

EXECUTIVE SUMMARY

Led by gasoline and seasonal demand for heating fuels, U.S. petroleum demand of 20.3 million barrels per day (MBD) in February was up by more than 1.0 MBD from February 2017; this compares with average annual demand growth of 1.3 MBD for the entire world between 2010 and 2017.

The strength in U.S. petroleum demand is consistent with indicators that the macroeconomic backdrop has remained solid. However, crude prices declined in February after seven consecutive monthly increases. International crude oil prices fell by more than domestic ones (5.4 percent m/m for Brent versus 2.3 percent m/m for WTI) in February. WTI crude oil prices averaged \$62.23 per barrel, while Brent averaged \$65.32 per barrel for the month.

At these prices in February, U.S. supply achieved new highs for production of crude oil (10.3 MBD) and NGLs (4.1 MBD). U.S. refineries also processed crude and other feedstocks (16.4 MBD) at record levels for the month, which displaced petroleum imports other than a seasonal winter need for distillate. The rig count has continued to rise, which suggests U.S. production growth in coming months even as inventories have remained at the upper end of the 5-year range and increased in February.

Importantly, even though U.S. crude oil exports (1.6 MBD) rose in February, refined product exports (4.8 MBD) were down by more than 500 thousand barrels per day (KBD) below their February 2017 levels. Consequently, despite strong domestic demand, the fall in U.S. product exports coupled with the relatively steeper decline in international crude oil prices highlights a key point to monitor among international oil markets.

February highlights

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Demand

[U.S. petroleum demand near its highest levels in 11 years.](#)

[Gasoline demand eclipsed 9.0 MBD in February for only the third time ever.](#)

[Winter weather spurred February distillate demand growth.](#)

[Despite a monthly decline, jet fuel demand was the strongest for February since 2007.](#)

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Industry operations

[Gasoline and jet fuel production led record February refinery output.](#)

Inventories

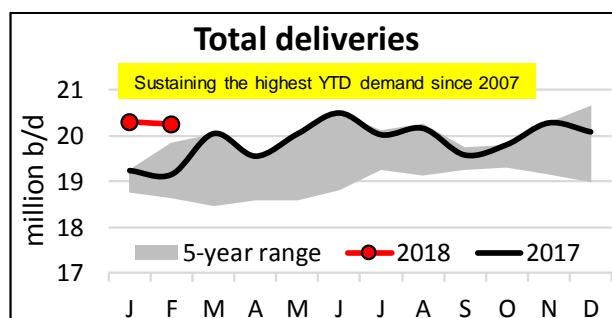
[Inventory accumulation resumed, led by crude oil, gasoline and jet fuel.](#)

Details by section

Demand

U.S. petroleum demand near its highest levels in 11 years

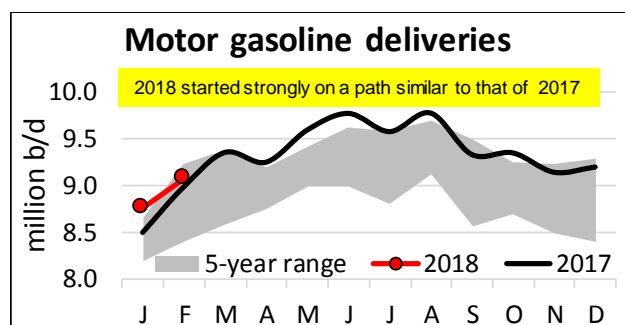
U.S. petroleum demand, as measured by total domestic petroleum deliveries, was 20.3 MBD in February, which was a seasonal decline of 44 KBD from January but an increase of more than 1.0 MBD above February 2017. This was the strongest February monthly demand since 2007.



Gasoline

Gasoline demand eclipsed 9.0 MBD in February for only the third time ever

Consumer gasoline demand, as measured by total motor gasoline deliveries, rose by 0.9 percent y/y to 9.1 MBD and remained on a solid trajectory, like that of 2017. This was only the third time ever that U.S. gasoline demand for a February exceeded 9 MBD and likely reflected a continuation of strong consumer sentiment, transportation, and economic growth despite recent increases in crude oil and gasoline prices. Reformulated-type gasoline, which is consumed primarily in urban areas, grew by 5.0 percent y/y in February to 3.0 MBD. By contrast, conventional gasoline is used more in rural areas and fell by 1.0 percent y/y in February to 6.1 MBD.

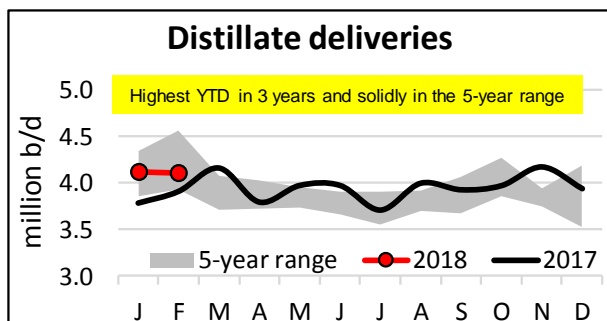


Gasoline and crude oil prices generally move in tandem. Based on daily spot prices, West Texas Intermediate (WTI) crude oil averaged \$62.23 per barrel, down by \$1.47 per barrel from January but up by \$8.76 per barrel above the same month one year ago. The average price of regular-grade gasoline was up by 3.4 cents (1.3 percent m/m) to \$2.705 per gallon in February.

Distillate Fuel Oil

Winter weather spurred February distillate demand growth

In February, distillate deliveries exceeded 4.1 MBD for the second consecutive month but fell by 0.4 percent from January. However, the 4.1 MBD in February represented a 5.1 percent y/y rise compared with February 2017. About 90 percent of distillate demand in February was for ultra-low sulfur distillate (ULSD), which reflected strength in underlying road freight transportation and industrial activities. The U.S. Bureau of the Census' reported the value of manufacturers' shipments for manufacturing industries rose by nearly 6.1 percent y/y in January and achieved its highest level on record.

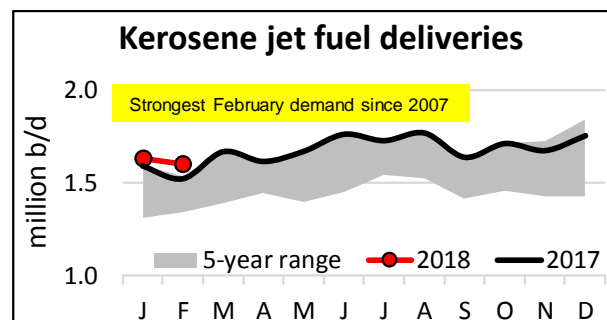


The remaining 10 percent of distillate deliveries was for high sulfur distillate fuel (HSD), which is a heating fuel in the residential and commercial sectors and a marine fuel when blended to upgrade heavy fuel oil. As cold winter weather affected much of the United States, HSD deliveries in February rose by 40.1 percent from January and 53.2 percent versus February 2017. In its [Short-Term Energy Outlook](#), the EIA estimated that heating degree days in across the U.S. were up by 8.2 percent y/y in February.

Kerosene Jet Fuel

Despite a monthly decline, jet fuel demand was the strongest for February since 2007

Kerosene jet fuel deliveries in February fell by 1.9 percent from January but rose 5.0 percent compared with February 2017. The monthly decline appears to have been seasonal, as jet fuel demand for February increased to its highest February level since 2007.

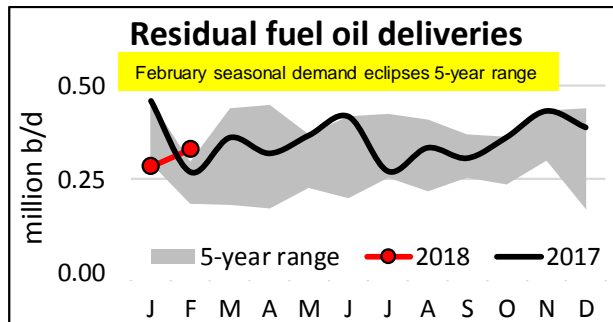


The [International Air Transport Association \(IATA\)](#) reported that economic momentum has continued to support rising passenger demand, and U.S. domestic revenue passenger kilometers increased by 3.4 percent y/y in January (latest available data). However, IATA's Director General and CEO Alexandre de Juniac also warned that "a possible trade war involving the U.S. could have a serious dampening effect on global market confidence, spilling over into demand for air travel."

Residual Fuel Oil

Fuel oil demand rebounded with cold seasonal winter weather

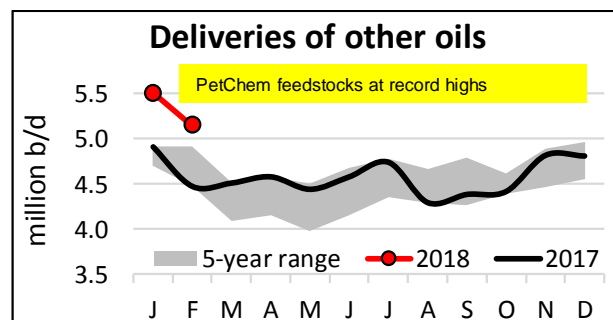
Residual fuel oil is used in electric power production, space heating, vessel bunkering and other industrial applications. After falling to 284 KBD in January, which was the lowest January demand on record, residual fuel oil demand rebounded to 329 KBD in February, which was an increase of 15.8 percent versus January and 21.9 percent versus February 2017. The rise was consistent with the aforementioned seasonal winter weather and increase in heating degree days.



Other Oils

Petrochemical feedstock demand fell in February from a record January level

Liquid petrochemical feedstocks, naphtha and gasoil – "Other oils" – demand of 5.2 MBD fell by 6.3 percent from a record 5.5 MBD of demand in January but was up by 15.5 percent compared with February 2017. The trend appeared to follow typical seasonality and reached the highest February level on record since 1965.

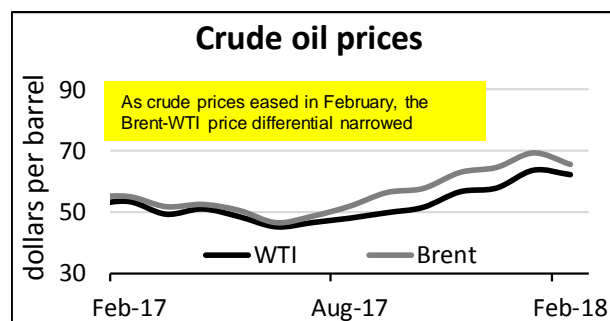


Consistent with the rise in other oils' demand, the American Chemistry Council's [Chemical Activity Barometer](#) for February was up by 4.2 percent versus the same month one year ago.

Prices

Crude oil prices fell after seven consecutive monthly increases

Domestic WTI crude oil prices averaged \$62.23/Bbl. in February, down by 2.3 percent from January but up 16.4 percent versus February 2017. Meanwhile, international Brent crude oil prices fell by relatively more – 5.4 percent m/m in February to \$65.32. WTI crude oil traded as an average discount of \$3.09/Bbl. below Brent in February, which was down from discounts of \$5.38/Bbl. in January and \$6.49/Bbl. in December. The shrinking gap between WTI and Brent crude oil prices was consistent with the rise in U.S. crude oil exports but, as Brent crude oil prices fell by a relatively greater percentage, also a potential shift in international oil markets – e.g., higher supply or lower demand and stock building beyond the United States.



Separately, composite natural gas liquids (NGL) prices fell to \$7.48 per million BTU (MMBtu) in February from \$8.15/MMBtu, which was an 8.2 percent decline that was broad-based across the component NGLs of ethane, propane, butane and natural gasoline. This monthly price decline was consistent with the aforementioned 6.3 percent m/m decline in petrochemical feedstock demand observed between January and February.

Macroeconomy

Solid leading indicators reaffirmed momentum in the economy and energy demand

With solid economic growth and leading indicators including the business climate, consumer sentiment and employment conditions, the backdrop for petroleum demand appeared strong in February.

Global economic growth appeared to start 2018 on a strong note. Based on country growth rates reported by the IMF, global GDP growth in 2017 was 2.9 percent y/y on a market exchange rate basis (on par with the average for the past 20 years) and could expand by another 2.9 percent y/y in 2018. The Bureau of Economic Analysis reported the U.S. economy grew at a seasonally adjusted annualized rate of 2.5 percent in Q4 2017, which was solid but revised down from last month's estimate of 2.6 percent. The Bloomberg consensus expects U.S. real GDP growth to accelerate to 2.9 percent in Q1 2018, boosted in part by recent U.S. tax reforms.

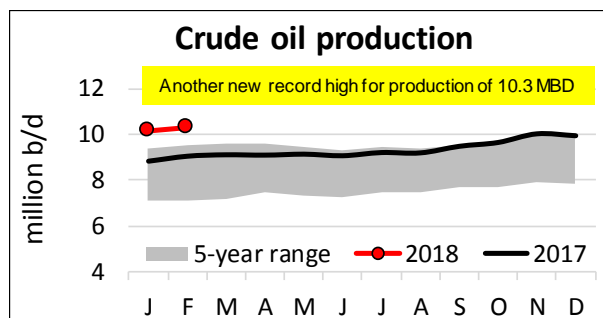
Leading economic indicators have continued to suggest expanding business conditions. The Institute for Supply Management’s Purchasing Managers Index (PMI) registered 60.8 percent in February, an increase of 1.7 percentage points from the seasonally adjusted January reading of 59.1 percent. Any value above 50.0 suggests an expansion. Comments from the panel reflected growth in new orders, production, employment, order backlogs and international trade. Supplier deliveries also slowed (improved) at a faster rate. Prices rose across most industry sectors, and of 15 of 18 manufacturing sectors reported growth in February, including petroleum & coal products, plastics & rubber products, chemical products, and transportation equipment.

Separately, the University of Michigan’s consumer sentiment index rose by 4.2 percent m/m in February. U.S. non-farm payrolls also grew by 313,000 jobs in January, according to the Bureau of Labor and Statistics (BLS), and the nation’s unemployment rate remained unchanged at 4.1 percent for the fifth consecutive month. A four-week average of initial claims for unemployment insurance fell by 1.1 percent m/m in February.

Supply

New dual records for U.S. oil and NGL production

In February, U.S. crude oil production rose to 10.3 MBD – another new monthly production record. This was an increase of 1.1 percent versus January and 13.5 percent from February 2017. The growth was attributable to onshore production in the lower 48 U.S. states. Regionally, Texas crude oil production averaged 3.9 MBD in February, which was nearly 600 KBD above its level in February 2017. North Dakota crude oil production averaged 1.2 MBD in February, which was an increase of 200 KBD above the level in February 2017.



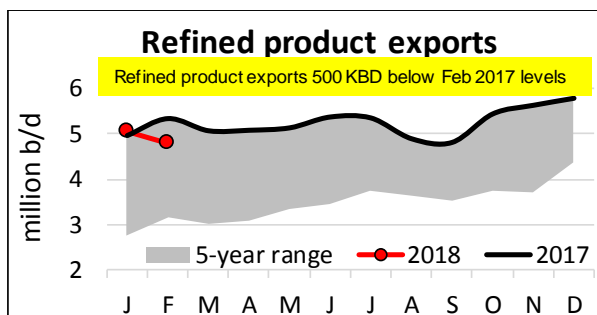
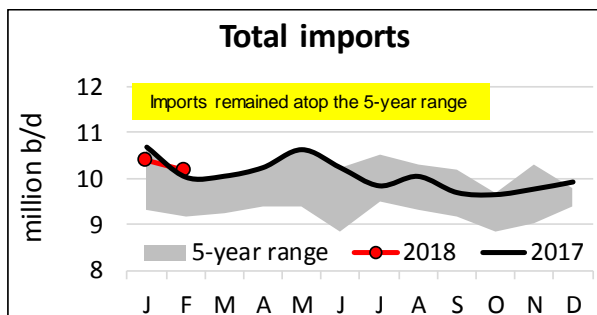
Natural gas liquids (NGL) production, a co-product of natural gas production, also set a new monthly production record at 4.1 MBD in February; this was an increase of 2.1 percent from January and 12.8 percent versus February 2017. According to the EIA’s Short-Term Energy Outlook (STEO), released March 10, 2018, U.S. dry natural gas production averaged 80.5 billion cubic feet per day (Bcf/d) in February, which was up 1.4 percent from January and 12.4 percent versus February 2017.

The recent rise in oil and natural gas production follows with a lag between most drilling and production. According to current reports from Baker-Hughes, Inc., the U.S. rig count climbed to 984 rigs as of March 9 and has averaged 959 rigs through Q1 2018 to date; this represents an increase of 4.0 percent above the average for Q4 2017 and should position U.S. production for continued growth.

International trade

U.S. petroleum imports fell despite a seasonal spike in distillate imports

In February, imports of crude oil and refined products were 10.2 MBD, which was a decrease of 2.1 percent from January, but an increase of 1.2 percent compared with February 2017. Within the total, crude oil imports fell by 6.6 percent y/y, while refined product imports rose by 30.1 percent y/y. The main driver of the large change in refined products was a rise in distillate imports, which more than doubled to 553 KBD in February from 199 KBD one year ago. Canadian imports made up 32.4 percent of total petroleum imports in February and fell by 6.1 percent y/y to 3.3 MBD.



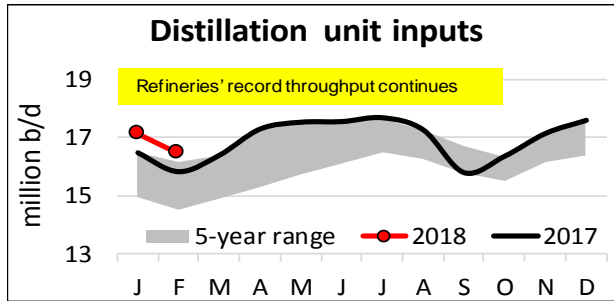
Rising crude oil exports more than offset a fall in U.S. refined product exports

In February, the U.S. exported 6.3 MBD of crude oil and refined products, which in total was on par with exports in January but a decrease of 1.8 percent compared with February 2017. Crude oil exports of 1.6 MBD in February continued to rise and were up by 440 KBD above those of February 2017. However, refined product exports slipped in February to 4.8 MBD, which was a decrease of 5.2 percent from January and 10.4 from February 2017.

Industry operations

Gasoline and jet fuel production led record February refinery output

In February, total refinery gross inputs rose by 4.0 percent y/y to 16.5 MBD, which was the strongest February throughput on record. Gasoline production of 9.9 MBD in February rose by 3.1 percent y/y. Distillate production of 4.6 MBD fell by 0.7 percent y/y, and kerosene type jet fuel production of 1.7 MBD was up by 5.8 percent y/y. Gasoline and jet fuel production set new monthly records for February production.

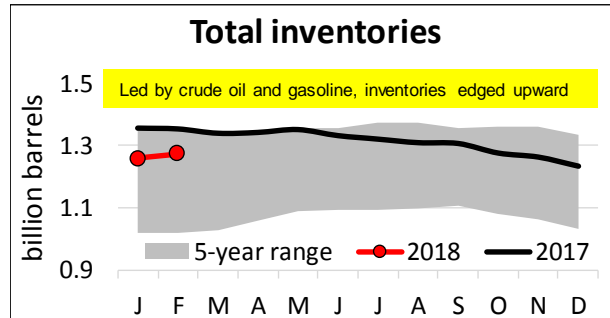


The refinery utilization rate in January was 88.8 percent, 3.6 percentage points below that of January but 3.8 percentage points above that of February 2017 for the strongest February utilization rate since 2005.

Inventories

Inventory accumulation resumed, led by crude oil, gasoline and jet fuel

Total crude and refined product inventories increased by 1.3 percent compared with January but were down by 5.7 percent versus February 2017. Since the renaissance in U.S. oil production, February stocks have accumulated in the month of February for 4 of the past 5 years. Prior to that, U.S. stock building in February was rare and occurred only 5 times in 58 years, between 1956 and 2013.



Within total inventories for February, crude oil stocks were up by 1.8 percent from January but down 18.6 percent versus February 2017. Among refined products, distillate and fuel oil inventories fell seasonally in February, but gasoline and jet fuel accumulated for the month. However, relative to one year ago, the inventories of all major refined products were below their respective levels from February 2017.

The API **Monthly Statistical Report** is available via IHS Global (www.global.ihs.com). For more information, go to <http://www.api.org/statistics> or contact IHS at 1-800-854-7179.

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ESTIMATED UNITED STATES PETROLEUM BALANCE¹
(Daily average in thousands of 42 gallon barrels)

| Disposition and Supply | February | | | Year-to-Date | | |
|---|-------------------|---------|----------|-------------------|---------|----------|
| | 2018 ² | 2017 | % Change | 2018 ³ | 2017 | % Change |
| Disposition: | | | | | | |
| Total motor gasoline..... | 9,067 | 8,986 | 0.9 | 9,432 | 8,731 | 8.0 |
| Finished reformulated..... | 3,017 | 2,873 | 5.0 | 3,130 | 2,818 | 11.0 |
| Finished conventional..... | 6,050 | 6,112 | (1.0) | 6,302 | 5,913 | 6.6 |
| Kerosine-jet..... | 1,601 | 1,525 | 5.0 | 1,780 | 1,561 | 14.0 |
| Distillate fuel oil..... | 4,105 | 3,905 | 5.1 | 4,232 | 3,840 | 10.2 |
| ≤ 500 ppm sulfur..... | 3,693 | 3,636 | 1.6 | 3,948 | 3,591 | 10.0 |
| ≤ 15 ppm sulfur..... | 3,689 | 3,635 | 1.5 | 3,944 | 3,588 | 9.9 |
| > 500 ppm sulfur..... | 412 | 269 | 53.2 | 284 | 249 | 14.1 |
| Residual fuel oil..... | 329 | 270 | 21.9 | 354 | 370 | (4.3) |
| All other oils (including crude losses) | 5,200 | 4,504 | 15.5 | 5,498 | 4,720 | 16.5 |
| Reclassified ⁴ | (51) | (30) | na | (80) | (18) | na |
| Total domestic product supplied..... | 20,251 | 19,159 | 5.7 | 21,215 | 19,204 | 10.5 |
| Exports..... | 6,329 | 6,443 | (1.8) | 7,147 | 6,048 | 18.2 |
| Total disposition..... | 26,580 | 25,602 | 3.8 | 28,362 | 25,251 | 12.3 |
| Supply: | | | | | | |
| Domestic liquids production | | | | | | |
| Crude oil (including condensate)..... | 10,266 | 9,045 | 13.5 | 10,563 | 8,929 | 18.3 |
| Natural gas liquids..... | 4,066 | 3,604 | 12.8 | 4,161 | 3,478 | 19.6 |
| Other supply ⁵ | 1,515 | 1,183 | 28.1 | 1,315 | 1,190 | 10.5 |
| Total domestic supply..... | 15,847 | 13,832 | 14.6 | 16,039 | 13,598 | 18.0 |
| Imports: | | | | | | |
| Crude oil (excluding SPR imports)..... | 7,365 | 7,890 | (6.6) | 8,220 | 8,176 | 0.5 |
| From Canada..... | 3,288 | 3,503 | (6.1) | 3,723 | 3,515 | 5.9 |
| All other..... | 4,077 | 4,386 | (7.1) | 4,497 | 4,662 | (3.5) |
| Products..... | 2,797 | 2,150 | 30.1 | 2,455 | 2,202 | 11.5 |
| Total motor gasoline (incl. blend.comp).... | 559 | 547 | 2.2 | 478 | 599 | (20.2) |
| All other..... | 2,238 | 1,603 | 39.6 | 1,977 | 1,604 | 23.3 |
| Total imports..... | 10,162 | 10,039 | 1.2 | 10,675 | 10,379 | 2.9 |
| Total supply..... | 26,009 | 23,872 | 9.0 | 26,715 | 23,976 | 11.4 |
| Stock change, all oils..... | (572) | (1,730) | na | (1,647) | (1,275) | na |
| Refinery Operations: | | | | | | |
| Input to crude distillation units..... | 16,448 | 15,820 | 4.0 | 18,206 | 16,155 | 12.7 |
| Gasoline production..... | 9,852 | 9,552 | 3.1 | 9,642 | 9,428 | 2.3 |
| Kerosine-jet production..... | 1,698 | 1,604 | 5.8 | 1,702 | 1,610 | 5.8 |
| Distillate fuel production..... | 4,641 | 4,672 | (0.7) | 4,847 | 4,738 | 2.3 |
| Residual fuel production..... | 426 | 484 | (11.9) | 430 | 478 | (10.1) |
| Operable capacity..... | 18,513 | 18,617 | (0.6) | 19,469 | 18,619 | 4.6 |
| Refinery utilization ⁶ | 88.8% | 85.0% | na | 93.5% | 86.8% | na |
| Crude oil runs..... | 16,026 | 15,546 | 3.1 | 17,889 | 15,853 | 12.8 |

1. Total supply, i.e., production plus imports adjusted for net stock change is equal to total disposition from primary storage. Total disposition from primary storage less exports equals total domestic products supplied. Information contained in this report is derived from information published in the API *Weekly Statistical Bulletin* and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2. Based on API estimated data converted to a monthly basis.

3. Data for most current two months are API estimates. Other data come from U.S. Energy Information Administration (including any adjustments).

4. An adjustment to avoid double counting resulting from differences in product classifications among different refineries and blenders.

5. Includes unaccounted-for crude oil, withdrawals from the SPR when they occur, processing gain, field production of other hydrocarbons and alcohol, and downstream blending of ethanol.

6. Represents "Input to crude oil distillation units" as a percent of "Operable capacity".

R: Revised. na: Not available.

ESTIMATED UNITED STATES PETROLEUM BALANCE¹
(Daily average in thousands of 42 gallon barrels)

| | February 2018 | January 2018 | February 2017 | % Change From | |
|---|------------------|-----------------|------------------|---------------|----------|
| | | | | Month Ago | Year Ago |
| Stocks (at month-end, in millions of barrels): | | | | | |
| Crude oil (excluding lease & SPR stocks)..... | 426.1 | 418.6 | 523.6 | 1.8 | (18.6) |
| Unfinished oils..... | 89.2 | 87.8 | 88.3 | 1.6 | 1.1 |
| Total motor gasoline..... | 248.3 | 244.2 | 253.2 | 1.7 | (1.9) |
| Finished reformulated..... | 0.1 | 0.1 | 0.1 | 4.0 | 2.0 |
| Finished conventional..... | 25.1 | 24.5 | 25.7 | 2.4 | (2.4) |
| Blending components..... | 223.1 | 219.6 | 227.4 | 1.6 | (1.9) |
| Kerosine-jet..... | 43.6 | 42.2 | 43.9 | 3.3 | (0.7) |
| Distillate fuel oil..... | 138.2 | 140.2 | 162.2 | (1.4) | (14.8) |
| ≤ 500 ppm sulfur..... | 126.0 | 129.0 | 150.1 | (2.3) | (16.0) |
| ≤ 15 ppm sulfur..... | 119.9 | 122.4 | 142.6 | (2.0) | (15.9) |
| > 500 ppm sulfur..... | 12.2 | 11.2 | 12.2 | 8.9 | 0.4 |
| Residual fuel oil..... | 32.5 | 33.9 | 39.6 | (4.1) | (17.9) |
| All other oils..... | 295.9 | 290.9 | 240.8 | 1.7 | 22.9 |
| Total all oils..... | 1,273.8 | 1,257.8 | 1,351.5 | 1.3 | (5.7) |