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EXECUTIVE SUMMARY

Although winter emergency disruptions clouded the readings on oil supply, trade and inventories beginning in mid-February, the fundamental economic and oil demand recovery that we highlighted for January appeared to remain intact based on API's primary data on U.S. petroleum markets for February 2021.

Highlights:

- Total U.S. petroleum demand of 19.3 million barrels per day (mb/d) remained within 2.5% of its level from February 2020 despite ongoing effects of the COVID-19 pandemic.
- Refining and petrochemical demand for other oils – naphtha, gasoil, propane/propylene remained at record-high levels of the month of February (5.9 mb/d) and over 30% of total U.S. petroleum demand.
- Distillates/diesel fuel demand (4.1 mb/d) grew by 3.1% y/y on solid trucking and industrial activities.
- Jet fuel deliveries reverted to 30.4% below their year-ago levels with continued weak air travel demand.

Leading economic indicators were mixed in February. API's D-E-I™ (distillate/diesel economic indicator) signaled continued industrial production gains (please see the following [chart](#) for details), but indicators of consumer sentiment weakened.

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Demand

- **U.S. petroleum demand (19.3 mb/d) remained neared its pre-COVID-19 levels.**
 - Gasoline demand picked up for the first time in five months.
 - Trucking and industrial demand drove distillate demand over pre-COVID-19 levels.
 - Jet fuel deliveries fell by 30.4% y/y.
 - Residual fuel oil demand spiked seasonally by more than 50% m/m.
 - Strong other oils demand continued despite the cold snap disruptions.

Prices & Macroeconomy

- **Crude oil and gasoline prices rose; the Brent-WTI crude oil price spread widened.**
- **Strong industrial gains, but consumer weakness.**

Supply

- **U.S. crude oil and natural gas liquids production fell due to Gulf Coast cold snap shut-ins.**

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- **The U.S. reverted to petroleum net imports with winter emergency disruptions.**

Industry operations

- **Refinery capacity utilization fell to record lows due to winter emergency disruptions.**

Inventories

- **Inventories of crude oil rose, but those of products receded.**

API's economic indicator: The API D-E-I™ - February 2021

▶ The D-E-I™ value of -1.4 for February 2021 and three-month average of -1.5 – improvement in the three-month average for eight consecutive months – suggested that industrial production has continued to rise



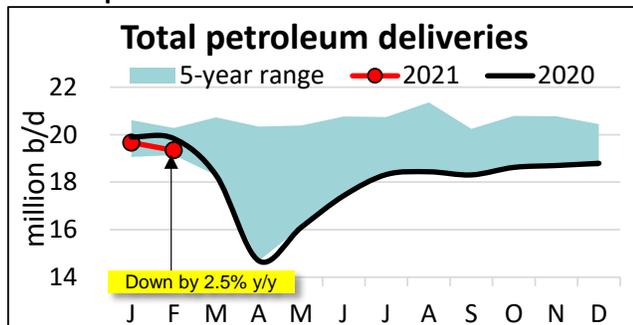
sources: API Monthly Statistical Report; EIA; CME Group; Moody's; Federal Reserve Board; API Team calculations



Details by section

Demand

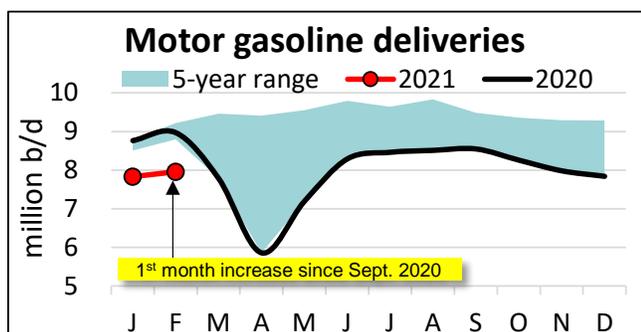
U.S. petroleum demand (19.3 mb/d) remained near its pre-COVID-19 levels



In February, U.S. petroleum demand, as measured by total domestic petroleum deliveries, was 19.3 mb/d. This reflected decreases of 1.7% from January and 2.5% compared with February 2020 – relatively strong considering the 2020 COVID-19 recession and winter-related disruptions.

Gasoline

Gasoline demand picked up for the first time in five months



Consumer gasoline demand, measured by motor gasoline deliveries, was 7.9 mb/d in February. This represented an increase of 1.2% from January but an 11.6% decrease compared with February 2020.

On average over the past 10 years, gasoline demand in the month of February averaged 3.4% m/m over that of January, so the 1.2% m/m change this year was less than half of the historical seasonality. Consequently, much of recent driving activity was likely borne out of necessity, as opposed to discretionary travel that could have produced the higher seasonal variation that we have historically observed.

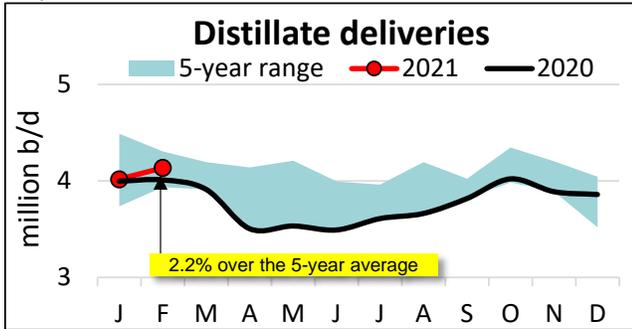
Deliveries of reformulated-type gasoline (consumed primarily in urban areas) rose by 3.5% from January, while those of conventional gasoline (mainly in rural areas) increased by 0.2% m/m, suggesting that greater work commuting may have resumed in February.

Distillate Fuel Oil

Trucking and transportation drove distillate demand over pre-COVID-19 levels

In February, distillate deliveries of 4.1 mb/d rose by 2.9% from January and 3.1% y/y. Consequently,

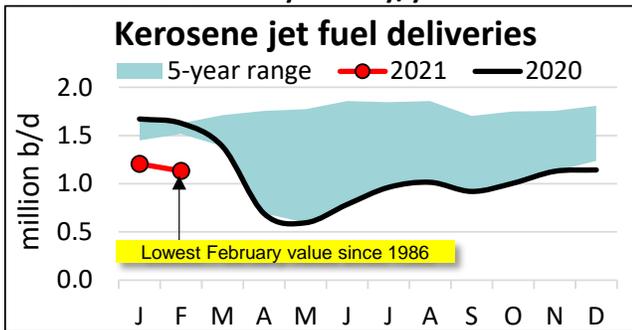
distillate / diesel fuel demand continued to exceed its pre-COVID-19 levels so far in 2021.



[DAT iQ industry trendlines](#) showed strong growth of spot flatbed, van, and reefer truck loads in February. As capacity remained tight, freight volumes spilled into the intermodal and rail sectors per [FreightWaves and Wells Fargo](#).

Kerosene Jet Fuel

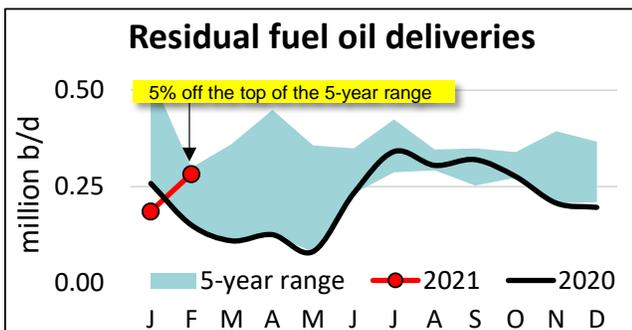
Jet fuel deliveries fell by 30.4% y/y



'K-Jet' deliveries were 1.1 mb/d in February, which was a decrease of 6.0% from January and 30.4% below the level of February 2020. This was consistent with [Flightradar24](#) high-frequency data that showed a drop versus flights in January and February 2020.

Residual Fuel Oil

Residual fuel oil demand spiked seasonally by more than 50% m/m

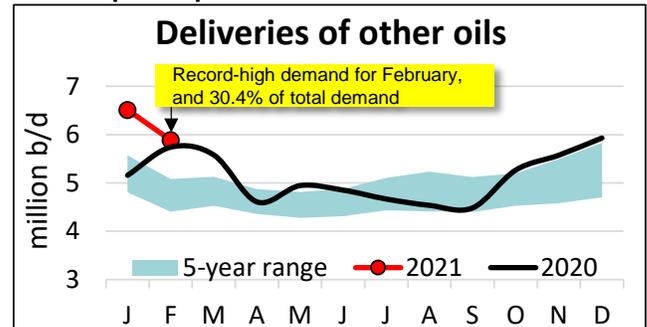


Deliveries of residual fuel oil, which is used in electric power production, space heating, industrial

applications and as a marine bunker fuel, were 0.28 mb/d in February. This reflected sharp seasonal increases of 52.2% from January and 88.7% compared with February 2020 to near the top of the five-year range.

Naphtha & Gasoil "Other Oils"

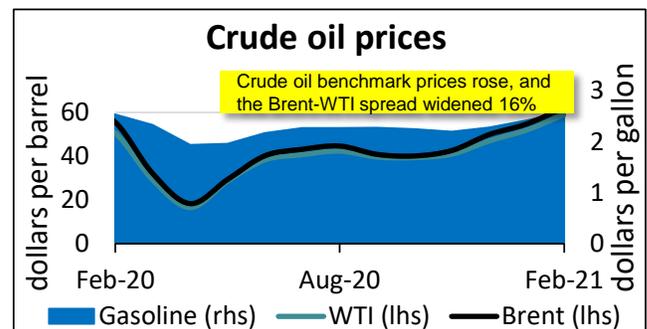
Strong other oils demand continued despite the cold snap disruptions



Deliveries of liquid feedstocks, such as naphtha, gasoil, and propane/propylene ("other oils") used primarily in refining and petrochemical manufacturing, were 5.9 mb/d in February. This was an increase of 20.7% y/y and a new high for the month of February. However, the 5.9 mb/d reflected a seasonal decrease from the record 6.5 mb/d in January, likely due to refining and petrochemical plant disruptions with the cold snap as well as February being a short month. Even still, other oils represented 30.4% of total U.S. petroleum demand for the month, compared with its average 24.7% share between 2016 and 2020.

Prices

Crude oil and gasoline prices rose; the Brent-WTI crude oil price spread widened



In February, West Texas Intermediate (WTI) crude oil prices rose to \$59.04 per barrel, a 13.5% increase m/m for its strongest monthly level since December 2019. By comparison, Brent crude oil spot prices averaged \$62.28 per barrel, and the Brent-WTI price

differential widened to \$3.24 per barrel, its widest since February 2020.

Although gasoline prices were historically low, they rose in February along with the crude oil prices, which remained the top input cost in making gasoline per [EIA](#). The U.S. average conventional gasoline price was \$2.59 per gallon in February, up by 6.9% (\$0.17 per gallon) from January and 2.1% y/y (\$0.05 per gallon), according to [AAA](#).

Macroeconomy

Strong industrial gains, but consumer weakness

API's economic indicator, The D-E-I™, which is based primarily on diesel/distillate supply, demand, and inventories, had a reading of -1.4 in February and a three-month average of -1.5. Improvement in the three-month average for eight consecutive months suggested that industrial production has continued to rise along with broader economic activity.

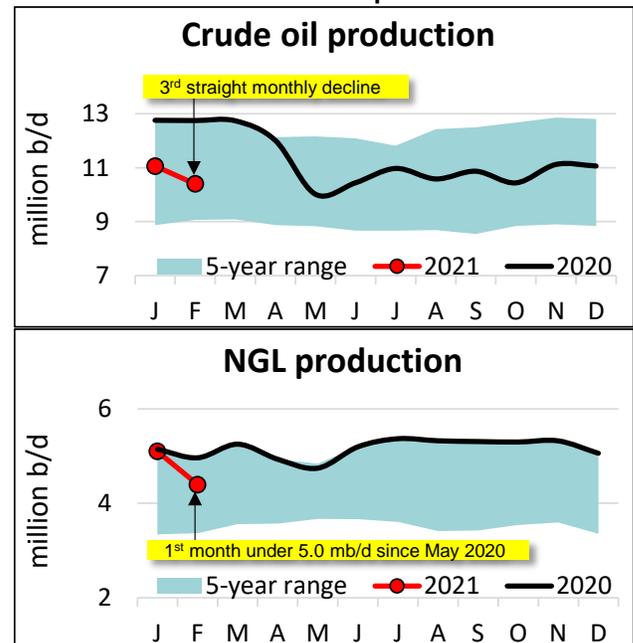
The Institute for Supply Management's Purchasing Managers Index (PMI) had a reading of 60.8 in February, a 2.1 percentage point increase from January. Index values above 50.0 suggest an expansion, and the manufacturing PMI has held above that threshold since June 2020. Sub-indicators rose across the board for new orders, production, backlog of orders, employment, prices, supplier deliveries and export orders. Notably, the customers' inventories remaining tied an all-time low of 32.5%. Among the 18 manufacturing industries surveyed, 16 reported growth.

The [University of Michigan's consumer sentiment index](#) indicated weaker consumer sentiment in February (76.8), compared with January (79.0) and February 2020 (101.0). Notably, the survey attributed February's decrease entirely to households with incomes below \$75,000, with the declines mainly concentrated in future economic prospects.

According to the [Bureau of Labor Statistics \(BLS\)](#), non-farm payrolls increased by 379,000, and the unemployment rate fell to 6.2% in February. Although this appeared encouraging, [continued weekly claims](#) for unemployment insurance benefits rose by 2.1 million for the week ended February 20 to a total of 20.1 million.

Supply

U.S. crude oil and natural gas liquids production fell due to Gulf Coast cold snap shut-ins



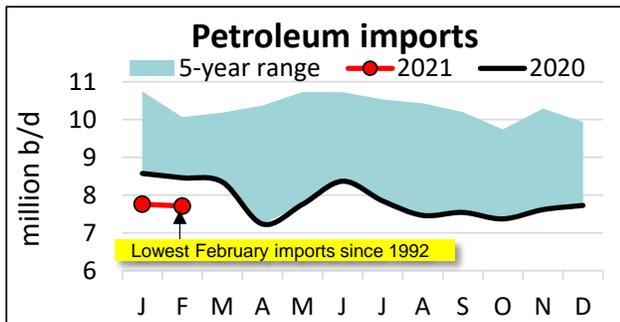
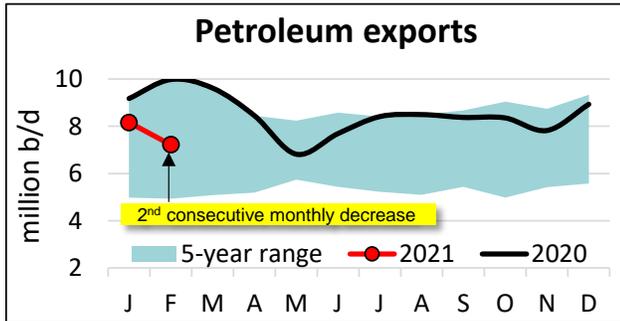
In February, U.S. crude oil production was 10.4 mb/d, a 6.0% (0.7 mb/d) m/m decrease despite solid [rig productivity](#) and increased [drilling activity](#). The decrease was led by Texas shut-ins during the regional [cold snap](#) in the latter half of February.

[Baker Hughes](#) reported 305 active oil-directed rigs in February, a 6.5% m/m increase (but 55% below the 678 rigs in February 2020). However, oil-directed rig productivity has held near record levels in most producing basins per [EIA](#).

By comparison, natural gas-directed drilling in February rose by 5.4% m/m but remained down 17.2% y/y. Rig productivity gains for natural gas drilling supported marketed production of about 97 billion cubic feet per day in February per [EIA](#), a 5.8% m/m decrease which corresponded with the extraction of 4.4 mb/d of natural gas liquids (NGLs) by API estimates. These figures reflected solid NGL demand during the cold snap coupled as well as increased fractionation along with higher NGL and crude oil prices.

International trade

The U.S. reverted to petroleum net imports with winter emergency disruptions



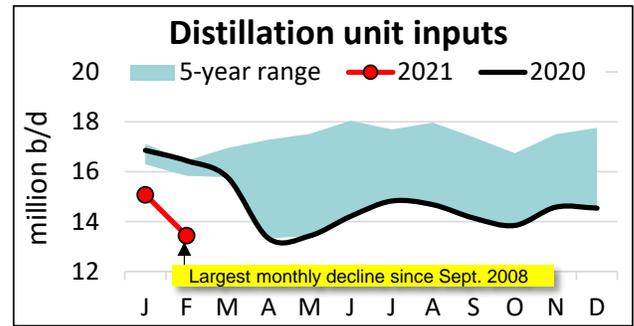
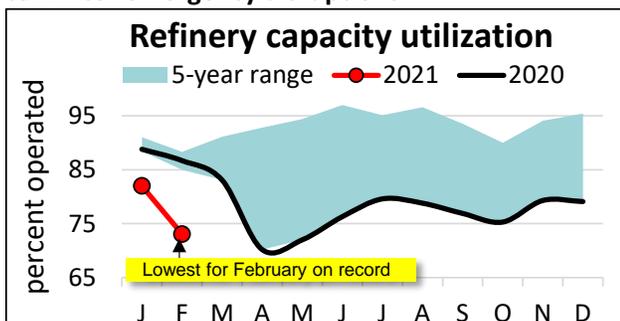
The U.S. reverted to being a petroleum net importer of 0.5 mb/d in February. This was a shift from 0.4 mb/d of petroleum net exports in January, with the monthly change driven by exports fell faster than imports for the month and was largely attributable to the winter weather emergency which hampered petroleum trade operations in the Houston ship channel, Corpus Christi, and South Louisiana ports.

Specifically, U.S. petroleum exports fell to 7.2 mb/d, compared with 8.2 mb/d in January and 10.0 mb/d in February 2020. The 2.8 mb/d monthly decrease – made up of 0.9 mb/d of crude oil and 1.9 mb/d of refined products.

Meanwhile, the U.S. imports of 7.7 mb/d of total petroleum – including 5.5 mb/d of crude oil and 2.2 mb/d of refined products in February – fell to their lowest levels for the month since 1992.

Industry operations

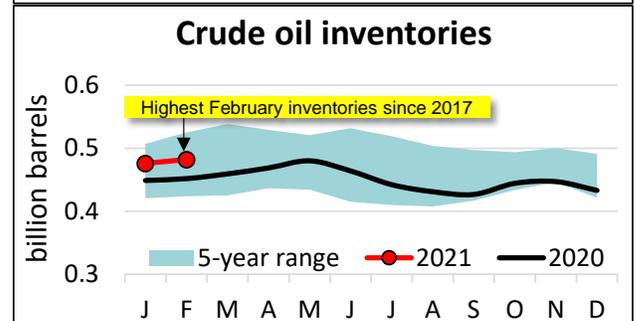
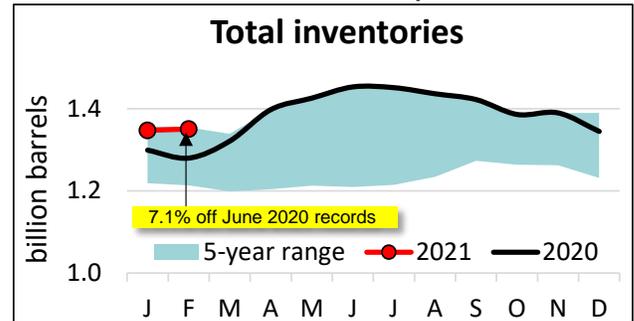
Refinery capacity utilization fell to record lows due to winter emergency disruptions



U.S. refinery throughput was 13.4 mb/d in February, a 10.8% m/m and 18.3% y/y decrease. This implied a capacity utilization rate of 73.1% for the month, which fell by 8.9 points from January for the lowest February value on record. The declines were driven by the Gulf Coast and Midwest cold snap which shut-in large portions of refining capacity in PADD 3.

Inventories

Inventories of crude oil rose, but products receded



U.S. total petroleum inventories, including crude oil and refined products but excluding the Strategic Petroleum Reserve rose off revised January figures to 1.35 billion barrels in February. The 0.2% m/m increase resulted in the 2nd highest inventory level for the month and was 7.1% below the June 2020 record highs. Within the total, crude oil stocks of 482.1 million barrels increased 1.3% m/m, while total products stocks decreased 0.3% m/m.

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

Disposition and Supply	February			Year-to-Date		
	2021 ²	2020	% Change	2021 ³	2020	% Change
Disposition:						
Total motor gasoline.....	7,923	8,967	(11.6)	7,873	8,860	(11.1)
Finished reformulated.....	2,559	2,864	(10.6)	2,514	2,803	(10.3)
Finished conventional.....	5,364	6,103	(12.1)	5,359	6,058	(11.5)
Kerosene-jet.....	1,134	1,629	(30.4)	1,172	1,652	(29.0)
Distillate fuel oil.....	4,136	4,011	3.1	4,074	4,004	1.8
≤ 500 ppm sulfur.....	4,068	3,963	2.6	4,009	3,944	1.6
≤ 15 ppm sulfur.....	4,060	3,938	3.1	4,000	3,925	1.9
> 500 ppm sulfur.....	68	47	44.7	65	60	8.3
Residual fuel oil.....	283	150	88.7	232	206	12.6
All other oils (including crude losses)	5,886	4,877	20.7	6,215	5,021	23.8
Reclassified ⁴	(23)	205	na	(56)	130	na
Total domestic product supplied.....	19,339	19,839	(2.5)	19,510	19,873	(1.8)
Exports.....	7,218	9,983	(27.7)	7,711	9,566	(19.4)
Total disposition.....	26,557	29,822	(10.9)	27,221	29,440	(7.5)
Supply:						
Domestic liquids production						
Crude oil (including condensate).....	10,400	12,746	(18.4)	10,746	12,750	(15.7)
Natural gas liquids.....	4,396	4,965	(11.5)	4,765	5,058	(5.8)
Other supply ⁵	942	1,158	(18.6)	1,014	1,169	(13.2)
Total domestic supply.....	15,738	18,869	(16.6)	16,525	18,977	(12.9)
Imports:						
Crude oil (excluding SPR imports).....	5,531	6,519	(15.2)	5,515	6,462	(14.7)
From Canada.....	3,544	4,020	(11.9)	3,554	3,945	(9.9)
All other.....	1,987	2,499	(20.5)	1,961	2,517	(22.1)
Products.....	2,180	1,938	12.5	2,222	2,054	8.1
Total motor gasoline (incl. blend.comp)....	639	510	25.3	585	504	16.1
All other.....	1,541	1,427	8.0	1,637	1,550	5.6
Total imports.....	7,711	8,457	(8.8)	7,736	8,516	(9.2)
Total supply.....	23,449	27,326	(14.2)	24,261	27,494	(11.8)
Stock change, all oils.....	(3,108)	(2,496)	na	(2,960)	(1,946)	na
Refinery Operations:						
Input to crude distillation units.....	13,436	16,442	(18.3)	14,295	16,656	(14.2)
Gasoline production.....	8,512	9,742	(12.6)	8,530	9,682	(11.9)
Kerosene-jet production.....	1,041	1,666	(37.5)	1,150	1,764	(34.8)
Distillate fuel production.....	3,976	4,812	(17.4)	4,321	4,953	(12.8)
Residual fuel production.....	195	229	(14.8)	188	229	(17.8)
Operable capacity.....	18,388	18,976	(3.1)	18,387	18,975	(3.1)
Refinery utilization ⁶	73.1%	86.6%	na	77.7%	87.8%	na
Crude oil runs.....	13,010	15,867	(18.0)	13,875	16,055	(13.6)

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 2021	January 2021	February 2020	% Change From	
				Month Ago	Year Ago
Stocks (at month-end, in millions of barrels):					
Crude oil (excluding lease & SPR stocks).....	482.1	476.1	454.2	1.3	6.1
Unfinished oils.....	90.5	83.8	98.8	8.0	(8.4)
Total motor gasoline.....	244.9	250.7	251.7	(2.3)	(2.7)
Finished reformulated.....	0.0	0.0	0.1	0.1	(19.2)
Finished conventional.....	22.1	23.0	25.8	(3.9)	(14.4)
Blending components.....	222.8	227.7	225.9	(2.2)	(1.4)
Kerosene-jet.....	39.7	41.9	42.7	(5.3)	(7.1)
Distillate fuel oil.....	142.5	163.1	132.7	(12.6)	7.4
≤ 500 ppm sulfur.....	133.8	154.7	123.4	(13.5)	8.4
≤ 15 ppm sulfur.....	130.8	151.1	119.4	(13.5)	9.5
> 500 ppm sulfur.....	8.7	8.4	9.3	3.6	(6.9)
Residual fuel oil.....	31.4	32.4	31.2	(3.1)	0.5
All other oils.....	319.2	299.1	268.0	6.7	19.1
Total all oils.....	1,350.3	1,347.1	1,279.4	0.2	5.5