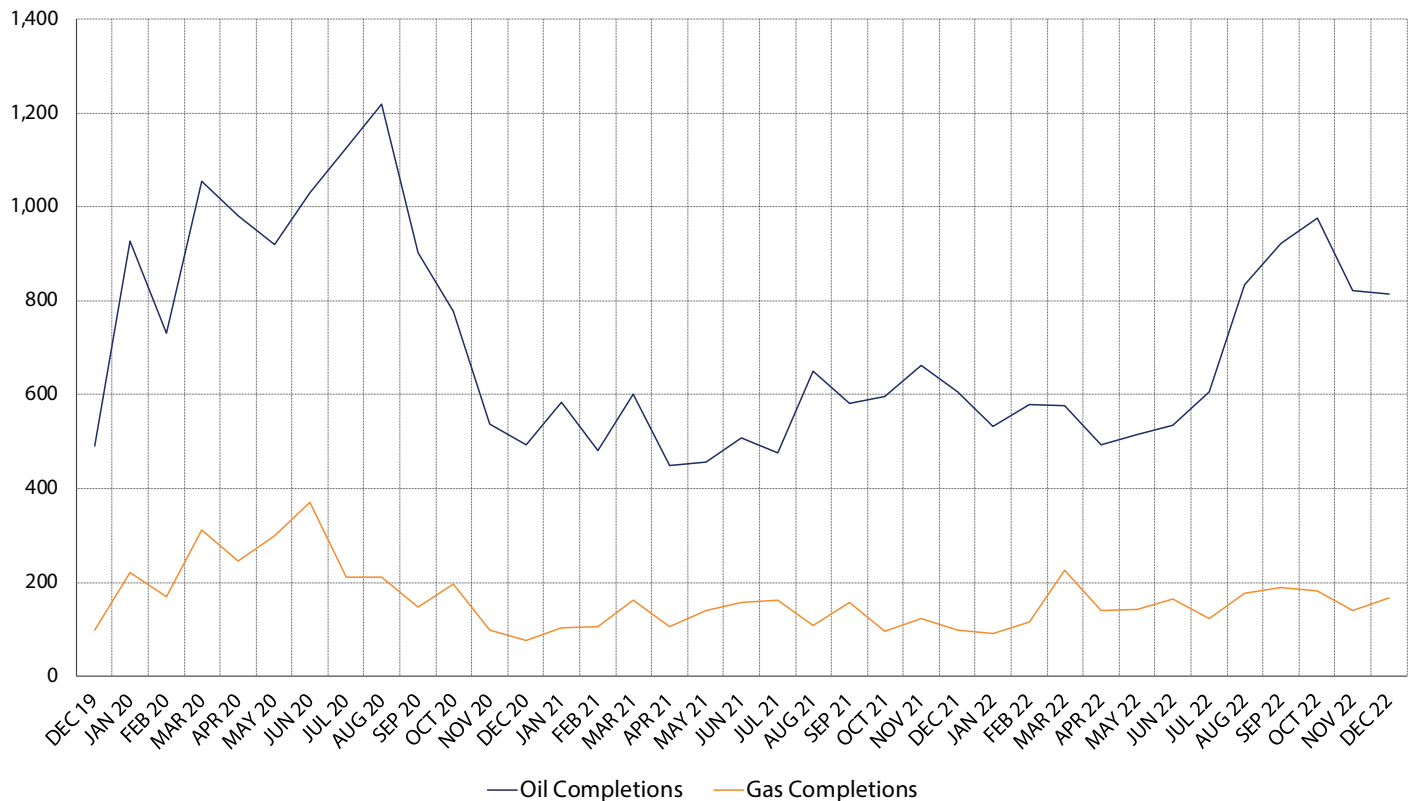
Source: Railroad Commission of Texas



Texas Completion Activity

4

Texas - Oil versus Gas Completions¹
December 2019 to December 2022



Note:

(1) Includes new drill, re-enter, and re-completions

Source: Railroad Commission of Texas

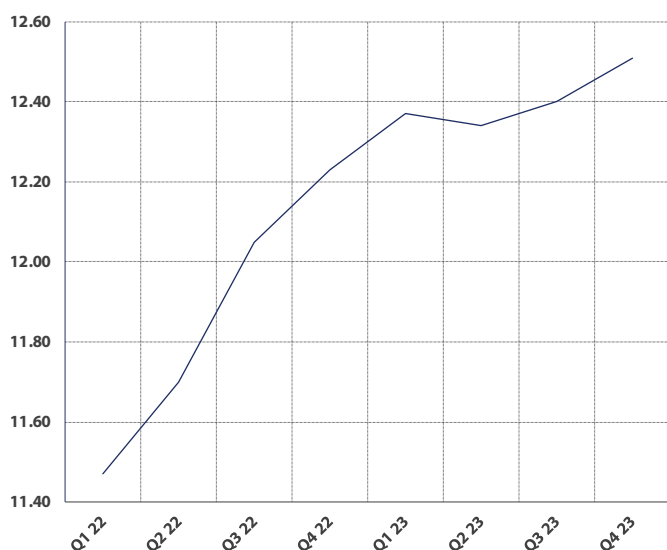


Energy Production

The U.S. is forecast to increase its production of crude oil through 2024, with U.S. producers expected to account for 40% and 60% of production growth among non-OPEC countries in 2023 and 2024, respectively, according to the EIA. In 2023, the U.S. is expected to produce a record 12.3 million barrels of oil per day. By 2024, U.S. production is slated to set another record, reaching 13.0 million barrels per day.

OPEC crude production is forecast to average 29.5 million barrels per day in 2024, up 0.8 million barrels per day versus 2022. A portion of the group's growth is slated to come via OPEC member Venezuela, which for years has produced below its potential due to civil unrest and economic difficulties.

5 U.S. Crude Oil Production¹
(Million Barrels Per Day)

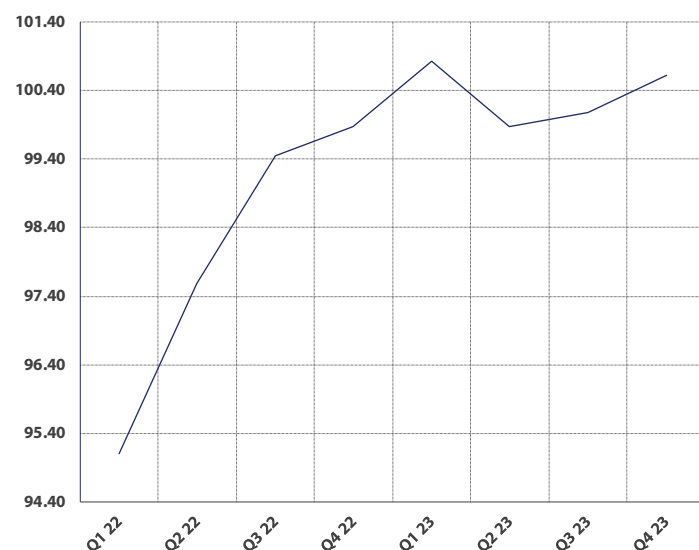


Note:
(1) Figures for 2023 are projected
Source: EIA

Chevron recently received authorization from the U.S. government to restart oil operations in Venezuela for export to the U.S., with the first shipment departing in early January 2023. The EIA notes that the oil market is replete with uncertainty, which could alter outcomes, such as volatility in OPEC member countries Iran and Libya.

The EIA expects natural gas production to grow, particularly in the Permian and Haynesville regions, as a result of the scheduled completion of major pipeline infrastructure expansions in 2023 and 2024. The U.S. has also become the world's top supplier of LNG due to major infrastructure projects in recent years and the ongoing war in Ukraine.

6 U.S. Dry Natural Gas Production¹
(Billion Cubic Feet Per Day)



Note:
(1) Figures for 2023 are projected
Source: EIA

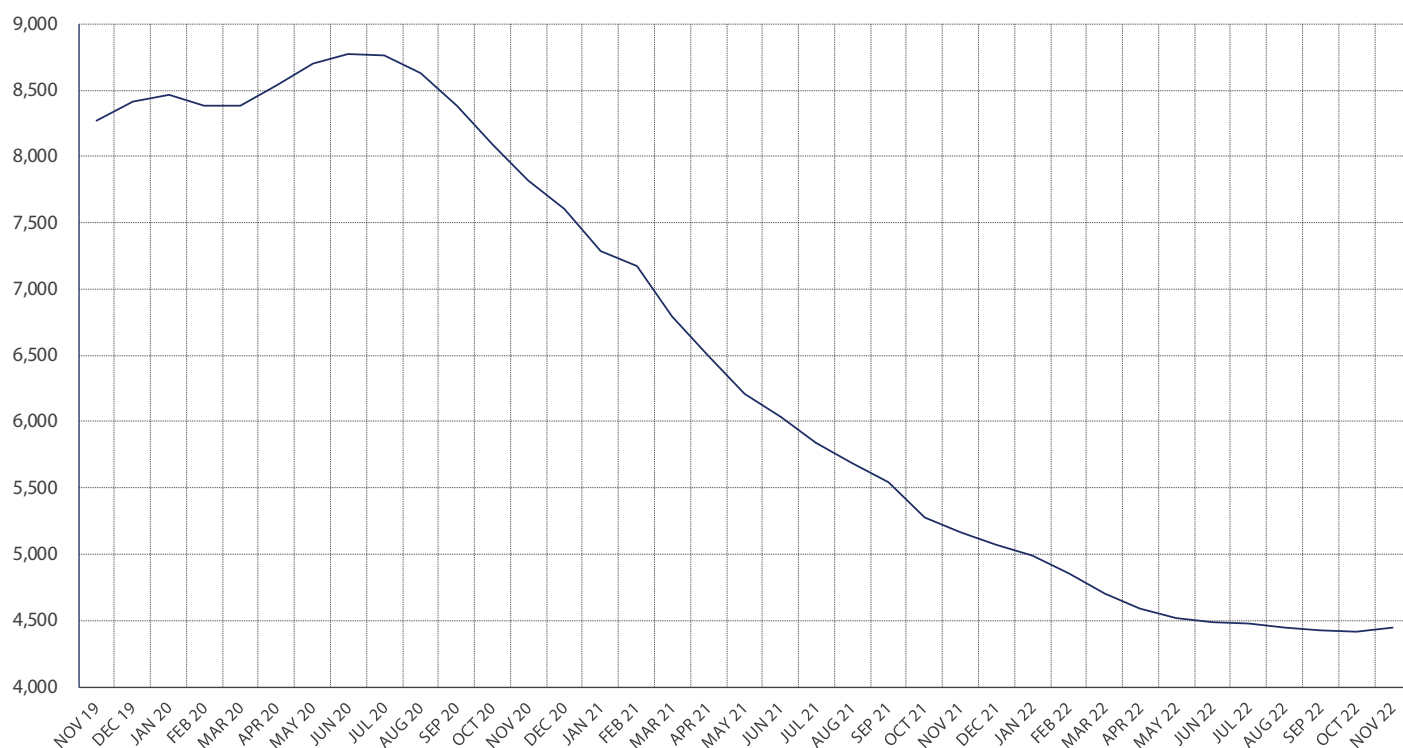


Drilled But Uncompleted Wells

Since July 2020, the number of drilled but uncompleted wells (“DUCs”) in the U.S. has been decreasing and has fallen below figures from 2014, the first full year the metric became publicly available. The number of DUCs in the U.S. averaged 4,443 in November 2022, per the EIA.

DUCs represent oil and natural gas wells that have been drilled but have not yet undergone casing, cementing, and other procedures that are necessary to create a fully functional well. DUCs enable producers to bring production online quickly in response to rising energy prices.

7 Drilled But Uncompleted Wells November 2019 to November 2022



Source: EIA



Monitor Information

B. Riley Advisory Services' *Oil & Gas Monitor* relates information covering the oil and gas sectors, including industry trends and their relation to our valuation process. Due to the dynamic nature of the oil and gas industry, timely reporting is necessary to understand an ever-changing marketplace.

B. Riley Advisory Services strives to contextualize important indicators in order to provide a more in-depth perspective of the market as a whole. B. Riley Advisory Services welcomes the opportunity to make our expertise available to you in every possible way. Should you need any further information or wish to discuss recovery ranges for a particular segment, please feel free to contact your B. Riley Advisory Services Business Development Officer.

The information contained herein is based on a composite of B. Riley Advisory Services' industry expertise, contact with industry personnel, liquidation and appraisal experience, and data compiled from a variety of respected sources believed to be reliable. B. Riley Advisory Services does not make any representation or warranty, expressed or implied, as to the accuracy or completeness of the information contained in this issue. Neither B. Riley Advisory Services nor any of its representatives shall be liable for use of any of the information in this issue or any errors therein or omissions therefrom.

Experience

B. Riley Advisory Services has worked with and appraised a number of companies within the oil and gas industry. B. Riley Advisory Services has built a quality team to deliver both tangible and intangible valuations across the oil and gas platform.

B. Riley Advisory Services' extensive experience includes valuations across a broad range of assets including:

MACHINERY, EQUIPMENT, AND OTHER INVENTORY VALUATIONS

- Pressure pumping units
- Drilling and well service equipment
- Frac tank rental/manufacturing
- Well logging tools
- Pipeline equipment
- Compression equipment
- Rental tools
- Transportation assets
- Wire line services
- Saltwater disposal wells
- Valves
- Tubular goods

TRANSACTION ADVISORY SERVICES

- Fairness Opinions and Solvency Opinions
- Buy-side, Sell-side, and Merger advisory services
- Deal Screening and Target Identification
- Quality of Earnings analysis and reports
- Market-sizing and commercial due diligence
- Operational, financial, and technical due diligence
- Complex financial modeling
- 100-day operating plans
- Interim management (CEO/CFO/CRO/COO)
- Transaction Support ("arms and legs")

Experience

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- Intangibles, Goodwill and Other (ASC 350)
- Business Combinations (ASC 805)
- Derivatives & Hedging (ASC 815)
- Financial Instruments (ASC 825)
- Long-lived asset impairment (ASC 360)
- Stock Compensation (ASC 718)
- Property transferred for services (IRC 83 (b))
- Stock purchases treated as asset acquisitions (IRC 338)
- Compensation (IRC 409A)
- Transfer Pricing (IRC 482)

In addition, B. Riley Advisory Services maintains experts within the oil and gas industry, such as Dan Daitchman and Taylour Bennett.

Dan Daitchman is a Director with B. Riley Advisory Services. He has over 12 years of financial advisory and consulting experience helping clients resolve complex financial issues. He specializes in transaction and advisory services related to enterprises, derivatives, fractional equity interests, pre-deal diligence, and intangible assets. These services are used for strategic planning, transaction financing, financial statement reporting, capital raising, tax, litigation, bankruptcy, fairness opinions, solvency opinions, and merger and acquisition advisory. Prior to joining B. Riley Advisory Services, Dan spent four years as a financial analyst with Hilco Valuation Services and one year as an analyst in the Alternative Investment Products group at US Bancorp. Dan earned his BS in Finance and Real Estate from Marquette University and an MBA in Finance from DePaul University. He is also an Accredited Senior Appraiser with the American Society of Appraisers.

Taylour Bennett has valued more than \$2 billion in assets and businesses, providing valuation, advisory, and litigation services to clients. Throughout his career, Taylour has specialized in valuing and providing services to firms within the energy complex. Taylour is actively involved in Young Professionals in Energy and is working toward his designation as an Accredited Senior Appraiser, and as a Chartered Financial Analyst. Prior to joining B. Riley Advisory Services, Taylour served as a finance intern at Chick-Fil-A. Taylour received his BA and MS in Finance from Texas Tech University.

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About B. Riley Advisory Services

B. Riley Advisory Services works with lenders, law firms, private equity sponsors and companies of all types. Our Advisory Services are a unique mix of Valuation and Appraisal Services including asset-based lending (ABL) Valuations; Restructuring and Turnaround Management; Forensic Accounting and Litigation Support; Operations Management; Compliance, Risk & Resilience Services; and Transaction Support Services including Due Diligence and Quality of Earnings Reviews. B. Riley Advisory Services is the trade name for GlassRatner Advisory & Capital Group, LLC, Great American Group Advisory & Valuation Services, LLC, Great American Group Machinery & Equipment, LLC, and Great American Group Intellectual Property, LLC.



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Capitalize On The B. Riley Difference

B. Riley Financial (“B. Riley”) provides collaborative solutions tailored to fit the capital raising and business advisory needs of its clients and partners. B. Riley operates through several subsidiaries that offer a diverse range of complementary end-to-end capabilities.

B. Riley recently announced the acquisition of FocalPoint Securities, LLC, a leading middle market M&A advisory investment bank. The combination of B. Riley and FocalPoint significantly enhances B. Riley’s debt capital markets and financial restructuring capabilities.



RANK
2

B. Riley Financial ranked No. 2 on FORTUNE 100 Fastest Growing Companies 2021 list based on revenue growth rate, EPS growth rate, and three-year annualized total return for the period ended June 30, 2021. Fortune. © 2021 Fortune Media IP Limited All rights reserved.

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