

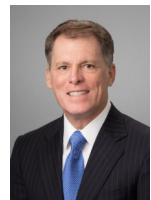
# Weekly E&P Update

March 11, 2025

Vol. 10

## Plugging Away: Texas Confronts Its Persistent Orphaned Well Backlog

By Steve Hendrickson  
President of Ralph E. Davis Associates



As a geographically large state with several major hydrocarbon plays and a long history of oil and gas production, Texas has grappled with the environmental challenge of orphaned wells—abandoned oil and gas wells left behind by insolvent operators—for decades. The State Managed Plugging (SMP) Program, administered by the Railroad Commission of Texas (TRRC), has been instrumental in plugging these wells to prevent contamination of land and water. Since its inception in 1984, the program has plugged over 46,000 wells, a significant achievement in oilfield cleanup.

The Infrastructure Investment and Jobs Act (IIJA) of 2021 has provided Texas with an additional \$25 million in initial federal funding for orphaned well plugging. This allowed the RRC to plug 730 wells in 2023 above its state-budgeted capacity. However, despite these combined efforts, the backlog of orphaned wells remains a persistent issue, driven by a steady influx of newly abandoned sites.

In addition to well plugging, the TRRC's broader Oil Field Cleanup Program addresses environmental hazards through the State Managed Cleanup (SMC) Program. This initiative focuses on remediating abandoned oilfield sites, cleaning up oil spills, and removing waste from tank batteries and production equipment. In fiscal year 2023 alone, the RRC identified 2,392 abandoned sites for potential cleanup and conducted 239 remediation activities.

Our analysis of 16,000 wells plugged since 2010 under the SMP program provides a deeper look into the progress, costs, and challenges associated with orphaned well management.

### A Surge in Plugging Activity Since 2017

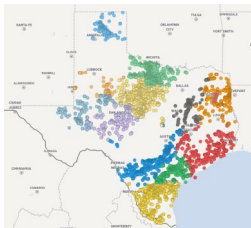
Between 2010 and 2016, the SMP program plugged about 600 wells per year. That changed in 2017, when the plugging rate more than doubled to an average of 1,300 wells per year. This increase was largely due to additional state funding through the Oil and Gas Regulation and Cleanup Fund (OGRC) and a restructuring of the program to improve efficiency.

Despite these gains, Texas continues to face a growing backlog of orphaned wells. In August 2023, the number of abandoned orphaned wells stood at 7,887, a decline from previous years but still a major environmental challenge. The backlog has proven difficult to shrink, as newly orphaned wells are constantly added to the list—often outpacing the plugging rate.

### The Geography of Orphaned Wells

Wells plugged under the SMP program are scattered across Texas, but certain areas dominate the numbers. About two-thirds of the plugged wells are in Railroad Commission Districts 9 and 7B (North Central Texas), District 1 (Panhandle), and District 4 (South Texas). These regions were heavily developed in the early 20th century for their shallow oil and gas accumulations, and the average depth of plugged wells in these areas is around 2,000 feet.

### Wells Plugged Under the SMP Program, 2010-2024 by RRC District



Statewide, the average depth of wells plugged is about 2,900 feet, with nearly all under 10,000 feet. However, a few deep wells—some exceeding 20,000 feet—have also been plugged. Interestingly, the average depth of plugged wells has been declining in recent years, falling to 2,600 feet in 2024.

### Rising Plugging Costs

The cost of well plugging under the SMP program has risen sharply in recent years. In 2016, the average cost per well was about \$12,000, but by 2024, it had surged to \$35,000. Similarly, the cost per foot of true vertical depth has jumped from \$6/ft in 2018 to nearly \$11/ft in 2024.

We believe several factors are driving these increases:

- Oilfield service cost inflation: Various oil and gas service cost indices show consistent price hikes.
- Fewer contractors: The number of companies participating in the program has declined over the past five years, reducing competition and potentially driving up bid prices.
- Well complexity: While we lack the data needed for a solid conclusion, it is possible that the easiest wells to plug have already been addressed, leaving more difficult and expensive projects.

Although plugging costs tend to increase with well depth due to longer tripping times and the increased number of plugs, there is a gradual decline in cost per foot as wells get deeper, at least up to 10,000 feet; this trend has been observed across multiple years and regions.

The SMP program sometimes contracts large groups of wells—up to 50 at a time—for plugging. However, 75% of plugged wells were in programs of 10 wells or fewer. Surprisingly, we found only a slight reduction in cost per foot as program size increased, indicating that economies of scale from grouping wells together are less pronounced than anticipated.

### The Ongoing Challenge

Texas' orphaned well problem is far from solved. Even with state and federal funding, the backlog remains significant, and the rate of new orphaned wells entering the system continues to challenge cleanup efforts. With plugging costs rising the long-term success of the program depends on controlling costs, maintaining contractor participation, and ensuring that funding keeps pace with the scale of the problem.

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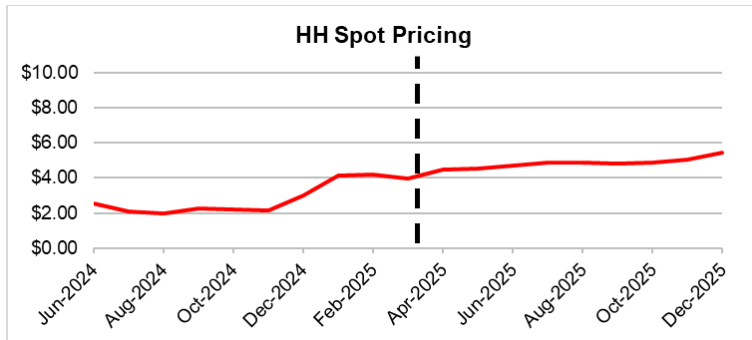
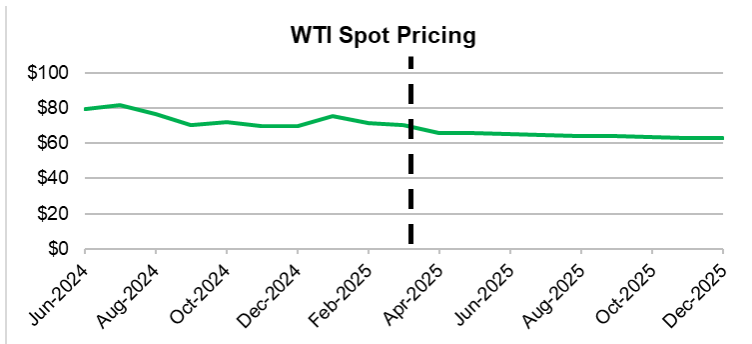
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## NYMEX FUTURE PRICING



## MONDAY'S MARKET CLOSE

### **NYMEX WTI CRUDE OIL FUTURES as of March 10, 2025 Close (\$/bbl)**

Period	Current	WoW Change	Last Week	1 Yr Ago
2025	\$64.49	(\$2.36)	\$66.85	\$71.26
2026	\$62.22	(\$1.91)	\$64.13	\$67.85
2027	\$61.50	(\$1.46)	\$62.96	\$65.72
2028	\$61.33	(\$1.15)	\$62.48	\$64.56
2029	\$61.27	(\$0.90)	\$62.17	\$64.10

### **NYMEX HH NATURAL GAS FUTURES as of March 10, 2025 Close (\$/MMBtu)**

Period	Current	WoW Change	Last Week	1 Yr Ago
2025	\$4.86	\$0.38	\$4.48	\$3.44
2026	\$4.45	\$0.25	\$4.20	\$3.78
2027	\$3.85	\$0.04	\$3.81	\$3.79
2028	\$3.65	(\$0.01)	\$3.66	\$3.77
2029	\$3.50	(\$0.06)	\$3.56	\$3.76

## INDUSTRY METRICS—QUICK SNAPSHOT

	Current	Last Week	WoW Change	%Change
Crude Oil Near-Month Price (\$/bbl)	\$67.11	\$69.95	(\$2.84)	(4%)
Natural Gas Near-Month Price (\$/MMBtu)	\$4.47	\$3.78	\$0.69	18%
Weekly Upstream-Deal Transaction Value (\$MM)	\$9.00	\$400.00	(\$391.00)	(98%)
Weekly Number of Upstream-Deal Transactions	4	3	1	33%
Current Total US Rig Count	592	593	(1)	(0.2%)
US Field Crude Oil Production (MMbbl/day)	13.5	13.5	0.0	0.0%
US Field Dry Natural Gas Production (Bcf/day)	111.5	110.3	1.2	1%
Commercial Crude Oil Stocks-Excluding SPR (MMbbl)	434	430	4	0.8%
Natural Gas Stocks-Working Gas Underground Storage (Bcf)	1,760	1,840	(80)	(4%)
All Basin Drilled But Uncompleted Wells (DUC-Last Quarter)	5,238	5,238	0	-

\*Source—Energy Information Administration (EIA), Bloomberg LP

\*Source—Baker Hughes North America Rotary Rig Count & Enverus M&A Database

## COMMODITY FUTURES - MONDAY'S MARKET CLOSE

	Current	1-Month Change	3-Month Change	6-Month Change	Year Ago Change
<b>WTI</b>					
Prompt	\$66.03	-7.29 [ -9.94% ]	-4.26 [ -6.06% ]	-1.28 [ -1.90% ]	-11.90 [ -15.27% ]
Bal25	\$64.49	-7.14 [ -9.97% ]	-4.26 [ -6.20% ]	-2.17 [ -3.26% ]	-11.53 [ -15.17% ]
Cal26	\$62.22	-5.69 [ -8.37% ]	-4.01 [ -6.05% ]	-2.91 [ -4.47% ]	-9.04 [ -12.69% ]
Cal27	\$61.50	-4.35 [ -6.61% ]	-3.00 [ -4.65% ]	-2.68 [ -4.18% ]	-6.35 [ -9.35% ]
Cal28	\$61.33	-3.34 [ -5.16% ]	-2.02 [ -3.19% ]	-2.41 [ -3.78% ]	-4.38 [ -6.67% ]
Cal29	\$61.27	-2.55 [ -4.00% ]	-1.24 [ -1.99% ]	-2.32 [ -3.65% ]	-3.29 [ -5.09% ]
<b>Brent</b>					
Prompt	\$69.28	-7.72 [ -10.03% ]	-4.24 [ -5.77% ]	-1.33 [ -1.88% ]	-12.93 [ -15.73% ]
Bal25	\$67.84	-7.36 [ -9.79% ]	-4.37 [ -6.05% ]	-2.55 [ -3.62% ]	-12.48 [ -15.53% ]
Cal26	\$65.92	-5.87 [ -8.17% ]	-4.21 [ -6.00% ]	-3.47 [ -5.00% ]	-10.08 [ -13.26% ]
Cal27	\$65.47	-4.53 [ -6.47% ]	-3.35 [ -4.87% ]	-3.30 [ -4.80% ]	-7.49 [ -10.26% ]
Cal28	\$65.70	-3.44 [ -4.98% ]	-2.39 [ -3.51% ]	-2.96 [ -4.31% ]	-5.35 [ -7.53% ]
Cal29	\$66.07	-2.54 [ -3.70% ]	-1.55 [ -2.29% ]	-2.52 [ -3.68% ]	-3.97 [ -5.67% ]
<b>Henry Hub</b>					
Prompt	\$4.49	+0.97 [ 27.62% ]	+1.11 [ 32.95% ]	+2.22 [ 97.84% ]	+2.73 [ 155.32% ]
Bal25	\$4.86	+0.94 [ 24.00% ]	+1.57 [ 47.94% ]	+2.22 [ 84.15% ]	+2.40 [ 97.74% ]
Cal26	\$4.45	+0.36 [ 8.81% ]	+0.64 [ 16.88% ]	+1.27 [ 39.95% ]	+1.01 [ 29.47% ]
Cal27	\$3.85	-0.03 [ -0.70% ]	+0.07 [ 1.81% ]	+0.32 [ 8.97% ]	+0.07 [ 1.85% ]
Cal28	\$3.65	-0.02 [ -0.66% ]	0.00 [ 0.03% ]	+0.10 [ 2.76% ]	-0.14 [ -3.78% ]
Cal29	\$3.50	-0.07 [ -2.02% ]	-0.01 [ -0.18% ]	+0.01 [ 0.21% ]	-0.27 [ -7.15% ]
<b>Heating Oil</b>					
Prompt	\$2.18	-0.06 [ -2.55% ]	+0.11 [ 5.37% ]	+0.20 [ 10.29% ]	-0.49 [ -18.91% ]
Bal25	\$2.13	-0.23 [ -10.19% ]	-0.07 [ -3.24% ]	+0.12 [ 6.27% ]	-0.39 [ -16.40% ]
Cal26	\$2.11	-0.16 [ -7.74% ]	-0.06 [ -3.15% ]	-0.05 [ -2.68% ]	-0.25 [ -11.81% ]
Cal27	\$2.08	-0.16 [ -7.81% ]	-0.08 [ -3.94% ]	-0.05 [ -2.69% ]	-0.22 [ -10.76% ]
Cal28	\$2.06	-0.16 [ -7.80% ]	-0.08 [ -3.98% ]	-0.04 [ -1.86% ]	-0.20 [ -9.55% ]
<b>RBOB</b>					
Prompt	\$2.09	-0.34 [ -13.31% ]	-0.04 [ -1.95% ]	+0.09 [ 4.22% ]	-0.47 [ -17.80% ]
Bal25	\$1.99	-0.25 [ -10.57% ]	-0.08 [ -3.49% ]	+0.03 [ 1.24% ]	-0.44 [ -16.99% ]
Cal26	\$1.88	-0.18 [ -7.68% ]	-0.08 [ -3.66% ]	-0.03 [ -1.29% ]	-0.32 [ -13.30% ]
Cal27	\$1.85	-0.15 [ -6.73% ]	-0.07 [ -3.15% ]	-0.08 [ -3.50% ]	-0.26 [ -11.21% ]
Cal28	\$1.85	-0.14 [ -6.52% ]	-0.07 [ -3.10% ]	-0.08 [ -3.60% ]	-0.23 [ -10.02% ]

\*Source—Bloomberg LP

## **SELECTED INDUSTRY HEADLINES**

### **Crude Oil Inventories See Larger Than Expected Drop**

The American Petroleum Institute (API) estimated that crude oil inventories in the United States fell by 1.455 million barrels for the week ending February 28.

### **US Energy Chief Will Seek \$20 Billion to Refill Oil Reserve**

US Energy Secretary Chris Wright plans to seek up to \$20 billion to accomplish President Donald Trump's goal of refilling the nation's depleted oil reserve to its maximum capacity.

### **Oil CEOs Back Trump's Energy Agenda as Crude Hits Fresh Low**

Executives from some of the world's top oil and gas producers offered full-throated support for President Donald Trump's "Energy Dominance" on Monday, even as financial markets slumped on broader concerns about his economic agenda.

### **Oil Prices Climb, But Recession Fears and Tariffs Limit Gains**

Oil prices rose 1% on Tuesday, helped by weakness in the U.S. dollar, although gains were capped as concerns mounted over a U.S. slowdown and the impact of trade tariffs on global economic growth.

### **U.S. Natural Gas-Directed Rigs Decreased for Second Consecutive Year in 2024**

The number of rigs deployed to drill for natural gas in the United States decreased over the last two years.

### **Why Trump's Energy Secretary Said The World Needs More Gulf Coast Natural Gas**

The newest U.S. energy secretary, Chris Wright, called for more oil and gas production but said he isn't a climate denier, as he spoke before a crowd of thousands of energy insiders who gathered in Houston Monday for CERAWeek by S&P Global, known as the Super Bowl of Energy.

### **Chris Wright: Natural Gas Key to Trump's Energy Policy Goals (LOGIN REQUIRED)**

U.S. Energy Secretary Chris Wright aims to streamline regulatory processes for building energy projects and boost U.S. LNG exports, he said during the 2025 CERAWeek conference.

### **The Wall: Uinta, Green River Gas Fills West Coast Supply Gaps**

Gas demand is rising in the western U.S., and Uinta and Green River producers have ample supply and takeaway capacity.

### **Flat Production, Stout Deficits Keep Natural Gas Futures Rising (LOGIN REQUIRED)**

Natural gas futures backed off meteoric Sunday evening gains but still finished in positive territory on Monday, reflecting expectations for a tightly supplied injection season.

### **Trump Touts Plans to Spur Mammoth Alaska Gas Export Project**

President Donald Trump on Tuesday touted his administration's work on a proposed Alaska pipeline, underscoring his push to invigorate a long-stalled \$44 billion project to transport natural gas across the state and export it overseas.

### **Can a Geothermal Startup Vaporize Rock to Drill the Deepest Holes Ever? (LOGIN REQUIRED)**

Quaise Energy is deploying futuristic technology and banking on Trump's support for accessing subterranean heat

### **Tech, Gas Companies Eye Congressional AI Energy Group**

Some of the biggest names in tech and energy are showing interest in a new Capitol Hill working group tasked with developing legislation that could help tackle a projected boom in energy demand from artificial intelligence.

## **SELECTED RECENT TRANSACTIONS**

### **Evolution Petroleum Announces Acquisition of Non-Operated Oil and Natural Gas Assets**

Evolution Petroleum Corporation announced that it has entered into a definitive agreement to acquire non-operated oil and natural gas assets in New Mexico, Texas, and Louisiana.

### **Ring Energy Bolts On Lime Rock's Central Basin Assets for \$100 Million**

Ring Energy Inc. is bolting on Lime Rock Resources IV LP's Central Basin Platform assets for \$100 million, the E&P announced Feb. 26.

### **Civitas Makes \$300 Million Midland Bolt-On, Plans to Sell D-J Assets**

Civitas Resources is buying Midland Basin locations in a \$300 million bolt-on acquisition from an undisclosed seller, deepening its Permian inventory by about a year.

### **Tokyo Gas Announces Sale of Eagle Ford Shale Gas Assets**

Tokyo Gas Co. has announced that its wholly-owned subsidiary, Tokyo Gas America, through its subsidiary TG Eagle Ford Resources LP, signed Heads of Agreement with Shizuoka Gas Co, to sell its Eagle Ford shale gas assets.

### **ConocoPhillips to Sell Interests in Ursa and Europa Fields to Shell for \$735 Million**

ConocoPhillips said on Friday it would sell its interests in the Ursa and Europa Fields to Shell for \$735 million, as part of the shale producer's plan to streamline its portfolio.

### **Occidental to Divest Some Upstream Assets for \$1.2 Billion**

Occidental Petroleum said that it had struck two deals in the current quarter to divest some upstream assets to undisclosed buyers for a total of \$1.2 billion, although its current-quarter production forecast fell short of expectations.

### **Diamondback Energy to Expand in Permian Basin With \$4.08 Billion Deal**

Diamondback Energy said on Tuesday it would buy certain units of EnCap Investments-backed energy producer Double Eagle for \$4.08 billion in cash and stock, expanding its presence in the oil-rich U.S. Permian basin.

### **Bayswater E&P to Sell DJ Basin Assets for \$603 Million**

Bayswater Exploration and Production, a Denver-based oil and natural gas development company, has entered into an agreement to sell assets in the Denver Julesburg Basin to Prairie Operating Company in a cash and stock transaction valued at approximately \$603 million.

### **ConocoPhillips Sells \$600 Million in Noncore Permian Basin Assets**

Following its \$22.5 billion deal to buy Marathon Oil, ConocoPhillips is targeting \$2 billion in asset sales—a goal a company executive said would largely be achieved this year.

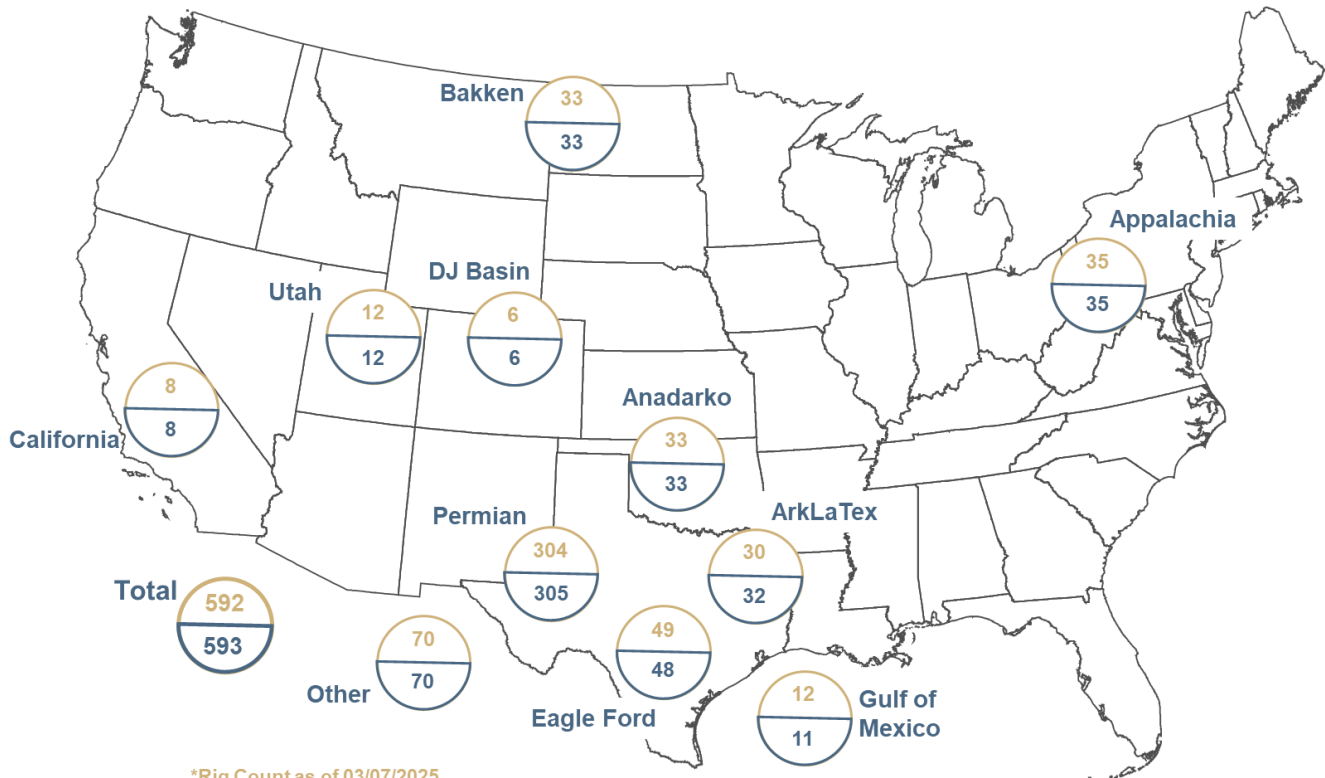
### **Viper Buys \$330 Million Midland Interests in Shadow of \$4.5 Billion Dropdown**

Viper Energy has entered into a definitive purchase agreement to buy mineral and royalty interests from Morita Ranches Minerals LLC in a cash-and-equity deal valued at about \$330 million.

### **Elk Range Acquires Permian, Eagle Ford Minerals and Royalties**

Elk Range Royalties LP is acquiring Newton Financial Corp., Concord Oil Co. and Mission Oil Co., which together own mineral and royalty interests across the Permian Basin and Eagle Ford Shale, Dallas-based Elk said Jan. 29.

## RIG ACTIVITY BY US REGION

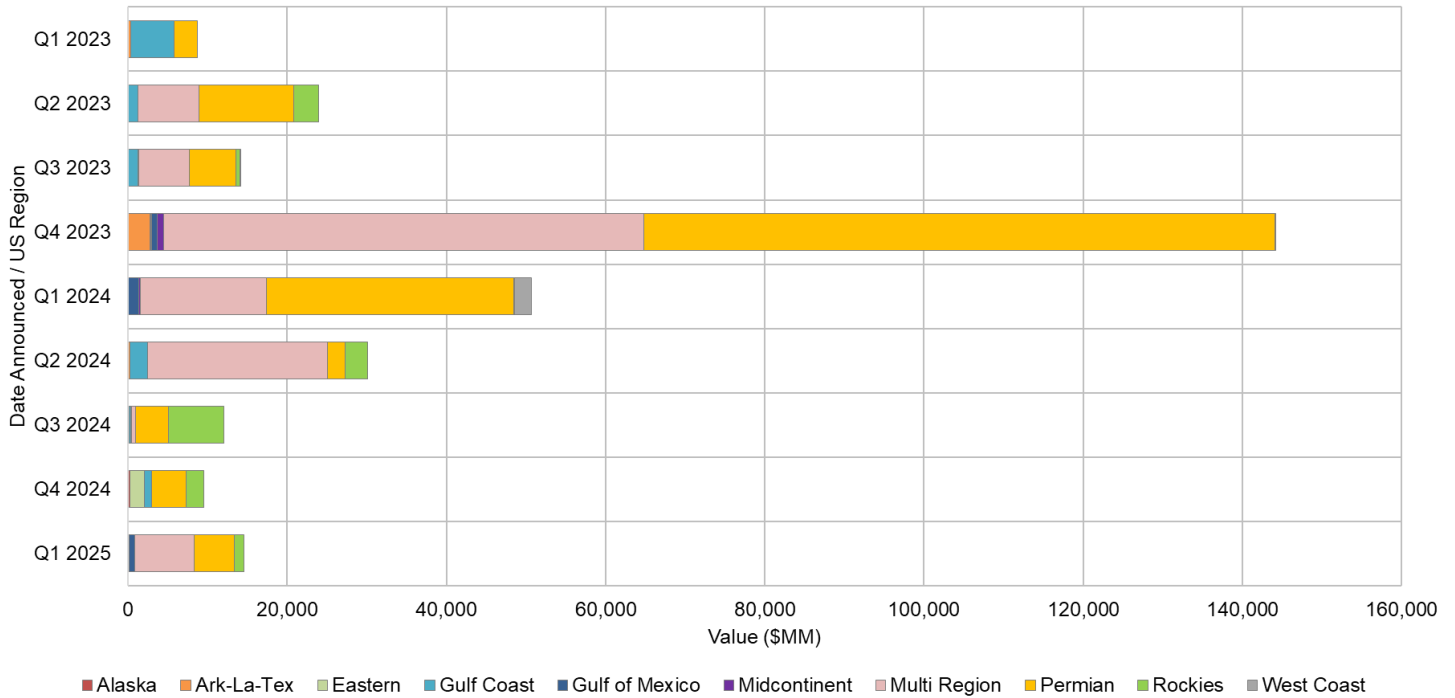


\*Rig Count as of 03/07/2025  
\*Rig Count as of 02/28/2025

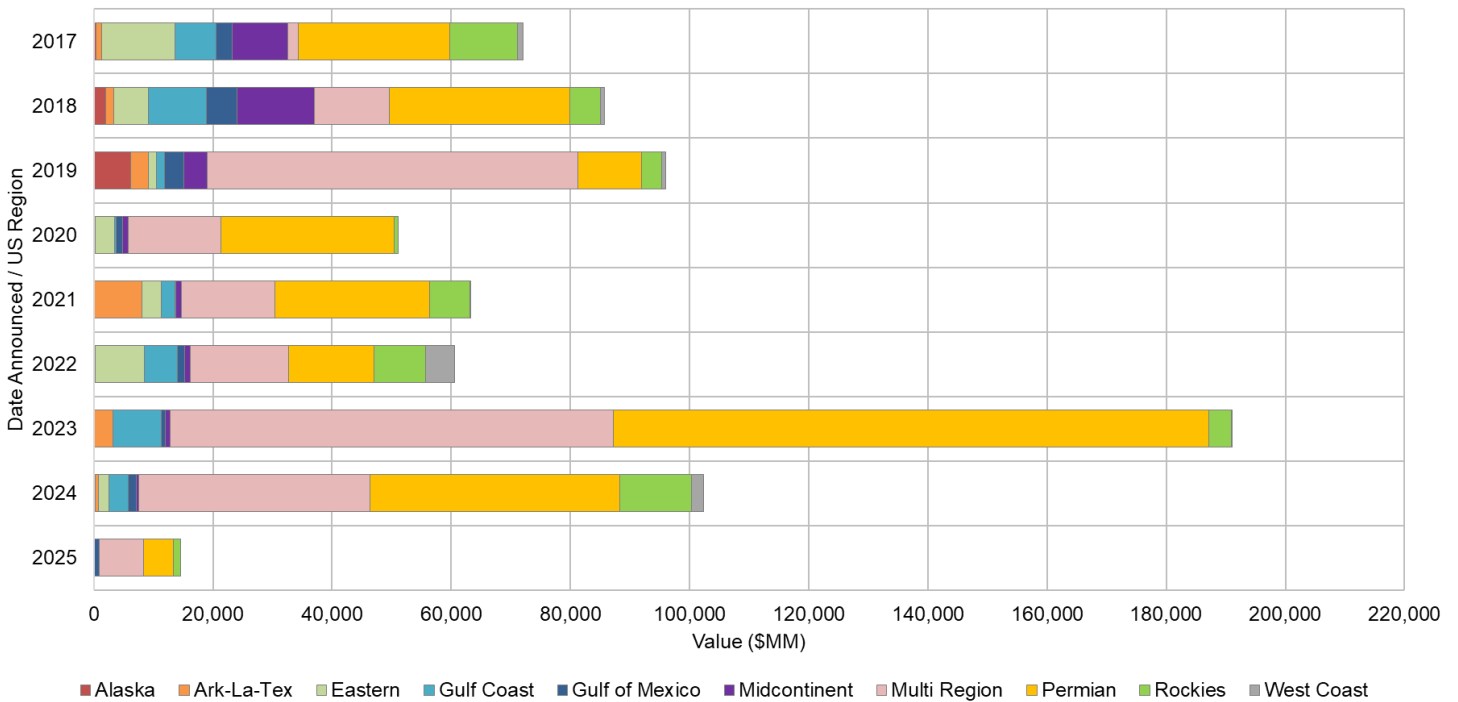
	Week Ending 03/07/2025		Week Ending 02/28/2025		Week Ending 03/09/2024
U.S. Rig Breakouts	Count	+/-	Count	+/-	Count
Oil	486	0	486	(18)	504
Gas	101	(1)	102	(14)	115
Not Specified	5	0	5	2	3
Directional	49	1	48	(3)	52
Horizontal	531	(2)	533	(26)	557
Vertical	12	0	12	(1)	13
Land (Inc Others)	576	(2)	578	(25)	601
Inland Waters	2	0	2	2	0
Offshore	14	1	13	(7)	21
<b>US Total</b>	<b>592</b>	<b>(1)</b>	<b>593</b>	<b>(30)</b>	<b>622</b>

\*Source—Baker Hughes North America Rotary Rig Count

## DEAL VALUE BY US REGION (BY QUARTER)



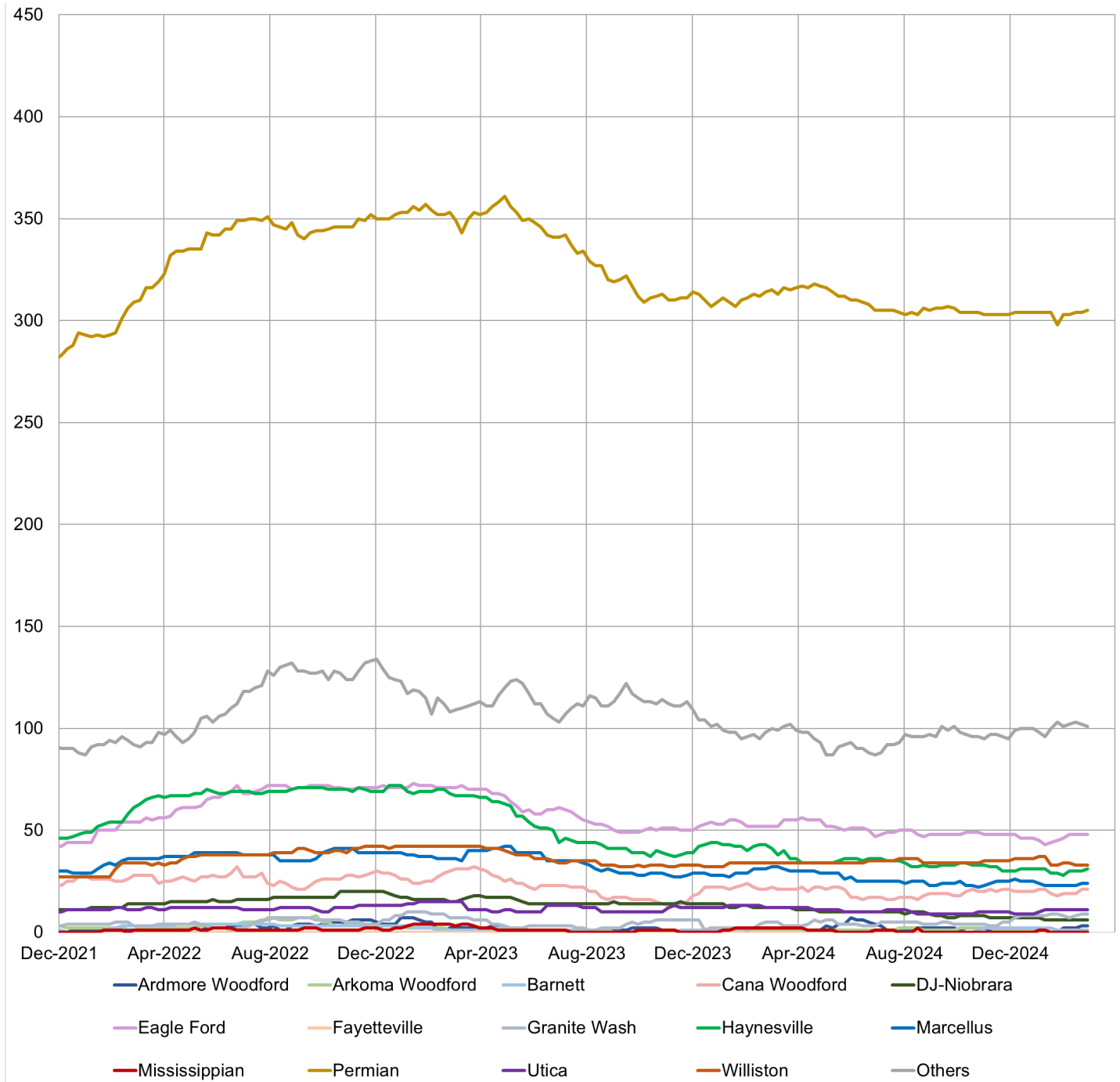
## DEAL VALUE BY US REGION (BY YEAR)



\*Source—Enverus M&A Data- (Charts exclude terminated deals)



## RIG ACTIVITY BY US REGION



\*Source—Baker Hughes North America Rotary Rig Count

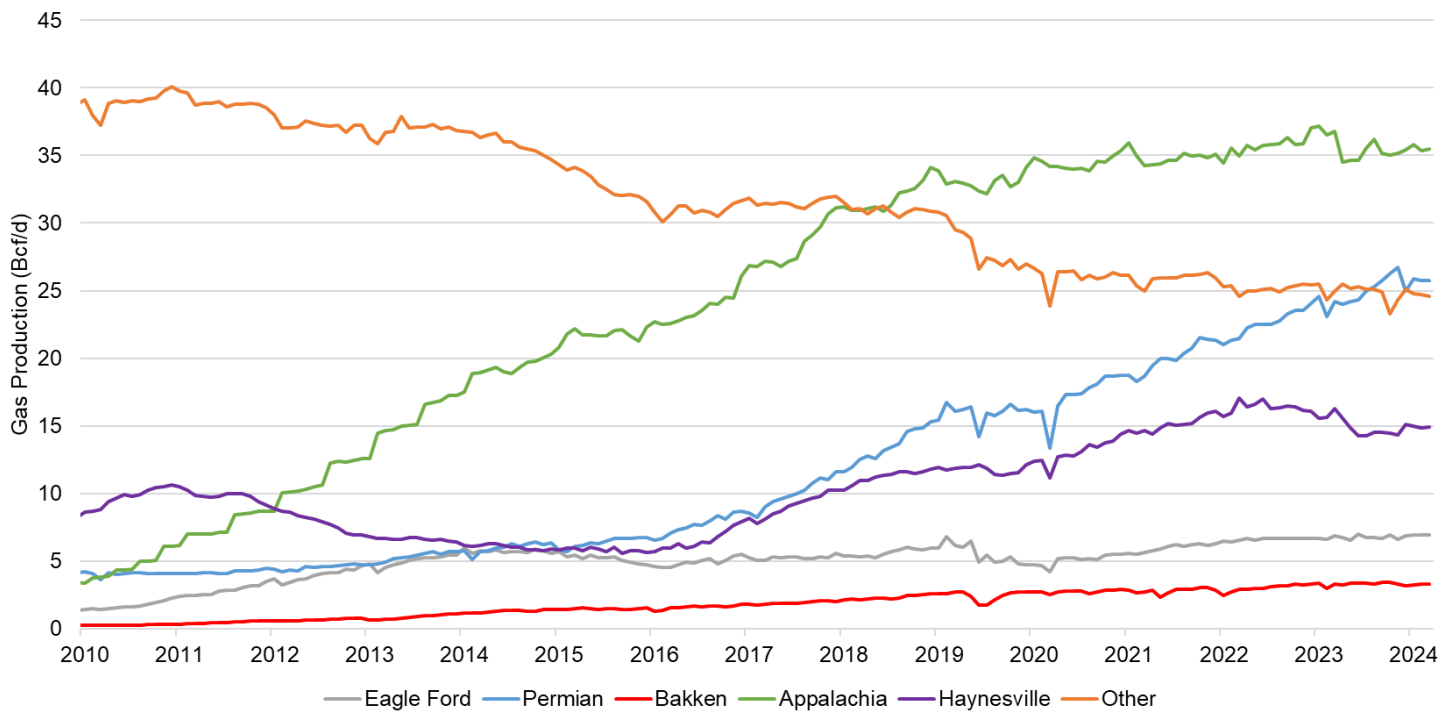
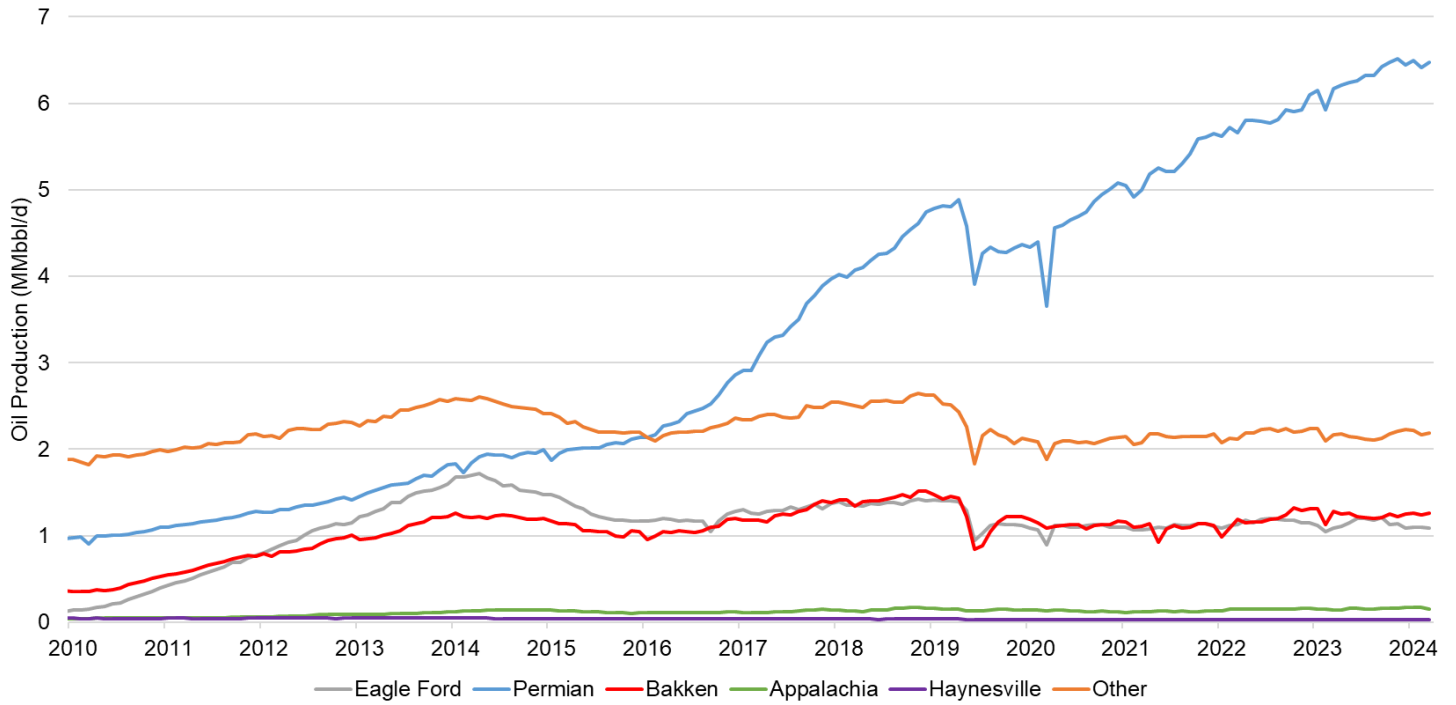


## US DAILY CRUDE (MMbbl) & DRY NATURAL GAS PRODUCTION (MMcf)



\*Source—Energy Information Administration (EIA)

## HISTORICAL PRODUCTION OF SELECTED US SHALE REGIONS



\*Source—Energy Information Administration (EIA)



**UPCOMING EVENTS**

**March 2025**

<a href="#">SPE GCS - Mega Mergers Panel</a>	March 26	Houston, TX
<a href="#">U.S. Men's Clay Court Championship</a>	March 29 - April 6	Houston, TX

**April 2025**

<a href="#">Texas Bankruptcy Bench/Bar Conference</a>	April 2	Houston, TX
<a href="#">SPE GCS - New Ventures Panel</a>	April 16	Houston, TX
<a href="#">Quorum Qnections 25</a>	April 22-24	Las Vegas, NV
<a href="#">World Oilman's Poker Tournament</a>	April 23-25	Las Vegas, NV
<a href="#">Hunger Free Golf Classic</a>	April 25	Houston, TX
<a href="#">World Oilman's Tennis Tournament</a>	April 30—May 3	Houston, TX

\*Denotes an Opportune Sponsored Event

## **ABOUT RALPH E. DAVIS ASSOCIATES**


**Ralph E. Davis Associates LLC (RED)** is an industry-leading petroleum engineering and geosciences firm committed to satisfying the individual needs of clients. We accomplish this by holding ourselves to the highest standards of integrity and professionalism to deliver honest, direct and actionable insights to help clients achieve their strategic objectives. We distinguish ourselves by combining reservoir engineering, geoscience evaluation techniques and advanced data analytics with economic analyses to provide our clients with individual, customized solutions.

Banks, bondholders, private equity firms, financial institutions and law firms around the world trust in RED's diverse services and unrivaled upstream oil and gas expertise to deliver comprehensive solutions that help clients make informed decisions. We add value to every engagement by employing a team approach, leveraging Opportune LLP's experienced bench of experts in transactional due diligence, tax advisory, investment banking, restructuring and valuation.


We offer technical and economic analyses to deliver our clients a complete, independent, accurate and detailed assessment of the value of their assets. We apply a robust set of technical capabilities to assist our clients. Our capabilities include:

- Reservoir engineering and geosciences
- Economic forecasting and reporting
- Data analytics and geospatial analysis


## **KEY CONTACTS**



**Steve Hendrickson** is the President of Ralph E. Davis Associates, an Opportune LLP company. Steve has over 35 years of professional leadership experience in the energy industry with a proven track record of adding value through acquisitions, development and operations. Steve is a licensed professional engineer in the state of Texas, and holds an M.S. in Finance from the University of Houston and a B.S. in Chemical Engineering from The University of Texas at Austin. He recently served as a board member of the Society of Petroleum Evaluation Engineers (SPEE) and is a registered FINRA representative.



**John Beaird** is Vice President of Ralph E. Davis Associates, an Opportune LLP company. John has 39 years of oil and gas management, reservoir engineering, and petroleum economics evaluation experience. Recent relevant experience includes the Permian, Western Gulf, Tx-La-Miss Salt, Mid-Continent, Denver-Julesburg, Wind River, Williston Basin, and Appalachian Basins. John is a registered Petroleum Engineer in the State of Texas and holds a B.S. in Petroleum Engineering from Louisiana Tech University. He is also an active member of the Society of Petroleum Evaluation Engineers (SPEE).



David Edwards is a Petroleum Engineer at Ralph E. Davis Associates, an Opportune LLP company. David has over four years of reserves engineering experience in conventional and unconventional reservoirs. Before RED, David was a Petroleum Engineer at a lower middle market A&D advisory firm where he handled the technical processes for marketed assets. He began his career with an operator in Dallas, where he contributed to its engineering, operations, and A&D teams. David holds an M.B.A. from The University of Texas Permian Basin and a B.S. in Petroleum Engineering from The University of Oklahoma.

