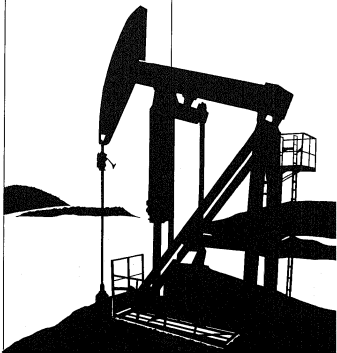


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Petroleum Supply Monthly

Energy Information Administration
Office of Oil and Gas
U.S. Department of Energy



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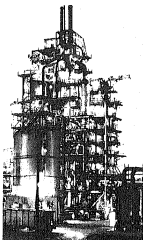
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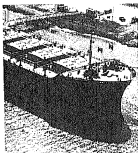
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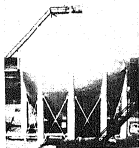
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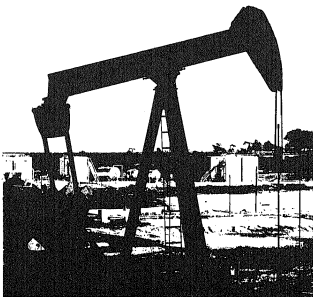
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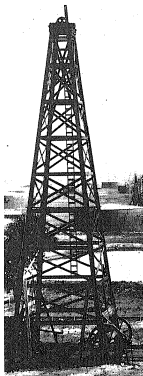
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Introduction



About the Petroleum Supply Monthly

The Petroleum Supply Monthly (PSM) replaces four Energy Information Administration (EIA) monthly petroleum publications:

- *Monthly Petroleum Statistics Report (MPSR)*
- *Monthly Petroleum Statement (MPS)*
- *Supply, Disposition, and Stocks of All Oils by Petroleum Administration for Defense Districts and Imports into the United States, by Country (PADD Report)*
- *Availability of Heavy Fuel Oils by Sulfur Level (Sulfur Report)*

Care has been taken to insure that all the important information from the four consolidated publications is included in the PSM. The PSM displays these statistics in a comprehensive and cohesive manner, and provides readers with improved explanations of the data.

Articles designed to help readers understand and interpret petroleum statistics will highlight the PSM. These articles may focus upon a seasonal event such as the availability of motor gasoline for the summer driving season, or upon a trend such as the reduced utilization and shutdown of domestic refineries as consumption of petroleum products decreases.

The Petroleum Supply Monthly is designed to be convenient for both casual observation and serious analysis. For readers who want to know how the volume of petroleum products being supplied to the domestic market compares with previous trends, the Summary Statistics section lists monthly and annual data series and displays them graphically. For a more detailed view of the current situation, energy analysts can study petroleum supply and disposition statistics for a broad range of products in the Detailed Statistics section. As a special service, preliminary monthly statistics derived from EIA's weekly reporting systems are presented with the Summary Statistics.

The Explanatory Notes present objective information describing data collection, estimation, data quality, changes to data collected and interpretation of tables. Industry terminology and product definitions are listed alphabetically in the Glossary.

The *Petroleum Supply Monthly* (PSM) is prepared by the Petroleum Supply Division, Office of Oil and Gas, Energy Information Administration, Department of Energy.

NOTE: The article on "Timeliness and Accuracy of Selected Monthly Petroleum Supply Data" and the special articles—"Focus on Motor Gasoline Statistics" and "Focus on Crude Oil Production Data"—which appeared in the April 1982 issue of this publication, were prepared in the Petroleum Supply Division, Energy Information Administration, by Dr. Nancy Kirkendall.

**Petroleum
Focus**



Motor Gasoline Outlook: Summer 1982

“Motor gasoline supplies appear to be adequate to meet projected demand of between 6.6 and 7.0 million barrels per day for the summer driving season.”



Motor gasoline supplies appear to be adequate to meet projected demand for the summer 1982 driving season, even if there is a drop in prices, a slight increase in seasonal consumption, and a smaller-than-expected increase in the overall efficiency of the vehicles currently on the road. Although current stock levels are low, they should be sufficient, in combination with ample crude oil stocks and excess refining capacity, to serve as a buffer against seasonal demand for gasoline.

According to the Energy Information Administration's *Short-Term Energy Outlook* (February 1982), demand for motor gasoline this summer¹ will average between 6.6 and 7.0 million barrels a day (between 3 percent above and 3 percent below the demand during the same period last year).² Motor gasoline demand reached its peak in 1978 and declined during each of the following 3 years: it decreased 5.1 percent between 1978 and 1979, 7 percent between 1979 and 1980, and 4 percent between 1980 and 1981.³ This decline may not continue in 1982 if the effects of decreased real prices and slightly increased real income offset the effects of improved efficiency in the vehicle fleet. However, even if demand reaches the highest levels projected for the summer of 1982, supplies appear to be sufficient to meet it.

Refinery production, withdrawals from inventories, and imports are the major components of the motor gasoline supply. In general, normal demand is met by refinery production; sudden increases in demand are met by stock withdrawals and by imports. During the summer of 1981, motor gasoline demand averaged 6.8 million barrels a day. Refinery production, at 6.5 million barrels a day, accounted for 94 percent of this quantity; stock withdrawals accounted for 4 percent, and imports accounted for 2 percent. During the first quarter of 1982, refinery output averaged 6.0 million barrels a day, a level which represents about 88 percent of the projected summer demand.⁴ In early 1982, refining capacity utilization remained low, while crude oil stocks at refineries were at

levels close to those reported a year ago. These crude stock levels, in combination with the availability of excess refining capacity, will allow for increased motor gasoline production should it be needed. Motor gasoline inventories during the first quarter of 1982 averaged 10 percent below last year's levels but remain within the average range of inventories over the past 3 years.⁵ Projected summer inventory levels also fall within this historical range.

Consumption during the summer of 1982 is not projected to fall below 1981 levels. This projection is based upon two assumptions: that real prices (adjusted for inflation) will continue to decline, and that there will be smaller-than-expected increases in overall vehicle fleet efficiency due to the retention of older cars. The 1982 mid-price forecasts presented in the February 1982 *Short-Term Energy Outlook* assume that real motor gasoline prices will decline 3 percent from 1981 levels. Real prices are not expected to increase during the summer. Nominal prices of motor gasoline (i.e., the price the consumer sees at the pump) have been falling steadily since March 1981. Gasoline prices declined over the last year, mainly because of the steady decrease in crude oil prices resulting from a lack of product demand. Faced with high inventories and the cost of carrying them, oil companies have started giving rebates to dealers. This action has triggered dealer competition for certain grades and types of services. For these reasons, the increases in the nominal price of gasoline, which usually occur during the summer, may not occur or may be much smaller than normal in 1982.

¹Defined as June through August.

²See *Short-Term Energy Outlook* for description of forecast methodology. All projections cited here are from the EIA *Short-Term Energy Outlook* (February 1982).

³Motor gasoline and distillate and residual fuel oils product supplied figures for 1979 and 1980 have been revised to account for data system changes in 1981. See Explanatory Note 4.

⁴For historical data, see "Summary Statistics" section of this publication.

⁵See graph P. 23, "Motor Gasoline Ending Stocks, Monthly."

This article was prepared by Debra Paxson of the Short-Term Information Division, Energy Information Administration.

Gasoline Use in the United States

“The current decline in gasoline consumption is primarily the result of long-term changes in the fuel economy of vehicles . . . This downward trend is not likely to be reversed by short-term changes in prices and income.”

Few countries in the world are as dependent on gasoline as the United States. In 1980, 220 million Americans used about 101 billion gallons (2.4 billion barrels) of gasoline, just over 450 gallons (about 11 barrels) per capita. During 1979, the United States consumed 46 percent of gasoline consumed worldwide. Although the United States is a major consumer of all petroleum products, gasoline is the only fuel for which the United States so dominates world consumption. U.S. consumption of all petroleum products is only 28 percent of the world total and is even less for major products other than gasoline. The United States uses 26 percent of the jet fuel and kerosene consumed in the world, 22 percent of the distillate fuel oil, and 17 percent of the residual fuel oil.¹

U.S. gasoline consumption often is compared inappropriately to that of Japan and of Western Europe. U.S. gasoline consumption per capita is about four

achieve the same degree of interaction among people.

Largely because of the denser settlement patterns, people in some Western industrialized countries rely more on walking and on energy-efficient, non-gasoline-consuming transportation. Some countries traditionally have regarded gasoline as a luxury rather than as a necessity and have placed substantial taxes on it, often more than a dollar a gallon. As a result, U.S. gasoline prices are among the lowest in the world compared to prices in other petroleum-importing countries. These differences in price and in population density, which tend to reinforce each other, probably explain the large differences in the amount of gasoline used by the United States and by the rest of the industrialized world.

Gasoline consumption in the United States has increased steadily since 1919, the year when the Bureau of Public Roads began collecting data on motor fuel use.² From that date until the present there have been only four periods in which annual highway motor fuel use has declined: the Depression (1932-33), World War II (1942-43), the Arab-OPEC Oil Embargo (1974), and the period from 1978 through 1981.

Demand, at least in the short run, is not particularly responsive to small changes in price or economic conditions. Despite economic recessions in 1938, 1945, 1949, 1954, 1958, 1961, 1970, and 1976, gasoline use continued to increase.³

During those years steady population growth and growing vehicle stocks were apparently sufficient to overcome income declines. Until 1973, real gasoline prices were stable or gradually declining. Even when prices jumped substan-

times that of European countries with similar levels of income.⁴ A common explanation for the difference is that Americans have a preference for large automobiles and automobile travel. A more fundamental explanation is that the average population density in the United States is one-tenth that of Europe, so much more travelling is required to

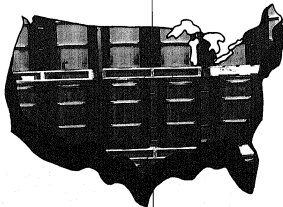
¹U.S. Department of Energy, EIA 1980 *International Energy Annual*, 1981, Table 18.

²*International Energy Annual*, Table 1.

³These motor fuel use data include perhaps 2 percent or less diesel and other special fuels. Separate gasoline statistics do not exist prior to 1949.

⁴EIA *Annual Report to Congress*, 1980 Vol. Two: Data, Table 28; Dept. of Interior, Bureau of Mines, *Minerals Yearbook*, 1959, 1946, 1960.

This article was prepared by David L. Greene, Oak Ridge National Laboratories.



tially in 1973 through 1974, consumption decreased only slightly. A large part of that small decline, perhaps a quarter to a half, can be attributed to shortages associated with the Arab-OPEC oil embargo.

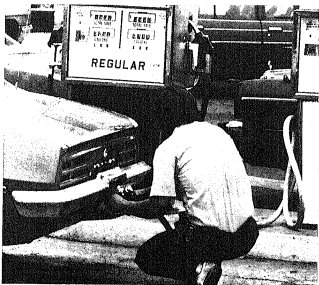
A contributing factor for the short-term stability of gasoline demand is that gasoline use, like most energy consumption, is associated with a capital stock of energy consuming durable goods—the stock of motor vehicles and other gasoline-powered equipment. More than 90 percent of the gasoline consumed in this country is used by cars and light trucks (under 10,000 pounds gross vehicle weight).

More than 141 million light duty vehicles were in use in the United States in 1981.⁹ The total value of this stock is over \$400 billion. Because these vehicles have median lifetimes of 10-15 years, the size and composition of the vehicle fleet

change only gradually from one year to the next. However, as the following article on vehicle characteristics suggests, the gradual change in the motor vehicle fleet composition has contributed to substantial changes in gasoline consumption patterns in the United States. The steady fuel efficiency improvement in new cars since 1975, which is likely to persist through 1985, has generated a long-term downward pressure on gasoline demand. In the past, short-term declines in gasoline use have been caused by economic depression, higher prices, shortages, or wartime rationing. The current decline is primarily the result of long-term changes in the fuel economy of vehicles. Because of the inertia in the capital stock of vehicles, this downward trend is not likely to be reversed by short term changes in prices and income.

⁹Motor Vehicle Manufacturers Association, *Motor Vehicle Facts and Figures '81*, p. 22.

“More than 90 percent of the gasoline consumed in this country is used by cars and light vehicles...”



The Impact of Changing Vehicle Characteristics and Use on Motor Gasoline Demand

Introduction

During the 9 years since the Arab-OPEC Oil Embargo there have been substantial changes in the characteristics and efficiency of vehicles driven in the United States. During those years, the fuel economy of new cars has been improved, the number of diesel-powered cars in the vehicle fleet has increased steadily, and patterns of vehicle use have changed. These changes have had a major impact on the relative demand for fuels and have contributed to the reductions in gasoline demand which have occurred in recent years.¹

New-Car Fuel-Use Improvement

Cars and light trucks (under 10,000 pounds gross weight) account for over 90 percent of the gasoline use in the United States. About 70 percent of the gasoline use is accounted for by cars alone. Because the vehicle fleet is large and represents a substantial capital investment, its composition changes slowly. Any improvement in new-car efficiency will not cause dramatic improvement in the overall efficiency of vehicles currently on the road. Since the passage of the Energy Production and Conservation Act in 1975 (EPCA), domestic automobile manufacturers have been required to improve the fuel efficiency of their new vehicles. The mileage-per-gallon (MPG) of new cars has improved dramatically since 1974, and fleet fuel economy has increased slowly but steadily (Exhibit 1).

Between 1975 and 1980, the EPA-rated efficiency of new cars increased from 13.0 to 22.3 miles per gallon.² The average annual growth rate in the new-car efficiency was about 11.4 percent a year. During the same 5-year period, the estimated overall efficiency of the vehicle fleet grew much less quickly. It showed a growth rate of about 1.6 percent a

year, or an increase from an average of 13.7 miles per gallon (MPG) in 1975 to an average of 15.2 MPG in 1980.³ The estimated fleet efficiency in 1981 was about 15.7 MPG, an improvement of about 4 percent over 1980. In 1982, the projected improvement in fleet efficiency could be about 3.4 percent; this would translate into an average fleet mileage-per-gallon for 1982 of 16.3.⁴

A slowdown in new-car sales and the resulting retention of older cars may curtail the improvement in vehicle fleet efficiency during 1982. Less than one-tenth of the vehicle fleet is replaced with new cars in any given year, and the percentage seems to be declining. In 1970 about 8 percent of all passenger cars were under 1 year old. In 1980, about 6 percent of all cars were under 1 year old. As a result, the average age of cars increased from 5.5 years in 1970 to 6.6 years in 1980.⁵ During 1982, the average age of the vehicle fleet is likely to increase.

If new car efficiency continues to improve as projected, fleet fuel economy will increase even more quickly each year through 1985. In fact, the Energy Production and Conservation Act (of 1975) sets standards for Corporate Average Fuel Economy requiring a sales-weighted new-car efficiency of 27.5 MPG by 1985.

Increase in Diesel-Powered Vehicles

Since 1978, sales of diesel cars and small trucks have increased dramatically contributing to the decline in gasoline demand. Before 1978, diesel cars accounted for less than one-tenth of 1 percent of the total passenger car fleet. In 1978, 187 thousand diesel cars were sold; in 1981,

This article was prepared by Wendy Kolmar, Petroleum Supply Division, Energy Information Administration.

¹See Figure on "Products Supplied, Annual," p. 22.

²U.S. Environmental Protection Agency, *Light Duty Automotive Fuel Economy—Trends Through 1981*, Table II-B.

³Federal Highway Administration, *Highway Statistics, 1976-80*, Table VM-1.

⁴Energy Information Administration, *Short-Term Energy Outlook*, February 1982, p. 13.

⁵Motor Vehicle Manufacturers Association, *Motor Vehicle Facts And Figures '81*, p. 22.



573 thousand diesel cars were sold; diesel cars accounted for 1 percent of the fleet. Despite a general decline in new-car sales in 1981, sales of diesel-powered cars increased by 31.1 percent over 1980 levels. The Oak Ridge National Laboratory projects that sales of diesel fuel will reduce motor gasoline demand by between 1 and 2 percent in 1982 and by about 5 percent by 1985.

New Patterns of Vehicle Use

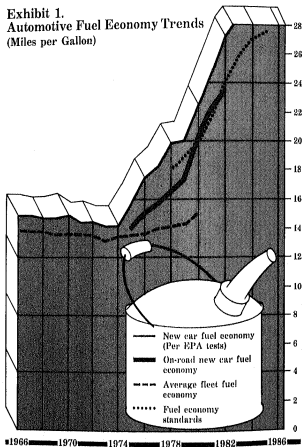
Changes in patterns of travel and vehicle use can affect motor gasoline consumption much more quickly than changes in fleet composition. Historically, vehicle

use, as measured in vehicle-miles-travelled (VMT), has increased steadily from year to year. However, from only 1979 through the end of 1980 VMT declined—a decrease attributed to the Iranian crude oil supply cut-back, associated gasoline shortages, and gasoline price increases. During 1981, with supplies ample and prices beginning to drop, vehicle use increased again (Exhibit 2).⁷ This increase will probably continue in 1982 since supplies of gas-

⁷Ward's *Automotive Yearbook*, 1981, p. 71. U.S. Dept. of Transportation, Federal Highway Administration, *Traffic Volume Trends, 1976-1981*, Table 3.

“Between 1975 and 1981, the average fuel economy of the fleet has gone from 13.7 to 15.7 miles per gallon.”

Exhibit 1.
Automotive Fuel Economy Trends
(Miles per Gallon)



Sources for Exhibit 1:

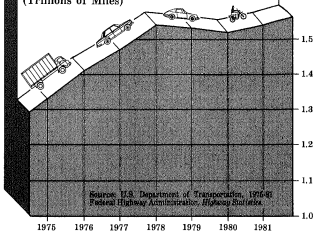
1. J. D. Murrell, J. A. Foster and D. M. Bristler, Environmental Protection Agency, *Passenger Car and Light Truck Fuel Economy Trends through 1980*, SAH Paper 4800863, 1981.

2. U.S. Department of Energy, Highway Fuel Consumption Model, 4th Quarterly Report, July 1981. (Calculated using EPA fuel economy values. It should be noted that EPA new car fuel economy values for 1979 and 1980 are calculated using manufacturers' sales projections, while on-road fuel economy is based on actual sales data.)

3. U.S. Department of Transportation, Federal Highway Administration statistics.

“Changes in patterns of travel and vehicle use can affect motor gasoline consumption much more quickly than changes in fleet composition.”

Exhibit 2. Vehicle Miles of Travel for All Motor Vehicles, 1975-1981 (Trillions of Miles)



line are ample for the season and since real prices are expected to remain stable or decrease.

In subsequent years, if the economy improves and new-car sales pick up, the annual VMT may grow by as much as 1.5 to 2.0 percent a year.

Unleaded Gasoline Demand

The Clean Air Act of 1970, as amended, mandated standards for automobile emissions that have resulted in significant growth in the use of unleaded gasoline. This shift affects the petroleum marketing and distribution system and refinery configuration. In 1977, 88 percent of the vehicles on the road used unleaded gasoline, creating a demand for unleaded gasoline of 2.0 million barrels a day, or about 28 percent of total gasoline demand. In 1981, 86 percent of the vehicles on the road used unleaded gasoline, creating a demand for unleaded gasoline of 3.3 million barrels a day, or about 50 percent of total demand.⁸ Growth in demand for unleaded gasoline is expected to continue as sales of new cars requiring unleaded gasoline continue. However, the decreased rate of new-car sales

and the retention and increased use of older cars have slowed this growth over the past year.

Nevertheless, unleaded demand, relative to total demand, is expected to increase somewhat during 1982, to about 3.7 million barrels a day, or about 55 percent of total gasoline demand.⁹

Conclusion

Gasoline demand is influenced by a variety of factors. Vehicle efficiency improvements and switching to diesel fuel contribute to lower gasoline demand. In contrast, increases in miles driven contribute to gasoline use increases. In 1982, these influences appear to be in balance, and demand for gasoline is expected to be about the same as it was last year.

⁸For demand statistics, see the "Summary Statistics" section of this publication.

⁹Energy Information Administration, *Short-Term Energy Outlook*, February 1981, p. 14.

Summary Statistics



Crude Oil¹ and Petroleum Products Overview

		Field Production			Stock Withdrawal ²			Ending Stocks ³
		Total Domestic ⁴	Crude Oil	Natural Gas Plant Production	Crude Oil ⁵	Petroleum Products	Petroleum Products Supplied	Crude Oil ⁶ and Petroleum Products
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	10,975	9,208	1,738	11	-146	17,308	1,008
1974	AVERAGE	10,499	8,774	1,699	-62	-117	16,563	1,074
1975	AVERAGE	10,045	8,375	1,633	-17	-145	16,322	1,133
1976	AVERAGE	9,774	8,132	1,633	-39	96	17,461	1,112
1977	AVERAGE	9,913	8,245	1,618	-170	-379	19,431	1,312
1978	AVERAGE	13,328	8,707	1,567	-79	172	19,847	1,279
1979	AVERAGE	10,179	8,552	1,584	-149	-25	18,513	1,341
1980	January	10,377	8,675	1,648	-594	270	19,851	1,351
	February	10,402	8,705	1,656	-282	563	19,817	1,343
	March	10,303	8,699	1,568	-47	-99	17,377	1,348
	April	10,356	8,686	1,630	-412	-229	16,794	1,367
	May	10,298	8,835	1,615	-117	-520	16,238	1,387
	June	10,164	8,554	1,561	65	-869	16,187	1,411
	July	10,113	8,547	1,524	88	-556	16,008	1,425
	August	9,974	8,414	1,519	-274	-473	15,793	1,449
	September	10,184	8,619	1,515	307	-259	16,598	1,447
	October	10,092	8,532	1,516	-191	736	16,995	1,430
	November	10,109	8,495	1,571	-8	-84	16,702	1,432
	December	10,204	8,606	1,560	304	993	19,410	1,392
	AVERAGE	10,214	8,597	1,573	-98	-42	17,056	
1981	January	10,169	8,533	1,595	-192	1,139	18,288	1,396
	February	10,250	8,598	1,815	-318	258	16,930	1,398
	March	10,217	8,601	1,581	-490	235	15,838	1,405
	April	10,133	8,543	1,551	-777	180	15,280	1,423
	May	10,115	8,496	1,554	-354	-405	13,196	1,447
	June	10,260	8,616	1,579	-98	396	15,996	1,438
	July	10,021	8,422	1,547	-334	147	15,713	1,444
	August	10,302	8,574	1,582	508	-977	15,236	1,458
	September	10,293	8,598	1,630	-359	-385	15,619	1,481
	October	10,212	8,547	1,601	-761	516	15,840	1,488
	November	10,284	8,585	1,615	-352	-245	15,508	1,506
	December	10,274	8,624	1,605	-130	699	16,602	1,489
	AVERAGE	10,200	8,662	1,588	-304	130	16,001	
1982	January	10,257	8,669	1,548	-236	1,129	15,890	1,461
	February	10,281	8,690	1,524	-216	1,268	15,941	1,431
	March*	10,212	8,597	1,570	R-65	R1,049	R15,560	R1,401
	April**	NA	8,595	NA	32	1,058	15,510	1,422
	AVERAGE	NA	8,637	NA	-120	1,123	15,722	

¹ Includes lease condensate.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Ending stocks for 1973-1979 are totals as of December 31.

⁴ Includes crude oil, natural gas plant production, other hydrocarbons and alcohol.

⁵ Includes stocks located in the Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

* See Explanatory Note 6.1.

** Preliminary statistics. See Explanatory Note 2.7.

Note: Beginning in January 1975, the Bureau of Mines, Dept. of Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic coverage: The 60 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

Crude Oil¹ and Petroleum Products Overview (continued)

		Imports ²			Exports ³			
		Total	Crude Oil ⁴	Petroleum Products	Total	Crude Oil	Petroleum Products	Net ⁵ Imports
Thousand Barrels per Day								
1973	AVERAGE	6,256	3,244	3,012	231	2	229	6,025
1974	AVERAGE	6,112	3,477	2,635	221	3	218	5,892
1975	AVERAGE	6,056	4,105	1,951	209	6	204	5,846
1976	AVERAGE	7,313	5,267	2,026	223	8	215	7,090
1977	AVERAGE	5,807	6,615	2,193	243	50	193	5,565
1978	AVERAGE	5,363	6,396	2,008	362	158	204	6,002
1979	AVERAGE	6,456	6,519	1,937	472	235	237	7,964
1980	January	6,598	6,406	2,192	590	322	226	6,048
	February	7,945	6,013	1,531	556	332	227	7,396
	March	7,452	5,695	1,797	573	330	243	6,579
	April	7,106	5,596	1,506	434	192	241	6,572
	May	6,570	5,106	1,472	591	326	266	5,967
	June	6,894	5,480	1,414	654	365	299	6,240
	July	6,257	4,843	1,414	531	238	293	5,727
	August	6,192	4,803	1,389	319	76	241	5,873
	September	6,239	4,707	1,532	557	322	236	5,662
	October	6,376	4,786	1,611	506	306	298	5,761
	November	6,408	4,680	1,726	549	268	280	5,858
	December	6,894	5,082	1,612	622	343	279	6,272
	AVERAGE	6,909	5,263	1,646	544	267	250	6,365
1981	January	6,614	4,923	1,692	558	309	219	6,257
	February	6,777	4,873	1,604	590	196	371	6,206
	March	6,026	4,521	1,505	586	210	376	5,440
	April	5,767	4,457	1,310	570	196	372	5,188
	May	5,702	4,267	1,436	595	312	293	5,107
	June	5,422	4,084	1,336	420	123	297	5,002
	July	5,809	4,336	1,473	571	257	314	5,236
	August	5,737	4,165	1,572	644	204	440	5,093
	September	6,325	4,714	1,612	519	194	325	5,607
	October	5,939	4,382	1,557	736	226	512	5,202
	November	5,610	3,992	1,619	701	279	423	4,909
	December	5,665	4,199	1,707	656	199	457	5,240
	AVERAGE	5,961	4,406	1,576	595	228	367	5,367
1982	January	5,232	3,648	1,565	829	238	561	4,404
	February	4,691	2,949	1,742	804	304	499	3,887
	March*	R 4,461	R 2,856	R 1,606	882	321	561	3,579
	April**	3,854	2,604	1,250	NA	NA	NA	NA
	AVERAGE	4,562	3,019	1,543	NA	NA	NA	NA

¹ Includes lease condensate.

² Includes shipments from United States possessions and territories.

³ Includes shipments to United States possessions and territories.

⁴ Includes crude oil for storage in the Strategic Petroleum Reserve.

⁵ Net imports = Imports minus Exports.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised date.

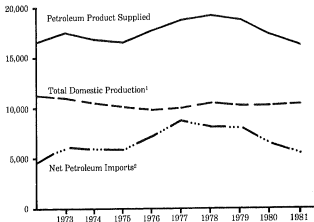
* See Explanatory Note 5.1.

** Preliminary Statistics. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

Petroleum Overview, Annual (Thousand Barrels per Day)



¹Includes crude oil and natural gas plant production.

²Includes SPR imports.

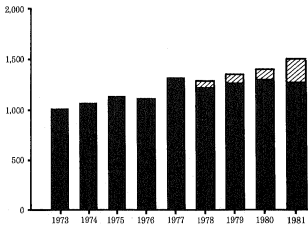
Source table: "Crude Oil and Petroleum Products Overview."

Crude Oil and Petroleum Products Ending Stocks, Annual (Millions of Barrels)

Legend

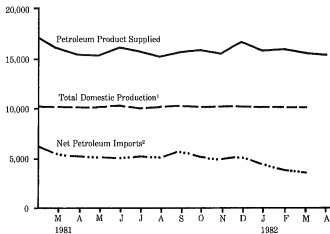
▨ SPR Crude Oil

■ Crude Oil and Petroleum Products, Excluding SPR



Source tables: "Crude Oil and Petroleum Products Overview" and "Crude Oil Supply and Disposition."

Petroleum Overview, Monthly (Thousand Barrels per Day)

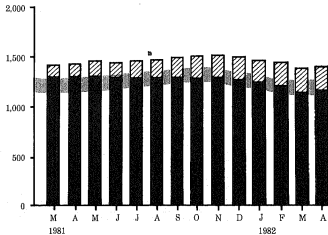


¹ Includes crude oil and natural gas plant production.

² Includes SPR imports.

Source: Table "Crude Oil and Petroleum Products Overview."

Crude Oil and Petroleum Product Ending Stocks, Monthly (Millions of Barrels)



¹ Average stock range (excluding SPR) based on 3 years of data. See Explanatory Note 2.3.

Source: Tables "Crude Oil and Petroleum Products Overview" and "Crude Oil Supply and Disposition."

Crude Oil¹ Supply and Disposition

		Supply					Stock Withdrawn ³	
		Field Production		Imports ²			SPR ⁴	Other
		Total Domestic	Alaskan	Total	SPR ⁴	Other		
		Thousand Barrels per Day						
1973	AVERAGE	9,200	198	3,244		3,244		11
1974	AVERAGE	8,774	193	3,477		3,477		-62
1975	AVERAGE	8,375	191	4,165		4,165		-17
1976	AVERAGE	8,132	173	5,287		5,287		-39
1977	AVERAGE	8,245	464	6,615	21	6,594	-20	-160
1978	AVERAGE	8,707	1,229	6,356	162	6,195	-163	64
1979	AVERAGE	8,562	1,481	6,519	87	6,432	-87	-81
1980	January	8,675	1,634	6,406	0	6,406	0	-504
	February	8,765	1,630	6,013	0	6,013	0	-292
	March	8,698	1,647	5,095	0	5,095	0	-47
	April	8,665	1,640	5,086	0	5,086	0	-112
	May	8,635	1,627	5,108	0	5,108	0	-117
	June	8,554	1,626	5,482	0	5,482	0	65
	July	8,547	1,612	4,843	0	4,843	0	90
	August	8,414	1,612	4,863	0	4,863	0	-274
	September	8,619	1,616	4,707	54	4,653	-54	361
	October	8,532	1,568	4,769	131	4,637	-123	-66
	November	8,495	1,561	4,660	142	4,536	-160	161
	December	8,606	1,602	5,062	196	4,866	-177	461
	AVERAGE	8,697	1,617	6,283	44	6,240	-45	-52
1981	January	8,539	1,606	4,923	106	4,817	-151	-41
	February	8,598	1,610	4,679	99	4,703	-127	-161
	March	8,831	1,616	4,521	166	4,362	-355	-336
	April	8,543	1,605	4,457	272	4,185	-444	-333
	May	8,436	1,599	4,267	396	3,861	-574	156
	June	8,616	1,632	4,054	318	3,736	-884	336
	July	8,422	1,605	4,336	176	4,161	-324	-10
	August	8,374	1,602	4,165	257	3,905	-372	660
	September	8,398	1,607	4,714	436	4,279	-666	126
	October	8,547	1,586	4,382	453	3,929	-501	-260
	November	8,365	1,518	3,802	271	3,720	-250	-83
	December	8,624	1,630	4,189	165	4,024	-252	122
	AVERAGE	8,582	1,616	4,406	296	4,150	-336	32
1982	January	8,889	1,712	3,648	179	3,470	-159	-77
	February	8,680	1,715	2,848	159	2,780	-213	-3
	March ⁵	R8,597	R1,702	R2,958	R185	R2,671	R-235	R170
	April ⁶	8,686	1,700	2,604	203	2,401	-209	241
	AVERAGE	8,637	1,707	3,019	180	2,840	-264	84

¹ Includes lease condensate.

² Includes shipments from United States possessions and territories.

³ A negative number indicates an increase in stocks and a positive number indicates a decrease.

⁴ Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

⁵ See Explanatory Note 5.2.

⁶ Preliminary statistics. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

Crude Oil¹ Supply and Disposition (continued)

	Supply (Continued)		Disposition		Ending Stocks ²		
	Unac- counted for Crude Oil	Crude Used Directly and Losses	Refinery Inputs	Exports ³	Total Crude Oil	SPR ⁴	Other Primary
1973	AVERAGE	3	-32	12,431	2	242	242
1974	AVERAGE	-25	-28	12,133	3	265	265
1975	AVERAGE	17	-30	12,442	6	271	271
1976	AVERAGE	77	-33	13,416	8	285	285
1977	AVERAGE	-6	-30	14,802	30	348	340
1978	AVERAGE	-57	-30	14,739	158	376	309
1979	AVERAGE	-11	-29	14,648	235	430	339
1980	January	166	-31	14,301	322	449	358
	February	124	-31	14,187	332	457	366
	March	-278	-30	13,700	330	459	367
	April	-165	-29	13,484	192	471	390
	May	55	-28	13,326	326	475	383
	June	1	-30	13,705	365	473	381
	July	52	-29	13,264	238	470	379
	August	147	-28	12,984	78	476	387
	September	27	-26	13,313	322	460	376
	October	-3	-25	12,772	309	475	379
	November	265	-26	13,119	289	475	373
	December	24	-28	13,648	343	466	353
	AVERAGE	34	-28	13,481	297		
1981	January	352	-28	13,246	339	494	381
	February	-29	-23	12,903	198	503	387
	March	-10	-29	12,383	210	518	397
	April	92	-27	12,090	198	541	407
	May	241	-23	12,309	312	552	402
	June	-33	-30	12,415	123	555	392
	July	162	-62	12,267	257	566	393
	August	-71	-61	12,911	204	550	365
	September	-184	-65	12,510	194	551	361
	October	190	-67	12,065	226	584	368
	November	371	-68	12,260	276	595	372
	December	-45	-67	12,363	189	599	369
	AVERAGE	88	-46	12,477	228		
1982	January	-138	-66	11,636	238	606	371
	February	189	-66	11,252	304	612	371
	March*	278	-66	R11,277	321	R 614	R 365
	April**	NA	NA	11,537	NA	629	369
	AVERAGE	NA	NA	11,429	NA		

¹ Includes lease condensate.

² Ending stocks for 1973-1979 are totals as of December 31.

³ Includes shipments to United States possessions and territories.

⁴ Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

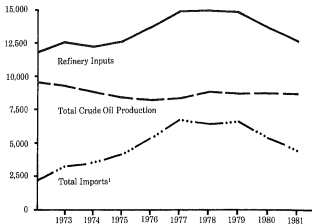
* See Explanatory Note 5.2.

** Preliminary statistics. See Explanatory Note 2.7.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

Crude Oil Supply and Disposition, Annual (Thousand Barrels per Day)



¹Includes SPR imports.

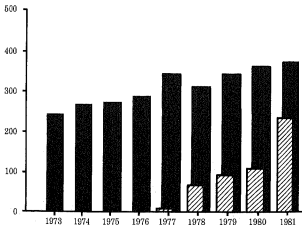
Source table: "Crude Oil Supply and Disposition."

Crude Oil Ending Stocks, Annual (Millions of Barrels)

Legend

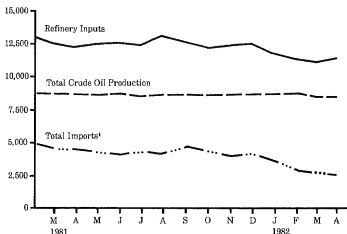
▨ SPR

■ Other Primary



Source table: "Crude Oil Supply and Disposition."

Crude Oil Supply and Disposition, Monthly (Thousand Barrels per Day)

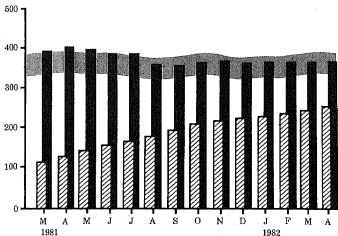


¹Includes SPR imports.

Source table: "Crude Oil Supply and Disposition."

Crude Oil Ending Stocks, Monthly (Millions of Barrels)

Legend
 SPR
 Other Primary
 Average Stock Range¹



¹Average stock range (excluding SPR) based on 8 years of data. See Explanatory Note 2.5.

Source table: "Crude Oil Supply and Disposition."

Finished Motor Gasoline Supply and Disposition

		Supply			Disposition			Ending Stocks ¹		
		Total Production	Imports ²	Stock Withdrawals ³	Exports	Product Supplied			Total Motor Gasoline ⁴	Finished Motor Gasoline
						Total	Unleaded ⁵	Unleaded		
Thousand Barrels per Day								Millions of Barrels		
1973	AVERAGE	6,535	134	0	4	8,574	NA	NA	209	
1974	AVERAGE	6,390	204	-24	2	8,537	NA	NA	218	
1975	AVERAGE	6,520	184	-28	2	8,675	NA	NA	235	
1976	AVERAGE	6,841	131	10	3	8,978	NA	NA	231	
1977	AVERAGE	7,033	217	-72	2	7,177	1,979	27.5	258	
1978	AVERAGE	7,169	190	54	1	7,412	2,521	34.0	238	
1978	AVERAGE	6,852	181	2	(*)	7,034	2,798	39.8	237	
1980	January	6,991	141	-809	1	8,323	2,718	43.6	282	
	February	6,866	154	-423	(*)	8,596	2,969	45.6	275	
	March	6,519	155	-267	(*)	8,406	3,632	47.3	293	
	April	6,284	155	362	1	8,800	3,621	44.4	272	
	May	6,316	132	283	1	8,729	2,980	44.3	263	
	June	6,689	148	-59	1	8,657	3,099	46.6	265	
	July	6,465	149	-132	3	8,743	3,131	46.4	261	
	August	6,452	141	56	1	8,648	3,135	47.2	259	
	September	6,383	166	29	7	8,510	3,854	46.8	256	
	October	6,131	152	300	1	8,682	3,110	46.7	247	
	November	6,487	126	-359	(*)	8,254	3,123	50.1	257	
	December	6,644	121	-133	1	8,532	3,421	51.6	261	
	AVERAGE	6,506	140	-65	1	8,578	3,057	46.6		
1981	January	6,687	138	-435	(*)	8,389	3,115	45.8	277	227
	February	6,282	111	-100	1	8,253	3,103	49.3	284	230
	March	6,213	170	-81	(*)	8,303	3,087	49.1	285	232
	April	6,114	174	208	(*)	8,585	3,281	49.8	272	223
	May	6,121	148	341	1	8,688	3,119	47.2	258	213
	June	6,222	161	620	1	7,081	3,421	48.3	242	194
	July	6,417	118	282	(*)	8,817	3,420	56.2	227	185
	August	6,616	125	-50	3	8,645	3,346	50.4	233	188
	September	6,557	189	-74	2	8,860	3,337	50.1	237	191
	October	6,447	143	10	3	8,598	3,253	49.3	235	190
	November	6,583	145	-323	1	8,355	3,203	50.1	247	200
	December	6,621	196	-61	11	8,715	3,444	51.3	251	203
	AVERAGE	6,409	150	29	2	8,586	3,262	49.5		
1982	January	6,181	114	-358	18	5,920	3,003	51.2	262	214
	February	5,917	133	28	8	6,076	3,145	51.8	262	213
	March*	RE,004	183	469	44	R 6,612	3,396	51.4	R 248	199
	April**	5,916	NA	NA	NA	6,190	NA	NA	223	NA
	AVERAGE	6,037	NA	NA	NA	6,201	NA	NA		

¹ Ending stocks for 1979-1978 are totals as of December 31.

² Beginning in 1981 excludes blending components.

³ A negative number indicates an increase in stocks and a positive number indicates a decrease.

⁴ Includes motor gasoline blending components.

⁵ Includes gasohol.

Totals may not equal sum of components due to independent rounding.

(*) - Less than 500 barrels. NA = Not available. R = Revised data.

** See Explanatory Note 5.3.

** Preliminary statistics. See Explanatory Note 2.7.

Notes: Beginning in January 1981, the Energy Information Administration modified survey forms, definitions, and processing procedures. See Explanatory Note 4 on Changes for the effects on motor gasoline statistics.

Beginning in January 1975, the Bureau of Mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ¹
		Total Production	Imports	Stock Withdrawal ²	Crude Used Directly	Exports	Product Supplied	
		Thousand Barrels per Day						
1973	AVERAGE	2,822	382	-115	2	9	3,092	198
1974	AVERAGE	2,669	289	-9	2	2	2,945	200
1975	AVERAGE	2,654	155	40	2	1	2,851	209
1976	AVERAGE	2,924	146	62	1	1	3,133	198
1977	AVERAGE	3,278	250	-176	1	1	3,352	250
1978	AVERAGE	3,167	173	93	1	3	3,432	216
1979	AVERAGE	3,153	193	-34	1	3	3,311	229
1980	January	3,014	179	526	1	7	3,714	212
	February	2,766	237	716	1	8	3,712	192
	March	2,558	193	445	1	19	3,179	176
	April	2,461	154	21	2	2	2,635	177
	May	2,474	126	-198	1	1	2,402	163
	June	2,647	108	-439	1	(*)	2,317	197
	July	2,690	117	-657	2	3	2,249	214
	August	2,462	77	-403	2	(*)	2,137	226
	September	2,686	101	-201	2	(*)	2,587	232
	October	2,590	115	215	1	(*)	2,920	226
	November	2,703	133	111	1	(*)	2,949	222
	December	2,891	166	556	1	(*)	3,615	205
	AVERAGE	2,662	142	64	1	3	2,866	
1981	January	2,988	273	818	11	(*)	4,090	180
	February	2,810	325	267	11	17	3,395	173
	March	2,484	144	254	9	(*)	2,891	165
	April	2,416	116	(*)	10	3	2,541	165
	May	2,454	165	-234	10	(*)	2,395	172
	June	2,502	201	-275	10	(*)	2,437	180
	July	2,403	179	-210	10	2	2,381	187
	August	2,656	159	-439	8	(*)	2,384	200
	September	2,611	129	-217	10	1	2,532	207
	October	2,490	117	182	9	5	2,792	201
	November	2,729	114	38	11	6	2,886	200
	December	2,862	95	317	11	26	3,258	190
	AVERAGE	2,616	167	42	10	5	2,830	
1982	January	2,615	96	790	10	90	3,410	166
	February	2,447	130	689	11	90	3,187	147
	March*	R2,294	R48	R612	10	84	R2,881	R128
	April**	2,368	94	591	NA	NA	2,980	107
	AVERAGE	2,431	91	668	NA	NA	3,114	

¹ Ending stocks for 1973 - 1979 are totals as of December 31.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

Totals may not equal sum of components due to independent rounding.

(*) = Less than 500 barrels per day. NA = Not available. R = Revised data.

* See Explanatory Note 5.4.

** Preliminary Statistics. See Explanatory Note 2.7.

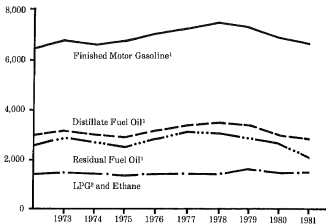
Notes: Beginning in January 1981, the Energy Information Administration modified survey forms, definitions, and processing procedures. See Explanatory Note 4 on Changes for the effects on Distillate Fuel Oil statistics.

Beginning in January 1975, the Bureau of Mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf excluding the Hawaiian Foreign Trade Zone.

Source: See "Sources" at the end of this section.

Products Supplied, Annual
(Thousand Barrels per Day)

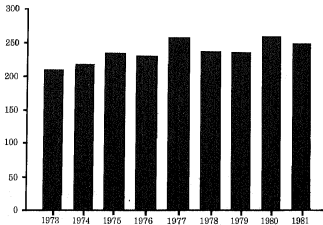


¹Figures for 1979 and 1980 recast to account for data system changes in 1981. See Explanatory Note 4.

²Liquefied Petroleum Gases.

Source tables: "Finished Motor Gasoline Supply and Disposition," "Distillate Fuel Oil Supply and Disposition," "Residual Fuel Oil Supply and Disposition," "Liquefied Petroleum Gases and Ethane Supply and Disposition."

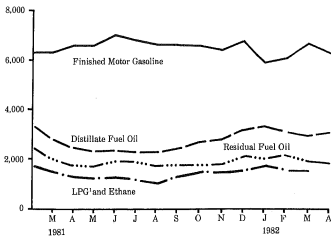
Motor Gasoline¹ Ending Stocks, Annual
(Millions of Barrels)



¹Includes finished motor gasoline blending components.

Source table: "Finished Motor Gasoline Supply and Disposition."

Products Supplied, Monthly (Thousand Barrels per Day)



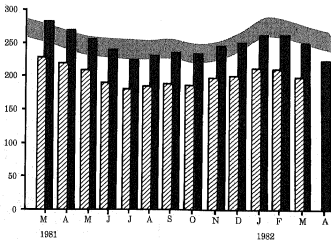
¹Liquefied Petroleum Gases.

Source tables: "Finished Motor Gasoline Supply and Disposition," "Distillate Fuel Oil Supply and Disposition," "Residual Fuel Oil Supply and Disposition," "Liquefied Petroleum Gases and Ethane Supply and Disposition."

Motor Gasoline Ending Stocks, Monthly (Millions of Barrels)

Legend

- Total Motor Gasoline¹
- ▨ Finished Motor Gasoline
- Average Stock Range²

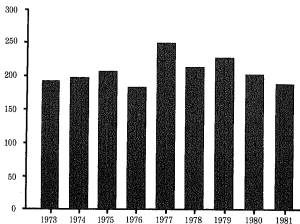


¹Includes finished motor gasoline blending components.

²Average stock range for total motor gasoline based on 3 years of data. See Explanatory Note 2.5.

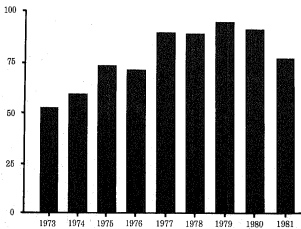
Source table: "Finished Motor Gasoline Supply and Disposition."

Distillate Fuel Oil Ending Stocks, Annual (Millions of Barrels)



Source table: "Distillate Fuel Oil Supply and Disposition."

Residual Fuel Oil Ending Stocks, Annual (Millions of Barrels)

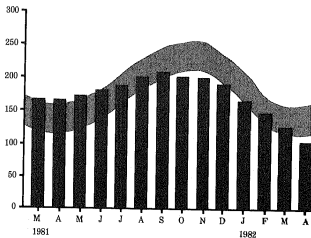


Source table: "Residual Fuel Oil Supply and Disposition."

Distillate Fuel Oil Ending Stocks, Monthly (Millions of Barrels)

Legend

■ Average Stock Range¹



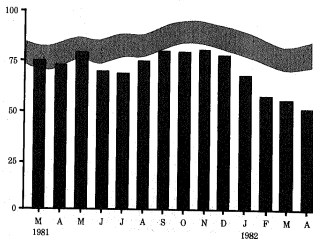
¹Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Distillate Fuel Oil Supply and Disposition."

Residual Fuel Oil Ending Stocks, Monthly (Millions of Barrels)

Legend

■ Average Stock Range¹



¹Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Residual Fuel Oil Supply and Disposition."

Residual Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ¹
		Total Production	Imports	Stock Withdrawals ²	Crude Used Directly	Exports	Products Supplied	
		Thousand Barrels per Day						
1973	AVERAGE	871	1,053	5	17	23	2,922	53
1974	AVERAGE	1,070	1,587	-17	13	14	2,639	60
1975	AVERAGE	1,235	1,223	2	15	15	2,462	74
1976	AVERAGE	1,377	1,413	5	17	12	2,801	72
1977	AVERAGE	1,754	1,359	-49	13	6	3,071	90
1978	AVERAGE	1,667	1,355	-1	13	13	3,023	90
1979	AVERAGE	1,667	1,151	-15	12	9	2,826	96
1980	January	1,771	1,338	-51	14	5	3,067	97
	February	1,773	1,122	214	14	17	3,105	91
	March	1,584	976	87	14	2	2,668	88
	April	1,595	775	102	13	40	2,444	85
	May	1,509	812	-76	12	20	2,235	86
	June	1,575	749	-4	14	14	2,321	86
	July	1,460	787	71	13	60	2,291	87
	August	1,444	675	-43	13	2	2,266	88
	September	1,495	906	-31	10	21	2,359	91
	October	1,512	675	-100	9	70	2,227	91
	November	1,579	1,024	-74	10	88	2,451	93
	December	1,660	1,025	46	10	62	2,679	92
	AVERAGE	1,580	939	10	12	33	2,509	
1981	January	1,611	1,015	298	11	65	2,870	82
	February	1,565	956	144	9	125	2,549	78
	March	1,423	699	107	14	145	2,098	75
	April	1,320	584	63	14	151	1,829	73
	May	1,222	735	-177	14	25	1,769	79
	June	1,232	540	283	14	76	1,993	70
	July	1,174	630	26	48	82	1,995	69
	August	1,250	619	-179	48	69	1,849	75
	September	1,286	841	-174	51	126	1,878	80
	October	1,232	773	8	54	202	1,865	80
	November	1,218	844	-35	53	203	1,878	81
	December	1,295	920	60	62	157	2,191	78
	AVERAGE	1,316	796	38	32	118	2,062	
1982	January	1,183	821	328	53	235	2,150	68
	February	1,136	928	358	53	213	2,261	68
	March*	R1,121	R910	R28	53	197	R1,912	R67
	April**	1,174	675	117	NA	NA	1,822	59
	AVERAGE	1,164	832	204	NA	NA	2,032	

¹ Ending Stocks for 1973-1979 are totals as of December 31.

² A negative number indicates an increase in stocks and a positive number indicates a decrease. Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

* See Explanatory Note 5.4.

** Preliminary Statistics. See Explanatory Note 2.7.

Notes: Beginning in January 1981, the Energy Information Administration modified survey forms, definitions, and processing procedures.

See Explanatory Note 4 on changes for the effects on residual fuel oil statistics.

Beginning in January 1975, The Bureau of Mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic Coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

Liquefied Petroleum Gases and Ethane Supply and Disposition

		Supply			Disposition			Ending Stocks ¹
		Total Production	Imports	Stock Withdrawal ²	Refinery inputs	Exports	Product Supplied	
		Thousand Barrels per Day						
1973	AVERAGE	1,600	132	-35	220	27	1,449	99
1974	AVERAGE	1,605	123	-38	220	25	1,406	113
1975	AVERAGE	1,527	112	-35	246	25	1,333	126
1976	AVERAGE	1,535	130	-24	260	25	1,404	116
1977	AVERAGE	1,566	161	-55	293	18	1,422	136
1978	AVERAGE	1,537	123	12	239	20	1,413	132
1979	AVERAGE	1,558	217	70	296	15	1,682	111
1980	January	1,560	264	461	291	30	1,563	96
	February	1,581	252	209	252	26	1,764	90
	March	1,519	214	7	211	23	1,506	90
	April	1,846	166	-339	171	19	1,203	100
	May	1,538	161	-224	182	17	1,235	107
	June	1,528	164	-319	170	18	1,205	117
	July	1,485	172	-283	209	18	1,147	128
	August	1,507	158	-295	209	17	1,149	135
	September	1,495	213	-80	226	19	1,382	137
	October	1,546	249	86	255	24	1,597	134
	November	1,549	231	82	304	23	1,535	132
	December	1,567	289	375	319	23	1,658	120
	AVERAGE	1,535	216	-27	233	21	1,468	
1981	January	1,628	306	373	352	21	1,934	116
	February	1,614	327	166	303	21	1,793	112
	March	1,570	260	-3	257	20	1,550	112
	April	1,598	214	-218	291	26	1,338	118
	May	1,606	189	-273	220	19	1,295	127
	June	1,577	206	-194	235	24	1,330	133
	July	1,526	213	-253	215	17	1,283	141
	August	1,560	195	-241	235	149	1,129	148
	September	1,620	199	-107	287	21	1,404	151
	October	1,606	287	85	317	76	1,886	149
	November	1,667	280	74	382	58	1,581	148
	December	1,610	255	303	447	50	1,871	137
	AVERAGE	1,596	244	-25	290	42	1,465	
1982	January	1,546	314	480	396	67	1,873	122
	February	1,476	291	310	327	51	1,892	114
	March*	1,523	223	145	289	74	1,528	109
	AVERAGE	1,516	275	312	336	65	1,700	

¹ Ending stocks for 1973 - 1979 are totals as of December 31.

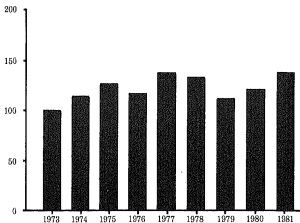
² A negative number indicates an increase in stocks and a positive number indicates a decrease. Totals may not equal sum of components due to independent rounding.

* See Explanatory Note 5.5.

Geographic coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf excluding the Hawaiian Foreign Trade Zone.

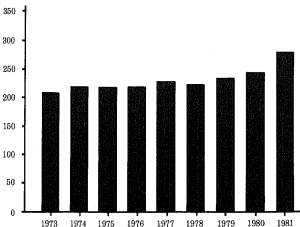
Sources: See "Sources" at the end of this section.

Liquefied Petroleum Gases and Ethane Ending Stocks, Annual
(Millions of Barrels)



Source table: "Liquefied Petroleum Gases and Ethane Supply and Disposition."

Other Petroleum Products¹ Ending Stocks, Annual
(Millions of Barrels)



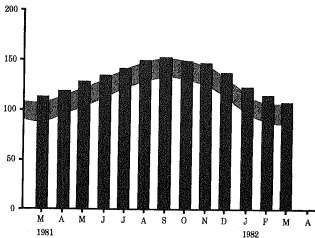
¹Includes natural gasoline and isopentane, unfinished oils, gasoline blending components, jet fuels, kerosene, lubricants, and asphalt. Some gasoline blending components not included prior to 1981.

Source table: "Other Petroleum Products Supply and Disposition."

Liquefied Petroleum Gases and Ethane Ending Stocks, Monthly (Millions of Barrels)

Legend

■ Average Stock Range¹



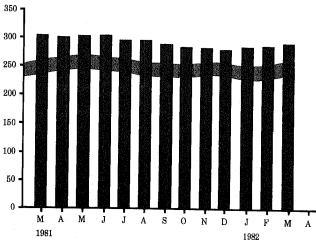
¹Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Liquefied Petroleum Gases and Ethane Supply and Disposition."

Other Petroleum Products¹ Endings Stocks, Monthly (Millions of Barrels)

Legend

■ Average Stock Range²



¹Includes natural gasoline and isopentane, unfinished oils, gasoline blending components, jet fuels, kerosene, lubricants, and asphalt.

²Average stock range based on 3 years of data. See Explanatory Note 2.5.

Source table: "Other Petroleum Products Supply and Disposition."

Other Petroleum Products¹ Supply and Disposition

		Supply			Disposition			Ending Stocks ²
		Total Production	Imports	Stock Withdrawal ³	Refinery Inputs	Exports	Products Supplied	
Thousand Barrels per Day								Millions of Barrels
1973	AVERAGE	3,693	502	-9	750	166	3,270	266
1974	AVERAGE	3,558	432	-26	665	174	3,123	218
1975	AVERAGE	3,424	277	-2	537	160	3,002	219
1976	AVERAGE	3,643	206	-5	524	175	3,145	220
1977	AVERAGE	3,912	205	-27	514	165	3,410	230
1978	AVERAGE	4,046	166	14	492	167	3,568	225
1979	AVERAGE	4,153	195	-37	352	209	3,749	238
1980	January	4,157	269	136	561	186	3,795	234
	February	4,181	167	-153	380	174	3,641	239
	March	4,128	219	-370	149	200	3,627	250
	April	4,105	238	-374	86	160	3,703	261
	May	4,018	222	-301	135	227	3,577	271
	June	4,016	226	-48	250	266	3,667	272
	July	3,973	188	82	356	209	3,578	270
	August	3,753	138	212	351	221	3,532	263
	September	3,952	208	25	234	188	3,761	262
	October	3,737	220	175	351	193	3,568	257
	November	3,786	213	156	475	148	3,533	252
	December	3,792	208	151	362	194	3,596	247
	AVERAGE	3,956	210	-23	311	198	3,634	
1981	January	3,719	159	86	627	132	3,205	296
	February	3,664	185	-219	513	208	2,969	302
	March	3,660	232	-42	643	210	2,986	304
	April	3,652	223	38	733	192	2,957	302
	May	3,832	201	-61	595	238	3,139	304
	June	3,890	230	-37	659	197	3,236	305
	July	3,840	134	302	797	212	3,267	296
	August	3,875	275	-26	676	219	3,228	297
	September	3,748	273	187	667	176	3,145	291
	October	3,495	237	231	738	227	2,996	284
	November	3,503	215	12	607	154	2,788	284
	December	3,496	207	88	793	223	2,796	281
	AVERAGE	3,693	219	49	724	200	3,038	
1982	January	3,181	240	-102	602	130	2,536	284
	February	3,364	260	-116	646	138	2,724	287
	March*	3,485	241	-204	734	161	2,627	284
	AVERAGE	3,342	247	-141	661	160	2,826	

¹ Includes natural gasoline and isopentane, unreacted stream, plant condensate, other liquids; and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil.

² Ending Stocks for 1973-1979 are totals as of December 31.

³ A negative number indicates an increase in stocks and a positive number indicates a decrease. Totals may not equal sum of components due to independent rounding.

* See Explanatory Note 5.6.

Note: Beginning in January 1975, the Bureau of Mines, Dept. of the Interior, expanded its stocks coverage to include an additional 100 bulk terminal operators.

Geographic Coverage: The 50 United States and the District of Columbia including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

Crude Oil and Petroleum Product Imports from OPEC Sources

	Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC ¹	Total OPEC	Total Arab OPEC ²
Thousand Barrels per Day											
1973											
AVERAGE 1974	136	164	485	71	213	223	459	1,135	106	2,993	915
AVERAGE 1975	190	4	461	74	300	469	713	679	89	3,280	752
AVERAGE 1976	282	232	715	117	390	280	762	702	122	3,601	1,363
AVERAGE 1977	432	453	1,230	264	536	296	1,025	700	134	5,095	2,424
AVERAGE 1978	550	723	1,380	335	541	535	1,143	690	267	6,193	3,185
AVERAGE 1979	640	654	1,144	385	573	555	919	645	226	5,751	2,963
AVERAGE	636	656	1,356	281	420	304	1,080	690	212	5,637	3,056
1980											
January	503	918	1,576	202	454	85	1,054	786	179	5,467	3,034
February	656	603	1,412	304	317	9	1,036	543	152	5,631	3,058
March	472	654	1,380	299	405	0	824	352	175	4,552	2,699
April	546	653	1,300	150	374	0	734	343	240	4,398	2,892
May	441	468	1,149	172	360	0	955	405	147	4,698	2,329
June	497	561	1,328	176	331	0	996	400	106	4,406	2,590
July	557	482	1,192	158	365	0	752	417	62	3,995	2,418
August	432	431	1,138	142	289	0	792	406	112	3,743	2,222
September	375	505	1,112	107	299	0	735	425	111	3,670	2,105
October	465	478	1,044	182	348	0	726	482	95	3,821	2,226
November	493	500	1,201	105	346	0	624	595	78	3,544	2,338
December	423	658	1,301	83	288	0	568	610	101	4,423	2,464
AVERAGE	488	654	1,261	172	348	9	857	461	130	4,300	2,551
1981											
January	324	500	1,257	93	424	0	908	556	27	4,129	2,214
February	361	488	1,122	93	407	0	866	486	92	3,895	2,064
March	352	485	1,027	47	328	0	771	360	54	3,425	1,911
April	263	496	1,056	85	314	0	825	237	42	3,317	1,916
May	393	443	929	17	277	0	664	317	124	3,184	1,792
June	390	380	865	60	355	0	519	248	118	2,834	1,738
July	333	251	1,073	80	340	0	651	502	38	3,269	1,757
August	346	274	1,068	61	377	0	321	614	64	3,047	1,751
September	336	154	1,451	96	371	0	323	359	149	3,236	2,036
October	242	147	1,342	90	427	0	412	363	172	3,214	1,820
November	185	132	1,236	112	353	0	517	457	55	3,077	1,665
December	179	122	1,075	158	385	0	696	415	102	3,141	1,532
AVERAGE	310	320	1,128	83	364	0	622	404	88	3,316	1,846
1982											
January	254	161	877	87	273	0	662	376	126	2,818	1,378
February	139	92	892	79	236	0	579	347	102	2,267	1,044
March	91	37	555	155	200	0	503	389	91	2,032	860
AVERAGE	162	97	799	108	238	0	582	375	107	2,378	1,096

¹ Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

² Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

Totals may not equal sum of components due to independent rounding.

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Geographic coverage: The 50 United States and the District of Columbia, including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

Crude Oil and Petroleum Product Imports from Non-OPEC Sources

	Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico ¹	Virgin Islands ¹	Other ²	Total
Thousand Barrels per Day										
1973										
AVERAGE	174	1,325	16	585	256	15	99	329	465	3,283
1974										
AVERAGE	164	1,070	8	511	251	8	90	391	340	2,932
1975										
AVERAGE	152	846	71	332	242	14	90	406	300	2,454
1976										
AVERAGE	118	699	87	275	274	31	88	422	353	2,247
1977										
AVERAGE	171	517	179	211	289	126	105	466	550	2,614
1978										
AVERAGE	160	467	318	229	253	180	94	429	484	2,613
1979										
AVERAGE	147	536	439	251	190	202	52	431	548	2,919
1980										
January	175	570	545	289	239	298	57	467	492	3,131
February	111	540	477	205	192	105	95	536	552	2,914
March	124	480	460	184	189	232	101	449	601	2,800
April	56	459	548	231	143	182	78	425	619	2,737
May	77	419	576	176	221	124	88	303	496	2,491
June	77	409	627	197	182	146	91	314	465	2,496
July	43	378	460	242	180	115	90	376	376	2,282
August	62	319	646	255	159	196	85	264	463	2,449
September	58	458	550	213	205	216	52	343	473	2,599
October	70	475	605	230	114	134	107	372	450	2,657
November	22	470	459	264	168	157	108	391	435	2,484
December	54	502	445	212	149	199	109	423	378	2,471
AVERAGE	78	455	533	225	178	178	88	388	491	2,609
1981										
January	30	543	401	197	150	219	89	494	553	2,688
February	84	546	437	227	163	271	46	491	626	2,881
March	74	471	485	227	93	283	45	370	570	2,600
April	68	410	440	198	138	402	40	385	404	2,450
May	122	366	522	213	105	352	58	344	456	2,538
June	51	352	537	196	124	397	67	282	592	2,488
July	77	381	384	212	177	558	50	206	495	2,540
August	69	378	490	255	123	592	68	184	533	2,891
September	111	419	706	183	169	528	72	265	653	3,084
October	63	446	666	153	121	351	60	303	559	2,725
November	53	540	612	168	108	253	76	294	429	2,533
December	70	499	588	148	125	290	73	367	595	2,755
AVERAGE	73	445	523	196	133	374	82	327	531	2,663
1982										
January	28	509	426	179	106	346	62	334	425	2,415
February	50	503	499	221	120	132	38	354	487	2,424
March	43	465	503	186	118	253	62	307	479	2,429
AVERAGE	40	491	472	195	114	281	55	331	463	2,423

¹ U.S. Possessions.

² Includes all Non-OPEC countries except those shown above.

Totals may not equal sum of components due to independent rounding.

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Geographic coverage: The 50 United States and the District of Columbia, including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Sources: See "Sources" at the end of this section.

Sources

- * 1973 through 1976: Bureau of Mines, U.S. Department of the Interior, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual", Mineral Industry Surveys.
- * 1977 through 1980: Energy Administration, U.S. Department of Energy, "Monthly Petroleum Statistics Report", (unleaded gasoline category).
- * 1977 through 1980: Energy Information Administration, U.S. Department of Energy, "Petroleum Statement, Annual" and "PAD Districts Supply/Demand, Annual", Energy Data Reports.
- * January 1981 through December 1981: Energy Information Administration, U.S. Department of Energy, "Monthly Petroleum Statement".
- * January 1982 through March 1982: Detailed Statistics in this issue. (See Explanatory Notes 5.1 through 5.8).
- * April 1982: Estimates are based on EIA weekly data (except domestic crude oil production). (See Explanatory Note 2.2).
- * January 1982 through April 1982: Domestic crude oil production

**Detailed
Statistics**



Table 1. U.S. Petroleum Balance, March 1962

	Current Month		Year-to-Date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Crude Oil (Including Lease Condensate)				
Field Production				
(1) Alaska	E 52,777	1,702	E 153,050	1,709
(2) Lower 48 States	E 213,736	6,895	E 624,712	6,941
(3) Total U.S.	E 266,513	8,597	E 777,762	8,651
Net Imports				
(4) Imports (Gross (Including SPR)	82,789	2,671	268,719	2,898
(5) SPR Imports	5,738	185	15,472	172
(6) Exports (Net)	6,950	221	25,054	267
(7) Other Sources	78,578	2,535	258,308	2,670
(8) SPR Withdrawal (+) or Addition (-)	-7,298	-235	-18,195	-202
(9) Other Stock Withdrawal (+) or Addition (-)	5,281	170	2,811	31
(10) Used Directly and Losses	-2,105	-68	-5,895	-67
(11) Unaccounted for 1	6,615	278	8,595	110
(12) Total Other Sources	4,495	145	-11,484	-128
(13) Crude Oil Input to Refineries	348,086	11,277	1,025,418	11,264
(13) = (3) + (7) + (12)				
Natural Gas Plant Liquids (NGPL)				
(14) Field Production	48,675	1,570	150,332	1,548
(15) Imports 2	157	6	788	8
(16) Stock Withdrawal (+) or Addition (-) 2	-284	-9	-2,244	-25
(17) Total NGPL Supply	48,548	1,567	137,877	1,532
Other Liquids				
Unrefined Oils and Gasoline Blending Components, Total				
(18) Stock Withdrawal (+) or Addition (-)	748	24	-4,456	-50
(19) Imports	4,206	138	14,022	158
(20) Other Hydrocarbons and Alcohol New Supply (Field Production)	1,363	45	3,959	44
(21) Refinery Processing Gain 1	15,528	511	45,910	510
(22) Crude Used Directly	1,949	63	5,652	63
(23) Total Other Liquids	24,126	779	65,127	724
(23) = (18) through (22)				
(24) Total Production of Products 3	422,268	13,823	1,229,420	13,840
(24) = (13) + (17) + (23)				
Net Imports of Refined Products 3				
(25) Imports (Gross)	45,379	1,464	132,838	1,476
(26) Exports	17,393	561	49,840	592
(27) Imports (Net)	27,986	903	83,147	924
(28) Total New Supply of Products	450,284	14,525	1,311,567	14,573
(28) = (24) + (27)				
(29) Refined Products Stock Withdrawal (+) or Addition (-) 3	32,063	1,034	108,718	1,210
(30) Total Petroleum Products Supplied for Domestic Use	482,347	15,500	1,421,285	15,792
(30) = (28) + (29)				
(31) Finished Motor Gasoline	204,976	6,812	598,481	6,265
(32) Naphthalene-Type Jet Fuel	6,360	208	17,216	192
(33) Kerosene-Type Jet Fuel	23,820	772	73,654	821
(34) Kerosene	3,931	117	15,030	167
(35) Distillate Fuel Oil	99,304	2,861	284,271	3,158
(36) Residual Fuel Oil	59,258	1,942	189,221	2,102
(37) Liquefied Petroleum Gases and Ethane	47,352	1,528	153,007	1,700
(38) Other	57,170	1,844	198,229	1,758
(39) Total Reclassified 1	-9,872	-312	-28,095	-312
(40) Total Product Supplied	482,347	15,500	1,421,282	15,792
(40) = (31) through (39)				
Ending Stocks, All Oils				
(41) Crude Oil and Lease Condensate (Excluding SPR)	385,669	—	—	—
(42) Strategic Petroleum Reserve (SPR)	240,537	—	—	—
(43) Unrefined Oils	115,633	—	—	—
(44) Gasoline Blending Components	49,832	—	—	—
(45) Natural Gasoline and Unfractionated Steam	17,768	—	—	—
(46) Refined Refined Products 3	853,143	—	—	—
(47) Total Stocks	1,400,962	—	—	—

1 A balancing item.

2 Includes isopentane, natural gasoline, unfractionated steam, and plant condensate only.

3 For products included see Explanatory Note 5.7.

E = Estimated.

— Not Applicable.

Note: Total may not equal sum of components due to independent rounding. Sources and estimation procedures: See Explanatory Notes 1, 2, and 5.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, March 1982
(Thousands of Barrels)

Commodity	Supply			Disposition			Ending Stocks
	Fields Production	Imports	Stock Withdrawal (-) or Addition (+)	Crude Used Directly and Losses ¹	Refinery Inputs	Exports	
Crude Oil (including lease condensate)	7,666,213	0	82,526	-4,015	340,561	8,850	614,226
Natural Gas Plant Liquids and LPIGs	47,910	7,972	7,059	0	15,704	2,326	46,192
Natural Gasoline and Isoparane	7,307	0	(7)	0	5,470	0	1,808
Unfractionated Steam	257	0	0	-238	0	0	19
Plant Condensate	1,106	0	185	0	1,263	0	3
Liquefied Petroleum Gases and Ethane	39,241	7,972	6,913	4,506	8,962	2,308	47,382
Ethane	8,332	252	1,812	-30	191	(9)	10,085
Propane	14,415	7,999	1,873	968	113	1,135	23,607
Butane	6,498	5,225	3,054	0	4,698	1,174	5,930
Other Petroleum Mixtures	109	82	435	187	146	0	1,307
Ethanol-Propene Methane	5,414	0	1,512	-107	551	0	16,986
Isobutane	3,410	1	0	494	3,925	0	(7)
7,709							
Other Liquids	1,398	0	4,206	748	16,022	0	-6,572
Other Hydrocarbons and Alcohol	1,398	0	0	-8	1,390	0	183
Unrefined Oils	0	0	3,614	0	9,800	0	-4,737
Motor Gasolines Blending Components	0	0	52	-334	5,240	0	-4,972
Aviation Gasoline Blending Components	0	0	0	-11	-106	0	97
0							
Finished Petroleum Products	785	390,170	36,466	27,557	0	15,688	442,928
Impure Motor Gasoline	72	186,041	9,880	14,950	0	1,307	204,970
Finished Motor Gasoline	70	89,969	3,365	7,617	0	1,267	90,931
Finished Unleaded Motor Gasoline	3	95,355	2,206	6,904	0	0	105,157
Gasohol	0	100	0	28	0	0	128
Finished Aviation Gasoline	57	833	0	87	0	0	777
Naphtha-Type Jet Fuel	0	6,805	0	-418	0	(9)	6,388
Kerosene-Type Jet Fuel	0	27,927	1,200	-5,118	0	80	23,028
Kerosene	3	3,254	49	315	0	0	3,793
Distillate Fuel Oil	3	17,128	1,458	18,000	0	3,607	30,331
Residual Fuel Oil (No. 2 for Burn, Feed, Use)	0	34,728	28,388	-100	0	6,113	57,349
Other Oils > 400 Dbs. for Petro. Feed, Use	0	6,679	76	-114	0	167	5,068
Special Naphthas	111	1,691	1,033	-21	0	304	7,916
Lubricants	0	4,254	114	553	0	296	3,769
Waxes	0	445	0	-2	0	662	13,705
Petroleum Coke	0	12,754	0	-226	0	0	416
Asphalt	0	7,065	1	-1,789	0	3,611	9,117
Feed Oil	0	34	0	-20	0	12	5,247
Sill Gas	0	16,721	0	0	0	0	16,721
Miscellaneous Products	517	1,619	13	297	0	40	2,579
Total	916,588	397,148	138,298	30,510	361,312	27,343	463,247
				-156			1,400,302

1 Unaccounted for crude oil is a balancing item.

2 Total equals refinery fuel use and loss.

(*) Less than 500 barrels.

0 = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 3. Year-to-Date Supply and Disposition Statistics of Crude Oil and Petroleum Products, January - March 1982
(Thousands of Barrels)

Commodity	Supply					Disposition			Ending Stocks	
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Change in Oil	Crude Lost Directly and Indirectly	Refinery Inputs	Exports		Products Supplied
Crude Oil (including lease condensate)	779,262	0	284,191	-15,285	9,990	-5,896	1,028,416	25,854	0	614,226
Natural Gas Plant Liquids and LRGs	157,822	22,142	25,528	24,500	0	0	44,224	5,818	150,976	131,764
Natural Gasoline and Isopentane	18,510	0	313	-1,803	0	0	14,280	0	3,326	17,484
Unfractionated Steam	288	0	0	-383	0	0	0	0	0	4,788
Plant Condensate	2,888	0	476	-42	0	0	3,500	0	7	1,332
Liquidated Petroleum Gases and Ethane	114,327	22,142	24,770	28,250	0	0	30,463	5,818	120,007	106,946
Ethane	54,837	562	6,978	-732	0	0	665	(1)	28,240	5,672
Propane	42,598	21,299	16,967	-1,467	0	0	354	2,467	85,082	60,333
Butane	19,377	1,671	10,258	-1,258	0	0	18,477	3,352	13,511	17,307
Blends-Propane, Methane	1,821	121	1,688	-1,258	0	0	460	0	2,052	889
Ethane-Propane Mixtures	17,833	132	4,782	-270	0	0	22,691	0	22,691	18,299
Isobutane	9,566	14	0	303	0	0	10,472	0	0	7,709
Other Liquids	3,859	0	14,032	-4,459	0	0	41,633	0	-26,065	105,745
Other Hydrocarbons and Alcohol	3,859	0	11,156	-38	0	0	3,988	0	0	183
Other Petroleum Products	0	0	2,876	-7,900	0	0	18,285	0	-11,869	115,333
Motor Gasoline Blending Components	0	0	2,876	-7,900	0	0	18,491	0	-15,351	49,091
Aviation Gasoline Blending Components	0	0	0	20	0	0	-139	0	112	688
Finished Petroleum Products	1,710	1,138,151	108,066	81,660	0	5,032	0	43,871	1,092,404	484,147
Finished Motor Gasoline	229	543,165	12,953	4,243	0	0	2,150	2,150	558,481	168,819
Finished Landed Motor Gasoline	214	239,681	7,317	6,025	0	0	0	2,150	271,086	105,143
Finished Unblended Motor Gasoline	16	283,177	5,039	-1,787	0	0	0	0	287,042	96,622
Other Motor Gasoline	0	1,219	0	92	0	0	0	0	333	54
Finished Aviation Gasoline	132	1,202	0	480	0	0	0	0	1,716	6,445
Nonpara-Type Jet Fuel	0	16,735	101	0	0	0	0	(1)	17,316	6,445
Kerosene	13	73,804	3,166	-2,536	0	0	500	0	73,034	30,031
Distillate Fuel Oil	10	11,971	977	2,532	0	0	252	0	16,030	8,763
Residual Fuel Oil	0	220,698	8,111	62,444	0	329	0	7,811	284,271	127,732
Specialty Fuel Oil	0	102,225	75,815	26,999	0	4,763	0	18,371	189,251	57,349
Other Fuel Oil	0	34,917	459	-531	0	0	0	342	16,073	3,148
Crude Oil - 40 Deg. for Petrochem. Feedstock	0	14,269	0	0	0	0	0	1,811	20,109	1,811
Special Naphtha	205	4,415	1,265	109	0	0	582	0	3,750	3,750
Lubricants	0	12,511	501	520	0	0	1,432	1,432	12,200	13,705
Waxes	0	1,290	53	5	0	0	0	73	1,221	595
Petroleum Coke	0	35,893	0	-185	0	0	0	9,418	26,350	4,694
Asphalt	0	18,863	60	-6,586	0	0	0	26	12,431	20,080
Road Oil	0	43	0	-14	0	0	0	0	0	38
50# Gas	0	47,036	0	0	0	0	0	0	0	47,036
Miscellaneous Products	1,123	7,335	25	204	0	0	0	126	6,560	2,373
Total	921,883	1,181,293	431,848	87,631	9,898	-313	1,115,383	75,543	1,421,282	1,403,902

1 Unaccounted for crude oil is a balancing item.

2 Total equals refinery fuel use and loss.

3 Less than 500 barrels or less than 500 barrels per day.

4 Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 4. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, March 1982
(Thousand Barrels per Day)

Commodity	Supply				Disposition			
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) Additions (-)	Crude Used Directly and Lost ¹	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	8,597	0	2,656	-45	276	11,277	321	0
Natural Gas Plant Liquids and LRGs	1,545	257	229	135	0	567	74	1,587
Natural Gasol and Isopentane	206	0	(²)	-1	0	177	0	50
Hydrocarbon Gas	8	0	0	-8	0	0	0	0
Plant Condensate	36	0	0	-1	0	41	0	(³)
Liquefied Petroleum Gases and Ethane	1,265	257	223	145	0	269	(⁴) 74	1,228
Ethane	465	845	90	31	0	0	37	782
Propane	212	2	42	16	0	149	38	185
Butane-Propane Mixtures	35	0	4	-3	0	5	0	20
Ethane-Propane Mixtures	30	0	48	0	0	0	0	252
Isobutane	110	(⁵)	0	15	0	125	0	(⁶)
Other Liquids	45	0	136	24	0	517	0	-312
Other Hydrocarbons and Alcohol	45	0	0	(⁷)	0	45	0	0
Unfinished Oil	0	0	117	35	0	205	0	-135
Motor Gasoline Blending Components	0	0	12	-10	0	18	0	-16
Aviation Gasoline Blending Components	0	0	0	(⁸)	0	-3	0	3
Finished Petroleum Products	26	12,584	1,241	680	0	63	487	14,265
Finished Motor Gasoline	2	8,001	183	450	0	0	0	44
Finished Motor Gasoline	2	2,823	109	245	0	0	0	3,216
Finished Unleaded Motor Gasoline	(⁹)	3,095	74	283	0	0	0	3,202
Gasohol	0	0	0	0	0	0	0	0
Finished Aviation Gasoline	2	20	0	3	0	0	(¹⁰)	26
Naphtha-Type Jet Fuel	0	220	0	-12	0	0	0	772
Kerosene-Type Jet Fuel	(¹¹)	301	36	-10	0	0	0	117
Kerosene	0	2,254	48	612	0	0	(¹²)	2,881
Diesel Fuel Oil	0	1,121	610	26	0	53	197	1,912
Residual Fuel Oil	0	163	2	-17	0	0	0	163
Other Dies > 400 Deg. for Petro. Feed. Use	0	265	0	(¹³)	0	0	0	265
Other Dies > 400 Deg. for Petro. Feed. Use	4	55	53	-1	0	0	22	102
Special Naphthas	0	137	4	16	0	0	0	13
Lubricants	0	14	(¹⁴)	0	0	0	0	0
Waxes	0	471	0	-56	0	0	110	594
Petroleum Coke	0	257	(¹⁵)	0	0	0	(¹⁶)	169
Asphalt	0	1	0	-1	0	0	0	0
Road Oil	0	0	0	0	0	0	0	(¹⁷)
500 Gal.	0	539	0	0	0	0	0	539
Miscellaneous Products	17	59	(¹⁸)	12	0	0	0	86
Total	10,212	12,811	4,461	984	276	12,300	862	15,560

1 Unaccounted for crude oil is a balancing item.

2 Total equals refinery fuel use and loss.

(³) Less than 500 barrels per day.

(⁴) -Estimated.

Note: Total may not equal sum of components due to independent rounding. Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 5. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January - March 1982
(Thousand Barrels per Day)

Commodity	Field Production			Imports			Supply			Disposition		
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) Add. (-)	Unaccounted For (+) (-)	Crude Used Directly and Losses ¹	Refinery Inputs	Exports	Products Supplied			
Crude Oil (including lease condensate)	8,451	0	3,158	-171	110	-47	11,394	267	0			
Natural Gas Plant Liquids and LFGs	1,529	245	254	287	0	0	537	66	1,744			
Natural Gasoline and Isopentane	821	0	3	-21	0	0	165	0	0			
Unfractionated Steam	4	0	0	-4	0	0	(1)	0	(1)			
Plant Condensate	33	0	5	(1)	0	0	39	0	(1)			
Refined Petroleum Gases and Ethane	1,270	246	275	312	0	0	338	45	1,700			
Ethane	473	0	53	18	0	0	8	0	325			
Propane	215	2	50	115	0	0	255	37	845			
Butane	215	2	50	115	0	0	255	37	845			
Bulkene-Propene Mixtures	3	1	21	6	0	0	0	0	29			
Ethane-Propene Mixtures	199	0	53	-3	0	0	0	0	243			
Isobutane	105	(1)	0	10	0	0	115	0	(1)			
Gasolines	44	0	156	-50	0	0	463	0	-312			
Other Hydrocarbons and Alcohol	44	0	124	(1)	0	0	44	0	0			
Unrefined Oils	0	0	0	-63	0	0	214	0	-132			
Motor Gasoline Blending Components	0	0	32	-8	0	0	23	0	-152			
Aviation Gasoline Blending Components	0	0	0	(1)	0	0	-2	0	2			
Finished Petroleum Products	19	12,657	1,291	997	0	63	0	467	14,366			
Finished Motor Gasoline	3	5,035	144	47	0	0	0	24	5,205			
Finished Landed Motor Gasoline	2	1,116	17	17	0	0	0	24	3,012			
Finished Unfinished Motor Gasoline	(1)	3,148	53	-20	0	0	0	0	3,189			
Gasohol	0	4	0	(1)	0	0	0	0	3			
Finished Aviation Gasoline	1	20	0	1	0	0	0	0	22			
Napthalene-Type Jet Fuel	0	186	1	5	0	0	0	0	182			
Kerosene-Type Jet Fuel	0	520	35	-25	0	0	0	0	521			
Aviation Turbine Fuel	(1)	132	11	29	0	0	0	3	167			
Residual Fuel Oil	(1)	1,147	85	384	0	30	0	86	3,159			
Other Oils < 400 Deg. for Petro. Feed. Use	0	175	5	-7	0	0	0	0	215			
Other Oils > 400 Deg. for Petro. Feed. Use	0	273	5	-7	0	0	0	4	267			
Societal Naphthalene	2	49	22	2	0	0	0	18	69			
Lubricants	0	140	0	6	0	0	0	0	137			
Greases	0	14	1	(1)	0	0	0	19	13			
Asphalt	0	399	1	2	0	0	0	105	292			
Rock Oil	0	(1)	1	-73	0	0	0	(1)	128			
Still Gas	0	623	0	(1)	0	0	0	0	(1)			
Miscellaneous Products	12	51	(1)	2	0	0	0	1	523			
TOTAL	10,243	12,923	4,798	974	110	-3	15,393	939	15,792			

1 Unaccounted for crude oil is a balancing item.

2 Total refinery feedstocks are 105.

(1) Less than 500 barrels per day.

(1) Estimated.

Note: Total may not equal sum of components due to independent rounding. Source and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 5. PAD District 1, Supply and Disposition of Crude Oil and Petroleum Products, March 1982
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Stock		Crude Used Directly and in Losses ¹	Net Receipts	Disposition		Ending Stocks
				Withdrawals (+) or Additions (-)	Unaccounted For Crude Oil ²			Refinery Inputs	Exports	
Crude Oil (including lease condensate)	E 2,790	0	26,160	725	1,871	0	3,684	37,230	0	18,752
Natural Gas Plant Liquids and LIGOs	1,172	1,309	419	1,233	0	0	2,907	324	70	6,193
Liquefied Petroleum Gases	462	1,280	415	302	0	0	2,397	253	70	4,513
Ethane	374	0	0	919	0	0	0	0	(*)	1,293
Other Products ³	316	0	(*)	12	0	0	31	0	0	297
Other Liquids	110	0	1,595	-680	0	0	1,918	3,078	0	-686
Other Hydrocarbons and Alcohol	110	0	1,592	-671	0	0	1,914	114	0	0
Unrefined Oil	0	0	13	-233	0	0	1,918	2,819	0	-300
Motor Gasoline Components	0	0	0	0	0	0	0	145	0	-995
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	64	41,286	32,183	14,516	0	0	78,065	0	576	167,151
Freshed Motor Gasoline	64	18,714	4,035	2,954	0	0	12,503	0	1	40,293
Finished Landed Motor Gasoline	64	8,298	2,703	1,262	0	0	12,440	0	1	30,136
Finished Unleaded Motor Gasoline	0	10,000	1,300	1,300	0	0	22,776	0	0	26,190
Gasolines	0	0	0	-3	0	0	0	0	0	-3
Other Motor Gasolines	0	0	0	4	0	0	404	0	0	417
Naphtha Type Jet Fuel	0	743	0	111	0	0	477	0	(*)	1,831
Kerosene	0	1,482	1,200	-1,709	0	0	8,358	0	0	9,501
Kerosene-Type Jet Fuel	0	96	49	419	0	0	1,039	0	0	3,876
Diesel Fuel Oil	0	3,231	1,137	13,491	0	0	13,858	0	1	38,091
Residual Fuel Oil	0	5,388	24,080	62	0	0	3,283	0	225	32,569
Naphtha and Other Oil for Petrochem.	0	637	36	-64	0	0	-22	0	56	321
Feedstocks	0	30	960	6	0	0	277	0	2	1,281
Solvents	0	746	169	4	0	0	791	0	249	1,385
Lubricants	0	301	2	-12	0	0	10	0	5	513
Waxes	0	1,279	0	-29	0	0	200	0	17	979
Petroleum Coke	0	1,090	1	-107	0	0	0	0	5	1,090
Asphalt	0	0	0	0	0	0	0	0	0	0
Road Oil	0	1,852	0	0	0	0	0	0	0	0
SBI Gas	0	319	2	30	0	0	467	0	15	1,953
Miscellaneous Products	0	0	0	0	0	0	0	0	0	833
Total	4,139	42,956	89,323	15,584	1,871	0	78,204	40,832	645	163,519

1 Unaccounted for crude oil is a balancing item.

2 Total equals refinery fuel use and loss.

3 Includes natural gasoline, isoparaffin, unrefined motor, and plant condensate.

(*) Less than 500 barrels.

§ Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedure: See Explanatory Notes on Data Collection and Estimation.

Table 7. PAD District II Supply and Disposition of Crude Oil and Petroleum Products, March 1982
(Thousands of Barrels)

Commodity	Supply				Disposition				Ending Stocks	
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Crude Used Directly and Losses ¹	Net Refineries	Exports	Products Supplied		
Crude Oil (including lease condensate)	5 28,828	0	13,979	-1,825	41,096	1,900	82,090	1,963	0	83,383
Natural Gas Plant Liquids and Lubes.....	7,696	2,133	5,168	499	0	4,223	5,064	825	13,722	33,241
Liquefied Petroleum Gases.....	7,360	2,107	3,258	1,443	0	3,225	3,443	825	13,203	27,550
Ethane.....	1,377	26	1,812	-1,059	0	0	0	0	2,156	1,788
Other Products.....	-1,111	0	0	115	0	900	1,841	0	-1,737	3,823
Other Liquids	328	0	523	350	0	742	2,036	0	-103	32,809
Other Hydrocarbons and Alcohol.....	228	0	0	-18	0	0	212	0	0	93
Unfinished Oil.....	0	0	51	25	0	55	843	0	-712	21,270
Motor Gasoline Blending Components.....	0	0	472	430	0	657	1,078	0	519	11,252
Aviation Gasoline Blending Components.....	0	0	0	-97	0	0	-97	0	0	185
Finished Petroleum Products	17 91,120	732	6,922	6,922	0	9,448	0	142	107,615	637,265
Finished Motor Gasoline.....	0 51,244	2 3,817	0	3,817	0	7,285	0	25	52,227	52,227
Finished Landed Motor Gasoline.....	0 26,509	0 1,940	0	1,940	0	3,865	0	25	30,233	34,422
Finished Unleaded Motor Gasoline.....	0 25,022	2 1,855	0	1,855	0	2,400	0	0	30,279	29,100
Gasolol.....	0 13	0 0	0 22	0 22	0 0	0 0	0 0	0 0	35	21
Finished Aviation Gasoline.....	0 115	0 30	0 0	0 30	0 0	123	0	0	268	648
Jet-A.....	0 102	0 17	0 0	0 17	0 0	93	0	0	1,024	1,174
Kerosene-Type Jet Fuel.....	0 4,842	0 0	0 0	0 0	0 0	935	0	0	4,935	4,935
Kerosene-Type Jet Fuel.....	0 462	0 0	0 0	0 0	0 0	172	0	0	555	2,095
Distillate Fuel Oil.....	1 17,888	0 0	0 3,013	0 3,013	0 0	1,368	0	0	22,970	40,195
Residual Fuel Oil.....	0 3,238	614 0	0 0	0 0	0 0	-760	0	0	3,723	6,957
Naphtha and Other Oils for Petro. Feed.....	0 1,744	0 0	0 -126	0 -126	0 0	13	0	49	1,582	603
Special Naphtha.....	0 299	97 0	0 0	0 97	0 0	286	0	1	765	670
Waxes.....	0 89	0 0	0 166	0 166	0 0	0	0	16	1,067	2,021
Paraffin.....	0 47	0 0	0 0	0 0	0 0	0	0	0	47	47
Petroleum Coke.....	0 3,250	0 0	0 74	0 74	0 0	0	0	0	0	905
Asphalt.....	0 1,551	0 0	0 -679	0 -679	0 0	79	0	0	1,051	10,560
Road Oil.....	0 4	0 0	0 -2	0 -2	0 0	0	0	0	2	13
Soft Gas.....	0 3,261	0 0	0 0	0 0	0 0	0	0	0	3,261	0
Miscellaneous Products.....	15 -104	9 267	0 0	0 267	0 0	-67	0	1	129	171
Total	57,678	93,253	20,392	5,267	41,096	15,813	99,219	2,301	121,144	286,049

1 Unaccounted for crude oil is a balancing item.
 2 Total equals refinery fuel use and loss.
 3 Includes natural gasoline, kerosene, unrefined stream, and plant condensate.
 (F) Less than 500 barrels.
 (E) Estimated.
 Note: Total may not equal sum of components due to independent rounding.
 Source and estimation procedure: See Explanatory Notes on Data Collection and Estimation.

Table 8. PAD District III Supply and Disposition of Crude Oil and Petroleum Products, March 1982
(Thousands of Barrels)

Commodity	Prod. Production	Refinery Production	Imports	Stocks Withdrawn (+) or Added (-)	Unaccounted For Crude Oil	Crude Distillate and Losses ²	Net Receipts	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	£ 125,858	0	40,525	-2,429	-27,138	-125	17,266	196,987	0	0	409,333
Refined Gas Plant Liquids and LIGOs	36,320	3,360	425	0	0	0	-8,407	8,515	1,261	24,365	85,213
Unrefined Petroleum Gases.....	2,525	3,170	625	2,740	0	0	-3,823	3,644	1,261	17,392	70,819
Lighter Petroleum Gases.....	6,250	181	0	50	0	0	0	191	(*)	6,000	3,304
Other Products ³	7,769	0	0	-318	0	0	-668	4,450	0	2,403	13,482
Other Liquids	455	0	1,855	908	0	0	-2,527	9,266	0	-8,527	85,996
Unrefined Gasolines and Alcohol.....	425	0	0	0	0	0	0	431	0	0	32
Unrefined Oils.....	0	0	1,802	1,790	0	0	-1,840	4,906	0	-5,194	48,707
Motor Gasoline Blending Components.....	0	0	54	-1,025	0	0	-607	3,271	0	-3,359	18,700
Average Gasoline Blending Components.....	0	0	0	195	0	0	0	98	0	0	397
Finished Petroleum Products	655	177,613	3,270	-1,226	0	6	-83,392	0	8,805	86,121	127,895
Finished Motor Gasoline.....	5	81,186	0	2,566	0	0	-49,655	0	1,086	35,696	49,146
Finished Landed Motor Gasoline.....	4	38,056	(*)	860	0	0	-29,308	0	1,086	13,305	25,274
Finished Unrefined Motor Gasoline.....	1	43,110	0	1,391	0	0	-27,117	0	0	17,492	23,694
Gasolins.....	50	0	0	0	0	0	0	0	0	0	4
Aviation Gasolins.....	0	379	0	0	0	0	-546	0	0	-159	887
Jet Fuel.....	0	0	0	0	0	0	-723	0	0	0	2,995
Other Motor Gasolins.....	0	14,267	0	-1,876	0	0	-10,040	0	0	1,774	2,995
Kerosene.....	3	2,444	0	-101	0	0	-1,211	0	0	2,331	1,262
Diesel Fuel Oil.....	1	31,235	197	-766	0	0	-1,040	0	1,394	13,041	27,469
Residual Fuel Oil.....	0	13,726	2,974	-326	0	0	-1,187	0	4,110	9,019	14,697
Other Fuel Oils.....	0	1,183	232	-46	0	0	-82	0	362	10,723	3,437
Submarine Lubricants.....	111	0	2,219	384	0	0	-879	0	293	654	1,703
Lubricants.....	0	2,219	(*)	232	0	0	-10	0	373	1,469	6,235
Waxes.....	0	232	1	0	0	0	0	0	0	3,404	666
Petroleum Coke.....	0	4,682	0	-90	0	0	-10	0	0	0	0
Asphalt.....	0	2,119	0	-60	0	0	-279	0	0	0	2
Other Crude Oil.....	0	0	0	0	0	0	0	0	0	0	0
Sol Gels.....	0	7,970	0	0	0	0	0	0	0	0	0
Miscellaneous Products.....	477	1,298	1	197	0	0	-367	0	0	0	1,511
Total	166,268	180,273	46,115	-256	-27,138	-119	-79,069	174,778	10,966	105,936	654,997

1 Unaccounted for crude oil is a balancing item.
 2 Includes refinery gas and loss.
 3 Includes natural gasoline, isopentane, unrefined stream, and plant condensate.
 (*) Less than 500 barrels.
 5 Estimated.
 Note: Total may not equal sum of components due to independent rounding.
 Sources and estimation procedures: See Explanatory Note on Data Collection and Estimation.

Table 9. PAD District IV Supply and Disposition of Crude Oil and Petroleum Products, March 1982
(Thousands of Barrels)

Commodity	Field Production	Refinery Production	Imports	Stock With-drawn or Added (In 1)	Unac-counted For Crude Oil	Crude Used Daily Losses ²	Net Receipts	Refinery Inputs	Disposition		Ending Stocks
									Exports	Products Supplied	
Crude Oil (including lease condensate)	5 18,438	0	628	-314	-6,838	-11	0	11,664	0	0	16,980
Natural Gas Plant Liquids and URGs	2,204	-7	584	128	0	0	-215	608	0	2,096	1,548
Liquefied Petroleum Gases	791	-7	451	71	0	0	117	339	0	1,084	903
Ethane	22	0	0	(*)	0	0	0	0	0	22	(*)
Other Products ³	1,362	0	143	56	0	0	-332	269	0	980	244
Other Liquids	60	0	63	-308	0	0	0	-644	0	551	6,842
Other Hydrocarbons and Alcohol	60	0	0	0	0	0	0	-644	0	551	6,842
Unrefined Oil	0	0	0	-48	0	0	0	-484	0	436	3,208
Motor Gasoline Blending Components	0	0	63	-158	0	0	0	-890	0	115	3,633
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	28	18,010	1	-76	0	10	954	0	3	15,924	15,650
Finished Motor Gasoline	3	5,296	0	-21	0	0	134	0	0	6,770	6,437
Finished Leaded Motor Gasoline	2	4,342	0	-31	0	0	156	0	0	1,189	2,258
Finished Unleaded Motor Gasoline	1	2,253	0	-1	0	0	377	0	0	2,692	2,252
Gasohol	0	0	0	1	0	0	0	0	0	0	0
Jet Fuel	0	15	0	2	0	0	18	0	0	36	62
Naphtha-Type Jet Fuel	0	413	0	-3	0	0	-87	0	0	325	294
Kerosene-Type Jet Fuel	0	471	0	-5	0	0	540	0	0	1,028	634
Kerosene	0	47	0	0	0	0	0	0	0	48	74
Distillate Fuel Oil	1	2,948	(*)	209	0	0	-51	0	0	3,107	3,590
Residual Fuel Oil	0	312	0	119	0	10	0	0	0	441	550
Refrinans and Other Oil for Petro. Feed	0	0	0	0	0	0	0	0	0	0	0
Refrinans	0	1	0	0	0	0	0	0	0	1	2
Lubricants	0	2	(*)	4	0	0	0	0	0	5	2
Waxes	0	2	0	25	0	0	0	0	0	26	95
Petroleum Coke	0	57	0	1	0	0	0	0	0	1	6
Asphalt	0	509	0	38	0	0	0	0	0	385	568
Road Oil	0	3	0	-18	0	0	0	0	0	19	113
Sill Gas	0	515	0	0	0	0	0	0	0	3,173	3
Miscellaneous Products	25	22	0	-1	0	0	0	0	0	515	3
Total	90,732	12,065	1,278	-471	-6,838	-1	739	11,866	3	15,571	39,720

1. Unaccounted for crude oil is a balancing item.

2. Total equals refinery fuel use and loss.

3. Includes natural gasoline, leopentanes, unrefractionated stream, and plant condensate.

(*) Less than 500 barrels.

† Estimated.

Note: Total may not equal sum of components due to independent rounding.

Source: An estimation procedure. See Explanatory Notes on Data Collection and Estimation.

Table 10. PAD District V Supply and Disposition of Crude Oil and Petroleum Products, March 1982
(Thousands of Barrels)

Commodity	Supply				Disposition					
	Field Production	Refinery Production	Imports	Stock Withdrawals (+) or Additions (-)	Crude Used Directly and Losses ¹	Net Receipts	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	80,258	0	5,196	1,828	-1,983	-21,930	61,256	7,367	0	89,119
Natural Gas (with liquids and LFGs)	666	1,206	487	-110	0	0	1,175	152	877	1,560
Liquid Petroleum Gases	385	1,131	454	39	0	0	852	152	855	1,374
Ethanol	0	15	0	0	0	0	0	0	15	0
Other Products ²	303	0	43	-148	0	0	321	0	-123	189
Other Liquids	375	0	209	559	0	167	2,288	0	-179	35,763
Other Hydrocarbons and Alcohol	575	0	0	-2	0	167	573	0	-1,057	4
Motor Gasoline Blending Components	0	0	292	37	0	167	1,325	0	0	35,300
Motor Gasoline Blending Components	0	0	0	654	0	167	366	0	283	9,230
Aviation Gasoline Blending Components	0	0	0	-69	0	0	-69	0	0	156
Finished Petroleum Products	0	67,143	2,290	8,092	0	2,187	0	5,559	74,067	94,256
Finished Motor Gasoline	0	25,322	1,042	6,883	0	1,611	0	254	26,904	18,350
Finished Landed Motor Gasoline	0	12,051	691	3,235	0	1,370	0	284	13,720	9,170
Finished Unleaded Motor Gasoline	0	15,164	351	2,552	0	344	0	0	16,733	8,157
Gasohol	0	87	0	0	0	0	0	0	87	0
Finished Aviation Gasoline	0	115	0	100	0	0	0	0	215	580
Naphtha-Type Jet Fuel	0	7,914	0	-60	0	244	0	0	1,034	1,360
Kerosene-Type Jet Fuel	0	7,014	0	-444	0	807	0	0	6,667	6,964
Kerosene	0	189	0	-4	0	466	0	0	191	110
Distillate Fuel Oil	0	8,018	160	2,493	0	304	0	0	1,774	11,950
Residual Fuel Oil	0	11,792	79	1,326	0	1,820	0	0	12,650	10,325
Neat Fuel Oil	0	370	4	-12	0	-32	0	14	340	398
Special Naphthas	0	181	376	-82	0	0	0	0	474	345
Lubricants	0	368	(³)	6	0	42	0	52	352	1,415
Waxes	0	64	1	6	0	5	0	0	67	59
Petroleum Coke	0	3,068	0	45	0	0	0	2,157	974	1,808
Asphalt	0	1,395	0	-279	0	0	0	0	1,116	2,688
Road Oil	0	0	0	-8	0	0	0	0	0	20
Still Gas	0	9,222	0	0	0	0	0	0	3,222	0
Miscellaneous Products	0	254	(⁴)	-126	0	-43	0	4	81	427
Total	87,781	68,349	8,192	90,377	-378	-18,596	64,815	13,698	76,185	175,700

1 Unaccounted for crude oil is a balancing item.

2 Total equals refinery fuel use and loss.

3 Includes natural gasoline, isopentane, unrefined stream, and plant condensate.

(⁴) Less than 500 barrels.

Estimate.

Numbers may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 11. Production of Crude Oil (Including Lease Condensate) by PAD District and State, for the Most Current Month, 1 January 1982
(Thousands of Barrels)

PAD District I	Production		Daily Average
	Total		
Florida	2,378		77
Georgia	£ 47		3
North Carolina	£ 207		7
Virginia	0		0
West Virginia	£ 158		6
Total	£ 2,850		92
PAD District II			
Illinois	2,140		69
Indiana	£ 500		19
Kansas	5,521		178
Kentucky	547		18
Michigan	2,426		78
Missouri	0	(4)	0
Nebraska	500		18
North Dakota	3,638		114
Ohio	£ 1,154		37
Oklahoma	13,082		422
South Dakota	97		3
Tennessee	70		2
Total	£ 29,720		959
PAD District III			
Alabama	1,634		53
Arkansas	1,378		51
California	34,393		1,109
Gulf Coast	2,586		95
Rest Of State	37,379		1,205
Total Louisiana	3,857		118
Mississippi			
New Mexico			
Northwest	598		19
Southwest	5,396		173
Total New Mexico	5,954		192
Texas			
TRRC District 01	5,140		68
TRRC District 02	5,095		116
TRRC District 03	11,022		364
TRRC District 04	2,462		79
TRRC District 05	688		22
TRRC District 06, including Elmer Texas	3,600		115
TRRC District 07B	2,648		85
TRRC District 07C	2,777		90
TRRC District 08	18,413		626
TRRC District 08A	20,775		670
TRRC District 09	3,074		99
TRRC District 10	1,901		58
East Texas	4,627		149
Total Texas	78,403		2,529
Total	120,623		4,149

-Continued

PAD District and State	Production		Daily Average
	Total		
PAD District IV			
Colorado	2,813		84
Montana	2,553		83
Utah	£ 2,100		69
Wyoming	£ 11,689		358
Total	£ 18,385		593
PAD District V			
Alaska	2,396		77
South Alaska	50,450		1,637
North Slope	52,176		1,705
Total Alaska	30		1
Azores			
Canada			
Central Coastal	6,369		205
East Central	20,375		657
North	15		1
South	8,880		282
Total California	35,227		1,085
Nebraska			
Total	£ 65,400		2,742
United States Total	£ 265,138		8,585

1 Includes offshore production.

(4) Less than 500 barrels.

£ = Lease. See Explanatory Notes on Data Collection and Estimation.

£ = Estimated.

Table 12. Offshore Production of Crude Oil (including Lease Condensate) By State, for the Most Current Month,¹ January 1982 (Thousands of Barrels)

State	Offshore Production	
	Total	Daily Average
Alaska ²	2,124	69
California	2,275	73
Florida	108	108
Georgia	2,359	76
California, Total	5,034	182
Louisiana	21,484	692
State	2,956	66
Louisiana, Total	23,540	758
Texas	1,037	29
State	129	4
Texas, Total	1,226	40
United States Total	32,536	1,049

¹ These production data are included in Table 11.

² All offshore production is within State boundaries.
Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 13. Production of Lease Condensate by State, for the Most Current Month,¹ January 1982 (Thousands of Barrels)

State	Lease Condensate Production	
	Total	Daily Average
Alabama	958	31
California	15	(¹)
Louisiana	6,212	200
Mississippi	941	30
New Mexico	453	15
Texas	1,025	35
Oklahoma	3,842	124
Total	13,281	428

¹ These production data are included in Table 11. Small amounts of lease condensate are known to be produced in states other than those listed, however, statistics on this production are not available.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 14. Natural Gas Processing Plant Production of Petroleum Products by PAD District, March 1982
(Thousands of Barrels)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV		Total	New Mexico	Total	PAD Dist. V West Coast	United States	
	East Coast	Alaska	West Coast	Incl. IL, Ky.	Wyo., Colo., Mont., Neb.	Tex. Gulf Coast	La. Gulf Coast	No. Lk. APL	Rocky Mt.	Dist. V West Coast	Dist. V West Coast						
Natural Gas Plant Liquids	645	527	1,172	3	1,380	281	5,231	7,695	18,499	3,626	9,261	666	3,566	36,320	2,204	608	47,910
Isopentane	0	0	0	0	0	0	200	1,270	2,071	540	1,110	0	311	4,480	364	0	6,094
Natural Gasoline	57	34	191	0	100	32	-2,645	-2,710	7,566	-9,263	1,071	110	2,209	1,789	997	-15	297
Utility Condensate Stream	0	192	0	0	83	0	28	111	209	716	123	-63	1	997	8	0	1,106
Liquid Petroleum Gases and Ethane	958	237	855	0	1,121	179	7,418	8,717	8,263	11,329	7,248	635	1,045	28,551	813	305	39,241
Propane	220	153	374	0	441	0	877	1,377	1,276	2,702	2,440	63	78	6,559	22	0	8,332
Butane	207	97	303	0	533	116	3,083	3,090	3,616	3,323	169	502	9,689	500	190	14,416	
Burner	113	30	143	0	102	54	1,207	1,363	1,368	1,973	911	260	243	4,715	256	38	5,508
Ethane-Propane Mixtures	0	0	0	0	2	0	0	2	35	2	7	0	15	4	0	0	54
Ethane-Propane Mixtures	16	11	26	0	44	9	1,721	1,722	1,877	1,965	794	155	87	2,625	4	24	3,410
Isobutane	64	0	64	0	0	0	470	532	717	1,081	794	0	0	5	0	0	72
Isobutane	64	0	64	0	0	0	0	0	0	0	0	0	0	0	4	2	0
Finished Unleaded Motor Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Finished Unleaded Motor Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Aviation-Type Jet Fuel	0	0	0	0	0	0	0	0	57	0	0	0	0	0	0	0	57
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	0	1	1	0	0	0	2	3	0	3
Special Naphthas	0	0	0	0	0	0	0	0	1	1	0	0	0	0	1	1	0
Miscellaneous Products	0	0	0	0	3	0	13	15	333	2	1	9	132	477	25	0	111
Miscellaneous Products	0	0	0	0	3	0	13	15	333	2	1	9	132	477	25	0	517
Total Production	1709	527	1,206	3	1,382	281	5,845	7,822	19,007	9,699	9,902	677	3,791	36,875	2,233	608	48,875

1. Production represents quantity of natural gas processing plant output less input to fractionating facilities.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 15. Refinery Input of Crude Oil and Petroleum Products by PAD District, March 1982
(Thousands of Barrels, Except Where Noted)

Commodity	PAD District I		PAD District II		PAD District III		PAD District IV		Total	New Misc.	Total	PAD Dist. V Royalty M.	PAD Dist. V West Coast	PAD Dist. V East Coast				
	East Coast	West Coast	Ind. W.C.	Ind. E.C.	Ind. W.C.	Ind. E.C.	Ind. W.C.	Ind. E.C.										
Crude Oil (including lease condensate)	33,850	3,271	37,230	1,737	48,118	6,812	24,432	62,799	14,351	78,517	56,552	4,912	2,435	156,997	11,904	61,395	345,556	
Natural Gas Plant Liquids																		
Liquefied Petroleum Gases	29	0	31	0	431	80	988	1,498	844	2,004	420	123	138	3,519	152	278	5,479	
Condensate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Plant Condensate	0	0	0	0	125	0	17	142	72	574	2	211	2	961	117	43	1,263	
LPG and Ethane	272	21	290	109	1,923	490	1,011	3,443	483	1,522	1,819	154	87	4,035	339	852	8,962	
Ethane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Propane	0	0	0	0	59	0	0	59	0	0	0	0	0	0	0	0	59	
Butane	132	14	137	51	59	270	303	1,247	120	832	987	44	3	1,741	81	221	3,432	
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Chemicals	0	0	0	0	255	59	135	450	45	118	0	0	0	141	203	329	1,179	
Sulfur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Sulfur-Propane Mixtures	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Isobutane	149	7	156	59	1,020	33	540	1,652	319	602	710	190	15	1,747	45	302	3,905	
Other Liquids																		
Other Hydrocarbons	90	21	114	0	200	0	12	212	4	255	152	0	0	431	80	573	1,390	
Lubricant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lubricant Oil (net)	2,749	70	2,819	95	170	-138	715	843	-752	3,797	1,548	225	-12	4,905	-654	1,415	9,520	
Motor Gasoline Blending																		
Components (net)	109	42	145	-12	1,055	59	-34	1,078	158	1,687	1,354	89	-17	3,871	-320	388	5,240	
Aviation Gasoline Blending																		
Components (net)	0	0	0	0	-85	0	-11	-97	-28	21	65	0	0	55	0	-65	-108	
Total Input to Refineries	37,205	3,427	40,832	1,930	53,606	7,222	27,130	83,219	15,342	85,487	62,662	5,704	2,593	174,776	11,908	64,815	351,312	
Crude Oil Distillation																		
Gross Input (daily average)	1,127	107	1,244	63	1,632	233	798	2,726	502	2,614	1,899	171	60	5,285	391	2,042	11,668	
Operating Capacity (daily average)	1,693	342	1,835	55	2,531	250	1,150	4,042	650	4,447	2,814	290	123	8,334	530	3,410	17,419	
Operating Ratio (percent)	65.4	65.7	68.2	94.9	64.5	75.0	69.4	67.4	76.0	58.8	67.3	58.7	70.0	62.2	62.0	60.0	64.9	
Crude Oil Qualities																		
Sulfur Content, Weighted Average (percent)	1.10	.29	1.05	.62	.81	1.68	.70	.81	.57	.87	.61	1.71	.26	.69	.45	1.00	.50	
API Gravity, Weighted Average	31.98	40.48	32.65	35.90	35.31	30.77	37.69	35.38	36.59	34.67	34.05	32.95	30.95	24.97	26.17	33.47	33.47	

1 Represents gross input divided by operable capacity.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 16. Refinery Production of Petroleum Products by PAD District, March 1982
(Thousands of Barrels)

Commodity	PAD District I		PAD District II		PAD District III		New Mexico	Total	PAD District IV		United States						
	East Coast	Appalachian	Ind. Ill. Ky.	Miss. Ala. Mo.	Okla. Minn. Wisc.	Ark. La. Miss.			Okla. Ark. Miss.	Okla. Ark. Miss.		West Coast	East Coast				
Liquid Petroleum Gases and Ethane	1,222	58	1,280	231	457	618	91	45	3,380	-7	1,206	7,912					
For Petrochemical Feedstock Use	432	0	432	0	155	0	0	0	1,787	-12	2,555	2,555					
For Other Uses	795	58	844	231	444	618	77	45	5,793	5	1,041	5,407					
Ethane	0	0	0	0	0	0	0	0	0	0	161	161					
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	0	161	161					
For Other Uses	0	0	0	0	0	0	0	0	0	0	0	0					
Propane	1,062	58	1,120	231	501	2,303	382	1,640	1,046	95	3,185	119	802	7,559			
For Petrochemical Feedstock Use	380	0	380	0	23	188	0	0	0	0	0	0	0	94	1,744		
For Other Uses	712	58	770	231	278	2,045	382	820	776	64	3,185	119	798	5,915	58		
Butane	130	0	130	0	-124	-148	28	13	194	14	0	0	0	0	31	523	
For Petrochemical Feedstock Use	55	0	55	0	-124	-148	28	37	154	10	0	0	0	0	0	485	
For Other Uses	75	0	75	0	0	0	0	5	37	3	0	0	0	0	0	116	
Butane-Propane Mixtures	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
For Petrochemical Feedstock Use	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
For Other Uses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Isobutane for Petro. Feed. Use	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Isobutane for Other Uses	17,368	18,714	1,198	31,779	4,228	14,971	7,848	40,457	28,375	1,132	81,155	25	38,322	156,041	0		
Finished Motor Gasoline	7,530	978	8,508	659	14,613	2,287	10,540	28,288	18,731	1,512	483	38,055	4,042	13,081	80,965		
Finished Unleaded Motor Gasoline	5,768	648	10,416	599	15,996	1,937	12,852	31,565	23,857	14,884	606	415	43,110	2,250	15,154	56,955	
Gasohol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Finished Aviation Gasoline	743	0	743	0	301	84	687	1,042	734	1,188	482	152	332	2,850	413	1,790	6,805
Jet-A Type Fuel	1,354	98	1,452	112	3,244	227	560	4,543	617	5,093	7,825	18	24	14,347	571	7,055	2,764
Kerosene	61	315	386	0	473	2	7	482	79	1,209	1,130	2	856	31,936	2,848	5,018	71,123
Distillate Fuel Oil	8,419	912	9,331	400	9,141	1,979	9,789	17,938	3,203	15,157	10,155	1,418	959	31,561	2,820	8,845	70,511
No. 4 Fuel Oil	0	13	13	0	1,678	0	1,791	1,791	1,195	15,157	10,155	1,418	559	31,561	2,820	8,845	70,511
No. 5 Fuel Oil	5,773	28	5,801	119	2,577	847	815	3,428	1,007	6,236	3,645	482	173	13,758	312	11,762	34,738
Other Oil > 400 Deg. For Petro. Feed. Use	15	54	69	0	1,067	0	1,082	1,082	3,630	3,007	152	2	0	4,501	0	1,144	5,675
Other Oil > 400 Deg. For Other Uses	13	17	30	0	1,195	0	1,210	295	131	784	53	215	0	1,163	0	1,381	1,991
Light Stock	323	423	746	0	453	0	396	813	58	1,517	619	145	0	2,215	2	3,031	3,847
Medium Stock	78	225	304	0	360	0	248	595	60	653	499	80	0	1,229	4	2,07	2,772
Other Grades	248	20	268	0	132	0	30	47	6	135	67	24	0	232	2	64	446
Wax	16	33	49	0	13	0	24	24	6	12	0	24	0	42	0	0	93
Microgasoline	5	11	16	0	13	0	-2	11	0	65	67	0	0	122	2	41	982
Crysaline-Fully Refined	10	48	58	0	4	0	6	12	0	88	0	0	0	60	0	25	151
Crysaline-Other	1,235	44	1,279	25	2,010	1,000	3,000	255	2,572	1,718	128	9	4,886	357	3,089	12,548	
Petroleum Coke	605	0	605	0	1,295	193	611	2,632	95	1,182	1,040	104	0	2,401	152	3,290	3,539
Catalyst	730	44	774	25	795	119	389	1,319	1,350	678	86	659	48	2,131	509	1,046	7,048
Asphalt	945	114	1,059	89	944	403	515	1,051	276	337	86	0	0	0	0	3	27
Feed Oil	0	0	0	0	3	0	1	4	0	4,514	2,512	172	0	7,570	515	3,222	16,721
SRI Gas	1,257	96	1,353	59	2,209	257	1,243	3,796	2	455	60	0	0	659	12	4	917
For Petrochemical Feedstock Use	43	0	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0
For Other Uses	1,514	96	1,610	59	2,207	257	1,243	3,796	2	455	60	0	0	659	12	4	917
Miscellaneous Products	327	22	349	0	-184	21	58	-104	91	951	216	41	-1	1,290	22	254	1,819
Total Output	39,180	3,398	42,588	2,011	55,485	7,372	20,925	53,253	15,574	92,280	64,786	5,753	2,600	180,973	12,095	68,349	387,148
Processing Gain ⁽¹⁾ or Loss ⁽²⁾	-1,375	39	-1,336	-51	-3,549	-449	-685	-1,036	-332	-3,773	-2,134	-48	-7	-6,195	-137	-3,534	-19,828

¹ Represents the arithmetic difference between input and output.
Notes: Total is not exact sum of components due to independent rounding.
See Explanatory Notes on negative product yield.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 17. Percent Refinery Yield of Petroleum Products by PAD District,¹ March 1962

Commodity	PAD District I		PAD District II		Texas Inland	Texas Gulf Coast	PAD District III		Total	New Mexico	PAD District IV		United States
	East Coast	Appalachian Basin	Ind., Ill., Ky.	Wisc., Minn., S.D., Neb.			Okla., Kan., Mo.	L.A., Calif. Coast			No. La., Ark.	Fla., Miss.	
Finished Motor Gasoline ²	46.0	37.1	45.3	58.4	55.7	56.1	51.6	54.5	54.5	37.1	42.2	41.8	45.0
(B)	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasoline Refinery Gases & Ethane	3.3	1.7	3.2	1.4	2.9	3.5	1.9	3.2	3.2	1.9	2.1	1.1	2.2
(B)	0	0	0	0	0	0	0	0	0	0	0	0	0
Gasoline Refinery Fuel Oil	3.7	3.0	3.9	0	4.0	1.3	2.6	1.2	5.3	1.4	1.7	3.6	2.8
Kerosene Type Jet Fuel	2	1.0	3.2	0	1.0	3.4	3.8	5.2	4.5	7.4	13.1	4	11.2
(B)	0	0	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	22.9	24.3	23.0	21.8	18.5	20.2	26.9	21.7	23.2	20.2	19.1	15	19.3
(B)	0	0	0	0	0	0	0	0	0	0	0	0	0
Residual Fuel Oil	14.1	6.1	13.5	6.5	4.8	3.7	3.2	4.3	7.6	7.6	10.0	14.4	10.9
(B)	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquid Fuel > 400 Deg. F. Petro. Feed Use	1.0	1.6	2	0	2.2	0	0	1.3	0	4.4	5.2	0	2
(B)	0	0	0	0	0	0	0	0	0	0	0	0	0
Special Naphthas	9	12.7	1.3	0	5	0	4	0	1.3	0	1.2	0	1.6
(B)	0	0	0	0	0	0	0	0	0	0	0	0	0
Wax	0	2.5	3	0	0	0	1	0	0	1.0	0.7	0	3
(B)	0	0	0	0	0	0	0	0	0	0	0	0	0
Petroleum Coke	3.4	1.3	3.2	1.4	4.1	4.7	4.0	4.0	1.8	3	0	1.4	1.1
(B)	0	0	0	0	0	0	0	0	0	0	0	0	0
Asphalt	2.6	3.4	2.6	4.9	1.9	6.0	2.0	2.4	2.0	3.4	1.4	12.0	2.0
(B)	0	0	0	0	0	0	0	0	0	0	0	0	0
Slit Gas for Petro. Feed Use	4.1	2.0	3	0	0	0	0	0	0	0	0	0	0
(B)	0	0	0	0	0	0	0	0	0	0	0	0	0
Slit Gas for Other Uses	4.1	2.0	4.9	3.1	4.5	3.5	5	2.3	4.9	4.3	3.3	2.1	4.5
(B)	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0.8	1.7	0.9	2	2.4	3	2	1	1.2	1.2	1.4	4.4	5.1
(B)	0	0	0	0	0	0	0	0	0	0	0	0	0
Processing Gain(-) or Loss(+) ³	-5.4	1.2	-4.0	-4.4	-5.2	-6.7	-3.8	-4.9	-1.7	-4.6	-1.0	-3.8	-4.4

¹ Based on crude oil input and net volume of unfinished oils.

² Based on total finished motor gasoline output plus net output of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons, and refinery gases.

³ Based on finished motor gasoline output plus net output of aviation gasoline blending components.

⁴ Represents the difference between input and production.

(B) Less than 0.05 percent.

Note: Total may not equal sum of components due to independent rounding.

See Explanatory Notes on negative product yields.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 18. Refinery Receipts of Crude Oil by PAD District, March 1982
(Thousands of Barrels)

Method	PAD District I		PAD District II				PAD District III			PAD District IV		United States					
	East Coast	Appalachian	Ind. Ill., Ky.	Miss., Wisc., Okla.	Chia. Kans., Min.	Texas Coast	Texas Gulf Coast	Texas Gulf Coast	La. Ark.	New Mexico	Total Rocky Mts.		West Coast				
Domestic	0	1,637	1,259	37,439	3,484	22,309	64,547	15,244	50,398	31,915	3,350	1,431	99,208	10,034	37,307	205,453	
Foreign	0	775	775	270	9,308	3,581	1,457	14,556	1,123	8,333	918	469	0	10,493	627	430	27,458
Tanker																	
Domestic	4,112	0	4,112	0	0	0	0	0	0	3,302	0	0	6,011	0	38,184	38,697	
Foreign	25,773	0	25,773	0	0	0	0	0	3,896	15,125	0	0	23,083	0	5,969	96,655	
Beats																	
Domestic	0	45	45	1,019	0	1,019	0	4,633	5,428	129	0	0	10,040	0	267	11,371	
Foreign	2,809	0	2,809	0	354	0	354	0	80	323	9	0	412	0	0	3,545	
Tank Cars																	
Domestic	82	365	437	0	0	0	0	0	0	0	0	0	24	0	0	461	
Foreign	0	0	0	0	0	0	0	156	0	0	0	0	0	0	0	0	
Totals																	
Domestic	0	318	318	125	257	11	895	1,282	836	227	578	917	537	3,183	958	1,330	7,105
Foreign	0	0	0	0	0	0	0	0	0	0	0	0	168	0	0	168	
Total																	
Domestic	4,194	2,925	5,849	1,351	38,715	3,480	23,302	65,254	13,140	50,417	41,221	4,320	2,358	121,448	10,930	55,038	251,557
Foreign	25,052	775	25,327	270	9,532	3,581	1,457	14,823	1,201	18,719	15,266	468	0	35,033	627	6,118	87,728

Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 19. Fuels Consumed at Refineries by PAD District, March 1982
(Thousands of Barrels, Except Where Noted)

Commodity	PAD District I		PAD District II				PAD District III			PAD District IV		PAD West Coast	PAD States (1)
	East Coast	Appalachian	Total	Ind. Ill., Ky.	Miss., Wisc., Okla.	Chia. Kans., Mo.	Texas Inland	Texas Gulf Coast	La. Ark.	New Mexico	Total Rocky Mts.		
Crude Oil (including lease condensate)	0	0	0	0	0	0	0	0	0	0	0	0	0
Crude Oil (excluding lease condensate)	17	13	30	11	260	35	24	340	10	61	311	0	5
Unrefined Oil	0	0	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	57	25	82	6	0	0	0	0	0	15	0	0	0
Residual Fuel Oil	500	54	594	9	372	79	59	918	10	239	50	14	0
Manufactured Petroleum Coke	0	0	0	0	2	0	0	2	0	0	0	0	0
Catalyst Petroleum Coke	533	44	577	25	57	59	387	1,210	180	1,342	879	84	0
Still Gas	1,239	124	1,354	69	2,012	238	1,001	3,533	274	3,449	2,313	168	46
Other Fuels 2 (includes sulfur)	1,728	309	2,039	34	3,329	73	8,320	8,820	2,877	13,023	7,981	808	195
Coal (thousand short tons)	0	15	15	0	0	0	0	0	0	38	0	0	0
Purchased Electricity (million kWh)	323	49	377	14	387	45	765	1,510	75	778	355	134	0
Purchased Steam (million pounds)	737	12	748	0	125	0	0	125	10	0	974	0	0

1 Includes liquefied refinery gases.

2 Includes small quantities of other petroleum products (i.e., unfinished oils, kerosenes, etc.) consumed at refineries.

(1) Less than 500 barrels except where noted.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 20. Imports of Crude Oil and Petroleum Products by PAD District, March 1982
(Thousands of Barrels)

Commodity	Petroleum Administration for Defense Districts							Total
	I	II	III	IV	V			
Crude Oil (including lease condensate) 1, 2	28,169	15,979	40,563	628	5,196			88,558
Natural Gas Liquids	416	5,158	425	594	497			7,099
Ethane and Isobutane	(1)	0	0	0	0			(1)
Propane	0	0	0	0	0			0
Pent Condensate	0	0	0	0	0			0
Liquefied Petroleum Gases and Ethane	415	5,158	425	594	497			7,098
Ethane	0	0	0	0	0			0
Ethane	0	1,812	0	0	0			1,812
Propane	234	1,195	0	344	100			1,673
Butane	182	650	0	107	303			1,242
Ethane-propane Mixtures	0	0	425	0	0			425
Ethane-propane Mixtures	0	1,512	0	0	0			1,512
Other Liquids 1	1,565	523	1,625	83	209			4,206
Unfinished Oils 1	1,562	51	1,602	0	209			3,614
Motor Gasoline Blending Components	13	472	54	53	0			592
Refined Petroleum Products	32,383	722	3,270	1	2,200			38,466
Finished Motor Gasoline	4,056	2	(1)	0	1,042			5,080
Finished Motor Gasoline	2,978	0	(1)	0	691			3,385
Finished Motor Gasoline	1,305	0	0	0	351			2,236
Finished Aviation Gasoline	0	0	0	0	0			0
Night-Home-Type Jet Fuel	0	0	0	0	0			0
Kerosene-Type Jet Fuel	1,200	0	0	0	0			1,200
Bonded Aircraft Fuel	0	0	0	0	0			0
Other	1,200	0	0	0	0			1,200
Kerosene Fuel Oil	49	0	0	0	0			49
Distillate Fuel Oil	1,133	0	197	(4)	160			1,485
For military offshore use	0	0	0	0	0			0
No. 2 fuel oil	1,137	0	197	(4)	157			1,491
No. 4 fuel oil	0	0	0	0	3			3
Residual Fuel Oil	24,060	614	2,816	0	708			28,158
Bonded ships bunkers	0	0	0	0	0			0
For military offshore use	0	0	0	0	0			0
Other	24,060	614	2,816	0	708			28,158
Naptha < 400 Dkg for Petrol Feed Use	36	0	34	0	4			74
Solids Oil > 400 Dkg for Petrol Feed Use	0	0	0	0	0			0
Solvent Naphtha	909	8	222	(1)	376			1,213
Lubricants	199	5	(1)	0	(1)			114
Wax	2	5	1	0	1			8
Asphalt	1	0	0	0	0			1
Miscellaneous Products	2	0	1	0	(1)			13
Total Imports	62,328	20,392	46,115	1,276	8,192			118,289

1. Crude oil and unfinished oils are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of origin.

2. Includes crude oil imported for storage in the Strategic Petroleum Reserve.

(1) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, March 1982
(Thousands of Barrels)

Source	Crude Oil	LPG Ethane	Unde- lined Oil	Casoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Kero- sene	Distil- l Fuel Oil	Feed- stock Oil	Special Naphthas	Other Prods	Total Prods	Total Mtr- hour	Total (Daily Average)
Arab OPEC														
Algeria	488	0	0	0	0	0	0	2,133	222	0	2,354	2,822	31	37
Libya	1,162	0	0	0	0	0	0	0	0	0	0	1,162	0	1,162
Qatar	558	0	0	0	0	0	0	0	0	0	0	558	0	558
Saudi Arabia	15,361	0	0	0	0	0	0	0	0	291	0	201	17,212	555
United Arab Emirates	4,491	0	0	0	0	0	0	0	0	325	0	325	4,820	155
Subtotal Arab OPEC	23,740	0	0	0	0	0	0	2,133	222	0	2,353	20,073	860	860
Other OPEC														
Colombia	1,300	0	0	0	0	0	0	0	219	0	0	219	1,559	50
Gabon	618	0	0	0	0	0	0	0	0	0	0	0	618	20
Indonesia	5,343	0	0	0	245	0	0	69	543	0	0	658	6,201	200
Nigeria	15,590	0	0	0	0	0	0	0	0	0	0	0	15,590	503
Venezuela	3,488	124	209	0	295	0	0	5,390	0	0	0	8,678	12,266	768
Subtotal Other OPEC	26,376	124	309	0	501	0	0	65	9,052	0	0	9,056	36,332	1,172
Other														
Aruba	815	0	0	0	0	0	0	0	0	0	0	0	615	20
Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bahamas	0	0	862	0	0	0	0	190	507	0	0	1,316	1,316	43
Brazil	350	0	0	0	0	0	0	413	15	0	0	428	770	25
Brunai	0	0	0	0	76	0	0	4	77	0	0	157	157	5
Canada	5,211	6,296	53	593	2	0	0	17	872	216	0	8,270	18,458	635
Congo	0	0	0	0	0	0	0	0	0	0	0	0	0	0
France	1,412	0	0	0	0	0	0	0	0	0	0	0	1,412	48
Germany	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ghana	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malaysia	1,415	0	0	0	0	0	0	135	0	0	0	135	135	4
Mexico	14,725	425	0	0	0	0	0	0	0	0	0	0	1,415	46
Netherlands	0	0	0	0	0	0	0	101	306	0	0	396	10,086	609
Netherlands Antilles	0	0	427	0	154	0	0	0	0	0	0	0	1,133	134
Norway	2,650	0	0	0	48	0	0	3,020	0	0	0	5,113	5,113	169
Republic of China	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Spain	0	0	0	0	0	0	0	0	0	0	0	0	2,460	80
Puerto Rico	0	0	0	0	487	0	0	0	0	188	0	555	555	21
Romania	0	0	456	0	0	0	0	480	0	0	0	480	842	27
Syria	0	0	0	13	0	0	0	0	0	0	156	1,237	1,237	62
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	13	13
Trinidad and Tobago	0	0	0	0	195	0	0	0	0	0	0	0	195	6
Turkmenistan	0	0	0	0	0	0	0	0	0	0	0	0	845	118
United Kingdom	0	0	825	0	0	0	0	0	0	0	0	0	825	26
Virgin Islands	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	438	0	1,473	776	48	1,019	5,701	70	0	9,526	9,526	307
Other Hemisphere	0	78	67	0	0	0	0	1,089	102	0	0	1,335	1,335	43
Other Eastern Hemisphere	895	0	397	0	823	0	0	29	1,201	230	0	2,769	3,664	118
Subtotal Other	33,412	6,769	3,404	592	5,179	1,200	49	1,425	17,912	534	386	36,862	75,294	2,429
Total Imports	88,526	6,913	3,614	882	5,880	1,200	49	1,485	28,188	1,335	386	46,771	138,259	4,461

See footnotes at end of table.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, March 1982
(Thousands of Barrels)

Source	Crude Oil 1	LPG Ethane	Liquefied Gases	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Special Naphthas	Other Products 2	Total Products	Total Petroleum	Total (Daily Average)
PAD District 1														
Arab OPEC														
Algeria	467	0	0	0	0	0	0	0	2,133	222	0	2,354	2,621	91
Libya	564	0	0	0	0	0	0	0	0	0	0	0	644	21
Saudi Arabia	4,812	0	0	0	0	0	0	0	0	0	0	0	22	1
United Arab Emirates	0	0	0	0	0	0	0	0	0	533	0	251	5,001	103
Subtotal Arab OPEC	5,943	0	0	0	0	0	0	0	2,133	897	0	2,930	8,676	205
Other OPEC														
Ecuador	0	0	0	0	0	0	0	0	219	0	0	219	219	7
Libyan	616	0	0	0	0	0	0	0	0	0	0	0	616	20
Nigeria	1,916	0	0	0	0	0	0	0	0	0	0	0	1,916	62
Venezuela	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal Other OPEC	2,532	0	0	0	0	0	0	0	6,879	0	0	6,879	2,532	82
Subtotal Other OPEC	13,842	124	0	0	255	0	0	0	7,018	0	0	7,478	8,544	208
Subtotal Other OPEC	13,842	124	0	0	255	0	0	0	7,018	0	0	7,478	8,544	208
Other														
Australia	446	0	0	0	0	0	0	0	0	0	0	0	446	14
Belgium	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Brazil	350	0	421	0	0	0	0	0	507	0	0	927	927	30
Canada	0	213	1	0	0	0	0	13	228	149	0	620	769	25
Egypt	290	0	0	0	0	0	0	0	0	0	0	0	290	20
France	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Germany	0	0	0	0	0	0	0	0	123	0	0	123	123	4
India	2,200	0	0	0	0	0	0	0	248	0	0	2,448	2,448	87
Japan	1	0	0	0	884	0	0	0	0	0	0	1,133	1,133	37
Netherlands	0	0	426	0	0	424	0	0	4,781	0	0	5,632	5,632	182
Norway	1,202	0	0	0	0	0	0	0	0	0	0	0	1,202	32
Pero	382	0	0	0	0	0	0	0	242	0	0	242	604	19
Puerto Rico	0	0	436	0	1,013	0	0	105	0	0	162	1,677	1,677	54
Romania	0	0	0	13	0	0	0	0	0	0	0	13	13	0
Spain	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sweden	0	0	0	0	192	0	0	0	0	0	0	192	192	6
Tanzania	0	0	0	0	0	0	0	0	266	0	0	266	266	24
Turkey	503	0	0	0	0	0	0	0	0	0	0	0	503	0
Trinidad and Tobago	0	0	0	0	0	0	0	0	0	0	0	0	0	0
United Kingdom	2,544	0	0	0	0	0	0	0	0	0	0	0	2,544	81
Virgin Islands	0	0	255	0	1,473	776	40	1,019	5,701	0	0	9,984	9,984	299
Other Western Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hemisphere	0	78	0	0	0	0	0	0	1,089	0	0	1,166	1,166	38
Other Eastern Hemisphere	0	0	0	0	815	0	0	0	1,224	0	0	2,039	2,039	66
Subtotal Other	8,375	291	1,552	13	4,381	1,200	40	1,137	14,829	149	151	23,752	32,128	1,036
Total imports	25,190	415	1,552	13	4,636	1,200	49	1,137	24,060	850	151	34,163	62,323	2,010

See footnotes at end of table.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, March 1982
(Thousands of Barrels)

Source	Crude Oil 1	LPG and Ethane	Lubricating Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Oil	Residual Oil	Special Naphthas	Other Products	Total Products	Total Petro-Items (Daily Average)
PAD District II													
Arab OPEC													
Qatar	638												638
U.A.E.	2,356												2,356
U.A.E. Emirates	1,654												1,654
Subtotal Arab OPEC	3,675												3,675
Other OPEC													
Nigeria	1,031												1,031
Subtotal Other OPEC	1,031												1,031
Other													
France	4,153	5,168	51	472	2	0	0	0	614	87	18	6,413	10,607
Mexico	1,731	0	0	0	0	0	0	0	0	0	0	1,731	1,731
Norway	500	0	0	0	0	0	0	0	0	0	0	500	500
United Kingdom	2,259	0	0	0	0	0	0	0	0	0	0	2,259	2,259
Other Western Hemisphere	449	0	0	0	0	0	0	0	0	0	0	449	449
Subtotal Other	9,072	5,168	51	472	2	0	0	0	614	87	18	6,413	15,486
Total Imports	13,979	5,168	51	472	2	0	0	0	614	87	18	6,413	20,392
PAD District III													
Arab OPEC													
Nigeria	1												1
U.A.E.	518												518
Saudi Arabia	9,294												9,294
United Arab Emirates	3,658												3,658
Subtotal Arab OPEC	13,471												13,471
Other OPEC													
Indonesia	1,070												1,070
Malaysia	4,910												4,910
Venezuela	1,853								1,411	0	0	1,411	3,215
Subtotal Other OPEC	7,883								1,411	0	0	1,411	9,210
Other													
Angola	169												169
Bahamas	0		242					150				282	19
Brunei	0		0					0		15		15	0
Chad	0		0					0		0		0	0
Congo	0		0	54				0		0		54	0
Egypt	1,163							0	0	0	0	0	1,163
France	0							0		0	0	0	0
Ghana	0							0		0	0	0	0
Indonesia	794							0	2	0	0	2	2
Malaysia	0							0	0	0	0	0	0
Mexico	10,086	425			0			47	335	0	2	809	10,895
Netherlands Antilles	0		0					0	228	0	0	228	0
Norway	991							0	0	0	0	0	991
Peru	0							0	239	0	0	239	0

See footnotes at end of table.

Table 21. Imports of Crude Oil and Petroleum Products by Source and PAD District, March 1982
(Thousands of Barrels)

Source	Crude Oil ¹	LPG and Ethane	Unkindsed Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Dist. Fuel Oil	Resid. Fuel Oil	Special Naphtmas	Other Products ²	Total Petroleum	Total (Daily Average)
PAD District III													
Other	0	0	0	0	0	0	0	0	0	0	34	34	1
Brazil	2,301	0	0	0	0	0	0	0	599	0	0	499	2,800
Tanzania and Tobago	(1)	0	0	0	0	0	0	0	0	0	0	0	(1)
Tunisia	0	0	0	0	0	0	0	0	0	0	0	0	0
United Kingdom	3,346	0	0	0	0	0	0	0	0	0	0	824	4,270
Virgin Islands	0	0	173	0	0	0	0	0	0	0	70	342	138
Other Western Hemisphere	0	0	67	0	0	0	0	0	0	102	0	169	169
Other Eastern Hemisphere	44	0	35	0	0	0	0	0	432	0	0	478	528
Subtotal Other	18,295	425	1,892	54	(1)	0	0	197	1,463	222	36	4,160	23,825
Total Imports	40,565	425	1,892	54	(1)	0	0	197	2,816	222	36	5,590	48,115
PAD District IV													
Other	0	0	0	0	0	0	0	0	0	0	143	143	41
Canada	688	451	0	53	0	0	0	0	0	0	0	648	1,270
Subtotal Other	688	451	0	53	0	0	0	0	0	0	0	648	1,270
Total Imports	688	451	0	53	0	0	0	0	0	0	143	848	41
PAD District V													
Arab OPEC	101	0	0	0	0	0	0	0	0	0	0	0	101
Saudi Arabia	389	0	0	0	0	0	0	0	0	0	0	0	389
United Arab Emirates	480	0	0	0	0	0	0	0	0	0	0	0	480
Subtotal Arab OPEC	970	0	0	0	0	0	0	0	0	0	0	0	970
Other OPEC	270	0	0	0	0	0	0	0	0	0	0	0	270
Ecuador	3,425	0	0	265	0	0	0	0	69	543	0	858	4,283
Indonesia	0	0	269	0	0	0	0	0	0	0	0	269	269
Venezuela	0	0	200	0	245	0	0	69	543	0	0	1,067	4,762
Subtotal Other OPEC	3,695	0	200	0	245	0	0	69	543	0	0	1,067	4,762
Other	0	0	0	0	78	0	0	4	77	0	0	157	157
Bahrain	430	454	0	0	0	0	0	3	22	12	48	589	91
Canada	621	0	0	0	0	0	0	0	0	0	0	621	21
Malaysia	0	0	0	0	0	0	0	54	0	0	1	55	55
Mexico	0	(1)	0	0	0	0	0	0	0	0	0	0	0
Netherlands	0	0	0	0	0	0	0	0	0	0	0	0	0
People's Republic of China	0	0	0	0	487	0	0	0	0	168	0	655	21
Puerto Rico	0	0	0	0	226	0	0	0	0	0	0	226	7
Other OPEC	0	0	0	0	0	0	0	23	65	195	(1)	287	10
Other Eastern Hemisphere	0	0	0	0	7	0	0	91	164	376	48	1,059	96
Subtotal Other	1,081	454	0	0	796	0	0	160	708	376	48	2,996	284
Total Imports	5,195	454	209	0	1,042	0	0	160	708	376	48	2,996	8,182

¹ Includes crude oil imported for storage in the Strategic Petroleum Reserve.

² Includes aviation gasoline, waxes, asphalt, lubricants, natural petroleum, isopentane, plant condensate, naphthalene less than 400 degrees F, other oils greater than 400 degrees F and miscellaneous products.

³ Less than 600 barrels or less than 200 tonnes per day.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 22. Exports of Crude Oil and Petroleum Products by PAD District, March 1982
(Thousands of Barrels)

Commodity	Petroleum Administration for Defense Districts					Total
	I	II	III	IV	V	
Crude Oil (including lease condensate) 1	0	1,993	0	0	7,887	9,880
Liquefied Petroleum Gases and Ethane	70	828	1,281	0	182	2,561
Ethane	(*)	0	(*)	0	0	0
Propane	29	330	714	0	81	1,135
Butane	41	496	567	0	91	1,174
Butane-Propane Mixtures	0	0	0	0	0	0
Other Petroleum Gases	1	3	1,006	0	264	1,287
Naphtha-Type Jet Fuel	(*)	0	0	0	0	0
Kerosene-Type Jet Fuel	0	0	0	0	80	80
Kerosene	1	(*)	0	0	0	1
Distillate Fuel Oil	1	(*)	1,384	0	1,212	2,607
Residual Fuel Oil	225	0	4,110	0	1,778	6,113
Naphtha < 400 Deg. for Petrochem. Feedstock	55	7	90	1	13	167
Other Oils > 400 Deg. for Petrochem. Feedstock	(*)	42	281	0	1	304
Special Naphthal	2	1	253	0	0	256
Special Lubricants	24	15	373	0	82	492
Waxes	5	(*)	49	0	0	54
Petroleum Coke	17	0	1,458	0	2,137	3,612
Asphalt	5	(*)	3	(*)	3	12
Miscellaneous Products	15	1	20	(*)	4	43
Total Product Exports	645	565	10,056	3	5,711	17,290
Total Exports	645	2,601	10,056	3	13,698	27,343

1. Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange for a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

(*) Less than 200 barrels.

Note: Total may not equal sum of components due to independent rounding.

Sources: See Explanatory Notes on Data Collection and Estimation.

Table 23. Exports of Crude Oil and Petroleum Products by Destination, March 1982
(Thousands of Barrels)

Destination	Crude Oil ¹	LPG and Ethane	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Social Naphtha	Lubricants	Wax	Petro-lum Coke	Asphalt	Other	Total	Total Exports (Average)
Algeria	0	0	0	0	0	0	0	13	0	1	0	0	66	2
Algeria	0	0	0	0	0	186	0	0	0	247	0	0	454	15
Bahrain	0	2	1	0	0	0	0	1	0	0	0	0	4	0
Bahrain	0	2	1	0	0	0	0	0	0	60	0	0	64	2
Belgium & Luxembourg	0	0	0	0	0	0	0	0	0	0	0	0	70	2
Brazil	0	6	0	0	0	460	7	10	0	0	0	0	485	16
Canada	0	0	0	0	0	0	0	0	0	30	0	0	30	1
Canada	1,963	0	25	40	1	0	2	54	0	4	0	62	3,190	103
China	0	0	0	0	0	0	0	0	0	0	0	0	3	0
China (Taiwan)	0	0	0	0	0	0	0	15	0	0	0	0	23	1
Colombia	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Colombia	0	0	0	0	0	0	0	0	0	0	0	0	4	0
Costa Rica	0	1	0	0	0	0	0	0	0	0	0	0	126	4
Denmark	0	0	0	0	0	0	0	0	0	12	0	0	13	0
Dominican Republic	0	0	0	0	0	0	0	0	0	0	0	0	256	8
Ecuador	0	0	131	0	0	0	0	0	0	0	0	0	131	0
Egypt	0	0	0	0	0	0	0	0	0	0	0	0	2	0
EI Salvador	0	0	0	0	0	0	0	4	0	0	0	0	4	0
Finland	0	0	0	0	0	0	0	0	0	0	0	0	1	0
France	0	305	0	0	0	0	0	0	0	0	0	0	1,056	34
France	0	0	15	0	35	630	0	1	0	1	0	0	681	22
French Pacific Isl.	0	0	0	0	0	0	0	0	0	24	0	0	24	1
Germany	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ghana	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Guatemala	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Guatemala	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Honduras	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hong Kong	0	2	0	0	0	0	0	0	0	0	0	0	2	0
India	0	0	0	0	0	0	0	0	0	0	0	0	0	0
India	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Indonesia	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Iran	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Iran	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Italy	0	80	0	0	0	151	0	0	0	7	0	0	230	7
Italy Coast	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jamaica	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jamaica	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Japan	0	10	0	0	487	0	0	23	0	0	0	0	26	1
Japan	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jordan	0	0	0	0	0	705	0	0	0	0	0	0	705	23
Korea	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kuwait	0	1	0	0	0	0	0	0	0	0	0	0	1	0
Lebanon	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Libya	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Libya	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malaysia	0	780	985	40	1,165	0	1	0	0	0	0	0	3,127	101
Mexico	0	193	0	0	0	2,291	0	0	0	4	2	7	3,051	99
Netherlands	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Netherlands Antilles	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Zealand	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Norway	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Norway	0	0	0	0	174	0	0	0	0	0	0	0	174	6
Norway	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pacific Trust Terr.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Panama	0	0	0	0	0	177	0	0	0	0	0	0	177	6
Panama	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Peru	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Philippines	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Philippines	0	0	0	0	0	0	0	0	0	0	0	0	0	0

See footnotes at end of table.

Table 23. Exports of Crude Oil and Petroleum Products by Destination, March 1982

(Thousands of Barrels)

Destination	Crude Oil ¹	LPG and Ethane	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphtha	Lubricants	Wax	Petroleum Coke	Asphalt	Other	Total	Total Daily Average
Puerto Rico	2,142	21	219	0	5	327	224	14	1	56	(3)	8	3,090	92
Rep. of South Africa	0	(4)	0	0	0	0	0	0	2	16	(3)	14	73	2
Saudi Arabia	0	7	0	0	(4)	0	0	20	0	(3)	2	3	32	1
Singapore	0	(4)	0	0	0	0	0	2	(4)	0	(3)	4	6	(4)
Spain	0	0	0	0	0	0	0	0	(4)	183	0	1	182	6
Sweden	0	(4)	0	0	1	0	0	0	0	0	0	(4)	16	(4)
Switzerland	0	0	0	0	0	0	0	1	(4)	0	0	2	1	(4)
Switzerland	0	0	0	0	0	(4)	0	(4)	(4)	0	0	(4)	1	(4)
Thailand	0	(4)	0	0	0	0	0	0	0	0	0	0	1	(4)
Trinidad and Tobago	0	0	0	0	0	0	0	7	0	(4)	0	0	7	(4)
Turkey	0	0	0	0	0	328	(4)	(4)	0	0	0	0	328	11
U.A.E. (Dubai)	0	0	0	0	0	0	0	0	0	0	0	0	0	2
U.A.E. (Ajman)	0	0	0	0	0	60	(4)	(4)	0	55	0	(4)	58	21
United Kingdom	0	0	0	0	0	0	0	31	(4)	0	(4)	11	640	21
U.S.S.R.	0	0	0	0	0	0	0	38	0	0	0	0	38	0
Uruguay	0	0	0	0	0	0	0	0	0	0	0	0	0	(4)
Venezuela	0	0	0	0	0	0	0	0	0	0	0	0	0	(4)
Venezuela	21	0	0	0	0	0	0	6	(4)	6	(4)	147	181	6
Virgin Islands	0	0	0	0	0	0	0	0	0	0	0	0	170	0
West Germany	2,256	0	0	0	0	0	0	1	18	47	(4)	11	77	2
Yugoslavia	0	0	0	0	0	0	0	0	0	0	0	0	0	(4)
Other	540	2	0	0	0	0	0	20	1	0	0	(4)	5	(4)
Total	8,820	2,326	1,267	80	2,697	5,931	255	682	30	3,411	12	512	27,161	870

¹ Exports of crude oil are prohibited under normal circumstances. Some crude oil is shipped to Canada in exchange, on a barrel-for-barrel basis. Shipments of crude oil to Puerto Rico and the Virgin Islands are not prohibited because these territories are U.S. possessions.

(4) Less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, March 31, 1982

(Thousands of Barrels)

Commodity	PAD District I		PAD District E				PAD District III				PAD District IV		PAD West Coast	United States			
	East Coast	Total	Alaska	Ill. Ky.	Wisc.	Ohio	W.Va.	Kans. Mo.	La.	Gulf Coast	Miss.	Total			New Mexico		
Crude Oil (incl. lease condensate)¹																	
Refinery	—	15,540	—	—	—	16,765	—	—	—	—	—	50,171	2,724	32,282	108,352		
Task Pumps and Pipelines	—	3,127	—	—	—	65,082	—	—	—	—	—	50,171	1,875	201,654	201,654		
Leases	—	65	—	—	—	1,155	—	—	—	—	—	17,783	1,485	32,852	32,852		
Strategic Petroleum Reserve ²	—	—	—	—	—	—	—	—	—	—	—	248,537	—	—	248,537		
Accumulated In-Transit	—	0	—	—	—	0	—	—	—	—	—	—	—	33,021	33,021		
Total	—	18,732	—	—	—	83,263	—	—	—	—	—	409,533	16,080	86,118	614,236		
Petroleum Products																	
Refinery	40,835	4,407	1,035	45,239	8,049	24,613	78,876	32,371	76,375	47,393	5,384	1,980	142,415	17,623	68,612	353,866	
Bulk Terminal	102,859	6,703	103,142	4,312	46,109	10,650	13,857	69,917	3,291	33,680	6,583	4,088	14,916	2,864	14,916	149,485	
Pipeline	24,236	1,470	25,706	1,590	12,300	3,802	10,383	31,128	5,753	40,778	14,285	4,320	50,775	2,864	5,995	107,475	
Natural Gas Processing Plant	169,236	12,847	181,103	6,837	93,561	22,741	74,046	203,286	37,632	140,255	71,822	27,452	3,703	285,054	33,840	35,562	786,676
Total	3	0	3	0	27	106	162	295	104	758	269	0	41	1,110	10	168	1,589
Natural Gasoline and Inexpensive																	
Refinery	0	0	0	0	52	1	284	337	573	45	0	64	44	720	154	5	2,322
Pipeline	0	0	0	0	32	14	1,285	1,232	469	6,122	517	26	82	7,236	42	14	9,541
Natural Gas Processing Plant	0	0	0	0	111	121	1,934	1,166	6,363	726	90	167	8,072	206	187	11,445	
Total	0	0	0	0	183	2	1,865	1,847	272	2,153	255	2	242	2,847	36	2	4,788
Unrefined Stream																	
Refinery	0	0	0	0	78	0	19	97	0	38	38	0	0	50	0	0	153
Natural Gas Processing Plant	0	0	0	0	102	2	1,648	1,750	272	2,125	327	2	242	2,847	36	2	4,635
Total	0	0	0	0	180	2	1,865	1,847	272	2,153	255	2	242	2,847	36	2	4,788
Plant Condensate																	
Refinery	0	0	0	0	6	0	0	6	6	162	0	93	0	261	0	0	267
Pipeline	0	0	0	0	0	0	0	0	822	273	49	4	17	1,163	2	0	1,265
Natural Gas Processing Plant	0	0	0	0	2	0	3	7	45	21	14	0	1	114	0	0	100
Total	0	0	0	0	8	0	3	13	815	484	62	107	18	1,517	2	0	1,532
Ethane																	
Refinery	0	0	0	0	8	0	0	8	8	0	0	0	0	573	0	0	581
Natural Gas Processing Plant	0	0	0	0	28	919	144	1,091	213	77	141	0	3	434	0	0	1,268
Total	0	0	0	0	36	0	546	571	181	1,083	444	1	0	1,709	0	0	2,269
Propane																	
Refinery	0	0	0	0	138	919	710	1,766	384	2,321	583	1	3	3,564	0	0	3,672
Total	0	0	0	0	62	0	0	62	0	7	182	0	0	199	1	0	306
Propane for Petrochemical Feedstock Use																	
Refinery	44	0	44	0	62	0	0	62	0	7	182	0	0	199	1	0	306
Total	44	0	44	0	62	0	0	62	0	7	182	0	0	199	1	0	306
Propane for Other Uses																	
Refinery	373	3	376	6	584	31	252	973	208	738	757	3	7	1,774	66	226	3,415
Bulk Terminal	176	0	176	0	784	97	452	1,313	501	13,719	0	42	0	13,902	38	0	19,488
Pipeline	877	230	1,107	32	1,579	294	1,731	3,636	574	329	509	614	158	1,525	153	189	24,225
Natural Gas Processing Plant	279	290	1,039	0	1,649	113	12,352	14,114	3,164	0,295	3,760	0	542	36,681	408	415	60,027
Total	1,705	582	2,287	38	4,676	535	16,737	20,036	4,137	21,242	6,787	4,173	542	36,681	408	415	60,027

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, March 31, 1982
(Thousands of Barrels) (continued)

Commodity	PAD District I		PAD District II				PAD District III				PAD District IV		United States		
	Extr. Coast	Appalachian Coast	Ind., Ill., Ky.	Wisc., Mo.	Okla., Minn., Ia.	Total	Trans. Inland	Trans. Gulf Coast	Trans. West Coast	No. La., Ark.	New Mexico	Total		Dist. IV Dist. V	Rocky Mts. Coast
Butane for Petro. Feed Use															
Refinery	0	0	0	0	1	9	0	13	0	2	0	0	15	2	26
Total	0	0	0	0	1	9	0	13	0	2	0	0	15	2	28
Butane for Other Uses															
Refinery	68	5	71	251	57	526	578	130	424	609	2	2	1,367	118	551
Bulk Terminal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline	34	78	112	29	869	30	401	1,346	1,154	17	15	70	1,264	61	2,783
Natural Gas Processing Plant	49	1	50	0	58	10	901	986	652	3,028	2,453	160	700	7,188	41
Total	160	82	242	103	1,448	77	1,717	3,343	2,045	7,132	2,887	180	175	12,840	250
Butane-Propane Mixtures for Petro. Feed Use															
Refinery	0	0	0	0	0	0	0	1	0	1	0	0	2	0	2
Total	0	0	0	0	0	0	0	1	0	1	0	0	2	0	2
Butane-Propane Mixtures for Other Uses															
Refinery	0	0	0	0	0	0	0	0	0	0	0	0	5	27	149
Bulk Terminal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline	0	0	0	0	0	18	19	631	28	10	0	1	688	0	626
Natural Gas Processing Plant	0	0	0	0	0	15	42	2	2	0	0	0	88	0	145
Total	0	0	0	0	0	59	67	727	32	27	1	6	783	2	907
Ethane-Propane Mixtures															
Refinery	0	0	0	0	0	0	0	1	0	0	0	0	1	0	1
Bulk Terminal	0	0	0	0	0	4	4	434	5,039	0	0	0	6,273	0	6,377
Pipeline	0	0	0	0	0	427	429	712	81	2	0	121	916	105	1,374
Natural Gas Processing Plant	0	0	0	0	0	1,419	351	6,864	2	0	0	420	3,715	0	8,194
Total	0	0	0	0	0	1,850	1,918	14,777	12,053	2	0	541	14,668	105	16,266
Isobutane															
Refinery	0	4	4	60	153	31	168	412	138	174	325	11	6	654	48
Bulk Terminal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural Gas Processing Plant	1	1	2	0	47	2	1,097	1,056	241	1,832	1,238	62	79	3,393	2
Total	1	5	6	61	644	41	1,472	2,210	689	2,696	1,453	221	142	5,103	106
Other Hydrocarbons and Alcohol															
Refinery	0	4	4	0	88	0	4	82	8	70	4	0	82	1	183
Total	0	4	4	0	88	0	4	82	8	70	4	0	82	1	183
Unfinished Oils															
Refinery	3,358	547	3,905	46	2,707	170	1,419	4,265	1,487	8,028	5,690	198	163	14,908	781
Naphtha and Lighter	7,186	1,131	8,317	32	4,792	326	2,783	7,706	2,041	10,489	7,257	319	3	2,825	770
Kerosene and Lighter Gas Oils	1,843	423	2,266	95	4,513	374	2,365	5,649	309	3,362	3,089	47	8	6,845	620
Gas Oil	1,843	243	2,086	3	3,237	21	1,868	5,649	309	3,362	3,089	47	8	6,845	620
Total	14,031	1,254	15,285	144	13,259	539	7,025	21,270	4,417	27,825	16,555	500	213	45,707	3,206

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, March 31, 1982
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II			PAD District III			PAD District V							
	East Coast	Appalachian Basin	Total	Available Grain	Incl. Ill., Ky.	Minn., Mo., S.D.	Okla., Mo.	Texas Intend	Texas Gulf Coast	Na. La.-Gulf Coast	New Mexico	Total	Rocky Mt. Coast	West Coast	United States		
Motor Gasoline Blending Components																	
N refinery	5,695	214	5,880	33	7,133	839	2,774	10,789	1,743	9,391	6,838	118	297	19,387	3,829	9,120	47,805
Bulk Terminal	208	0	208	6	30	2	254	351	449	45	0	1	0	496	4	100	1,135
Pipeline	0	0	0	0	26	2	54	112	27	0	0	0	0	17	0	0	139
Total	5,972	214	6,096	39	7,209	852	3,112	11,252	2,010	9,436	6,838	119	297	19,900	3,833	9,220	49,079
Aviation Gasoline Blending Components																	
R refinery	0	0	0	0	178	0	17	195	18	113	176	0	0	307	0	196	658
Total	0	0	0	0	178	0	17	195	18	113	176	0	0	307	0	196	658
Total Finished Motor Gasoline																	
R refinery	5,426	463	5,869	100	7,456	2,109	4,375	14,640	2,377	9,215	5,341	1,051	304	18,108	3,212	7,369	40,428
Bulk Terminal	36,692	3,307	39,999	2,271	20,350	4,680	6,074	33,140	2,459	4,378	1,848	2,780	319	11,284	1,830	5,340	55,513
Pipeline	14,977	635	15,192	995	6,568	1,396	6,764	15,743	1,672	5,307	3,072	7,918	277	19,354	1,451	2,037	37,737
Natural Gas Processing Plant	17	0	17	0	0	0	0	30	0	0	0	0	0	30	4	0	51
Total Finished Motor Gasoline	56,612	4,465	61,077	3,295	34,149	8,185	17,843	63,643	6,428	19,100	10,361	11,747	500	49,146	6,497	18,356	190,119
Finished Leaded Motor Gasoline																	
R refinery	9,519	361	9,700	65	3,825	1,323	2,545	7,028	1,126	4,923	2,905	915	184	10,134	2,158	3,510	26,490
Bulk Terminal	17,236	1,674	18,910	1,238	10,369	2,621	3,685	18,003	1,250	2,621	855	1,424	269	8,278	1,160	4,942	49,263
Pipeline	6,743	318	7,061	505	3,492	859	3,695	8,511	756	2,795	1,761	3,513	163	8,878	938	968	26,356
Natural Gas Processing Plant	17	0	17	0	0	0	0	24	0	0	0	0	0	24	3	0	44
Total	26,615	2,153	28,768	1,806	17,778	4,852	10,215	34,432	3,106	10,139	5,802	5,882	505	23,274	4,259	9,420	102,143
Finished Unleaded Motor Gasoline																	
R refinery	9,697	203	9,900	36	3,561	1,208	2,130	6,732	1,151	4,202	2,955	136	120	8,054	1,052	4,070	32,997
Bulk Terminal	19,528	1,750	21,078	1,033	6,830	1,863	2,485	15,137	2,203	3,777	753	1,356	111	5,342	670	3,958	48,218
Pipeline	7,754	377	8,131	670	3,166	598	3,009	7,251	566	2,772	2,211	4,463	114	10,466	513	1,059	27,460
Natural Gas Processing Plant	0	0	0	0	0	0	0	6	0	0	0	0	0	6	1	0	7
Total	29,979	2,312	32,291	1,566	16,357	3,669	7,624	29,100	3,326	9,341	5,369	5,895	345	23,868	2,236	9,127	96,652
Gasohol																	
R refinery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
Bulk Terminal	10	0	10	0	10	0	4	20	4	0	0	0	0	4	0	0	42
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	10	0	10	0	10	0	4	21	4	0	0	0	0	4	0	0	54
Finished Aviation Gasoline																	
R refinery	30	0	30	0	185	0	51	236	24	364	314	0	0	652	46	184	1,108
Bulk Terminal	367	47	414	1	242	60	64	367	64	49	2	13	33	173	16	386	1,326
Pipeline	0	0	0	0	10	0	35	45	40	1	0	0	0	0	0	0	107
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57
Total	397	47	444	1	437	60	150	640	185	414	216	43	33	837	62	580	2,641
Jet Fuel																	
R refinery	262	41	303	0	106	36	547	765	320	923	431	153	256	1,972	161	911	4,112
Bulk Terminal	0	0	0	0	31	36	50	166	245	231	152	0	48	0	421	18	32
Pipeline	278	0	278	3	1	73	87	164	93	0	43	126	330	952	115	317	1,526
Total	561	41	602	3	223	161	784	1,176	652	954	474	327	888	2,995	284	1,380	6,443

See footnotes at end of table.

Table 24. Stocks of Crude Oil and Petroleum Products by PAD District, March 31, 1982
(Thousands of Barrels) (continued)

Commodity	PAD District I			PAD District II				PAD District III				PAD District IV		United States		
	East Coast	Alaska	Chain #1	Appalachian #2	Ill. Ind. Ky.	Mich. Wisc. Kans.	Oklas. Okla. Mo.	Texas Coast	La. Gulf Coast	No. La. Mex.	New Mexico	Total	Rocky Mts.		West Coast	
Kerosene-Type Jet Fuel																
Refinery	692	11	603	61	1,131	77	340	1,669	277	2,610	2,435	13	37	3,262	296	3,976
Bulk Terminal	5,156	375	5,531	66	5,977	474	6,451	6,451	37	6,488	6,451	37	65	6,553	2,210	8,763
Pipeline	4	0	4	0	4	0	4	4	0	4	0	0	0	4	130	134
Total	5,764	291	6,045	220	4,011	649	2,699	7,599	1,520	5,254	3,062	1,562	131	11,849	624	6,934
Kerosene																
Refinery	131	66	199	0	444	17	159	620	56	364	555	10	53	1,012	36	86
Bulk Terminal	3,010	252	3,262	163	724	59	12	859	11	288	41	24	0	460	36	74
Pipeline	498	7	505	0	505	0	0	505	0	505	0	0	0	505	0	0
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3,544	327	3,871	226	1,296	76	469	2,095	76	1,395	673	139	54	2,558	74	160
Total Distillate Fuel Oils																
Refinery	4,698	512	5,210	69	5,991	1,341	4,353	11,754	1,025	7,947	4,604	1,096	369	15,063	2,373	5,504
Bulk Terminal	31,882	2,196	34,078	1,297	11,304	3,382	4,322	21,185	984	1,322	926	654	100	4,786	720	5,007
Pipeline	5,436	296	5,732	348	1,817	971	4,313	7,249	448	2,112	1,443	3,433	175	7,609	604	826
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Distillate Fuel Oil	41,996	2,804	44,800	1,714	19,002	6,294	12,188	40,198	2,466	11,361	6,873	5,485	664	27,469	3,697	11,437
Dist. Fuel Oils Less No. 4 Fuel Oil																
Refinery	4,698	503	5,191	69	5,208	1,241	4,353	11,701	955	7,747	4,432	994	318	14,446	2,363	5,454
Bulk Terminal	20,740	2,196	22,936	1,292	11,262	3,282	4,322	21,068	984	1,216	926	553	100	4,759	720	4,850
Pipeline	5,436	296	5,732	348	1,817	971	4,313	7,249	448	2,112	1,443	3,433	175	7,609	604	826
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	40,459	2,925	43,384	1,699	18,837	6,294	13,188	40,018	2,366	11,776	6,701	5,380	593	26,845	3,687	11,330
No. 4 Fuel Oil																
Refinery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bulk Terminal	1,567	0	1,567	15	1,12	0	0	127	0	63	70	200	172	104	71	617
Total	1,567	0	1,567	15	165	0	0	189	70	206	172	105	71	624	10	107
Residual Fuel Oils																
Refinery	2,849	174	3,023	76	2,370	348	626	3,422	332	4,345	3,788	319	74	6,420	590	6,148
Bulk Terminal	20,740	66	20,806	244	2,250	210	831	3,535	9	1,311	2,620	39	0	5,219	39	5,179
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	24,589	240	24,829	320	4,620	558	1,459	6,957	341	6,256	7,058	358	74	14,639	590	10,326
Naphtha < 400 Deg. Petros. Feedstock																
Refinery	269	0	269	0	218	0	94	412	124	1,689	411	12	0	2,226	0	232
Total	269	0	269	0	218	0	94	412	124	1,689	411	12	0	2,226	0	232
Other Oils > 400 Deg. Petros. Feedstock																
Refinery	4	60	64	0	160	0	1	161	168	704	291	38	0	1,201	0	166
Total	4	60	64	0	160	0	1	161	168	704	291	38	0	1,201	0	166
Special Naphthas																
Refinery	32	51	73	1	178	0	193	372	45	1,310	38	171	0	1,967	2	200
Bulk Terminal	659	7	666	79	154	28	37	288	0	2	0	1	0	11	0	45
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	691	58	1,029	80	332	28	230	670	169	1,311	39	179	0	1,763	2	244

See footnotes at end of table.

Exports by PAD District, March 31, 1982

Commodity	PAD District I			PAD District II				PAD District III			PAD District IV		United States				
	Expt. Crude oil	Apparel chain oil	Total	Apparel chain oil	Min. Wic. Disks	Crude, Knos. Mo.	Total	Trans. Intra Coast	Trans. Gulf Coast	La. Gulf Coast	No. Lk. Ark.	New Mexico		Total	Dist. V. Rocky Mt.	Dist. V. West Coast	
Lubricants																	
Refinery	188	488	654	0	64	0	74	138	0	845	121	0	0	266	7	46	
Bright Stock	781	389	1,110	0	550	0	440	990	0	1,725	1,119	89	0	2,813	77	517	
Neutral	12	12	24	0	187	0	140	317	45	2,098	338	142	3	2,365	10	103	
Other	1,036	352	1,388	15	177	21	198	415	3	4,069	2,215	215	0	6,502	1	103	
Bulk Terminal	2,739	1,200	3,659	15	1,250	35	781	2,021	50	4,069	1,840	289	4	6,223	90	1,419	
Total	0	58	38	0	0	0	15	15	25	25	8	0	0	58	0	111	
Wax, Microcrystalline	0	38	38	0	0	0	0	15	15	25	8	0	0	58	0	111	
Total	0	38	38	0	0	0	0	15	15	25	8	0	0	58	0	111	
Wax, Crystalline-Fully Refined																	
Refinery	12	24	36	0	29	0	21	50	0	75	128	0	0	202	6	39	
Total	12	24	36	0	29	0	21	50	0	75	128	0	0	202	6	39	
Wax, Crystalline-Other																	
Refinery	3	65	68	0	4	0	9	13	0	122	0	0	0	122	0	21	
Total	3	65	68	0	4	0	9	13	0	122	0	0	0	122	0	21	
Petroleum Coals																	
Refinery	940	0	940	0	365	347	233	925	0	106	533	28	0	696	568	1,526	
Total	940	0	940	0	365	347	233	925	0	106	533	28	0	696	568	1,526	
Asphalt																	
Refinery	2,084	426	2,520	409	3,419	2,219	1,028	7,085	812	792	901	1,310	273	4,069	3,175	2,187	
Bulk Terminal	4,500	351	4,851	175	1,825	1,257	3,257	7,215	0	1,078	1,078	1,360	279	4,317	3,175	2,187	
Total	6,584	777	7,361	584	4,544	3,297	1,885	10,299	812	1,870	1,979	2,670	552	8,386	6,350	4,374	
Road Oil																	
Refinery	0	0	0	0	8	0	5	13	0	0	0	0	0	2	3	20	
Total	0	0	0	0	8	0	5	13	0	0	0	0	0	2	3	20	
Miscellaneous Products																	
Refinery	285	36	322	2	65	12	30	110	87	413	124	48	0	632	0	291	
Bulk Terminal	2	10	12	9	19	0	0	24	48	0	0	0	0	48	0	84	
Natural Gas Processing Plant	415	45	460	11	110	17	33	171	187	1,114	134	86	(1)	1,511	3	427	
Total	702	91	793	22	194	29	63	305	242	1,527	258	134	47	1,991	3	702	
Total Stocks, All Oils																	
			199,827					283,849						684,967	39,720	179,700	1,400,902

1 Crude oil data are not collected by refinery district.

2 Includes 33,365 thousands of barrels of domestic crude oil.

(*) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

— Not Applicable.

Table 25. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, March 1982
(Thousands of Barrels)

Commodity	From I to		From II to			From III to			From IV to			From V to			
	II	III	I	II	III	I	II	III	I	II	III	I	II	III	
Crude Oil	0	0	0	0	0	492	1,000	0	110	0	0	0	0	3,282	18,776
Petroleum Products	7,249	853	2,858	5,312	2,446	79,534	17,240	0	2,448	740	0	957	40	1,021	0
Gasoline	0	0	0	323	0	0	900	0	0	352	0	0	0	0	0
Unleaded Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pump Condensate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquid Petroleum Gases	0	0	845	1,280	117	1,441	5,978	0	0	0	0	0	0	0	0
Unfinished Oil	0	0	0	0	0	1,073	0	0	251	0	0	0	0	0	54
Motor Gasoline Blending Components	0	0	0	0	0	0	607	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	5,300	295	1,079	1,828	1,455	44,038	6,121	0	926	237	0	656	21	0	0
Finished Unleaded Motor Gasoline	2,918	0	485	1,080	810	19,833	3,185	0	530	157	0	487	0	0	0
Gasohol	2,382	292	594	738	655	24,805	2,936	0	456	70	0	209	21	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naphtha-Type Jet Fuel	141	0	0	0	19	424	142	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	126	0	41	81	0	618	129	0	167	0	0	87	0	0	0
Distillate Fuel Oil	1,375	178	271	674	250	16,444	1,023	0	326	165	0	136	0	0	0
No. 4 Fuel Oil	0	0	0	0	0	97	0	0	0	0	0	0	0	0	0
Residual Fuel Oil	0	187	133	711	0	3,328	84	0	558	0	0	0	0	19	875
Naphtma and Other Oils for Petro.	38	127	44	26	0	99	45	0	0	0	0	0	0	0	0
Solvent Naphtma	0	0	0	0	0	277	269	0	0	0	0	0	0	0	0
Lubricants	40	51	102	46	0	743	321	0	81	0	0	0	0	0	39
Wax	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	57	0	0	143	196	0	0	0	0	0	0	0	0
Miscellaneous Products	0	8	158	0	0	317	101	0	0	0	0	0	0	0	43
Total All Products	7,249	853	2,858	5,312	2,446	85,228	18,240	0	2,558	740	0	957	3,322	19,799	0

Notes: Total may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes on Data Collection and Estimation.

Table 26. Movements of Petroleum Products by Pipeline Between PAD Districts, March 1962
(Thousands of Barrels)

Commodity	From I to				From II to				From III to				From IV to						
	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
Natural Gasoline and Isoparane	0	0	0	0	332	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unfractionated Stream	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant Condensate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Motor Gasoline	0	0	0	0	1,589	117	1,165	5,687	0	0	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	687	0	0	0	0	0	0	0	0	0	0	0
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Freshed Motor Gasoline	4,467	955	1,858	1,466	34,510	5,326	0	926	237	0	0	0	0	0	686	0	0	0	0
Finished Launder Motor Gasoline	2,462	436	1,090	810	16,397	2,834	0	530	167	0	0	0	0	0	487	0	0	0	0
Gasolined Motor Gasoline	1,395	529	738	656	19,203	3,381	0	408	70	0	0	0	0	0	209	0	0	0	0
Gasolined Motor Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	19	0	0	117	0	0	0	0	0	0	0	0	0	0	0
Naptha-Type Jet Fuel	0	0	0	0	81	0	240	29	0	157	0	0	0	0	87	0	0	0	0
Kerosene-Type Jet Fuel	164	45	34	584	5,142	1,212	0	129	6	0	0	0	0	0	48	0	0	0	0
Kerosene	142	13	0	0	897	57	0	0	0	0	0	0	0	0	0	0	0	0	0
Diesel Fuel (C)	1,125	29	687	293	13,523	863	0	306	165	0	0	0	0	0	198	0	0	0	0
Distillate Fuel Oil Less No. 4	1,198	246	587	260	10,303	663	0	308	182	0	0	0	0	0	195	0	0	0	0
No. 4 Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5,769	2,373	4,452	2,448	55,257	14,871	0	1,556	740	0	0	0	0	0	987	0	0	0	0

Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 27. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, March 1962
(Thousands of Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to			
	II	III	IV	I	II	III	I	II	III	New Estg.	Carried Ad.	Low Ad.	I	II	III	
Crude Oil	0	0	0	0	0	0	402	0	402	0	402	0	1,000	110	3,262	18,778
Petroleum Products	1,480	853	485	590	24,627	2,095	4,581	17,650	2,369	378	40	1,021	0	0	0	0
Liquid Petroleum Gases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unfinished Oil	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	843	262	124	0	10,178	383	458	9,337	816	0	21	0	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naptha-Type Jet Fuel	141	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene	269	176	25	77	3,147	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Naptha and Other Oils for Petro. Use	38	127	44	26	94	0	22	77	45	0	0	0	0	0	0	0
Special Naptha	40	81	102	46	743	34	505	204	221	81	0	0	0	0	0	0
Lubricants	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0
Wax	0	0	0	0	0	0	143	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	317	10	165	122	61	0	0	0	0	0
Total	1,480	853	485	590	24,629	2,096	6,203	17,650	3,269	405	3,322	18,798	0	0	0	0

Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 28. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker and Barge Between PAD Districts, March 1982
(Thousands of Barrels)

Commodity	P.A.D. District I			P.A.D. District II			P.A.D. District III			P.A.D. District IV			P.A.D. District V		
	Receipts PAD I	Shipments PAD I	Net Receipts PAD I	Receipts PAD II	Shipments PAD II	Net Receipts PAD II	Receipts PAD III	Shipments PAD III	Net Receipts PAD III	Receipts PAD IV	Shipments PAD IV	Net Receipts PAD IV	Receipts PAD V	Shipments PAD V	Net Receipts PAD V
Crude Oil	3,684	0	3,684	1,000	0	1,000	18,778	1,512	17,266	0	0	0	110	23,060	-21,950
Petroleum Products	82,722	8,102	74,620	25,229	10,516	14,713	7,186	99,512	-82,326	2,446	1,707	729	3,415	1,081	2,334
Natural Gasoline	0	0	0	1,252	332	900	332	900	-568	0	332	-332	0	0	0
Unrefined Steam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant Condensate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases	2,397	0	2,397	5,070	2,553	3,322	1,580	7,410	-5,830	117	0	117	0	0	0
Unrefined Oil	1,673	0	1,673	485	0	485	0	1,587	-1,102	0	0	0	0	0	0
Motor Gasoline	0	0	0	687	0	687	0	887	-887	0	0	0	0	0	0
Aviation Gasoline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Blending Components	45,788	5,562	40,226	11,658	4,373	7,285	2,000	51,745	-46,555	1,468	933	533	1,832	21	1,611
Freshed Motor Gasoline	20,368	2,918	17,450	2,365	2,365	0	1,070	23,598	-25,508	810	654	196	1,017	0	1,017
Finished Unleaded Motor Gasoline	25,420	2,644	22,776	5,398	1,968	3,430	1,000	28,147	-27,147	658	279	377	615	21	594
Gasohol	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unrefined Aviation Gasoline	46	0	46	146	0	146	0	0	-546	10	0	-5	0	0	0
Aviation Type Jet Fuel	618	141	477	170	81	89	81	604	-523	0	87	246	0	0	244
Kerosene	8,520	172	8,348	1,608	673	935	34	10,074	-10,040	998	54	540	207	0	207
Kerosene-Type Jet Fuel	1,157	128	1,029	185	13	172	0	1,211	-1,211	0	0	0	0	0	0
Distillate Fuel Oil	16,715	1,553	15,162	2,583	1,195	1,388	832	17,793	-16,941	250	301	-81	462	0	462
Distillate Fuel Oil Less No. 4	16,618	1,553	15,065	2,583	1,195	1,388	832	17,696	-16,844	250	301	-81	462	0	462
No. 4 Fuel Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Fuel Oil	3,460	197	3,263	84	844	-760	1,768	3,970	-2,187	0	0	0	558	894	-336
Naphtene and Other Oils for Petro.	143	165	-22	83	70	13	153	144	9	0	0	0	0	0	0
Feedstock Use	277	0	277	286	0	286	0	563	-563	0	0	0	0	0	0
Special Naphtenes	845	121	724	261	148	113	166	1,045	-879	0	0	0	81	30	48
Lubricants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Waxes and Road Oil	200	0	200	136	0	136	57	270	-270	0	0	0	0	0	0
Microcolleous Products	475	8	467	101	158	-57	51	418	-367	0	0	0	0	0	0
Total All Products	88,498	8,102	78,304	26,299	10,616	15,683	25,964	101,094	-75,060	2,448	1,707	729	3,525	23,121	-19,596

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

duction of No.4 Fuel Oil and Residual Fuel Oil By Sulfur Content, March 1982
 (Thousands of Barrels)

Commodity	PAD District I			PAD District II				PAD District III				PAD		United States					
	East Coast	Appalachian	Total	Ill.	Mn.	Wisc.	Ind.	Ohio	Total	Texas	Yerkes Gulf Coast	La. Gulf Coast	No. La. Area		New Mexico	Total	DELIV. By Other States	PAD Dist. V West Coast	
																			El
Sulfur	0	13	13	0	21	0	0	0	0	21	5	405	-314	53	238	377	30	73	512
Sulfur	0	0	0	0	7	0	0	0	0	7	0	393	-54	4	0	263	0	0	264
Sulfur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	0	30
Sulfur	0	0	0	0	18	0	0	0	0	18	4	72	0	2	233	306	0	27	351
Sulfur	0	13	13	0	0	0	0	0	0	13	0	0	0	0	0	0	1	0	11
2.00% Sulfur	0	0	0	0	0	0	0	0	0	0	0	-360	47	0	-213	0	35	-118	
XI	5,154	204	5,280	119	2,357	247	815	3,258	1,037	6,296	6,849	-483	173	13,735	312	11,760	24,716		
Sulfur	472	30	502	0	0	0	0	0	0	0	227	247	25	113	55	747	8	279	1,336
Sulfur	1,514	80	1,594	0	0	0	102	15	130	232	38	100	9	337	426	2,251	4,454		
Sulfur	189	0	189	0	0	0	251	1,507	640	1,401	664	161	5	3,171	76	1,763	6,646		
a. Sulfur	159	0	159	0	0	0	170	1,170	517	123	123	542	15	104	307	-33	7,593	9,820	
a. 2.00% Sulfur	2,247	0	2,247	0	900	168	142	960	5	4,202	4,270	84	0	8,574	133	556	12,219		

may not equal sum of components due to independent rounding.

e Explanatory Notes on Data Collection and Estimation.

Table 30. Stocks of No.4 Fuel Oil and Residual Fuel Oil by Sulfur Content, March 1962
(Thousands of Barrels)

Commodity	PAD District I			PAD District II					PAD District III					PAD			
	East Coast	Approx- imate Chas- tan	Total	Appa- lache Bas. Co.	Ind. Del. Md.	Wisc. Ill. Ky.	Ohio Pa. W. Va.	Total	Texas Inland	Texas Coast	La. Gulf Coast	Mo. La. Ark.	New Mexico	Total	Dist. IV Rocky Mts.	Dist. V West Coast	United States
No. 4 Fuel Oil - 0.00 to 0.30% Sulfur																	
Refinery	0	4	4	0	0	0	0	1	0	48	18	12	0	72	0	0	77
Bulk Terminal	478	0	478	0	0	0	0	0	0	6	0	0	0	7	0	0	486
Total	478	4	483	0	0	0	0	1	0	48	18	13	0	79	0	0	563
No. 4 Fuel Oil - 0.31 to 0.50% Sulfur																	
Refinery	0	0	0	0	4	0	0	4	20	0	1	0	0	21	8	19	52
Bulk Terminal	81	0	81	0	0	0	0	0	0	0	0	0	0	0	0	0	81
Total	81	0	81	0	4	0	0	4	20	0	1	0	0	21	8	19	133
No. 4 Fuel Oil - 0.51 to 1.00% Sulfur																	
Refinery	0	0	0	0	48	0	0	48	27	158	0	3	71	288	0	16	325
Bulk Terminal	547	0	547	0	45	0	0	45	0	0	0	0	0	0	0	0	592
Total	547	0	547	0	93	0	0	93	27	158	0	3	71	288	0	16	915
No. 4 Fuel Oil - 1.01 to 2.00% Sulfur																	
Refinery	0	5	5	0	0	0	0	0	23	0	38	0	0	61	2	0	77
Bulk Terminal	410	0	410	0	0	0	0	0	0	0	0	0	0	0	0	0	457
Total	410	5	415	0	0	0	0	0	23	0	38	0	0	61	2	0	544
No. 4 Fuel Oil - Greater Than 2.00% Sulfur																	
Refinery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	210
Bulk Terminal	50	0	50	15	67	0	0	82	0	0	0	0	0	0	0	0	132
Total	50	0	50	15	67	0	0	82	0	0	0	0	0	0	0	0	342
Residual Fuel Oil - 0.00 to 0.30% Sulfur																	
Refinery	328	380	708	0	0	0	0	0	101	269	38	19	28	452	110	510	1,644
Bulk Terminal	2,589	0	2,589	0	13	0	0	13	0	10	1,031	2	0	1,843	0	0	4,523
Total	2,917	380	3,297	0	13	0	0	13	101	279	1,069	21	28	2,295	110	510	3,899
Residual Fuel Oil - 0.31 to 0.90% Sulfur																	
Refinery	871	30	901	0	109	3	11	123	28	73	23	93	1	228	51	1,655	2,958
Bulk Terminal	1,412	0	1,412	0	185	0	51	236	0	33	19	0	0	52	0	57	1,737
Total	2,283	30	2,313	0	274	3	62	359	29	106	52	93	1	280	51	1,712	4,695
Residual Fuel Oil - 0.91 to 1.00% Sulfur																	
Refinery	1,329	0	1,329	76	1,111	0	240	1,427	130	1,508	1,362	116	2	3,121	14	486	6,317
Bulk Terminal	4,478	33	4,511	187	1,201	19	143	1,530	9	857	293	0	0	789	0	279	7,103
Total	5,807	33	5,840	263	2,312	19	383	2,957	142	2,365	1,655	116	2	3,910	14	765	13,420
Residual Fuel Oil - 1.01 to 2.00% Sulfur																	
Refinery	788	108	896	0	486	162	218	877	58	259	585	31	48	970	168	4,981	7,918
Bulk Terminal	2,883	50	2,933	77	474	15	404	1,171	0	3	233	0	0	236	0	1,334	5,858
Total	3,671	158	3,829	77	1,070	282	623	2,048	58	262	819	21	48	1,206	166	6,325	13,776
Residual Fuel Oil - Greater than 2.00% Sulfur																	
Refinery	533	0	533	0	664	163	158	986	11	2,638	1,779	71	0	4,597	183	586	6,974
Bulk Terminal	9,300	13	9,313	0	297	71	233	801	0	738	1,474	37	0	2,199	0	287	12,590
Total	9,833	13	9,846	0	961	254	391	1,287	11	3,376	3,253	108	0	6,796	183	883	19,564
Residual Fuel Oil - Sulfur Content Not Specified	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Problems:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15

Note: Total may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes on Data Collection and Estimation.

Table 31. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, March 1982
(Thousands of Barrels)

Country	Residual Fuel Oil					Total
	0.00 to 0.30%	0.31 to 0.50%	0.51 to 1.00%	1.01 to 2.00%	Greater Than 2.00%	
Arab OPEC						
Algeria	2,133	0	0	0	0	0
Kuwait	0	0	0	0	0	0
Lithuania	0	0	0	0	0	0
Oman	0	0	0	0	0	0
Saudi Arabia	0	0	0	0	0	0
United Arab Emirates	0	0	0	0	0	0
Subtotal Arab OPEC	2,133	0	0	0	0	2,133
Other OPEC						
Ecuador	0	0	0	219	0	0
Gabon	0	0	0	0	0	0
Indonesia	413	130	0	0	0	543
Iran	0	0	0	0	0	0
Nigeria	0	0	0	0	0	0
Venezuela	683	0	0	1,624	5,603	8,290
Subtotal Other OPEC	1,276	130	0	1,843	5,603	9,552
Other						
Angola	0	0	0	0	0	0
Australia	0	0	0	0	0	0
Barbados	322	0	0	0	186	507
Bahrain	0	0	0	0	0	0
Belize	172	0	240	0	0	413
Brunei	0	65	0	12	0	77
Canada	65	0	724	74	9	872
Congo	(1)	0	0	0	0	(1)
Egypt	0	0	0	0	0	0
France	0	0	0	0	0	0
Ghana	136	0	0	0	0	136
Malaysia	0	0	0	0	0	0
Mexico	0	0	0	0	0	0
Netherlands	0	0	0	0	335	335
Netherlands Antilles	0	0	0	0	246	246
Norway	877	0	100	366	3,638	5,010
Oman	0	0	0	0	0	0
People's Republic of China	0	0	0	0	0	0
Peru	0	0	40	0	0	40
Trinidad	25	0	0	598	0	623
United Kingdom	0	0	0	0	0	0
United States	0	0	0	0	0	0
Virgin Islands	359	602	1,877	1,351	1,512	5,701
Yugoslavia	0	0	0	0	0	0
Zaire	0	0	0	0	0	0
Other Western Hemisphere	517	0	572	0	0	1,089
Other Eastern Hemisphere	323	426	21	0	0	750
Subtotal Other	3,026	1,082	4,236	2,431	3,928	17,612
Total imports	6,425	1,222	4,538	4,274	11,731	0

(1) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

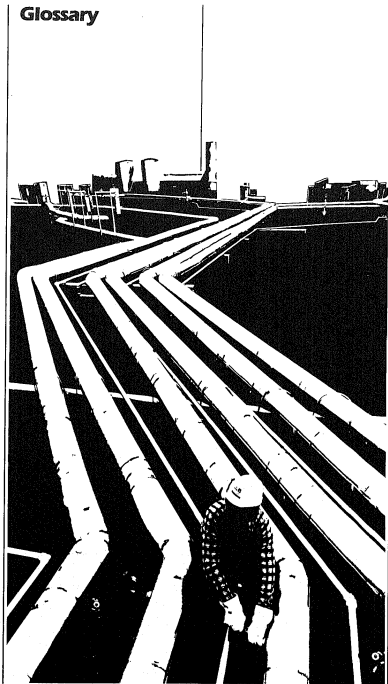
Sources: See Explanatory Notes on Data Collection and Estimates.

Table 32. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, March 1982
(Thousands of Barrels)

State	Residual Fuel Oil						Total
	0.00 to 0.20%	0.31 to 0.50%	0.51 to 1.00%	1.01 to 2.00%	Greater Than 2.00%	Not Specified	
PAD District I	5,950	966	3,780	3,837	9,747	0	24,090
Connecticut	0	0	0	0	47	0	47
Florida	3	0	295	200	1,463	0	1,960
Georgia	0	0	0	0	167	0	167
Illinois	0	0	242	747	1,632	0	2,621
Indiana	0	0	0	0	172	0	172
Iowa	0	0	352	301	2,222	0	2,875
Kansas	1,768	77	252	116	1,502	0	2,700
Massachusetts	4,133	347	1,538	1,638	1,347	0	8,023
Michigan	0	0	0	235	639	0	874
Minnesota	0	369	777	231	30	0	1,407
Mississippi	0	173	0	0	0	0	173
Montana	0	0	0	0	152	0	152
Nebraska	0	0	169	85	1,070	0	1,324
Nevada	65	0	515	25	9	0	614
New Hampshire	0	0	0	0	0	0	0
New Jersey	0	0	0	0	25	0	25
New York	0	0	0	0	0	0	0
North Carolina	0	0	0	0	0	0	0
North Dakota	0	0	0	0	0	0	0
Ohio	0	0	0	0	0	0	0
Oklahoma	0	0	0	0	0	0	0
Oregon	0	0	0	0	0	0	0
Pennsylvania	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0	0
Tennessee	0	0	0	0	0	0	0
Texas	0	0	0	0	0	0	0
Utah	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0
Virginia	0	0	0	0	0	0	0
Washington	0	0	0	0	0	0	0
West Virginia	0	0	0	0	0	0	0
Wisconsin	0	0	0	0	0	0	0
Wyoming	0	0	0	0	0	0	0
AB PAD DISTRICTS	6,435	1,222	4,536	4,274	11,731	0	26,198
PAD District I	0	0	0	0	0	0	0
PAD District II	0	0	0	0	0	0	0
PAD District III	0	0	0	0	0	0	0
PAD District IV	0	0	0	0	0	0	0
PAD District V	417	257	22	12	0	0	706
California	413	0	0	12	0	0	425
Arizona	267	0	0	0	0	0	267
Washington	0	0	22	0	0	0	22
AB PAD DISTRICTS	6,435	1,222	4,536	4,274	11,731	0	26,198

Note: Total may not equal sum of components due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Glossary



Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group, $\text{CH}-(\text{CH}_2)_n-\text{OH}$. "Alcohol" includes ethanol and methanol.

Asphalt. A dark-brown-to-black cement-like material, containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make outback asphalts. The conversion factor is 53 42-gallon barrels per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Aviation Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished aviation gasoline.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines as given in ASTM Specification D 910 and Military Specification MIL-G-5572.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt and wax to barrels are given in the definitions for these products.

Butane. A normally gaseous paraffinic hydrocarbon, C_4H_{10} . It is extracted from natural gas or refinery gas streams. Butane is covered by ASTM Specification D1835 and Gas Processors Association Specification for commercial butane.

- **Normal Butane**—A saturated straight-chain hydrocarbon of butane. It is a colorless paraffinic gas that boils at a temperature of 31.1° F. This classification includes mixtures of gases that contain 80 percent or more normal butane.
- **Other Butanes**—All butanes not included as normal butane or isobutane.

Butane-Propane Mixtures. Mixtures consisting exclusively of butane and propane that conform to ASTM Specification D1835 and Gas Processors Association Specification for commercial butane-propane. They are extracted from natural gas and refinery gas streams.

Butylene. An olefinic hydrocarbon, C_4H_8 , recovered from refinery processes. It is reported in the "Butane" category.

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite which conform to ASTM Specification D 388.

Crude Oil (Including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Lease condensate is included. Drips are also included, but topped crude (residual oil and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixtures with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign, according to the following:

- **Domestic**—Crude oil produced in the United States or from its outer continental shelf as defined in 43 U.S.C. 1331. Hydrocarbons such as shale oil and tar sand oil are included.
- **Foreign**—Crude oil produced outside the United States. Imported Athabasca hydrocarbons are included.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on- and off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1 and No. 2 heating oils, No. 1 and No. 2 diesel fuel oils, and No. 4 fuel oil.

- **No. 1 Fuel Oil**—A light distillate fuel oil intended for vaporizing pot-type burners. ASTM Specification D 396 specifies for this grade maximum distillation temperatures of 400° F. at the 10-percent point and 550° F. at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100° F.
- **No. 2 Fuel Oil**—A distillate fuel oil for domestic heating for use in atomizing-type burners or for moderate capacity commercial-industrial burner units. ASTM Specification D 396 specifies for this grade temperatures at the 90-percent point between 540° and 640° F., and kinematic viscosities between 2.0 and 3.6 centistokes at 100° F.
- **No. 1 and No. 2 Diesel Fuel Oils**—Distillate fuel oils used in compression-ignition engines, as given by ASTM Specification D 975:
 1. **No. 1-D**—A volatile distillate fuel oil in the 400° to 550° F. boiling range for engines in service requiring frequent speed and load changes. Type C-B diesel fuel, which is used for city buses and similar operations, is included.
 2. **No. 2-D**—A distillate fuel oil of lower volatility in the 540° to 640° F. boiling range for engines in industrial and heavy mobile service. Type R-R diesel fuel for railroad compression-ignition engines and Type T-T for diesel-engine trucks are included.
- **No. 4 Fuel Oil**—A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D 396 or Federal Specification VV-F-815C; its kinematic viscosity is between 5.8 and 26.4 centistokes at 100° F. Also included is No. 4-D, a fuel oil for low- and medium-speed diesel engines that conforms to ASTM Specification D 975.

Eastern Hemisphere. That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa, and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

Electric Energy (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ethane. A normally gaseous paraffinic hydrocarbon, C₂H₆, extracted from natural gas and refinery gas streams. "Ethane" includes any product containing 90 percent liquid volume or more ethane.

Ethane-Propane Mixtures. Mixtures of ethane and propane in which neither component is 90 percent or more of the liquid volume. It is extracted for natural gas and refinery gas streams.

Ethylene. An olefinic hydrocarbon, C₂H₄, recovered from refinery and petrochemical processes. It is reported in the "Ethane" category.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Gas Well Gas. Natural gas produced from gas wells. Such gas may be either associated gas or non-associated gas.

- **Associated Gas**—Free natural gas in immediate contact, but not in solution, with crude oil in the reservoir.
- **Non-Associated Gas**—Free natural gas not in contact with, nor dissolved in, crude oil in the reservoir.

Imported Crude Oil Burned as Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. "Imported crude oil burned as fuel" includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and oil shale.

Isobutane. A saturated branch-chain isomer of butane. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. This classification includes mixtures of gases that contain 80 percent liquid volume or more isobutane. It is extracted from natural gas and refinery gas streams.

Isopentane. A saturated branch-chain hydrocarbon, C₅H₁₂, obtained by fractionation of natural gasoline or isomerization of normal pentane.

Kerosene. A petroleum distillate that boils at a temperature between 300° and 550° F., that has a flash point higher than 100° F. by ASTM Method D 66, that has a gravity range from 40° to 46° API, and that has a burning point in the range of 150° to 175° F. It is a clean-burning product suitable for use as an illuminant when burned in wick lamps. Includes grades of kerosene called range oil having properties similar to No. 1 fuel oil, but with a gravity of about 43° API and having a maximum end-point of 625° F. Kerosene is used in space heaters, cook stoves, and water heaters.

Kerosene-Type Jet Fuel. A quality kerosene product with an average gravity of 40.7° API, a 10-percent distillation temperature of 400° F., and an end-point of 572° F. It is covered by ASTM Specification D 1656 and Military Specification MIL-T-5624L (Grade JP-5 and JP-8). It is used primarily for commercial turbojet and turboprop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Lease Separator. A surface facility used for separating casinghead gas from produced crude oil and water and separating gas from that portion of associated gas and non-associated gas that liquefies at the temperature and pressure conditions of the separator.

Liquefied Petroleum Gases (LPG). Propane, propylene, butanes, butylene, ethane-propane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids. Formerly called "Liquefied Gases."

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration they are retained in the liquid state. The reported categories are ethane and/or ethylene, propane and/or propylene, butane and/or butylene, butane-propane mixtures, and isobutane. Excludes still gases used for chemical or rubber manufacture which are reported as petrochemical feedstocks and also excludes liquefied gases ready for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstocks, other uses, or both.

Lubricants. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. "Lubricants" includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories reported are:

- **Bright Stock**—A refined, high viscosity lubricating oil base stock that is usually made from a residuum by a treatment such as desalting, acid treatment, or solvent extraction.
- **Neutral**—A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100° F. It is prepared by a treatment such as hydrefining, acid treatment, or solvent extraction.
- **Other**—A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Miscellaneous Products. Includes all finished products not classified elsewhere. "Miscellaneous products" include petrolatum, absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and other finished products.

Motor Gasoline Blending Components. Finished components in the gasoline range that will be used for blending or compounding into finished motor gasoline. Pool gasoline is included in this category.

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition

grades of inputs, limitations of downstream facilities, scheduled and unscheduled downtimes, and environmental constraints. Includes any shutdowns capacity that could be placed in operation within 90 days.

Other Hydrocarbons. Materials received by a refinery and consumed as raw materials. Includes hydrogen, coal, tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum, principally for the manufacture of synthetic rubber and a variety of plastics. The categories reported are "Naphtha-less than 400° F. end-point" and "Other oils over 400° F. end-point."

- **Naphtha less than 400° F. end-point**—A naphtha with an end point of less than 400° F. and that is reported as used as a petrochemical feedstock.
- **Other oils over 400° F. end-point**—Oils with an end point over 400° F. and that are reported as used as a petrochemical feedstock.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is 5.42-gallon barrels per short ton.

- **Marketable Coke**—Those grades of coke that are produced in delayed or fluid cokers and which may be recovered as relatively pure carbon. This "green" coke may be sold or further purified by calcining.
- **Catalyst Coke**—In many catalytic operations (i.e., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as fuel in the refinery process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, natural gasoline and isopentane, plant condensate, unrefractionated stream, ethane, liquefied petroleum gases, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400° F. end-point, other oils over 400° F. end-point, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Petroleum Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas plant liquids, other hydrocarbons, and alcohol.

Plant Condensate. One of the natural gas plant liquids, mostly pentanes and heavier hydrocarbons recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Primary Stocks. Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tank farms, and bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in transit from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. "Primary Stocks" excludes stocks of foreign origin that are held in bonded warehouse storage.

Propane. A normally gaseous hydrocarbon, C_3H_8 , extracted from natural gas and refinery gas streams. It is used primarily as a fuel and as a petrochemical feedstock. Propane is covered by ASTM Specification D1836, Gas Processors Association for commercial and HD-5 propane, and ASTM Specification for special duty propane.

Propylene. An olefinic hydrocarbon, C_3H_6 , recovered from refinery and petrochemical processes. It is reported in the "Propane" category.

Residual Fuel Oil. Topped crude of refinery operations. "Residual Fuel Oil" includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D 396 and Federal Specification VV-F-815C; Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2; Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Imports of residual fuel oil include "Imported Crude Oil Burned as Fuel"

Road Oil. Any heavy petroleum oil, including residual asphaltic oils, used as a dust palliative and surface treatment of roads and highways. It is generally produced in six grades; from 0, the most liquid, to 5, the most viscous.

Special Naphthas. All finished products within the gasoline range that are used as paint thinners, cleaners, and solvents. These products are refined to a specified flash point and have a boiling range of 90° to 220° F. "Special naphthas" includes all commercial hexane and cleaning solvents conforming to ASTM Specifications D1836 and D 484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam that is purchased for use by a refinery that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gas produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, butane, butylene, propane, propylene, etc. Still gas is reported for petrochemical feedstock use and refinery fuel use.

- **Petrochemical Feedstock Use**—Includes all refinery streams which are used by chemical or rubber manufacturing operations for further processing, less the amount of such streams returned to the source refinery. Finished petrochemical products are not included. For example, polyethylene, butadiene, etc. are considered petrochemical products; therefore, only their feedstock equivalents are included.
- **Fuel Use**—All other still gas.

Strategic Petroleum Reserve (SPR). Stocks (currently, only crude oil) maintained by the Federal Government for use during periods of major supply interruption.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending.

Unfractionated Stream. Mixtures of unsegregated natural gas plant liquid components excluding those included in plant condensate. This product is extracted from natural gas.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is a light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates. Includes all marketable wax whether crude scale or fully refined. The three grades reported are microcrystalline, crystalline—fully refined, and crystalline—other. The conversion factor is 280 pounds per 42-gallon barrel.

- **Microcrystalline Wax**—Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics:
 - Penetration at 77° F. (D-1321)—60 maximum.
 - Viscosity at 210° F. in Saybolt Universal Seconds (SUS) (D-88)—60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum.
 - Oil content (D-721)—5 percent minimum.
- **Crystalline-Fully Refined Wax**—A light-colored paraffin wax having the following characteristics:
 - Viscosity at 210° F. (D-88)—69.9 SUS (10.18 centistokes) maximum.
 - Oil Content (D-721)—0.5 percent maximum.
 - Other +20 color, Saybolt minimum.
- **Crystalline-Other Wax**—A paraffin wax having the following characteristics:
 - Viscosity at 210° F. (D-88)—69.9 SUS (10.18 centistokes) maximum.
 - Oil Content (D-721)—0.51 percent minimum to 15 percent maximum.

Western Hemisphere. That half of the earth that includes North and South America and the surrounding waters.

Bureau of Mines Petroleum Refining Districts and PAD Districts

PAD District

Refining District

I

East Coast—District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian #1—The State of West Virginia, these parts of the States of Pennsylvania and New York not included in the East Coast District.

Appalachian #2—The following counties of the State of Ohio: Erie, Huron, Crawford, Marion, Delaware, Franklin, Pickaway, Ross, Pike, Scioto, and all counties east thereof.

II

Indiana—Illinois—Kentucky—The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and that part of the State of Ohio not included in the Appalachian District.

Minnesota—Wisconsin—North and South Dakota—The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma—Kansas—Missouri—The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

Texas Inland—The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast—The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

III

Louisiana Gulf Coast—The following Parishes of the State of Louisiana: Vernon, Rapides, Aveyelle, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana—Arkansas—The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico—The State of New Mexico.

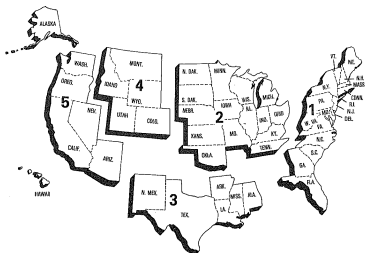
IV

Rocky Mountain—The States of Montana, Idaho, Wyoming, Utah, and Colorado.

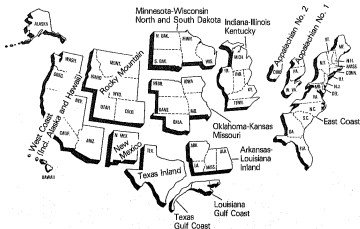
V

West Coast—The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

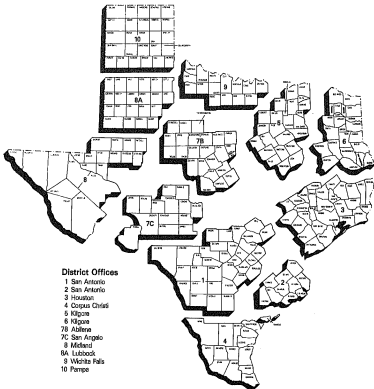
Petroleum Administration for Defense (PAD) Districts



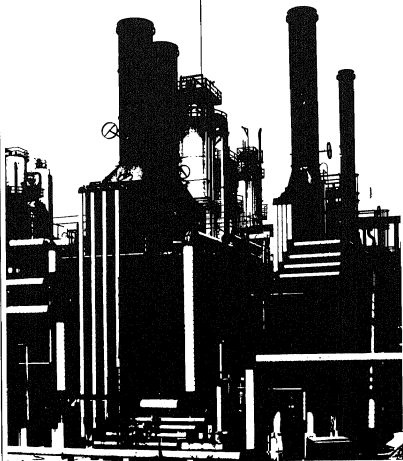
Bureau of Mines Refining Districts



District Map Oil and Gas Division Railroad Commission of Texas



Explanatory Notes



Explanatory Notes

Note 1.1 EIA-64: Natural Gas Liquids Operations Report

Background

The EIA-64, "Natural Gas Liquids Operations Report" evolved from a survey designed and conducted by the United States Geological Survey beginning in 1911. This form collects data on the production and storage of natural gas plant liquids at natural gas processing plants and fractionators.

Description of Survey

Universe

The universe includes all operators of facilities designed to: (1) extract liquid hydrocarbons from natural gas streams (natural gas processing plants); (2) separate a combined products liquid hydrocarbon stream into its component products, i.e. propane, butane, natural gasoline, etc. (fractionators); or (3) store the liquid hydrocarbon output of plants and fractionators.

The mailing list is automated. It is maintained by matching periodically with the *LP Gas Almanac* listings (including supplements) and the *Oil and Gas Journal* Processing Plant Survey listings, and by making changes reported by the respondents.

Information Collected

The data are submitted monthly by facility and include all products that the company controls through possession, regardless of ownership. The main items of information collected by the EIA-64 are shown by the example of the form presented below.

Collection Methods

Completed reports are required to be postmarked 20 days following the last day of the report month. Follow-up telephone calls are made to nonrespondents in order to collect data before publication of the aggregated data.

Imputing Missing Data

Imputation is performed only for companies that submitted a report in the previous month. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. The value of shipments is adjusted to balance stock level, production, receipts, plant fuel use, and losses. In the event that the previous month's data were estimated, the respondent is contacted and requested to submit estimates, if necessary, to be followed by a resubmission of actual data.

Response Rates

The initial response rate averages 85 percent, with a final response averaging 98 percent as a result of telephone follow-up procedures.

Data Processing

Upon receipt, the reports are reviewed for identification section omissions, duplicate submissions, and identification information changes. The data are then entered and edited. The edit program includes checks for invalid data entry codes, range checks for current-month to previous-month changes (absolute and relative), arithmetic calculation errors, line balancing errors, etc. Telephone calls are made to respondents to resolve questions.

Note 1.2 EIA-87, 88, 89 and 90: Joint Petroleum Reporting System

Background

The Joint Petroleum Reporting System (JPRS) comprises four surveys: the "Refinery Report" (EIA-87); the "Bulk Terminal Stocks Report" (EIA-88); the "Pipeline Products Report" (EIA-89); and the

"Crude Oil Stocks Report" (EIA-90). This group of forms collects data on petroleum refinery operations and on storage of crude oil and petroleum products. The origins of JPRS lie in the voluntary petroleum reporting systems instituted by the Bureau of Mines (BOM) soon after it was established as a part of the Department of the Interior in May 1910.

Description of Survey

Universe

The respondent universe of each JPRS survey is defined as follows:

EIA-87: All petroleum refineries and plants producing finished motor gasoline through the mechanical blending of liquids which are operated or controlled in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Hawaiian Foreign Trade Zone, and Guam.

EIA-88: All bulk terminal facilities in the 50 States and the District of Columbia, Puerto Rico, and the Virgin Islands that (a) have total bulk storage capacity of 50,000 barrels or more and/or (b) receive petroleum products by tanker, barge, or pipeline regardless of ownership of the material.

EIA-89: All products pipeline companies that carry petroleum products (including interstate, intrastate and intracompany pipelines) in the 50 States and the District of Columbia.

EIA-90: Crude oil pipeline companies (gathering and trunk pipeline companies), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water (in excess of 1,000 barrels), regardless of ownership in the 50 States and the District of Columbia.

The list of respondents is kept current by checking for new respondents in the *Oil and Gas Journal* weekly magazine; newspaper articles; the Office of Resource Applications publication "Trends in Refinery Capacity & Utilization"; the Office of Refinery Operations (ERA) list of U.S. Refiners; and the annual survey EIA-177 "Capacity of Petroleum Refineries."

Information Collected

The main items of information collected by EIA-87, are shown by the example presented below. The EIA-88 and EIA-89 collect data on petroleum product stocks. The EIA-90 collects data on crude oil stocks and crude oil used directly as fuel.

Collection Methods

The data for the JPRS surveys are collected on a monthly basis. Completed forms are required to be postmarked by the 20th day following the report month. Telephone follow-up calls are made to nonrespondents in order to collect data before publication deadline. An automated mailing list is maintained and is used to monitor receipt of the forms.

Imputing Missing Data

Imputation is performed only for companies that submitted a report in the previous month. For these companies, the previous monthly values are used for current values. The previous month's ending stock value is used for both the current month's beginning stocks and the current month's ending stocks. The value of shipments is adjusted to balance stock level, production receipts, and losses. In the event that previous month's data were estimated, the respondent is contacted and requested to submit estimates if necessary, to be followed by a resubmission of actual data.

Response Rates

As of the filing deadline, the response rate of the JPRS respondents is over 90 percent. All companies that have not responded are contacted by telephone. Although data are taken by telephone to expedite processing, a certified submission is still required. Thirty calendar days after the report month, data for companies that still fail to file the form are estimated based on prior month's data. Names of companies that fail to file for two consecutive months are forwarded to DOE for further noncompliance action. Final response rate is 100 percent.

Report Type: **R 0 1** EIA Company Identification No. [] [] [] [] [] []

Report Period: [] [] [] [] [] []

Yr. Mo.

SECTION 6. REFINERY STOCKS, RECEIPTS, INPUTS, PRODUCTION SHIPMENTS AND REFINERY FUEL USE AND LOSSES (Thousands of Barrels of Oil Sold)								
ITEM DESCRIPTION	PROD. (CC) (CODE)	TOTAL RECEIPTS OF STOCK		NETS (CODE) (CODE)	PRODUCTION (CODE) (CODE)	SHIPMENTS (CODE) (CODE)	REFINERY FUEL USE AND LOSSES (CODE) (CODE)	TOTAL (CODE) (CODE)
		A	B					
Crude oil (incl. lease condensate) Total (sum of codes 010 and 020)	010				X			
Domestic Prod. (Alaskan)	010	X	X	X	X	X	X	X
Foreign	020	X	X	X	X	X	X	X
Alcohol	011	X	X	X	X	X	X	X
Products of mineral gas prod. (Ethane Ethane)	110				X			
Propane	221				X			
Lighter liquid hydroc.	241				X			
Natural gas	220				X			
Fluorinated hydroc.	220				X			
Other hydroc.	220				X			
Steam - reaction streams	230				X			
Natural gas (incl. lease condensate)	230				X			
Plant condensate	210				X			
Unfractionated steam	227				X			
Other hydrocarbons (incl. hydrogen)	000				X			
Alcohol	001				X			
Unfractionated oils	010							
Gasoline:								
Finished product, motor	121							
Finished unfinished, motor	023							
Blending components, motor	120							
Catalyst	120							
Fuel gas	121							
Blending components, aviation	112							
Special refinery feedstock	000							
Jet fuel:								
Jet fuel type	311							
Jet fuel type	312							
Kerosene (incl. ramp oil)	311							
Distillate fuel oil, Class No. 4	410							
No. 4 fuel oil	410							
Blended fuel oil	011							
Lubricating oils:								
Single grade	003							
Blended	000							
Other	000							
Asphalt	000							
Wax:								
Minerally refined	001							
Crystallized (incl. solvent)	001							
Crystallized (incl. solvent)	001							
Paraffin waxes:								
Marcellus	001							
Catalyst	003							
Feed oil	001							
Sulfur:								
Paraffin-based feedstock use	040							
Other use	040							
Ethane and/or ethylene:								
Paraffin-based feedstock use	010							
Other use	010							
Propane and/or propylene:								
Paraffin-based feedstock use	010							
Other use	010							
Butane and/or butylene:								
Paraffin-based feedstock use	010							
Other use	010							
Branched ethane mixtures:								
Paraffin-based feedstock use	010							
Other use	010							
Isobutane paraffin-based feedstock use	010							
Naphtha - less than 400° and point	003							
Paraffin-based feedstock use	003							
Other oils - over 400° and point	004							
Paraffin-based feedstock use	004							
Other liquid products	000							
Misc. hydroc.	000							
Fuel Use	000							
Damage (thermal or storage) (production)	011							
TOTAL	000							

Note 1.3 EIA-161, 162, 163, 164 and 165: Weekly Petroleum Reporting System

Background

The Weekly Petroleum Reporting System (WPRS) comprises five surveys: the "Refinery Report" (EIA-161); the "Bulk Terminal Stocks Report" (EIA-162); the "Pipeline Product Stock Report" (EIA-163); the "Crude Oil Stocks Report" (EIA-164); and the "Imports Report" (EIA-165).

The EIA weekly reporting system was designed to collect data similar to those collected under the monthly Joint Petroleum Reporting System (JPRS) (See Note 1.2). In the WPRS, selected petroleum companies report weekly data to EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On the Forms EIA-161 through EIA-164, companies report data on a custody basis. On the Form EIA-165, the importer of record reports each shipment entering the United States. Current weekly data and the most recent monthly data from the JPRS are used to estimate the published weekly totals.

Description of Survey

Universe

The sample of companies that report weekly in the WPRS was selected from the universe of companies that report monthly in either the JPRS system or the ERA-60 system (for imports). All sampled companies report data only for facilities in the 50 States and the District of Columbia.

The sampling frame for each weekly survey is defined as follows:

EIA-161: Uses the EIA-87 universe, which includes all petroleum refineries in the United States and its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and bulk terminals that blend motor gasoline.

EIA-162: Uses the EIA-88 universe, which includes all bulk terminal facilities in the United States and its territories that have total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline.

EIA-163: Based on the EIA-89 universe, which includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that only transport natural gas liquids are not included in the EIA-163 frame. Only those pipeline companies which transport products covered in the weekly survey are included.

EIA-164: Uses the EIA-90 universe, which consists of all trunk pipeline companies in the United States and its territories which transport crude oil, all refining companies, all crude oil producers, all terminal operators, and all storers of 1,000 barrels or more of crude oil.

EIA-165: Uses the ERA-60 universe, which includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico.

Sampling

The sampling procedure used for the weekly system is the cut-off method. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous period. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for the previous time period.

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. All canvassed firms and terminal operating companies must file by 5:00 p.m. on the Monday following the close of the report period, 7 a.m. Friday. During the processing week, company corrections of the prior week's data are also entered.

Formula and Calculations

After the company reports have been checked and entered into the weekly data base, ratio estimates of the weekly totals are calculated from the reported data.

First, the current week's data for a given product reported by companies in that region are summed. (Call this weekly sum, W_i .) Next, the most recent month's data for the product reported by those same companies are summed. (Call this monthly sum, M_i .) Finally, let M_i be the sum of the most recent month's data for the product as reported by all companies. Then, the current week's ratio estimate for that product for all companies is given by.

$$W_i = \frac{M_i}{M_i} W_i$$

This procedure is used directly to estimate total weekly inputs to refineries and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Under such conditions, the ratio method is known to result in large errors. Hence, a number of other procedures for estimating weekly imports were considered. The average ratio method was selected for estimating imports because it produces estimates that were close to benchmark values computed from monthly data. Estimates are obtained using the ratio method, but with each company in turn omitted from the sample. These estimates are then averaged to obtain the average ratio estimate.

Imputing Missing Data

The ratio method of estimation automatically imputes for nonresponse. Data from companies that do not respond are excluded from both the weekly and the monthly totals for the sampled companies.

Response Rates

The response rate as of the day after the filing deadline is about 80 percent for the EIA-161; 75 percent for the EIA-162; 95 percent for the EIA-163; 80 percent for the EIA-164; and greater than 95 percent for the EIA-165. However, more forms are received the next day, bringing the final response rates up. Late respondents are contacted by telephone. Nearly all of the major companies report on time. The nonresponse rate for the published estimates is usually between 2 percent and 5 percent.

Note 1.4 EIA-170: Tanker and Barge Shipments of Crude Oil and Petroleum Products Between Districts

Background

The EIA-170 survey collects data for calculation of monthly petroleum supply and disposition figures on U.S. and PAD District levels.

Instrument and Design

This form is designed to collect data on total movements by tanker and barge of crude oil and petroleum products between PAD Districts or between PAD Districts and the Panama Canal, by shipping State and receiving State.

Universe

The respondent universe of the EIA-170 consists of all known companies and plants that have custody of crude oil and petroleum products transported by tanker and barge between PAD Districts or between PAD Districts and the Panama Canal. There are currently about 66 respondents.

Collection Methods

Survey data are collected by mail every month. The filing deadline is the 20th calendar day of the month following the report period. The response rate as of the filing deadline is about 98 percent. Late respondents are contacted by telephone. All responses are processed each month before release of the data for publication.

Note 1.5 ERA-60: Reports of Oil Imports into the United States and Puerto Rico

Background

The "Report of Oil Imports into the United States and Puerto Rico" (ERA-60) survey was designed by the Economic Regulatory Administration (ERA) of the Department of Energy to collect data on port of entry, country of origin, destination, and quantity of imported crude oil and petroleum products, as well as sulfur content and API gravity. All licensed importers and importers of record are required to report. The "Shipments of Refined Products from Puerto Rico to the United States" (P-133-M-O) survey was designed to collect data on imports to the United States that are not covered by the ERA-60.

Universe

The monthly submission of Form ERA-60 and P-133-M-O is required by all licensed importers and importers of record into the United States and Puerto Rico. The respondent universe consisted of approximately 750 firms as of June 30, 1981. The respondent universe for these surveys is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

Collection Methods

The survey data are collected by mail each month. It is mandatory for each respondent to file the ERA-60/P-133-M-O by the 15th working day of the month following the reporting period. Resubmissions are received frequently and are processed when received.

Response Rates

In December 1980, the survey had a response rate of 92 percent by the filing deadline. The universe was 640 at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard followup of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. Response rate is generally 98-99% by the time the data are first published. Revised publications are not generated as standard operating procedure. The ERA-60 file is never closed; resubmissions are constantly received and processed.

Note 1.6 Census Import (IM-145) and Export (EM-522 and EM-594) Tabulations

The foreign trade statistics program, conducted by the Bureau of the Census, involves compilation and dissemination of a large body of data relating to the imports and exports of the United States.

Import Statistics

Coverage

The import statistics reflect both government and nongovernment imports of merchandise from foreign countries into the U.S. Customs territory (includes the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

1. Merchandise shipped in transit through the United States, when documented with Customs as an intransit movement.
2. Shipments between the United States and Puerto Rico, the Virgin Islands, Guam, American Samoa, and other U.S. possessions; shipments between any of these outlying areas; and imports into U.S. possessions from foreign countries.
3. U.S. merchandise returned by U.S. Armed Forces for their own use.

Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501- 7505).

Imported petroleum is reported as "Imports for Consumption." Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

Export Statistics

Coverage

The export statistics reflect both government and nongovernment exports of domestic and foreign merchandise from the U.S. Customs territory (includes the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

1. Shipments between the United States and Puerto Rico, the Virgin Islands, Guam, American Samoa, and other U.S. possessions; between any of these outlying areas; and shipments from U.S. Possessions to foreign countries.
2. Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
3. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census primarily from copies of Shipper's Export Declarations. Shipper's Export Declarations are required to be filed with Customs officials, except when qualified exporters have been authorized to submit data in the form of magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations directly to the Bureau of the Census.

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 2 Estimation

The geographic coverage of all estimates is the 50 United States and the District of Columbia, including adjacent areas of the outer continental shelf, excluding the Hawaiian Foreign Trade Zone.

Note 2.1 Supply

The components of petroleum supply are field production, refinery production, imports, stock withdrawal or addition, crude oil used directly, and losses.

Field Production is the sum of crude oil (including lease condensate) production, natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation and revenue agencies. Reports of crude oil production from each of the 31 producing States are not received until several months after the other components of petroleum supply described in Explanatory Note 2.1 are available for publication. For an explanation of the crude oil estimation procedure used until the State reports are complete, see Explanatory Note 2.2.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-64, "Natural Gas Liquids Operation Report." Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.1.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-64, "Natural Gas Liquids Operations Report." Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.1.

Refinery Production of LRGs, ethane, and finished petroleum products is reported monthly on survey Form EIA-87, "Refinery Report." Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month.

Refinery production is also reported weekly on survey Form EIA-161, "Refinery Report." See Explanatory Notes 1.2 and 1.3 for survey descriptions and other detail. It should also be noted that refineries do not report production of crude oil, natural gasoline, isopentane, unfractionated stream, plant condensate, or other hydrocarbons and alcohol.

Imports of crude oil and petroleum products are reported monthly on Form ERA-60, "Report of Oil Imports into the United States and Puerto Rico," and Form P-133-M-O, "Shipments of Refined Products (including unfinished oils) from Puerto Rico to the United States." In addition, the Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501 and 7506. The most prominent difference between the EIA and Census systems appears in imports of liquefied petroleum gases (LPG), where Census data show a much higher level of imports than Energy Information Administration data. This occurs because the ERA-60 respondent frame was built by monitoring importers of licensed products and because LPGs are not licensed products. Therefore, respondents that only import LPGs have not been identified, and do not report these imports to the Department of Energy. Since these importers are required to file Form 7501 with the U.S. Customs Service, EIA obtains data on imports of LPGs from Census Tabulation IM-145. Additional data taken from the IM-145 are relatively small quantities of naphtha and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade and for military offshore use. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the ERA-60 reporting system.

Imports are also reported weekly on survey Form EIA-166, "Imports Report." See Explanatory Notes 1.3, 1.5, and 1.6 for survey descriptions and other detail.

Stock Withdrawal (+) or Addition (-) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks and an increase in petroleum supplies distributed for domestic consumption. A negative result (-) would represent a buildup of stocks and reduce petroleum supplies distributed for domestic consumption. For survey forms used to make stock withdrawal or addition calculations see Explanatory Note 2.4.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production, imports and stock withdrawal or addition, less crude used directly and losses. Crude oil disposition is the sum of exports and refinery input.

Unaccounted-for crude oil is calculated by subtracting crude oil supplies from crude oil disposition. A negative result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used. This calculation is performed for crude oil to ensure that product supplied for crude oil is always zero.

Crude Oil Used Directly and Losses is the sum of crude oil losses at refineries, crude oil burned at refineries, and crude oil burned on leases. Crude oil losses and consumption at refineries are reported on Form EIA-87, "Refinery Report." Crude oil burned on leases is reported on Form EIA-90, "Crude Oil Stocks Report." Crude oil burned on leases is divided into two categories: crude burned as residual fuel oil and crude burned as distillate fuel oil. Crude burned on leases appears as a negative supply to crude oil (a reduction in crude oil supplies) and as a positive supply to residual and distillate fuel oil (an increase to these supplies).

Note 2.2: Domestic Crude Oil Production

Data for the Crude Oil Production System (COPS) are reported to the Department of Energy by each of the individual State conservation agencies, which collect crude oil production values for tax purposes. In addition, the U.S. Geological Survey reports the volume of crude oil that is produced offshore in Federally-owned waters. With the exception of six State conservation agencies, all of these reports are received monthly. After each calendar year, these monthly numbers are updated using the annual reports from the State conservation agencies and the U.S. Geological Survey. The six States that do not report monthly values are Indiana, New York, Ohio, Pennsylvania, West Virginia, and Wyoming. Monthly values are estimated for these States using the individual linear trends of their historical annual crude oil production values.

There is a time lag of approximately 3 to 4 months between the end of the reporting month and the time when the actual values are available for this publication. In order to provide more timely crude oil production estimates, the Department of Energy has established a series of statistical models that forecast the volume of crude oil production based on the historical production patterns. The models use Auto Regressive Integrated Moving Average (ARIMA) to analyze series of monthly crude oil production values collected over several years.

In order to provide detailed crude oil production information on both the PAD District level and for the major producing States, the total United States crude oil production volume was separated into nine distinct groupings. The nine different time series are the monthly reported crude oil production volumes for: (1) all the States in PAD District 1; (2) all the states in PAD District 2; (3) Texas; (4) Louisiana; (5) the States in PAD District 3 excluding Texas and Louisiana; (6) all the States in PAD District 4; (7) Alaska; (8) California; and (9) the States in PAD District 5 excluding Alaska and California. Monthly data collected beginning in January 1973 are used for each of these time series.

A separate ARIMA model is identified for each time series. New model parameters are estimated monthly for each of these nine updated time series. Then, these ARIMA models are used to forecast crude oil production volumes for the month of interest. These values are then aggregated into PAD District and national totals. The forecasts made during 1981 had an average error of less than 0.6 percent compared to the monthly crude oil production volumes eventually reported by the States.

Note 2.3 Disposition

The components of petroleum disposition are refinery input, exports, and products supplied for domestic consumption.

Refinery Inputs of crude oil, NGPL and other liquids are reported monthly on survey Form EIA-87, "Refinery Report." Published inputs of unfinished oils, and motor and aviation gasoline blending components, equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production. Refinery inputs are also reported weekly on survey Form EIA-161, "Refinery Report." See Explanatory Notes 1.2 and 1.3 for survey description and other details.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM522 and EM594. Exports include crude oil shipments to Puerto Rico, the Virgin Islands, and the Hawaiian Foreign Trade Zone, which are obtained from refinery receipts reported on Form EIA-87.

Product supplied for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, plus crude oil used directly and losses (plus net receipts when calculated on a PAD District basis), minus refinery input, minus exports. This formula ensures that total disposition equals total supply. Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative when total disposition of that product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported, (2) misreporting or delayed reporting of data, and (3) for calculations on a PAD District basis, incomplete coverage of inter-district movements data compiled to calculate net receipts.

Note 2.4 Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-87, "Refinery Report," and Form EIA-90, "Crude Oil Stocks Report." Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in transit is also included. Stocks of crude oil are also reported weekly on Form 161, "Refinery Report," and Form EIA-164, "Crude Oil Stocks Report." Primary stocks of petroleum products are summed from data reported on the Form EIA-64, "Natural Gas Liquids Operations Report," Form EIA-87, "Refinery Report," Form EIA-88, "Bulk Terminal Stocks Report," and Form EIA-89, "Pipeline Products Stocks Report." Primary stocks of petroleum products do not include secondary stocks held by dealers and jobbers, or stocks held by consumers. Petroleum product stocks are also reported weekly on Form EIA-161, "Refinery Report," Form EIA-162, "Bulk Terminal Stocks Report," and Form EIA-163, "Pipeline Products Stocks Report." For survey descriptions and other details see Explanatory Notes 1.1, 1.2, and 1.3.

Note 2.5 Average Stock Levels

The graphs displaying monthly stock levels of petroleum products, crude oil, motor gasoline, distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane, and other products provide the user with recent data as well as a summary of data from the most recent 3 year period from January through December or from July through June. This summary takes the form of an "average range" that includes seasonal variation determined from a longer time period. The average range represents the historical pattern; it is not a forecast.

These curves are updated every 6 months effective January 1 or July 1 by basing the "average ranges" on a more recent time period. At that time, each 3-year data series will be adjusted by dropping the first 6 months and including the most recent 6 months.

For each data series, the monthly seasonal factors were estimated by means of a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors were assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported stock levels). The intent of deseasonalization is to remove only seasonal variation from the data. Thus, a deseasonalized series would contain the same trends and irregularities as the original data. For crude oil stocks, the derived seasonal factors were very small relative to crude oil stock levels. Therefore, the seasonal factors for crude oil stock levels were set to zero. The seasonal factors for total petroleum (crude and products), distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane, and other products were derived using monthly data from 1974-1980. For motor gasoline, the seasonal factors were based on monthly data from 1976, 1976, 1978, 1979 and 1980. In 1977, there was virtually no seasonal behavior in motor gasoline stocks. Monthly stock levels stayed at the same high level for the entire year. In addition, the seasonal patterns in 1973 and 1974 appeared to be different from those in recent years. It was therefore assumed that the seasonal patterns in 1973, 1974, and 1977 were not representative of the recent past, and these years were not used in the determination of seasonal patterns for motor gasoline stocks. Because of these differences in the year-to-year seasonal fluctuation of motor gasoline, the evidence for the illustrated seasonal patterns for total petroleum (crude and products), crude oil, distillate fuel oil, residual fuel oil, liquefied petroleum gases and ethane, and other products is stronger than is the evidence for the illustrated seasonal patterns for motor gasoline.

In some cases, these seasonal patterns do not show a smooth transition from month to month. For example, the June factor for residual fuel oil is slightly less than the May and July values, making a bump in the curve. As there is little difference in the magnitude of these seasonal factors, it is possible that this variation is due to the small number of observations (7 years) and the data variability.

After seasonal factors are derived, the most recent 3 year period (from January through December or from July through June) is deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard error of the deseasonalized 36 months is calculated adjusting for extreme data points. The width of the "average range" is twice this standard error.

The upper curve of the "average range" is defined as the average plus the seasonal factors plus the standard error. The lower curve is defined as the average plus the seasonal factors minus the standard error.

Note 2.6 Movements

Movements of crude oil between PAD Districts are reported on Form EIA-170, "Tanker and Barge Report." Petroleum product movements are reported on Forms EIA-170 and EIA-89, "Pipeline Products Report." Net receipts are calculated by summing total movements into and total movements from each PAD District by pipelines, tankers, and barges, and subtracting for the difference. Movements of crude oil by pipeline are not reported. For survey descriptions and other detail, see Explanatory Notes 1.2 and 1.4.

Note 2.7 Preliminary Monthly Statistics

Data from the Weekly Petroleum Reporting System (Forms EIA-161, 162, 163, 164 and 165) are used to estimate the most recent monthly values for the historical statistics. Since some of the weekly reporting periods overlap 2 adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To calculate monthly estimates of crude oil and petroleum product imports, crude oil input to refineries, and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel and residual fuel) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the 2 weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of earlier of the 2 weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 2.2.

Note 3 Accuracy of Petroleum Supply Data

Early in 1981, the Energy Information Administration completed an assessment of the accuracy of principal petroleum supply data series. This assessment concentrated on two methods of analysis:

• Comparisons between EIA's final annual estimates published in the *Petroleum Statement Annual (PSA)* and annual estimates from independent sources.

• Comparisons between EIA's final monthly estimates published in the *PSA* and EIA's earlier estimates published in the *Monthly Petroleum Statistics Report* and the *Petroleum Statement, Monthly* (predecessor of the *Monthly Petroleum Statement*).

Selected excerpts from these comparisons are presented below.

Comparisons of Annual Estimates

All of the systems that provide data for the *Petroleum Supply Monthly*, except for the weekly systems, try to collect data from the entire universe of their potential respondents. They do not sample, and have no sampling errors. Inaccuracies in the data still occur because of problems such as incomplete lists of respondents, errors in the responses, and conceptual errors in the design of the data systems. Such inaccuracies are hard to identify and even harder to quantify. Some understanding of the overall accuracy of the estimates can be achieved by comparing estimates derived from independent sources of data, as shown in the following tables. Close agreements among annual estimates from several independent sources support the conclusion that the estimates are accurate, and accuracy in the annual estimates implies accuracy in the monthly estimates that comprise the annual estimates.

Crude Oil Production

Comparisons among independent estimates of annual crude oil and lease condensate production lead to the conclusion that the *PSA* estimates are probably accurate to within 1 percent.

Crude Oil Imports

Comparisons among independent estimates of annual crude oil imports lead to the conclusion that the *PSA* estimates are probably accurate to within 1 percent. This conclusion is supported by a study of EIA and Customs/Census import data performed for EIA.¹

Motor Gasoline Supplied

Comparisons among independent estimates of the annual volume of motor gasoline supplied for domestic use show that differences in the estimates grew between 1977 and 1979. By 1979, the EIA estimate of sales by refiners and the Environmental Protection Agency's estimate of production had grown about 5-7 percent larger than the comparable *PSA*, Lundberg, and American Petroleum Institute (API) estimates. Research conducted by EIA in 1979 and 1980² confirmed that the lower

¹An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0292, June 1981.

²Maxima Corporation, *Petroleum Imports Reporting System, Preliminary Draft*, (Silver Spring, Maryland: February 1980). Prepared for the Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, Washington, D.C.

³Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *An Evaluation of Published EIA Gasoline Supply Estimates* (Washington, D.C.: April 1980).

estimates were inaccurate, and identified changes in the petroleum industry that had an adverse effect on the PSA estimate. During 1980, EIA developed and tested improved procedures for collecting petroleum supply data, and implemented them in January 1981. (See Explanatory Note 4.)

Distillate Fuel Oil Supplied

Comparisons among independent estimates of the annual volume of distillate fuel oil supplied for domestic use lead to the conclusion that the PSA estimates are probably accurate to within 1 to 2 percent.

Residual Fuel Oil Supplied

Comparisons among independent estimates of the annual volume of residual fuel oil supplied for domestic use seem to show sizable and consistent differences between the EIA estimates of sales by refiners and the PSA and API estimates. When imports of residual fuel oil by nonrefiners are added to the refiner sales, however, the difference between refiner sales and the PSA estimates are narrowed to within 1 percent. The comparisons therefore lead to the conclusion that the PSA estimates are probably accurate to within 1 to 2 percent.

Comparison of Estimates of the Volume of Crude Oil and Lease Condensate Production, 1977-1979

	Estimated Volume of Production in Millions of 42-U.S. Gallon Barrels ^a			Comparative Estimate as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from Petroleum Statement Annual ^b	3,121	3,178	3,009	///	///	///
<u>Comparative Estimates</u>						
American Petroleum Institute Estimate from API Monthly Statistical Report ^c	3,130	3,214	3,021	100.3%	101.1%	100.4%
Census Estimate from the Annual Survey of Oil and Gas ^d	—	3,148	3,016	—	99.1%	100.2%
Oil and Gas Journal Estimates ^e of Total Production derived from Monthly Data	3,168	3,165	3,005	101.5%	99.6%	99.9%
EIA Estimate from Annual Survey of Oil and Gas Reserves (EIA-23) ^f	3,102	3,144	3,001	99.4%	98.9%	99.7%
/// = Not applicable						
— = Not available						

^aVolumes are rounded to the nearest million barrels.

^bFrom Table 6 in EIA's *Petroleum Statement Annual, 1977, 1978, 1979*.

^cFrom issues of the American Petroleum Institute's *Monthly Statistical Report*. The annual values were obtained by summing the monthly values for each of the twelve-month periods.

^dFrom Table 1, p.2 of the Bureau of Census' *Annual Survey of Oil and Gas, 1978*.

^eFrom issues of the *Oil and Gas Journal*. Monthly estimates are in thousands of barrels per day. They are converted to millions of barrels by dividing by 1,000 and multiplying by the number of days in the reporting period.

^fFrom EIA's *U.S. Crude Oil and Natural Gas Reserves 1979 Annual Report* (Table 1A, p. 33), *1978 Annual Report* (Table 1A, p. 20), and *1977 Annual Report* (Table 22, p.36).

Geographic coverage: the 50 United States and District of Columbia with adjacent areas of the Outer Continental shelf.

SOURCE: An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0292.

Comparison of Estimates of the Volume of Crude Oil Imports, 1977-1979

	Volume of Millions of 42-U.S. Gallon Barrels ^a			Comparative Estimates as a Percent of the Primary Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate of Receipts at Ports of Entry (ERA-60) from <i>Petroleum Statement, Annual</i> ^b	2,380	2,320	2,414	///	///	///
<u>Comparative Estimates</u>						
American Petroleum Institute Estimate of Receipts as Reported by Refiners ^c	2,346	2,323	2,360	98.6%	100.1%	97.8%
Customs/Census Estimate of Receipts at Ports of Entry (Customs Forms 7501 and 7502) ^d	2,415	2,398	2,431	101.5%	100.8%	100.7%
EIA Estimate of Inputs of Foreign Crude at Refineries (ETA-87) ^e	2,364	2,334	2,431	99.3%	100.6%	100.7%

/// = Not applicable

^aVolumes are rounded to the nearest million barrels.

^bFrom Table 1 in EIA's *Petroleum Statement Annual* 1977, 1978, 1979. This table also includes imports for the Strategic Petroleum Reserve (SPR) which were 7.5 million in 1977, 68.8 million in 1978, and 24.4 million in 1979.

^cEstimate equals the sum of the annual estimate of imports derived from API's *Monthly Statistics Report* (which excludes imports for SPR), and the EIA estimates for imports for the SPR which are listed in footnote b above. The annual estimates from API data are equal to the sum of the API monthly estimates weighted by the number of days in each month.

^dData on imports to Puerto Rico which are included in the source for these estimates have been excluded from these estimates to keep with the geographic coverage of the table. Data are from computer printouts of the Bureau of Census Report IM-246-X dated April 3, 1980 (1977 and 1978 data) and December 19, 1980 (1979 data).

^eEstimate equals refinery inputs of foreign crude plus (minus) stock increases (decreases) of foreign crude. The data for the computation are published in EIA's *Petroleum Statement, Annuals*. The stock changes (all increases) are derived from data on stocks of crude oil at refineries, bulk terminals, and pipelines as reported on Form EIA-90 plus the increase in the SPR. This estimate excludes crude oil imported and not used as refinery input.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0292.

Comparison of Estimates of the Volume of Motor Gasoline Supplied for Domestic Use, 1977-1979

	Volume in Millions of 42-U.S. Gallon Barrels ^a			Volume Supplied as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement Annual</i> ^b	2,573	2,711	2,625	///	///	///
Comparative Estimates						
EIA Estimate of Sales by Refiners (P-306) ^c	2,708	2,792	2,671	105.2%	103.0%	101.8%
Environmental Protection Agency Estimate derived from Production Data ^d	2,766	2,851	2,706	107.5%	105.2%	103.1%
Lundberg Surveys, Inc. Estimate of U.S. Motor Gasoline Sales ^e	2,631	2,746	2,656	102.3%	101.3%	101.2%
American Petroleum Institute Estimate of Deliveries ^f	2,579	2,697	2,612	100.2%	98.5%	98.5%

/// = Not applicable

^aVolumes are rounded to the nearest million 42-U.S. gallon barrels.

^bDerived from Table 2 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979.

^cDerived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products* 1977, 1978, 1979.

^dThe estimate shown is derived by substituting EIA Domestic Production values with values of domestic production tabulated from the Environmental Protection Agency Bq. Form 3530-2 "Lead Additive Report for Refineries." The EPA production estimates are 2,684 million barrels in 1977, 2,767 in 1978, and 2,648 in 1979 as compared from a summary sheet provided by Mr. Bob Summerhayes of EPA.

^eFrom the mid-June issues of the "National Petroleum News," 1979 and 1980.

^fAPI publishes monthly estimates in thousands of barrels per month of the volume of motor gasoline delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of motor gasoline multiplied by the number of days per month.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOR/EIA-0292.

Comparison of Estimates of the Volume of Distillate Fuel Oil (Including Kerosene) Supplied for Domestic Use, 1977-1979

	Volume in Millions of 42-U.S. Gallon Barrels ^a			Volume Supplied as a Percent of the PSA Estimate		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement Annual</i> ^b	1,269	1,307	1,275	///	///	///
Comparative Estimates						
EIA Estimate of Sales by Refiners (P-306) ^c	1,282	1,275	1,242	101.0%	97.9%	97.4%
American Petroleum Institute Estimate of Deliveries ^d	1,291	1,300	1,277	101.7%	98.5%	100.2%

/// = Not applicable

^aVolumes are rounded to the nearest million 42-U.S. gallon barrels.

^bDerived from Table 2 in EIA's "Petroleum Statement Annual", 1977, 1978, 1979.

^cDerived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products*, 1977, 1978, 1979.

^dAPI publishes monthly estimates in thousands of barrels per month of the volume of distillate and kerosene delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of distillate and kerosene multiplied by the number of days per month.

Geographic coverage: the 50 United States and the District of Columbia.

SOURCE: An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOR/EIA-0292.

Comparison of Estimates of the Volume of Residual Fuel Oil Supplied for Domestic Use, 1977-1979.

	Volume in Millions of 42-U.S. Gallon Barrels ^a			Volume Supplied as a Percent of the PSA Estimates		
	1979	1978	1977	1979	1978	1977
EIA Estimate from <i>Petroleum Statement, Annual</i> ^b	1,024	1,035	1,109	///	///	///
Comparative Estimates						
EIA Estimate of Sales by Refiners (P-306) ^c	796	832	847	80.8%	79.6%	80.1%
American Petroleum Institute Estimate of Deliveries ^d	1,044	1,101	1,114	102.0%	100.5%	100.4%

/// = Not Applicable

^aVolumes are rounded to the nearest million 42-U.S. gallon barrels.

^bDerived From Table 2 in EIA's *Petroleum Statement Annual*, 1977, 1978, 1979. Refinery fuel use, subtracted from the figures in the source referenced below, has been reinstated in those estimates.

^cDerived from Table 1 of EIA's December issue of *Petroleum Market Shares, Report on Sales of Refined Petroleum Products*, 1977, 1978, 1979.

^dAPI publishes monthly estimates in thousands of barrels per month of the volume of residual fuel oil delivered from primary storage. The initial published monthly estimate is derived from API sources, but in later API publications the estimates are revised using EIA data. The values shown in the table are equal to the sums of the initial published API monthly estimates of residual fuel oil multiplied by the number of days per month.

Geographic Coverage: the 50 United States and the District of Columbia.

SOURCE: An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration, DOE/EIA-0292.

Comparisons of Monthly Estimates Over Time

Inaccuracies in petroleum data resulting from incomplete or delayed reports from respondents and from data processing errors are usually eliminated from the final PSA estimates. Such inaccuracies can still have important effects on the monthly estimates published in the *Petroleum Supply Monthly* and its predecessors. The following tables compare the initial monthly estimates published in the *Monthly Petroleum Statistics Report* and the *Petroleum Statement, Monthly* with the final monthly estimates published in the PSA. During 1977-1979, the *Monthly Petroleum Statistics Report* was published about 60 days after the end of the reporting month, and the *Petroleum Statement, Monthly* was published about 120-150 days after the end of the reporting month. The tables show that, both in terms of bias and in terms of standard deviation, the later estimates are consistently more accurate than the earlier estimates. In spite of this, the earlier estimates may have been more valuable to users of energy information because of the large difference in timeliness.

For purposes of comparison, the *Petroleum Supply Monthly* is scheduled to be published on about the same time lag as the *Monthly Petroleum Statistics Report*. Caution should be exercised, however, in drawing conclusions from this similarity. The *Petroleum Supply Monthly* uses improved data processing procedures developed and successfully implemented during 1981. In addition, since 1979, EIA has greatly improved the accuracy of its 60-day crude oil production estimates and is making progress in improving the accuracy of its 60-day import estimates.

Initial Monthly Estimates of Production, Stocks, and Imports of Crude Oil As A Percent of EIA's Final Published Estimates *
January 1977 - December 1979

	Production During Month		Primary Stocks At End of Month		Imports During Month	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report</i> ^b	# 98.7%	1.6%	# 98.3%	1.4%	# 95.4%	2.4%
EIA's Estimates from the <i>Petroleum Statement, Monthly</i> ^c	# 99.6%	0.6%	100.0%	0.1%	# 98.4%	1.8%

Initial Monthly Estimates of Products Supplied for Domestic Use as A Percent of EIA's Final Published Estimates *
January 1977 - December 1979

	Motor Gasoline		Distillate Fuel Oil		Residual Fuel Oil	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report</i> ^b	99.9%	1.3%	99.9%	2.3%	# 97.9%	2.7%
EIA's Estimates from the <i>Petroleum Statement, Monthly</i> ^c	100.0%	0.3%	99.7%	0.8%	99.4%	1.2%

Initial Monthly Estimates of End-of-Month Primary Stocks As a Percent of EIA's Final Published Estimates *
January 1977 - December 1979

	Motor Gasoline		Distillate Fuel Oil		Residual Fuel Oil	
	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation	Mean Percent	Standard Deviation
EIA's Estimates from the <i>Monthly Petroleum Statistics Report</i> ^b	99.7%	0.8%	99.7%	1.1%	100.1%	0.7%
EIA's Estimates from the <i>Petroleum Statement, Monthly</i> ^c	99.9%	0.2%	100.0%	0.1%	100.1%	0.6%

Represents a difference from 100% found to be statistically significant at the 96% level of confidence (n = 36).

^bFinal monthly estimates are from the "Petroleum Statement, Annual" for 1977, 1978 and 1979. The mean percent is calculated as follows: each preliminary estimate is first expressed as a percent of EIA's final published estimate, these are then summed and the sum is divided by the number of estimates. The standard deviation is the square root of the quantity computed by summing the squared deviation of the percents from the mean percent and then dividing by the number of percents.

^cBased on 36 initial estimates appearing in issues dated January 1977 - December 1979.

^dBased on 38 initial estimates appearing in issues dated January 1977 - December 1979.

SOURCE: *An Assessment of the Accuracy of Principal Data Series of the Energy Information Administration*, DOE/EIA-0292.

Note 4 Changes in Petroleum Industry Reporting

Petroleum statistics contained in this report for all years through 1980 were developed using definitions, concepts, reporting procedures and aggregation methods that are consistent with those developed by the U.S. Bureau of Mines. Research conducted by the Energy Information Administration in 1979 and 1980 indicated that changes had occurred in the petroleum industry that were not being adequately reflected in EIA's reporting systems.

EIA reporting forms, definitions, and procedures were modified beginning in January 1981 to describe industry operations more accurately. Unfortunately, empirical information is not available to precisely measure the data shortcomings throughout 1980. However, estimates of the magnitudes of differences in the major data series are described below to form a basis for comparing 1979, 1980, and 1981 data.

Motor Gasoline

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline-sales data series, which is derived from State tax receipts. This difference increased to about 4 percent in 1979 and 5 percent in 1980. There are two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline production to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference—in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). The following table provides 1979 and 1980 data as published in the *Petroleum Statement Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied. EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years. EIA has recently published a study of the quality of these FHWA data.¹

¹Office of Energy Information Validation, Energy Information Administration, U.S. Department of Energy, *Error Profiles of the Motor Fuel Production Data used to Establish and Monitor State Emergency Conservation Targets* (Washington, D.C.: December, 1981).

**Finished Motor Gasoline Product Supplied on Old and New Basis
(Thousand Barrels per Day)**

	1979				1980			
	EIA Reported	API Recast	EIA Recast	FHWA ¹	EIA Reported	API Recast	EIA Recast	FHWA ¹
Jan	6,830	7,230	7,984- 7,246	6,984	6,323	6,789	6,630- 6,791	6,672
Feb	7,254	7,496	7,389- 7,568	7,538	6,596	6,983	6,831- 7,003	6,890
Mar	7,229	7,414	7,301- 7,463	7,316	6,406	6,763	6,607- 6,768	6,713
Apr	7,055	7,300	7,187- 7,353	7,375	6,800	7,014	6,886- 7,052	6,981
May	7,213	7,429	7,313- 7,475	7,428	6,729	6,954	6,823- 6,984	7,044
Jun	7,191	7,483	7,350- 7,516	7,441	6,657	6,966	6,824- 6,991	7,049
Jul	6,902	7,241	7,105- 7,266	7,299	6,743	6,973	6,960	7,132
Aug	7,330	7,546	7,426- 7,588	7,619	6,648	6,841	6,828	7,090
Sep	6,881	7,122	7,016- 7,282	7,232	6,510	6,692	6,962	6,685
Nov	6,791	7,068	6,956- 7,122	7,142	6,234	6,507	6,516	6,951
Dec	6,730	7,106	6,966- 7,127	7,064	6,632	6,948	6,936	6,938
Average	7,034	7,302	7,183- 7,347	7,309	6,679	6,882	6,806- 6,889	6,925

¹FHWA gasoline statistics published in their 1979 Table MF-39C, 08-05-80, contain aviation gasoline as well as motor gasoline. Only motor gasoline data are included in published 1980 data. Consequently, the 1979 data shown above were reduced by subtracting aviation gasoline product supplied quantities as published by EIA in the 1979 *Petroleum Statement Annual*. The 1980 FHWA data published in their 1980 Table MF-39CA, August 1981, did not require this adjustment.

Distillate and Residual Fuel Oil

Distillate and residual fuel oil refinery production statistics through 1980 were adjusted to account for an imbalance between unfinished oil supply and disposition. The reported quantities of refinery inputs of unfinished oils typically exceed the available supply of unfinished oils. It has been assumed that this occurs when distillate and residual fuel oil produced by a refinery is shipped to another refinery, where it is treated as unfinished oil. This oil is then reprocessed rather than used or sold as distillate or residual fuel oil.

For many years (including 1980), the difference between unfinished oil disposition and supply was subtracted from distillate and residual fuel oil production to adjust for this discrepancy. Two-thirds of the difference was applied to distillate, and one-third to residual fuel oil.

Beginning in January 1981 this adjustment was discontinued because there was not sufficient empirical evidence to support it. The following table presents distillate and residual fuel oil refinery production in 1980 as published (adjusted) and on the same basis as 1981 statistics are now being completed (unadjusted) to permit comparison between 1980 and 1981 data series. Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

Adjusted and Unadjusted Refinery Production, and Unadjusted Product Supplied of Distillate and Residual Fuel Oils, by Month for 1979 and 1980 (Thousand Barrels Per Day)

1979

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,043	3,108	65	4,646	1,912	1,946	34	3,594
Feb.	2,888	2,945	57	4,869	1,792	1,822	30	3,625
Mar.	3,019	3,026	7	3,671	1,719	1,723	4	3,243
Apr.	2,945	2,978	32	3,048	1,639	1,656	17	2,524
May	3,066	3,093	27	3,025	1,586	1,600	14	2,517
Jun.	3,153	3,187	35	2,743	1,548	1,566	18	2,601
Jul.	3,306	3,344	38	2,601	1,575	1,594	20	2,471
Aug.	3,321	3,359	38	2,799	1,584	1,603	20	2,570
Sep.	3,354	3,306	-48	2,699	1,627	1,602	-25	2,584
Oct.	3,251	3,217	-34	3,085	1,629	1,612	-17	2,523
Nov.	3,239	3,200	-39	3,208	1,736	1,716	-20	2,795
Dec.	3,221	3,238	17	3,725	1,894	1,903	9	3,022
Average	3,152	3,169	16	3,327	1,687	1,695	8	2,834

1980

Month	Distillate Fuel Oil				Residual Fuel Oil			
	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied	Adj. Ref. Prod.	Unadj. Ref. Prod.	Diff.	Unadj. Product Supplied
Jan.	3,013	3,093	80	3,794	1,771	1,812	41	3,108
Feb.	2,766	2,888	122	3,334	1,773	1,836	63	3,168
Mar.	2,557	2,690	133	3,312	1,584	1,652	68	2,726
Apr.	2,460	2,554	94	2,729	1,595	1,643	48	2,492
May	2,474	2,610	136	2,538	1,509	1,579	70	2,305
Jun.	2,646	2,721	75	2,392	1,575	1,613	38	2,359
Jul.	2,689	2,783	94	2,343	1,480	1,523	43	2,339
Aug.	2,461	2,582	121	2,258	1,444	1,506	62	2,348
Sep.	2,686	2,726	40	2,627	1,495	1,516	21	2,380
Oct.	2,589	2,650	61	2,981	1,512	1,543	31	2,258
Nov.	2,703	2,823	120	3,069	1,579	1,641	62	2,513
Dec.	2,891	3,052	161	3,776	1,660	1,743	83	2,762
Average	2,661	2,764	103	2,969	1,580	1,634	54	2,562

Total Petroleum Products

The imbalance between the supply and disposition of unfinished oils is now reported as part of the reclassified products (line 39) in the U.S. Petroleum Balance (Table 1). Imbalances between the supply and disposition of gasoline blending components comprise the remainder of the reclassified in Table 1. These imbalances are reported as negative product supplied in the Other Liquids section of the table of Supply and Disposition Statistics (Table 2). Since these changes only involve redistribution of the volumes of gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

Note 5 Notes on Tables

5.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (-), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.
- Natural Gas Plant Production is the sum of Natural Gas Plant Liquids and Finished Petroleum Products Field Production in Table 4.
- Petroleum Products Imports is the sum of Natural Gas Plant Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.
- Petroleum Products Exports is the sum of Natural Gas Plant Liquids and LRGs, Other Liquids, and Finished Petroleum Products Exports in Table 4.
- Total Crude Oil and Petroleum Products Ending Stocks appear in thousands of barrels in Table 2.

5.2 Crude Oil Supply and Disposition statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Imports Gross Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (-), Unaccounted For Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.
- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousands of barrels in Table 1.
- Total Crude Oil Ending Stocks appear in thousands of barrels in Table 2.
- Total Imports appear in Table 4.

5.3 Finished Motor Gasoline Supply and Disposition statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.
- Unloaded Percent of Total Product Supplied represents the ratio of finished unloaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.
- Ending Stocks appear in thousands of barrels in Table 2.

5.4 Distillate and Residual Fuel Oil Supply and Disposition statistics on the referenced lines appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Crude Used Directly, Exports, and Product Supplied appear as labeled in Table 4.
- Ending Stocks appear in thousands of barrels in Table 2.

5.5 Liquefied Petroleum Gases and Ethane statistics represent the aggregation of statistics on ethane, propane, butane, butane-propane mixtures, ethane-propane mixtures, and isobutane. The statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.
- Ending stocks appear in thousands of barrels in Table 2.

5.6 Other Petroleum Products Supply and Disposition statistics represent the aggregation of statistics on natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil. The statistics on the referenced line are aggregated from Table 4 of the Detailed Statistics, except where noted.

- Total Production is the aggregated sum of Field Production and Refinery Production in Table 4.
- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.
- Ending stocks are aggregated from ending stocks in thousands of barrels in Table 2.

Note 5.7 Table 1. U.S. Petroleum Balance

- Lines (1) through (3) of Table 1: Crude oil (including lease condensate) production for "Alaska," "Lower 48 States," and "Total U.S." are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 2.2), and taking the difference to equal production in the lower 48 states.
- Line (5) of Table 1: SPR Imports are reported on Survey Form ERA-60.
- Line (12) of Table 1: "Total Other Sources" equals crude oil stock withdrawal (+) or addition (-) plus unaccounted for crude oil plus crude used as fuel and losses in Table 2.
- Line (14) of Table 1: Natural gas plant liquids (NGPL) "Production" equals field production of natural gas plant liquids (NGPL) plus field production of finished petroleum products in Table 2.
- Line (15) of Table 1: NGPL "Imports" equals the sum of the imports of natural gasoline and isopentane, unfractionated stream, and plant condensate imports in Table 2.
- Line (16) of Table 1: NGPL "Stock Withdrawal (+) or Addition (-)" is equal to the sum of stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate in Table 2.
- Line (17) of Table 1 equals the sum of lines (14), (15), and (16) of Table 1.
- Line (18) of Table 1: unfinished oils and gasoline blending components "Stock Withdrawal (+) or Addition (-)" equals stock withdrawal (+) or addition (-) for other hydrocarbons and alcohol, for unfinished oils, motor gasoline blending components, and aviation gasoline blending components.
- Line (20) of Table 1: "Other Hydrocarbons and Alcohol New Supply" equals the field production of same in Table 2.
- Line (21) of Table 1: "Refinery Processing Gain" is a balancing item equal to total refinery production minus total refinery input in Table 2.
- Line (22) of Table 1: "Crude Used Directly" equals the sum of crude oil used directly as distillate and residual fuel oils in Table 2.
- Line (23) of Table 1: "Total Other Liquids" equals the sum of lines (18) through (22) of Table 1.
- Line (24) of Table 1: "Total Production of Products" equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or

addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil used as distillate and residual fuel oils in Table 2.

- Line (25) of Table 1: "Gross Imports of Refined Products" equals imports of LPG and ethane plus imports of finished petroleum products in Table 2.

- Line (26) of Table 1: "Exports of Refined Products" equals exports of LPG and ethane plus exports of finished petroleum products in Table 2.

- Line (27) of Table 1: "Net Imports of Refined Products" equals the difference between lines (25) and (26) of Table (1).

- Line (28) of Table 1: "Total New Supply of Products" equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil used as distillate and residual fuel oils; plus imports of LPG and ethane and finished petroleum products; minus exports of LPG and ethane and finished petroleum products in Table 2.

- Line (29) of Table 1: "Refined Products Stocks Withdrawal (+) or Addition (-)" equals the sum of stock withdrawal (+) or addition (-) for LPG and ethane, and finished petroleum products in Table 2.

- Line (30) of Table 1: "Total Petroleum Products Supplied for Domestic Use" equals total products supplied in Table 2.

- Lines (31) through (37) of Table 1 equal the respective products supplied in Table 2.

- Line (38) of Table 1: "Other Products Supplied" equals the sum of natural gasoline and isopentane, unfractionated stream, plant condensate, aviation gasoline, naphtha < 400 Deg. F for petrochemical feedstock uses, other oils > 400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, coke, asphalt, road oil, still gas, and miscellaneous products supplied in Table 2.

- Line (39) of Table 1: "Total Reclassified" is a balancing item equal to the sum of unfinished oils, motor gasoline blending components, and aviation gasoline blending components products supplied in Table 2.

- Line (40) of Table 1: "Total Product Supplied" is equal to total products supplied in Table 2.

- The sum of lines (41) and (42) of Table 1, stocks of "Crude Oil and Lease Condensate (Excluding SPR)" and stocks held by the "Strategic Petroleum Reserve," equals ending stocks of crude oil in Table 2. SPR stocks are reported on Form EIA-90.

- Line (46) of Table 1, stocks of "Refined Products," equals the sum of LPG and ethane and finished petroleum product stocks in Table 2.