

Weekly E&P Update



August 29, 2023 Vol. 34

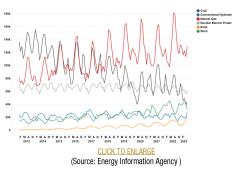
Natural Gas Prices Poised to Improve?

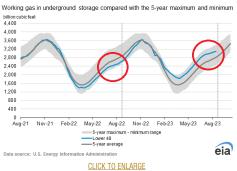
By Steve Hendrickson President of Ralph E. Davis Associates

Although natural gas prices have been disappointing so far this year, there are some reasons to suspect that they may begin to rise later this year. In the near term, Hurricane Idalia initially provided price support by threatening the Gulf of Mexico supply. However, it now may create price pressure as electricity demand in Florida is expected to drop after it makes landfall there. Looking beyond that event, however, let's see what the fundamentals say.

Supply - US <u>natural gas production</u> continues to reach record levels, led by excellent well results in the Marcellus and Haynesville combined with associated gas from the Permian and Eagle Ford plays. Canadian imports are also up about one bcf/d compared to last year. However, the gas-directed rig count has been dropping throughout the year so production growth may moderate.

Demand - Natural gas demand has been helped this year by a sweltering summer and increased exports of LNG. Although electricity demand continues to grow slowly, natural gas has gained market share (despite gains in wind and solar power) due to the inexorable decline in coal-fired generation. The chart below shows monthly electricity generation by primary fuel in millions of kilowatt-hours.





Storage - Strong supply growth and a mild end to the last winter set the stage for above-average storage volumes so far this year. The recent storage numbers were a surprise, however. In the graph below, the blue shows the current amount of gas in storage, and you can see how the curve has flattened over the last few weeks. If this trend persists, we could quickly move to being below the five-year average. I've highlighted a similar trend that occurred last summer. At that time, gas in storage was already running below average, so Henry Hub gas prices increased from about \$6.60/MMBtu in March to \$8.80/MMBtu in August. Although those prices seem unlikely, perhaps the supply/demand balance is tightening, and we'll see firming prices through the end of the year.

Table Of Contents

This Week in Oil & Gas

US Commodity Prices

Industry Headlines

Recent Transactions

Rig Activity by US Region

Deal Value by US Region

Total US Rig Count by US Region

US Daily Crude & Dry Natural Gas Production

<u>Historical Production of US Shale Regions</u>

Upcoming Events

About Us/Key Contacts

Í





NYMEX FUTURE PRICING



INDUSTRY METRICS—QUICK SNAPSHOT

MONDAY'S MARKET CLOSE

NYMEX WTI CRUDE OIL FUTURES as of August 28, 2023 Close (\$/bbl)

Period	Current	WoW Change	Last Week	1 Yr Ago
2023	\$79.66	(\$0.34)	\$80.00	\$85.55
2024	\$76.55	(\$0.47)	\$77.02	\$77.75
2025	\$72.19	(\$0.75)	\$72.94	\$72.06
2026	\$68.60	(\$0.85)	\$69.45	\$67.52
2027	\$65.51	(\$0.85)	\$66.36	\$63.96

NYMEX HH NATURAL GAS FUTURES as of August 28, 2023 Close (\$/MMBtu)

Period	Current	WoW Change	Last Week	1 Yr Ago	
2023	\$2.98	(\$0.09)	\$3.07	\$6.56	
2024	\$3.50	(\$0.07)	\$3.57	\$5.24	
2025	\$3.98	(\$0.03)	\$4.01	\$4.90	
2026	\$4.01	(\$0.04)	\$4.05	\$4.80	
2027	\$3.93	(\$0.05)	\$3.98	\$4.78	

WoW Change

%Change

Last Week

Crude Oil Near-Month Price (\$/bbl) \$80.15 \$81.43 (\$1.28)(2%)Natural Gas Near-Month Price (\$/MMBtu) \$2.64 \$2.56 \$0.07 3% Weekly Upstream-Deal Transaction Value (\$MM) \$700.00 \$5,013.60 \$4,313.60 616% 2 Weekly Number of Upstream-Deal Transactions 3 1 50% Current Total US Rig Count 632 642 (10)(2%)US Field Crude Oil Production (MMbbl/day) 12.8 12.7 0.1 0.8% US Field Dry Natural Gas Production (Bcf/day) 108.5 108.0 0.5 0.5%

Commercial Crude Oil Stocks-Excluding SPR (MMbbl) 434 440 (6) (1%)

Natural Gas Stocks-Working Gas Underground Storage (Bcf) 3,083 3,065 18 0.6%

Total Drilled But Uncompleted Wells (DUC-Last Month) 4,787 4,787 0 -

Current

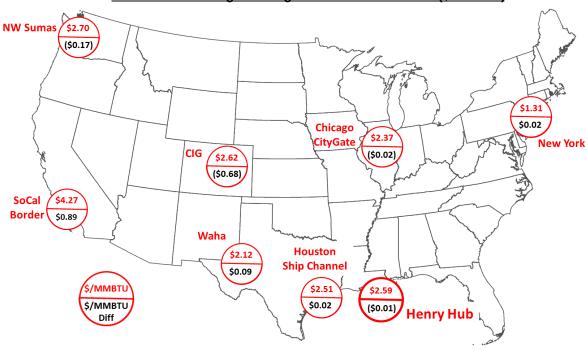
^{*}Source—Energy Information Administration, United States (EIA)
*Source—Baker Hughes North America Rotary Rig Count & PLS M&A Database

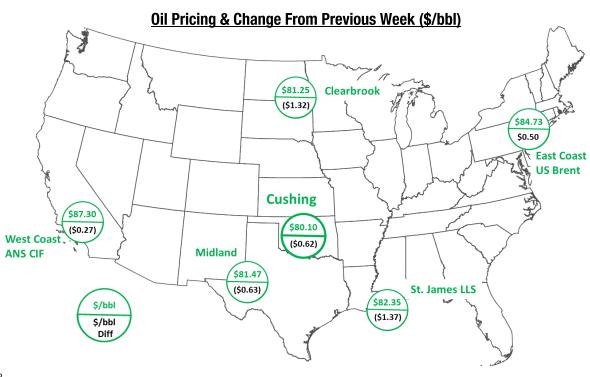




US COMMODITY PRICES CONTINUED

Natural Gas Pricing & Change From Previous Week (\$/MMBtu)









SELECTED INDUSTRY HEADLINES

Oil Industry Not Spending Enough To Balance Supply & Demand

The oil and gas industry is spending significantly more on new supply in 2023, but analysts at Wood Mackenzie think that it may still not be enough to meet demand.

Oil Edges Up Following Broader Markets

Oil edged up alongside equities as thin summer trading left the commodity to follow broader markets. Aggregate open interest in West Texas Intermediate crude is down about 16% from its peak in early June.

What Would Happen to the Oil Price If OPEC+ Went into Max Production Mode?

In its latest oil market report, the IEA pegged total OPEC+ crude oil production, excluding condensates, at 42.46 million barrels per day in July.

U.S. Opens Talks To Temporarily Lift Venezuelan Sanctions, Increasing Oil Production Rebound Odds

The Biden administration's decision to open talks to temporarily lift sanctions against Venezuela raises the prospect that production may finally rebound in the world's largest oil reserves.

8 Consequential Energy Implications Of The BRICS Expansion

The decision by the BRICS alliance to more than double its numbers of members last week has major geopolitical implications, many of which are related to oil production.

Oil Industry Leaders To Bid On Offshore Wind Leases In Gulf Of Mexico

The Gulf of Mexico has been a hub for U.S. oil production for decades. A government auction Tuesday could make it a nexus for off-shore wind, too.

CSR, ESG, Net Zero: Decoding The Confusing Lingo Of Socially Ethical Organizations

Each year, millions of consumers, approximately 55%, report that they are more likely to do business with companies that have positive social and environmental impacts. Fortunately, there are several simple steps that most organizations can take today to begin working toward Net Zero.

Russian Crude Oil Shipments Jump To 8-Week High

Russia saw its crude oil exports by sea jump to 3.4 million barrels per day in the week to August 27, an eight-week high. The surge in oil exports comes ahead of an expected drop in refined product exports due to strong domestic demand for some fuels.

It's Only A Matter Of Time Until The ESG Movement Will R.I.P.

ESG is on its last legs. CEO Larry Fink announced, "The company stated emphatically that the ESG movement has gone too far, and BlackRock will be part of the solution to prevent its excesses from destroying the US economy".





SELECTED RECENT TRANSACTIONS

Permian Resources To Buy Earthstone In \$4.5 bln Deal

Permian Resources said it would buy Earthstone Energy in an all-stock transaction valued at about \$4.5 billion, including debt, boosting the shale producer's presence in the Delaware Basin.

Crescent Point Announces Sale Of Its North Dakota Assets

Crescent Point Energy Corp. is pleased to announce that it has entered into an agreement with a private operator to sell its North Dakota assets for US\$500 million.

PHX Minerals Announces Accretive Acquisitions in Haynesville and SCOOP

PHX Minerals Inc. recently announced that it has agreed to acquire approximately 988 net royalty acres targeting the Haynesville play in Louisiana and Texas and the SCOOP play in Oklahoma from five separate sellers for aggregate consideration of \$13.6 million in cash subject to certain closing conditions and adjustments.

Empire Petroleum Announces Acquisition Of Additional Interests In New Mexico Units

Empire Petroleum recently announced that it closed on the acquisition of COERT Holdings 1 LLC's interests in Empire's three New Mexico assets, Eunice Monument South Unit A, Eunice Monument South Unit B, and Arrowhead Grayburg Unit, all of which are located in Lea County. The purchase price for the Transaction was approximately \$6.7 million.

ExxonMobil Announces Acquisition Of Denbury

Exxon Mobil Corporation (NYSE: XOM) today announced it has entered into a definitive agreement to acquire Denbury Inc., an experienced developer of carbon capture, utilization and storage (CCS) solutions and enhanced oil recovery. The acquisition is an all-stock transaction valued at \$4.9 billion, or \$89.45 per share based on ExxonMobil's closing price recently.

Sandridge Energy, Inc. Announces The Closing Of An Acquisition Which Increases Its Interest In Wells It Operates In The Northwest Stack

SandRidge Energy, Inc. today announced the closing of an acquisition which increases its interest in twenty-six producing wells operated by the Company within the Northwest Stack play for approximately \$11.25 million.

Ring Energy Announces Accretive All Cash Asset Acquisition Strategically Expanding Core Operating Area

Ring Energy, Inc. today announced it has entered into an agreement to acquire the Central Basin Platform assets of Founders Oil & Gas IV, LLC for \$75 million in cash. Founders' CBP operations are located in the Permian Basin in Ector County, Texas and are focused on the development of approximately 3,600 net acres that are similar to Ring's CBP assets acquired in 2022 from Stronghold Energy Operating II, LLC and its affiliate.

Zenith Energy Expands Its US Presence With Stateside Energy LLC Deal

Zenith Energy Ltd. the international energy production company with assets in Africa and Europe, has announced that it has entered into an agreement with Stateside Energy LLC, an Oklahoma-based oil and gas operator, to acquire and operate a portfolio of oil production and development licences in Oklahoma, as well as certain other states in the USA.

Civitas Resources to Enter Permian Basin through Transformative Transactions

Civitas has also agreed to purchase Hibernia's Midland Basin assets for \$2.25 billion in cash, subject to customary purchase price adjustments.

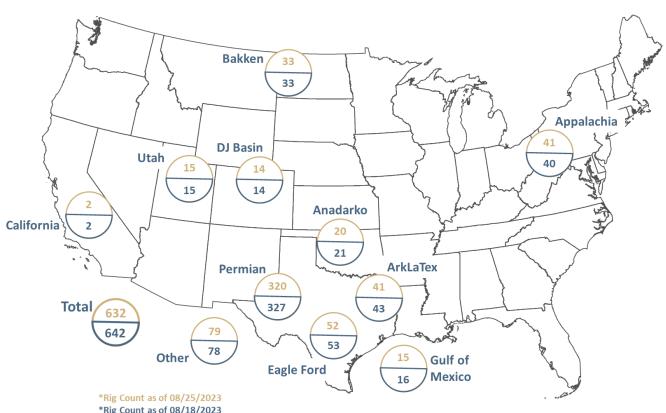
SM Energy Company Announces Certain Second Quarter 2023 Activity And Acquired 6,300 Net Acres In The Midland Basin

The Company's Midland Basin assets are located in the Permian Basin in West Texas is comprised of approximately 80,000 net acres.





RIG ACTIVITY BY US REGION



^{*}Rig Count as of 08/18/2023

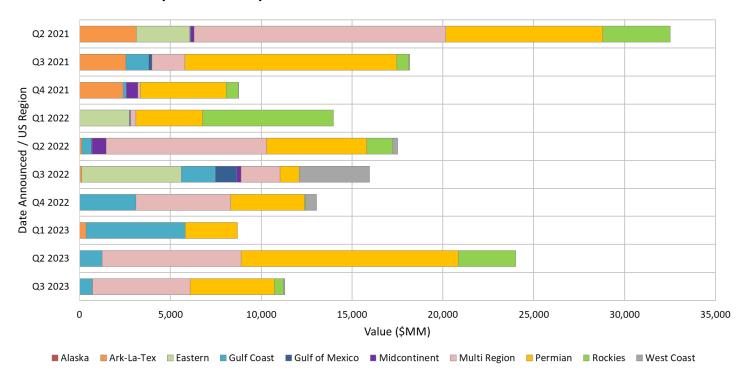
	Week Ending 08/25/2023		Week Ending 08/18/2023		Week Ending 08/26/2022
U.S. Rig Breakouts	Count	+/-	Count	+/-	Count
Oil	512	(8)	520	(93)	605
Gas	115	(2)	117	(43)	158
Not Specified	5	0	5	3	2
Directional	50	(2)	52	10	40
Horizontal	567	(5)	572	(127)	694
Vertical	15	(3)	18	(16)	31
Land (Inc Others)	613	(8)	621	(131)	744
Inland Waters	3	(1)	4	0	3
Offshore	16	(1)	17	(2)	18
US Total	632	(10)	642	(133)	765

*Source—Baker Hughes Weekly Rig Counts

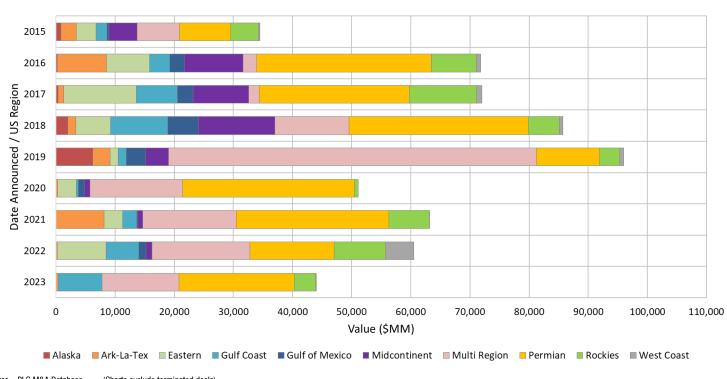




DEAL VALUE BY US REGION (BY QUARTER)



DEAL VALUE BY US REGION (BY YEAR)

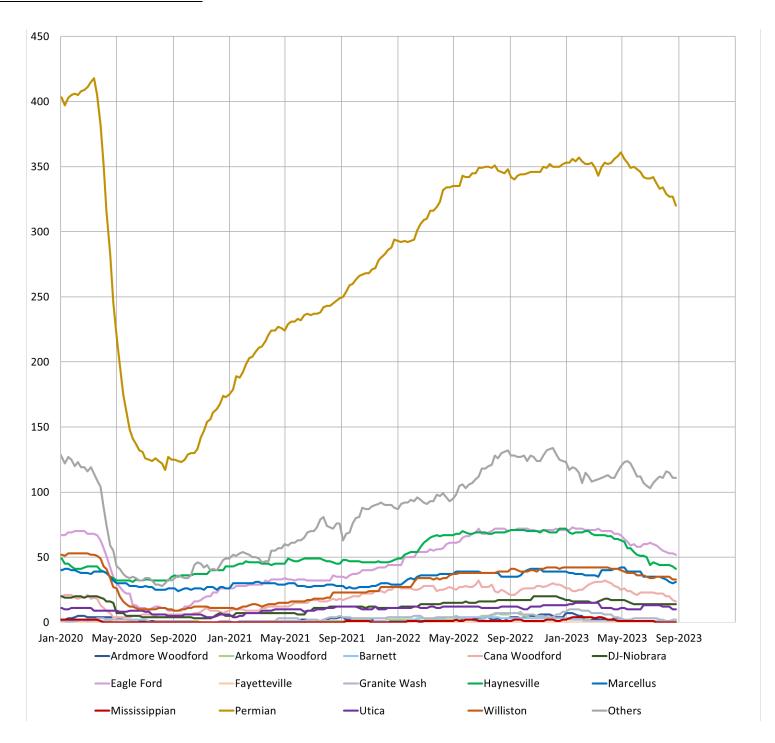


*Source—PLS M&A Database (Charts exclude terminated deals)





RIG ACTIVITY BY US REGION







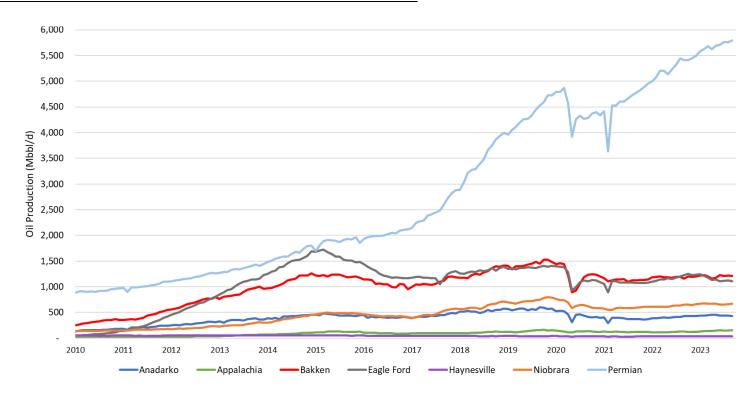
US DAILY CRUDE (MMbbl) & DRY NATURAL GAS PRODUCTION (MMcf)

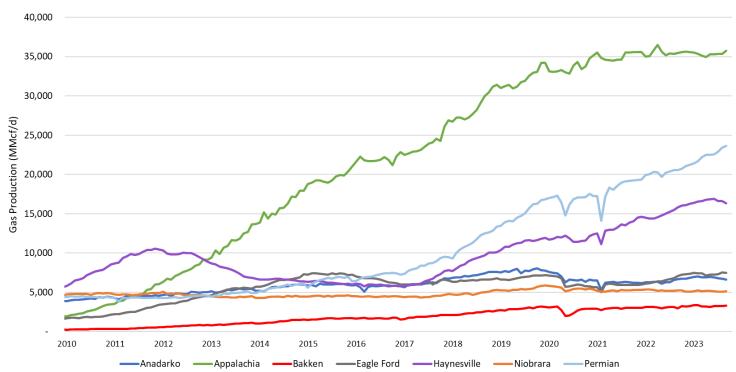






HISTORICAL PRODUCTION OF SELECTED US SHALE REGIONS





*Source—Energy Information Administration, United States (EIA)





October 19-22

UPCOMING EVENTS

<u>August 2023</u>		
Society of Petroleum Engineers (SPE) - Saint Arnold's Season Kick-Off Social	August 30	Houston, TX
September 2023		
HEFG Wine and Whiskey Event	September 21	Houston, TX
Enertia User Conference	September 21-22	Fort Lauderdale, FL
HPF 29th Annual Golf Tournament	September 25	Cypress, TX
World Oilman's Overnight Poker Tournament (WOOP)	September 28-29	Lake Charles, LA
October 2023		
Hart Energy—Energy Capital Conference	October 2	Dallas, TX
Hart Energy—A&D Strategies and Opportunities Conference	October 3	Dallas, TX
2023 National Conference of Bankruptcy Judges (NCBJ)	October 11-14	Austin, TX

Tulsa Octoberfest

Tulsa, OK





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).



Yvonne Trujillo is a Senior Petroleum Engineer at Ralph E. Davis Associates, an Opportune LLP company. Yvonne has over 25 years experience in the oil and gas industry with extensive expertise in reserves engineering, SEC and PRMS/SPE reporting and economics and asset evaluation in conventional and unconventional reservoirs in the U.S. Lower 48. Yvonne earned a B.S. in Mechanical Engineering at Simon Bolivar University in Caracas, Venezuela and an M.S. in Petroleum Engineering at the University of Houston.



David Edwards is a Petroleum Engineer at Ralph E. Davis Associates, an Opportune LLP company. David has over three 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.