

# THE U.S. Energy DATABOOK

*A summary of national and global energy indicators*



NOVEMBER 29, 2024

FEDERAL RESERVE BANK of KANSAS CITY

## SUMMARY OF CURRENT ENERGY CONDITIONS

Since the last edition of the U.S. Energy Databook, activity in the energy sector decreased moderately. For the week ending November 29, West Texas Intermediate (WTI) crude oil averaged \$68.94 per barrel and North Sea Brent averaged \$74.23 per barrel, decreasing 9.7% and 8.2% respectively over the last quarter. The Henry Hub natural gas spot price averaged \$3.12 per million Btu for the week ending November 29, increasing 60.8% over the last three months. Over the last quarter, the total number of active drilling rigs in the United States fell slightly by 0.2% and is 6.9% below year-ago levels. U.S. crude oil production fell slightly by 0.3% compared to three months ago. U.S. crude oil and petroleum products exports decreased 3.4% in the last quarter and imports fell by 3.9%. Global demand for petroleum increased 0.4% and global petroleum production was roughly unchanged over the last quarter.

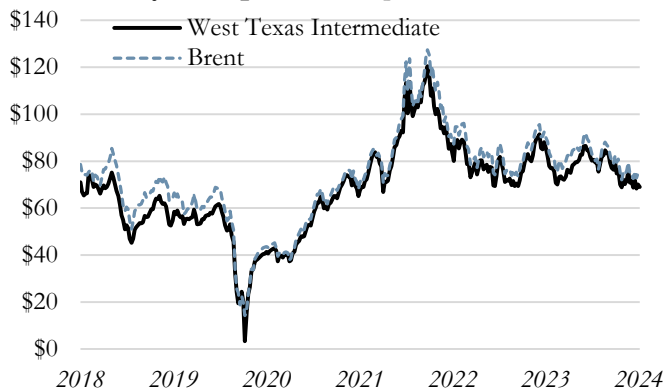
This databook provides current economic indicators to help monitor trends and allow comparison of past information. These indicators include: oil and natural gas prices; global petroleum production and demand; U.S. oil production and petroleum demand; U.S. crude oil stocks; OECD petroleum stocks; U.S. oil imports; U.S. oil exports; oil and gas drilling rig counts; and U.S. natural gas production. These indicators can be found on the following pages.



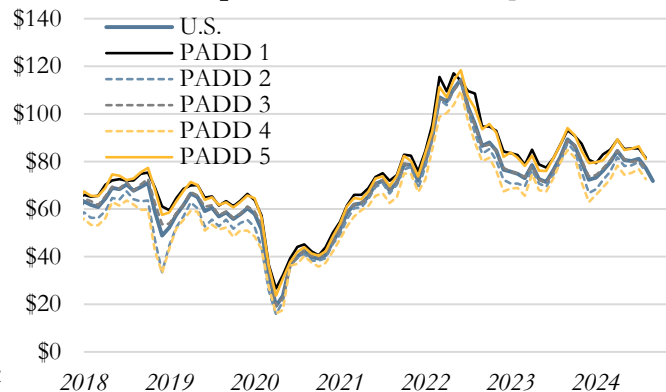
The Federal Reserve Bank of Kansas City's headquarters is located at 1 Memorial Drive in the heart of Kansas City, Missouri. The Federal Reserve Bank of Kansas City serves the Tenth Federal Reserve District, which includes Colorado, Kansas, western Missouri, Nebraska, northern New Mexico, Oklahoma and Wyoming. There are three branches across the Tenth Federal Reserve District located in Denver, Oklahoma City, and Omaha.

Weekly data through November 29, 2024

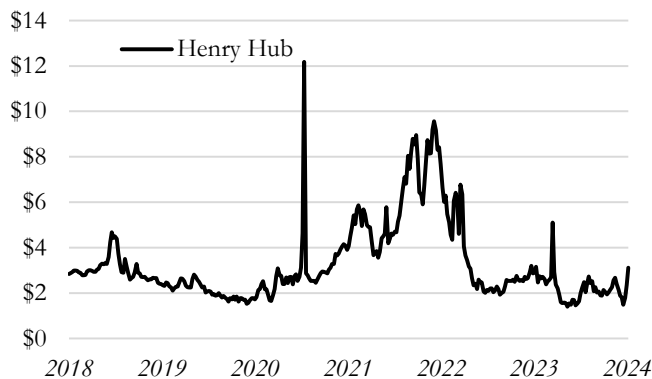
Weekly Oil Spot Prices, per barrel



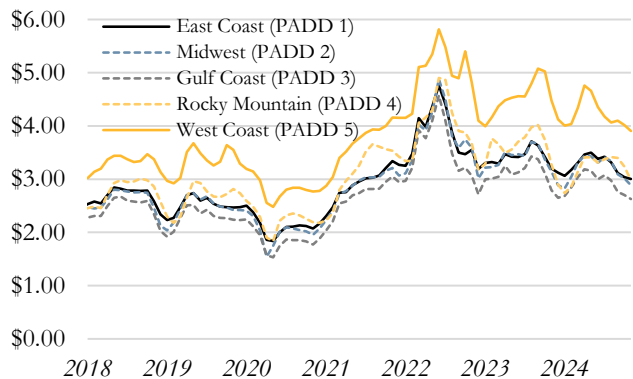
Refiner Acquisition Cost of Oil\*, per barrel



Weekly Natural Gas Spot Prices, per mmbtu



Monthly Gasoline Prices by PADD, per gallon



Weekly Spot Prices, Change from

	Current	1 Week	1 Month	3 Months	6 Months	1 Year
Weekly Spot Prices	11/29/24	Ago	Ago	Ago	Ago	Ago
West Texas Intermediate	\$68.94	-\$1.17	\$0.25	-\$7.42	-\$10.58	-\$6.55
Brent	\$74.23	-\$0.61	\$1.62	-\$6.60	-\$6.69	-\$6.68
Henry Hub	\$3.12	\$0.77	\$1.30	\$1.18	\$1.08	\$0.40

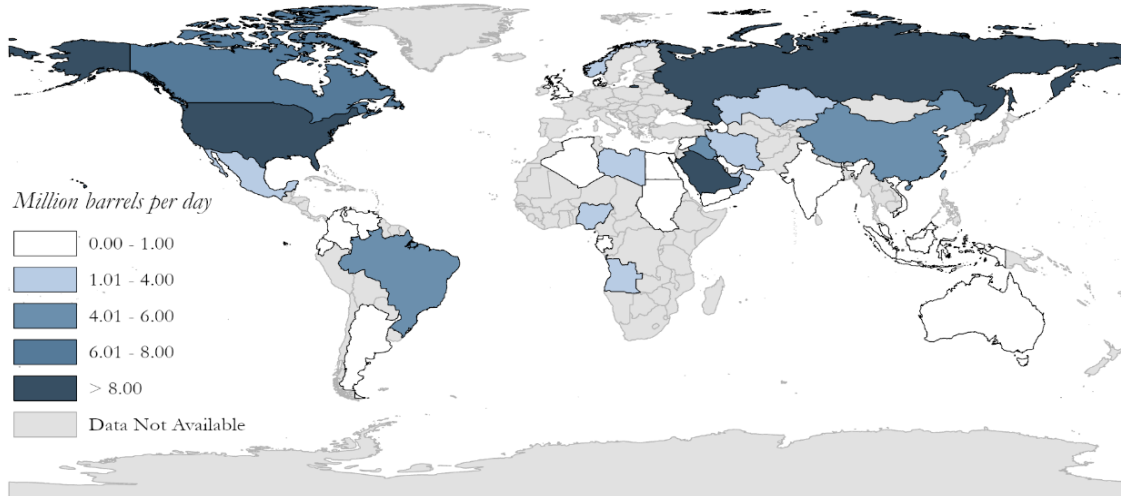
Monthly Gasoline Spot Prices, Change from

	Current	1 Month	3 Months	6 Months	1 Year
Geographic Area	Nov-24	Ago	Ago	Ago	Ago
East Coast (PADD 1)	\$3.00	-\$0.04	-\$0.31	-\$0.50	-\$0.19
Midwest (PADD 2)	\$2.89	-\$0.13	-\$0.45	-\$0.54	-\$0.25
Gulf Coast (PADD 3)	\$2.63	-\$0.08	-\$0.35	-\$0.53	-\$0.17
Rocky Mountain (PADD 4)	\$2.98	-\$0.26	-\$0.44	-\$0.43	-\$0.29
West Coast (PADD 5)	\$3.91	-\$0.11	-\$0.16	-\$0.75	-\$0.57

\*The cost of crude oil, including transportation and other fees paid by the refiner.

Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

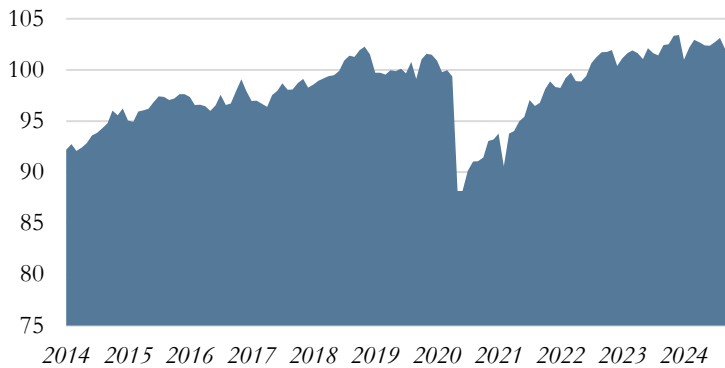
October 2024 Global Petroleum Production



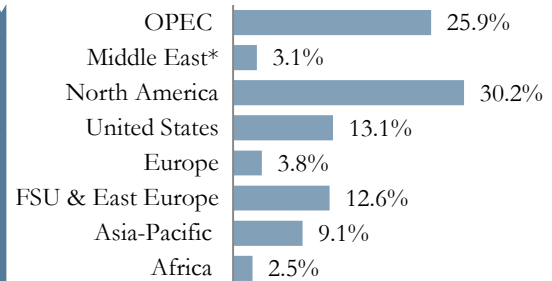
Source: Energy Information Administration/Haver Analytics

October 2024

Monthly Global Petroleum Production, million barrels per day

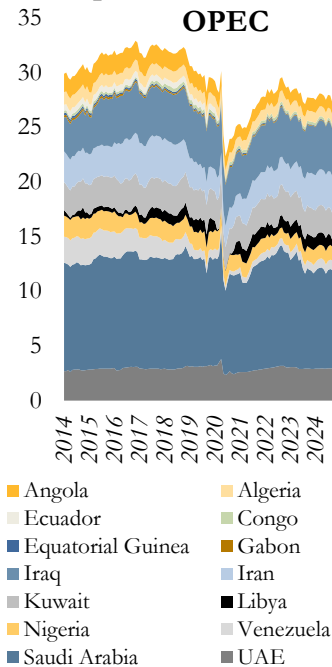


Regional Share of Production

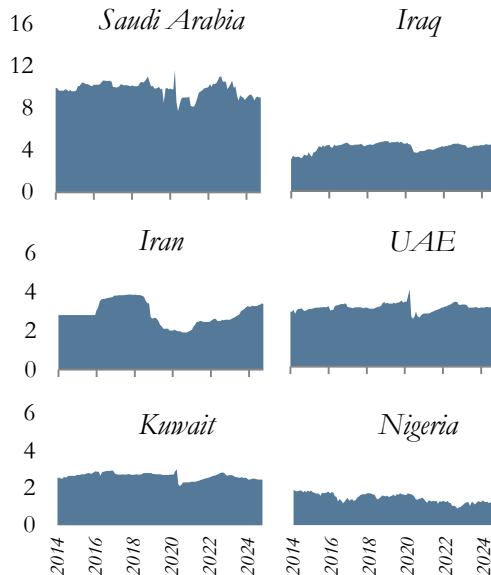


\*Excludes OPEC

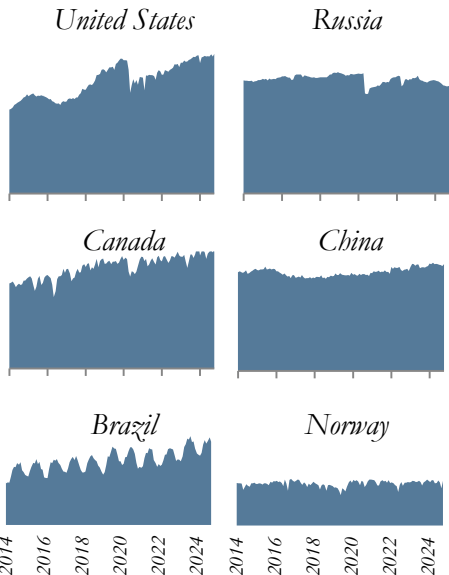
Top Crude Oil Producers, million barrels per day



Top OPEC Producers



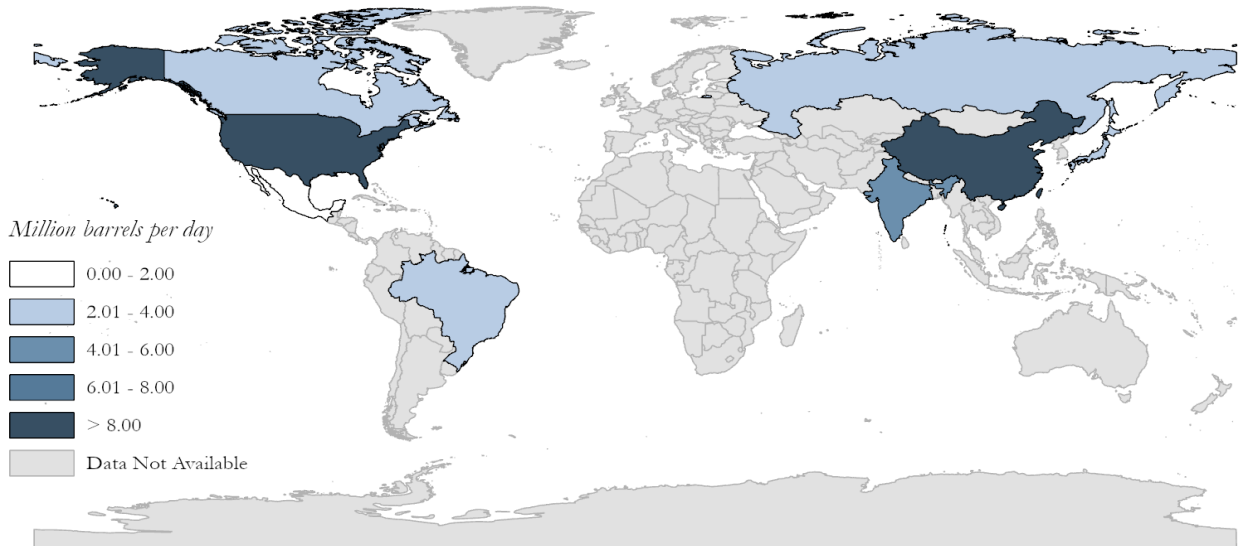
Top Non-OPEC Producers



Note: OPEC country production values are for crude oil and non-OPEC country data is for petroleum production.

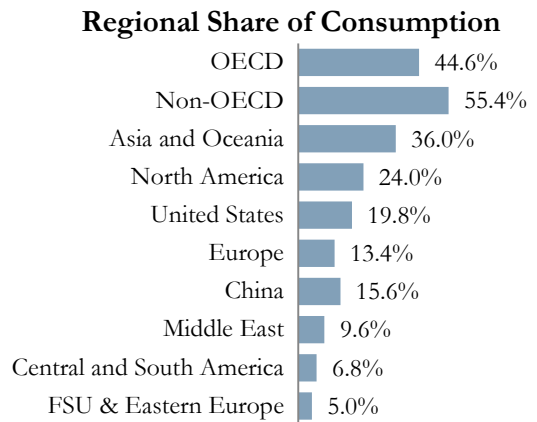
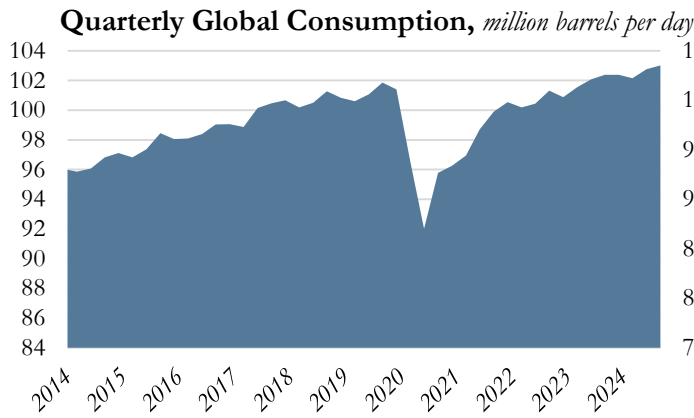
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

Third Quarter 2024 Global Petroleum Consumption

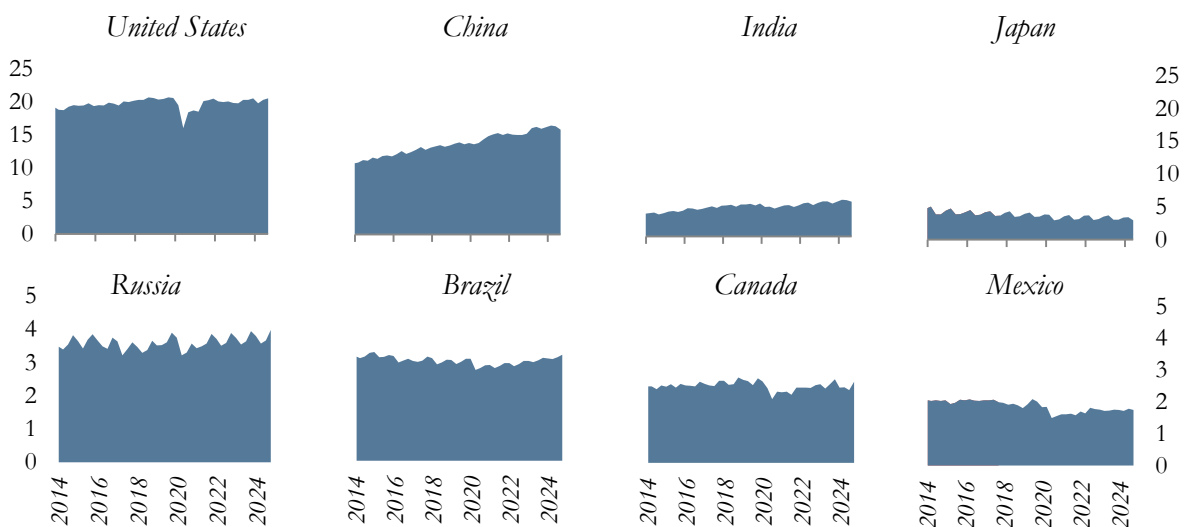


Source: Energy Information Administration/Haver Analytics

Third Quarter 2024

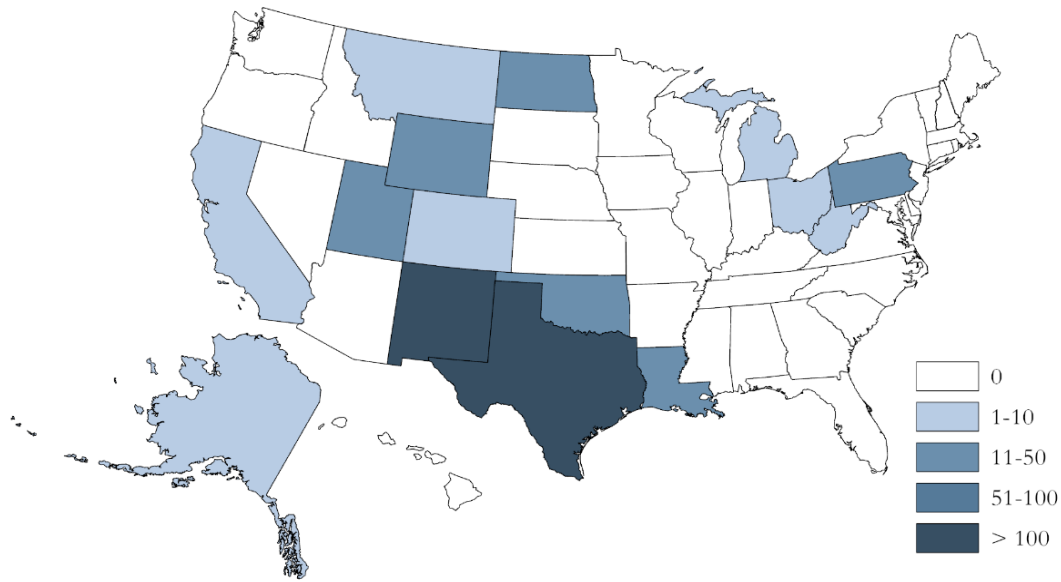


Top Petroleum Consumers, million barrels per day



Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

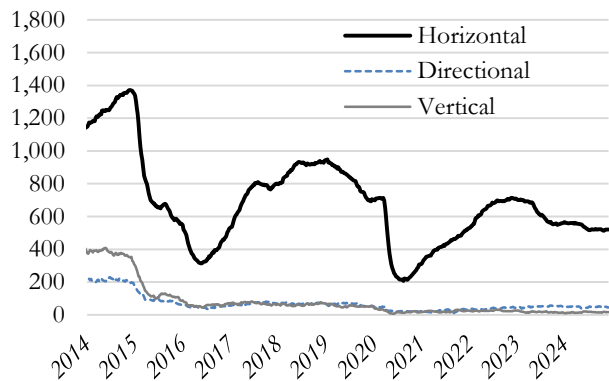
November 2024 Weekly Active Oil & Gas Drilling Rig Counts



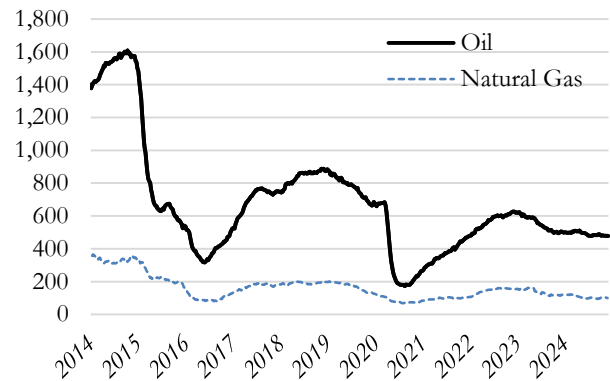
Source: Baker Hughes/Haver Analytics

November 29, 2024

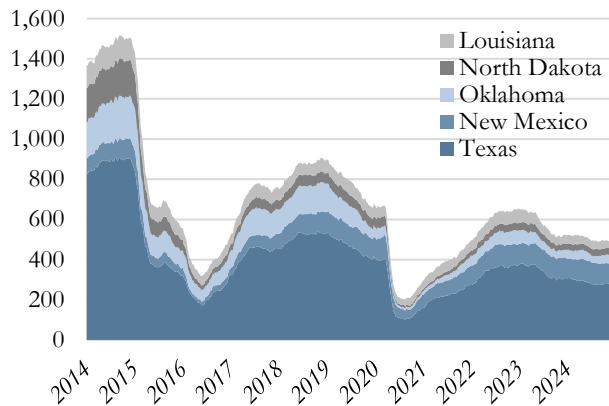
U.S. Active Drilling Rigs by Trajectory



U.S. Active Drilling Rigs by Type



Top Five States for Drilling Activity (Total Active Rigs)



Rig Count By Type

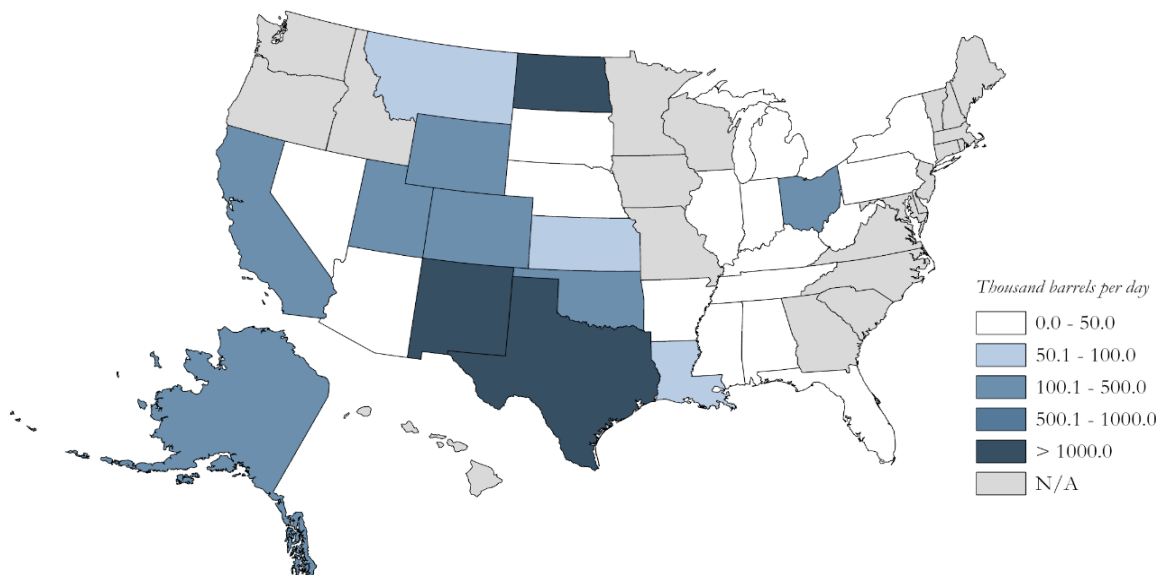
Rig Type	Current Week	1 Month Ago	3 Months Ago	1 Year Ago
Oil	477	479	483	505
Gas	100	102	95	116
Misc	5	4	5	4
<b>Total</b>	<b>582</b>	<b>585</b>	<b>583</b>	<b>625</b>

Rig Count By Type, Change from

Rig Type	Current Week	1 Month Ago	3 Months Ago	1 Year Ago
Oil	-	-0.4%	-1.2%	-5.5%
Gas	-	-2.0%	5.3%	-13.8%
Misc	-	25.0%	0.0%	25.0%
<b>Total</b>	-	<b>-0.5%</b>	<b>-0.2%</b>	<b>-6.9%</b>

Source: Baker Hughes/Haver Analytics

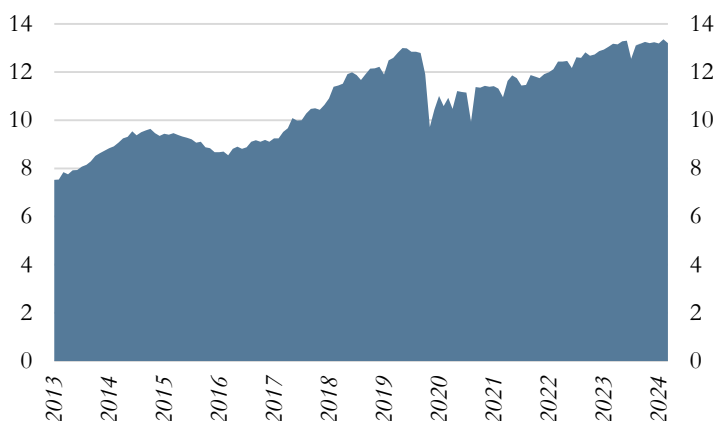
September 2024 U.S. Crude Oil Production



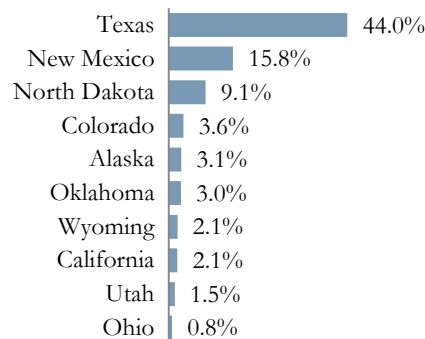
Source: Energy Information Administration/Haver Analytics

September 2024

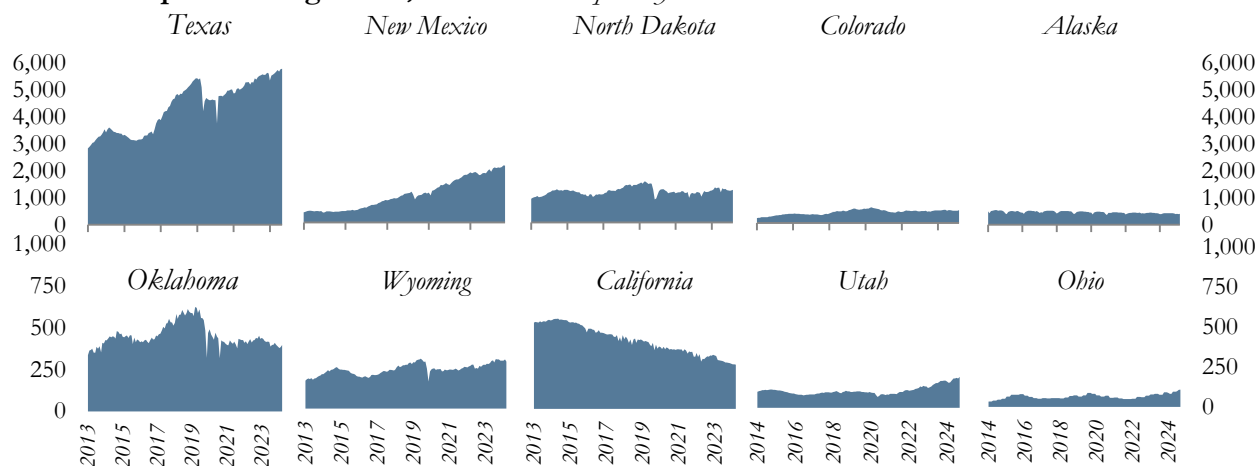
Monthly U.S. Production, million barrels per day



Share of Production



Top Producing States, thousand barrels per day



Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

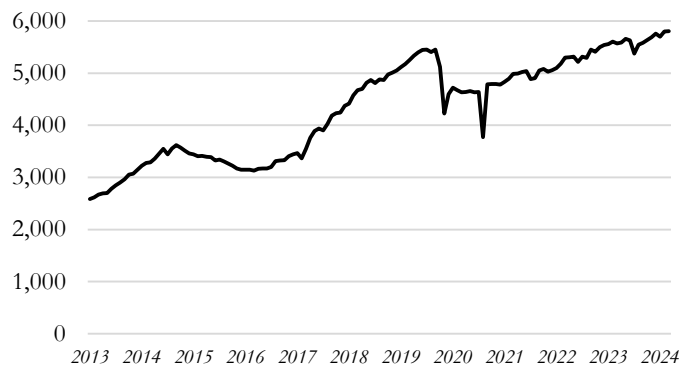
Data through September 2024

**United States** *Thousand barrels per day*



	<b>United States</b> <i>Thousand barrels per day</i>	<i>Change from</i>
Sep-24	13,204	
Month Ago	13,361	-1.2%
3 Months Ago	13,240	-0.3%
6 Months Ago	13,171	0.3%
1 Year Ago	13,177	0.2%

**Texas**



	<b>Texas</b> <i>Thousand barrels per day</i>	<i>Change from</i>
Sep-24	5,805	
Month Ago	5,796	0.1%
3 Months Ago	5,756	0.8%
6 Months Ago	5,583	4.0%
1 Year Ago	5,570	4.2%
Share of U.S. Production	44.0%	

**New Mexico**



	<b>New Mexico</b> <i>Thousand barrels per day</i>	<i>Change from</i>
Sep-24	2,088	
Month Ago	2,092	-0.2%
3 Months Ago	2,010	3.9%
6 Months Ago	2,013	3.7%
1 Year Ago	1,811	15.3%
Share of U.S. Production	15.8%	

**North Dakota**



	<b>North Dakota</b> <i>Thousand barrels per day</i>	<i>Change from</i>
Sep-24	1,198	
Month Ago	1,173	2.2%
3 Months Ago	1,175	1.9%
6 Months Ago	1,215	-1.4%
1 Year Ago	1,287	-6.9%
Share of U.S. Production	9.1%	

Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

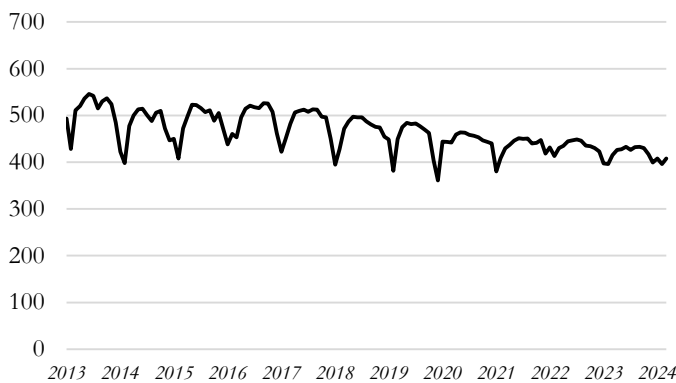
Data through September 2024

**Colorado** *Thousand barrels per day*



	<b>Colorado</b> <i>Thousand barrels per day</i>	<i>Change from</i>
Sep-24	477	
Month Ago	456	4.7%
3 Months Ago	450	6.2%
6 Months Ago	475	0.4%
1 Year Ago	459	4.0%
Share of U.S. Production		3.6%

**Alaska**



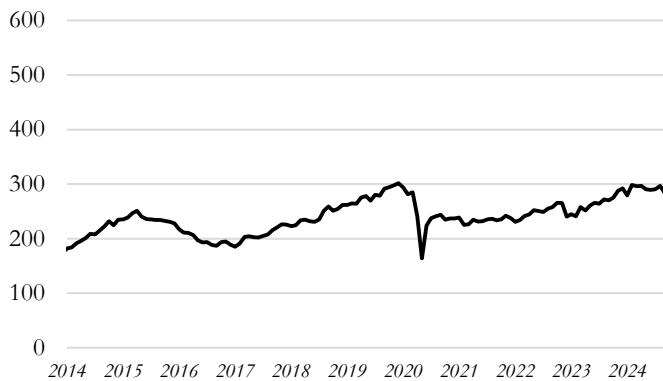
	<b>Alaska</b> <i>Thousand barrels per day</i>	<i>Change from</i>
Sep-24	408	
Month Ago	396	3.0%
3 Months Ago	399	2.2%
6 Months Ago	433	-5.7%
1 Year Ago	415	-1.8%
Share of U.S. Production		3.1%

**Oklahoma**



	<b>Oklahoma</b> <i>Thousand barrels per day</i>	<i>Change from</i>
Sep-24	397	
Month Ago	383	3.5%
3 Months Ago	387	2.5%
6 Months Ago	400	-0.7%
1 Year Ago	421	-5.9%
Share of U.S. Production		3.0%

**Wyoming**

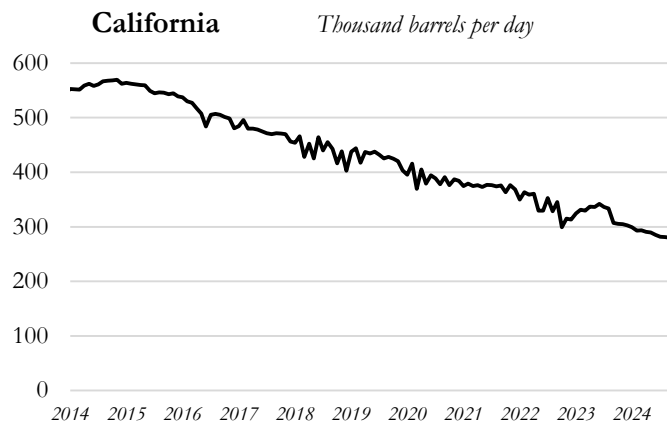


	<b>Wyoming</b> <i>Thousand barrels per day</i>	<i>Change from</i>
Sep-24	284	
Month Ago	296	-4.3%
3 Months Ago	290	-2.1%
6 Months Ago	296	-4.3%
1 Year Ago	270	5.0%
Share of U.S. Production		2.1%

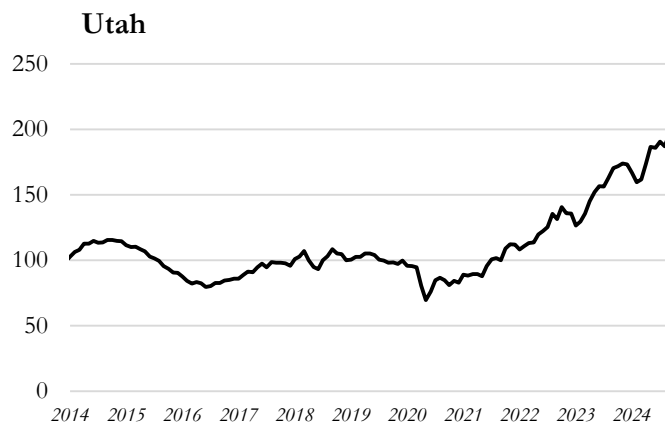
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics



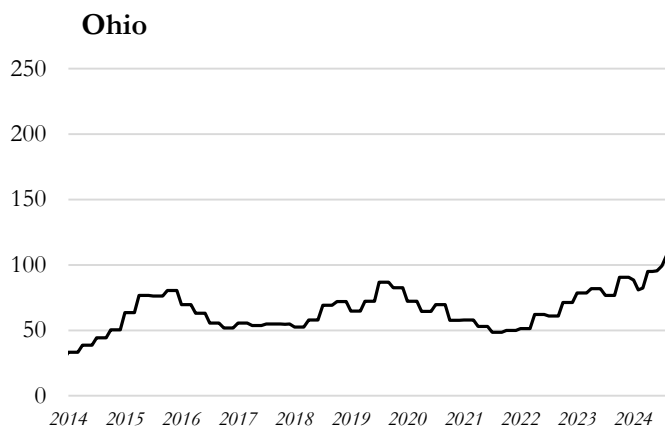
Data through September 2024



California		Change from
<i>Thousand barrels per day</i>		
Sep-24	280	
Month Ago	281	-0.3%
3 Months Ago	285	-1.7%
6 Months Ago	294	-4.6%
1 Year Ago	307	-8.9%
Share of U.S. Production		2.1%



Utah		Change from
<i>Thousand barrels per day</i>		
Sep-24	197	
Month Ago	187	5.2%
3 Months Ago	186	5.7%
6 Months Ago	162	21.6%
1 Year Ago	170	15.4%
Share of U.S. Production		1.5%

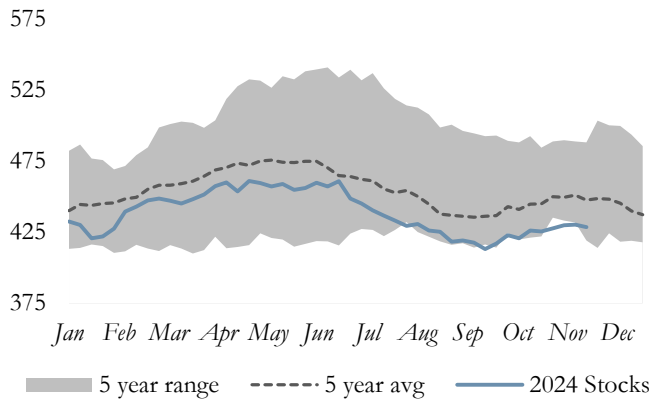


Ohio		Change from
<i>Thousand barrels per day</i>		
Sep-24	108	
Month Ago	107	0.8%
3 Months Ago	95	13.3%
6 Months Ago	82	31.2%
1 Year Ago	77	41.0%
Share of U.S. Production		0.8%

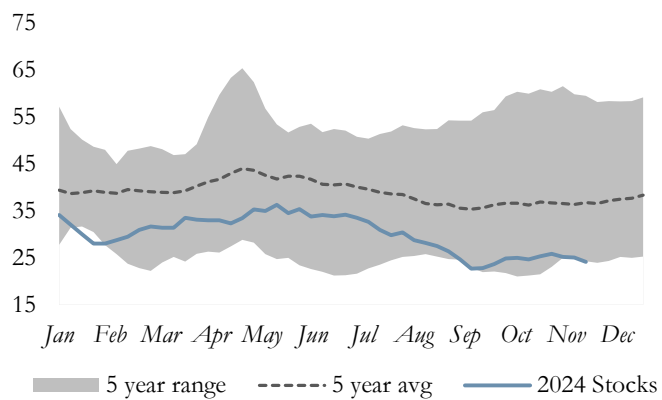
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

November 2024 Weekly U.S. Crude Oil Stocks

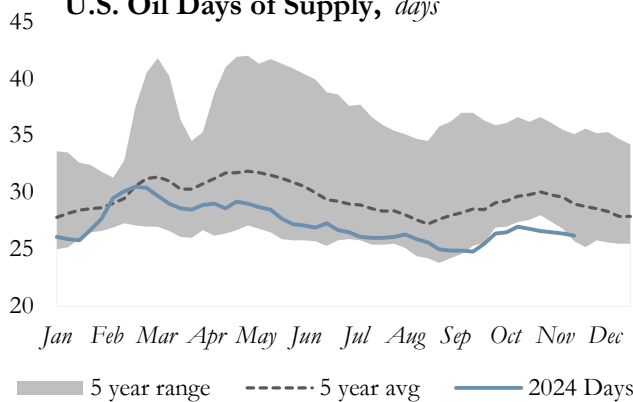
U.S. Oil Stocks, million barrels\*



Cushing, OK Oil Stocks, million barrels



U.S. Oil Days of Supply, days



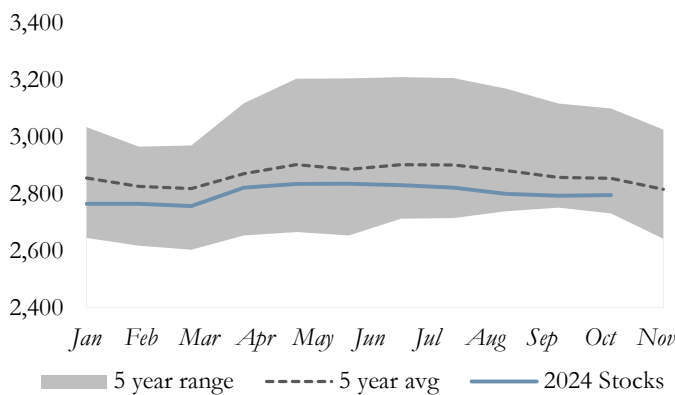
Crude Oil Stocks

	1 Week Ago	1 Year Ago
U.S.	-0.4%	-4.7%
Cushing, OK	-3.6%	-12.9%
Days of Supply	-0.8%	-9.3%
East Coast (PADD 1)	9.4%	-13.1%
Midwest (PADD 2)	-0.5%	-2.0%
Gulf Coast (PADD 3)	-0.7%	-6.2%
Rocky Mountain (PADD 4)	0.9%	-2.4%
West Coast (PADD 5)	-1.5%	-2.7%

\*Stocks include those domestic and Customs-cleared foreign stocks held at, or in transit to, refineries and bulk terminals, and stocks in pipelines.

November 2024 OECD Commercial Petroleum Inventory

OECD Commercial Petroleum Inventory, million barrels



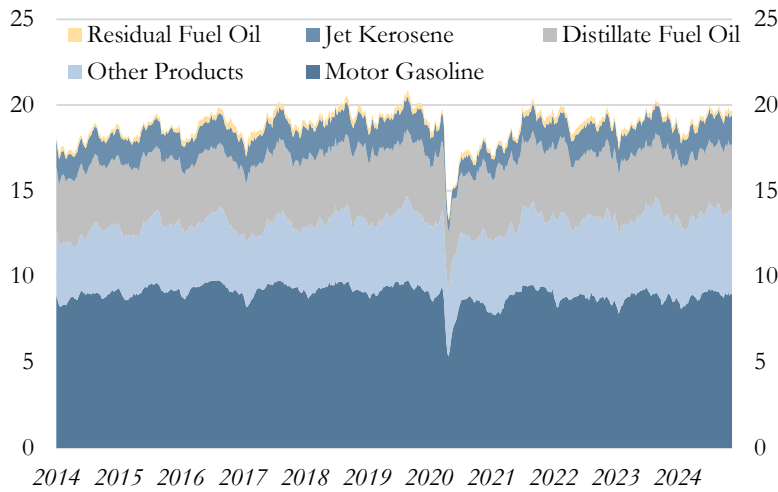
Petroleum Stocks

	Million Barrels	Change from
Current Month	2,795	
1 Month Ago	2,794	0.1%
3 Months Ago	2,823	-1.0%
6 Months Ago	2,835	-1.4%
1 Year Ago	2,775	0.7%

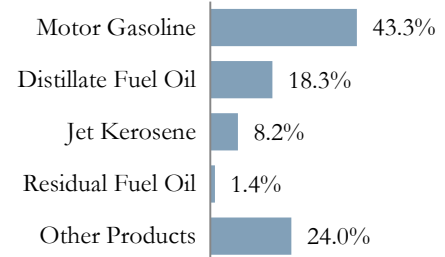
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

**November 2024 Weekly U.S. Demand for Petroleum Products**  
4-Week Averages

**All Petroleum Products, million barrels per day**



**Share of Total Consumption**



**U.S. Consumption by Product & Percent Change**

**U.S. Consumption by Product, thousand barrels per day**

	Current 11/15/24	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
All Products	20,683	20,495	20,411	20,198	20,428
Motor Gasoline	8,947	8,908	9,114	8,901	8,904
Distillate Fuel Oil	3,790	4,003	3,580	3,720	4,050
Jet Kerosene	1,687	1,713	1,752	1,622	1,709
Residual Fuel Oil	285	284	231	214	254
Other Products	4,954	4,650	4,975	4,910	4,496

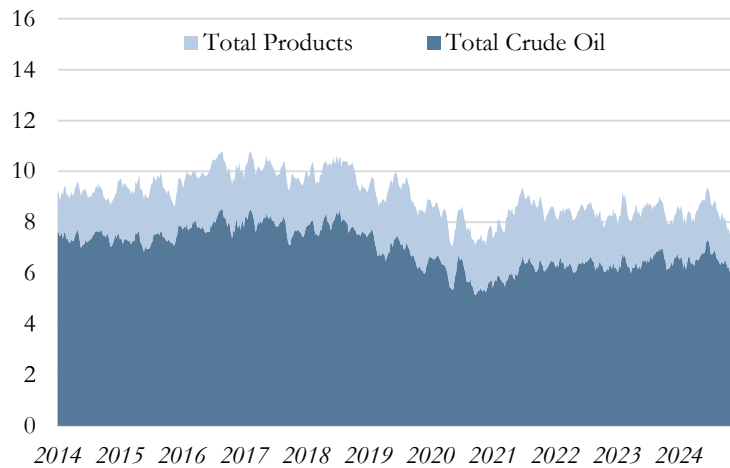
**U.S. Consumption by Product, Change from**

	Current 11/15/24	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
All Products	-	0.9%	1.3%	2.4%	1.2%
Motor Gasoline	-	0.4%	-1.8%	0.5%	0.5%
Distillate Fuel Oil	-	-5.3%	5.9%	1.9%	-6.4%
Jet Kerosene	-	-1.5%	-3.7%	4.0%	-1.3%
Residual Fuel Oil	-	0.4%	23.4%	33.2%	12.2%
Other Products	-	6.5%	-0.4%	0.9%	10.2%

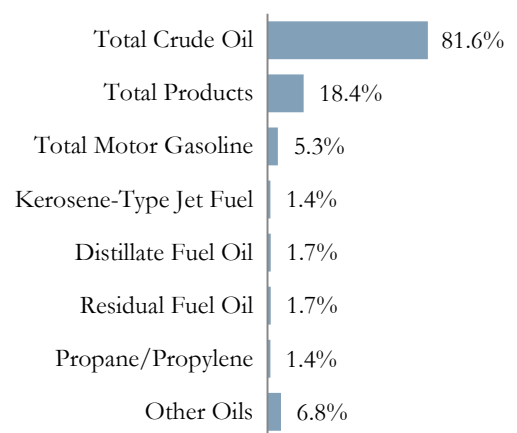
Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

**November 2024 Weekly U.S. Imports of Crude Oil & Petroleum Products**  
4-Week Averages

**Imports, million barrels per day**



**Share of Total Imports**



**U.S. Imports by Product\***

Thousand barrels per day

	Current 11/15/24	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
<b>Total Crude Oil</b>	<b>6,602</b>	<b>6,206</b>	<b>6,529</b>	<b>6,787</b>	<b>6,430</b>
<b>Total Products</b>	<b>1,484</b>	<b>1,531</b>	<b>1,887</b>	<b>2,097</b>	<b>1,680</b>
Total Motor Gasoline	431	502	664	799	592
Kerosene-Type Jet Fuel	115	91	106	135	91
Distillate Fuel Oil	138	134	100	100	128
Residual Fuel Oil	137	108	113	112	92
Propane/Propylene	113	107	89	85	90
Other Oils	550	590	816	865	687
<b>Total Imports</b>	<b>8,086</b>	<b>7,737</b>	<b>8,416</b>	<b>8,884</b>	<b>8,110</b>

**U.S. Imports by Product, Change from**

	Current 11/15/24	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
<b>Total Crude Oil</b>	-	<b>6.4%</b>	<b>1.1%</b>	<b>-2.7%</b>	2.7%
<b>Total Products</b>	-	<b>-3.1%</b>	<b>-21.4%</b>	<b>-29.2%</b>	<b>-11.7%</b>
Total Motor Gasoline	-	-14.1%	-35.1%	-46.1%	-27.2%
Kerosene-Type Jet Fuel	-	26.4%	8.5%	-14.8%	26.4%
Distillate Fuel Oil	-	3.0%	38.0%	38.0%	7.8%
Residual Fuel Oil	-	26.9%	21.2%	22.3%	48.9%
Propane/Propylene	-	5.6%	27.0%	32.9%	25.6%
Other Oils	-	-6.8%	-32.6%	-36.4%	-19.9%
<b>Total Imports</b>	-	<b>4.5%</b>	<b>-3.9%</b>	<b>-9.0%</b>	<b>-0.3%</b>

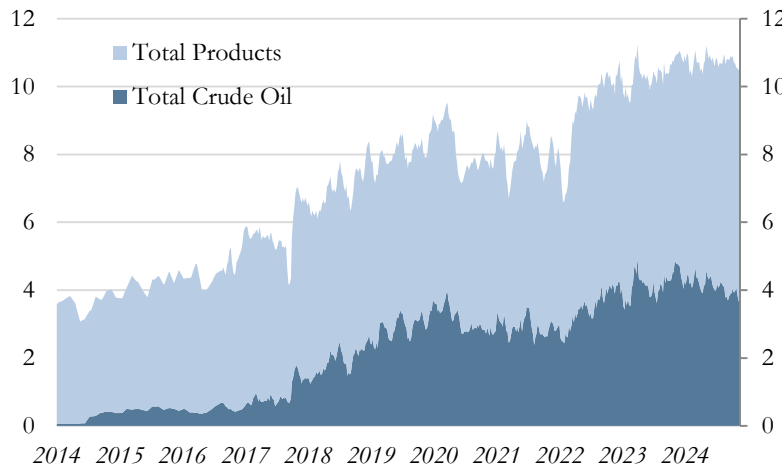
\*Totals may not sum due to component rounding

Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

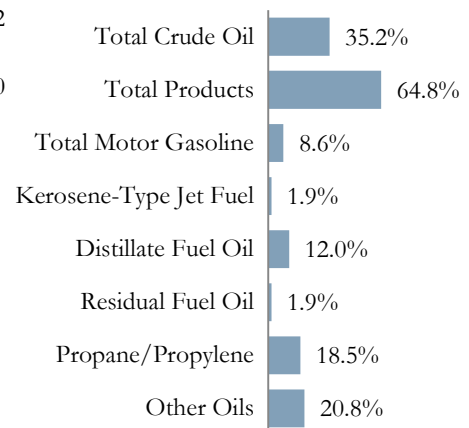
November 2024 Weekly U.S. Exports of Crude Oil & Petroleum Products

4-Week Averages

Exports, million barrels per day



Share of Total Exports



U.S. Exports by Product\*

Thousand barrels per day

	Current 11/15/24	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
<b>Total Crude Oil</b>	<b>3,732</b>	<b>3,977</b>	<b>4,090</b>	<b>4,313</b>	<b>4,774</b>
<b>Total Products</b>	<b>6,860</b>	<b>6,706</b>	<b>6,871</b>	<b>6,507</b>	<b>6,182</b>
Total Motor Gasoline	916	922	878	849	911
Kerosene-Type Jet Fuel	197	223	194	199	158
Distillate Fuel Oil	1,273	1,342	1,529	1,164	1,055
Residual Fuel Oil	197	123	167	177	109
Propane/Propylene	1,958	1,714	1,704	1,781	1,773
Other Oils	2,206	2,261	2,295	2,229	2,094
<b>Total Exports</b>	<b>10,592</b>	<b>10,683</b>	<b>10,961</b>	<b>10,820</b>	<b>10,956</b>

U.S. Exports by Product, Change from

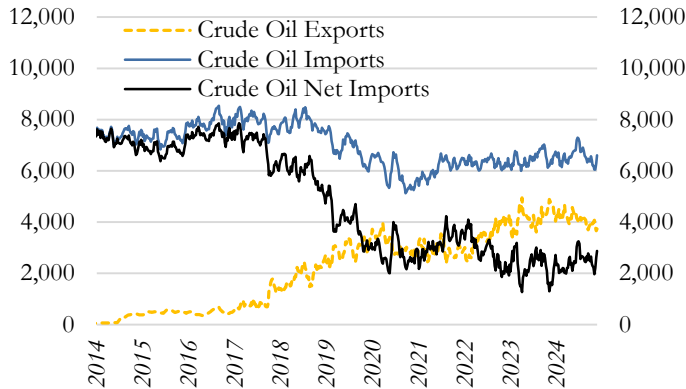
	Current 11/15/24	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
<b>Total Crude Oil</b>	-	<b>-6.2%</b>	<b>-8.8%</b>	<b>-13.5%</b>	<b>-21.8%</b>
<b>Total Products</b>	-	<b>2.3%</b>	<b>-0.2%</b>	<b>5.4%</b>	<b>11.0%</b>
Total Motor Gasoline	-	-0.7%	4.3%	7.9%	0.5%
Kerosene-Type Jet Fuel	-	-11.7%	1.5%	-1.0%	24.7%
Distillate Fuel Oil	-	-5.1%	-16.7%	9.4%	20.7%
Residual Fuel Oil	-	60.2%	18.0%	11.3%	80.7%
Propane/Propylene	-	14.2%	14.9%	9.9%	10.4%
Other Oils	-	-2.4%	-3.9%	-1.0%	5.3%
<b>Total Exports</b>	-	<b>-0.9%</b>	<b>-3.4%</b>	<b>-2.1%</b>	<b>-3.3%</b>

\*Totals may not sum due to rounding

Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

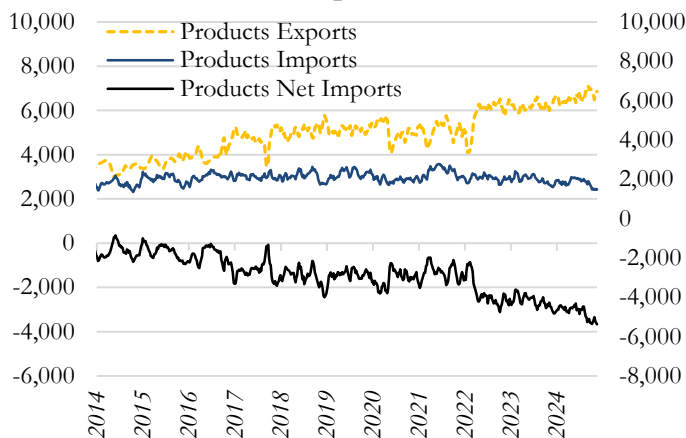
**November 2024 Weekly U.S. Net Imports of Crude Oil & Petroleum Products**  
*4-Week Averages, Thousand barrels per day*

**Crude Oil Net Imports**



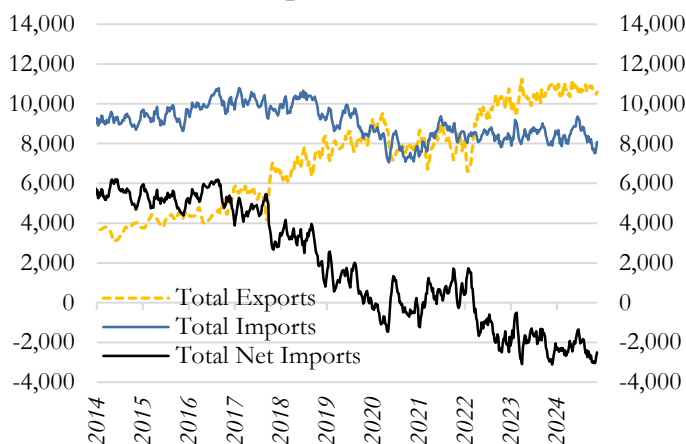
<b>Crude Oil Net Imports</b>		<i>Change</i>
<i>Thousand barrels per day</i>		<i>from</i>
11/15/24	2,870	
Month Ago	2,230	28.7%
3 Months Ago	2,439	17.7%
6 Months Ago	2,474	16.0%
1 Year Ago	1,656	73.3%

**Products Net Imports**



<b>Products Net Imports</b>		<i>Change</i>
<i>Thousand barrels per day</i>		<i>from</i>
11/15/24	-5,376	
Month Ago	-5,175	-
3 Months Ago	-4,984	-
6 Months Ago	-4,410	-
1 Year Ago	-4,501	-

**Total Net Imports**



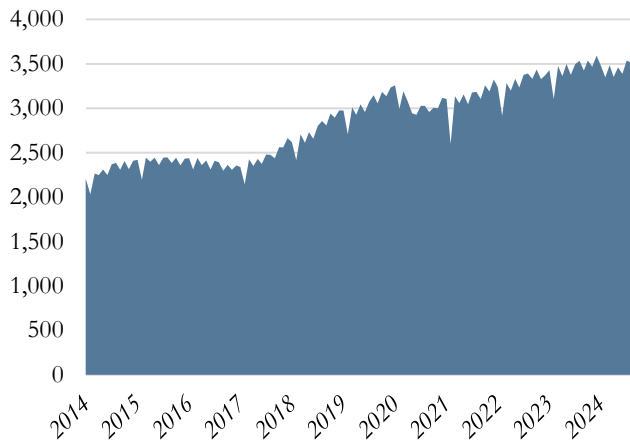
<b>Total Net Imports</b>		<i>Change</i>
<i>Thousand barrels per day</i>		<i>from</i>
11/15/24	-2,506	
Month Ago	-2,946	-
3 Months Ago	-2,545	-
6 Months Ago	-1,936	-
1 Year Ago	-2,846	-

Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

U.S. Natural Gas Production & Stocks

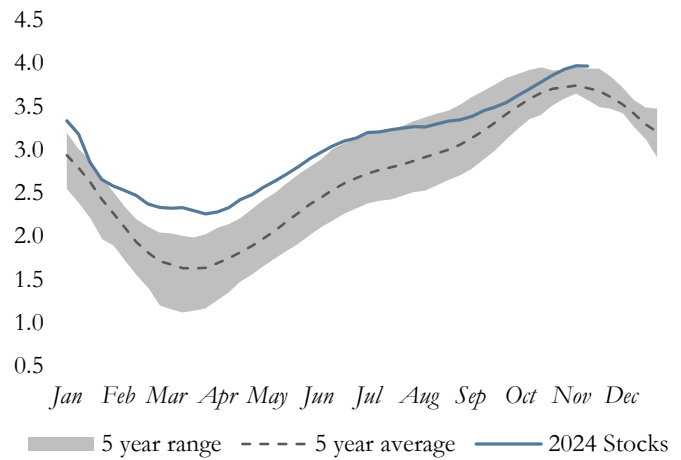
August 2024 Production

Total U.S. Production, Billion cubic feet (Bcf)



November 2024 Weekly Stocks

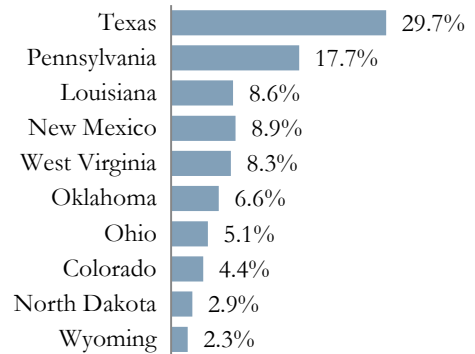
U.S. Natural Gas Stocks, Billion cubic feet (Bcf)



U.S. Natural Gas, Billion cubic feet (Bcf)

	Current Period*	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
U.S. Production	3,514	3,539	3,462	3,348	3,534
U.S. Stocks	3,969	3,785	3,299	2,719	3,826

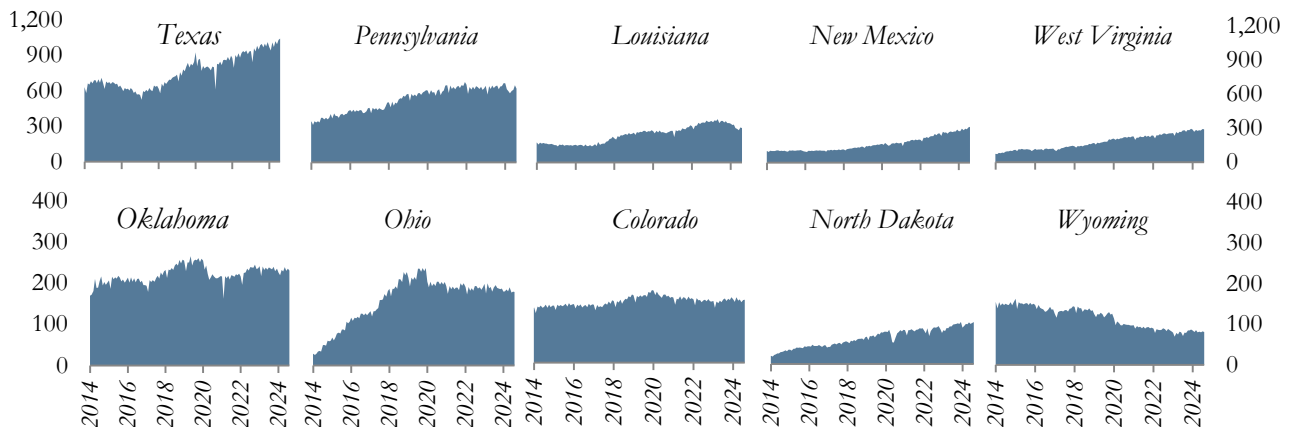
Share of Production



U.S. Natural Gas, Change from

	Current Period*	1 Month Ago	3 Months Ago	6 Months Ago	1 Year Ago
U.S. Production	-	-0.7%	1.5%	4.9%	-0.6%
U.S. Stocks	-	4.9%	20.3%	46.0%	3.7%

Top Producing States, Billion cubic feet (Bcf)



\*U.S. production is monthly data & stocks are weekly data

Source: U.S. Department of Energy, Energy Information Administration/Haver Analytics

*Definitions:*

West Texas Intermediate: A crude oil produced in Texas and southern Oklahoma which serves as a reference or "marker" for pricing a number of other crude streams and is traded in the domestic spot market at Cushing, Oklahoma.

Brent: A blended crude oil produced in the North Sea region which serves as a reference or "marker" for pricing a number of other international crude streams.

Petroleum products include unfinished oils, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Refined petroleum products include but are not limited to gasolines, kerosene, distillates (including No. 2 fuel oil), liquefied petroleum gas, asphalt, lubricating oils, diesel fuels, and residual fuels.

*Notes:*

*Page 2:* Petroleum Administration for Defense Districts (PADD) are geographic aggregations of the 50 States and the District of Columbia into five districts by the Petroleum Administration for Defense in 1950. These districts were originally defined during World War II for purposes of administering oil allocation. For more information, visit: <http://www.eia.gov/petroleum/supply/monthly/pdf/append.pdf>

*Page 3:* For OPEC countries & the U.S., only crude oil production data is used. For non-OPEC countries (excluding the U.S.) total petroleum production data is used. Total petroleum production includes production of crude oil (including lease condensates), natural gas plant liquids, biofuels, other liquids, and refinery processing gains.

*Page 5:* The active rig count is the number of rigs actively exploring for or developing oil or natural gas. Rig counts provide an indicator of new drilling activity and potential for expanded crude oil or natural gas production.

*Pages 10:* Crude oil stocks are stocks of crude oil and lease condensate held at refineries, in pipelines, at pipeline terminals, and on leases.

Crude oil stocks for Cushing include domestic and foreign crude oil stocks held in tank farms in Lincoln, Payne, and Creek counties in Oklahoma. Cushing, Oklahoma, is the designated delivery point for NYMEX crude oil futures contracts.

Days of supply are calculated by taking the current stock level and dividing by product supplied (used as an estimate of demand) averaged over the most recent four-week period. For crude oil, refinery inputs of crude oil are used as a proxy for demand.

*Notes:*

Page 11: Petroleum Consumption approximately represents consumption of petroleum products because it measures the disappearance of these products from primary sources, i.e., refineries, natural gas-processing plants, blending plants, pipelines, and bulk terminals.

**Data Revisions**

Most data are revised periodically to correct for errors and incorporate additional information as it becomes available. Data shown in this report are subject to change.

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