

EXECUTIVE SUMMARY

API's primary data for April 2021 evidenced momentum for the broader U.S. economic recovery, as petroleum demand and refining activity rose, supply remained solid and leading economic indicators pointed higher.

Highlights:

- Total U.S. petroleum demand of 19.6 million barrels per day (mb/d) rose by 2.5% from March and to within 3.5% of its level in April **2019**, which was its highest for the month in 11 years.
- Gasoline demand of 8.9 mb/d led the monthly increase and climbed to within 5.4% of its April record level.
- Refining and petrochemical demand for other oils – naphtha, gasoil, propane/propylene – of 5.4 mb/d rose to a record for the month of April and stood more than 10% above its April 2019 level.
- Refining throughput of 15.5 mb/d and its implied 85.3% capacity utilization rate increased to the highest levels since the first quarter of 2020.
- U.S. crude oil (11.0 mb/d) and natural gas liquids (NGL) (5.2 mb/d) production remained solid despite historically weak drilling activity.
- With increased demand but steady supply, the U.S. remained a petroleum net importer in April for a second consecutive month.
- Leading economic indicators improved broadly in April, and API's Distillate Economic Indicator™ signaled continued industrial production gains (please see the following [chart](#) for details).

CONTENTS

(Click hyperlinks to advance to any section)

Demand

- **U.S. petroleum demand (19.6 mb/d) increased and neared its April 2019 level.**
 - Gasoline demand climbed to within 5.4% of its record level for April.
 - Distillate deliveries rose to 4.1 mb/d.
 - Jet fuel deliveries rose in April, but were 31.2% below 2019 levels.
 - Residual fuel oil demand increased 45% versus April 2020.
 - Record April petrochemical demand for other oils.

Prices & Macroeconomy

- Gasoline prices generally rose in April to reflect crude oil prices.
- Leading indicators suggest broad economic gains.

Supply

- U.S. crude oil and natural gas liquids production remained solid along with drilling activity.

International trade

- U.S. petroleum net imports persisted for a second consecutive month.

Industry operations

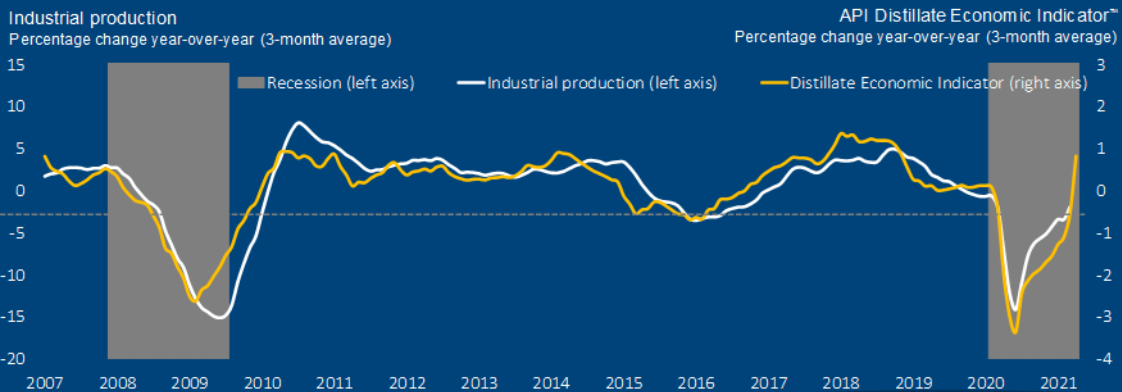
- Refining 85.3% capacity utilization continued rising in April.

Inventories

- Total petroleum inventories edged up despite lower crude oil stocks.

API's Distillate Economic Indicator™ - April 2021

The Distillate Economic Indicator™ value of +3.3 for April 2021 and three-month average of +0.8 signaled an acceleration in industrial production and broader economic activity



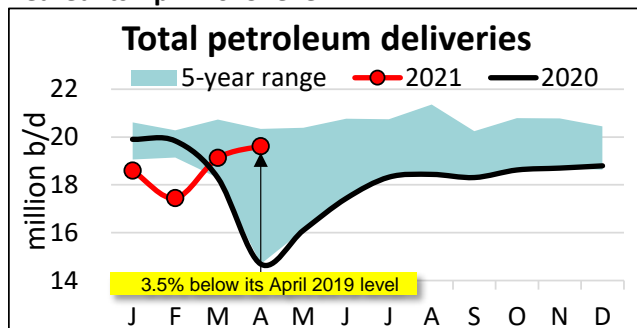
sources: API Monthly Statistical Report; EIA; CME Group; Moody's; Federal Reserve Board; APITeam calculations

API American Petroleum Institute

Details by section

Demand

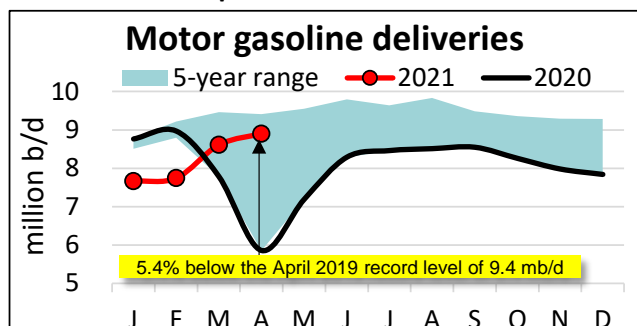
U.S. petroleum demand (19.6 mb/d) increased and neared its April 2019 level



In April, U.S. petroleum demand, as measured by total domestic petroleum deliveries, was 19.6 mb/d. This reflected an increase of 2.5% from March and was 3.5% below its level in April 2019, which was the highest for the month in 11 years.

Gasoline

Gasoline demand climbed to within 5.4% of its record level for April

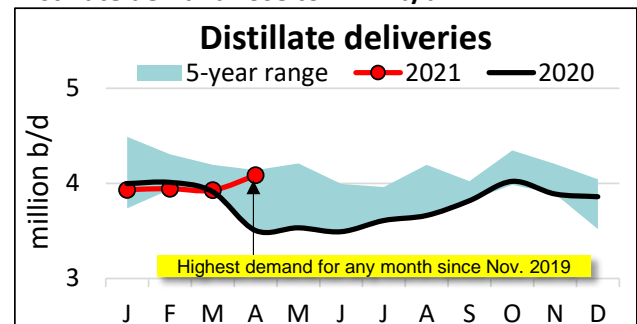


Consumer gasoline demand, measured by motor gasoline deliveries, was 8.9 mb/d in April. This represented an increase of 3.3% from March but remained 5.4% below its April record level of 9.4 mb/d in 2019. Notably, the monthly increase between March and April 2021 was the largest since 2010, which would be consistent with the economic recovery.

Deliveries of reformulated-type gasoline (consumed primarily in urban areas) rose by 75 thousand barrels per day (kb/d) or 2.9% from March, while those of conventional gasoline (mainly in rural areas) increased by 212 kb/d (3.5% m/m). These relative changes reinforced those in last month's MSR that showed the majority of driving increased outside of urban areas.

Distillate Fuel Oil

Distillate demand rose to 4.1 mb/d

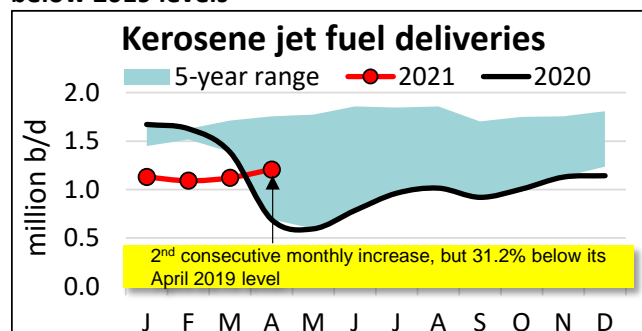


In April, distillate deliveries of 4.1 mb/d rose by

4.0% from March and grew to within 0.8% of their April 2019 level. [DAT iQ industry trendlines](#) showed mixed truck freight activity in April, with flatbed loads up by 14.4% from March, offset by decreases among van and refrigerated truck loads.

Kerosene Jet Fuel

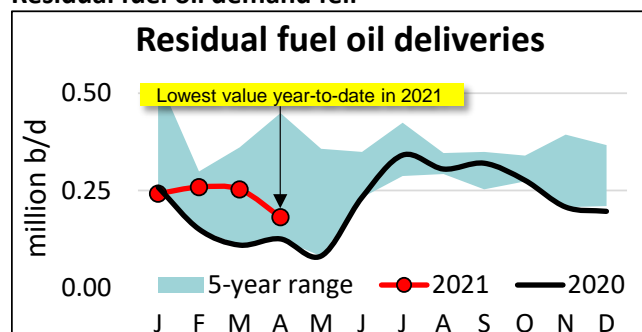
Jet fuel deliveries rose in April but were 31.2% below 2019 levels



'K-Jet' deliveries were 1.2 mb/d in April, which was an increase of 7.7% from March but 31.2% below its April 2019 level. The April increase was consistent with [Flightradar24](#) high-frequency data that showed air travel demand picked up last month but remained about 32% below April 2019 levels.

Residual Fuel Oil

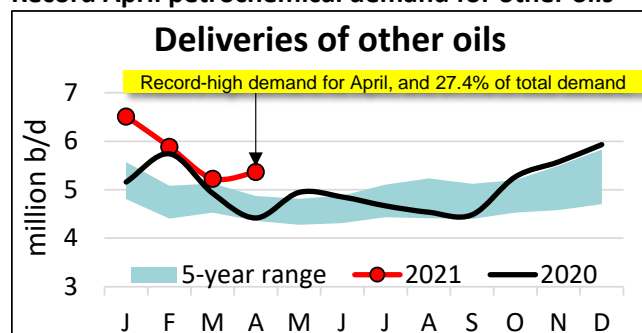
Residual fuel oil demand fell



Deliveries of residual fuel oil, which is used in electric power production, space heating, industrial applications and as a marine bunker fuel, were 181 kb/d in April. This was a decrease of 28.5% from March but 2.3% over its level in April 2019.

Naphtha & Gasoil "Other Oils"

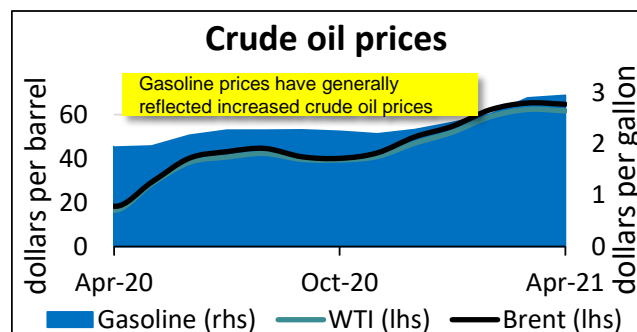
Record April petrochemical demand for other oils



Deliveries of liquid feedstocks, such as naphtha, gasoil, and propane/propylene ("other oils") used primarily in refining and petrochemical manufacturing, were 5.4 mb/d in April or 27.4% of total petroleum demand. This was a record level for the month of April, up by 2.4% from March and more than 10% above its April 2019 level.

Prices

Gasoline prices generally rose in April to reflect crude oil prices



In April, West Texas Intermediate (WTI) crude oil prices slipped to \$61.72 per barrel, a 1.0% decrease m/m, but remained up more than 30% year-to-date. By comparison, Brent crude oil spot prices averaged \$64.81 per barrel, and the Brent-WTI price differential expanded by 0.7% m/m to \$3.09 per barrel. As crude oil remained the top input cost in making gasoline per [EIA](#), relatively strong crude oil prices corresponded with increased gasoline prices for a fifth consecutive month in April. The U.S. average conventional gasoline price was \$2.95 per gallon in April, up by 1.7% (\$0.05 per gallon) from March and 52.1% y/y (\$1.01 per gallon), according to [AAA](#).

Macroeconomy

Leading indicators suggest broad economic gains

API's Distillate Economic Indicator™, which is based primarily on diesel/distillate supply, demand, and inventories, had a reading of +3.3 in April and a three-month average of +0.8. The three-month moving average rose for the 10th consecutive month, suggesting U.S. industrial production has continued to accelerate along with broader economic activity.

The Institute for Supply Management's manufacturing Purchasing Managers Index ([PMI](#)) had a reading of 60.7 in April, a 4.0 percentage

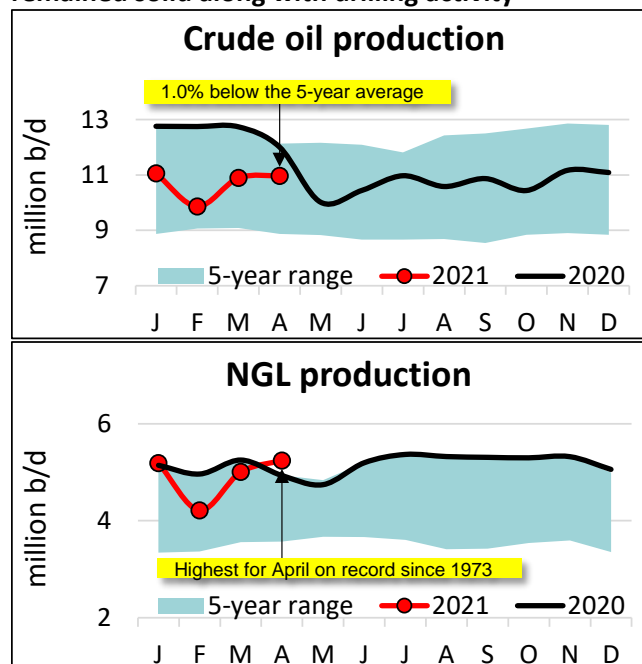
point decrease from March's 38-year historical high. Index values above 50.0 suggest an expansion, and the manufacturing PMI has held above that threshold for 11 consecutive months. Within the index, slowing growth was registered for new orders, production, and employment. Supplier deliveries also slowed, and the backlog of orders grew. All 18 manufacturing industries surveyed reported growth in April.

The [University of Michigan's consumer sentiment index](#) indicated stronger consumer sentiment in April (88.3) compared with March (84.9). The survey attributed April's increase to an acceleration in vaccination rollouts and positive momentum in the U.S. employment and income outlook.

According to the [Bureau of Labor Statistics \(BLS\)](#), non-farm payrolls increased by 266,000, and the unemployment rate remained steady at 6.1% in April. Despite general upward employment this year, the April increase fell below the consensus estimate of +1.0 million jobs, and [continued weekly claims](#) for unemployment insurance benefits for the week ended April 24 remained at 16.8 million.

Supply

U.S. crude oil and natural gas liquids production remained solid along with drilling activity



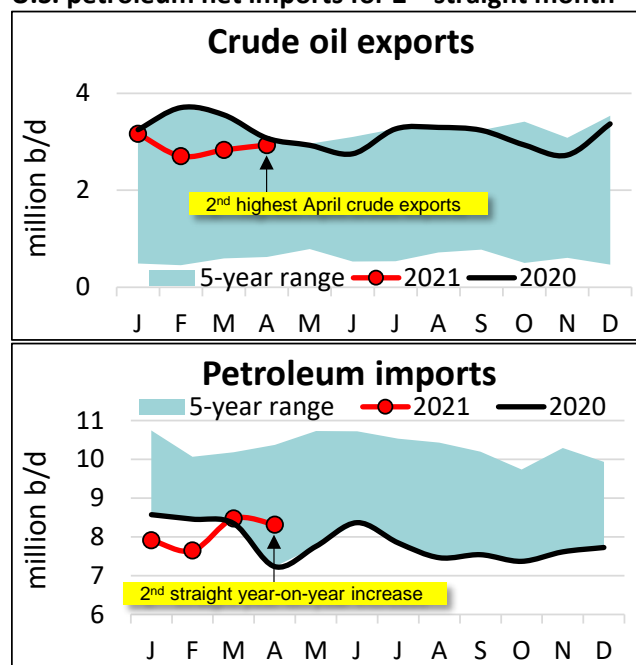
In April, U.S. crude oil production was 11.0 mb/d, a 0.7% (0.1 mb/d) m/m increase due to solid [rig productivity](#) and increased [drilling activity](#).

[Baker Hughes](#) reported 341 active oil-directed rigs in April, an 8.0% m/m increase but still 27.6% below the 471 rigs in April 2020.

By comparison, natural gas-directed drilling in April rose by 1.7% m/m and 1.2% y/y. Rig productivity helped to support natural gas marketed production of about 103 billion cubic feet per day in April per [EIA](#), which corresponded with the extraction of 5.2 mb/d of natural gas liquids (NGLs) by API estimates. This was an increase of 0.2 mb/d from March and solid NGL demand as industrial production has recovered as well as increased fractionation amid higher [composite](#) NGL prices.

International trade

U.S. petroleum net imports for 2nd straight month

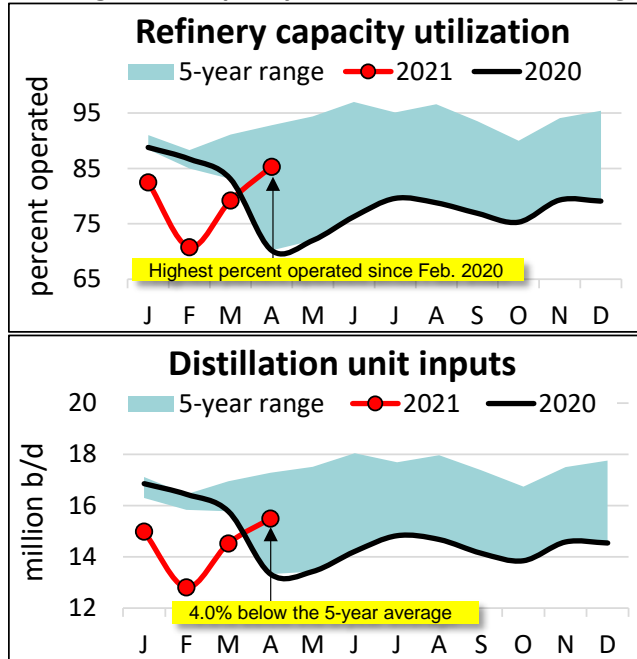


The U.S. remained a petroleum net importer in April and for a second consecutive month. Net imports of 0.3 mb/d persisted in April despite a monthly increase in total petroleum exports to 8.0 mb/d (+0.6 mb/d m/m) and decreased petroleum imports of 8.3 mb/d (-0.2 mb/d m/m).

Within the totals, the increased exports were driven mainly by refined products (+0.5 mb/d m/m), while the decreased imports were driven by lower crude oil imports (-0.2 mb/d m/m).

Industry operations

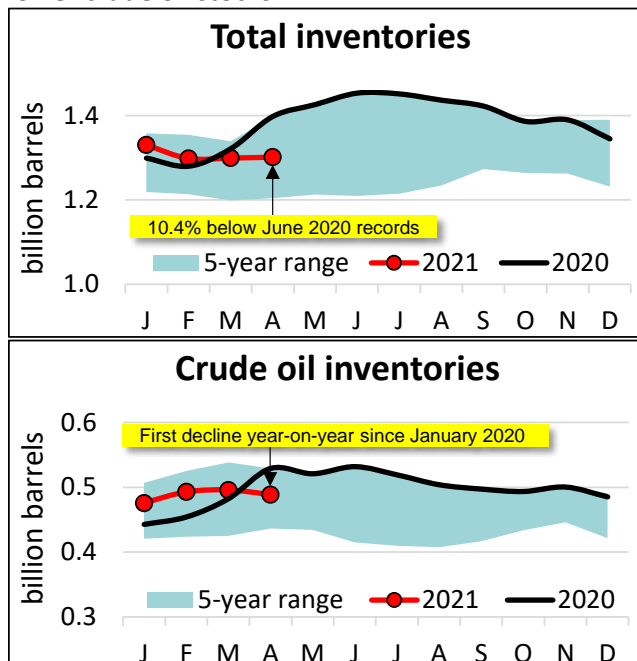
Refining 85.3% capacity utilization continued rising



U.S. refinery throughput was 15.5 mb/d in April, which was an increase of 6.6% from March but 7.2% below its April 2019 level. The implied capacity utilization rate of 85.3% for April increased by 6.1 percentage points from March to its highest since February 2020 and reflected resumed activity following Gulf Coast winter shut-ins.

Inventories

Total petroleum inventories edged up despite lower crude oil stocks



U.S. total petroleum inventories, including crude oil and refined products (but excluding the Strategic Petroleum Reserve) increased by 0.2% m/m to 1.30 billion barrels in April from revised March estimates. Total inventories increased despite lower crude oil inventories, which fell by 1.5% m/m to 488.9 million barrels. Notably, April marked the first crude oil inventory decline compared with the same month a year ago since January 2020.

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

Disposition and Supply	April			Year-to-Date		
	2021 ²	2020	% Change	2021 ³	2020	% Change
Disposition:						
Total motor gasoline.....	8,899	5,854	52.0	8,237	7,838	5.1
Finished reformulated.....	2,691	1,793	50.1	2,503	2,416	3.6
Finished conventional.....	6,208	4,060	52.9	5,734	5,422	5.8
Kerosene-jet.....	1,208	691	74.8	1,139	1,346	(15.4)
Distillate fuel oil.....	4,087	3,505	16.6	3,974	3,857	3.0
≤ 500 ppm sulfur.....	4,070	3,476	17.1	3,950	3,815	3.5
≤ 15 ppm sulfur.....	4,047	3,475	16.5	3,923	3,802	3.2
> 500 ppm sulfur.....	17	29	(41.4)	23	42	(45.2)
Residual fuel oil.....	181	125	44.8	234	161	45.3
All other oils (including crude losses)	5,368	4,416	21.5	5,140	4,847	6.1
Reclassified ⁴	(128)	100	na	(11)	132	na
Total domestic product supplied.....	19,615	14,691	33.5	18,712	18,181	2.9
Exports.....	8,017	8,452	(5.1)	7,966	9,304	(14.4)
Total disposition.....	27,632	23,143	19.4	26,678	27,485	(2.9)
Supply:						
Domestic liquids production						
Crude oil (including condensate).....	10,966	12,010	(8.7)	10,713	12,563	(14.7)
Natural gas liquids.....	5,240	4,934	6.2	4,927	5,077	(3.0)
Other supply ⁵	1,010	678	48.9	1,007	1,020	(1.3)
Total domestic supply.....	17,216	17,623	(2.3)	16,647	18,661	(10.8)
Imports:						
Crude oil (excluding SPR imports).....	5,725	5,520	3.7	5,756	6,186	(6.9)
From Canada.....	3,305	3,596	(8.1)	3,545	3,813	(7.0)
All other.....	2,420	1,923	25.8	2,211	2,373	(6.8)
Products.....	2,587	1,716	50.8	2,341	1,969	18.9
Total motor gasoline (incl. blend.comp)....	1,033	378	173.3	759	522	45.4
All other.....	1,554	1,338	16.1	1,582	1,447	9.4
Total imports.....	8,312	7,236	14.9	8,097	8,155	(0.7)
Total supply.....	25,528	24,858	2.7	24,744	26,816	(7.7)
Stock change, all oils.....	(2,104)	1,716	na	(1,934)	(669)	na
Refinery Operations:						
Input to crude distillation units.....	15,484	13,323	16.2	14,478	15,603	(7.2)
Gasoline production.....	9,608	6,352	51.3	8,922	8,573	4.1
Kerosene-jet production.....	1,222	619	97.4	1,112	1,376	(19.2)
Distillate fuel production.....	4,614	5,101	(9.5)	4,345	4,989	(12.9)
Residual fuel production.....	211	145	45.5	191	209	(8.5)
Operable capacity.....	18,143	18,976	(4.4)	18,182	18,975	(4.2)
Refinery utilization ⁶	85.3%	70.2%	na	79.6%	82.2%	na
Crude oil runs.....	14,975	12,786	17.1	14,014	15,032	(6.8)

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)

	April 2021	March 2021	April 2020	% Change From	
				Month Ago	Year Ago
Stocks (at month-end, in millions of barrels):					
Crude oil (excluding lease & SPR stocks).....	488.9	496.1	529.2	(1.5)	(7.6)
Unfinished oils.....	95.6	95.4	93.0	0.2	2.8
Total motor gasoline.....	232.0	233.2	257.3	(0.5)	(9.8)
Finished reformulated.....	0.0	0.0	0.0	(0.5)	(38.2)
Finished conventional.....	20.0	19.2	22.8	4.2	(12.4)
Blending components.....	212.0	214.0	234.4	(0.9)	(9.6)
Kerosene-jet.....	38.8	38.8	40.0	0.0	(3.0)
Distillate fuel oil.....	137.9	145.9	150.7	(5.5)	(8.5)
≤ 500 ppm sulfur.....	129.1	137.4	141.1	(6.0)	(8.5)
≤ 15 ppm sulfur.....	126.3	134.0	137.0	(5.7)	(7.8)
> 500 ppm sulfur.....	8.8	8.5	9.6	3.5	(8.6)
Residual fuel oil.....	32.3	31.7	36.5	1.9	(11.6)
All other oils.....	275.8	258.1 R	290.8	6.9	(5.2)
Total all oils.....	1,301.3	1,299.2 R	1,397.5	0.2	(6.9)