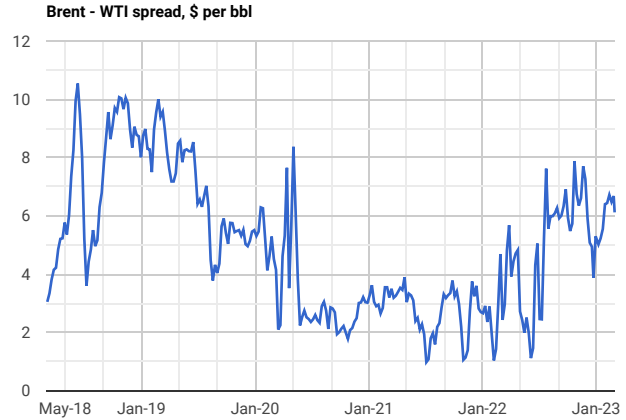


# Crude Oil Market Monitor

March 1, 2023

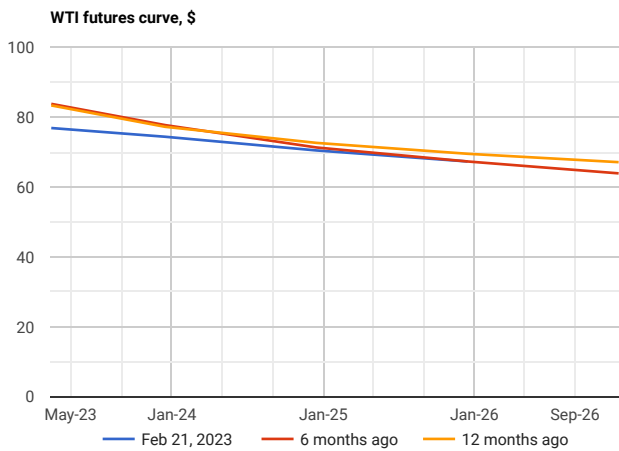
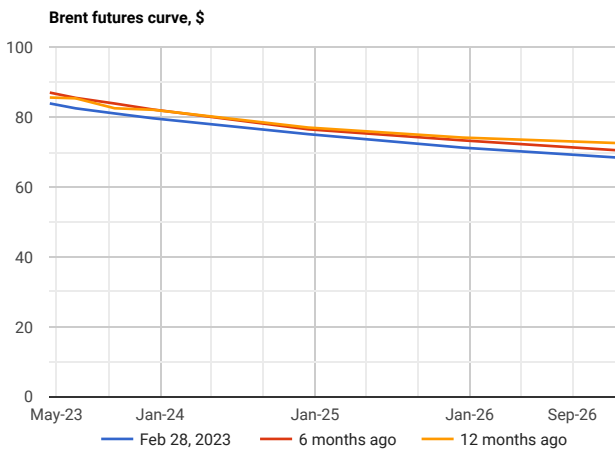
Weekly analysis of the fundamental factors of the US and global crude oil markets: supply, rigs count, demand, inventories, SPR, prices and open positions of traders.

## Crude Oil Prices



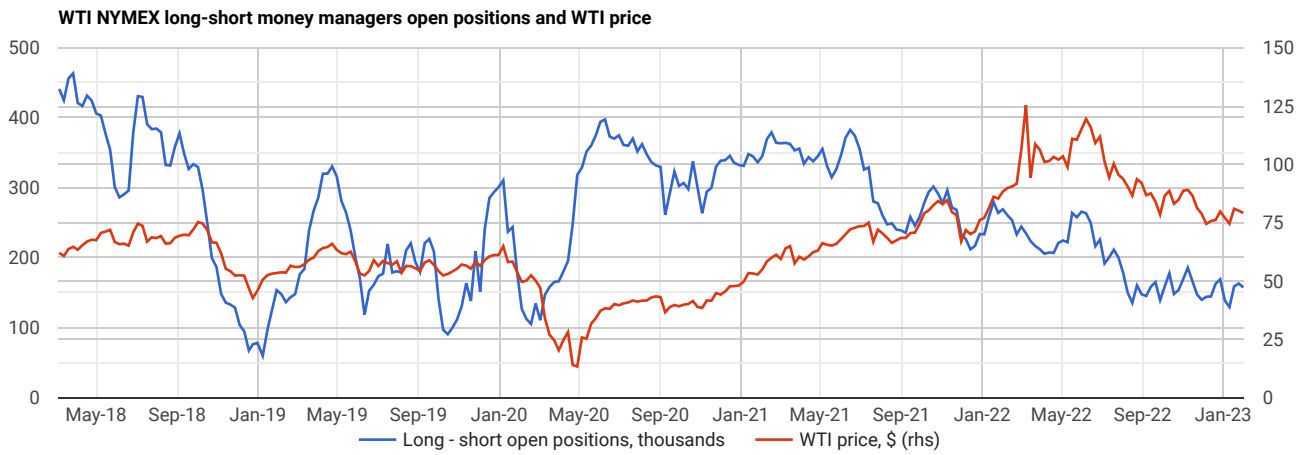
WTI price was \$77.0 on March 01, 2023. YTD growth is -3%. It's 39.4% down from the 5 year top of \$127.0. Brent price was \$83.1 on March 01, 2023. YTD growth is -1.8%. It's 36.1% down from the 5 year top of \$130.1.

Brent - WTI spread was \$6.1 on March 01, 2023. YTD growth is 15.4%.



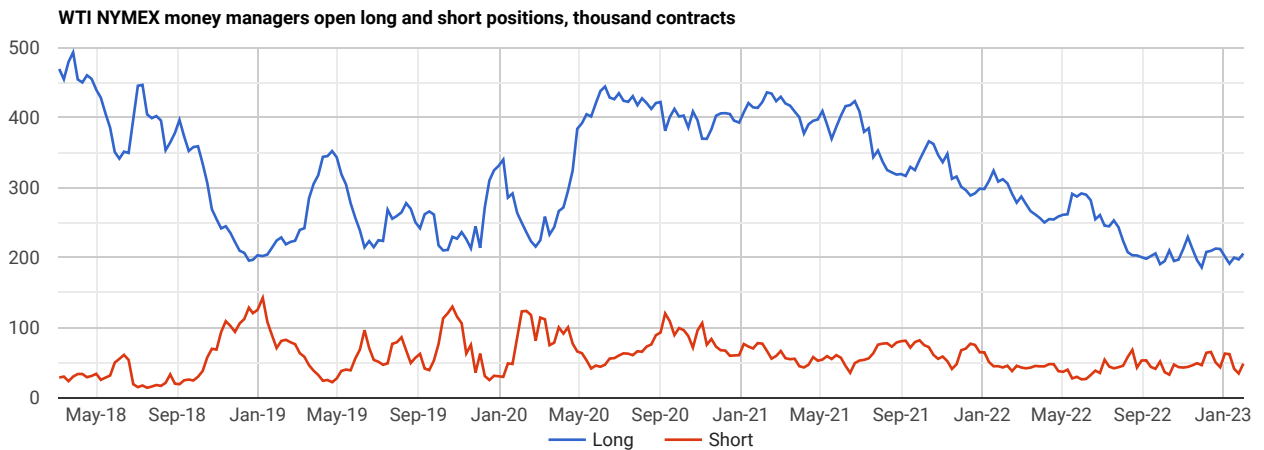
Brent is in backwardation. The difference between April 15, 2023 and December 15, 2026 prices is \$15.5. One year ago the difference between April 15, 2023 and December 15, 2026 prices was \$13.0, so Brent market was in backwardation.

WTI is in backwardation. The difference between March 15, 2023 and December 15, 2026 prices is \$76.9. One year ago the difference between March 15, 2023 and December 15, 2026 prices was \$16.2, so WTI market was in backwardation.



Source: CTFC

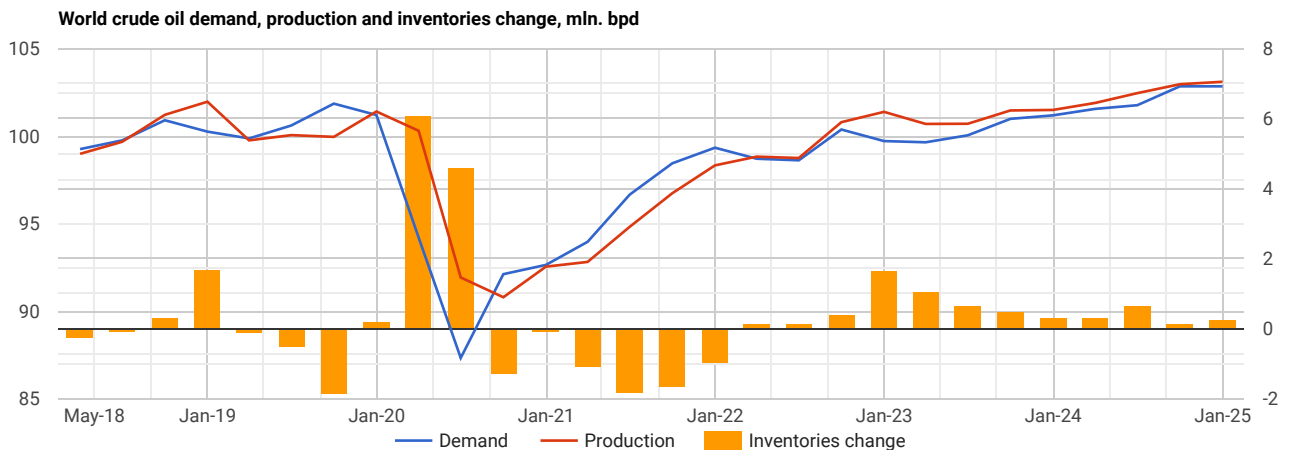
WTI NYMEX long - short money managers open positions was 157,426 contracts on January 31, 2023. YTD growth is -6.8%. It's 163.7% up from the 5 year bottom of 59,699 contracts and below the middle line in the 5 year coridor which implies downside pressure for the oil price.



Source: CTFC

WTI NYMEX money managers open long positions were 206,008 contracts on January 31, 2023. YTD growth is -3.1%. They are 10.6% up from the 5 year bottom of 186,206 contracts. WTI NYMEX money managers open short positions were 48,582 contracts on January 31, 2023. YTD growth is 11.7%. They are 243.8% up from the 5 year bottom of 14,132 contracts.

## Global Crude Oil Demand and Production



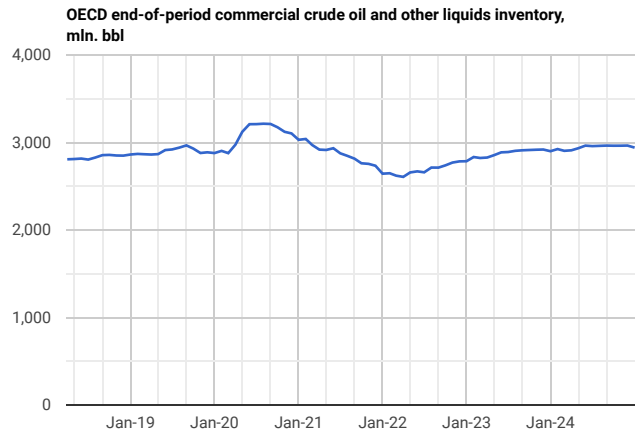
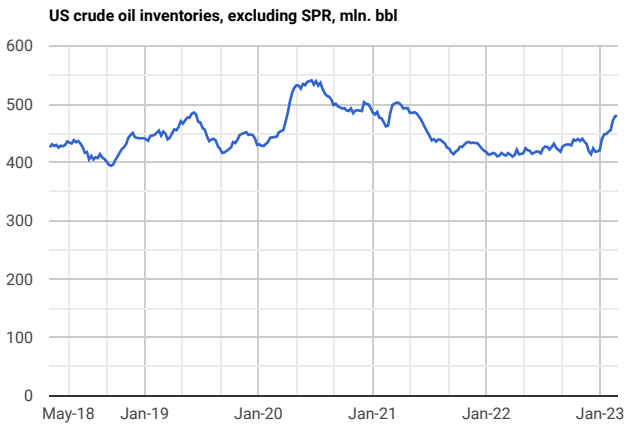
Source: EIA

For the quarter ending March 31, 2023 world oil demand is forecasted at 99.65 mln. bpd, production at 100.70 mln. bpd so inventories change is expected at 1.04 mln. bpd. This implies oil price will have a pressure toward decrease this quarter.

## Crude Oil Inventories

Inventories are defined by supply and demand balance. If oil supply is higher than demand than inventories are growing. If oil demand is bigger than supply than oil inventories are declining. These moves of oil inventories have a direct impact on oil prices, usually more direct than change in supply or demand per se.

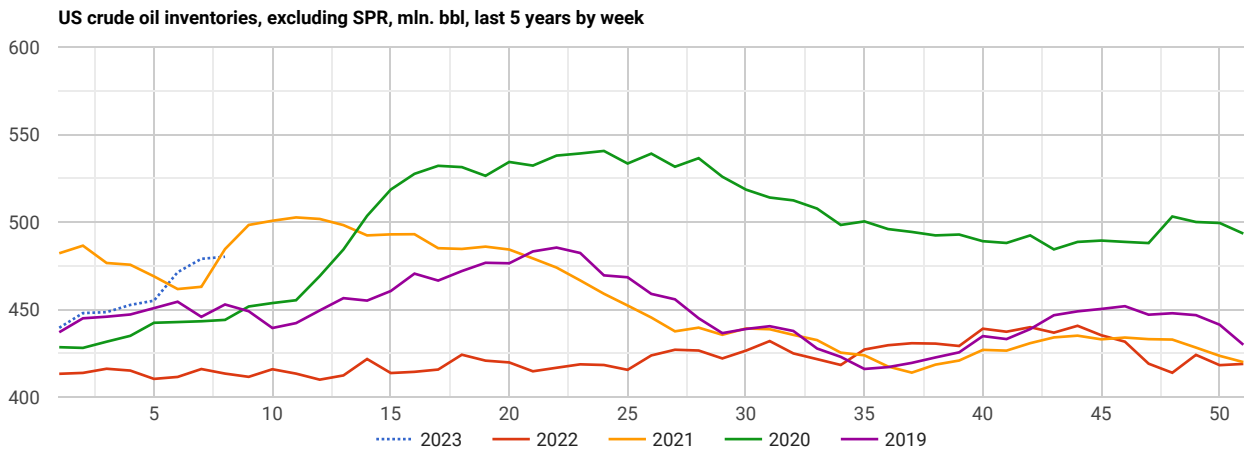
Also, it's worth taking into account that inventories cannot be zero or even close to zero. Every storage capacity has a minimum level which should be maintained. And at the same time inventories have a maximum capacity level beyond which oil cannot be stored or a long time and money are required to add new oil storage capacity to the market. So even a small decline of oil stocks like 5% is considered a big change and leads to oil prices growth. And vice versa with inventories growth.



Source: EIA

US crude oil inventories, excluding Strategic Petroleum Reserve (SPR) were 480,207 thousand barrels on February 24, 2023. YTD growth is 14.2%. They are 11.2% down from the 5 year top of 540,722 thousand barrels which implies pressure on the oil price.

OECD commercial crude oil and other liquids inventory is expected to reach 2,938 mln. barrels on December 31, 2024.

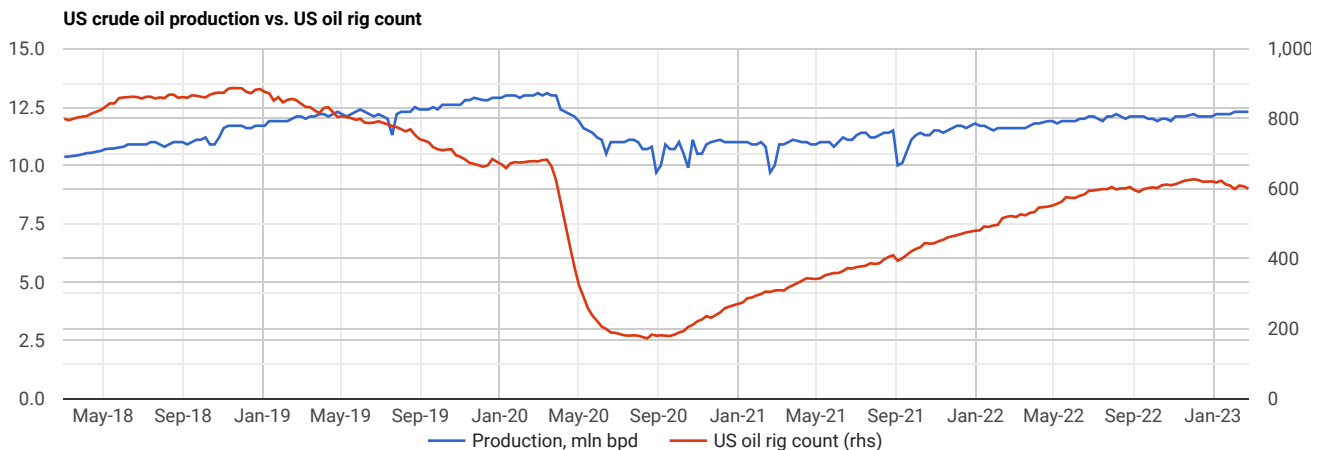


Source: EIA

US oil inventories, excluding SPR, are 4.40 mln. bbl (0.9%) lower from the maximum of 484.6 mln. bbl during the last 5 years at this point of time.

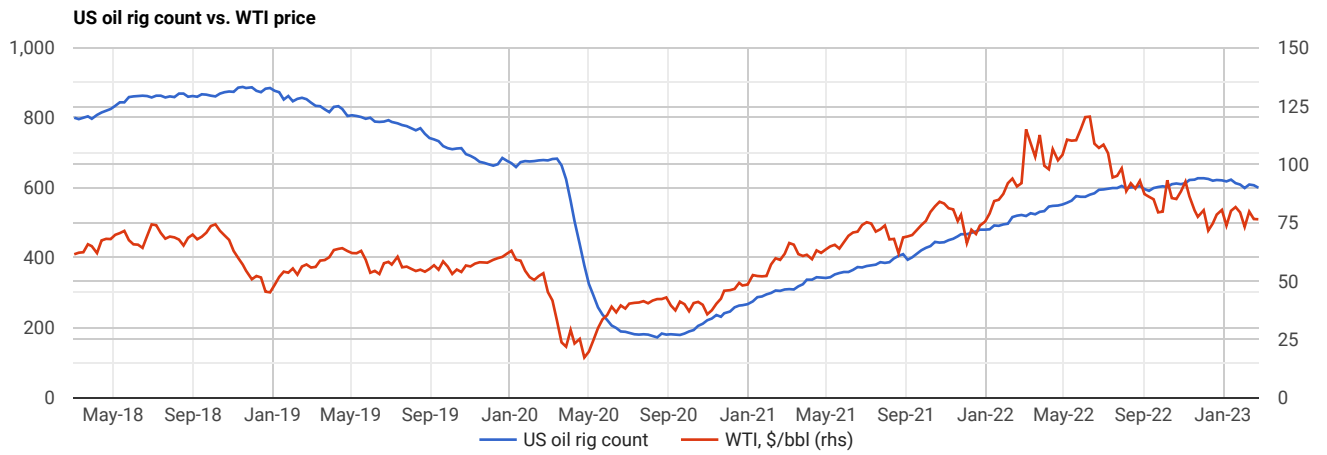
## US Crude Oil Production

Number of oil rigs characterize drilling activity which in turn defines the number of oil wells which will come to the market in the near future. This makes oil rig count a leading indicator of oil production and is a closely monitored parameter of an oil market.



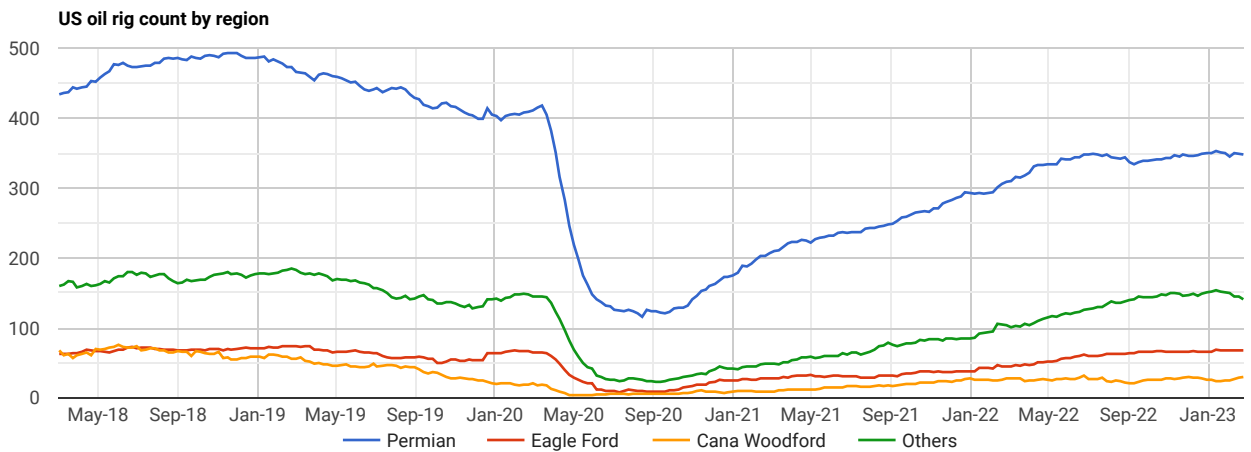
Source: EIA, Baker Hughes

US crude oil production was 12,300 thousand bpd on February 24, 2023. YTD growth is 1.7%. It's 6.1% down from the 5 year top of 13,100 thousand bpd.



Source: Baker Hughes

US oil rig count was 622 rigs on December 22, 2022. YTD growth is 0.2%. It's 30% down from the 5 year top of 888 rigs.

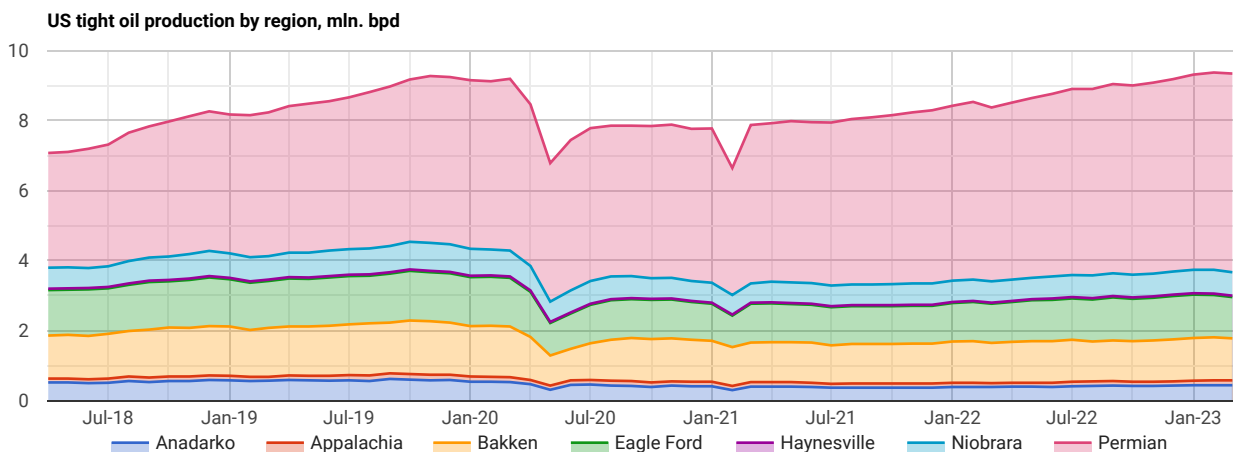


Source: Baker Hughes

The number of oil rigs in the US regions with the most active drilling activity is the following as of February 24, 2023: Permian 348 rigs, Eagle Ford 68 rigs, Cana Woodford 30 rigs and other oil regions 141 rigs.

## Key US Tight Oil Regions

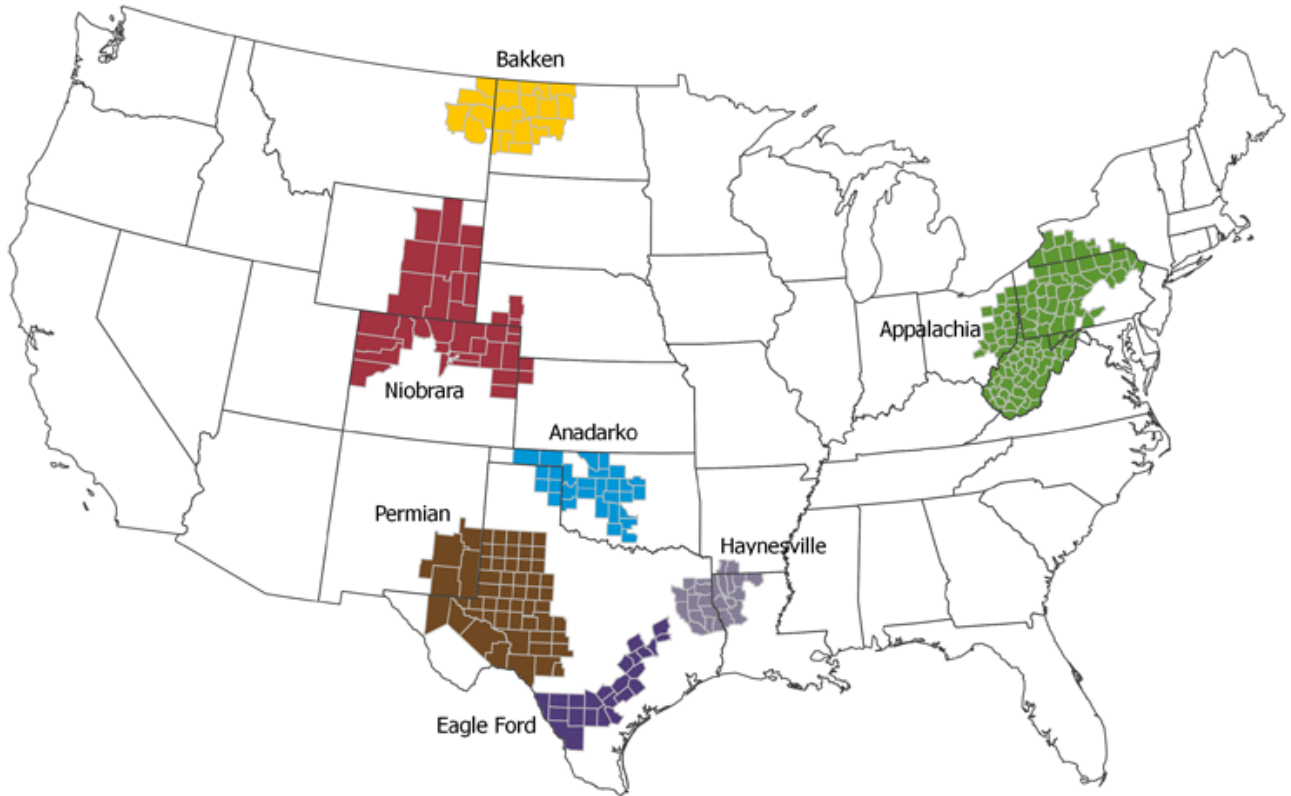
US tight oil regions play a key role in US oil extraction. Nearly 70% of oil is produced in these regions. Tight oil is characterized of fast capex cycles (weeks from drilling to production) and fast depletion (some sources say production from shale wells typically falls 65% to 90% over the first year). As a result, this tight oil production capacity can come fast to the market in case of high oil prices and can leave the market soon in case of price drops. So, US oil production in tight oil regions is the key parameter to monitor to understand whether overall US oil production will grow or decline.




Source: EIA

US tight oil production by regions as of March 01, 2023 is the following: Anadarko 445 th. bpd, Appalachia 140 th. bpd, Bakken 1,199 th. bpd, Eagle Ford 1,180 th. bpd, Haynesville 37 th. bpd, Niobrara 674 th. bpd and Permian 5,682 th. bpd.

Below is the map with locations of key regions where US tight oil is extracted.



 Source: U.S. Energy Information Administration

**Notes**

To zoom a chart in press the left mouse button on the chart area and drag the cursor. To reset the zoom press the right mouse button on the chart area.

- bpd - barrels per day
- bbl - barrel, barrels
- th. - thousand, thousands
- mln. - million, millions
- YTD - year to date