

Monitor

Oil & Gas

VOLUME
315



TENSIONS RISE IN THE MIDDLE EAST

U.S. KILLS IRANIAN MILITARY COMMANDER

Oil prices and tensions increased after a drone strike on an Iranian general; however, oil prices leveled off quickly

U.S. OIL PRODUCTION REACHES NEW RECORD

Despite a reduction in domestic drilling rigs, the U.S. produced a record level of oil in the third quarter of 2019

WELL SERVICE RIGS FALL IN PERMIAN

In November 2019, well service rigs operating in the Permian Basin dropped below levels from three years ago

In This Issue

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| | | | |
|----|-------------------------|----|--------------------------------|
| 03 | Overview | 09 | Drilled But Uncompleted Wells |
| 04 | Rig Counts | 10 | Monitor Information Experience |
| 05 | Texas Drilling Activity | 12 | Appraisal & Valuation Team |
| 08 | Well Service Rigs | 13 | About Great American Group |



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.

Overview

The oil market began 2020 on a dramatic note, with prices spiking immediately following a U.S. drone strike that killed Iranian General Qassem Soleimani on January 3. The killing stirred up fears that large-scale unrest could return to the Middle East and threaten the region's oil supply. According to U.S. President Donald Trump, the drone strike was in response to an attack on a U.S. embassy in Iraq on December 31, 2019, allegedly orchestrated by Soleimani. The attack followed a string of recent escalations allegedly conducted by Iran or its proxies, including attacks on foreign tankers in the Strait of Hormuz, an important chokepoint in the Persian Gulf, as well as the shootdown of an unmanned U.S. drone and a drone missile attack on the Abqaiq oil-processing facility and Khurais oil field in Saudi Arabia in mid-September 2019.

Despite the initial shock, the impact of Soleimani's death on the oil market was short-lived, with West Texas Intermediate crude oil, the U.S.'s benchmark grade of crude, settling at just under \$60 per barrel by January 9, 2020. The price decrease came despite Iran responding to Soleimani's killing by firing missiles that the Trump Administration claimed deliberately fell short of American military targets in Iraq and Iran's shootdown of an airliner en route to Ukraine. Iran called the downing of the airliner accidental.

As the world's top oil producer, the U.S. provides supplies that can counter the recent drama and tragedy in the Middle East and stabilize prices. The U.S. extracted a record 12.23 million barrels of oil per day in the third quarter of 2019, and that figure is projected to increase through the second quarter of 2020.

However, despite the high level of U.S. oil production, analysts with CNBC noted that oil prices could rise significantly if Iran once again attempts to disrupt tanker traffic in the Strait of Hormuz.

The Strait of Hormuz lies between the Persian Gulf and the Gulf of Oman and provides the only sea passage from the Persian Gulf to the open ocean. At its narrowest point, the strait is 21 miles wide. Approximately 25% of the world's consumed oil passes through the Strait, as well as approximately 33% of the world's consumed liquified natural gas ("LNG"). Some analysts note that the U.S. military has long been prepared to deal with a blockage or conflict in the strait and could likely resolve a situation there in a matter of weeks.

The issues in the Middle East followed an ongoing trade dispute between the U.S. and China, which has resulted in fluctuating oil prices over the past several months. Oil's pricing outlook was buoyed in late December 2019, when it appeared the nations were on the verge of reaching an agreement, which would boost global economic growth forecasts and oil demand. However, when phase one of an agreement was reached in mid-January 2020, oil prices showed little movement, as, although the agreement calls for China to purchase more goods from the U.S., including oil and LNG, the U.S. kept some tariffs in place.

The shale bonanza over the past decade has left the U.S. loaded with natural gas, with production over the past few years exceeding U.S. consumption. This, coupled with a lack of exporting ability, has resulted in low natural gas prices and some industry players writing down their natural gas assets, most notably Chevron. In December 2019, the company reported that it would write-down \$10 billion to \$11 billion in assets for the fourth quarter of 2019, including shale gas production sites in the Appalachia region and projects in the Gulf of Mexico, according to CNBC. A growing ability in the U.S. to ship natural gas by cooling it down into a liquified, low-volume state, referred to as LNG, has the potential to unlock foreign markets and support prices. In September and October 2019, the U.S. exported consecutive record levels of LNG.

Rig Counts

U.S. RIG COUNT - JANUARY 10, 2020

| | Current Week | Weekly Change | Prior Week | 12-Month Change | 12 Months Prior |
|-----------------|--------------|---------------|------------|-----------------|-----------------|
| Location | | | | | |
| Land | 759 | (14) | 773 | (293) | 1052 |
| Inland Waters | 1 | 0 | 1 | (1) | 2 |
| Offshore | 21 | (1) | 22 | 0 | 21 |
| Total | 781 | (15) | 796 | (294) | 1075 |
| Type | | | | | |
| Oil | 659 | (11) | 670 | (214) | 873 |
| Gas | 119 | (4) | 123 | (83) | 202 |
| Miscellaneous | 3 | 0 | 3 | 3 | 0 |
| Total | 781 | (15) | 796 | (294) | 1075 |
| Directional | 45 | (6) | 51 | (17) | 62 |
| Horizontal | 698 | (3) | 701 | (250) | 948 |
| Vertical | 38 | (6) | 44 | (27) | 65 |
| Total | 781 | (15) | 796 | (294) | 1075 |
| State | | | | | |
| Alaska | 7 | (1) | 8 | (2) | 9 |
| California | 14 | 0 | 14 | 4 | 10 |
| Colorado | 21 | (1) | 22 | (14) | 35 |
| Louisiana | 55 | (3) | 58 | (8) | 63 |
| New Mexico | 102 | (2) | 104 | (5) | 107 |
| North Dakota | 49 | (1) | 50 | (4) | 53 |
| Ohio | 10 | (1) | 11 | (6) | 16 |
| Oklahoma | 52 | 1 | 51 | (84) | 136 |
| Pennsylvania | 25 | 1 | 24 | (24) | 49 |
| Texas | 396 | (7) | 403 | (136) | 532 |
| Utah | 4 | 0 | 4 | (2) | 6 |
| West Virginia | 16 | 0 | 16 | 2 | 14 |
| Wyoming | 24 | (1) | 25 | (9) | 33 |

| | Current Week | Weekly Change | Prior Week | 12-Month Change | 12 Months Prior |
|---------------------|--------------|---------------|------------|-----------------|-----------------|
| Major Basins | | | | | |
| Ardmore Woodford | 2 | 1 | 1 | 0 | 2 |
| Arkoma Woodford | 2 | 0 | 2 | (4) | 6 |
| Barnett | 1 | 0 | 1 | (1) | 2 |
| Cana Woodford | 21 | 1 | 20 | (36) | 57 |
| DJ-Niobrara | 19 | (1) | 20 | (12) | 31 |
| Eagle Ford | 67 | 0 | 67 | (13) | 80 |
| Granite Wash | 1 | 0 | 1 | (10) | 11 |
| Haynesville | 45 | (4) | 49 | (8) | 53 |
| Marcellus | 41 | 1 | 40 | (20) | 61 |
| Mississippian | 2 | 0 | 2 | (6) | 8 |
| Permian | 397 | (6) | 403 | (91) | 488 |
| Utica | 10 | (1) | 11 | (8) | 18 |
| Williston | 51 | (1) | 52 | (5) | 56 |

Source: Baker Hughes

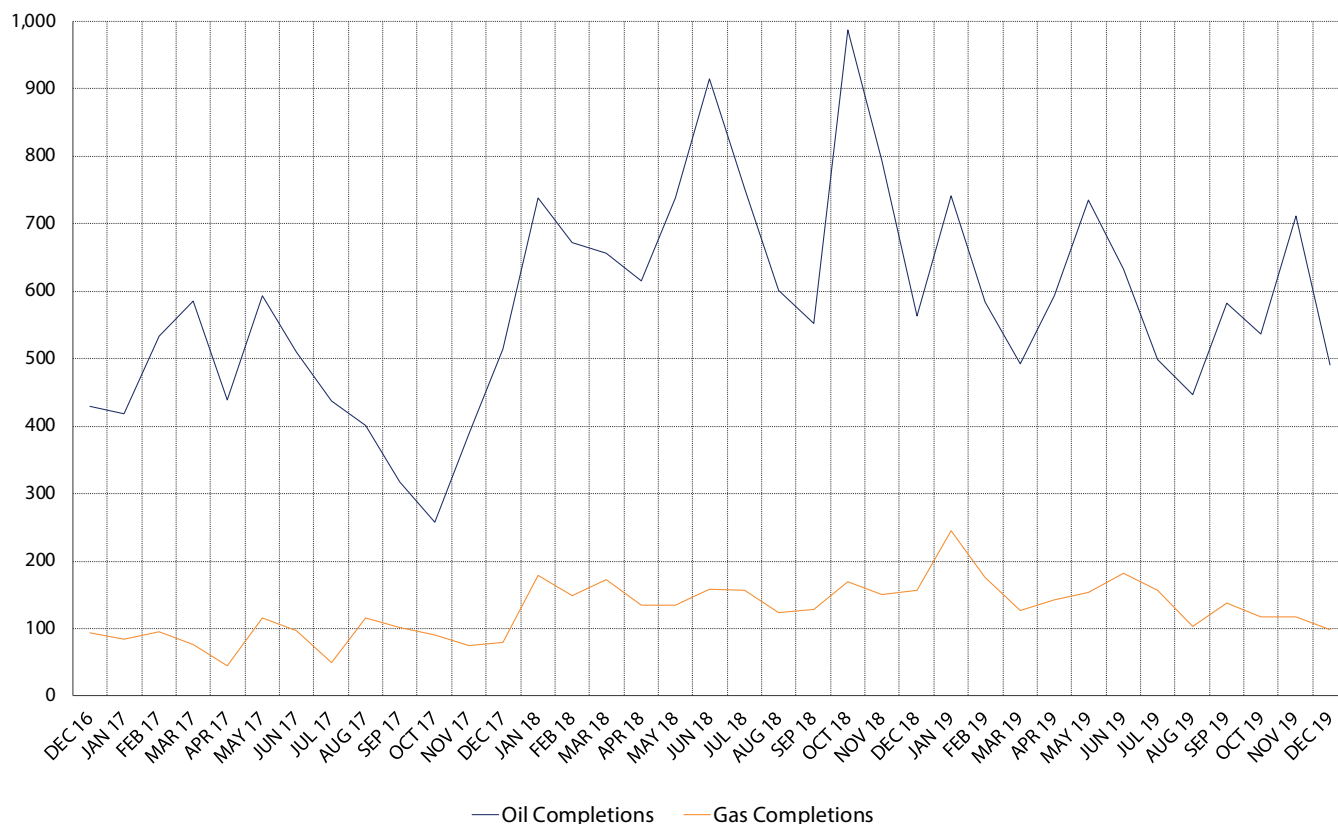
The U.S. drilling rig count for the week of January 10, 2020 totaled 781 rigs, which represents decreases of 15 and 294 units versus the prior week and year, respectively. The latest figure represents the lowest drilling rig count since March 10, 2017. The rig count decreased steadily throughout 2019; however, oil and gas production continued to increase due to improved rig and service efficiencies, as well as lower costs to complete wells.

The Permian Basin, located in West Texas and Southeastern New Mexico, continues to be the epicenter of the U.S. oil and gas industry, accounting for more than half of all drilling rigs operating in the U.S. However, the recent rig count for the Permian Basin of 397 units represents a large decrease of 91 rigs, or almost 20% from year-ago levels. Rig counts are down on a year-over-year basis for all major U.S. land basins, while the offshore rig count remained steady at 21 compared to a year ago.

Texas Drilling Activity

Texas oil completions generally have declined over the past year, though month-to-month swings remain quite volatile. Natural gas completions also declined over the course of 2019 as low commodity prices and high differentials continue to weigh on the industry.

1 Texas - Oil versus Gas Completions December 2016 to December 2019



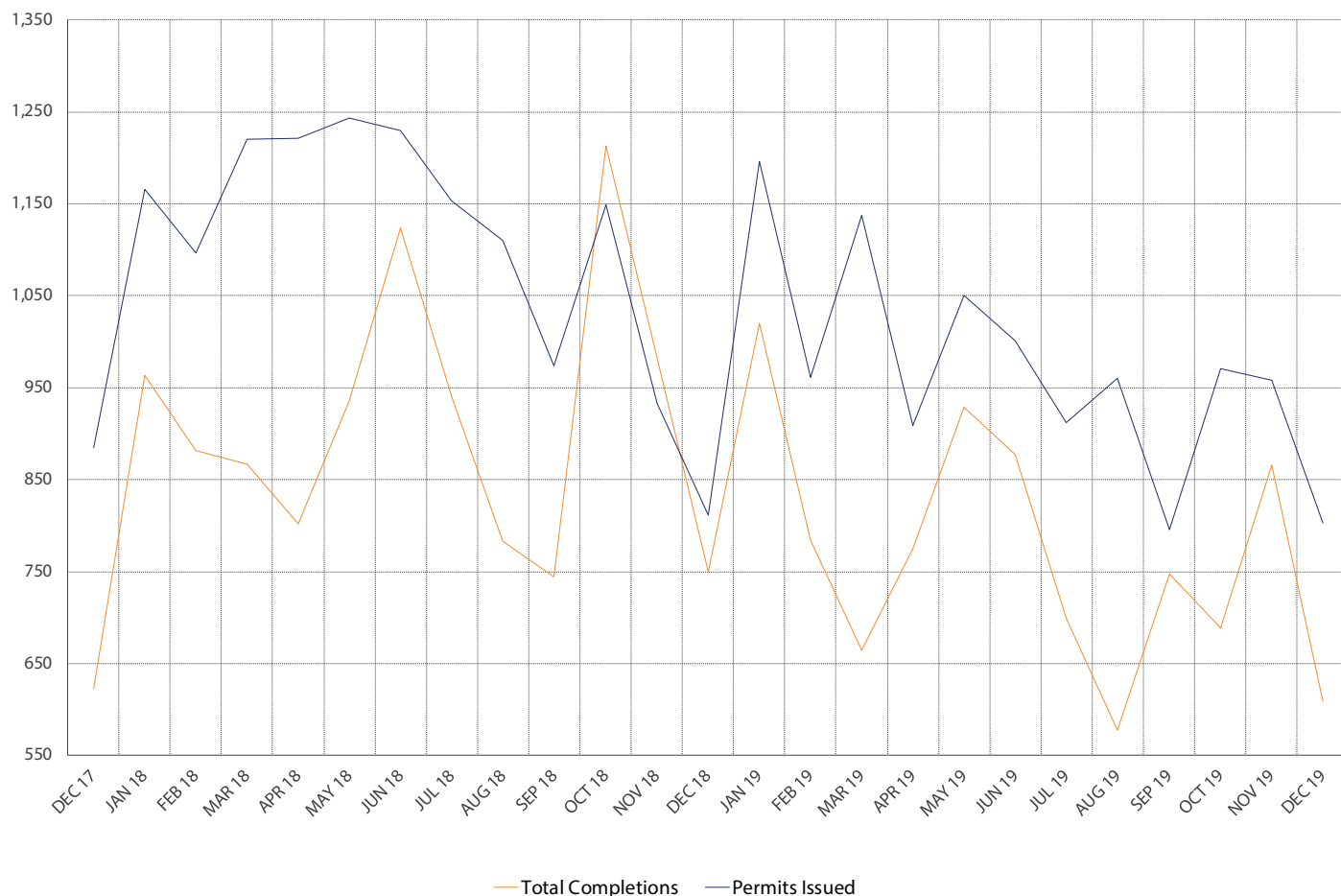
Source: Railroad Commission of Texas



Texas Drilling Activity

Total well completions and permits filed in Texas trended downward over the course of 2019. Total completions and permits filed in December 2019 were both near two-year lows.

2 Texas - Total Completions versus New Permits Filed December 2017 to December 2019



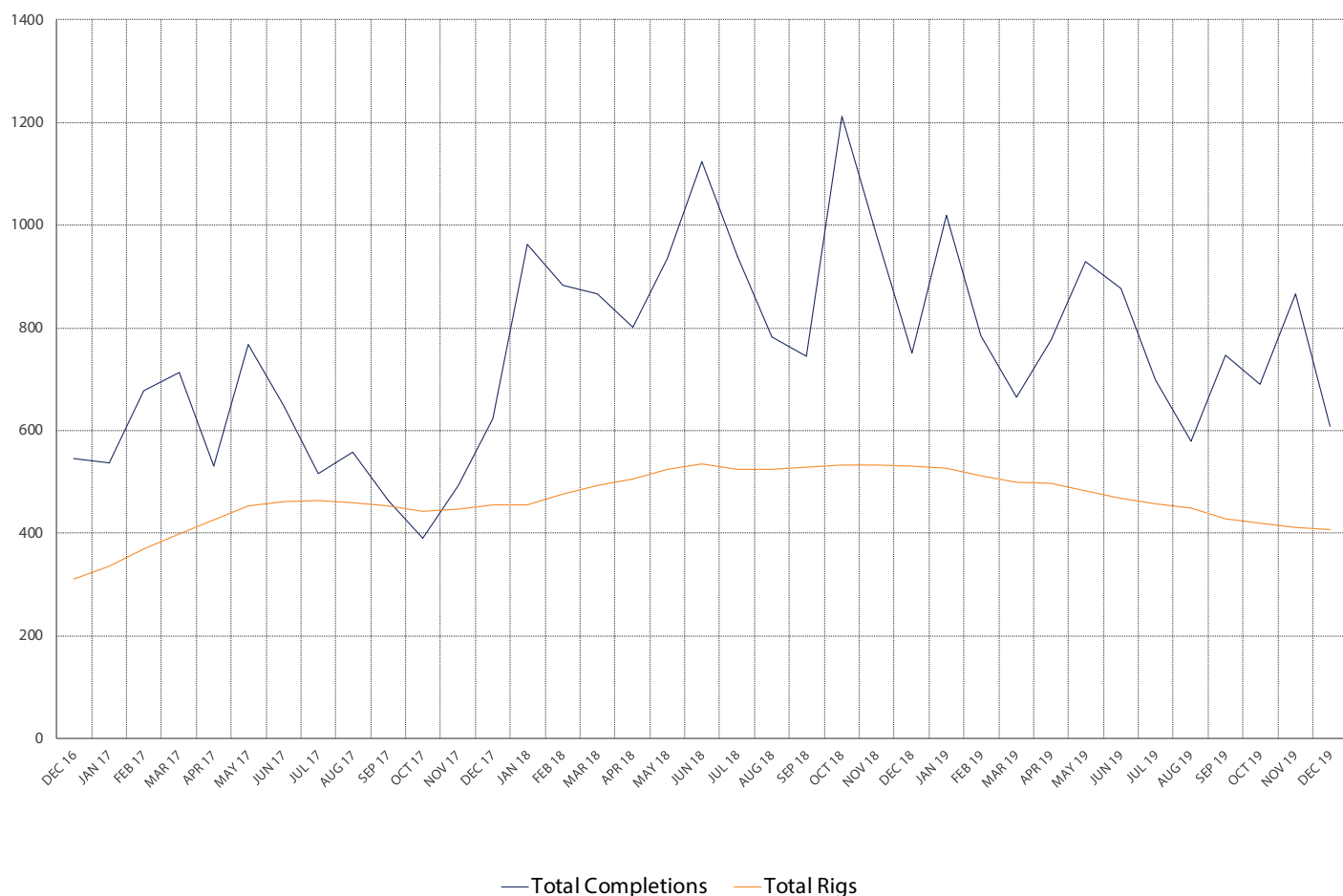
Source: Railroad Commission of Texas



Texas Drilling Activity

3

Texas - Total Completions versus Rigs
December 2016 to December 2019



Source: Railroad Commission of Texas

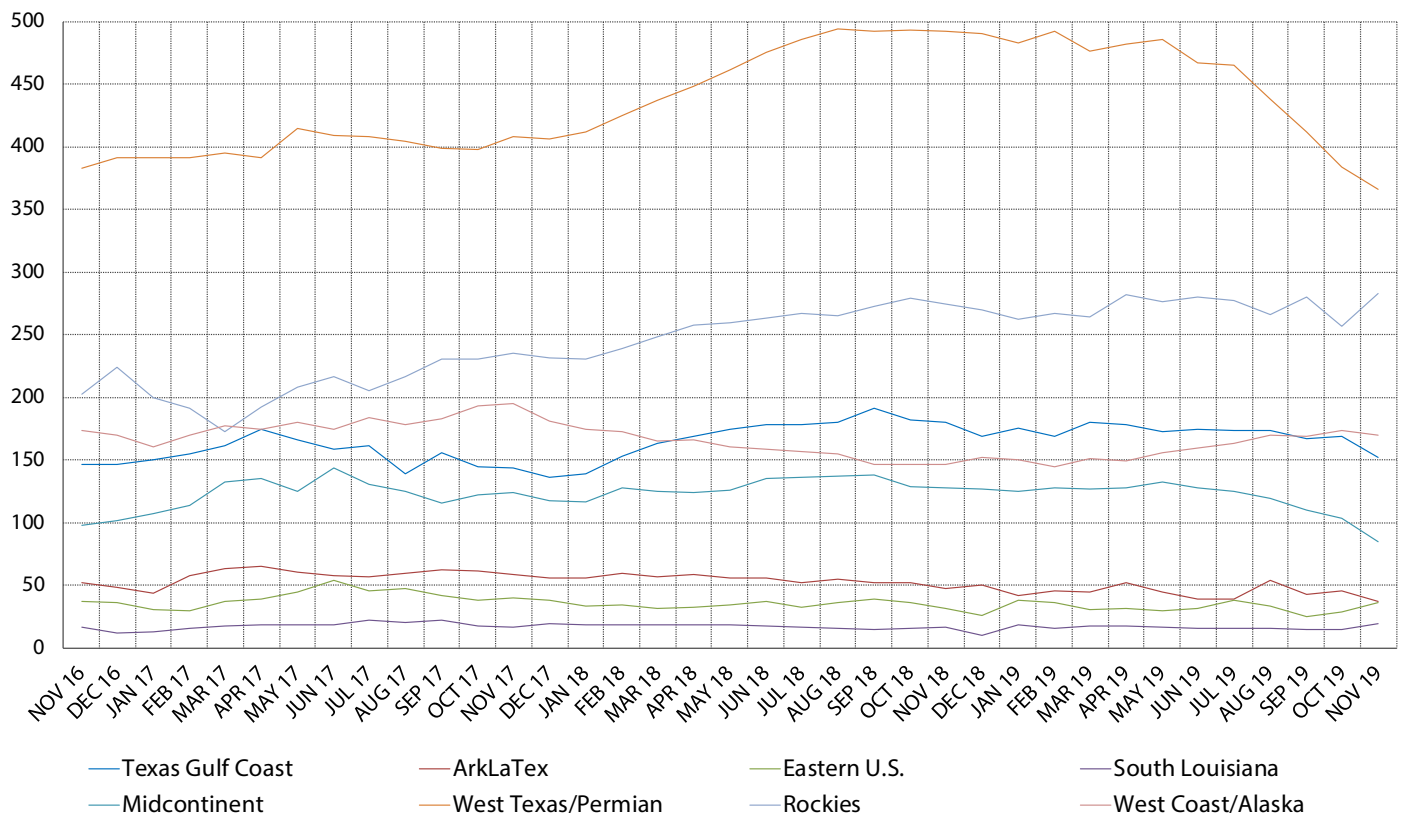


Well Service Rigs

Well service rig counts through December 2019 are shown by region below. The well service rig count for half of the major oil- and gas-producing regions has decreased on a year-over-year basis, while the other half experienced small increases. The West Texas/Permian Basin region has experienced the steepest decline in recent months, going from 438 well service rigs in August to 366 in November. The region contains just over 30% of all well service rigs in the U.S., by far the largest percentage.

4

Well Service Rigs
December 2016 to December 2019



Source: Association of Energy Service Companies

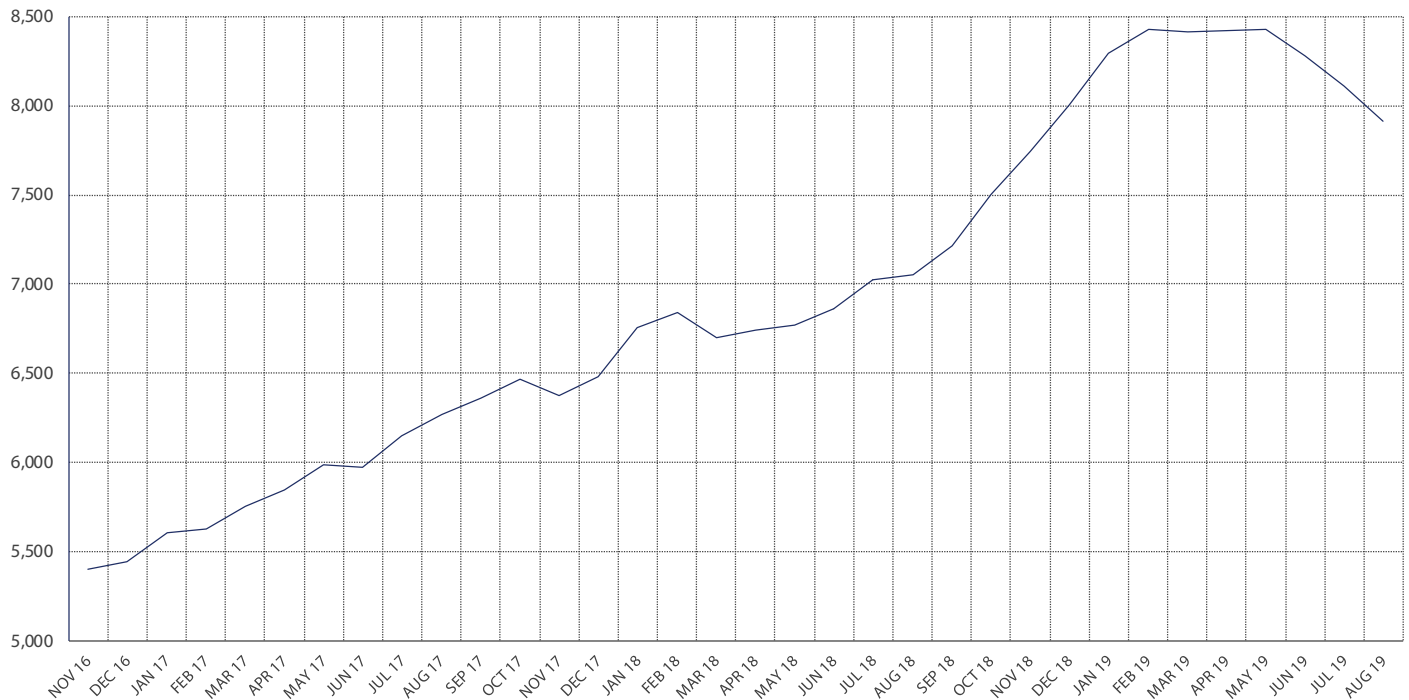


Drilled But Uncompleted Wells

The number of drilled-but-uncompleted (DUC) wells plateaued in early 2019, then began to decline mid-year as drilling activity slowed, but total completions remained relatively stable. DUC wells have the potential to enhance revenues in times of rising market prices, as they enable companies to transform an inactive well into a productive one in a relatively short amount of time.

5

Drilled But Uncompleted Wells
November 2016 to November 2019



Source: U.S. Energy Information Administration



Monitor Information

GA's *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. GA strives to contextualize important indicators in order to provide a more in-depth perspective of the market as a whole. GA 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 GA Business Development Officer.

The information contained herein is based on a composite of GA's industry expertise, contact with industry personnel, liquidation and appraisal experience, and data compiled from a variety of respected sources believed to be reliable. GA does not make any representation or warranty, expressed or implied, as to the accuracy or completeness of the information contained in this issue. Neither GA 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

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

GA's extensive experience includes valuations across a broad range of assets, as well as a variety of services, 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

Valuation Services

- Fair Value Measurements & Disclosures (ASC 820)
- Intangibles, Goodwill and Other (ASC 350)
- Business Combinations (ASC 805)
- Derivatives & Hedging (ASC 815)
- Financial Instruments (ASC 825)
- 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)

Advisory Services

- Feasibility Studies for Energy Capital Investments
- Advanced Statistical Analysis for Project Evaluations
- PHDWin analytics for hedging, lending, and M&A deals
- PWERM analysis
- Commodity Curve Development
- Retail Electric and Gas Market Strategies
- Business Case Analysis
- Competitor Studies
- Market and Strategic Assessments
- Red Team Studies

In addition, GA maintains experts within the oil and gas industry, such as Tom McNulty and Jon Donnel.

Tom McNulty has 25 years of experience working across the entire commodity and energy value chain. As an advisor, and in his corporate career, Tom has valued more than \$49 billion in energy-related assets, businesses, and transactions. He has also advised on or executed \$11 billion in mergers and acquisitions principal investment deals, as well as executed or valued more than \$13 billion notional in derivative instruments. His expert litigation work has included shareholder disputes, business valuation, derivatives and hedging, and damages assessments. Tom earned a Bachelor's degree from Yale University and a Master's in Business Administration degree from Northwestern University. Tom is a Managing Director in GA's CAVS Group.

Jon Donnel brings nearly 20 years of experience in financial analysis, primarily related to the valuation of oil and gas companies and assets. Jon has held corporate roles for oilfield service and integrated oil and gas companies, as well as finance positions for an energy-focused investment bank and an accounting firm specializing in litigation support services. Prior to joining Great American, Jon was the Director of Investor Relations at Weatherford International, an integrated oilfield services provider with operations in over 80 countries. He previously worked as a Director of Equity Research at Scotia Howard Weil, where he covered over 50 companies across the oilfield services and utility sectors, and for ConocoPhillips, where he served in roles in downstream investment appraisal and upstream financial planning and budgeting. Jon earned both his Master's in Business Administration and Bachelor's degree in Economics and Managerial Studies from Rice University. Jon is the Managing Director of GA's Oilfield Services practice.

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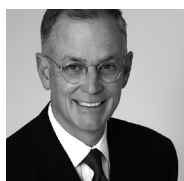
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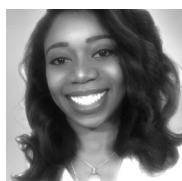
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About Great American Group

Great American Group is a leading provider of asset disposition solutions and valuation and appraisal services to a wide range of retail, wholesale, and industrial clients, as well as lenders, capital providers, private equity investors, and professional services firms. In addition to the *Oil & Gas Monitor*, GA also provides clients with industry expertise in the form of monitors for the construction and transportation, chemicals and plastics, metals, food, and building products sectors, among many others. For more information, please visit www.greatamerican.com.

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