Petroleum Supply Monthly

December 1996

With Data for October 1996

Energy Information Administration
Office of Oil and Gas
U.S. Department of Energy
Washington, DC 20585

This report was prepared by the Energy Information Administration, the independent statistical and analytical agency within the Department of Energy. The information contained herein should not be construed as advocating or reflecting any policy position of the Department of Energy or any other organization.

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

MASTER

Data Available Electronically

Data from the *Weekly Petroleum Status Report*, *Winter Fuels Report*, and the *Petroleum Supply Monthly* publications as well as data from other sources are available electronically on the Energy Information Administration's Electronic Publication Bulletin (EPUB) Board, and the Comprehensive Oil and Gas Information Source (COGIS). The schedule for data release is as follows:

Publications/Sources	Platform	Information
<i>Weekly Petroleum Status Report</i>		
Wednesday 9:00 a.m. (weekly)	EPUB/WWW	Table 1 (U.S. Balance Sheet) and Data Log (Table 14 plus 4-week averages)
Wednesday 5:00 p.m. 6th-12th (monthly)	EPUB/WWW	Table H1 (Petroleum Supply Summary)
Thursday by Noon (weekly)	COGIS	Table 1 (U.S. Balance Sheet) and Table 14 (Most recent 5-weeks)
Thursday by Noon 7th-13th (monthly)	COGIS	Table H1 (Petroleum Supply Summary)
<i>Winter Fuels Report</i> (October through March)		
Wednesday 5:00 p.m. (weekly)	EPUB/WWW	All tables and highlights
Thursday by Noon (weekly)	COGIS	All tables and highlights
<i>Propane Data</i> (April through September)		
Second Wednesday of the month (9:00 a.m.)	EPUB/WWW	Propane Stocks
<i>Petroleum Supply Monthly</i>		
23rd-26th (monthly)	EPUB/WWW	Table H1 (Petroleum Supply Summary) and all Summary Statistics and Detailed Statistics Tables
23rd-26th (monthly)	COGIS	Table H1 (Petroleum Supply Summary), and all Summary Statistics and Detailed Statistics Tables
<i>Oxygenate Data</i>		
15 working days after the report month	EPUB/WWW	Table D1 U.S. Summary Table D2 (Fuel Ethanol Production/Stocks) and Table D3 (MTBE Production/Stocks) Table D4 (MTBE Merchant and Captive)
<i>Imports Data</i>		
7th-10th (preliminary)	EPUB/WWW	Import data by company from the Form EIA-814, "Monthly Imports Report"
23rd-26th (final)		

COGIS= Comprehensive Oil and Gas Information Source
 EPUB = Electronic Publication Bulletin Board
 WWW = World Wide Web (<http://www.eia.doe.gov>)

DISCLAIMER

**Portions of this document may be illegible
in electronic image products. Images are
produced from the best available original
document.**

Electronic Publishing System (EPUB)

User Instructions

EPUB is an electronic publishing system maintained by the Energy Information Administration of the U.S. Department of Energy. EPUB allows the general public to electronically access selected energy data from many of EIA's statistical reports. The system is a menu-driven, bulletin board type system with extensive online help capabilities that can be accessed free of charge 24 hours a day by using a terminal or PC with an asynchronous modem. (EPUB will be taken down briefly every night at midnight for backup.)

CONFIGURING YOUR PC SOFTWARE

PC users must provide the following information to their communications software in order to successfully access the EPUB system. Consult your communications software documentation for information on how to correctly configure your software.

Communication Parameters:

BAUD RATE: Up to 28,800 bps

DATA BITS: 8

STOP BITS: 1

PARITY: NONE

DUPLEX: FULL

TERMINAL TYPE: *examples:* ANSI, ANSI-BBS, VT100

ACCESS PHONE NUMBER

Once your communications software and/or hardware has been configured, you can access EPUB by dialing (202) 586-2557.

USING EPUB

When a connection to the system has been made, some users may find that the menu-driven instructions and the online help capabilities will provide enough information to effectively use EPUB. If needed, more extensive information may be found in the *EPUB Users Guide*, which is available online from the EPUB system or from:

National Energy Information Center, EI-231

Energy Information Administration

Forrestal Building, Room 1F-048

Washington, DC 20585

(202) 586-8800

Internet E-MAIL: infoctr@eia.doe.gov

Hours: 9:00 a.m. to 5:00 p.m. Eastern Time, Monday through Friday

Telecommunications device for the hearing-impaired only:

(202) 586-1181. Hours: 9:00 a.m. to 5:00 p.m. Eastern Time, Monday through Friday

EPUB ASSISTANCE

For communications or technical assistance, call (202) 586-8959, 8:00 a.m. to 5:00 p.m. Eastern Time, Monday through Friday.

For questions about the content of EPUB reports, call (202) 586-8800, 9:00 a.m. to 5:00 p.m. Eastern Time, Monday through Friday.

EPUB PROVIDES STATISTICAL INFORMATION, AS WELL AS DATA FROM THE FOLLOWING EIA PUBLICATIONS:

Heating fuel data, (April through September) updated the 2nd week of the month

Oxygenate data, updated approximately 15 working days after the end of the report month

Weekly Petroleum Status Report, updated on Wednesdays (Thursday in event of a holiday) at 9:00 a.m.

Petroleum Supply Monthly, updated between the 23rd and 26th of the month

Petroleum Marketing Monthly, updated by the 8th of the month

Winter Fuels Report, propane and distillate highlights and distillate data updated Wednesday at 5:00 p.m. All other data updated

Thursday at 5:00 p.m. (October through March)

Natural Gas Monthly, updated on the 20th of the month

Weekly Coal Production, updated on Fridays by 5:00 p.m.

Quarterly Coal Report, updated 60 days after the end of the quarter

Electric Power Monthly, updated the first week of the month

Monthly Energy Review, updated the last week of the month

Short Term Energy Outlook, updated 60 days after the end of the quarter

Comprehensive Oil and Gas Information Source

The Comprehensive Oil and Gas Information Source (COGIS) is a project recently developed by the Energy Information Administration (EIA), in cooperation with the U.S. Department of Commerce in an effort to provide more timely information to its customers. COGIS offers the latest oil and gas data published by the EIA. Selected data series from the *Petroleum Supply Monthly*, the *Petroleum Marketing Monthly*, the *Natural Gas Monthly*, the *Monthly Energy Review*, the *Weekly Petroleum Status Report*, the *Short Term Energy Outlook*, and the *Winter Fuels Report* are available. In addition, COGIS offers timely analysis of major oil and gas trends, and weekly and monthly highlights of oil and gas activity.

Anyone with a workstation connected to an Internet node, or with a personal computer and modem, can have immediate access to oil and gas industry information.

For information, call EIA's National Energy Information Center, (202) 586-8800. To open an account, call the U.S. Department of Commerce, Office of Business Analysis, (202) 482-1986.

Current fee schedule is listed below.

Means Used to Access the EBB

Charge	Up to 2400 Baud	9600 Baud	Internet (telnet only)
Annual Fee	\$45.00	\$45.00	\$45.00
Connect Charge Credit	\$20.00	\$20.00	\$20.00
<i>Connect Charges (per minute based on eastern time)</i>			
Weekdays: 8:00 a.m. - noon	\$0.20	\$0.40	\$0.40
Noon - 6:00 p.m.	\$0.15	\$0.25	\$0.25
6:00 p.m. - 8:00 a.m.	\$0.05	\$0.10	\$0.10
(Also weekends and holidays)			
<i>Annual Flat Fee Option (cannot use account between 8:00 a.m. and noon)</i>			
Maximum 1 hour per day	\$250.00	\$250.00	\$250.00
Maximum 4 hours per day	\$400.00	\$400.00	\$400.00

Contacts

The *Petroleum Supply Monthly* is prepared by the Petroleum Supply Division of the Office of Oil and Gas, Energy Information Administration, under the direction of Charles C. Heath (202) 586-6860.

Questions and comments concerning the contents of the *Petroleum Supply Monthly* may be referred to Ronald W. O'Neill (202) 586-9884, Chief of the Industry Analysis Branch, or the following specialists:

Summary Statistics	Nancy Masterson	(202) 586-8393
Supply and Disposition	Nancy Masterson	(202) 586-8393
Crude Oil Production	David Hinton	(202) 586-2990
Natural Gas Processing	David Hinton	(202) 586-2990
Refinery Operations	Stacey Ungerleider	(202) 586-5130
Imports	Claudette Graham	(202) 586-9649
Exports	John Nealey	(202) 586-9670
Stocks	Mike Conner	(202) 586-1795
Transportation	Mike Conner	(202) 586-1795
Oxygenate Data	Steve Patterson	(202) 586-5994

Additional information on all energy statistics available from the Energy Information Administration may be obtained from the National Energy Information Center (202) 586-8800.

Preface

The *Petroleum Supply Monthly* (PSM) is one of a family of four publications produced by the Petroleum Supply Division within the Energy Information Administration (EIA) reflecting different levels of data timeliness and completeness. The other publications are the *Weekly Petroleum Status Report* (WPSR), the *Winter Fuels Report*, and the *Petroleum Supply Annual* (PSA).

Data presented in the *PSM* describe the supply and disposition of petroleum products in the United States and major U.S. geographic regions. The data series describe production, imports and exports, inter-Petroleum Administration for Defense (PAD) District movements, and inventories by the primary suppliers of petroleum products in the United States (50 States and the District of Columbia). The reporting universe includes those petroleum sectors in primary supply. Included are: petroleum refiners, motor gasoline blenders, operators of natural gas processing plants and fractionators, inter-PAD transporters, importers, and major inventory holders of petroleum products and crude oil. When aggregated, the data reported by these sectors approximately represent the consumption of petroleum products in the United States.

Data presented in the *PSM* are divided into two sections: Summary Statistics and Detailed Statistics.

Summary Statistics

The tables and figures in the Summary Statistics section of the *PSM* present a time series of selected petroleum data on a U.S. level. Most time series include preliminary estimates for one month based on the Weekly Petroleum Supply Reporting System; statistics based on the most recent data from the Monthly Petroleum Supply Reporting System (MPSRS); and statistics published in prior issues of the *PSM* and *PSA*.

Detailed Statistics

The Detailed Statistics tables of the *PSM* present statistics for the most current month available as well as year-to-date. In most cases, the statistics are presented for several geographic areas - - the United States (50 States and the District of Columbia), five PAD Districts, and 12 Refining Districts. At the U.S. and PAD District level, the total volume and the daily rate of activities are presented. The statistics are developed from monthly survey forms submitted by respondents to the EIA and from data provided from other sources.

Appendices

Four appendices are provided to assist in understanding and interpreting the data presented in this publication:

- Appendix A (District Descriptions and Maps) - Geographic aggregations of the 50 States and the District of Columbia into Refining Districts which make up the PAD Districts.
- Appendix B (Detailed Statistics Explanatory Notes) - Information describing data collection, sources, estimation methodology, data quality control procedures, modifications to reporting requirements and interpretation of tables.
- Appendix C (Impact of Resubmissions) - Information on revisions to published statistics caused by resubmission of respondent survey forms.
- Appendix D (EIA-819M, Monthly Oxygenate Telephone Report) - Preliminary information on production and stocks of fuel ethanol and methyl tertiary butyl ether (MTBE) by PAD District. Data are collected from a sample of respondents reporting on the MPSRS surveys. Data are also published in the *WPSR* and are available electronically approximately 15 working days after the end of the month.

Industry terminology and product definitions are listed alphabetically in the Glossary. Final statistics for the data series published in the *PSM*, as well as additional data from the annual refinery and oxygenate capacity surveys are published in the *PSA*. The *PSA* is published approximately five months after the end of the report year.

Contents

	Page
Feature Article.....	xiii
Highlights.....	xxvii
Tables	
Summary Statistics	
S1. Crude Oil and Petroleum Products Overview, 1981-Present.....	2
S2. Crude Oil Supply and Disposition, 1981-Present.....	6
S3. Crude Oil and Petroleum Product Imports, 1981-Present.....	8
S4. Finished Motor Gasoline Supply and Disposition, 1981-Present.....	17
S5. Distillate Fuel Oil Supply and Disposition, 1981-Present.....	19
S6. Residual Fuel Oil Supply and Disposition, 1981-Present.....	21
S7. Jet Fuel Supply and Disposition, 1981-Present.....	23
S8. Propane/Propylene Supply and Disposition, 1981-Present.....	25
S9. Liquefied Petroleum Gases Supply and Disposition, 1981-Present.....	27
S10. Other Petroleum Products Supply and Disposition, 1981-Present.....	28
Summary Statistics Table and Figure Sources.....	29
Summary Statistics Explanatory Notes.....	30
Detailed Statistics	
National Statistics	
1. U.S. Petroleum Balance.....	35
2. U.S. Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products.....	36
3. U.S. Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products.....	37
4. U.S. Daily Average Supply and Disposition of Crude Oil and Petroleum Products.....	38
5. U.S. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products.....	39
Supply and Disposition of Crude Oil and Petroleum Products	
6. PAD District I.....	40
7. Year-to-Date PAD District I.....	41
8. Daily Average PAD District I.....	42
9. Year-to-Date Daily Average PAD District I.....	43
10. PAD District II.....	44
11. Year-to-Date PAD District II.....	45
12. Daily Average PAD District II.....	46
13. Year-to-Date Daily Average PAD District II.....	47
14. PAD District III.....	48
15. Year-to-Date PAD District III.....	49
16. Daily Average PAD District III.....	50
17. Year-to-Date Daily Average PAD District III.....	51
18. PAD District IV.....	52
19. Year-to-Date PAD District IV.....	53
20. Daily Average PAD District IV.....	54
21. Year-to-Date Daily Average PAD District IV.....	55
22. PAD District V.....	56
23. Year-to-Date PAD District V.....	57
24. Daily Average PAD District V.....	58
25. Year-to-Date Daily Average PAD District V.....	59
Production of Crude Oil	
26. Production of Crude Oil by PAD District and State.....	60
Natural Gas Processing	
27. Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts.....	61
Refinery Operations	
28. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts.....	62
29. Refinery Net Production of Finished Petroleum Products by PAD and Refining Districts.....	64
30. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts.....	66
31. Percent Refinery Yield of Petroleum Products by PAD and Refining Districts.....	68

Imports of Crude Oil and Petroleum Products

State of Entry

32. Imports of Residual Fuel Oil by Sulfur Content	69
--	----

PAD District

33. Imports of Crude Oil and Petroleum Products	70
34. Year-to-Date Imports of Crude Oil and Petroleum Products	71

Country of Origin

35. United States	72
36. PAD District I	74
37. PAD District II	76
38. PAD District III	78
39. PAD Districts IV and V	80
40. Year-to-Date United States	82
41. Year-to-Date PAD District I	84
42. Year-to-Date PAD District II	86
43. Year-to-Date PAD District III	88
44. Year-to-Date PAD Districts IV and V	90

Exports of Crude Oil and Petroleum Products

45. Exports of Crude Oil and Petroleum Products by PAD District	92
46. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District	93
47. Exports of Crude Oil and Petroleum Products by Destination	94
48. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination	96

Net Imports

49. Net Imports of Crude Oil and Petroleum Products into the United States by Country	98
50. Year-to-Date Net Imports of Crude Oil and Petroleum Products into the United States by Country	99

Stocks

51. Stocks of Crude Oil and Petroleum Products by PAD District	100
52. Refinery, Bulk Terminal, and Natural Gas Plant Stocks of Selected Petroleum Products by PAD District and State	103

Movements of Crude Oil and Petroleum Products

53. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts	104
54. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts	105
55. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts	106
56. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts	107

Illustrations

S1. Petroleum Overview, October 1995-Present	4
S2. Petroleum Products Supplied, October 1995-Present	4
S3. Crude Oil Supply and Disposition, October 1995-Present	5
S4. Crude Oil Ending Stocks, October 1995-Present	5
S5. Finished Motor Gasoline Supply and Disposition, October 1995-Present	16
S6. Motor Gasoline Ending Stocks, October 1995-Present	16
S7. Distillate Fuel Oil Supply and Disposition, October 1995-Present	18
S8. Distillate Fuel Oil Ending Stocks, October 1995-Present	18
S9. Residual Fuel Oil Supply and Disposition, October 1995-Present	20
S10. Residual Fuel Oil Ending Stocks, October 1995-Present	20
S11. Jet Fuel Supply and Disposition, October 1995-Present	22
S12. Jet Fuel Ending Stocks, October 1995-Present	22
S13. Propane/Propylene Supply and Disposition, September 1995-Present	24
S14. Propane/Propylene Ending Stocks, September 1995 - Present	24
S15. Liquefied Petroleum Gases Supply and Disposition, September 1995-Present	26
S16. Liquefied Petroleum Gases Ending Stocks, September 1995-Present	26

Appendices

A. District Descriptions and Maps	109
B. Detailed Statistics Explanatory Notes	113
C. Impact of Resubmissions on Major Series, 1996	127
D. EIA-819M, Monthly Oxygenate Telephone Report	135

Glossary

Definitions of Petroleum Products and Other Terms	141
---	-----

Articles

Feature articles on energy-related subjects are frequently included in this publication. The following articles have appeared in previous issues.

U.S. Petroleum Trade Trends: 1989	January 1990
Motor Gasoline Outlook: 1990	February 1990
Timeliness and Accuracy of Petroleum Supply Data	April 1990
Heating Fuel Outlook: Winter 1990-91	July 1990
Comparisons of Independent Statistics on Petroleum Supply	September 1990
U.S. Petroleum Developments: 1990	February 1991
U.S. Petroleum Trade 1990.....	March 1991
Effects of the Clean Air Act's Highway Diesel Fuel Oil Provisions	June 1991
Timeliness and Accuracy of Petroleum Supply Data.....	June 1991
Regulation of Underground Petroleum Storage	August 1991
Alternative Transportation Fuels	October 1991
U.S. Petroleum Developments: 1991.....	February 1992
Comparisons of Independent Statistics on Petroleum Supply	March 1992
U.S. Petroleum Trade, 1991	April 1992
Timeliness and Accuracy of Petroleum Supply Data	September 1992
Three Dimensional Seismology-A New Perspective	December 1992
Summer 1993 Motor Gasoline Outlook	April 1993
Comparisons of Independent Statistics on Petroleum Supply	May 1993
Drilling Sideways.....	June 1993
The Economics of the Clean Air Act Amendments of 1990.....	July 1993
Accuracy of Petroleum Supply Data	August 1993
Distillate Fuel Oil Outlook for Winter 1993-1994	October 1993
Propane Outlook for Winter 1993-1994	October 1993
Strategic Shipping Lanes	January 1994
Summer 1994 Motor Gasoline Outlook	April 1994
Accuracy of Petroleum Supply Data	October 1994
Distillate Fuel Oil Assessment for Winter 1994-1995	October 1994
Propane Assessment for Winter 1994-1995	October 1994
Comparisons of Independent Statistics on Petroleum Supply	April 1995
Summer 1995 Gasoline Assessment.....	May 1995
Accuracy of Petroleum Supply Data	September 1995
Distillate Fuel Oil Assessment for Winter 1995-1996	October 1995
Propane Assessment for Winter 1995-1996	October 1995
U.S. Refining Capacity Utilization.....	October 1995
Summer 1996 Gasoline Assessment.....	April 1996
Recent Distillate Fuel Oil Inventory Trends.....	May 1996
Recent Trends in Motor Gasoline Stock Levels	May 1996
Comparisons of Independent Petroleum Supply Statistics.....	August 1996
Accuracy of Petroleum Supply Data	September 1996
The Outlook for U.S. Import Dependence	September 1996
Recent Trends in Crude Oil Stock Levels	October 1996
Distillate Fuel Oil Assessment for Winter 1996-1997	November 1996
Propane Market Assessment for Winter 1996-1997	November 1996

Feature Article

A refinery worker makes his way around a towering storage tank to check the tank level.

Crosswell Seismology -- A View from Aside

Robert Haar

Introduction

Crosswell seismology is a geophysical technique that can be used to image the intricate geologic structure and subtle properties of petroleum reservoirs, providing valuable information pertaining to all stages -- primary, secondary, and tertiary -- of oil and gas recovery. The crosswell method involves the measurement of seismic waves that originate from sources in one borehole and travel through a local part of the earth to receivers in another borehole. Two complementary methods, tomography and reflection seismology, have been applied to crosswell data.

Tomography is a technique that was borrowed from medicine, where it is used for computer-assisted tomography (CAT) scans. By surrounding a target with sources and receivers, tomography offers a multifaceted perspective on the target. Unfortunately, the method works much better in medicine than in seismology. Poor resolution, lack of good downhole sources, and high costs diminished the initial interest of the oil and gas industry in tomography. However, exciting results have more recently been obtained in crosswell studies using special adaptations of a well-established geophysical technique, reflection seismology.

Crosswell reflection seismology can yield very high resolution images of the earth's subsurface between two boreholes. Improved resolution results from reflection seismology making use of the full seismogram, not just the first arrivals as in tomography. Most important, reflection seismology in the crosswell configuration yields significantly enhanced resolution relative to the conventional (surface) configuration because the near-surface layer of the earth can be avoided. The near-surface layer removes high frequencies from seismic waves and, in general, causes signal degradation. Other than direct observations (e.g., well-logs), crosswell reflection seismology offers the finest scale of geophysical field measurements.

The geologic and economic implications of increasing our understanding of domestic reservoirs via innovations such as crosswell seismology are literally immense. A significant portion, if not most, of the nation's oil and gas resources is inaccessible due to limited technology or prohibitive cost. Crosswell seismology has particular promise in application to existing oil and gas fields, where reservoirs may have isolated compartments or bypassed zones that could be more fully developed. The potential application of crosswell methods to

monitoring of enhanced oil recovery operations has already been demonstrated. Through these applications, a moderate increase in recoverable oil and gas could have a significant economic effect on domestic markets and the U.S. balance of trade.

The future direction of crosswell seismology is uncertain, especially given its recent redirections and the current R&D environment in the oil and gas industry. Its success will depend somewhat on whether technological innovations can reduce the current high cost. Performing seismology in a borehole is expensive, but recent improvements in design and methodology should lower the cost in the near future. The near-term course of crosswell seismology also depends on how well the earth sciences (in particular, geophysics) can be integrated in the field with petroleum engineering.

This article is intended as a general introduction to crosswell seismology and its geologic and economic implications for the domestic oil and gas industry. The Energy Information Administration has a strong interest in identifying and understanding the evolving factors that may affect domestic petroleum reserves and production. And clearly, the future course of the domestic petroleum industry depends on research and the development of promising techniques such as crosswell seismology.

The Crosswell Technique

General Background

In oil and gas seismology applications, a seismic source (e.g., dynamite, vibrator) is used to generate seismic waves that propagate along various paths through the earth.^{1, 2} The raypath for a given wave depends on the earth's velocity field and the departure angles from the source. Seismic waves change directions and characteristics as they encounter heterogeneities in the earth. A wave can gradually change direction (i.e., bend) if it traverses a section of the earth where seismic velocity continuously varies, such as a sedimentary

¹M.B. Dobrin, *Introduction to Geophysical Prospecting*, McGraw-Hill, 1976.

²W.M. Telford et al., *Applied Geophysics*, Cambridge University Press, 1976.

layer increasingly compressed by overburden pressure. An abrupt change in direction (i.e., reflection or refraction) can occur at discontinuities of seismic velocity in the earth, such as at the interface between two different rock types.

A wave's characteristics, such as its amplitude and frequency content, can also change as it propagates through the earth. The amplitude of a wave decreases along a raypath due to absorption and scattering of seismic energy. The recorded signal amplitude is further affected by focusing and defocusing of waves in the earth. The frequency content, or spectrum, of a wave is affected by many factors, including the earth's attenuation (which consists of both absorption and scattering from small-scale heterogeneities). Unfortunately, the earth's attenuation preferentially removes high wave frequencies which are critical for obtaining high resolution subsurface images. The net effect is that a wave is continuously filtered as it travels from a source to a receiver; that is, the wave's shape is distorted and its energy is dissipated in transit.

After traveling through the earth, seismic waves are detected by an array of receivers called seismometers. Seismometers are usually posited at equally spaced intervals along a line, which can be on the earth's surface or in a borehole. The geometric configuration of sources and receivers distinguishes different types of petroleum seismology. In traditional seismic methods, sources and receivers are located on or near the earth's surface. The layout for conventional two-dimensional (2D) seismology is depicted in Figure FE1a; three-dimensional seismology is similar, but with the sources and receivers distributed over a grid on the earth's surface. Crosswell seismology, in its simplest form, refers to a configuration in which seismic sources are located in one borehole and receivers are located in another borehole (see Figure FE1b). There is also a hybrid of the surface and borehole techniques, called vertical seismic profiling, that has sources in a borehole and receivers on the surface of the earth (this method will not be further discussed in this article).

The signals detected by the seismometers are recorded as seismograms for later processing and interpretation. Essentially, the recorded waves contain cumulative information about wherever they have traveled. The objective of seismic processing is to invert the seismic data to obtain a well-resolved and accurate map of the earth's geologic structure and properties. Inversion of seismic observations is an enigmatic, geophysical problem.

The fundamental problem of geophysics is to determine the parts from the whole; that is, to delineate fine-scale earth properties from many aggregate measurements. Specifically, the goal in seismology is to determine from observations made at the endpoints (i.e., source and receiver locations) what is in-between the endpoints (i.e., the earth's structure

along the raypaths). For example, a single traveltime measurement indicates only the aggregate effect of local velocities along a particular raypath, but a set of such measurements for many different source-receiver pairs facilitates (actually, constrains) the calculation of local velocities along all raypaths, i.e., it provides a more refined model of the earth's velocity field. Sophisticated mathematical techniques and efficient computer algorithms have been developed to do this type of data processing.

An iterative approach, incorporating geophysical processing, numerical modeling, and geologic interpretation, is usually implemented for the analysis of seismic data. Geologic interpretation of seismic data is a blend of art and science. In some cases, petroleum can be directly observed (e.g., bright spots); in other cases, geological structures (i.e., traps) that might contain petroleum can be observed. But often the seismic manifestation of a geologic feature or a property of the earth is subtle and complex, requiring collaborative interpretation and analysis by geologists and geophysicists. The resulting maps, depicting the geologic interpretation of a section of the earth, can greatly facilitate the discovery and development of petroleum reservoirs.

Tomography

The basic idea of tomography is to surround a target with many sources and receivers.³ The difference in perspective between tomography and conventional (surface) seismology can be understood in terms of viewing a sculpture in the middle of a room in an art museum. Viewing the sculpture from one end of the room gives a "flat" perspective similar to that of conventional seismology. But walking around the sculpture, viewing it from different angles, yields a perspective similar to that of seismic tomography. In technical terms, conventional seismology depends overwhelmingly on nearly vertical raypaths, while borehole (crosswell) seismology can measure waves that propagate in a broader range of directions (including horizontal).

The tomographic technique (i.e., computer-assisted tomography, or CAT-scanning) was developed in medicine to image the human body. In crosswell seismology,⁴ the relative orientation of sources, receivers, and the target is somewhat conducive to performing similar analysis. Tomographic data contain information about waves transmitted through the target along many paths; that is, the volume of interest is sampled by a set of raypaths with sufficient spatial and

³R.R. Stewart, *Exploration Seismic Tomography: Fundamentals*, Society of Exploration Geophysicists Course Notes Series, 1991.

⁴J. Wong et al., "Cross-Hole Seismic Scanning and Tomography," *Geophysics: The Leading Edge of Exploration* (January 1987), pp. 36-41.

Figure FE1a. Conventional Two-Dimensional Seismic Survey

Both sources and receivers are located on the surface of the earth. Usually, only reflected waves are analyzed.

Figure FE1b. Crosswell Seismic Survey

Both sources and receivers are located in boreholes. Waves that are transmitted through the target, as well as reflected waves, can be analyzed.

angular distributions. From these data, an image of the interior of the earth or a human body can be constructed. In seismology, field data are processed to obtain a map of the earth's seismic velocity or other properties such as attenuation.

In addition to a more comprehensive perspective (i.e., greater angular distribution of observations), crosswell seismology can sample a limited area with a large number of raypaths (i.e., dense spatial coverage). A high density of raypaths is essential for the tomographic technique to work. Another advantage of crosswell seismology is the relative proximity of sources and receivers to the intended targets. In conventional seismology, sources and receivers are located on the earth's surface and, for all but the most shallow reservoirs, most of the raypaths will be in the "extraneous," intervening medium, i.e., outside of the target area. The proximity to the target, as well as the relatively close spacing of boreholes used in crosswell seismology, allows literally a closer look at the area of interest.

Tomographic Tribulations

Geophysicists were enthralled a few years ago with the idea of using tomographic techniques and crosswell seismology to obtain high-resolution images of oil reservoirs, especially for monitoring enhanced oil recovery operations. Although a flurry of research articles appeared in the early 1990's, interest subsequently waned. The lack of widespread field applications after the initial pilot studies seems conspicuous when compared to the developmental history of other geophysical techniques, such as three-dimensional (3D) seismology. For some years now, crosswell seismology seems to have been relegated to ongoing research projects at a few universities and oil companies.^{5, 6}

Perusing the geophysical literature, and comparing the early work to more recent activity, suggests that crosswell tomography did not live up to its original promise. Why was the tomographic method so successful in medicine, but relatively disappointing in geophysics? Unlike its medical counterpart, seismic tomography suffers, in practice, from poor spatial resolution. Spatial resolution refers to the quality of a seismic image -- the sharpness of boundaries, the detection of small features, etc. The primary reason for the relatively poor resolution is that tomographic analysis can only make use of waves that follow the simplest, most direct raypaths between sources and receivers.

"Simple" and "direct" have different meanings in medicine and geophysics. In medicine, a direct wave is the first to arrive at each detector, and it travels along a nearly straight line through the human body (see Figure FE2a). In geophysics, a so-called direct wave is not always the first arrival at each receiver, and it usually travels along a more complicated, nonlinear path (Figure FE2b). This makes the interpretation of seismic tomographic data much more difficult. Seismic tomography is further hampered by our inability to surround a petroleum reservoir with sources and receivers, which limits the spatial and angular distribution of measured waves.

The scaling and relative orientation of the geophysical problem is significantly different from that of medical imaging. A typical well is only a few thousand feet deep and penetrates a relatively thin reservoir layer (see Figure FE3). Thus, the geometry of most conventional oil and gas fields does not afford an adequate tomographic configuration. Geophysicists have to contend with relatively shallow holes separated by large distances while looking for small targets.

Also, unlike its medical counterpart, crosswell seismology has suffered from inadequate wave sources. A downhole seismic source must withstand harsh conditions (i.e., high temperature and pressure) in a wet or dry environment. It must generate waves in a manner that minimizes the risk of damage to the oil or gas well. Most importantly, a downhole source must generate adequate power at high frequencies to allow high-resolution images to be obtained.

Another problem with seismic tomography is the sparsity of data outside the central "focal" area between the source and receiver boreholes. A prominent data void lies in the area beneath the wells used in crosswell seismology. If a borehole terminates near the top of a reservoir (and this is common), then most of the reservoir will be out of view. Another type of data void is due to vagaries of the earth; for example, low-velocity zones "expel" direct (transmitted) waves rather quickly, which causes less of the zone to be sampled. Undersampling causes the tomography problem, in mathematical terms, to be underdetermined, which means the seismological observations cannot be inverted with any certitude to obtain a geologic model of the subsurface.

As the limitations of the tomographic method became apparent, both tomography and crosswell seismology in general lost some of the attention of the oil and gas industry. However, there are signs that crosswell seismology may now be rebounding as seismologists develop crosswell adaptations of a well-established geophysical technique, reflection seismology. Thus, what was initially deemed to be an emerging technology, but later seemed to fade, could now be a re-emerging technology.

⁵J.W. Rector III, "Crosswell Methods: Where are We, Where are We Going?," *Geophysics* (May-June 1995), pp. 629-630.

⁶D. Crice, "Late Arrivals," *The Leading Edge* (August 1993), p. 828.

Figure FE2a. Computer-assisted Tomography (CAT) Scan

Nearly ideal tomographic configuration due to dense coverage (i.e., number of rays transmitted through the target), good angular distribution (i.e., sources and receiver surround the target), and straight raypaths.

Figure FE2b. Seismic Tomography

Not-so-ideal tomographic configuration due to sparse coverage, poor angular distribution, and curved raypaths.

Figure FE3. Typical Scaling for Oil and Gas Wells

Crosswell Reflection Seismology

The reflection method⁷ uses more of the seismogram than just the traveltime of the direct or first-wave arrival. By using all of the recorded data, reflection techniques can produce images with much higher resolution than is possible from tomography alone. In fact, the potential resolution of crosswell reflection seismology, exceeding by about an order of magnitude the resolution of conventional (surface) reflection seismology, is closer to that of the finest-scale geophysical field measurements, well-logs.⁸

Resolution is enhanced because the raypaths between boreholes, unlike those between surface sources and receivers, avoid passing through the earth's near-surface layer. This layer typically consists of weathered rock and unconsolidated material that causes significant signal degradation. Elevation differences, variable seismic velocities, and other heterogeneities create idiosyncratic conditions about each surface receiver. These local variations in near-surface properties affect the travel time measurements (i.e., statics). High attenuation in weathered material distorts the waveform, filtering out much of the high frequency information (i.e., the layer acts as a low-pass frequency filter). The net result for surface sources and receivers is that the resolution of subsurface images can be greatly compromised,

and significant effort must be expended in surface surveys to make corrections for these near-surface effects.

It is important to note that it is not the analysis methods (tomographic or reflection) *per se* that yield the high resolution images, but rather applying one of these methods (reflection) with sources and receivers in boreholes; that is, avoidance of the deleterious effects of the earth's superficial layer is the reason for the notable superiority of recent crosswell imaging relative to conventional surface imaging.

While free of the signal degradation caused by the near-surface layer, the crosswell reflection method, nevertheless, requires some adaptations from the conventional reflection method. In addition to the rotation of coordinates, the effect of the free-surface of the earth (as distinct from the influence of the near-surface layer) is traded for borehole effects. Boreholes have both distinct radiation patterns and their own variety of unwanted noise, called tube waves. In addition, some of the wave types look different from a horizontal perspective. For example, channel waves can propagate within a single layer from borehole to borehole.

Tomography and crosswell reflection seismology are in fact complementary techniques^{9, 10} in that they provide information at different scale-lengths (i.e., different parts of the spatial spectrum) about the same target. Tomography

⁷J.F. Claerbout, *Fundamentals of Geophysical Data Processing*, McGraw-Hill, 1976.

⁸B.C. Smith and J.M. Harris, "Cross-Well Seismic Technique Finds Untapped Gas Reservoirs," *The American Oil & Gas Reporter* (July 1991), pp. 42-46.

⁹C. Zhou et al., "High-Resolution Cross-Well Imaging by Seismic Traveltime + Waveform Information," *The Leading Edge* (October 1993), pp. 988-991.

¹⁰C. Zhou et al., "Acoustic Wave-Equation Traveltime and Waveform Inversion of Crosshole Seismic Data," *Geophysics* (May-June 1995), pp. 765-773.

yields large-scale, albeit blurry, images, while reflection seismology produces fine-scale, or detailed, information. A large-scale velocity map produced by tomographic analysis can be used as input to reflection analysis. Although they are complementary techniques, it is the fineness of detail yielded by reflection analysis that may spark renewed oil and gas industry interest in crosswell seismology.

Connectivity Mapping

Connectivity mapping is a simpler, and less costly, approach to crosswell surveying that can provide significant information about subsurface fluid flow.^{11, 12} This technique focuses on a particular type of seismic signal called a guided wave, which remains "trapped" in a single geologic layer as it propagates from the source to the receiver (see Figure FE4a). For a geologic layer to be a waveguide, it must have a lower seismic velocity than that of the surrounding layers. If this condition is met, the signal can be transmitted over great distances with little attenuation. (This is the same principle that is used to transmit telephone calls and cable signals over communication lines.)

If a source and receiver are located in a single, uninterrupted geologic layer (as in Figure FE4a), then the amplitude and spectral bandwidth of the measured signal will be greatly enhanced. The signal spectrum can also indicate the thickness of a continuous layer. Alternatively, if the low-velocity layer is physically interrupted between the source and receiver wells, such as by a geologic fault, then the signal will be scattered in many directions by the discontinuity (see Figure FE4b). As a result, any measured signal will be greatly diminished in strength. Thus, measuring the seismic properties of guided waves between wells is a way to determine the continuity of geologic layers within a reservoir.

Knowledge of geologic continuity is essential to understanding the fluid dynamics of reservoirs. For example, a continuous shale layer may indicate a flow boundary during oil and gas production. On the other hand, a faulted structure could explain anomalies during secondary recovery operations. Continuity, or connectivity, is a primary factor in determining how to optimally develop and manage a reservoir (e.g., where to locate in-fill drilling). By focusing on the niche of transmission characteristics of guided waves, connectivity mapping does not provide the detailed images of tomography

or reflection techniques. However, it can provide key information at significantly reduced costs compared to the other crosswell techniques.

Looking Across Reservoirs

Reservoir Properties

The principal application of crosswell seismology is to characterize petroleum reservoirs.¹³ A reservoir is an underground formation containing a localized accumulation of hydrocarbons. The accumulation is confined by impermeable rock and is characterized by a single, natural pressure system.

Reservoirs are not simply pools with drain plugs. They can have great structural complexity, as well as intrinsic properties, that pose challenges to development and production. Reservoirs can be multilayered, fractured, or compartmentalized (laterally or vertically; by cementation or other causes) into distinct hydrological units that are inaccessible from the initial production wells.

The most important intrinsic properties of the reservoir rock are porosity and permeability. Porosity refers to the small spaces within the rock matrix that can collect oil and gas. Permeability defines the interconnectedness of the porous spaces. Porosity provides storage space like the memory of a personal computer, while permeability is like being "connected" to other storage areas on the Internet. Retrieval of petroleum, like retrieval of information, is optimized when there are many sites that are interconnected.

Even subtle local variations in reservoir geometry or physical properties can strongly affect the development and production of the reservoir. An accurate and detailed understanding of a reservoir's properties is important to all phases of its development and production. For development, the number and locations of production wells can be optimized. During secondary production, additional wells can be positioned to tap into previously inaccessible or bypassed compartments. And for tertiary recovery, dynamic reservoir models could be constructed to represent temporal changes in fluid flow and allow prediction of the resulting effects at each production well.

¹¹G.E. Tinker et al., "Connectivity Mapping Improves Understanding of Reservoir Continuity," *Oil and Gas Journal* (December 20, 1993), pp. 87-91.

¹²Y. Chon et al., "Reservoir Continuity Logging Using Connectivity Mapping While Drilling," *The Leading Edge* (March 1996), pp. 203-208.

¹³L.R. Lines, "Cross-borehole Seismology, A Tool for Enhanced Reservoir Characterization," *Geotimes* (January 1995), pp. 11-13.

Figure FE4a. A Continuous Low Velocity Zone Detected By Connectivity Mapping

Figure FE4b. A Discontinuous Low Velocity Zone Which Can Indicate An Interrupted Reservoir

Applications

Crosswell seismology has been used to monitor enhanced oil recovery (EOR) operations.¹⁴ Tertiary recovery, or EOR, processes are designed to condition a reservoir (e.g., with heat or special fluids) to enhance the flow of oil out of the pore spaces in reservoir rock. Performing crosswell surveys of a reservoir at different times during steam injection has provided time-lapse imagery of the thermal recovery process.¹⁵ The seismic velocities obtained from these surveys are interpreted in terms of porosity and steam-heat effects. A radial survey (i.e., multiple crosswell surveys having a common midpoint) of the same reservoir showed that a significant amount of energy was "lost" by being diverted away from the reservoir along preferred highly permeable channels.¹⁶

Many of the recent crosswell studies seem to have been done for the purpose of exploring the limits of the crosswell method as much as for obtaining information about any particular reservoir. For example, a set of papers^{17, 18, 19, 20} describes the information obtained from crosswell imaging of a reservoir prior to water and carbon dioxide injection. A significant part of these studies was devoted to the adaptation of reflection techniques and to related problems such as wavefield separation. Resolution of 5-10 feet allowed features to be identified that could not be seen on the surface seismic records. Another recent paper²¹ demonstrated that a reflection analysis has about five times the spatial resolution of a tomographic analysis. Crosswell imaging has also been applied to the problem of weak anisotropy.²² Anisotropy is identified by wave velocities that vary in different directions at a given point (e.g., north-south compared to east-west) and

can indicate the orientation of fractures (and stress) in the earth.

Geologic and Economic Implications

Where the Wildthings Are²³

Prior to 1960, a common technique for finding oil was to drill wildcats, which are exploratory holes drilled at somewhat random locations at least 1 mile from any known oil or gas field. The highest hopes, and lowest odds, would be to discover a very large field, commonly called an elephant. Recent advances in technology, such as 3D seismology, have helped to tame the wildcat; that is, proportionately fewer holes are currently being drilled, but with a much higher success rate and, therefore, at reduced cost.

The imagery of wildthings, cats and elephants, reflects the vivid history of the domestic oil and gas industry, but where are the wild things of today? Certainly, much attention in the oil and gas industry has focused on high-technology tools (e.g., marine data acquisition, 3D surveys, computer workstations) devoted to exploration in frontier areas or the discovery of new fields in challenging environments (e.g., subsalt plays in the Gulf of Mexico). However, the most significant changes to the domestic oil and gas industry may in the future occur "closer to home."

Notwithstanding the dramatic transformation taking place in petroleum exploration, a salient fact remains -- more domestic oil and gas have been recently "discovered" in existing fields (i.e., booked as positive net revisions to proved reserves) over the past couple of decades than have been provided by new discoveries. Certainly most domestic elephants of the lower 48 States, excluding offshore and coastal areas,²⁴ have already been found (see Figure FE5).²⁵ The relative contributions of net revisions to proved reserves (which exclude adjustments and extensions) and of total new discoveries of domestic crude oil during 1977-94 are shown in Figure FE6.²⁶ The implications to be gleaned from this figure are (i) that new techniques which allow greater development of, and optimal production from, existing fields are ever more needed; and (ii) that they will have ever greater impact in the future as the

¹⁴D.S. Lee et al., "Time-Lapse Crosswell Seismic Tomography to Characterize Flow Structure in the Reservoir during the Thermal Stimulation," *Geophysics* (May-June 1995), pp. 660-666.

¹⁵M.E. Mathisen et al., "Time-Lapse Crosswell Seismic Tomogram Interpretation: Implications for Heavy Oil Reservoir Characterization, Thermal Recovery Process Monitoring, and Tomographic Imaging Technology," *Geophysics* (May-June 1995), pp. 631-650.

¹⁶M.E. Mathisen et al., "Crosswell Seismic Radial Survey Tomograms and the 3-D Interpretation of a Heavy Oil Steamflood," *Geophysics* (May-June 1995), pp. 651-659.

¹⁷J.M. Harris et al., "High-Resolution Crosswell Imaging of a West Texas Carbonate Reservoir: Part 1-- Project Summary and Interpretation," *Geophysics* (May-June 1995), pp. 667-681.

¹⁸M. Van Schaack et al., "High-Resolution Crosswell Imaging of a West Texas Carbonate Reservoir: Part 2--Wavefield Modeling and Analysis," *Geophysics* (May-June 1995), pp. 682-691.

¹⁹J.W. Rector III et al., "High-Resolution Crosswell Imaging of a West Texas Carbonate Reservoir: Part 3--Wavefield Separation of Reflections," *Geophysics* (May-June 1995), pp. 692-701.

²⁰S.K. Lazaratos et al., "High-Resolution Crosswell Imaging of a West Texas Carbonate Reservoir: Part 4--Reflection Imaging," *Geophysics* (May-June 1995), pp. 702-711.

²¹C. Zhou, op. cit.

²²P. R. Williamson et al., "Crosshole Imaging in Anisotropic Media," *Leading Edge* (January 1993), pp. 19-23.

²³M. Sendak, *Where the Wild Things Are*, HarpC Childbooks, 1992.

²⁴Specifically excluding the Pacific coast onshore and offshore, the deep Gulf of Mexico, and the Atlantic offshore (for gas).

²⁵Energy Information Administration, *Largest U.S. Oil and Gas Fields*, DOE/EIA-TR-0567 (Washington, DC, August 1993), Figure 1 (revised).

²⁶Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves 1994 Annual Report*, DOE/EIA-0216(94) (Washington, DC, August 1995), Table D1.

Figure FE5. Time of Discoveries of Largest U.S. Oil Fields

Of the 100 largest U.S. oil field discoveries, the 94 that were discovered in this century are depicted. Most of the large domestic oil fields were discovered in the early part of this century.

Figure FE6. Relative Impact of Net Revisions and New Discoveries on U.S. Proved Crude Oil Reserves

During 1977-1994, net revisions (in aggregate) to proved reserves have been greater than new discoveries.

relative importance of new discoveries to total domestic reserves continues to diminish over the long term. Crosswell seismology may be such a technique -- if it can be made cost-effective.

Opportunities and Costs

Crosswell seismology is now very expensive. Direct costs include the usual expenses of performing seismic fieldwork, such as salaries of field crews and outlays for sophisticated equipment, with the added difficulty of doing it all in boreholes. Drilling deep boreholes solely for seismic data acquisition is prohibitively expensive, so the natural course is to exploit extant wells. Using production wells, however, can incur significant opportunity costs because they have to be temporarily shut-in, resulting in lost production revenue.

The greatest opportunity costs, however, are the potential reserves "lost" from not knowing of their existence or from not knowing how to efficiently extract them. Crosswell seismology could be a means of "recovering" some of these lost opportunities. The Department of Energy²⁷ (DOE) estimates there are over 300 billion barrels of oil, much of it in existing fields that could be accessible with improved technologies. In addition, DOE estimates that 120 trillion cubic feet of natural gas are located in compartments or bypassed zones within existing U.S. fields. Reservoir management may be portrayed as "minding the store," but it is a store with a large, if uncertain, inventory.

Some of the present costs of conducting crosswell surveys will be mitigated by current efforts to design better downhole sources. Significant improvements have been made in the design of seismic sources to withstand harsh conditions and to provide adequate signal strength without damaging the borehole. A strong seismic source is needed in areas of soft sediments, such as the Gulf Coast region. More seismic energy is also needed for crosswell work in offshore areas, where the wells are generally farther apart.

Development of multi-source and multi-receiver downhole arrays is necessary to reduce the time and costs needed to perform crosswell surveys. In particular, there is a compelling need to develop receiver arrays that do not require clamping and, thus, can be placed inside tubing (the alternative of "pulling" tubing is expensive). As costs decline, field applications of crosswell seismology will become more feasible. Conversely, it is a technique waiting in the wings if energy prices rise; a technology that is expensive today can

provide some of the elasticity in the supply of energy as prices increase.

Another approach to cost mitigation is to redefine the crosswell problem. In particular, less ambitious techniques such as connectivity mapping may provide a reduced, but adequate, dataset at much less cost. Connectivity mapping compromises overall geologic structural detail (as produced by seismic tomography and reflection techniques) while focusing solely on continuity, which is a particularly pertinent property for reservoir development and management.

The present overall economic effect of technology in the oil and gas industry is difficult to quantify. Like early 3D seismology applications, success stories regarding crosswell seismology are mostly anecdotal, and the associated costs are often not reported. Nonetheless, its future economic impact could be profound. If, for example, existing domestic reservoirs could increase crude oil production by 10 percent, the U.S. balance of trade deficit would be reduced by about \$4 billion (based on 1995 data²⁸).

The economic implication of finding more petroleum in existing reservoirs is also interesting in light of how the economics of searching for oil has evolved in space and time. The 1970's was characterized by a domestic search for petroleum almost everywhere (e.g., Alaska, thrust belt) at almost any cost. Some of the cheapest oil was found during the 1980's on the New York Stock Exchange -- Dupont purchased Conoco (1981), USX purchased Marathon (1982), Occidental purchased Cities Services (1982), Chevron purchased Gulf (1984), Texaco purchased Getty (1984).²⁹ If the potential of crosswell seismology is realized, then the next move may be redirected toward finding "new" oil in existing reservoirs.

Redirections

In summary, the development of crosswell seismology has followed a complicated path, not unlike some of its raypaths. It achieved only modest success in its original form as a direct wave, or tomographic, technique. Due to its low resolution, seismic tomography is inherently limited in its applicability as a tool for imaging fine-scale structures in the earth. This resolution problem, among others, has caused interest in crosswell seismology to wane during the last few years, but today the technique is being reconstituted as a combined tomographic and reflection technique, and the hybrid technique offers greatly enhanced resolution. The progression

²⁷G. deHoratiis, Department of Energy, Office of Fossil Energy, personal communication.

²⁸Energy Information Administration, *Monthly Energy Review*, DOE/EIA-0035(96/06) (Washington, DC, June 1996), Tables 3.2a and 9.1.

²⁹J. Rasmussen, Energy Information Administration, personal communication.

from tomography to reflection techniques is typical of many research and development endeavors: work in one field is redirected and bears fruit in a rather different, often unexpected, way.

General acceptance of crosswell seismology will happen only when the oil and gas industry is convinced that its cost/benefit ratio is favorable. Currently, it is a difficult economic environment for new techniques to come on-line unless immediate cost savings can be realized. As domestic oil and gas have become more difficult to find in the face of constant prices, the stakes have become higher, and the expectations for any new technique have become greater. With significant advances in analysis and instrumentation, crosswell seismology will become more feasible as costs decrease.

The development of crosswell seismology may be following larger, secular trends in the industry. Some of the major oil

and gas companies are supporting university projects while downsizing in-house projects, and this may be part of the larger industry trend of outsourcing. Another secular trend is the increasing interaction among different personnel, such as petroleum engineers and geophysicists, during the exploration/development/production cycle; crosswell seismology naturally brings together earth scientists and engineers across functional boundaries.

The most powerful reason that crosswell seismology may see a comeback has to do with its high resolution -- resolution on the scale of the finest heterogeneity of interest in the reservoir. *No other long-range seismic technique can match the resolution that is possible with crosswell seismology.* For fine-tuning the production from a reservoir -- understanding the natural and induced flow patterns (i.e., fluid dynamics) and complex compartmentalization (i.e., geologic structure) -- crosswell seismology offers a unique capability.

Highlights

Spherical tanks are used to store liquefied petroleum gases under pressure.

Highlights

Unusually cold weather in the Midwest and Northeast, continued economic growth—notably, increased industrial output, and strong finished motor gasoline demand pushed total demand for refined petroleum products (measured as products supplied) for November 1996¹ to 18.1 million barrels per day, the **highest November level since 1979** (Table H1). According to the Federal Reserve, U.S. industrial output increased 0.9 percent during November as production resumed at previously strike-idled General Motors plants.² During November, temperatures in the United States were 18 percent **colder-than-normal**, with the Northeast and Midwest regions bearing the brunt of the early-winter cold.³

Other November 1996 highlights include:

- Retail motor gasoline prices were at their highest levels in six years, however **demand** for finished motor gasoline was only **slightly lower than last year's record-high level**. Stock levels dropped to a **November-record low**.
- Refiners continued to produce distillate fuel oil at a record rate, surpassing the previous November-record high set in 1993.
- On the strength of increased air cargo traffic, kerosene-type jet fuel **demand** and **production** reached **record-high November levels**.
- As Northeast utilities increased spot purchasing during the month to take advantage of comparatively lower prices and offset possible gas supply problems, residual fuel oil **demand, production, and imports** levels increased slightly over November 1995 levels.
- The United Nations and Iraq agreed to terms allowing the sale of about \$2 billion of crude oil, with proceeds from the sale used to provide medicine and food for Iraqi citizens. Final approval was not received by month's end, delaying entrance of Iraqi crude oil on world markets until early-December.⁴
- Crude oil **imports** were **high** for the month, but **below the record high level set last year**. Domestic crude oil **production** dropped to its **lowest November level since 1954**. Crude oil **stock** levels fell to **record-low levels for the month**.

Motor Gasoline

Demand for finished motor gasoline averaged 7.8 million barrels per day, 1 percent lower than last November's record-high. Finished motor gasoline **production** reached 7.7 million barrels per day, slightly lower than last year's level and the record high level set in November 1994. **Imports** of motor gasoline averaged 0.2 million barrels per day, **within the normal range for this time of year**. Finished motor gasoline stocks plummeted to 153 million barrels, the **lowest November level on record**. **Reformulated** motor gasoline **production** averaged 2.2 million barrels per day, and **stock levels** increased slightly through the month to 36 million barrels, **24 percent of the total**.

Distillate Fuel Oil

November **demand** for distillate fuel oil averaged 3.4 million barrels per day, the **highest level for the month since 1978**. Distillate fuel oil **production** reached a **record-high 3.6 million barrels per day**, surpassing the previous November record set in 1993. **Imports** of distillate fuel oil averaged 0.2 million barrels per day, **within the normal seasonal range**. Distillate fuel oil **inventories** of 119 million barrels represented the **lowest November stock level on record**. High-sulfur distillate fuel oil (heating oil) stocks totaled 56 million barrels, nearly 14 million barrels below last year's inventory level.

Residual Fuel Oil

Marking the first yearly increase since November 1992-1993, residual fuel oil **demand** and **production** reached levels of 0.8 million barrels per day and 0.7 million barrels per day, respectively. **Imports** of residual fuel oil averaged 0.3 million barrels per day, an **increase of 32 percent over last year's unusually low level**. Stock levels increased to 42 million barrels. Residual fuel oil trading increased through the month. Electric utilities in the Northeast increased their purchases of residual fuel oil in order to take advantage of lower prices versus natural gas and preempt possible natural gas delivery problems.⁵

Kerosene-Type Jet Fuel

Demand for kerosene-type jet fuel reached a **record November high** of 1.6 million barrels per day, based, in part, on increased air cargo traffic in fall months.⁶ As would be expected, kerosene-type

¹November 1996 data are monthly-from-weekly estimates based on the Energy Information Administration's Weekly Petroleum Supply Reporting System.

²"Digest," *The Washington Post*, December 17, 1996, p. D1.

³Based on national population-weighted average heating-degree day data, National Oceanic and Atmospheric Administration, Climate Analysis Center, "Heating Degree Day Data Monthly Summary, Monthly Data for November 1996."

⁴"U.S. Crude Prices Fall as Iraq Gets Green Light," *Bloomberg Oil Buyers' Guide*, December 16, 1996, p. 10.

⁵"U.S. Resid Markets Stir With First Hint of Winter," *Bloomberg Oil Buyers' Guide*, November 18, 1996, p. 15.

⁶"Little Joy in Air Cargo Industry," *Journal of Commerce*, December 10, 1996, pp. 1A and 3B.

Table H1. Petroleum Supply Summary
(Million Barrels per Day, Except Where Noted)

Category	1996			1995	January - November	
	Estimated November	October	Difference ^a	November	1996	1995
Products Supplied	18.1	19.1	-1.0	18.0	18.2	17.7
Finished Motor Gasoline	7.8	8.0	-0.3	7.9	7.8	7.8
Distillate Fuel Oil	3.4	3.6	-0.1	3.2	3.4	3.2
Residual Fuel Oil	0.8	0.8	(s)	0.8	0.8	0.8
Jet Fuel	1.6	1.6	(s)	1.6	1.6	1.5
Other Petroleum Products ^b	4.5	5.0	-0.5	4.5	4.6	4.3
Crude Oil Inputs	14.1	14.3	-0.1	13.8	14.2	14.0
Operating Utilization Rate (%)	94.3	95.6	-1.3	93.2	95.1	93.3
Imports	8.9	9.7	-0.8	9.1	9.4	8.9
Crude Oil.....	7.3	7.7	-0.4	7.3	7.5	7.3
Strategic Petroleum Reserve.....	0.0	0.0	0.0	0.0	0.0	0.0
Other.....	7.3	7.7	-0.4	7.3	7.5	7.3
Products	1.7	2.1	-0.4	1.8	1.9	1.6
Finished Motor Gasoline.....	0.2	0.3	-0.1	0.2	0.3	0.3
Distillate Fuel Oil.....	0.2	0.2	-0.1	0.3	0.2	0.2
Residual Fuel Oil	0.3	0.3	(s)	0.2	0.2	0.2
Jet Fuel	0.1	0.1	(s)	0.2	0.1	0.1
Other Petroleum Products ^c	0.9	1.2	-0.2	0.9	1.0	0.9
Exports	1.0	1.0	(s)	1.0	1.0	0.9
Crude Oil.....	0.2	0.1	0.1	0.1	0.1	0.1
Products.....	0.9	0.9	-0.1	0.9	0.9	0.8
Total Net Imports	7.9	8.7	-0.8	8.1	8.4	7.9
Stock Change^d	-0.7	-0.5	-0.2	-0.1	-0.1	-0.1
Crude Oil.....	-0.5	0.2	-0.7	0.3	-0.1	-0.1
Products.....	-0.2	-0.6	0.4	-0.4	-0.1	-0.1
Total Stocks	1,518	1,540	-22	1,604	--	--
(million barrels)						
Crude Oil	871	884	-13	911	--	--
Strategic Petroleum Reserve	571	574	-3	592	--	--
Other.....	300	310	-10	319	--	--
Products	647	656	-9	693	--	--
Finished Motor Gasoline	153	149	4	156	--	--
Distillate Fuel Oil	119	115	4	135	--	--
Residual Fuel Oil	42	38	4	37	--	--
Jet Fuel	40	41	-1	42	--	--
Other Petroleum Products ^e	293	313	-19	323	--	--

^a Difference is equal to volume for current month minus volume for previous month.

^b Includes crude oil product supplied, natural gas liquids, liquefied refinery gases (LRG's), other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and jet fuel.

^c Includes natural gas liquids, liquefied refinery gases (LRG's), other liquids, and all finished petroleum products except motor gasoline, jet fuel, distillate fuel oil, and residual fuel oil.

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

(s) = Less than 0.05 million barrels per day, or less than 0.05 percent, or less than 0.5 million barrels.

E=Estimated.

-- = Not Applicable.

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

Source: Energy Information Administration (EIA), 1994, *Petroleum Supply Annual*, Volume II; appropriate issues of the *Petroleum Supply Monthly* and the *Weekly Petroleum Status Report*.

Data for the current month are preliminary estimates, based on weekly submissions. For an explanation of estimation methodology and accuracy, see Appendix A of *Weekly Petroleum Status Report* and the article, "Accuracy of Petroleum Supply Data", published in the September 1995, *Petroleum Supply Monthly*.

Table H2. U.S. Refinery Inputs, Capacities and Utilization Rates: 1995-1996
(Thousand Barrels per Day, Except Where Noted)

Item	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1995												
Gross Refinery Inputs	13,830	13,567	13,383	13,974	14,457	14,714	14,461	14,473	14,592	13,748	14,002	14,196
Operating Refinery Capacity ²	15,082	15,128	15,278	15,123	15,158	15,213	15,042	15,236	15,154	15,033	15,022	14,949
Idle Capacity³	353	308	162	318	227	172	334	157	118	158	174	261
Idle Three Months or Less	257	204	59	214	167	120	241	64	58	90	106	150
Idle More than Three Months	96	103	104	104	60	52	93	93	60	68	68	111
Operable Refinery Capacity	15,434	15,436	15,440	15,440	15,385	15,385	15,376	15,393	15,272	15,191	15,196	15,210
Utilization Rate (percent)												
Operating Capacity	91.7	89.7	87.6	92.4	95.4	96.7	96.1	95.0	96.3	91.5	93.2	95.0
Operable Capacity	89.6	87.9	86.7	90.5	94.0	95.6	94.0	94.0	95.6	90.5	92.1	93.3
1996												
Gross Refinery Inputs	13,852	13,638	13,903	14,400	14,501	14,648	14,439	14,541	14,635	14,442	NA	NA
Operating Refinery Capacity ²	15,027	14,852	14,910	15,004	14,997	15,033	15,072	15,168	15,121	15,109	NA	NA
Idle Capacity³	259	453	428	364	360	327	313	141	197	153	NA	NA
Idle Three Months or Less	120	314	261	225	38	14	0	0	56	12	NA	NA
Idle More than Three Months	139	139	167	139	322	313	313	142	141	141	NA	NA
Operable Refinery Capacity	15,286	15,305	15,338	15,368	15,356	15,360	15,385	15,309	15,319	15,263	NA	NA
Utilization Rate (percent)												
Operating Capacity	92.2	91.8	93.2	96.0	96.7	97.4	95.8	95.9	96.8	95.6	NA	NA
Operable Capacity	90.6	89.1	90.6	93.7	94.4	95.4	93.9	95.0	95.5	94.6	NA	NA

¹Capacities are on a calendar day basis.

²Operating capacity equals the operable capacity less the total idle capacity.

³Idle capacity is the component of operable capacity that is not in operation and not under active repair, but is capable of being placed in operation within 30 days; and capacity not in operation but is under active repair that can be completed within 90 days.

NA = Not Available

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

Sources: Energy Information Administration (EIA), 1995, *Petroleum Supply Annual*, Volume II, Table 16; EIA, *Petroleum Supply Monthly*, 1996 data issue, Table 28.

jet fuel **production** also hit a record November high level of 1.5 million barrels per day. **Stock** levels, at 40 million barrels, fell **within the normal seasonal range**.

Propane

U.S. inventories of propane posted its third highest ever November stockdraw, falling nearly 5.9 million barrels and ended the month at 44.7 million barrels. U.S. inventories remain at their lowest level in more than a quarter century. Late season crop drying demand, combined with early heating demand were some of the factors for the near record stockdraw last month. Regionally, inventories fell in all of the major areas of the Nation during November. However, inventories in the Midwest region experienced the greatest stockdraw, falling 4.4 million barrels. Inventories in the East Coast and Gulf Coast regions fell 0.1 million barrels and 0.2 million barrels, respectively. East Coast inventories remain within the normal range while in the Midwest, inventories remain below the normal range. Gulf Coast inventories moved within the lower limit of the normal range for the first time since the end of March 1996.

Crude Oil

Imports of crude oil averaged 7.3 million barrels per day, slightly **lower than last year's record high level**. Domestic crude oil **production** dropped **less than 1 percent from the November 1995 level**, averaging 6.5 million barrels per day. Primary crude oil **stock** levels (excluding the Strategic Petroleum Reserve) totaled 300 million barrels, the **lowest recorded level for November**.

Refinery Operations

Crude oil **inputs** averaged 14.1 million barrels per day, the **highest level since November 1979**. The estimated refinery operable utilization rate, gross inputs divided by the total refining capacity with idle units included, averaged 93.5 percent.

In an effort to focus business operations on upstream--exploration and production--activities, Unocal, Incorporated sold its refining and marketing unit to Tosco, Incorporated. The only downstream units not affected by the sale are Unocal, Incorporated's joint venture with Petroleos de Venezuela, Uno-Ven, and the '76

Auto/Truckstop chain. Through the deal, Tosco, Incorporated will receive three more California refineries, 1,350 retail outlets

in 6 western states, 13 terminals, three tankers, 1,500 miles of pipeline and Unocal, Incorporated's global lube oils business.⁷

⁷"Unocal Sells '76 to Tosco Because Crude Returns Much Better," *Octane Week*, November 25, 1996, pp. 1 and 7-8.

Summary Statistics

Incinerators such as this one at a chemical installation turn toxic chemicals into water vapor and other harmless elements.

Table S1. Crude Oil and Petroleum Products Overview, 1981 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Field Production			Stock Change ^a		Petroleum Products Supplied	Ending Stocks ^b (Million Barrels)
	Total Domestic ^c	Crude Oil	Natural Gas Plant Liquids	Crude Oil ^d	Petroleum Products		Crude Oil ^d and Petroleum Products
1981 Average	10,230	8,572	1,609	^g 290	^g -130	16,058	1,484
1982 Average	10,252	8,649	1,550	136	-283	15,296	^g 1,430
1983 Average	10,299	8,688	1,559	^g 214	^g -234	15,231	1,454
1984 Average	10,554	8,879	1,630	199	81	15,726	1,556
1985 Average	10,636	8,971	1,609	50	-153	15,726	1,519
1986 Average	10,289	8,680	1,551	78	124	16,281	1,593
1987 Average	10,008	8,349	1,595	128	-87	16,665	1,607
1988 Average	9,818	8,140	1,625	1	-29	17,283	1,597
1989 Average	9,219	7,613	1,546	86	-129	17,325	1,581
1990 Average	8,994	7,355	1,559	-35	142	16,988	1,621
1991 Average	9,168	7,417	1,659	-42	32	16,714	1,617
1992 Average	8,996	7,171	1,697	-1	-68	17,033	^g 1,592
1993 Average	8,836	6,847	1,736	81	^g 70	17,237	^g 1,647
1994 January	8,694	6,817	1,615	90	-906	18,072	1,622
February	8,611	6,770	1,633	-97	-1,190	18,337	1,586
March	8,675	6,746	1,668	324	-379	17,313	1,584
April	8,524	6,612	1,679	-68	284	17,489	1,591
May	8,614	6,688	1,711	-253	954	17,181	1,612
June	8,586	6,611	1,733	-104	497	17,815	1,624
July	8,550	6,501	1,753	148	824	17,485	1,654
August	8,526	6,544	1,760	-129	291	18,117	1,659
September	8,670	6,609	1,792	227	579	17,490	1,684
October	8,683	6,658	1,748	255	-607	17,719	1,673
November	8,758	6,628	1,815	102	380	17,315	1,687
December	8,842	6,760	1,807	-292	-813	18,319	1,653
Average	8,645	6,662	1,727	18	-2	17,718	--
1995 January	8,764	6,682	1,787	-219	-84	17,219	1,643
February	8,935	6,794	1,780	-49	-1,225	18,279	1,608
March	8,619	6,600	1,776	336	-552	17,484	1,601
April	8,720	6,604	1,794	-101	114	17,142	1,601
May	8,729	6,629	1,790	-132	464	17,293	1,612
June	8,607	6,579	1,740	-148	57	18,131	1,609
July	8,500	6,449	1,751	-397	897	17,147	1,624
August	8,498	6,447	1,730	-253	-73	18,044	1,614
September	8,467	6,416	1,757	-64	243	18,026	1,620
October	8,501	6,421	1,757	168	-589	17,651	1,607
November	8,662	6,585	1,797	263	-352	17,979	1,604
December	8,533	6,530	1,691	-505	-822	18,366	1,563
Average	8,626	6,560	1,762	-93	-153	17,725	--
1996 January	E 8,561	E 6,495	1,718	51	-629	18,212	1,543
February	E 8,522	E 6,550	1,675	-64	-1,433	18,498	1,500
March	E 8,647	E 6,516	1,810	-141	-440	18,180	1,482
April	E 8,621	E 6,479	1,836	24	618	17,837	1,501
May	E 8,553	E 6,443	1,810	36	550	17,857	1,519
June	E 8,593	E 6,502	1,836	272	600	18,049	1,546
July	E 8,532	E 6,383	1,834	-200	337	18,143	1,550
August	E 8,565	E 6,389	1,867	9	-87	18,513	1,547
September	E 8,649	E 6,503	1,878	-495	705	17,605	1,554
October	RE 8,693	RE 6,490	R 1,908	R 183	R -636	R 19,103	R 1,540
November	E 8,705	PE 6,531	E 1,868	E -507	E -186	E 18,139	E 1,518
11-Mo. Average	E 8,604	PE 6,479	E 1,822	E -74	E -52	E 18,196	--
1995 11-Mo. Average	8,634	6,562	1,769	-55	-91	17,665	--
1994 11-Mo. Average	8,627	6,652	1,719	46	73	17,662	--

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

^b Stocks are totals as of end of period.

^c Includes crude oil, natural gas plant liquids, and other liquids. Beginning in 1993, fuel ethanol blended into finished motor gasoline and oxygenate production from merchant MTBE plants are also included.

^d Includes stocks located in the Strategic Petroleum Reserve.

^e Includes crude oil for storage in the Strategic Petroleum Reserve.

^f Net Imports equal Imports minus Exports.

^g In January 1981 and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. Stock changes are calculated using new basis stock levels. Bulk terminal and pipeline stocks of oxygenates were added beginning in January 1993. See Summary Statistics Explanatory Note 4.

Footnotes continued on following page.

Table S1. Crude Oil and Petroleum Products Overview, 1981 - Present (Continued)
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Imports			Exports			Net Imports ^f
	Total	Crude Oil ^e	Petroleum Products	Total	Crude Oil	Petroleum Products	
1981 Average	5,996	4,396	1,599	595	228	367	5,401
1982 Average	5,113	3,488	1,625	815	236	579	4,298
1983 Average	5,051	3,329	1,722	739	164	575	4,312
1984 Average	5,437	3,426	2,011	722	181	541	4,715
1985 Average	5,067	3,201	1,866	781	204	577	4,286
1986 Average	6,224	4,178	2,045	785	154	631	5,439
1987 Average	6,678	4,674	2,004	764	151	613	5,914
1988 Average	7,402	5,107	2,295	815	155	661	6,587
1989 Average	8,061	5,843	2,217	859	142	717	7,202
1990 Average	8,018	5,894	2,123	857	109	748	7,161
1991 Average	7,627	5,782	1,844	1,001	116	885	6,626
1992 Average	7,888	6,083	1,805	950	89	861	6,938
1993 Average	8,620	6,787	1,833	1,003	98	904	7,618
1994 January	7,993	5,945	2,048	927	110	817	7,066
February	8,539	6,313	2,226	882	116	766	7,657
March	8,574	6,372	2,202	936	40	896	7,638
April	8,968	6,955	2,013	868	120	749	8,100
May	9,213	7,198	2,015	929	118	812	8,284
June	9,305	7,358	1,947	867	107	760	8,438
July	9,779	7,857	1,922	877	84	793	8,902
August	9,510	7,488	2,022	913	72	841	8,597
September	9,693	7,868	1,825	891	61	830	8,802
October	8,788	7,136	1,651	997	138	859	7,791
November	8,707	7,034	1,674	1,000	102	898	7,707
December	8,863	7,193	1,670	1,208	118	1,090	7,655
Average	8,996	7,063	1,933	942	99	843	8,054
1995 January	8,015	6,505	1,509	978	113	865	7,037
February	8,345	6,546	1,799	1,062	95	967	7,283
March	9,006	7,391	1,615	948	68	880	8,059
April	8,465	7,038	1,427	998	155	842	7,467
May	8,709	7,325	1,384	876	73	803	7,832
June	9,558	7,927	1,631	919	101	818	8,639
July	8,863	7,265	1,598	895	103	792	7,969
August	9,061	7,437	1,624	821	61	759	8,240
September	9,736	8,007	1,729	805	74	731	8,930
October	8,577	7,075	1,502	962	50	912	7,615
November	9,074	7,302	1,772	1,002	118	884	8,072
December	8,612	6,916	1,696	1,135	127	1,008	7,477
Average	8,835	7,230	1,605	949	95	855	7,886
1996 January	9,272	7,260	2,013	1,070	89	981	8,202
February	8,287	6,553	1,734	1,048	92	956	7,240
March	8,967	7,136	1,831	867	94	773	8,101
April	9,357	7,316	2,042	976	148	828	8,381
May	9,914	8,029	1,885	891	37	854	9,023
June	9,920	7,958	1,962	895	130	766	9,025
July	9,752	7,771	1,982	945	139	806	8,808
August	9,866	8,020	1,846	896	44	852	8,970
September	9,078	7,333	1,745	1,104	147	957	7,974
October	R 9,747	R 7,683	R 2,064	R 1,045	R 134	R 911	R 8,702
November	E 8,928	E 7,269	E 1,659	E 1,044	E 193	E 852	E 7,884
11-Mo. Average	E 9,379	E 7,490	E 1,889	E 979	E 113	E 866	E 8,400
1995 11-Mo. Average	8,856	7,259	1,597	932	92	840	7,924
1994 11-Mo. Average	9,009	7,051	1,957	918	97	821	8,091

Footnotes continued.

R = Revised data. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

-- = Not Applicable.

* See Summary Statistics Explanatory Note 1.

Notes: • Crude oil includes lease condensate. • Italics denote estimates based upon preliminary data. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See Summary Statistics Table and Figure Sources.

Figure S1. Petroleum Overview, October 1995 - Present

Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S1. See Summary Statistics Table and Figure Sources.

Figure S2. Petroleum Products Supplied, October 1995 - Present

Source: Energy Information Administration, *Petroleum Supply Monthly*, Tables S4-S7, and S9. See Summary Statistics Table and Figure Sources.

Figure S3. Crude Oil Supply and Disposition, October 1995 - Present

Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S2. See Summary Statistics Table and Figure Sources.

Figure S4. Crude Oil Ending Stocks,¹ October 1995 - Present

¹Excludes stocks held in the Strategic Petroleum Reserve (SPR).

Note: The Observed Minimum for crude oil stocks in the last 36-month period was 299.6 million barrels, occurring in March 1996.

Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S2. See Summary Statistics Table and Figure Sources.

Table S2. Crude Oil Supply and Disposition, 1981 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Supply						Disposition
	Field Production		Imports			Unaccounted for Crude Oil ^c	Crude Losses
	Total Domestic	Alaskan	Total	SPR	Other		
1981 Average	8,572	1,609	4,396	256	4,141	83	5
1982 Average	8,649	1,696	3,488	165	3,323	71	3
1983 Average	8,688	1,714	3,329	234	3,096	114	2
1984 Average	8,879	1,722	3,426	197	3,229	185	2
1985 Average	8,971	1,825	3,201	118	3,083	145	1
1986 Average	8,680	1,867	4,178	48	4,130	139	(s)
1987 Average	8,349	1,962	4,674	73	4,601	145	(s)
1988 Average	8,140	2,017	5,107	51	5,055	196	(s)
1989 Average	7,613	1,874	5,843	56	5,787	200	(s)
1990 Average	7,355	1,773	5,894	27	5,867	258	(s)
1991 Average	7,417	1,798	5,782	0	5,782	195	(s)
1992 Average	7,171	1,714	6,083	10	6,073	258	(s)
1993 Average	6,847	1,582	6,787	15	6,772	168	(s)
1994 January	6,817	1,658	5,945	0	5,945	734	0
February	6,770	1,597	6,313	0	6,313	77	0
March	6,746	1,583	6,372	99	6,273	242	(s)
April	6,612	1,504	6,955	31	6,925	302	(s)
May	6,688	1,578	7,198	0	7,198	260	0
June	6,611	1,517	7,358	17	7,341	393	(s)
July	6,501	1,495	7,857	0	7,857	226	0
August	6,544	1,500	7,488	0	7,488	409	0
September	6,609	1,514	7,868	0	7,868	54	0
October	6,658	1,604	7,136	0	7,136	136	0
November	6,628	1,518	7,034	0	7,034	516	0
December	6,760	1,636	7,193	0	7,193	-165	0
Average	6,662	1,559	7,063	12	7,051	266	(s)
1995 January	6,682	1,575	6,505	0	6,505	318	(s)
February	6,794	1,578	6,546	0	6,546	78	0
March	6,600	1,525	7,391	0	7,391	-101	(s)
April	6,604	1,511	7,038	0	7,038	237	0
May	6,629	1,518	7,325	0	7,325	296	0
June	6,579	1,484	7,927	0	7,927	6	0
July	6,449	1,401	7,265	0	7,265	402	0
August	6,447	1,432	7,437	0	7,437	207	(s)
September	6,416	1,377	8,007	0	8,007	-5	0
October	6,421	1,475	7,075	0	7,075	328	(s)
November	6,585	1,472	7,302	0	7,302	334	0
December	6,530	1,466	6,916	0	6,916	193	0
Average	6,560	1,484	7,230	0	7,230	193	(s)
1996 January	E 6,495	E 1,444	7,260	0	7,260	105	0
February	E 6,550	E 1,482	6,553	0	6,553	462	0
March	E 6,516	E 1,454	7,136	0	7,136	63	0
April	E 6,479	E 1,367	7,316	0	7,316	647	(s)
May	E 6,443	E 1,341	8,029	0	8,029	9	0
June	E 6,502	E 1,419	7,958	0	7,958	483	0
July	E 6,383	E 1,317	7,771	0	7,771	109	(s)
August	E 6,389	E 1,327	8,020	0	8,020	73	0
September	E 6,503	E 1,401	7,333	0	7,333	304	0
October	RE 6,490	E 1,404	R 7,683	0	R 7,683	R 425	0
November ^a	PE 6,531	PE 1,400	E 7,269	E 0	E 7,269	E 40	E 0
11-Mo. Average	PE 6,479	PE 1,396	E 7,490	E 0	E 7,490	E 244	E (s)
1995 11-Mo. Average	6,562	1,486	7,259	0	7,259	193	(s)
1994 11-Mo. Average	6,652	1,552	7,051	13	7,038	307	(s)

^a Stocks are totals as of end of period.

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

^c Unaccounted for crude oil represents the difference between the supply and disposition of crude oil. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

^d Previously published as crude used directly.

^e Stock changes are calculated using new basis stock levels. See Summary Statistics Explanatory Note 4.

Footnotes continued on following page.

Table S2. Crude Oil Supply and Disposition, 1981 - Present (Continued)
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Disposition					Ending Stocks ^a (Million Barrels)		
	Stock Change ^b		Refinery Inputs	Exports	Product Supplied	Total	SPR	Other Primary
	SPR	Other						
1981 Average	336	^e -46	12,470	228	^d 58	594	230	363
1982 Average	174	-38	11,774	236	^d 59	^e 644	294	^e 350
1983 Average	234	^e -20	11,685	164	66	723	379	344
1984 Average	195	4	12,044	181	64	796	451	345
1985 Average	117	-67	12,002	204	60	814	493	321
1986 Average	50	28	12,716	154	49	843	512	331
1987 Average	80	49	12,854	151	34	890	541	349
1988 Average	52	-51	13,246	155	40	890	560	330
1989 Average	56	30	13,401	142	28	921	580	341
1990 Average	16	-51	13,409	109	24	908	586	323
1991 Average	-47	5	13,301	116	18	893	569	325
1992 Average	17	-18	13,411	89	13	893	575	318
1993 Average	34	47	13,613	98	10	922	587	335
1994 January	4	87	13,286	110	10	925	587	338
February	(s)	-97	13,130	116	12	923	587	335
March	99	226	12,985	40	10	933	590	342
April	31	-98	13,809	120	9	931	591	339
May	(s)	-253	14,272	118	9	923	591	332
June	16	-120	14,351	107	7	920	592	328
July	(s)	148	14,344	84	8	924	592	333
August	(s)	-129	14,491	72	7	920	592	329
September	0	227	14,234	61	9	927	592	335
October	0	255	13,529	138	8	935	592	343
November	(s)	102	13,968	102	7	938	592	346
December	(s)	-292	13,951	118	10	929	592	337
Average	13	5	13,866	99	9	--	--	--
1995 January	(s)	-219	13,604	113	7	922	592	330
February	(s)	-49	13,365	95	8	921	592	329
March	(s)	336	13,480	68	7	931	592	339
April	(s)	-101	13,817	155	7	928	592	336
May	(s)	-132	14,303	73	7	924	592	332
June	(s)	-148	14,553	101	5	920	592	328
July	(s)	-397	14,403	103	7	907	592	316
August	(s)	-253	14,276	61	6	899	592	308
September	(s)	-63	14,402	74	6	898	592	306
October	(s)	169	13,598	50	8	903	592	311
November	-1	264	13,833	118	7	911	592	319
December	(s)	-505	14,011	127	6	895	592	303
Average	(s)	-93	13,973	95	7	--	--	--
1996 January	(s)	52	13,708	89	11	895	592	303
February	(s)	-63	13,529	92	8	893	592	302
March	-80	-61	13,755	94	7	889	589	300
April	-88	112	14,263	148	6	889	586	303
May	-22	58	14,401	37	7	891	586	305
June	-45	317	14,535	130	6	899	584	314
July	-50	-150	14,319	139	5	893	583	310
August	-172	181	14,423	44	6	893	578	315
September	-130	-364	14,483	147	6	878	574	304
October	^R -1	^R 185	^R 14,276	^R 134	5	^R 884	574	^R 310
November	^E -94	^E -413	^E 14,147	^E 193	^E 6	^E 871	^E 571	^E 300
11-Mo. Average	^E -62	^E -12	^E 14,169	^E 113	^E 7	--	--	--
1995 11-Mo. Average	(s)	-55	13,970	92	7	--	--	--
1994 11-Mo. Average	14	33	13,858	97	9	--	--	--

Footnotes continued.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated. PE = Preliminary estimate. RE = Revised estimate.

SPR = Strategic Petroleum Reserve.

-- = Not Applicable.

* See Summary Statistics Explanatory Note 1.

Notes: • Crude oil includes lease condensate. • Italics denote estimates based upon preliminary data. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See Summary Statistics Table and Figure Sources.

Table S3. Crude Oil and Petroleum Product Imports, 1981 - Present
(Thousand Barrels per Day)

Year/Month		Imports from Arab-OPEC Sources							
		Algeria		Iraq		Kuwait ^b		Libya	
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1981	Average	311	261	(s)	0	0	0	319	317
1982	Average	170	90	3	3	5	2	26	23
1983	Average	240	176	10	10	14	7	0	0
1984	Average	323	194	12	12	36	24	1	0
1985	Average	187	84	46	46	21	4	4	0
1986	Average	271	78	81	81	68	28	0	0
1987	Average	295	115	83	82	84	70	0	0
1988	Average	300	58	345	343	92	80	0	0
1989	Average	269	60	449	441	157	155	0	0
1990	Average	280	63	518	514	86	79	0	0
1991	Average	253	44	0	0	6	6	0	0
1992	Average	196	24	0	0	51	39	0	0
1993	Average	220	24	0	0	353	344	0	0
1994	January	224	8	0	0	309	309	0	0
	February	226	20	0	0	423	423	0	0
	March	278	0	0	0	476	476	0	0
	April	245	30	0	0	261	238	0	0
	May	261	0	0	0	362	362	0	0
	June	178	2	0	0	255	255	0	0
	July	301	38	0	0	345	345	0	0
	August	282	39	0	0	306	306	0	0
	September	237	20	0	0	361	361	0	0
	October	217	38	0	0	165	148	0	0
	November	203	20	0	0	249	240	0	0
	December	259	39	0	0	240	227	0	0
	Average	243	21	0	0	312	307	0	0
1995	January	153	0	0	0	130	120	0	0
	February	358	64	0	0	346	324	0	0
	March	196	19	0	0	252	252	0	0
	April	251	31	0	0	171	164	0	0
	May	163	36	0	0	208	204	0	0
	June	277	39	0	0	260	259	0	0
	July	257	11	0	0	195	195	0	0
	August	298	65	0	0	180	175	0	0
	September	250	20	0	0	187	182	0	0
	October	229	39	0	0	250	244	0	0
	November	241	0	0	0	238	238	0	0
	December	152	0	0	0	215	215	0	0
	Average	234	27	0	0	218	213	0	0
1996	January	313	38	0	0	148	145	0	0
	February	200	16	0	0	216	216	0	0
	March	241	38	0	0	127	127	0	0
	April	211	2	0	0	201	201	0	0
	May	333	0	0	0	230	230	0	0
	June	313	0	0	0	388	388	0	0
	July	312	0	0	0	266	266	0	0
	August	315	0	0	0	271	266	0	0
	September	186	0	0	0	236	236	0	0
	October	209	0	0	0	260	260	0	0
	10-Mo. Average	264	9	0	0	234	233	0	0
1995	10-Mo. Average	242	32	0	0	217	211	0	0
1994	10-Mo. Average	245	20	0	0	326	322	0	0

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1981 - Present (Continued)
(Thousand Barrels per Day)

Year/Month		Imports from Arab-OPEC Sources							
		Qatar		Saudi Arabia ^b		United Arab Emirates		Total Arab OPEC	
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1981	Average	7	7	1,129	1,112	81	77	1,848	1,774
1982	Average	7	7	552	530	92	81	854	736
1983	Average	(s)	0	337	321	30	18	632	533
1984	Average	5	4	325	309	117	90	819	634
1985	Average	(s)	0	168	132	45	35	472	300
1986	Average	13	12	685	618	44	38	1,162	854
1987	Average	0	0	751	642	61	56	1,274	965
1988	Average	0	0	1,073	911	29	23	1,839	1,415
1989	Average	2	2	1,224	1,116	28	21	2,130	1,794
1990	Average	4	4	1,339	1,195	17	9	2,244	1,864
1991	Average	0	0	1,802	1,703	3	2	2,064	1,754
1992	Average	1	0	1,720	1,597	6	0	1,974	1,660
1993	Average	1	0	1,414	1,282	14	12	2,000	1,661
1994	January	0	0	1,320	1,175	0	0	1,854	1,492
	February	0	0	1,071	1,023	0	0	1,719	1,467
	March	0	0	1,132	1,055	0	0	1,887	1,531
	April	0	0	1,586	1,428	4	0	2,097	1,696
	May	0	0	1,438	1,394	0	0	2,062	1,757
	June	0	0	1,395	1,277	0	0	1,829	1,535
	July	0	0	1,414	1,310	53	53	2,113	1,745
	August	0	0	1,363	1,271	0	0	1,950	1,615
	September	0	0	1,486	1,364	40	40	2,125	1,786
	October	0	0	1,601	1,500	38	23	2,020	1,709
	November	0	0	1,477	1,357	0	0	1,929	1,617
	December	0	0	1,526	1,388	15	15	2,040	1,669
	Average	0	0	1,402	1,297	13	11	1,970	1,636
1995	January	0	0	1,309	1,251	20	20	1,613	1,391
	February	0	0	1,181	1,134	13	13	1,897	1,535
	March	0	0	1,535	1,410	0	0	1,983	1,681
	April	0	0	1,375	1,321	0	0	1,798	1,516
	May	0	0	1,281	1,237	0	0	1,653	1,477
	June	0	0	1,287	1,221	12	1	1,835	1,520
	July	0	0	1,265	1,165	0	0	1,716	1,371
	August	0	0	1,340	1,245	20	20	1,838	1,505
	September	0	0	1,474	1,357	29	0	1,941	1,559
	October	0	0	1,260	1,181	14	0	1,753	1,464
	November	0	0	1,429	1,326	10	10	1,918	1,574
	December	0	0	1,378	1,263	0	0	1,745	1,478
	Average	0	0	1,344	1,260	10	5	1,806	1,505
1996	January	0	0	1,398	1,334	0	0	1,859	1,517
	February	0	0	1,128	1,053	0	0	1,544	1,285
	March	0	0	1,422	1,318	0	0	1,790	1,484
	April	0	0	1,288	1,200	0	0	1,700	1,403
	May	0	0	1,518	1,414	0	0	2,080	1,643
	June	0	0	1,138	1,035	11	11	1,850	1,433
	July	0	0	1,548	1,371	4	4	2,130	1,642
	August	0	0	1,477	1,333	0	0	2,063	1,599
	September	0	0	1,355	1,255	0	0	1,777	1,491
	October	0	0	1,357	1,209	17	17	1,844	1,486
	10-Mo. Average	0	0	1,365	1,254	3	3	1,867	1,500
1995	10-Mo. Average	0	0	1,332	1,253	11	5	1,801	1,501
1994	10-Mo. Average	0	0	1,383	1,282	14	12	1,968	1,635

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1981 - Present (Continued)
(Thousand Barrels per Day)

Year/Month		Imports from Other-OPEC Sources							
		Ecuador ^c		Gabon ^d		Indonesia		Iran	
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1981	Average	48	38	35	35	366	318	0	0
1982	Average	42	32	40	40	248	226	35	35
1983	Average	61	56	59	59	338	315	48	48
1984	Average	55	47	58	57	343	304	10	10
1985	Average	67	56	52	51	314	292	27	27
1986	Average	77	64	26	25	318	297	19	19
1987	Average	29	23	35	35	285	262	98	98
1988	Average	47	33	16	15	205	186	^g (s)	^g (s)
1989	Average	89	80	50	49	183	158	0	0
1990	Average	49	38	64	64	114	98	0	0
1991	Average	63	53	84	84	111	102	32	32
1992	Average	65	62	124	123	78	70	0	0
1993	Average	81	78	152	151	81	65	0	0
1994	January	(c)	(c)	144	144	140	81	0	0
	February	(c)	(c)	212	208	103	59	0	0
	March	(c)	(c)	91	91	112	50	0	0
	April	(c)	(c)	288	288	88	88	0	0
	May	(c)	(c)	187	187	94	76	0	0
	June	(c)	(c)	223	223	155	155	0	0
	July	(c)	(c)	216	216	178	178	0	0
	August	(c)	(c)	142	142	119	112	0	0
	September	(c)	(c)	194	194	61	61	0	0
	October	(c)	(c)	235	235	96	89	0	0
	November	(c)	(c)	254	254	71	56	0	0
	December	(c)	(c)	154	154	113	95	0	0
	Average	(c)	(c)	194	194	111	92	0	0
1995	January	(c)	(c)	(d)	(d)	38	38	0	0
	February	(c)	(c)	(d)	(d)	129	87	0	0
	March	(c)	(c)	(d)	(d)	51	29	0	0
	April	(c)	(c)	(d)	(d)	95	87	0	0
	May	(c)	(c)	(d)	(d)	65	36	0	0
	June	(c)	(c)	(d)	(d)	96	51	0	0
	July	(c)	(c)	(d)	(d)	104	96	0	0
	August	(c)	(c)	(d)	(d)	122	95	0	0
	September	(c)	(c)	(d)	(d)	94	66	0	0
	October	(c)	(c)	(d)	(d)	87	68	0	0
	November	(c)	(c)	(d)	(d)	107	73	0	0
	December	(c)	(c)	(d)	(d)	72	41	0	0
	Average	(c)	(c)	(d)	(d)	88	64	0	0
1996	January	(c)	(c)	(d)	(d)	52	43	0	0
	February	(c)	(c)	(d)	(d)	44	43	0	0
	March	(c)	(c)	(d)	(d)	58	55	0	0
	April	(c)	(c)	(d)	(d)	57	57	0	0
	May	(c)	(c)	(d)	(d)	49	15	0	0
	June	(c)	(c)	(d)	(d)	72	65	0	0
	July	(c)	(c)	(d)	(d)	56	48	0	0
	August	(c)	(c)	(d)	(d)	53	49	0	0
	September	(c)	(c)	(d)	(d)	26	26	0	0
	October	(c)	(c)	(d)	(d)	125	82	0	0
1995	10-Mo. Average ...	(c)	(c)	(d)	(d)	88	65	0	0
	1994 10-Mo. Average ...	(c)	(c)	193	192	115	95	0	0

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1981 - Present (Continued)
(Thousand Barrels per Day)

Year/Month		Imports from Other-OPEC Sources						Total OPEC ^{c,d,e}	
		Nigeria		Venezuela		Total Other OPEC ^{c,d}			
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1981	Average	620	611	406	147	1,476	1,149	3,323	2,922
1982	Average	514	510	412	155	1,291	998	2,146	1,734
1983	Average	302	301	422	164	1,231	944	1,862	1,477
1984	Average	216	207	548	253	1,230	878	2,049	1,512
1985	Average	293	280	605	306	1,358	1,012	1,830	1,312
1986	Average	440	437	793	416	1,674	1,259	2,837	2,113
1987	Average	535	529	804	488	1,787	1,435	3,060	2,400
1988	Average	618	607	794	439	1,681	1,281	3,520	2,696
1989	Average	815	800	873	495	2,010	1,582	4,140	3,376
1990	Average	800	784	1,025	666	2,052	1,650	4,296	3,514
1991	Average	703	683	1,035	668	2,028	1,622	4,092	3,377
1992	Average	681	665	1,170	826	2,117	1,746	4,092	3,406
1993	Average	740	722	1,300	1,010	2,354	2,026	4,354	3,687
1994	January	310	274	1,211	901	1,806	1,400	3,660	2,892
	February	576	557	1,224	946	2,115	1,770	3,834	3,237
	March	441	402	1,261	932	1,903	1,474	3,790	3,006
	April	631	621	1,303	1,035	2,311	2,033	4,408	3,728
	May	732	730	1,334	1,022	2,347	2,014	4,409	3,771
	June	842	837	1,469	1,088	2,689	2,303	4,518	3,838
	July	703	694	1,296	1,029	2,393	2,116	4,506	3,861
	August	1,037	1,010	1,255	982	2,552	2,245	4,503	3,861
	September	578	578	1,428	1,106	2,261	1,939	4,386	3,725
	October	569	559	1,385	1,101	2,284	1,984	4,304	3,693
	November	485	478	1,432	1,084	2,242	1,872	4,171	3,488
	December	739	739	1,405	1,183	2,411	2,171	4,451	3,840
	Average	637	624	1,334	1,034	2,277	1,944	4,247	3,580
1995	January	625	617	1,442	1,061	2,105	1,717	3,718	3,108
	February	463	463	1,439	1,083	2,031	1,633	3,929	3,168
	March	687	676	1,499	1,208	2,236	1,913	4,220	3,595
	April	467	458	1,365	1,083	1,926	1,628	3,724	3,144
	May	603	592	1,480	1,176	2,148	1,804	3,801	3,281
	June	696	696	1,479	1,209	2,271	1,956	4,106	3,476
	July	696	696	1,536	1,162	2,336	1,954	4,052	3,325
	August	482	463	1,449	1,162	2,054	1,719	3,892	3,225
	September	851	841	1,655	1,288	2,600	2,195	4,541	3,753
	October	649	649	1,453	1,159	2,189	1,876	3,942	3,340
	November	646	637	1,507	1,140	2,260	1,851	4,178	3,424
	December	652	652	1,459	1,074	2,182	1,767	3,927	3,245
	Average	627	621	1,480	1,151	2,196	1,835	4,002	3,341
1996	January	690	663	1,508	1,148	2,250	1,854	4,109	3,371
	February	634	626	1,467	1,166	2,145	1,836	3,689	3,120
	March	594	548	1,691	1,341	2,343	1,943	4,133	3,427
	April	518	497	1,727	1,288	2,303	1,842	4,003	3,245
	May	705	705	1,641	1,333	2,395	2,054	4,475	3,697
	June	711	697	1,635	1,236	2,418	1,999	4,268	3,432
	July	720	666	1,672	1,332	2,448	2,047	4,579	3,689
	August	793	785	1,729	1,431	2,575	2,265	4,638	3,865
	September	694	677	1,679	1,269	2,398	1,972	4,175	3,463
	October	521	488	1,769	1,448	2,415	2,019	4,258	3,504
	10-Mo. Average	658	635	1,653	1,300	2,370	1,984	4,237	3,485
1995	10-Mo. Average	623	616	1,480	1,160	2,191	1,841	3,992	3,342
1994	10-Mo. Average	642	626	1,317	1,014	2,266	1,928	4,234	3,562

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1981 - Present (Continued)
(Thousand Barrels per Day)

Year/Month		Imports from Non-OPEC Sources ^a											
		Angola		Australia		Bahama Islands		Brazil		Canada		China, People's Republic of	
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1981	Average	49	45	5	0	74	0	23	14	447	164	18	0
1982	Average	44	42	5	(s)	65	0	47	19	482	214	40	8
1983	Average	78	71	4	0	125	0	41	2	547	274	34	6
1984	Average	90	85	38	25	88	0	60	(s)	630	341	46	15
1985	Average	110	104	37	21	40	0	61	0	770	468	59	36
1986	Average	112	102	41	30	37	0	50	0	807	570	90	68
1987	Average	192	180	58	49	37	0	84	0	848	608	82	63
1988	Average	212	203	64	59	32	0	98	0	999	681	88	82
1989	Average	284	279	36	31	34	0	82	0	931	630	80	76
1990	Average	237	236	53	47	37	0	49	0	934	643	80	77
1991	Average	254	254	26	21	35	0	22	0	1,033	743	91	87
1992	Average	336	336	19	17	36	0	20	0	1,069	797	90	84
1993	Average	336	336	19	18	28	0	33	0	1,181	900	51	50
1994	January	338	338	12	0	28	0	11	0	1,242	905	81	78
	February	295	282	0	0	79	0	12	0	1,374	994	44	44
	March	291	265	11	11	52	0	10	0	1,326	987	112	104
	April	284	284	0	0	39	0	42	0	1,194	930	70	67
	May	354	331	32	32	58	0	96	0	1,160	905	80	80
	June	278	278	11	11	14	0	62	0	1,206	973	37	36
	July	304	299	44	44	18	0	53	0	1,237	994	92	92
	August	358	347	13	13	20	0	38	0	1,357	1,059	64	64
	September	455	448	35	35	17	0	21	0	1,300	1,031	63	63
	October	286	286	22	22	15	0	18	0	1,238	982	18	18
	November	328	328	22	22	8	0	0	0	1,251	988	79	79
	December	402	380	0	0	6	0	8	8	1,388	1,054	40	40
	Average	331	322	17	16	29	0	31	1	1,272	983	65	64
1995	January	273	262	21	21	6	0	1	0	1,345	1,011	64	62
	February	348	335	22	22	8	0	0	0	1,311	965	21	21
	March	427	416	0	0	7	0	0	0	1,208	891	54	54
	April	412	402	33	33	0	0	0	0	1,243	999	65	65
	May	419	407	21	21	0	0	0	0	1,406	1,167	35	35
	June	371	358	10	10	0	0	0	0	1,420	1,169	26	26
	July	295	287	42	42	0	0	8	0	1,279	1,028	80	80
	August	367	355	0	0	0	0	9	0	1,345	1,058	40	40
	September	444	444	0	0	8	0	43	0	1,252	959	73	73
	October	366	366	15	15	0	0	9	0	1,300	1,057	40	40
	November	318	318	(s)	0	0	0	12	0	1,403	1,069	66	66
	December	366	366	23	23	0	0	12	0	1,471	1,099	73	73
	Average	367	360	16	16	2	0	8	0	1,332	1,040	53	53
1996	January	312	312	21	21	0	0	1	0	1,466	1,094	86	86
	February	195	195	0	0	0	0	4	0	1,392	1,007	42	42
	March	257	257	0	0	9	0	1	0	1,295	975	53	53
	April	244	233	22	22	0	0	(s)	0	1,408	1,011	18	18
	May	403	379	22	22	0	0	7	0	1,373	1,056	19	19
	June	356	356	56	47	1	0	10	0	1,391	1,091	37	37
	July	292	292	11	0	0	0	20	0	1,392	1,093	78	78
	August	480	456	43	43	0	0	32	0	1,387	1,040	73	73
	September	391	391	47	27	0	0	13	0	1,276	1,000	64	64
	October	502	485	79	65	0	0	1	0	1,400	1,059	36	36
	10-Mo. Average ..	344	337	30	25	1	0	9	0	1,378	1,043	51	51
1995	10-Mo. Average ..	372	363	16	16	3	0	7	0	1,311	1,031	50	50
1994	10-Mo. Average ..	325	316	18	17	34	0	36	0	1,262	976	67	65

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1981 - Present (Continued)
(Thousand Barrels per Day)

Year/Month		Imports from Non-OPEC Sources ^a											
		Colombia		Ecuador ^c		Gabon ^d		Italy		Malaysia		Mexico	
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1981	Average	1	0	-	-	-	-	11	0	36	33	522	469
1982	Average	5	0	-	-	-	-	18	(s)	20	18	685	645
1983	Average	10	0	-	-	-	-	18	(s)	4	3	826	766
1984	Average	8	0	-	-	-	-	45	(s)	1	0	748	659
1985	Average	23	0	-	-	-	-	60	(s)	3	1	816	715
1986	Average	87	57	-	-	-	-	76	0	12	11	699	621
1987	Average	148	115	-	-	-	-	54	1	13	12	655	602
1988	Average	134	106	-	-	-	-	65	5	19	19	747	674
1989	Average	172	136	-	-	-	-	34	3	39	39	767	716
1990	Average	182	140	-	-	-	-	58	2	41	40	755	689
1991	Average	163	123	-	-	-	-	47	3	24	24	807	759
1992	Average	126	102	-	-	-	-	55	0	10	10	830	787
1993	Average	171	141	-	-	-	-	31	0	11	10	919	863
1994	January	182	149	128	128	-	-	8	0	11	11	971	945
	February	184	131	96	96	-	-	35	0	19	15	967	926
	March	188	167	37	37	-	-	16	0	13	0	1,067	1,014
	April	241	197	52	52	-	-	13	0	3	0	987	963
	May	105	75	85	85	-	-	19	0	0	0	975	934
	June	112	101	72	72	-	-	12	0	10	10	1,040	974
	July	127	127	144	144	-	-	35	0	36	36	926	889
	August	181	181	115	115	-	-	52	0	13	7	894	852
	September	144	144	63	63	-	-	34	0	9	0	1,043	963
	October	215	215	110	110	-	-	21	0	0	0	940	881
	November	134	134	97	97	-	-	17	0	0	0	1,037	981
	December	124	124	96	96	-	-	9	0	6	0	963	944
	Average	161	146	91	91	-	-	22	0	10	6	984	939
1995	January	223	214	130	130	193	193	4	0	21	21	925	892
	February	139	129	107	107	186	186	1	0	0	0	922	890
	March	239	221	104	104	159	159	8	0	0	0	1,006	961
	April	175	175	146	146	163	163	13	0	7	0	993	963
	May	171	153	116	116	206	206	0	0	0	0	1,118	1,063
	June	225	202	137	137	357	357	13	0	7	0	1,138	1,076
	July	223	223	87	87	311	311	4	0	0	0	1,188	1,166
	August	330	311	116	104	246	246	0	0	0	0	1,201	1,172
	September	252	236	61	61	216	216	0	0	14	14	1,311	1,238
	October	199	190	12	12	270	270	11	0	13	5	894	854
	November	240	229	102	102	271	271	4	0	16	16	1,114	1,060
	December	200	190	51	51	171	171	3	0	17	11	996	978
	Average	219	207	97	96	229	229	5	0	8	6	1,068	1,027
1996	January	186	183	106	101	171	171	2	0	0	0	1,281	1,245
	February	149	139	81	81	191	191	0	0	24	17	1,077	1,062
	March	262	250	110	105	154	154	13	0	4	0	1,176	1,165
	April	280	280	158	143	212	212	(s)	0	0	0	1,303	1,273
	May	263	249	100	95	154	154	0	0	47	40	1,288	1,222
	June	256	247	138	133	218	218	16	0	19	11	1,339	1,274
	July	204	198	113	96	191	191	9	0	0	0	1,207	1,186
	August	221	217	83	71	156	156	8	0	5	0	1,157	1,142
	September	213	213	48	48	84	84	15	0	0	0	1,351	1,306
	October	265	252	66	60	209	209	4	0	31	0	1,213	1,189
	10-Mo. Average ...	230	223	100	93	174	174	7	0	13	7	1,239	1,207
1995	10-Mo. Average ...	219	206	101	100	231	231	5	0	6	4	1,070	1,028
1994	10-Mo. Average ...	168	149	90	90	-	-	24	0	11	8	981	934

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1981 - Present (Continued)
(Thousand Barrels per Day)

Year/Month		Imports from Non-OPEC Sources ^a											
		Netherlands		Netherlands Antilles		Norway		Puerto Rico		Russia ^f		Spain	
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1981	Average	30	(s)	197	0	119	114	62	0	5	(s)	1	(s)
1982	Average	35	(s)	175	0	102	102	50	0	1	0	3	(s)
1983	Average	65	3	189	0	66	65	40	0	1	(s)	2	(s)
1984	Average	65	3	188	0	114	112	42	0	13	(s)	11	0
1985	Average	58	0	40	0	32	31	28	0	8	(s)	29	1
1986	Average	54	0	25	0	60	53	21	0	18	(s)	53	0
1987	Average	60	0	29	0	80	70	21	0	11	0	55	0
1988	Average	61	0	36	0	67	62	22	0	29	0	68	0
1989	Average	49	0	42	0	138	127	32	0	48	0	67	0
1990	Average	55	0	31	0	102	96	32	0	45	1	47	0
1991	Average	29	0	81	0	82	74	27	0	29	1	33	0
1992	Average	26	0	65	0	127	119	26	0	18	5	32	0
1993	Average	10	0	82	0	142	137	29	0	55	36	37	0
1994	January	37	0	189	0	101	96	26	0	11	0	26	0
	February	43	0	119	0	199	166	19	0	14	0	31	0
	March	43	0	112	0	108	108	21	0	34	34	37	0
	April	24	0	73	0	205	184	17	0	0	0	45	0
	May	79	0	70	0	159	159	21	0	32	32	53	0
	June	38	0	69	0	176	158	42	0	133	133	50	0
	July	35	0	121	0	276	257	43	0	82	82	25	0
	August	33	0	114	0	206	198	23	0	21	15	38	0
	September	34	0	95	0	347	336	17	0	6	0	56	0
	October	18	0	77	0	310	300	20	0	30	30	35	0
	November	1	0	96	0	214	195	6	0	0	0	22	0
	December	4	0	43	0	125	123	10	0	0	0	26	0
	Average	32	0	98	0	202	190	22	0	30	27	37	0
1995	January	0	0	60	0	195	158	6	0	0	0	7	0
	February	17	0	58	0	194	164	7	0	0	0	9	0
	March	21	0	68	0	241	209	13	0	0	0	16	0
	April	3	0	0	0	315	291	9	0	0	0	16	7
	May	24	0	86	0	292	292	19	0	12	0	25	0
	June	37	0	50	0	370	370	16	0	15	0	27	0
	July	9	0	65	0	263	256	17	0	41	32	10	0
	August	21	0	62	0	279	264	26	0	136	98	21	0
	September	0	0	33	0	364	359	12	0	50	32	27	0
	October	31	0	48	0	163	163	15	0	0	0	6	0
	November	20	0	69	0	255	255	27	0	28	0	16	0
	December	0	0	24	0	348	316	15	0	15	0	12	5
	Average	15	0	52	0	273	258	15	0	25	14	16	1
1996	January	16	0	50	0	199	178	6	0	0	0	31	0
	February	38	0	93	0	236	221	17	0	14	0	23	0
	March	35	0	25	0	284	264	24	0	18	0	58	0
	April	20	0	40	0	375	357	17	0	0	0	36	0
	May	9	0	37	0	380	364	22	0	63	63	21	0
	June	26	0	52	0	434	408	25	0	14	14	12	0
	July	7	0	45	0	375	359	25	0	42	33	47	10
	August	14	0	53	0	371	362	33	0	32	32	21	0
	September	13	0	56	0	274	254	22	0	39	37	21	0
	October	24	0	97	0	389	359	14	0	42	33	34	0
	10-Mo. Average ..	20	0	55	0	332	313	21	0	27	21	31	1
1995	10-Mo. Average ..	16	0	53	0	268	253	14	0	26	16	16	1
1994	10-Mo. Average ..	38	0	104	0	208	196	25	0	36	33	40	0

See footnotes at end of table.

Table S3. Crude Oil and Petroleum Product Imports, 1981 - Present (Continued)
(Thousand Barrels per Day)

Year/Month		Imports from Non-OPEC Sources ^a										Total Imports	
		Trinidad and Tobago		United Kingdom		Virgin Islands		Other Non-OPEC		Total Non-OPEC ^{c,d}			
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1981	Average	133	102	375	369	327	0	236	163	2,672	1,474	5,996	4,396
1982	Average	112	92	456	441	316	0	306	174	2,968	1,754	5,113	3,488
1983	Average	96	83	382	365	282	0	378	215	3,189	1,853	5,051	3,329
1984	Average	94	87	402	378	294	0	411	210	3,388	1,914	5,437	3,426
1985	Average	113	98	310	278	247	0	394	137	3,237	1,888	5,067	3,201
1986	Average	125	93	350	317	244	0	426	144	3,387	2,065	6,224	4,178
1987	Average	106	75	352	304	272	0	459	196	3,617	2,274	6,678	4,674
1988	Average	97	71	315	254	242	0	487	196	3,882	2,411	7,402	5,107
1989	Average	94	73	215	160	321	0	457	197	3,921	2,467	8,061	5,843
1990	Average	96	76	189	155	282	0	417	180	3,721	2,381	8,018	5,894
1991	Average	88	72	138	106	243	0	282	137	3,535	2,405	7,627	5,782
1992	Average	95	70	230	200	249	0	335	149	3,796	2,676	7,888	6,083
1993	Average	74	55	350	312	254	0	452	240	4,266	3,100	8,620	6,787
1994	January	90	60	205	161	276	0	361	181	4,333	3,053	7,993	5,945
	February	92	80	290	232	351	0	441	111	4,705	3,077	8,539	6,313
	March	68	54	459	394	325	0	453	191	4,784	3,366	8,574	6,372
	April	76	56	377	282	325	0	496	212	4,561	3,227	8,968	6,955
	May	68	58	404	345	312	0	643	390	4,805	3,427	9,213	7,198
	June	106	79	537	485	361	0	423	209	4,787	3,520	9,305	7,358
	July	69	55	678	578	294	0	635	400	5,273	3,996	9,779	7,857
	August	85	55	514	473	356	0	513	249	5,007	3,627	9,510	7,488
	September	64	56	736	717	360	0	409	287	5,307	4,143	9,693	7,868
	October	79	65	370	323	313	0	350	212	4,484	3,444	8,788	7,136
	November	59	55	618	507	292	0	257	159	4,536	3,545	8,707	7,034
	December	74	74	305	255	369	0	414	254	4,411	3,352	8,863	7,193
	Average	77	62	458	396	328	0	450	239	4,749	3,483	8,996	7,063
1995	January	91	91	240	213	283	0	209	131	4,297	3,397	8,015	6,505
	February	58	58	382	359	322	0	304	143	4,416	3,378	8,345	6,546
	March	70	70	663	621	298	0	183	91	4,787	3,797	9,006	7,391
	April	55	55	491	450	284	0	317	143	4,741	3,894	8,465	7,038
	May	61	53	405	366	203	0	286	165	4,907	4,044	8,709	7,325
	June	78	74	520	418	268	0	368	253	5,453	4,451	9,558	7,927
	July	73	54	137	97	240	0	441	277	4,812	3,940	8,863	7,265
	August	74	53	288	249	264	0	343	261	5,168	4,212	9,061	7,437
	September	73	55	427	386	223	0	312	180	5,194	4,254	9,736	8,007
	October	86	70	528	479	299	0	331	214	4,635	3,735	8,577	7,075
	November	61	53	284	284	317	0	273	155	4,896	3,878	9,074	7,302
	December	53	53	238	177	334	0	262	156	4,684	3,671	8,612	6,916
	Average	70	62	383	341	278	0	302	181	4,833	3,889	8,835	7,230
1996	January	92	71	354	238	390	0	391	188	5,163	3,889	9,272	7,260
	February	56	56	374	280	343	0	249	142	4,598	3,433	8,287	6,553
	March	58	52	346	252	311	0	340	182	4,834	3,709	8,967	7,136
	April	87	55	479	347	359	0	296	121	5,354	4,070	9,357	7,316
	May	90	71	413	316	298	0	429	282	5,439	4,332	9,914	8,029
	June	86	54	312	234	292	0	561	402	5,653	4,526	9,920	7,958
	July	70	58	244	195	344	0	456	292	5,174	4,082	9,752	7,771
	August	77	59	232	177	279	0	473	328	5,228	4,155	9,866	8,020
	September	51	37	154	90	268	0	502	318	4,903	3,871	9,078	7,333
	October	65	55	228	136	325	0	464	240	5,489	4,179	9,747	7,683
	10-Mo. Average ...	73	57	313	226	321	0	417	250	5,186	4,027	9,423	7,512
1995	10-Mo. Average ...	72	64	408	363	268	0	309	186	4,842	3,912	8,834	7,254
1994	10-Mo. Average ...	80	62	458	400	327	0	473	246	4,805	3,491	9,038	7,053

^a Includes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC) primarily from Caribbean and West European areas as petroleum products that were refined from crude oil produced by OPEC.

^b Imports from the Neutral Zone between Kuwait and Saudi Arabia are included in imports from Saudi Arabia.

^c On December 31, 1992, Ecuador withdrew as a member of OPEC. As of January 1, 1994, imports of petroleum from Ecuador appear under imports from Non-OPEC Sources.

^d On December 31, 1994, Gabon withdrew as a member of OPEC. As of January 1, 1995, imports of petroleum from Gabon appear under imports from Non-OPEC Sources.

^e Excludes petroleum imported into the United States indirectly from members of the Organization of Petroleum Exporting Countries (OPEC), primarily from Caribbean and West European areas, as petroleum products that were refined from crude oil produced by OPEC.

^f Imports from other States in the former U.S.S.R. may be included in imports from Russia for the years 1981 through 1992.

^g A small amount of Iranian crude oil entered the United States in January 1988 from the Virgin Islands. This oil originated in Iran and was exported to the Virgin Islands prior to the signing of Executive Order 12613 on October 29, 1987.

(s) = Less than 500 barrels per day.

-- = Not Applicable.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding. Source: See Summary Statistics Table and Figure Sources.

Figure S5. Finished Motor Gasoline Supply and Disposition, October 1995 - Present

Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S4. See Summary Statistics Table and Figure Sources.

Figure S6. Motor Gasoline Ending Stocks, October 1995 - Present

Note: • Total motor gasoline includes motor gasoline blending components and finished motor gasoline. • The Observed Minimum for total motor gasoline stocks in the last 36-month period was 188.8 million barrels, occurring in October 1996.

Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S4. See Summary Statistics Table and Figure Sources.

Table S4. Finished Motor Gasoline Supply and Disposition, 1981 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Supply		Disposition			Ending Stocks ^a (Million Barrels)		Ending Stocks (Million Barrels)
	Total Production ^b	Imports ^c	Stock Change ^{c,d}	Exports	Product Supplied ^b	Motor Gasoline		Oxygenates
						Total ^e	Finished	
1981 Average	6,405	157	^f -28	2	6,588	253	203	-
1982 Average	6,338	197	-25	20	6,539	^f 235	^f 194	-
1983 Average	6,340	247	^f -45	10	6,622	222	186	-
1984 Average	6,453	299	54	6	6,693	243	205	-
1985 Average	6,419	381	-41	10	6,831	223	190	-
1986 Average	6,752	326	11	33	7,034	233	194	-
1987 Average	6,841	384	-15	35	7,206	226	189	-
1988 Average	6,956	405	3	22	7,336	228	190	-
1989 Average	6,963	369	-35	39	7,328	213	177	-
1990 Average	6,959	342	10	55	7,235	220	181	-
1991 Average	6,975	297	3	82	7,188	219	182	-
1992 Average	7,058	294	-11	96	7,268	216	178	-
1993 Average	7,360	247	26	105	7,476	226	187	13
1994 January	7,097	206	227	97	6,980	236	194	11
February	6,790	281	-281	77	7,275	227	186	11
March	6,760	382	-341	88	7,395	213	176	13
April	7,195	467	26	73	7,564	213	176	15
May	7,348	446	85	64	7,644	215	179	16
June	7,455	483	-72	88	7,922	212	177	18
July	7,380	455	-127	78	7,884	208	173	22
August	7,432	439	-172	70	7,975	202	168	24
September	7,385	360	55	74	7,615	205	169	25
October	7,151	263	-244	110	7,548	201	162	23
November	7,849	219	496	108	7,464	218	177	20
December	7,867	265	-23	231	7,924	215	176	17
Average	7,312	356	-31	97	7,601	-	-	-
1995 January	7,303	182	221	100	7,163	227	183	16
February	7,243	223	-99	84	7,481	225	180	16
March	7,168	336	-391	107	7,788	211	168	15
April	7,529	235	-26	139	7,651	208	167	15
May	7,678	286	3	67	7,894	208	167	15
June	7,843	347	-122	91	8,220	205	163	14
July	7,747	306	80	86	7,888	207	166	15
August	7,642	280	-367	103	8,187	192	155	16
September	7,785	238	143	94	7,786	199	159	15
October	7,544	253	-106	121	7,781	197	156	14
November	7,739	246	1	118	7,866	196	156	11
December	7,821	244	182	141	7,742	202	161	12
Average	7,588	265	-40	104	7,789	-	-	-
1996 January	7,333	343	260	163	7,254	214	169	12
February	7,303	305	-16	72	7,552	213	169	12
March	7,242	310	-304	128	7,729	203	159	13
April	7,475	501	30	77	7,869	203	160	13
May	7,724	444	90	81	7,998	205	163	12
June	7,820	426	62	95	8,089	205	165	11
July	7,811	378	-68	123	8,135	202	163	11
August	7,696	346	-256	82	8,216	192	155	12
September	7,585	339	216	68	7,641	200	161	11
October	R 7,496	R 262	R -393	R 113	R 8,038	R 189	R 149	11
November	E 7,721	E 188	E 19	E 112	E 7,777	E 192	E 153	NA
11-Mo. Average	E 7,565	E 349	E -34	E 102	E 7,847	-	-	-
1995 11-Mo. Average	7,567	267	-61	101	7,793	-	-	-
1994 11-Mo. Average	7,260	364	-31	84	7,571	-	-	-

^a Stocks are totals as of end of period.

^b Beginning in 1993, motor gasoline production and product supplied includes blending of fuel ethanol and an adjustment to correct for the imbalance of motor gasoline blending components.

^c Beginning in 1981, excludes blending components.

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

^e Includes motor gasoline blending components but excludes stocks of oxygenates.

^f In January 1981 and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. Stock changes are calculated using new basis stock levels. See Summary Statistics Explanatory Note 4.

R = Revised data. E = Estimated. NA = Not Available.

-- = Not Applicable.

* See Summary Statistics Explanatory Note 1.

Notes: • Italics denote estimates based upon preliminary data. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See Summary Statistics Table and Figure Sources.

Figure S7. Distillate Fuel Oil Supply and Disposition, October 1995 - Present

Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S5. See Summary Statistics Table and Figure Sources.

Figure S8. Distillate Fuel Oil Ending Stocks, October 1995 - Present

Note: The Observed Minimum for distillate fuel oil stocks in the last 36-month period was 89.7 million barrels, occurring in March 1996.
Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S5. See Summary Statistics Table and Figure Sources.

Table S5. Distillate Fuel Oil Supply and Disposition, 1981 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month		Supply ^a		Disposition			Ending Stocks ^b (Million Barrels)		
		Total Production	Imports	Stock Change ^c	Exports	Product Supplied ^d	Total	0.05% Sulfur and Under	Greater than 0.05% Sulfur
1981	Average	2,613	173	^d -38	5	2,829	192	-	-
1982	Average	2,606	93	-35	74	2,671	^d 179	-	-
1983	Average	2,456	174	^d -124	64	2,690	140	-	-
1984	Average	2,681	272	57	51	2,845	161	-	-
1985	Average	2,687	200	-48	67	2,868	144	-	-
1986	Average	2,798	247	31	100	2,914	155	-	-
1987	Average	2,731	255	-56	66	2,976	134	-	-
1988	Average	2,859	302	-30	69	3,122	124	-	-
1989	Average	2,899	306	-49	97	3,157	106	-	-
1990	Average	2,925	278	73	109	3,021	132	-	-
1991	Average	2,962	205	31	215	2,921	144	-	-
1992	Average	2,974	216	-8	219	2,979	141	-	-
1993	Average	3,132	184	1	274	3,041	141	64	77
1994	January	3,114	161	-754	332	3,698	117	55	62
	February	3,018	276	-521	235	3,581	103	49	54
	March	3,096	318	-113	220	3,307	99	51	49
	April	3,249	226	106	252	3,116	103	57	46
	May	3,317	202	318	289	2,912	112	61	51
	June	3,285	182	237	168	3,062	120	62	58
	July	3,191	164	472	220	2,663	134	69	65
	August	3,187	211	142	193	3,063	139	67	71
	September	3,285	193	205	140	3,133	145	66	78
	October	3,203	159	40	256	3,066	146	67	79
	November	3,270	166	45	211	3,180	147	70	77
	December	3,232	187	-68	284	3,203	145	73	73
	Average	3,205	203	12	234	3,162	-	-	-
1995	January	3,054	313	-163	141	3,389	140	70	70
	February	2,954	289	-645	212	3,675	122	63	59
	March	3,157	188	-216	216	3,344	115	59	56
	April	3,126	125	-27	172	3,106	115	62	53
	May	3,111	109	119	202	2,899	118	62	56
	June	3,109	176	-119	137	3,267	115	60	55
	July	3,056	157	333	148	2,732	125	62	63
	August	3,145	171	189	84	3,044	131	62	69
	September	3,287	142	28	116	3,285	132	64	68
	October	3,169	162	-11	238	3,104	131	61	70
	November	3,341	262	135	236	3,233	135	65	70
	December	3,344	235	-168	298	3,449	130	67	63
	Average	3,155	193	-41	183	3,207	-	-	-
1996	January	3,110	243	-544	216	3,681	113	58	55
	February	3,145	271	-561	256	3,722	97	53	44
	March	3,110	253	-229	139	3,453	90	49	40
	April	3,305	258	12	166	3,385	90	52	38
	May	3,258	215	178	176	3,118	96	57	38
	June	3,291	185	201	81	3,194	102	60	41
	July	3,139	194	153	134	3,046	106	62	45
	August	3,295	195	124	182	3,184	110	62	49
	September	3,403	187	156	256	3,178	115	63	51
	October	^R 3,626	^R 246	^R -3	^R 300	^R 3,575	^R 115	^R 60	55
	November	^E 3,631	^E 183	^E 153	^E 236	^E 3,425	^E 119	^E 63	^E 56
	11-Mo. Average	^E 3,301	^E 221	^E -32	^E 195	^E 3,359	-	-	-
1995	11-Mo. Average	3,138	190	-29	173	3,184	-	-	-
1994	11-Mo. Average	3,202	205	19	229	3,158	-	-	-

^a Excludes 10,000 barrels per day in 1981 and 1982 previously published as crude used directly.

^b Stocks are totals as of end of period.

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

^d In January 1981 and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. Stock changes are calculated using new stock basis stock levels. See Summary Statistics Explanatory Note 4.

^R = Revised data. ^E = Estimated.

- = Not Applicable.

* See Summary Statistics Explanatory Note 1.

Notes: • Italics denote estimates based upon preliminary data. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See Summary Statistics Table and Figure Sources.

Figure S9. Residual Fuel Oil Supply and Disposition, October 1995 - Present

Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S6. See Summary Statistics Table and Figure Sources.

Figure S10. Residual Fuel Oil Ending Stocks, October 1995 - Present

Note: The Observed Minimum for residual fuel oil stocks in the last 36-month period was 31.5 million barrels, occurring in February 1996.
Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S6. See Summary Statistics Table and Figure Sources.

Table S6. Residual Fuel Oil Supply and Disposition, 1981 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month		Supply ^a		Disposition			Ending Stocks ^c (Million Barrels)
		Total Production	Imports	Stock Change ^b	Exports	Product Supplied ^a	
1981	Average	1,321	800	^d -37	118	2,088	78
1982	Average	1,070	776	-32	209	1,716	^d 66
1983	Average	852	699	^d -55	185	1,421	49
1984	Average	891	681	12	190	1,369	53
1985	Average	882	510	-7	197	1,202	50
1986	Average	889	669	-8	147	1,418	47
1987	Average	885	565	(s)	186	1,264	47
1988	Average	926	644	-8	200	1,378	45
1989	Average	954	629	-2	215	1,370	44
1990	Average	950	504	13	211	1,229	49
1991	Average	934	453	4	226	1,158	50
1992	Average	892	375	-20	193	1,094	43
1993	Average	835	373	4	123	1,080	44
1994	January	809	532	4	64	1,272	44
	February	852	597	-159	127	1,481	40
	March	859	426	61	175	1,050	42
	April	846	282	-65	110	1,083	40
	May	860	348	30	129	1,049	41
	June	779	247	-43	122	948	39
	July	807	230	12	83	941	40
	August	838	287	37	120	968	41
	September	800	222	117	141	764	44
	October	755	190	-45	134	856	43
	November	835	248	19	182	881	44
	December	871	173	-58	115	988	42
	Average	826	314	-6	125	1,021	-
1995	January	903	204	56	203	848	44
	February	776	225	-246	208	1,040	37
	March	778	209	35	154	798	38
	April	789	128	-22	129	810	37
	May	748	177	48	115	762	39
	June	746	184	-87	120	896	36
	July	797	149	27	164	755	37
	August	801	177	36	122	820	38
	September	811	220	58	124	848	40
	October	724	131	-55	84	825	38
	November	705	182	-17	111	793	37
	December	874	257	-8	98	1,040	37
	Average	788	187	-13	136	852	-
1996	January	774	320	-34	108	1,020	36
	February	776	222	-144	114	1,028	32
	March	701	227	5	95	829	32
	April	671	237	66	96	745	34
	May	732	203	20	89	826	34
	June	731	174	22	144	739	35
	July	646	335	-5	88	897	35
	August	732	217	32	56	861	36
	September	713	197	61	125	724	38
	October	R 693	R 260	R 22	R 104	R 827	R 38
	November [*]	E 709	E 266	E 107	E 72	E 796	E 42
	11-Mo. Average	E 716	E 242	E 14	E 99	E 845	-
1995	11-Mo. Average	780	180	-13	139	834	-
1994	11-Mo. Average	822	327	-2	126	1,024	-

^a Excludes 48,000 barrels per day in 1981 and 1982 previously published as crude used directly.

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

^c Stocks are totals as of end of period.

^d In January 1981 and 1983, numerous respondents were added to surveys affecting stocks reported and stock change calculations. Stock changes are calculated using new basis stock levels. See Summary Statistics Explanatory Note 4.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

- = Not Applicable.

* See Summary Statistics Explanatory Note 1.

Notes: • Italics denote estimates based upon preliminary data. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See Summary Statistics Table and Figure Sources.

Figure S11. Jet Fuel Supply and Disposition, October 1995 - Present

Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S7. See Summary Statistics Table and Figure Sources.

Figure S12. Jet Fuel Ending Stocks, October 1995 - Present

Note: The Observed Minimum for total jet fuel stocks in the last 36-month period was 34.1 million barrels, occurring in March 1996.

Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S7. See Summary Statistics Table and Figure Sources.

Table S7. Jet Fuel Supply and Disposition, 1981 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Supply			Disposition				Ending Stocks ^a (Million Barrels)	
	Production		Imports	Stock Change ^b	Exports	Product Supplied		Total	Kerosene-Type
	Total	Kerosene-Type				Total	Kerosene-Type		
1981 Average	968	775	38	^c -4	2	1,007	809	41	34
1982 Average	978	778	29	-12	6	1,013	804	^c 37	^c 31
1983 Average	1,022	817	29	^c (s)	6	1,046	839	39	32
1984 Average	1,132	919	62	9	9	1,175	953	42	35
1985 Average	1,189	983	39	-4	13	1,218	1,005	40	34
1986 Average	1,293	1,097	57	25	18	1,307	1,105	50	43
1987 Average	1,343	1,138	67	(s)	24	1,385	1,181	50	42
1988 Average	1,370	1,164	90	-17	28	1,449	1,236	44	38
1989 Average	1,403	1,197	106	-8	27	1,489	1,284	41	34
1990 Average	1,488	1,311	108	31	43	1,522	1,340	52	46
1991 Average	1,438	1,274	67	-9	43	1,471	1,296	49	44
1992 Average	1,399	1,254	82	-16	43	1,454	1,310	43	39
1993 Average	1,422	1,309	100	-7	59	1,469	1,357	40	38
1994 January	1,456	1,394	116	29	40	1,504	1,460	41	39
February	1,374	1,331	138	-43	35	1,519	1,473	40	38
March	1,322	1,272	120	-80	14	1,507	1,444	38	36
April	1,437	1,395	138	20	12	1,544	1,469	38	36
May	1,451	1,403	112	108	9	1,446	1,402	42	40
June	1,451	1,400	130	-2	11	1,573	1,518	41	40
July	1,472	1,422	98	34	11	1,526	1,456	43	41
August	1,538	1,498	91	33	10	1,585	1,536	44	42
September	1,444	1,419	149	47	31	1,515	1,461	45	44
October	1,434	1,409	110	-27	18	1,552	1,520	44	43
November	1,442	1,433	93	(s)	19	1,515	1,494	44	43
December	1,543	1,533	114	86	33	1,538	1,526	47	46
Average	1,448	1,410	117	18	20	1,527	1,480	--	--
1995 January	1,412	1,402	79	-84	33	1,542	1,525	44	43
February	1,375	1,366	123	-43	21	1,520	1,514	43	42
March	1,281	1,272	99	-115	17	1,478	1,464	39	39
April	1,326	1,317	82	-12	5	1,414	1,402	39	38
May	1,367	1,354	104	-35	18	1,487	1,478	38	37
June	1,412	1,398	99	67	11	1,433	1,393	40	39
July	1,458	1,444	97	23	27	1,505	1,469	41	40
August	1,427	1,418	82	-23	21	1,511	1,505	40	39
September	1,465	1,459	155	44	20	1,557	1,500	41	41
October	1,426	1,422	99	-54	57	1,521	1,518	40	39
November	1,496	1,493	164	64	13	1,584	1,578	42	41
December	1,542	1,538	89	-51	63	1,619	1,618	40	39
Average	1,416	1,407	106	-19	26	1,514	1,497	--	--
1996 January	1,597	1,594	80	-43	111	1,609	1,605	39	38
February	1,500	1,496	108	-137	67	1,678	1,659	35	34
March	1,470	1,468	101	-19	59	1,531	1,534	34	34
April	1,466	1,464	108	50	11	1,512	1,505	36	35
May	1,419	1,418	112	37	13	1,481	1,455	37	36
June	1,514	1,512	127	70	11	1,559	1,557	39	38
July	1,496	1,493	89	-16	27	1,574	1,567	38	38
August	1,510	1,508	104	1	34	1,580	1,580	38	38
September	1,649	1,647	159	148	51	1,609	1,607	43	42
October	R 1,486	R 1,485	R 126	R -54	R 35	R 1,632	R 1,637	R 41	R 41
November [*]	E 1,522	E 1,520	E 79	E -54	E 30	E 1,625	E 1,625	E 40	E 40
11-Mo. Average	E 1,512	E 1,509	E 108	E -1	E 41	E 1,580	E 1,575	--	--
1995 11-Mo. Average	1,404	1,395	107	-16	22	1,505	1,486	--	--
1994 11-Mo. Average	1,439	1,398	117	11	19	1,526	1,475	--	--

^a Stocks are totals as of end of period.

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

^c In January 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. Stock changes are calculated using new basis stock levels. See Summary Statistics Explanatory Note 4.

R = Revised data. (s) = Less than 500 barrels per day. E = Estimated.

-- = Not Applicable.

* See Summary Statistics Explanatory Note 1.

Notes: • Italics denote estimates based upon preliminary data. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See Summary Statistics Table and Figure Sources.

Figure S13. Propane/Propylene Supply and Disposition, September 1995 - Present

Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S8. See Summary Statistics Table and Figure Sources.

Figure S14. Propane/Propylene Ending Stocks, September 1995 - Present

Note: The Observed Minimum for propane stocks in the last 36 month period was 21.7 million barrels, occurring in February 1996.
Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S8. See Summary Statistics Table and Figure Sources.

Table S8. Propane/Propylene Supply and Disposition, 1981 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month		Supply		Disposition				Ending Stocks ^b (Million Barrels)
		Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Product Supplied	
1981	Average	745	70	^c 18	5	18	773	76
1982	Average	711	63	-59	4	31	798	^c 54
1983	Average	730	44	^c -24	4	43	751	^c 48
1984	Average	806	67	^c 7	4	30	833	58
1985	Average	816	67	-50	3	48	883	39
1986	Average	817	110	64	4	28	831	63
1987	Average	828	88	-41	8	24	924	48
1988	Average	863	106	7	8	31	923	50
1989	Average	862	111	-52	11	24	990	32
1990	Average	878	115	48	(s)	28	917	49
1991	Average	915	91	-3	(s)	28	982	48
1992	Average	956	85	-24	(s)	33	1,032	39
1993	Average	963	103	34	(s)	26	1,006	51
1994	January	889	141	-566	0	19	1,577	34
	February	905	128	-308	0	30	1,311	25
	March	939	87	13	0	29	984	25
	April	978	83	188	0	20	852	31
	May	976	90	306	0	20	741	41
	June	978	117	247	0	20	827	48
	July	977	151	221	0	22	885	55
	August	980	135	107	0	28	980	58
	September	1,008	133	77	0	20	1,044	60
	October	954	164	-175	0	24	1,269	55
	November	1,002	137	-43	0	27	1,155	54
	December	1,034	127	-233	0	29	1,366	46
	Average	969	124	-13	0	24	1,082	--
1995	January	1,007	108	-349	0	55	1,409	36
	February	985	94	-362	0	100	1,341	26
	March	1,017	90	14	0	39	1,055	26
	April	1,040	107	157	0	31	958	31
	May	1,046	73	209	0	29	882	37
	June	1,042	114	188	0	27	941	43
	July	1,011	75	236	0	27	823	50
	August	1,008	107	187	0	24	905	56
	September	1,022	146	45	0	25	1,098	57
	October	999	98	-22	0	30	1,090	57
	November	1,045	76	-160	0	37	1,243	52
	December	1,033	135	-285	0	31	1,422	43
	Average	1,021	102	-10	0	38	1,096	--
1996	January	989	150	-367	0	30	1,476	32
	February	998	103	-342	0	39	1,404	22
	March	1,041	116	(s)	0	25	1,132	22
	April	1,046	82	118	0	31	978	25
	May	1,049	103	210	0	21	922	32
	June	1,031	121	294	0	21	838	41
	July	1,045	122	185	0	29	952	46
	August	1,055	119	78	0	24	1,072	49
	September	1,058	96	103	0	21	1,030	52
	October	1,057	147	-39	0	29	1,213	51
	10-Mo. Average	1,037	116	25	0	27	1,101	--
1995	10-Mo. Average	1,018	101	33	0	38	1,048	--
1994	10-Mo. Average	959	123	12	0	23	1,046	--

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

^b Stocks are totals as of end of period.

^c In January 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. Stock changes are calculated using new basis stock levels. See Summary Statistics Explanatory Note 4.

(s) = Less than 500 barrels per day.

-- = Not Applicable.

Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See Summary Statistics Table and Figure Sources.

Figure S15. Liquefied Petroleum Gases Supply and Disposition, September 1995 - Present

Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S9. See Summary Statistics Table and Figure Sources.

Figure S16. Liquefied Petroleum Gases Ending Stocks, September 1995 - Present

Source: Energy Information Administration, *Petroleum Supply Monthly*, Table S9. See Summary Statistics Table and Figure Sources.

Table S9. Liquefied Petroleum Gases Supply and Disposition, 1981 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Supply		Disposition				Ending Stocks ^b (Million Barrels)
	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Product Supplied	
1981 Average	1,571	244	^c 18	289	42	1,466	135
1982 Average	1,528	226	-111	300	65	1,499	^c 94
1983 Average	1,642	190	^c -4	253	73	1,509	^c 101
1984 Average	1,697	195	^c -19	291	48	1,572	101
1985 Average	1,704	187	-75	304	62	1,599	74
1986 Average	1,695	242	80	302	42	1,512	103
1987 Average	1,748	190	-15	304	38	1,612	97
1988 Average	1,817	209	1	321	49	1,656	97
1989 Average	1,791	181	-47	315	35	1,668	80
1990 Average	1,749	188	48	293	40	1,556	98
1991 Average	1,871	147	-15	304	41	1,689	92
1992 Average	1,972	131	-10	309	49	1,755	89
1993 Average	1,993	160	49	327	43	1,734	106
1994 January	1,717	194	-923	396	28	2,410	78
February	1,807	192	-463	343	44	2,075	65
March	1,969	146	42	232	37	1,804	66
April	2,093	116	323	218	29	1,639	76
May	2,120	135	478	243	32	1,503	91
June	2,156	178	480	251	41	1,562	105
July	2,169	229	353	246	40	1,759	116
August	2,170	198	296	236	37	1,799	125
September	2,073	206	104	264	56	1,854	128
October	1,926	230	-259	322	40	2,054	120
November	1,927	199	-228	401	35	1,919	113
December	1,998	169	-452	399	41	2,179	99
Average	2,012	183	-19	296	38	1,880	--
1995 January	1,952	172	-527	363	64	2,225	83
February	1,969	134	-463	306	122	2,138	70
March	2,126	111	170	247	57	1,763	75
April	2,259	147	307	216	43	1,841	85
May	2,269	115	403	211	62	1,709	97
June	2,233	174	448	198	55	1,705	111
July	2,203	124	488	217	41	1,581	126
August	2,178	169	343	217	57	1,730	136
September	2,038	195	14	300	29	1,890	137
October	1,940	130	-245	358	35	1,921	129
November	1,943	115	-500	407	63	2,087	114
December	1,865	169	-680	424	67	2,223	93
Average	2,082	146	-17	289	58	1,899	--
1996 January	1,909	208	-671	416	49	2,323	73
February	1,903	136	-589	318	60	2,249	55
March	2,176	165	29	246	38	2,029	56
April	2,298	125	264	226	56	1,877	64
May	2,289	156	312	215	67	1,851	74
June	2,286	183	450	211	36	1,772	87
July	2,266	189	377	201	72	1,804	99
August	2,278	159	311	202	50	1,875	109
September	2,197	150	183	260	47	1,857	114
October	2,129	178	-108	308	37	2,071	111
10-Mo. Average	2,174	165	58	260	51	1,970	--
1995 10-Mo. Average	2,118	147	98	263	56	1,848	--
1994 10-Mo. Average	2,021	182	46	275	38	1,845	--

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

^b Stocks are totals as of end of period.

^c In January 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. Stock changes are calculated using new basis stock levels. See Summary Statistics Explanatory Note 4.

-- = Not Applicable.

Notes: • Liquefied petroleum gases includes ethane/ethylene, propane/propylene, normal butane/butylene, and isobutane/isobutylene. • Beginning in January 1984, unfractionated stream, is reported by individual product. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See Summary Statistics Table and Figure Sources.

Table S10. Other Petroleum Products Supply and Disposition, 1981 - Present
(Thousand Barrels per Day, Except Where Noted)

Year/Month	Supply		Disposition				Ending Stocks ^b (Million Barrels)
	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Products Supplied	
1981 Average	2,771	188	^c -42	723	197	2,081	241
1982 Average	2,475	305	-68	787	205	1,856	^c 216
1983 Average	2,437	382	^c -6	712	236	1,877	^c 217
1984 Average	2,500	503	^c -32	791	236	2,007	198
1985 Average	2,532	550	22	886	227	1,947	206
1986 Average	2,704	504	-15	888	291	2,045	201
1987 Average	2,737	543	-1	829	264	2,187	200
1988 Average	2,773	645	22	799	294	2,303	208
1989 Average	2,771	627	12	797	305	2,285	213
1990 Average	2,842	705	-32	887	289	2,402	201
1991 Average	2,826	675	18	936	277	2,269	208
1992 Average	2,928	707	-3	906	263	2,470	^c 207
1993 Average	3,035	770	-2	1,081	300	2,426	206
1994 January	2,712	838	^c 511	585	256	2,198	222
February	2,790	743	277	613	248	2,394	229
March	2,777	810	52	934	361	2,241	231
April	2,914	783	-126	1,016	272	2,534	227
May	3,078	773	-64	1,009	288	2,617	225
June	3,131	726	-103	887	331	2,742	222
July	3,158	746	80	759	361	2,704	225
August	3,093	797	-46	803	411	2,721	223
September	3,088	695	50	745	388	2,600	225
October	3,067	700	-72	902	300	2,636	223
November	3,001	749	47	1,013	344	2,347	224
December	2,852	762	-298	1,049	386	2,478	215
Average	2,973	761	24	861	329	2,518	-
1995 January	2,879	559	413	657	324	2,044	227
February	2,960	806	271	758	320	2,417	235
March	2,842	672	-35	914	329	2,306	234
April	2,916	711	-106	1,064	355	2,313	231
May	3,009	593	-74	801	339	2,535	229
June	3,142	651	-130	917	403	2,604	225
July	3,312	765	-54	1,126	326	2,679	223
August	3,246	745	-250	1,123	372	2,746	215
September	3,256	779	-44	1,077	348	2,654	214
October	2,939	727	-120	919	376	2,491	210
November	2,918	803	-35	1,003	343	2,409	209
December	2,953	701	-97	1,125	341	2,286	206
Average	3,031	708	-23	958	348	2,457	-
1996 January	2,848	819	403	615	335	2,314	219
February	2,830	693	15	860	388	2,260	219
March	2,955	775	80	733	315	2,603	222
April	3,053	814	196	807	421	2,442	228
May	3,136	755	-87	975	427	2,576	225
June	3,178	868	-204	1,163	399	2,688	219
July	3,291	796	-104	1,149	361	2,682	216
August	3,393	825	-298	1,276	448	2,792	207
September	3,320	713	-59	1,092	410	2,591	205
October	3,182	992	-100	996	323	2,955	202
10-Mo. Average	3,120	806	-16	967	382	2,593	-
1995 10-Mo. Average	3,050	700	-15	937	349	2,479	-
1994 10-Mo. Average	2,982	762	55	827	322	2,539	-

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

^b Stocks are totals as of end of period.

^c In January 1981, 1983, and 1984, a new stock basis was established affecting stocks reported and stock change calculations. Stock changes are calculated using new basis stock levels. Bulk terminal and pipeline stocks of oxygenates were added beginning in January 1993. See Summary Statistics Explanatory Note 4.

-- = Not Applicable.

Notes: • Other petroleum products includes pentanes plus, other hydrocarbons and oxygenates, unfinished oils, gasoline blending components and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, jet fuel, liquefied petroleum gases, and crude oil product supplied. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: See Summary Statistics Table and Figure Sources.

Summary Statistics Tables and Figures Sources

Information about petroleum supply and disposition at the National level are presented in the Summary Statistics tables. Industry terminology and product definitions are listed alphabetically in the Glossary.

The data presented in these tables are from several sources and represent different levels of timeliness and data finality.

- U.S. Department of Energy, Energy Information Administration (EIA), *Petroleum Supply Annual* (1981 through 1994).
- EIA, *Petroleum Supply Monthly* (January 1994 through October 1996).
- EIA, Weekly Petroleum Supply Reporting System (except domestic crude oil production) (November 1996). A more detailed explanation is provided in Summary Statistics Explanatory Note 1.
- Domestic crude oil production estimate is based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. (January 1994 through November 1996). Refer to Summary Statistics Explanatory Note 2 for a more detailed explanation.

Summary Statistics Explanatory Notes

The following explanatory notes are provided to assist in understanding and interpreting the data presented in the Summary Statistics section of this publication.

Note 1. Preliminary Monthly Statistics Derivation

Data collected from the Weekly Petroleum Supply Reporting System (WPSRS) are used to develop estimates of the most current monthly quantities. The forms that comprise the WPSRS are:

<u>Form Number</u>	<u>Name</u>
EIA-800	"Weekly Refinery Report"
EIA-801	"Weekly Bulk Terminal Report"
EIA-802	"Weekly Product Pipeline Report"
EIA-803	"Weekly Crude Oil Stocks Report"
EIA-804	"Weekly Imports Report"

A sample of all petroleum companies report weekly data to the Energy Information Administration (EIA) on crude oil and petroleum products stocks, refinery inputs and production, and crude oil and petroleum product imports. The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys.

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 a 12-month period. Companies are chosen for the sample beginning with the largest companies with additional companies added until the total sample coverage represents a minimum of 90 percent of each item by geographic region being measured. All monthly-from-weekly estimates are shown in italics.

In calculating monthly estimates based upon weekly submissions, an interpolation process is used to make the weekly figures comparable to the monthly. The interpolation process is designed to resolve the timing differences between the weekly and the monthly systems -- the time-of-day of reporting periods and the day-of-month of reporting periods. The end of the weekly reporting period (exactly 1 week long) is 7 a.m. Friday. The end of the monthly reporting period (one calendar month long) is 12 midnight on the last day of the month. To resolve the difference in the time-of-day of the weekly and monthly reporting periods, it is assumed that there is no activity during the period 12 midnight Thursday

through 7 a.m. Friday. Thus, for the purposes of interpolation, the weekly system reporting period is assumed to end at 12 midnight on Thursday. The resolution of the day-of-month differences depends on whether the series is a cumulative one (such as production and imports) or a value at a fixed point-in-time (i.e., stocks).

For cumulative items (all items except stocks) the following method is used to calculate a monthly-from-weekly figure for a given month. First, a weight is assigned to each week in the month based on the number of days in that week that are in the month. (All intermediate weeks in a month will have a weight of seven; the beginning and ending weeks in the month may have a weight of less than seven, according to the number of days of the week that are in the month.) The weight for each week is then multiplied by the average daily volume for that week. To arrive at the monthly-from-weekly figure, a sum is taken of these weighted weekly volumes. The daily average for the monthly-from-weekly figure is calculated by dividing the total monthly-from-weekly figure by the number of days in the month.

Stock figures are not cumulative but represent inventories as of the last day of the reporting period. When the reporting week does not coincide with the end of a reporting month, an interpolation is necessary to derive a monthly-from-weekly figure for end-of-month stocks.

To derive the monthly-from-weekly stock figures, the two weekly reports that bracket the end of the month are used. Average daily stock change and the number of interpolated days are determined. The average daily stock change is defined as one-seventh of the difference between the stock level at the end of the last full week of the month and the stock level at the end of the week containing the last day of the month. The number of interpolation days is defined as the number of days between the end of the preceding weekly reporting period (midnight Thursday) and the end of the monthly reporting period. The end-of-month stock levels are then estimated as the sum of (a) the stock level reported the last full week of the month, plus (b) the number of interpolation days multiplied by the average daily stock change for the week.

The monthly-from-weekly exports data are derived from the most recent data published in the *Weekly Petroleum Status Report*. Beginning with statistics for the first week ending in October 1991, weekly estimates of exports are forecast using an autoregressive integrated moving-average (ARIMA) procedure. The ARIMA procedure models a value as a linear combination of its own past values and present and past values of other related time series. The most recent 5 years of

past data are used to obtain the forecast. In addition, for the major products and crude oil, 5 years of related price data are used. The price data include some U.S. and some foreign series.

Note 2. Domestic Crude Oil Production

The Energy Information Administration (EIA) collects monthly crude oil production data on an ongoing basis. Data on crude oil production for States are reported to the EIA by State government agencies. Data on crude oil production for Federal offshore areas are reported to the EIA by the Minerals Management Service of the U.S. Department of the Interior and the Conservation Committee of California Oil Producers.

Currently, all except four crude oil producing States (Michigan, New York, Ohio, and Pennsylvania) report production on a monthly basis. These four States report crude oil production on an annual basis. Estimates of monthly crude oil production for these four States are made by the EIA using data reported on Form EIA-182, "Domestic Crude Oil First Purchase Report." After the end of each calendar year, the monthly crude oil production estimates are updated using annual reports from various State agencies, the Minerals Management Service, and the Conservation Committee of California Oil Producers. The final estimate is published in the *Petroleum Supply Annual*. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

In order to present more timely crude oil production estimates, the EIA prepares an original, forecast estimate on the first day of the production month (indicated with a "PE"). Approximately 45 days later, this original estimate of monthly crude oil production is replaced by State-level interim estimates (indicated with an "RE"). The State-level interim estimates are based on: (a) data reported by the States (e.g., production data for Alaska are typically reported to the EIA before the interim estimate is made); (b) first purchase data reported on Form EIA-182, "Domestic Crude Oil First Purchase Report;" (c) exponential or hyperbolic curve fitted projections based on recent State data; or (d) constant level projections based on the average production rate during a recent time period.

Note 3. Figures

Figures associated with the Summary Statistics tables are provided which depict the balance between supply, disposition, and ending stocks for various commodities.

The national inventory (stocks) graphs (Figures S4, S6, S8, S10, S12, S14, and S16) for crude oil, finished motor gasoline, distillate fuel oil, residual fuel oil, jet fuel,

propane/propylene, and liquefied petroleum gases, in this publication include features to assist in comparing current inventory levels with past inventory levels and observed minimum operating levels. These features are described below.

The graphs displaying inventory levels provide the reader with actual inventory data compared to an *average range* from the most recent 3-year period running from January through December or from July through June. The ranges are updated every 6 months in April and October. The 3-year period is adjusted by dropping the oldest 6 months and including the most recent 6 months. The ranges also reflect seasonal variation determined from a 7-year period. The seasonal factors, which determine the shape of the upper and lower curves, are updated annually in October, using the most recent year's final monthly data.

The monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the U.S. Bureau of the Census (Census X-11). The seasonal factors are 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 inventory levels). The intent of deseasonalization is to remove only variation from the data. Thus, a deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data.

After seasonal factors are derived, data from the most recent 3-year period (January through December or July through June) are deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard deviation of the deseasonalized 36 months is calculated adjusting for extreme data points. The upper curve of the average range is defined as the average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the average range is twice the standard deviation.

The lines labeled "observed minimum" are the lowest inventory level observed during the most recent 36-month period as published in the *Petroleum Supply Monthly*.

Note 4. Frames Maintenance

In January 1981 and 1983, numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock change calculations. Using the expanded coverage (new basis), the end-of-year stocks, in million barrels, would have been as listed below.

- Crude Oil: 1982- 645 (Total) and 351 (Other Primary).

- Crude Oil and Petroleum Products: 1980- 1,425; and 1982- 1,461.
- Motor Gasoline: 1980- 263 (Total) and 214 (Finished); 1982- 244 (Total) and 202 (Finished).
- Distillate Fuel Oil: 1980- 205; and 1982- 186.
- Residual Fuel Oil: 1980- 91; and 1982- 69.
- Jet Fuel: 1980- 42 (Total) and 36 (Kerosene-type); and 1982- 39 (Total) and 32 (Kerosene-type).
- Propane/Propylene: 1980- 69; and 1982- 57.
- Liquefied Petroleum Gases: 1980- 128; and 1982- 102.
- Other Petroleum Products: 1980- 207; and 1982- 219.
- Propane/Propylene: 1983- 55.
- Liquefied Petroleum Gases: 1983- 108.
- Other Petroleum Products: 1983- 210.

Stock change calculations beginning in 1981 and 1983 were made using new basis stock levels.

Stocks of Alaskan crude oil in-transit were included for the first time in January 1981. The major impact of this change is on the reporting of stock change calculations. Using the expanded coverage (new basis), 1980 end-of-year crude oil stocks would have been 488 million barrels (Total) and 380 million barrels (Other Primary).

Beginning with January 1984, natural gas liquids supply and disposition data were collected on a component basis rather than a product basis. This change affected stocks reported

and stock change calculations. Under the new basis, end-of-year 1983 stocks would have been:

In response to changes in the Clean Air Act Amendments of 1990 requiring that all gasoline sold in carbon monoxide nonattainment areas have an oxygen content of 2.7 percent (by weight) during winter months, the Energy Information Administration (EIA) conducted a frame identifier survey in 1991 of companies that produce, blend, store, or import oxygenates. The purpose of this survey was to (1) identify all U.S. producers, blenders, storers, and importers of oxygenates; and (2) collect supply and blending data for 1990 and end of 1990 inventory data on those oxygenates blended into motor gasoline. A summary of the results from the identification survey were published in the *Weekly Petroleum Status Report* dated February 12, 1992 and in the February 1992 issue of the *Petroleum Supply Monthly*.

In order to continue to provide relevant information about U.S. and regional gasoline supply, the EIA conducted a second frame identifier survey of these companies during 1992. As a result, a number of respondents were added to the monthly surveys effective in January 1993: 19 blenders, 25 stock holders, and 8 importers. This change did not affect stocks reported and therefore did not cause a new basis stock level to be calculated.

Detailed Statistics

At some locations, oil skimmers and knockout tanks (in background) are used to remove waste water from the crude oil. The crude oil is then put into storage tanks and gauged.

Table 1. U.S. Petroleum Balance, October 1996

Commodity	Current Month		Year to Date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Crude Oil				
Field Production				
(1) Alaska	E 43,521	E 1,404	E 425,496	E 1,395
(2) Lower 48 States	E 157,677	E 5,086	E 1,549,190	E 5,079
(3) Total U.S.	E 201,198	E 6,490	E 1,974,686	E 6,474
Net Imports				
(4) Imports (Gross Excluding Strategic Petroleum Reserve (SPR))	238,180	7,683	2,291,105	7,512
(5) SPR Imports	0	0	0	0
(6) Exports	4,144	134	32,052	105
(7) Imports (Net Including SPR)	234,036	7,550	2,259,053	7,407
Other Sources				
(8) SPR Stock Change (Withdrawal (+), Addition (-))	42	1	18,023	59
(9) Other Stock Change (Withdrawal (+), Addition (-))	-5,729	-185	-8,301	-27
(10) Product Supplied and Losses	-153	-5	-2,037	-7
(11) Unaccounted for ^a	13,164	425	80,707	265
(12) Total Other Sources	7,324	236	88,392	290
(13) Crude Input to Refineries	442,558	14,276	4,322,132	14,171
(13) = (3) + (7) + (12)				
Natural Gas Liquids (NGL)				
(14) Field Production ^b	61,529	1,985	569,122	1,866
(15) Net Imports ^c	1,564	50	13,624	45
(16) Stock Change (Withdrawal (+), Addition (-)) ^c	1,154	37	-611	-2
(17) Total NGL Supply	64,247	2,072	582,135	1,909
Other Liquids				
Unfinished Oils and Gasoline Blending Components, Total				
(18) Stock Change (Withdrawal (+), Addition (-))	-159	-5	-3,297	-11
(19) Net Imports	19,292	622	150,155	492
(20) Other Liquids New Supply (Field Production)	6,755	218	77,292	253
(21) Refinery Processing Gain ^d	25,731	830	250,637	822
(22) Crude Oil Product Supplied	153	5	2,035	7
(23) Total Other Liquids	51,772	1,670	476,822	1,563
(23) = (18) through (22)				
(24) Total Production of Products	558,577	18,019	5,381,089	17,643
(24) = (13) + (17) + (23)				
Net Imports of Refined Products				
(25) Imports (Gross)	42,382	1,367	411,792	1,350
(26) Exports	27,512	887	257,288	844
(27) Imports (Net)	14,870	480	154,504	507
(28) Total New Supply of Products	573,448	18,498	5,535,593	18,149
(28) = (24) + (27)				
(29) Refined Products Stock Change (Withdrawal (+), Addition (-))	18,732	604	15,811	52
(30) Total Petroleum Products Supplied for Domestic Use	592,180	19,103	5,551,404	18,201
(30) = (28) + (29)				
(31) Finished Motor Gasoline	249,190	8,038	2,395,417	7,854
(32) Distillate Fuel Oil	110,810	3,575	1,022,405	3,352
(33) Residual Fuel Oil	25,642	827	259,151	850
(34) Jet Fuel	50,584	1,632	480,679	1,576
(35) Liquefied Petroleum Gases	64,193	2,071	600,929	1,970
(36) Other ^d	91,608	2,955	790,787	2,593
(37) Crude Oil	153	5	2,035	7
(38) Total Products Supplied	592,180	19,103	5,551,404	18,201
(38) = (31) through (37)				
Ending Stocks, All Oils				
(39) Crude Oil (Excluding SPR)	310,031	--	310,031	--
(40) Strategic Petroleum Reserve	573,617	--	573,617	--
(41) Finished Motor Gasoline	149,166	--	149,166	--
(42) Distillate Fuel Oil	114,793	--	114,793	--
(43) Residual Fuel Oil	38,276	--	38,276	--
(44) Jet Fuel	41,141	--	41,141	--
(45) Liquefied Petroleum Gases	110,947	--	110,947	--
(46) Other ^d	201,646	--	201,646	--
(47) Total Stocks	1,539,617	--	1,539,617	--
(47) = (39) through (46)				

^a Unaccounted for crude oil represents the difference between the supply and disposition of crude oil. Refinery processing gain represents the volumetric amount by which total output is greater than input for a given period of time. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50 thousand barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

^b Includes field production of fuel ethanol and an adjustment for motor gasoline blending components.

^c Includes products in the pentanes plus category only.

^d Includes pentanes plus, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, jet fuel, and liquefied petroleum gases.

E = Estimated.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA), Monthly Petroleum Supply Reporting System. • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

**Table 2. U.S. Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products,
October 1996**
(Thousand Barrels)

Commodity	Supply				Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil ^a	Stock Change ^b	Crude Losses	Refinery Inputs	Exports	Products Supplied ^c	
Crude Oil	E 201,198	--	238,180	13,164	5,687	0	442,558	4,144	153	883,648
Natural Gas Liquids and LRGs	59,155	17,674	7,182	--	-4,494	--	15,287	1,239	71,979	118,515
Pentanes Plus	10,822	--	1,665	--	-1,154	--	5,754	101	7,786	7,568
Liquefied Petroleum Gases	48,333	17,674	5,517	--	-3,340	--	9,533	1,138	64,193	110,947
Ethane/Ethylene	20,752	971	447	--	1,040	--	0	0	21,130	19,640
Propane/Propylene	16,635	16,120	4,542	--	-1,203	--	0	885	37,615	50,599
Normal Butane/Butylene	5,248	262	200	--	-3,533	--	5,994	253	2,996	31,411
Isobutane/Isobutylene	5,698	321	328	--	356	--	3,539	0	2,452	9,297
Other Liquids	6,755	--	19,931	--	159	--	25,135	639	753	142,941
Other Hydrocarbons/Oxygenates	8,006	--	2,232	--	534	--	9,564	140	0	11,403
Unfinished Oils	--	--	10,776	--	-1,004	--	11,104	0	676	91,697
Motor Gasoline Blend. Comp.	-1,251	--	6,923	--	554	--	4,619	499	0	39,616
Aviation Gasoline Blend. Comp.	--	--	0	--	75	--	-152	0	77	225
Finished Petroleum Products	2,374	491,037	36,865	--	-15,392	--	--	26,373	519,295	394,513
Finished Motor Gasoline	2,374	230,014	8,111	--	-12,196	--	--	3,505	249,190	149,166
Reformulated	--	68,803	4,362	--	-2,587	--	--	0	75,752	37,956
Oxygenated	11,230	3,379	0	--	-276	--	--	1	14,884	1,204
Other	-8,856	157,832	3,749	--	-9,333	--	--	3,504	158,555	110,006
Finished Aviation Gasoline	--	797	1	--	216	--	--	0	582	2,520
Jet Fuel	--	46,075	3,898	--	-1,689	--	--	1,078	50,584	41,141
Naphtha-Type	--	39	0	--	-49	--	--	257	-169	340
Kerosene-Type	--	46,036	3,898	--	-1,640	--	--	821	50,753	40,801
Kerosene	--	2,869	48	--	2,743	--	--	99	75	8,287
Distillate Fuel Oil	--	112,397	7,625	--	-85	--	--	9,297	110,810	114,793
0.05 percent sulfur and under	--	69,507	3,842	--	-3,146	--	--	5,062	71,433	60,256
Greater than 0.05 percent sulfur ..	--	42,890	3,783	--	3,061	--	--	4,235	39,377	54,537
Residual Fuel Oil	--	21,478	8,073	--	688	--	--	3,221	25,642	38,276
Naphtha For Petro. Feed. Use	--	6,269	2,502	--	-131	--	--	0	8,902	2,411
Other Oils For Petro. Feed. Use	--	5,800	4,700	--	-327	--	--	0	10,827	1,820
Special Naphthas	--	1,475	311	--	-138	--	--	1,131	793	2,056
Lubricants	--	5,647	295	--	-20	--	--	1,258	4,704	11,613
Waxes	--	722	38	--	-24	--	--	101	683	824
Petroleum Coke	--	20,558	0	--	-163	--	--	6,343	14,378	5,099
Asphalt and Road Oil	--	16,003	1,255	--	-4,348	--	--	334	21,272	15,273
Still Gas	--	19,607	0	--	0	--	--	0	19,607	0
Miscellaneous Products	--	1,326	8	--	82	--	--	6	1,246	1,234
Total	269,482	508,711	302,158	13,164	-14,040	0	482,980	32,396	592,180	1,539,617

^a Unaccounted for crude oil represents the difference between the supply and disposition of crude oil. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50,000 barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

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

^c Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report." • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 3. U.S. Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January-October 1996
(Thousand Barrels)

Commodity	Supply				Disposition					Ending Stocks
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil ^a	Stock Change ^b	Crude Losses	Refinery Inputs	Exports	Products Supplied ^c	
Crude Oil	^E 1,974,686	--	2,291,105	80,707	-9,722	2	4,322,132	32,052	2,035	883,648
Natural Gas Liquids and LRGs	554,384	211,551	64,694	--	18,208	--	131,434	16,327	664,660	118,515
Pentanes Plus	102,822	--	14,339	--	611	--	52,104	715	63,731	7,568
Liquefied Petroleum Gases	451,562	211,551	50,355	--	17,597	--	79,330	15,612	600,929	110,947
Ethane/Ethylene	188,316	8,531	4,540	--	-2,507	--	0	0	203,894	19,640
Propane/Propylene	159,281	157,034	35,390	--	7,645	--	0	8,215	335,845	50,599
Normal Butane/Butylene	43,776	41,871	6,079	--	10,448	--	37,683	7,397	36,198	31,411
Isobutane/Isobutylene	60,189	4,115	4,346	--	2,011	--	41,647	0	24,992	9,297
Other Liquids	77,292	--	156,862	--	3,297	--	242,744	6,707	-18,594	142,941
Other Hydrocarbons/Oxygenates	82,102	--	15,128	--	-330	--	93,626	3,934	0	11,403
Unfinished Oils	--	--	110,544	--	4,939	--	125,394	0	-19,789	91,697
Motor Gasoline Blend. Comp.	-4,810	--	31,190	--	-1,402	--	25,009	2,773	0	39,616
Aviation Gasoline Blend. Comp.	--	--	0	--	90	--	-1,285	0	1,195	225
Finished Petroleum Products	14,738	4,735,396	361,437	--	-33,408	--	241,676	4,903,303	394,513	
Finished Motor Gasoline	14,738	2,287,857	111,411	--	-12,062	--	30,651	2,395,417	149,166	
Reformulated	--	660,074	57,070	--	1,140	--	633	715,371	37,956	
Oxygenated	99,280	36,626	0	--	-3,950	--	113	139,743	1,204	
Other	-84,542	1,591,157	54,341	--	-9,252	--	29,906	1,540,303	110,006	
Finished Aviation Gasoline	--	6,412	47	--	176	--	0	6,283	2,520	
Jet Fuel	--	460,692	33,886	--	1,134	--	12,765	480,679	41,141	
Naphtha-Type	--	730	1,369	--	-222	--	555	1,766	340	
Kerosene-Type	--	459,962	32,517	--	1,356	--	12,210	478,913	40,801	
Kerosene	--	16,785	365	--	1,059	--	769	15,322	8,287	
Distillate Fuel Oil	--	996,841	68,474	--	-15,182	--	58,092	1,022,405	114,793	
0.05 percent sulfur and under	--	634,216	32,385	--	-6,188	--	15,876	656,913	60,256	
Greater than 0.05 percent sulfur ...	--	362,625	36,089	--	-8,994	--	42,216	365,492	54,537	
Residual Fuel Oil	--	218,542	73,091	--	1,505	--	30,977	259,151	38,276	
Naphtha For Petro. Feed. Use	--	55,464	16,122	--	-403	--	0	71,989	2,411	
Other Oils For Petro. Feed. Use	--	59,184	43,015	--	385	--	0	101,814	1,820	
Special Naphthas	--	15,489	2,929	--	27	--	7,241	11,150	2,056	
Lubricants	--	52,353	3,320	--	-1,281	--	10,124	46,830	11,613	
Waxes	--	7,010	405	--	-33	--	816	6,632	824	
Petroleum Coke	--	201,119	307	--	-1,559	--	87,985	115,000	5,099	
Asphalt and Road Oil	--	143,149	7,978	--	-7,192	--	2,185	156,134	15,273	
Still Gas	--	201,644	0	--	0	--	0	201,644	0	
Miscellaneous Products	--	12,855	87	--	18	--	71	12,853	1,234	
Total	2,621,100	4,946,947	2,874,098	80,707	-21,625	2	4,696,310	296,762	5,551,404	1,539,617

^a Unaccounted for crude oil represents the difference between the supply and disposition of crude oil. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50,000 barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

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

^c Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report." • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

**Table 4. U.S. Daily Average Supply and Disposition of Crude Oil and Petroleum Products,
October 1996
(Thousand Barrels per Day)**

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil ^a	Stock Change ^b	Crude Losses	Refinery Inputs	Exports	Products Supplied ^c
Crude Oil	E 6,490	—	7,683	425	183	0	14,276	134	5
Natural Gas Liquids and LRGs	1,908	570	232	—	-145	—	493	40	2,322
Pentanes Plus	349	—	54	—	-37	—	186	3	251
Liquefied Petroleum Gases	1,559	570	178	—	-108	—	308	37	2,071
Ethane/Ethylene	669	31	14	—	34	—	0	0	682
Propane/Propylene	537	520	147	—	-39	—	0	29	1,213
Normal Butane/Butylene	169	8	6	—	-114	—	193	8	97
Isobutane/Isobutylene	184	10	11	—	11	—	114	0	79
Other Liquids	218	—	643	—	5	—	811	21	24
Other Hydrocarbons/Oxygenates	258	—	72	—	17	—	309	5	0
Unfinished Oils	—	—	348	—	-32	—	358	0	22
Motor Gasoline Blend. Comp.	-40	—	223	—	18	—	149	16	0
Aviation Gasoline Blend. Comp.	—	—	0	—	2	—	-5	0	2
Finished Petroleum Products	77	15,840	1,189	—	-497	—	—	851	16,751
Finished Motor Gasoline	77	7,420	262	—	-393	—	—	113	8,038
Reformulated	—	2,219	141	—	-83	—	—	0	2,444
Oxygenated	362	109	0	—	-9	—	—	(s)	480
Other	-286	5,091	121	—	-301	—	—	113	5,115
Finished Aviation Gasoline	—	26	(s)	—	7	—	—	0	19
Jet Fuel	—	1,486	126	—	-54	—	—	35	1,632
Naphtha-Type	—	1	0	—	-2	—	—	8	-5
Kerosene-Type	—	1,485	126	—	-53	—	—	26	1,637
Kerosene	—	93	2	—	88	—	—	3	2
Distillate Fuel Oil	—	3,626	246	—	-3	—	—	300	3,575
0.05 percent sulfur and under	—	2,242	124	—	-101	—	—	163	2,304
Greater than 0.05 percent sulfur ...	—	1,384	122	—	99	—	—	137	1,270
Residual Fuel Oil	—	693	260	—	22	—	—	104	827
Naphtha For Petro. Feed. Use	—	202	81	—	-4	—	—	0	287
Other Oils For Petro. Feed. Use	—	187	152	—	-11	—	—	0	349
Special Naphthas	—	48	10	—	-4	—	—	36	26
Lubricants	—	182	10	—	-1	—	—	41	152
Waxes	—	23	1	—	-1	—	—	3	22
Petroleum Coke	—	663	0	—	-5	—	—	205	464
Asphalt and Road Oil	—	516	40	—	-140	—	—	11	686
Still Gas	—	632	0	—	0	—	—	0	632
Miscellaneous Products	—	43	(s)	—	3	—	—	(s)	40
Total	8,693	16,410	9,747	425	-453	0	15,580	1,045	19,103

^a Unaccounted for crude oil represents the difference between the supply and disposition of crude oil. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50,000 barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

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

^c Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 5. U.S. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1996
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil ^a	Stock Change ^b	Crude Losses	Refinery Inputs	Exports	Products Supplied ^c
Crude Oil	E 6,474	--	7,512	265	-32	(s)	14,171	105	7
Natural Gas Liquids and LRGs	1,818	694	212	--	60	--	431	54	2,179
Pentanes Plus	337	--	47	--	2	--	171	2	209
Liquefied Petroleum Gases	1,481	694	165	--	58	--	260	51	1,970
Ethane/Ethylene	617	28	15	--	-8	--	0	0	669
Propane/Propylene	522	515	116	--	25	--	0	27	1,101
Normal Butane/Butylene	144	137	20	--	34	--	124	24	119
Isobutane/Isobutylene	197	13	14	--	7	--	137	0	82
Other Liquids	253	--	514	--	11	--	796	22	-61
Other Hydrocarbons/Oxygenates	269	--	50	--	-1	--	307	13	0
Unfinished Oils	--	--	362	--	16	--	411	0	-65
Motor Gasoline Blend. Comp.	-16	--	102	--	-5	--	82	9	0
Aviation Gasoline Blend. Comp.	--	--	0	--	(s)	--	-4	0	4
Finished Petroleum Products	48	15,526	1,185	--	-110	--	--	792	16,076
Finished Motor Gasoline	48	7,501	365	--	-40	--	--	100	7,854
Reformulated	--	2,164	187	--	4	--	--	2	2,345
Oxygenated	326	120	0	--	-13	--	--	(s)	458
Other	-277	5,217	178	--	-30	--	--	98	5,050
Finished Aviation Gasoline	--	21	(s)	--	1	--	--	0	21
Jet Fuel	--	1,510	111	--	4	--	--	42	1,576
Naphtha-Type	--	2	4	--	-1	--	--	2	6
Kerosene-Type	--	1,508	107	--	4	--	--	40	1,570
Kerosene	--	55	1	--	3	--	--	3	50
Distillate Fuel Oil	--	3,268	225	--	-50	--	--	190	3,352
0.05 percent sulfur and under	--	2,079	106	--	-20	--	--	52	2,154
Greater than 0.05 percent sulfur ..	--	1,189	118	--	-29	--	--	138	1,198
Residual Fuel Oil	--	717	240	--	5	--	--	102	850
Naphtha For Petro. Feed. Use	--	182	53	--	-1	--	--	0	236
Other Oils For Petro. Feed. Use	--	194	141	--	1	--	--	0	334
Special Naphthas	--	51	10	--	(s)	--	--	24	37
Lubricants	--	172	11	--	-4	--	--	33	154
Waxes	--	23	1	--	(s)	--	--	3	22
Petroleum Coke	--	659	1	--	-5	--	--	288	377
Asphalt and Road Oil	--	469	26	--	-24	--	--	7	512
Still Gas	--	661	0	--	0	--	--	0	661
Miscellaneous Products	--	42	(s)	--	(s)	--	--	(s)	42
Total	8,594	16,219	9,423	265	-71	(s)	15,398	973	18,201

^a Unaccounted for crude oil represents the difference between the supply and disposition of crude oil. Preliminary estimates of crude oil imports at the National level have historically understated final values by approximately 50,000 barrels per day. This causes the preliminary values of unaccounted for crude oil to overstate the final values by the same amount.

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

^c Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, minus stock change, minus crude losses, minus refinery inputs, minus exports.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

**Table 6. PAD District I—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products,
October 1996
(Thousand Barrels)**

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	E 890	--	39,160	-394	-470	-2,683	0	41,108	760	0	13,381
Natural Gas Liquids and LRGs	709	982	529	--	3,390	-704	--	71	24	6,219	7,315
Pentanes Plus	83	--	0	--	0	0	--	0	5	78	26
Liquefied Petroleum Gases	626	982	529	--	3,390	-704	--	71	19	6,141	7,289
Ethane/Ethylene	259	0	0	--	0	1	--	0	0	258	1
Propane/Propylene	242	1,184	520	--	3,390	-445	--	0	18	5,763	4,859
Normal Butane/Butylene	96	-208	7	--	0	-242	--	29	2	106	2,188
Isobutane/Isobutylene	29	6	2	--	0	-18	--	42	0	13	241
Other Liquids	737	--	8,463	--	294	121	--	10,908	44	-1,579	19,831
Other Hydrocarbons/Oxygenates ...	1,515	--	405	--	0	5	--	1,914	1	0	1,672
Unfinished Oils	--	--	1,163	--	11	-804	--	3,631	0	-1,653	10,580
Motor Gasoline Blend. Comp.	-778	--	6,895	--	283	832	--	5,525	43	0	7,387
Aviation Gasoline Blend. Comp.	--	--	0	--	0	88	--	-162	0	74	192
Finished Petroleum Products	845	52,734	27,016	--	83,521	948	--	--	1,382	161,786	125,197
Finished Motor Gasoline	845	25,990	7,931	--	45,652	-4,371	--	--	32	84,758	43,498
Reformulated	--	16,479	4,362	--	11,655	-1,040	--	--	0	33,536	17,581
Oxygenated	674	0	0	--	221	53	--	--	0	842	305
Other	171	9,511	3,569	--	33,776	-3,384	--	--	32	50,380	25,612
Finished Aviation Gasoline	--	22	1	--	51	-45	--	--	0	119	874
Jet Fuel	--	1,169	3,764	--	14,258	-1,488	--	--	126	20,553	9,736
Naphtha-Type	--	0	0	--	0	0	--	--	(s)	(s)	0
Kerosene-Type	--	1,169	3,764	--	14,258	-1,488	--	--	126	20,553	9,736
Kerosene	--	807	43	--	122	2,307	--	--	0	-1,335	5,221
Distillate Fuel Oil	--	13,156	6,865	--	21,913	3,979	--	--	569	37,386	43,377
0.05 percent sulfur and under	--	4,756	3,533	--	12,063	-179	--	--	536	19,995	14,858
Greater than 0.05 percent sulfur	--	8,400	3,332	--	9,850	4,158	--	--	33	17,391	28,519
Residual Fuel Oil	--	3,850	6,551	--	340	1,464	--	--	141	9,136	16,239
Petrochemical Feedstocks ^e	--	242	180	--	0	-99	--	--	0	521	355
Special Naphthas	--	63	193	--	70	-24	--	--	86	264	101
Lubricants	--	688	272	--	704	86	--	--	191	1,387	2,367
Waxes	--	134	22	--	0	-32	--	--	12	176	152
Petroleum Coke	--	1,377	0	--	0	-33	--	--	211	1,199	539
Asphalt and Road Oil	--	3,442	1,191	--	400	-818	--	--	11	5,840	2,609
Still Gas	--	1,726	0	--	0	0	--	--	0	1,726	0
Miscellaneous Products	--	68	3	--	11	22	--	--	4	56	129
Total	3,181	53,716	75,168	-394	86,735	-2,318	0	52,087	2,211	166,426	165,724

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 7. PAD District I—Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January-October 1996
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	E 8,135	--	385,864	22,448	-6,144	1,847	0	406,164	2,292	0	13,381
Natural Gas Liquids and LRGs	6,293	14,235	8,473	--	34,902	2,008	--	1,380	967	59,548	7,315
Pentanes Plus	732	--	143	--	0	-130	--	189	35	781	26
Liquefied Petroleum Gases	5,561	14,235	8,330	--	34,902	2,138	--	1,191	932	58,767	7,289
Ethane/Ethylene	2,296	0	0	--	0	-11	--	0	0	2,307	1
Propane/Propylene	2,140	12,927	7,999	--	34,776	1,461	--	0	437	55,944	4,859
Normal Butane/Butylene	860	1,048	280	--	126	667	--	440	494	713	2,188
Isobutane/Isobutylene	265	260	51	--	0	21	--	751	0	-196	241
Other Liquids	11,132	--	52,131	--	2,951	3,060	--	75,142	332	-12,320	19,831
Other Hydrocarbons/Oxygenates	14,534	--	2,714	--	0	8	--	17,226	14	0	1,672
Unfinished Oils	--	--	19,302	--	144	1,311	--	31,639	0	-13,504	10,580
Motor Gasoline Blend. Comp.	-3,402	--	30,115	--	2,807	1,629	--	27,573	318	0	7,387
Aviation Gasoline Blend. Comp.	--	--	0	--	0	112	--	-1,296	0	1,184	192
Finished Petroleum Products	3,997	487,007	276,935	--	823,356	-14,353	--	--	10,824	1,594,824	125,197
Finished Motor Gasoline	3,997	239,163	104,244	--	477,501	-5,497	--	--	322	830,081	43,498
Reformulated	--	154,022	53,238	--	111,502	-2,736	--	--	(s)	321,498	17,581
Oxygenated	5,957	0	0	--	1,642	-588	--	--	5	8,181	305
Other	-1,959	85,141	51,006	--	364,357	-2,173	--	--	316	500,402	25,612
Finished Aviation Gasoline	--	83	9	--	650	42	--	--	0	700	874
Jet Fuel	--	22,534	29,557	--	127,223	-459	--	--	519	179,254	9,736
Naphtha-Type	--	0	318	--	0	0	--	--	1	317	0
Kerosene-Type	--	22,534	29,239	--	127,223	-459	--	--	518	178,937	9,736
Kerosene	--	2,023	353	--	1,171	1,142	--	--	198	2,207	5,221
Distillate Fuel Oil	--	115,156	62,525	--	191,472	-8,578	--	--	3,235	374,496	43,377
0.05 percent sulfur and under	--	40,262	29,163	--	111,313	-2,764	--	--	1,367	182,135	14,858
Greater than 0.05 percent sulfur ...	--	74,894	33,362	--	80,159	-5,814	--	--	1,868	192,361	28,519
Residual Fuel Oil	--	39,215	65,094	--	13,552	1,671	--	--	1,696	114,494	16,239
Petrochemical Feedstocks ^e	--	2,784	2,949	--	38	22	--	--	0	5,749	355
Special Naphthas	--	772	1,630	--	842	-53	--	--	206	3,091	101
Lubricants	--	6,178	2,997	--	7,781	-455	--	--	1,501	15,910	2,367
Waxes	--	1,538	228	--	0	-34	--	--	162	1,638	152
Petroleum Coke	--	14,309	0	--	0	-6	--	--	2,474	11,841	539
Asphalt and Road Oil	--	25,356	7,330	--	3,072	-2,159	--	--	462	37,455	2,609
Still Gas	--	17,298	0	--	0	0	--	--	0	17,298	0
Miscellaneous Products	--	598	19	--	54	11	--	--	48	612	129
Total	29,558	501,242	723,403	22,448	855,065	-7,438	0	482,686	14,416	1,642,052	165,724

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 8. PAD District I—Daily Average Supply and Disposition of Crude Oil and Petroleum Products, October 1996
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	E 29	—	1,263	-13	-15	-87	0	1,326	25	0
Natural Gas Liquids and LRGs	23	32	17	—	109	-23	—	2	1	201
Pentanes Plus	3	—	0	—	0	0	—	0	(s)	3
Liquefied Petroleum Gases	20	32	17	—	109	-23	—	2	1	198
Ethane/Ethylene	8	0	0	—	0	(s)	—	0	0	8
Propane/Propylene	8	38	17	—	109	-14	—	0	1	186
Normal Butane/Butylene	3	-7	(s)	—	0	-8	—	1	(s)	3
Isobutane/Isobutylene	1	(s)	(s)	—	0	-1	—	1	0	(s)
Other Liquids	24	—	273	—	9	4	—	352	1	-51
Other Hydrocarbons/Oxygenates	49	—	13	—	0	(s)	—	62	(s)	0
Unfinished Oils	—	—	38	—	(s)	-26	—	117	0	-53
Motor Gasoline Blend. Comp.	-25	—	222	—	9	27	—	178	1	0
Aviation Gasoline Blend. Comp.	—	—	0	—	0	3	—	-5	0	2
Finished Petroleum Products	27	1,701	871	—	2,694	31	—	—	45	5,219
Finished Motor Gasoline	27	838	256	—	1,473	-141	—	—	1	2,734
Reformulated	—	532	141	—	376	-34	—	—	0	1,082
Oxygenated	22	0	0	—	7	2	—	—	0	27
Other	6	307	115	—	1,090	-109	—	—	1	1,625
Finished Aviation Gasoline	—	1	(s)	—	2	-1	—	—	0	4
Jet Fuel	—	38	121	—	460	-48	—	—	4	663
Naphtha-Type	—	0	0	—	0	0	—	—	(s)	(s)
Kerosene-Type	—	38	121	—	460	-48	—	—	4	663
Kerosene	—	26	1	—	4	74	—	—	0	-43
Distillate Fuel Oil	—	424	221	—	707	128	—	—	18	1,206
0.05 percent sulfur and under	—	153	114	—	389	-6	—	—	17	645
Greater than 0.05 percent sulfur ...	—	271	107	—	318	134	—	—	1	561
Residual Fuel Oil	—	124	211	—	11	47	—	—	5	295
Petrochemical Feedstocks ^e	—	8	6	—	0	-3	—	—	0	17
Special Naphthas	—	2	6	—	2	-1	—	—	3	9
Lubricants	—	22	9	—	23	3	—	—	6	45
Waxes	—	4	1	—	0	-1	—	—	(s)	6
Petroleum Coke	—	44	0	—	0	-1	—	—	7	39
Asphalt and Road Oil	—	111	38	—	13	-26	—	—	(s)	188
Still Gas	—	56	0	—	0	0	—	—	0	56
Miscellaneous Products	—	2	(s)	—	(s)	1	—	—	(s)	2
Total	103	1,733	2,425	-13	2,798	-75	0	1,680	71	5,369

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 9. PAD District I—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1996
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	E 27	—	1,265	74	-20	6	0	1,332	8	0
Natural Gas Liquids and LRGs	21	47	28	—	114	7	—	5	3	195
Pentanes Plus	2	—	(s)	—	0	(s)	—	1	(s)	3
Liquefied Petroleum Gases	18	47	27	—	114	7	—	4	3	193
Ethane/Ethylene	8	0	0	—	0	(s)	—	0	0	8
Propane/Propylene	7	42	26	—	114	5	—	0	1	183
Normal Butane/Butylene	3	3	1	—	(s)	2	—	1	2	2
Isobutane/Isobutylene	1	1	(s)	—	0	(s)	—	2	0	-1
Other Liquids	36	—	171	—	10	10	—	246	1	-40
Other Hydrocarbons/Oxygenates	48	—	9	—	0	(s)	—	56	(s)	0
Unfinished Oils	—	—	63	—	(s)	4	—	104	0	-44
Motor Gasoline Blend. Comp.	-11	—	99	—	-9	5	—	90	1	0
Aviation Gasoline Blend. Comp.	—	—	0	—	0	(s)	—	-4	0	4
Finished Petroleum Products	13	1,597	908	—	2,700	-47	—	—	35	5,229
Finished Motor Gasoline	13	784	342	—	1,566	-18	—	—	1	2,722
Reformulated	—	505	175	—	366	-9	—	—	(s)	1,054
Oxygenated	20	0	0	—	5	-2	—	—	(s)	27
Other	-6	279	167	—	1,195	-7	—	—	1	1,641
Finished Aviation Gasoline	—	(s)	(s)	—	2	(s)	—	—	0	2
Jet Fuel	—	74	97	—	417	-2	—	—	2	588
Naphtha-Type	—	0	1	—	0	0	—	—	(s)	1
Kerosene-Type	—	74	96	—	417	-2	—	—	2	587
Kerosene	—	7	1	—	4	4	—	—	1	7
Distillate Fuel Oil	—	378	205	—	628	-28	—	—	11	1,228
0.05 percent sulfur and under	—	132	96	—	365	-9	—	—	4	597
Greater than 0.05 percent sulfur ...	—	246	109	—	263	-19	—	—	6	631
Residual Fuel Oil	—	129	213	—	44	5	—	—	6	375
Petrochemical Feedstocks ^e	—	9	10	—	(s)	(s)	—	—	0	19
Special Naphthas	—	3	5	—	3	(s)	—	—	1	10
Lubricants	—	20	10	—	26	-1	—	—	5	52
Waxes	—	5	1	—	0	(s)	—	—	1	5
Petroleum Coke	—	47	0	—	0	(s)	—	—	8	39
Asphalt and Road Oil	—	83	24	—	10	-7	—	—	2	123
Still Gas	—	57	0	—	0	0	—	—	0	57
Miscellaneous Products	—	2	(s)	—	(s)	(s)	—	—	(s)	2
Total	97	1,643	2,372	74	2,803	-24	0	1,583	47	5,384

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 10. PAD District II—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, October 1996
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	E 17,933	--	24,023	1,852	58,033	1,227	0	100,614	0	0	65,981
Natural Gas Liquids and LRGs	9,857	2,890	2,147	--	419	-3,731	--	3,663	280	15,101	34,402
Pentanes Plus	1,350	--	0	--	380	-729	--	1,283	95	1,081	1,911
Liquefied Petroleum Gases	8,507	2,890	2,147	--	39	-3,002	--	2,380	184	14,021	32,491
Ethane/Ethylene	3,291	0	13	--	-2,156	167	--	0	0	981	2,671
Propane/Propylene	3,439	3,338	1,771	--	1,710	-3,080	--	0	33	13,305	19,584
Normal Butane/Butylene	1,047	-541	68	--	111	122	--	1,459	152	-1,048	8,053
Isobutane/isobutylene	730	93	295	--	374	-211	--	921	0	782	2,183
Other Liquids	517	--	4	--	1,667	1,407	--	2,035	(s)	-1,254	25,580
Other Hydrocarbons/Oxygenates	1,396	--	0	--	0	439	--	957	(s)	0	1,363
Unfinished Oils	--	--	4	--	74	2,386	--	-1,052	0	-1,256	15,139
Motor Gasoline Blend. Comp.	-879	--	0	--	1,593	-1,405	--	2,119	0	0	9,070
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-13	--	11	0	2	8
Finished Petroleum Products	1,732	108,159	540	--	25,706	-11,092	--	--	791	146,438	87,158
Finished Motor Gasoline	1,732	54,883	127	--	15,761	-4,165	--	--	12	76,657	37,602
Reformulated	--	7,492	0	--	38	-173	--	--	0	7,703	1,254
Oxygenated	8,535	1,893	0	--	-234	-261	--	--	0	10,455	554
Other	-6,802	45,498	127	--	15,957	-3,731	--	--	12	58,499	35,794
Finished Aviation Gasoline	--	67	0	--	92	-16	--	--	0	175	337
Jet Fuel	--	6,931	0	--	3,860	619	--	--	92	10,080	8,572
Naphtha-Type	--	10	0	--	0	-21	--	--	0	31	25
Kerosene-Type	--	6,921	0	--	3,860	640	--	--	92	10,049	8,547
Kerosene	--	769	0	--	72	239	--	--	1	601	1,514
Distillate Fuel Oil	--	26,632	312	--	5,435	-4,882	--	--	83	37,178	27,230
0.05 percent sulfur and under	--	18,751	217	--	4,688	-3,255	--	--	(s)	26,911	19,150
Greater than 0.05 percent sulfur ..	--	7,881	95	--	747	-1,627	--	--	83	10,267	8,080
Residual Fuel Oil	--	1,496	0	--	-175	-220	--	--	68	1,473	2,050
Petrochemical Feedstocks ^e	--	1,495	27	--	48	-46	--	--	0	1,616	376
Special Naphthas	--	436	14	--	61	0	--	--	6	505	245
Lubricants	--	724	23	--	201	-26	--	--	69	905	1,603
Waxes	--	90	14	--	0	-16	--	--	29	91	116
Petroleum Coke	--	4,262	0	--	0	-221	--	--	150	4,333	766
Asphalt and Road Oil	--	6,379	19	--	351	-2,332	--	--	280	8,801	6,571
Still Gas	--	3,706	0	--	0	0	--	--	0	3,706	0
Miscellaneous Products	--	289	4	--	0	-26	--	--	1	318	176
Total	30,039	111,049	26,714	1,852	85,825	-12,189	0	106,312	1,071	160,285	213,121

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 11. PAD District II—Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January-October 1996
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	^E 172,727	—	228,639	11,026	584,184	2,173	0	992,700	1,703	0	65,981
Natural Gas Liquids and LRGs	93,795	39,843	18,121	—	-237	5,289	—	27,068	3,274	115,891	34,402
Pentanes Plus	13,467	—	171	—	5,078	295	—	8,771	678	8,972	1,911
Liquefied Petroleum Gases	80,328	39,843	17,950	—	-5,315	4,994	—	18,297	2,596	106,919	32,491
Ethane/Ethylene	28,957	0	110	—	-18,683	586	—	0	0	9,798	2,671
Propane/Propylene	33,953	34,032	15,697	—	11,571	2,276	—	0	662	92,315	19,584
Normal Butane/Butylene	9,975	5,267	1,293	—	-1,430	2,118	—	7,581	1,934	3,472	8,053
Isobutane/Isobutylene	7,443	544	850	—	3,227	14	—	10,716	0	1,334	2,183
Other Liquids	-6,322	—	203	—	17,320	1,575	—	17,619	50	-8,043	25,580
Other Hydrocarbons/Oxygenates	9,682	—	38	—	0	-278	—	9,976	22	0	1,363
Unfinished Oils	—	—	43	—	687	3,222	—	5,560	0	-8,052	15,139
Motor Gasoline Blend. Comp.	-16,004	—	122	—	16,633	-1,355	—	2,078	28	0	9,070
Aviation Gasoline Blend. Comp.	—	—	0	—	0	-14	—	5	0	9	8
Finished Petroleum Products	23,550	1,046,017	3,821	—	247,758	-12,620	—	—	5,230	1,328,536	87,158
Finished Motor Gasoline	23,550	545,577	925	—	152,136	-3,427	—	—	150	725,465	37,602
Reformulated	—	72,032	0	—	98	-135	—	—	0	72,265	1,254
Oxygenated	75,453	19,606	0	—	-1,739	-9	—	—	13	93,315	554
Other	-51,903	453,939	925	—	153,777	-3,283	—	—	136	559,885	35,794
Finished Aviation Gasoline	—	1,165	28	—	779	-137	—	—	0	2,109	337
Jet Fuel	—	64,522	0	—	32,700	1,049	—	—	118	96,055	8,572
Naphtha-Type	—	13	0	—	0	-153	—	—	(s)	166	25
Kerosene-Type	—	64,509	0	—	32,700	1,202	—	—	117	95,890	8,547
Kerosene	—	5,826	0	—	302	-357	—	—	6	6,479	1,514
Distillate Fuel Oil	—	247,831	1,646	—	58,408	-4,264	—	—	205	311,944	27,230
0.05 percent sulfur and under	—	171,537	1,144	—	50,909	-2,356	—	—	4	225,942	19,150
Greater than 0.05 percent sulfur ...	—	76,294	502	—	7,499	-1,908	—	—	201	86,002	8,080
Residual Fuel Oil	—	17,924	62	—	-2,556	-58	—	—	613	14,875	2,050
Petrochemical Feedstocks ^e	—	11,302	333	—	276	-537	—	—	0	12,448	376
Special Naphthas	—	3,992	197	—	811	68	—	—	84	4,848	245
Lubricants	—	7,018	222	—	2,031	-178	—	—	555	8,894	1,603
Waxes	—	892	146	—	0	11	—	—	174	853	116
Petroleum Coke	—	40,994	0	—	0	-427	—	—	1,967	39,454	766
Asphalt and Road Oil	—	55,972	228	—	2,871	-4,351	—	—	1,357	62,065	6,571
Still Gas	—	40,055	0	—	0	0	—	—	0	40,055	0
Miscellaneous Products	—	2,947	34	—	0	-12	—	—	1	2,992	176
Total	283,749	1,085,860	250,784	11,026	849,025	-3,583	0	1,037,387	10,257	1,436,384	213,121

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 12. PAD District II—Daily Average Supply and Disposition of Crude Oil and Petroleum Products, October 1996
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	E 578	—	775	60	1,872	40	0	3,246	0	0
Natural Gas Liquids and LRGs	318	93	69	—	14	-120	—	118	9	487
Pentanes Plus	44	—	0	—	12	-24	—	41	3	35
Liquefied Petroleum Gases	274	93	69	—	1	-97	—	77	6	452
Ethane/Ethylene	106	0	(s)	—	-70	5	—	0	0	32
Propane/Propylene	111	108	57	—	55	-99	—	0	1	429
Normal Butane/Butylene	34	-17	2	—	4	4	—	47	5	-34
Isobutane/isobutylene	24	3	10	—	12	-7	—	30	0	25
Other Liquids	17	—	(s)	—	54	45	—	66	(s)	-40
Other Hydrocarbons/Oxygenates	45	—	0	—	0	14	—	31	(s)	0
Unfinished Oils	—	—	(s)	—	2	77	—	-34	0	-41
Motor Gasoline Blend. Comp.	-28	—	0	—	51	-45	—	68	0	0
Aviation Gasoline Blend. Comp.	—	—	0	—	0	(s)	—	(s)	0	(s)
Finished Petroleum Products	56	3,489	17	—	829	-358	—	—	26	4,724
Finished Motor Gasoline	56	1,770	4	—	508	-134	—	—	(s)	2,473
Reformulated	—	242	0	—	1	-6	—	—	0	248
Oxygenated	275	61	0	—	-8	-8	—	—	0	337
Other	-219	1,468	4	—	515	-120	—	—	(s)	1,887
Finished Aviation Gasoline	—	2	0	—	3	-1	—	—	0	6
Jet Fuel	—	224	0	—	125	20	—	—	3	325
Naphtha-Type	—	(s)	0	—	0	-1	—	—	0	1
Kerosene-Type	—	223	0	—	125	21	—	—	3	324
Kerosene	—	25	0	—	2	8	—	—	(s)	19
Distillate Fuel Oil	—	859	10	—	175	-157	—	—	3	1,199
0.05 percent sulfur and under	—	605	7	—	151	-105	—	—	(s)	868
Greater than 0.05 percent sulfur ...	—	254	3	—	24	-52	—	—	3	331
Residual Fuel Oil	—	48	0	—	-6	-7	—	—	2	48
Petrochemical Feedstocks ^e	—	48	1	—	2	-1	—	—	0	52
Special Naphthas	—	14	(s)	—	2	0	—	—	(s)	16
Lubricants	—	23	1	—	6	-1	—	—	2	29
Waxes	—	3	(s)	—	0	-1	—	—	1	3
Petroleum Coke	—	137	0	—	0	-7	—	—	5	140
Asphalt and Road Oil	—	206	1	—	11	-75	—	—	9	284
Still Gas	—	120	0	—	0	0	—	—	0	120
Miscellaneous Products	—	9	(s)	—	0	-1	—	—	(s)	10
Total	969	3,582	862	60	2,769	-393	0	3,429	35	5,170

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 13. PAD District II—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1996
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	^E 566	--	750	36	1,915	7	0	3,255	6	0
Natural Gas Liquids and LRGs	308	131	59	--	-1	17	--	89	11	380
Pentanes Plus	44	--	1	--	17	1	--	29	2	29
Liquefied Petroleum Gases	263	131	59	--	-17	16	--	60	9	351
Ethane/Ethylene	95	0	(s)	--	-61	2	--	0	0	32
Propane/Propylene	111	112	51	--	38	7	--	0	2	303
Normal Butane/Butylene	33	17	4	--	-5	7	--	25	6	11
Isobutane/Isobutylene	24	2	3	--	11	(s)	--	35	0	4
Other Liquids	-21	--	1	--	57	5	--	58	(s)	-26
Other Hydrocarbons/Oxygenates	32	--	(s)	--	0	-1	--	33	(s)	0
Unfinished Oils	--	--	(s)	--	2	11	--	18	0	-26
Motor Gasoline Blend. Comp.	-52	--	(s)	--	55	-4	--	7	(s)	0
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	(s)
Finished Petroleum Products	77	3,430	13	--	812	-41	--	--	17	4,356
Finished Motor Gasoline	77	1,789	3	--	499	-11	--	--	(s)	2,379
Reformulated	--	236	0	--	(s)	(s)	--	--	0	237
Oxygenated	247	64	0	--	-6	(s)	--	--	(s)	306
Other	-170	1,488	3	--	504	-11	--	--	(s)	1,836
Finished Aviation Gasoline	--	4	(s)	--	3	(s)	--	--	0	7
Jet Fuel	--	212	0	--	107	3	--	--	(s)	315
Naphtha-Type	--	(s)	0	--	0	-1	--	--	(s)	1
Kerosene-Type	--	212	0	--	107	4	--	--	(s)	314
Kerosene	--	19	0	--	1	-1	--	--	(s)	21
Distillate Fuel Oil	--	813	5	--	192	-14	--	--	1	1,023
0.05 percent sulfur and under	--	562	4	--	167	-8	--	--	(s)	741
Greater than 0.05 percent sulfur ...	--	250	2	--	25	-6	--	--	1	282
Residual Fuel Oil	--	59	(s)	--	-8	(s)	--	--	2	49
Petrochemical Feedstocks ^e	--	37	1	--	1	-2	--	--	0	41
Special Naphthas	--	13	1	--	3	(s)	--	--	(s)	16
Lubricants	--	23	1	--	7	-1	--	--	2	29
Waxes	--	3	(s)	--	0	(s)	--	--	1	3
Petroleum Coke	--	134	0	--	0	-1	--	--	6	129
Asphalt and Road Oil	--	184	1	--	9	-14	--	--	4	203
Still Gas	--	131	0	--	0	0	--	--	0	131
Miscellaneous Products	--	10	(s)	--	0	(s)	--	--	(s)	10
Total	930	3,560	822	36	2,784	-12	0	3,401	34	4,709

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 14. PAD District III—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, October 1996
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	^E 98,556	—	159,057	5,538	-50,717	5,901	0	206,533	0	0	725,366
Natural Gas Liquids and LRGs	39,906	11,152	4,151	--	209	-680	--	7,260	551	48,287	68,923
Pentanes Plus	6,571	--	1,578	--	32	-403	--	2,624	1	5,959	5,392
Liquefied Petroleum Gases	33,335	11,152	2,573	--	177	-277	--	4,636	551	42,327	63,531
Ethane/Ethylene	15,440	971	434	--	4,173	869	--	0	0	20,149	16,752
Propane/Propylene	11,137	9,883	2,139	--	-4,196	1,976	--	0	502	16,485	23,447
Normal Butane/Butylene	2,756	-1	0	--	303	-3,668	--	2,798	49	3,879	17,293
Isobutane/Isobutylene	4,002	299	0	--	-103	546	--	1,838	0	1,814	6,039
Other Liquids	1,269	--	9,718	--	-1,844	-2,740	--	8,723	533	2,627	61,139
Other Hydrocarbons/Oxygenates	2,020	--	339	--	0	-468	--	2,691	136	0	3,816
Unfinished Oils	--	--	9,379	--	-85	-2,079	--	8,747	0	2,626	43,154
Motor Gasoline Blend. Comp.	-751	--	0	--	-1,759	-184	--	-2,723	397	0	14,154
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-9	--	8	0	1	15
Finished Petroleum Products	796	225,298	8,654	--	-114,167	-3,649	--	--	17,955	106,275	119,068
Finished Motor Gasoline	796	100,483	0	--	-64,329	-3,000	--	--	3,147	36,803	41,218
Reformulated	--	17,899	0	--	-11,693	-684	--	--	0	6,890	7,929
Oxygenated	449	28	0	--	0	-174	--	--	0	651	3
Other	347	82,556	0	--	-52,636	-2,142	--	--	3,147	29,262	33,286
Finished Aviation Gasoline	--	486	0	--	-157	108	--	--	0	221	621
Jet Fuel	--	23,412	0	--	-19,423	-401	--	--	468	3,922	14,069
Naphtha-Type	--	0	0	--	0	-1	--	--	241	-240	0
Kerosene-Type	--	23,412	0	--	-19,423	-400	--	--	227	4,162	14,069
Kerosene	--	1,087	0	--	-176	214	--	--	92	605	1,363
Distillate Fuel Oil	--	53,441	0	--	-28,181	712	--	--	6,620	17,928	30,157
0.05 percent sulfur and under	--	31,180	0	--	-17,431	-241	--	--	4,220	9,770	16,030
Greater than 0.05 percent sulfur ...	--	22,261	0	--	-10,750	953	--	--	2,400	8,158	14,127
Residual Fuel Oil	--	8,952	1,522	--	-165	-131	--	--	2,826	7,614	13,788
Petrochemical Feedstocks ^e	--	10,035	6,995	--	-48	-309	--	--	0	17,291	3,246
Special Naphthas	--	916	100	--	-131	-120	--	--	96	909	1,637
Lubricants	--	3,390	0	--	-795	-19	--	--	898	1,716	6,335
Waxes	--	413	2	--	0	31	--	--	41	343	411
Petroleum Coke	--	9,888	0	--	0	57	--	--	3,736	6,095	2,839
Asphalt and Road Oil	--	3,221	35	--	-751	-870	--	--	31	3,344	2,623
Still Gas	--	8,855	0	--	0	0	--	--	0	8,855	0
Miscellaneous Products	--	719	0	--	-11	79	--	--	(s)	629	761
Total	140,527	236,450	181,580	5,538	-166,519	-1,168	0	222,516	19,040	157,188	974,496

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 15. PAD District III—Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January-October 1996
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	^E 962,614	--	1,528,197	27,933	-508,960	-5,122	0	2,014,906	0	0	725,366
Natural Gas Liquids and LRGs	371,439	130,448	34,362	--	3,273	8,581	--	68,140	5,189	457,612	68,923
Pentanes Plus	61,286	--	13,293	--	-991	407	--	26,852	1	46,328	5,392
Liquefied Petroleum Gases	310,153	130,448	21,069	--	4,264	8,174	--	41,288	5,188	411,284	63,531
Ethane/Ethylene	140,599	8,531	4,430	--	36,438	-3,081	--	0	0	193,079	16,752
Propane/Propylene	105,210	94,342	10,322	--	-37,223	3,210	--	0	4,755	164,686	23,447
Normal Butane/Butylene	19,506	24,671	3,629	--	5,523	6,239	--	17,584	434	29,072	17,293
Isobutane/Isobutylene	44,838	2,904	2,688	--	-474	1,806	--	23,704	0	24,446	6,039
Other Liquids	42,023	--	84,706	--	-19,722	1,251	--	108,617	6,172	-9,033	61,139
Other Hydrocarbons/Oxygenates	32,256	--	850	--	0	-388	--	29,607	3,887	0	3,816
Unfinished Oils	--	--	83,809	--	-354	2,559	--	89,931	0	-9,035	43,154
Motor Gasoline Blend. Comp.	9,767	--	47	--	-19,368	-909	--	-10,930	2,285	0	14,154
Aviation Gasoline Blend. Comp.	--	--	0	--	0	-11	--	9	0	2	15
Finished Petroleum Products	-9,370	2,192,621	67,321	--	-1,118,352	-4,835	--	--	142,630	994,425	119,068
Finished Motor Gasoline	-9,370	1,028,908	1,722	--	-657,934	-5,852	--	--	27,278	341,900	41,218
Reformulated	--	187,787	827	--	-113,757	-1,924	--	--	547	76,234	7,929
Oxygenated	3,971	1,675	0	--	0	-197	--	--	64	5,779	3
Other	-13,342	839,446	895	--	-544,177	-3,731	--	--	26,667	259,887	33,286
Finished Aviation Gasoline	--	3,560	0	--	-1,571	151	--	--	0	1,838	621
Jet Fuel	--	230,882	1,644	--	-173,296	314	--	--	7,429	51,487	14,069
Naphtha-Type	--	7	496	--	0	-27	--	--	243	287	0
Kerosene-Type	--	230,875	1,148	--	-173,296	341	--	--	7,187	51,199	14,069
Kerosene	--	7,138	0	--	-1,332	250	--	--	336	5,220	1,363
Distillate Fuel Oil	--	457,131	41	--	-256,649	218	--	--	29,024	171,281	30,157
0.05 percent sulfur and under	--	288,748	0	--	-167,066	350	--	--	10,881	110,451	16,030
Greater than 0.05 percent sulfur ...	--	168,383	41	--	-89,583	-132	--	--	18,143	60,830	14,127
Residual Fuel Oil	--	91,094	6,549	--	-10,996	49	--	--	18,165	68,433	13,788
Petrochemical Feedstocks ^e	--	96,514	55,704	--	473	436	--	--	0	152,255	3,246
Special Naphthas	--	10,132	1,076	--	-1,653	-10	--	--	740	8,825	1,637
Lubricants	--	31,881	101	--	-9,397	-287	--	--	6,948	15,924	6,335
Waxes	--	3,751	14	--	0	-76	--	--	323	3,518	411
Petroleum Coke	--	95,674	143	--	0	678	--	--	52,163	42,976	2,839
Asphalt and Road Oil	--	35,209	302	--	-5,943	-808	--	--	222	30,154	2,623
Still Gas	--	93,418	0	--	0	0	--	--	0	93,418	0
Miscellaneous Products	--	7,329	25	--	-54	102	--	--	2	7,196	761
Total	1,366,707	2,323,069	1,714,586	27,933	-1,643,761	-125	0	2,191,663	153,991	1,443,004	974,496

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 16. PAD District III—Daily Average Supply and Disposition of Crude Oil and Petroleum Products, October 1996
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	E 3,179	--	5,131	179	-1,636	190	0	6,662	0	0
Natural Gas Liquids and LRGs	1,287	360	134	--	7	-22	--	234	18	1,558
Pentanes Plus	212	--	51	--	1	-13	--	85	(s)	192
Liquefied Petroleum Gases	1,075	360	83	--	6	-9	--	150	18	1,365
Ethane/Ethylene	498	31	14	--	135	28	--	0	0	650
Propane/Propylene	359	319	69	--	-135	64	--	0	16	532
Normal Butane/Butylene	89	(s)	0	--	10	-118	--	90	2	125
Isobutane/Isobutylene	129	10	0	--	-3	18	--	59	0	59
Other Liquids	41	--	313	--	-59	-88	--	281	17	85
Other Hydrocarbons/Oxygenates	65	--	11	--	0	-15	--	87	4	0
Unfinished Oils	--	--	303	--	-3	-67	--	282	0	85
Motor Gasoline Blend. Comp.	-24	--	0	--	-57	-6	--	-88	13	0
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	(s)
Finished Petroleum Products	26	7,268	279	--	-3,683	-118	--	--	579	3,428
Finished Motor Gasoline	26	3,241	0	--	-2,075	-97	--	--	102	1,187
Reformulated	--	577	0	--	-377	-22	--	--	0	222
Oxygenated	14	1	0	--	0	-6	--	--	0	21
Other	11	2,663	0	--	-1,698	-69	--	--	102	944
Finished Aviation Gasoline	--	16	0	--	-5	3	--	--	0	7
Jet Fuel	--	755	0	--	-627	-13	--	--	15	127
Naphtha-Type	--	0	0	--	0	(s)	--	--	8	-8
Kerosene-Type	--	755	0	--	-627	-13	--	--	7	134
Kerosene	--	35	0	--	-6	7	--	--	3	20
Distillate Fuel Oil	--	1,724	0	--	-909	23	--	--	214	578
0.05 percent sulfur and under	--	1,006	0	--	-562	-8	--	--	136	315
Greater than 0.05 percent sulfur ...	--	718	0	--	-347	31	--	--	77	263
Residual Fuel Oil	--	289	49	--	-5	-4	--	--	91	246
Petrochemical Feedstocks ^e	--	324	226	--	-2	-10	--	--	0	558
Special Naphthas	--	30	3	--	-4	-4	--	--	3	29
Lubricants	--	109	0	--	-26	-1	--	--	29	55
Waxes	--	13	(s)	--	0	1	--	--	1	11
Petroleum Coke	--	319	0	--	0	2	--	--	121	197
Asphalt and Road Oil	--	104	1	--	-24	-28	--	--	1	108
Still Gas	--	286	0	--	0	0	--	--	0	286
Miscellaneous Products	--	23	0	--	(s)	3	--	--	(s)	20
Total	4,533	7,627	5,857	179	-5,372	-38	0	7,178	614	5,071

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 17. PAD District III—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1996
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	E 3,156	--	5,010	92	-1,669	-17	0	6,606	0	0
Natural Gas Liquids and LRGs	1,218	428	113	--	11	28	--	223	17	1,500
Pentanes Plus	201	--	44	--	-3	1	--	88	(s)	152
Liquefied Petroleum Gases	1,017	428	69	--	14	27	--	135	17	1,348
Ethane/Ethylene	461	28	15	--	119	-10	--	0	0	633
Propane/Propylene	345	309	34	--	-122	11	--	0	16	540
Normal Butane/Butylene	64	81	12	--	18	20	--	58	1	95
Isobutane/Isobutylene	147	10	9	--	-2	6	--	78	0	80
Other Liquids	138	--	278	--	-65	4	--	356	20	-30
Other Hydrocarbons/Oxygenates	106	--	3	--	0	-1	--	97	13	0
Unfinished Oils	--	--	275	--	-1	8	--	295	0	-30
Motor Gasoline Blend. Comp.	32	--	(s)	--	-64	-3	--	-36	7	0
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	(s)
Finished Petroleum Products	-31	7,189	221	--	-3,667	-16	--	--	468	3,260
Finished Motor Gasoline	-31	3,373	6	--	-2,157	-19	--	--	89	1,121
Reformulated	--	616	3	--	-373	-6	--	--	2	250
Oxygenated	13	5	0	--	0	-1	--	--	(s)	19
Other	-44	2,752	3	--	-1,784	-12	--	--	87	852
Finished Aviation Gasoline	--	12	0	--	-5	(s)	--	--	0	6
Jet Fuel	--	757	5	--	-568	1	--	--	24	169
Naphtha-Type	--	(s)	2	--	0	(s)	--	--	1	1
Kerosene-Type	--	757	4	--	-568	1	--	--	24	168
Kerosene	--	23	0	--	-4	1	--	--	1	17
Distillate Fuel Oil	--	1,499	(s)	--	-841	1	--	--	95	562
0.05 percent sulfur and under	--	947	0	--	-548	1	--	--	36	362
Greater than 0.05 percent sulfur ...	--	552	(s)	--	-294	(s)	--	--	59	199
Residual Fuel Oil	--	299	21	--	-36	(s)	--	--	60	224
Petrochemical Feedstocks ^e	--	316	183	--	2	1	--	--	0	499
Special Naphthas	--	33	4	--	-5	(s)	--	--	2	29
Lubricants	--	105	(s)	--	-31	-1	--	--	23	52
Waxes	--	12	(s)	--	0	(s)	--	--	1	12
Petroleum Coke	--	314	(s)	--	0	2	--	--	171	141
Asphalt and Road Oil	--	115	1	--	-19	-3	--	--	1	99
Still Gas	--	306	0	--	0	0	--	--	0	306
Miscellaneous Products	--	24	(s)	--	(s)	(s)	--	--	(s)	24
Total	4,481	7,617	5,622	92	-5,389	(s)	0	7,186	505	4,731

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 18. PAD District IV—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, October 1996
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	E 11,121	--	3,844	1,167	-1,042	254	0	14,836	0	0	10,716
Natural Gas Liquids and LRGs	4,864	138	355	--	-4,018	-53	--	491	1	900	1,408
Pentanes Plus	778	--	87	--	-412	-21	--	93	0	381	182
Liquefied Petroleum Gases	4,086	138	268	--	-3,606	-32	--	398	1	519	1,226
Ethane/Ethylene	1,761	0	0	--	-2,017	3	--	0	0	-259	216
Propane/Propylene	1,469	261	112	--	-904	-5	--	0	0	943	476
Normal Butane/Butylene	569	-76	125	--	-414	-24	--	282	1	-55	363
Isobutane/Isobutylene	287	-47	31	--	-271	-6	--	116	0	-110	171
Other Liquids	426	--	0	--	0	244	--	139	0	43	3,971
Other Hydrocarbons/Oxygenates	102	--	0	--	0	33	--	69	0	0	234
Unfinished Oils	--	--	0	--	0	82	--	-125	0	43	2,234
Motor Gasoline Blend. Comp.	324	--	0	--	0	129	--	195	0	0	1,503
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	0
Finished Petroleum Products	-290	15,741	429	--	2,021	-283	--	--	15	18,169	9,432
Finished Motor Gasoline	-290	7,802	40	--	653	-67	--	--	1	8,271	4,226
Reformulated	--	0	0	--	0	0	--	--	0	0	0
Oxygenated	337	791	0	--	13	111	--	--	0	1,030	191
Other	-627	7,011	40	--	640	-178	--	--	1	7,241	4,035
Finished Aviation Gasoline	--	10	0	--	14	-11	--	--	0	35	19
Jet Fuel	--	745	0	--	933	-75	--	--	0	1,753	714
Naphtha-Type	--	17	0	--	-55	-25	--	--	0	-13	48
Kerosene-Type	--	728	0	--	988	-50	--	--	0	1,766	666
Kerosene	--	82	0	--	-18	-30	--	--	0	94	99
Distillate Fuel Oil	--	4,520	379	--	439	85	--	--	0	5,253	2,338
0.05 percent sulfur and under	--	3,524	90	--	431	51	--	--	0	3,994	1,884
Greater than 0.05 percent sulfur ..	--	996	289	--	8	34	--	--	0	1,259	454
Residual Fuel Oil	--	454	0	--	0	-64	--	--	0	518	392
Petrochemical Feedstocks ^e	--	17	0	--	0	0	--	--	0	17	0
Special Naphthas	--	0	0	--	0	0	--	--	0	0	1
Lubricants	--	0	0	--	0	0	--	--	6	-6	0
Waxes	--	0	0	--	0	0	--	--	7	-7	0
Petroleum Coke	--	346	0	--	0	-42	--	--	0	388	222
Asphalt and Road Oil	--	1,129	10	--	0	-81	--	--	1	1,219	1,406
Still Gas	--	582	0	--	0	0	--	--	0	582	0
Miscellaneous Products	--	54	0	--	0	2	--	--	0	52	15
Total	16,121	15,879	4,628	1,167	-3,039	162	0	15,466	16	19,112	25,527

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 19. PAD District IV—Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January-October 1996
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	^E 113,033	--	38,508	4,691	-14,610	-1,859	0	143,481	(s)	0	10,716
Natural Gas Liquids and LRGs	47,957	1,889	3,243	--	-37,938	28	--	4,051	3	11,069	1,408
Pentanes Plus	8,096	--	732	--	-4,087	4	--	1,115	0	3,622	182
Liquefied Petroleum Gases	39,861	1,889	2,511	--	-33,851	24	--	2,936	3	7,447	1,226
Ethane/Ethylene	16,454	0	0	--	-17,755	-1	--	0	0	-1,300	216
Propane/Propylene	14,762	2,585	1,333	--	-9,124	-35	--	0	0	9,591	476
Normal Butane/Butylene	5,586	-262	877	--	-4,219	66	--	1,625	3	288	363
Isobutane/Isobutylene	3,059	-434	301	--	-2,753	-6	--	1,311	0	-1,132	171
Other Liquids	2,883	--	0	--	0	-310	--	2,949	(s)	244	3,971
Other Hydrocarbons/Oxygenates	599	--	0	--	0	31	--	568	(s)	0	234
Unfinished Oils	--	--	0	--	0	301	--	-545	0	244	2,234
Motor Gasoline Blend. Comp.	2,284	--	0	--	0	-642	--	2,926	0	0	1,503
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0	0
Finished Petroleum Products	-1,986	152,617	2,713	--	16,545	-1,260	--	--	150	170,999	9,432
Finished Motor Gasoline	-1,986	76,218	347	--	3,666	-180	--	--	26	78,399	4,226
Reformulated	--	0	0	--	0	0	--	--	0	0	0
Oxygenated	2,978	3,488	0	--	97	7	--	--	20	6,537	191
Other	-4,965	72,730	347	--	3,569	-187	--	--	7	71,862	4,035
Finished Aviation Gasoline	--	177	0	--	142	-16	--	--	0	335	19
Jet Fuel	--	8,230	0	--	10,013	-140	--	--	0	18,383	714
Naphtha-Type	--	544	0	--	-453	-93	--	--	0	184	48
Kerosene-Type	--	7,686	0	--	10,466	-47	--	--	0	18,199	666
Kerosene	--	753	0	--	-141	-4	--	--	0	616	99
Distillate Fuel Oil	--	41,632	2,287	--	2,865	-756	--	--	0	47,540	2,338
0.05 percent sulfur and under	--	33,386	622	--	2,821	-751	--	--	0	37,580	1,884
Greater than 0.05 percent sulfur ...	--	8,246	1,665	--	44	-5	--	--	0	9,960	454
Residual Fuel Oil	--	3,867	0	--	0	-103	--	--	0	3,970	392
Petrochemical Feedstocks ^e	--	149	0	--	0	-3	--	--	0	152	0
Special Naphthas	--	0	0	--	0	0	--	--	2	-2	1
Lubricants	--	0	0	--	0	0	--	--	71	-71	0
Waxes	--	0	0	--	0	0	--	--	35	-35	0
Petroleum Coke	--	3,992	0	--	0	42	--	--	3	3,947	222
Asphalt and Road Oil	--	11,063	79	--	0	-95	--	--	12	11,225	1,406
Still Gas	--	6,008	0	--	0	0	--	--	0	6,008	0
Miscellaneous Products	--	528	0	--	0	-5	--	--	0	533	15
Total	161,887	154,506	44,464	4,691	-36,003	-3,401	0	150,481	153	182,312	25,527

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 20. PAD District IV—Daily Average Supply and Disposition of Crude Oil and Petroleum Products, October 1996
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	E 359	--	124	38	-34	8	0	479	0	0
Natural Gas Liquids and LRGs	157	4	11	--	-130	-2	--	16	(s)	29
Pentanes Plus	25	--	3	--	-13	-1	--	3	0	12
Liquefied Petroleum Gases	132	4	9	--	-116	-1	--	13	(s)	17
Ethane/Ethylene	57	0	0	--	-65	(s)	--	0	0	-8
Propane/Propylene	47	8	4	--	-29	(s)	--	0	0	30
Normal Butane/Butylene	18	-2	4	--	-13	-1	--	9	(s)	-2
Isobutane/Isobutylene	9	-2	1	--	-9	(s)	--	4	0	-4
Other Liquids	14	--	0	--	0	8	--	4	0	1
Other Hydrocarbons/Oxygenates	3	--	0	--	0	1	--	2	0	0
Unfinished Oils	--	--	0	--	0	3	--	-4	0	1
Motor Gasoline Blend. Comp.	10	--	0	--	0	4	--	6	0	0
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0
Finished Petroleum Products	-9	508	14	--	65	-9	--	--	(s)	586
Finished Motor Gasoline	-9	252	1	--	21	-2	--	--	(s)	267
Reformulated	--	0	0	--	0	0	--	--	0	0
Oxygenated	11	26	0	--	(s)	4	--	--	0	33
Other	-20	226	1	--	21	-6	--	--	(s)	234
Finished Aviation Gasoline	--	(s)	0	--	(s)	(s)	--	--	0	1
Jet Fuel	--	24	0	--	30	-2	--	--	0	57
Naphtha-Type	--	1	0	--	-2	-1	--	--	0	(s)
Kerosene-Type	--	23	0	--	32	-2	--	--	0	57
Kerosene	--	3	0	--	-1	-1	--	--	0	3
Distillate Fuel Oil	--	146	12	--	14	3	--	--	0	169
0.05 percent sulfur and under	--	114	3	--	14	2	--	--	0	129
Greater than 0.05 percent sulfur ...	--	32	9	--	(s)	1	--	--	0	41
Residual Fuel Oil	--	15	0	--	0	-2	--	--	0	17
Petrochemical Feedstocks ^e	--	1	0	--	0	0	--	--	0	1
Special Naphthas	--	0	0	--	0	0	--	--	0	0
Lubricants	--	0	0	--	0	0	--	--	(s)	(s)
Waxes	--	0	0	--	0	0	--	--	(s)	(s)
Petroleum Coke	--	11	0	--	0	-1	--	--	0	13
Asphalt and Road Oil	--	36	(s)	--	0	-3	--	--	(s)	39
Still Gas	--	19	0	--	0	0	--	--	0	19
Miscellaneous Products	--	2	0	--	0	(s)	--	--	0	2
Total	520	512	149	38	-98	5	0	499	1	617

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 21. PAD District IV—Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1996
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	E 371	--	126	15	-48	-6	0	470	(s)	0
Natural Gas Liquids and LRGs	157	6	11	--	-124	(s)	--	13	(s)	36
Pentanes Plus	27	--	2	--	-13	(s)	--	4	0	12
Liquefied Petroleum Gases	131	6	8	--	-111	(s)	--	10	(s)	24
Ethane/Ethylene	54	0	0	--	-58	(s)	--	0	0	-4
Propane/Propylene	48	8	4	--	-30	(s)	--	0	0	31
Normal Butane/Butylene	18	-1	3	--	-14	(s)	--	5	(s)	1
Isobutane/Isobutylene	10	-1	1	--	-9	(s)	--	4	0	-4
Other Liquids	9	--	0	--	0	-1	--	10	(s)	1
Other Hydrocarbons/Oxygenates	2	--	0	--	0	(s)	--	2	(s)	0
Unfinished Oils	--	--	0	--	0	1	--	-2	0	1
Motor Gasoline Blend. Comp.	7	--	0	--	0	-2	--	10	0	0
Aviation Gasoline Blend. Comp.	--	--	0	--	0	0	--	0	0	0
Finished Petroleum Products	-7	500	9	--	54	-4	--	--	(s)	561
Finished Motor Gasoline	-7	250	1	--	12	-1	--	--	(s)	257
Reformulated	--	0	0	--	0	0	--	--	0	0
Oxygenated	10	11	0	--	(s)	(s)	--	--	(s)	21
Other	-16	238	1	--	12	-1	--	--	(s)	236
Finished Aviation Gasoline	--	1	0	--	(s)	(s)	--	--	0	1
Jet Fuel	--	27	0	--	33	(s)	--	--	0	60
Naphtha-Type	--	2	0	--	-1	(s)	--	--	0	1
Kerosene-Type	--	25	0	--	34	(s)	--	--	0	60
Kerosene	--	2	0	--	(s)	(s)	--	--	0	2
Distillate Fuel Oil	--	136	7	--	9	-2	--	--	0	156
0.05 percent sulfur and under	--	109	2	--	9	-2	--	--	0	123
Greater than 0.05 percent sulfur ...	--	27	5	--	(s)	(s)	--	--	0	33
Residual Fuel Oil	--	13	0	--	0	(s)	--	--	0	13
Petrochemical Feedstocks ^e	--	(s)	0	--	0	(s)	--	--	0	(s)
Special Naphthas	--	0	0	--	0	0	--	--	(s)	(s)
Lubricants	--	0	0	--	0	0	--	--	(s)	(s)
Waxes	--	0	0	--	0	0	--	--	(s)	(s)
Petroleum Coke	--	13	0	--	0	(s)	--	--	(s)	13
Asphalt and Road Oil	--	36	(s)	--	0	(s)	--	--	(s)	37
Still Gas	--	20	0	--	0	0	--	--	0	20
Miscellaneous Products	--	2	0	--	0	(s)	--	--	0	2
Total	531	507	146	15	-118	-11	0	493	1	598

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

**Table 22. PAD District V—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products,
October 1996
(Thousand Barrels)**

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	E 72,699	—	12,096	5,001	-5,804	988	0	79,467	3,384	153	68,204
Natural Gas Liquids and LRGs	3,819	2,512	0	—	0	674	—	3,802	383	1,472	6,467
Pentanes Plus	2,040	—	0	—	0	-1	—	1,754	(s)	287	57
Liquefied Petroleum Gases	1,779	2,512	0	—	0	675	—	2,048	383	1,185	6,410
Ethane/Ethylene	1	0	0	—	0	0	—	0	0	1	0
Propane/Propylene	348	1,454	0	—	0	351	—	0	332	1,119	2,233
Normal Butane/Butylene	780	1,088	0	—	0	279	—	1,426	50	113	3,514
Isobutane/Isobutylene	650	-30	0	—	0	45	—	622	0	-47	663
Other Liquids	3,806	—	1,746	—	-117	1,127	—	3,330	62	916	32,420
Other Hydrocarbons/Oxygenates	2,973	—	1,488	—	0	525	—	3,933	3	0	4,318
Unfinished Oils	—	—	230	—	0	-589	—	-97	0	916	20,590
Motor Gasoline Blend. Comp.	833	—	28	—	-117	1,182	—	-497	59	0	7,502
Aviation Gasoline Blend. Comp.	—	—	0	—	0	9	—	-9	0	0	10
Finished Petroleum Products	-709	89,105	226	—	2,919	-1,316	—	—	6,230	86,627	53,658
Finished Motor Gasoline	-709	40,856	13	—	2,263	-593	—	—	314	42,702	22,622
Reformulated	—	26,933	0	—	0	-690	—	—	0	27,623	11,192
Oxygenated	1,235	667	0	—	0	-5	—	—	1	1,906	151
Other	-1,944	13,256	13	—	2,263	102	—	—	312	13,173	11,279
Finished Aviation Gasoline	—	212	0	—	0	180	—	—	0	32	669
Jet Fuel	—	13,818	134	—	372	-344	—	—	391	14,277	8,050
Naphtha-Type	—	12	0	—	55	-2	—	—	15	54	267
Kerosene-Type	—	13,806	134	—	317	-342	—	—	375	14,224	7,783
Kerosene	—	124	5	—	0	13	—	—	6	110	90
Distillate Fuel Oil	—	14,648	69	—	394	21	—	—	2,025	13,065	11,691
0.05 percent sulfur and under	—	11,296	2	—	249	478	—	—	306	10,763	8,334
Greater than 0.05 percent sulfur ..	—	3,352	67	—	145	-457	—	—	1,719	2,302	3,357
Residual Fuel Oil	—	6,726	0	—	0	-361	—	—	186	6,901	5,807
Petrochemical Feedstocks ^e	—	280	0	—	0	-4	—	—	0	284	254
Special Naphthas	—	60	4	—	0	6	—	—	943	-885	72
Lubricants	—	845	0	—	-110	-61	—	—	94	702	1,308
Waxes	—	85	0	—	0	-7	—	—	13	79	145
Petroleum Coke	—	4,685	0	—	0	76	—	—	2,246	2,363	733
Asphalt and Road Oil	—	1,832	0	—	0	-247	—	—	10	2,069	2,064
Still Gas	—	4,738	0	—	0	0	—	—	0	4,738	0
Miscellaneous Products	—	196	1	—	0	5	—	—	2	190	153
Total	79,614	91,617	14,068	5,001	-3,002	1,473	0	86,599	10,058	89,168	160,749

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

— = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 23. PAD District V—Year-to-Date Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, January-October 1996
(Thousand Barrels)

Commodity	Supply					Disposition					Ending Stocks
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	
Crude Oil	E 718,177	--	109,897	14,610	-54,470	-6,761	2	764,881	28,056	2,035	68,204
Natural Gas Liquids and LRGs	34,900	25,136	495	--	0	2,302	--	30,795	6,895	20,539	6,467
Pentanes Plus	19,241	--	0	--	0	35	--	15,177	1	4,028	57
Liquefied Petroleum Gases	15,659	25,136	495	--	0	2,267	--	15,618	6,893	16,512	6,410
Ethane/Ethylene	10	0	0	--	0	0	--	0	0	10	0
Propane/Propylene	3,216	13,148	39	--	0	733	--	0	2,362	13,308	2,233
Normal Butane/Butylene	7,849	11,147	0	--	0	1,358	--	10,453	4,532	2,653	3,514
Isobutane/Isobutylene	4,584	841	456	--	0	176	--	5,165	0	540	663
Other Liquids	27,576	--	19,822	--	-549	-2,279	--	38,417	153	10,558	32,420
Other Hydrocarbons/Oxygenates	25,031	--	11,526	--	0	297	--	36,249	11	0	4,318
Unfinished Oils	--	--	7,390	--	-477	-2,454	--	-1,191	0	10,558	20,590
Motor Gasoline Blend. Comp.	2,544	--	906	--	-72	-125	--	3,362	141	0	7,502
Aviation Gasoline Blend. Comp.	--	--	0	--	0	3	--	-3	0	0	10
Finished Petroleum Products	-1,452	857,134	10,647	--	30,693	-340	--	--	82,842	814,519	53,658
Finished Motor Gasoline	-1,452	397,991	4,173	--	24,631	2,894	--	--	2,876	419,572	22,622
Reformulated	--	246,233	3,005	--	2,157	5,935	--	--	86	245,374	11,192
Oxygenated	10,921	11,857	0	--	0	-3,163	--	--	10	25,930	151
Other	-12,373	139,901	1,168	--	22,474	122	--	--	2,780	148,268	11,279
Finished Aviation Gasoline	--	1,427	10	--	0	136	--	--	0	1,301	669
Jet Fuel	--	134,524	2,685	--	3,360	370	--	--	4,698	135,501	8,050
Naphtha-Type	--	166	555	--	453	51	--	--	311	812	267
Kerosene-Type	--	134,358	2,130	--	2,907	319	--	--	4,388	134,688	7,783
Kerosene	--	1,045	12	--	0	28	--	--	229	800	90
Distillate Fuel Oil	--	135,091	1,975	--	3,904	-1,802	--	--	25,627	117,145	11,691
0.05 percent sulfur and under	--	100,283	1,456	--	2,023	-667	--	--	3,624	100,805	8,334
Greater than 0.05 percent sulfur ...	--	34,808	519	--	1,881	-1,135	--	--	22,003	16,340	3,357
Residual Fuel Oil	--	66,442	1,386	--	0	-54	--	--	10,502	57,380	5,807
Petrochemical Feedstocks ^e	--	3,899	151	--	-787	64	--	--	0	3,199	254
Special Naphthas	--	593	26	--	0	22	--	--	6,209	-5,612	72
Lubricants	--	7,276	0	--	-415	-361	--	--	1,049	6,173	1,308
Waxes	--	829	17	--	0	66	--	--	121	659	145
Petroleum Coke	--	46,150	164	--	0	-1,846	--	--	31,378	16,782	733
Asphalt and Road Oil	--	15,549	39	--	0	221	--	--	132	15,235	2,064
Still Gas	--	44,865	0	--	0	0	--	--	0	44,865	0
Miscellaneous Products	--	1,453	9	--	0	-78	--	--	20	1,520	153
Total	779,200	882,270	140,861	14,610	-24,326	-7,078	2	834,093	117,946	847,652	160,749

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 24. PAD District V — Daily Average Supply and Disposition of Crude Oil and Petroleum Products, October 1996
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	E 2,345	--	390	161	-187	32	0	2,563	109	5
Natural Gas Liquids and LRGs	123	81	0	--	0	22	--	123	12	47
Pentanes Plus	66	--	0	--	0	(s)	--	57	(s)	9
Liquefied Petroleum Gases	57	81	0	--	0	22	--	66	12	38
Ethane/Ethylene	(s)	0	0	--	0	0	--	0	0	(s)
Propane/Propylene	11	47	0	--	0	11	--	0	11	36
Normal Butane/Butylene	25	35	0	--	0	9	--	46	2	4
Isobutane/Isobutylene	21	-1	0	--	0	1	--	20	0	-2
Other Liquids	123	--	56	--	-4	36	--	107	2	30
Other Hydrocarbons/Oxygenates	96	--	48	--	0	17	--	127	(s)	0
Unfinished Oils	--	--	7	--	0	-19	--	-3	0	30
Motor Gasoline Blend. Comp.	27	--	1	--	-4	38	--	-16	2	0
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	0
Finished Petroleum Products	-23	2,874	7	--	94	-42	--	--	201	2,794
Finished Motor Gasoline	-23	1,318	(s)	--	73	-19	--	--	10	1,377
Reformulated	--	869	0	--	0	-22	--	--	0	891
Oxygenated	40	22	0	--	0	(s)	--	--	(s)	61
Other	-63	428	(s)	--	73	3	--	--	10	425
Finished Aviation Gasoline	--	7	0	--	0	6	--	--	0	1
Jet Fuel	--	446	4	--	12	-11	--	--	13	461
Naphtha-Type	--	(s)	0	--	2	(s)	--	--	(s)	2
Kerosene-Type	--	445	4	--	10	-11	--	--	12	459
Kerosene	--	4	(s)	--	0	(s)	--	--	(s)	4
Distillate Fuel Oil	--	473	2	--	13	1	--	--	65	421
0.05 percent sulfur and under	--	364	(s)	--	8	15	--	--	10	347
Greater than 0.05 percent sulfur ...	--	108	2	--	5	-15	--	--	55	74
Residual Fuel Oil	--	217	0	--	0	-12	--	--	6	223
Petrochemical Feedstocks ^e	--	9	0	--	0	(s)	--	--	0	9
Special Naphthas	--	2	(s)	--	0	(s)	--	--	30	-29
Lubricants	--	27	0	--	-4	-2	--	--	3	23
Waxes	--	3	0	--	0	(s)	--	--	(s)	3
Petroleum Coke	--	151	0	--	0	2	--	--	72	76
Asphalt and Road Oil	--	59	0	--	0	-8	--	--	(s)	67
Still Gas	--	153	0	--	0	0	--	--	0	153
Miscellaneous Products	--	6	(s)	--	0	(s)	--	--	(s)	6
Total	2,568	2,955	454	161	-97	48	0	2,794	324	2,876

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report". • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 25. PAD District V — Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January-October 1996
(Thousand Barrels per Day)

Commodity	Supply					Disposition				
	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unaccounted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	^E 2,355	--	360	48	-179	-22	(s)	2,508	92	7
Natural Gas Liquids and LRGs	114	82	2	--	0	8	--	101	23	67
Pentanes Plus	63	--	0	--	0	(s)	--	50	(s)	13
Liquefied Petroleum Gases	51	82	2	--	0	7	--	51	23	54
Ethane/Ethylene	(s)	0	0	--	0	0	--	0	0	(s)
Propane/Propylene	11	43	(s)	--	0	2	--	0	8	44
Normal Butane/Butylene	26	37	0	--	0	4	--	34	15	9
Isobutane/Isobutylene	15	3	1	--	0	1	--	17	0	2
Other Liquids	90	--	65	--	-2	-7	--	126	1	35
Other Hydrocarbons/Oxygenates	82	--	38	--	0	1	--	119	(s)	0
Unfinished Oils	--	--	24	--	-2	-8	--	-4	0	35
Motor Gasoline Blend. Comp.	8	--	3	--	(s)	(s)	--	11	(s)	0
Aviation Gasoline Blend. Comp.	--	--	0	--	0	(s)	--	(s)	0	0
Finished Petroleum Products	-5	2,810	35	--	101	-1	--	--	272	2,671
Finished Motor Gasoline	-5	1,305	14	--	81	9	--	--	9	1,376
Reformulated	--	807	10	--	7	19	--	--	(s)	805
Oxygenated	36	39	0	--	0	-10	--	--	(s)	85
Other	-41	459	4	--	74	(s)	--	--	9	486
Finished Aviation Gasoline	--	5	(s)	--	0	(s)	--	--	0	4
Jet Fuel	--	441	9	--	11	1	--	--	15	444
Naphtha-Type	--	1	2	--	1	(s)	--	--	1	3
Kerosene-Type	--	441	7	--	10	1	--	--	14	442
Kerosene	--	3	(s)	--	0	(s)	--	--	1	3
Distillate Fuel Oil	--	443	6	--	13	-6	--	--	84	384
0.05 percent sulfur and under	--	329	5	--	7	-2	--	--	12	331
Greater than 0.05 percent sulfur ...	--	114	2	--	6	-4	--	--	72	54
Residual Fuel Oil	--	218	5	--	0	(s)	--	--	34	188
Petrochemical Feedstocks ^e	--	13	(s)	--	-3	(s)	--	--	0	10
Special Naphthas	--	2	(s)	--	0	(s)	--	--	20	-18
Lubricants	--	24	0	--	-1	-1	--	--	3	20
Waxes	--	3	(s)	--	0	(s)	--	--	(s)	2
Petroleum Coke	--	151	1	--	0	-6	--	--	103	55
Asphalt and Road Oil	--	51	(s)	--	0	1	--	--	(s)	50
Still Gas	--	147	0	--	0	0	--	--	0	147
Miscellaneous Products	--	5	(s)	--	0	(s)	--	--	(s)	5
Total	2,555	2,893	462	48	-80	-23	(s)	2,735	387	2,779

^a Represents the PAD District in which the material entered the United States and not necessarily where the crude oil or product is processed and/or consumed.

^b Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.

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

^d Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, plus net receipts, minus stock change, minus crude losses, minus refinery inputs, minus exports.

^e Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

(s) = Less than 500 barrels per day.

E = Estimated.

LRG = Liquefied Refinery Gas.

-- = Not Applicable.

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

Sources: • Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," EIA-814, "Monthly Imports Report," EIA-816, "Monthly Natural Gas Liquids Report," EIA-817, "Monthly Tanker and Barge Movement Report," and EIA-819M, "Monthly Oxygenate Telephone Report." • Domestic crude oil production estimates based on historical statistics from State conservation agencies and the Minerals Management Service of the U.S. Department of the Interior. • Export data from the Bureau of the Census and Form EIA-810, "Monthly Refinery Report."

Table 26. Production of Crude Oil by PAD District and State
(Thousand Barrels)

PAD District and State	August 1996		January-August 1996	
	Total	Daily Average	Total	Daily Average
PAD District I	E 878	E 28	E 6,408	E 26
Florida	565	18	4,105	17
New York	E 25	E 1	E 194	E 1
Pennsylvania	E 148	E 5	E 1,106	E 5
Virginia	(s)	(s)	6	(s)
West Virginia	E 134	E 4	E 1,134	E 5
Adjustment ^a	7	(s)	-137	-1
PAD District II	E 17,341	E 559	E 137,522	E 564
Illinois	1,510	49	E 10,598	E 43
Indiana	218	7	1,663	7
Kansas	E 3,478	E 112	E 27,772	E 114
Kentucky	15	(s)	2,300	9
Michigan	E 857	E 28	E 7,354	E 30
Missouri	9	(s)	78	(s)
Nebraska	297	10	2,372	10
North Dakota	2,820	91	21,276	87
Ohio	E 663	E 21	E 5,492	E 23
Oklahoma	7,099	229	56,948	233
South Dakota	105	3	842	3
Tennessee	31	1	255	1
Adjustment ^a	239	8	571	2
PAD District III	E 98,138	E 3,166	E 768,392	E 3,149
Alabama	1,446	47	11,409	47
Arkansas	E 680	E 22	E 6,069	E 25
Louisiana ^b	E 11,262	E 363	E 86,498	E 354
Mississippi	1,594	51	12,727	52
New Mexico	E 5,709	E 184	E 43,182	E 177
Texas ^b	45,013	1,452	E 363,281	E 1,489
Federal Offshore PAD District III	E 31,448	E 1,014	E 239,899	E 983
Adjustment ^a	987	32	5,326	22
PAD District IV	E 11,192	E 361	E 90,898	E 373
Colorado	E 2,126	E 69	E 17,296	E 71
Montana	1,370	44	10,422	43
Utah	1,639	53	12,886	53
Wyoming	6,325	204	E 52,128	E 214
Adjustment ^a	-269	-9	-1,834	-8
PAD District V	E 70,511	E 2,275	E 575,164	E 2,357
Alaska ^b	E 41,126	E 1,327	E 339,956	E 1,393
South Alaska	1,168	38	10,001	41
North Slope	39,958	1,289	329,955	1,352
Adjustment for Alaska ^a	0	0	0	0
Arizona	8	(s)	54	(s)
California ^b	24,082	777	E 188,182	E 771
Nevada	86	3	720	3
Federal Offshore PAD District V	5,161	166	44,422	182
Adjustment excluding Alaska ^a	48	2	1,830	7
U.S. Total^b	E 198,060	E 6,389	E 1,578,384	E 6,469

^a These adjustments are used to reconcile the national and PAD District level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PAD District level figures published in a previous issue. Revised data at the State, PAD District, and national levels will be published without adjustments in the *Petroleum Supply Annual*.

^b Includes the following current month offshore production (thousand barrels): Alaska: State - 8,114; California: State - 1,705; Louisiana: State - E2,042; Texas: State - 93; U.S. Total, including Federal offshore - E48,563.

(s) = Less than 500 barrels or less than 500 barrels per day.

E = Estimated.

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

Sources: State government agencies, U.S. Department of the Interior, Minerals Management Service and the Conservation Committee of California Oil Producers.

Table 27. Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts, October 1996
(Thousand Barrels)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Net Production							
Natural Gas Liquids	145	564	709	600	335	8,922	9,857
Pentanes Plus	13	70	83	122	91	1,137	1,350
Liquefied Petroleum Gases	132	494	626	478	244	7,785	8,507
Ethane	57	202	259	101	0	3,190	3,291
Propane	47	195	242	228	150	3,061	3,439
Normal Butane	28	68	96	80	94	873	1,047
Isobutane	0	29	29	69	0	661	730
Stocks							
Natural Gas Liquids	6	43	49	93	32	2,366	2,491
Pentanes Plus	0	10	10	12	7	156	175
Liquefied Petroleum Gases	6	33	39	81	25	2,210	2,316
Ethane	0	0	0	17	0	466	483
Propane	3	20	23	37	17	979	1,033
Normal Butane	3	10	13	11	8	622	641
Isobutane	0	3	3	16	0	143	159

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Net Production									
Natural Gas Liquids	19,536	4,321	8,969	768	6,312	39,906	4,864	3,819	59,155
Pentanes Plus	3,345	633	1,656	244	693	6,571	778	2,040	10,822
Liquefied Petroleum Gases	16,191	3,688	7,313	524	5,619	33,335	4,086	1,779	48,333
Ethane	7,245	2,062	3,081	104	2,948	15,440	1,761	1	20,752
Propane	5,633	1,030	2,531	221	1,722	11,137	1,469	348	16,635
Normal Butane	2,281	-1,152	882	134	611	2,756	569	780	5,248
Isobutane	1,032	1,748	819	65	338	4,002	287	650	5,698
Stocks									
Natural Gas Liquids	166	655	1,607	151	56	2,635	240	150	5,565
Pentanes Plus	58	187	336	25	11	617	111	16	929
Liquefied Petroleum Gases	108	468	1,271	126	45	2,018	129	134	4,636
Ethane	10	163	23	94	3	293	3	0	779
Propane	59	132	393	17	24	625	72	119	1,872
Normal Butane	25	98	606	7	11	747	40	10	1,451
Isobutane	14	75	249	8	7	353	14	5	534

Note: Refer to Appendix A for Refining District descriptions.

Source: Energy Information Administration (EIA) Form EIA-816, "Monthly Natural Gas Liquids Report."

**Table 28. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts,
October 1996**
(Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Crude Oil	38,184	2,924	41,108	68,817	12,281	19,516	100,614
Natural Gas Liquids	71	0	71	1,949	510	1,204	3,663
Pentanes Plus	0	0	0	374	244	665	1,283
Liquefied Petroleum Gases	71	0	71	1,575	266	539	2,380
Ethane	0	0	0	0	0	0	0
Propane	0	0	0	0	0	0	0
Normal Butane	29	0	29	922	176	361	1,459
Isobutane	42	0	42	653	90	178	921
Other Liquids	10,807	101	10,908	1,633	595	-193	2,035
Other Hydrocarbons/Hydrogen/Oxygenates	1,914	0	1,914	716	148	93	957
Other Hydrocarbons/Hydrogen	0	0	0	48	0	27	75
Oxygenates	W	W	1,914	668	148	66	882
Fuel Ethanol	W	W	W	W	W	W	760
Methanol	W	W	W	W	W	W	W
MTBE	W	W	1,807	W	W	W	W
Other Oxygenates ^a	W	W	W	W	W	W	W
Unfinished Oils (net)	3,492	139	3,631	-255	-21	-776	-1,052
Motor Gasoline Blend. Comp. (net)	5,563	-38	5,525	1,161	468	490	2,119
Aviation Gasoline Blend. Comp. (net)	-162	0	-162	11	0	0	11
Total Input to Refineries	49,062	3,025	52,087	72,399	13,386	20,527	106,312
Atmospheric Crude Oil Distillation							
Gross Input (daily average)	1,198	95	1,292	2,277	396	633	3,306
Operable Capacity (daily average)	1,337	97	1,434	2,285	401	713	3,400
Operable Utilization Rate (percent) ^{b,c}	89.6	97.2	90.1	99.6	98.8	88.8	97.2
Downstream Processing							
Fresh Feed Input (daily average)							
Catalytic Cracking	495	19	513	747	119	177	1,043
Catalytic Hydrocracking	55	4	60	119	0	3	122
Delayed and Fluid Coking	86	0	86	178	64	69	311
Crude Oil Qualities							
Sulfur Content, Weighted Average (percent)	1.06	1.02	1.05	1.11	2.11	0.69	1.15
API Gravity, Weighted Average (degrees)	29.97	35.05	30.33	33.05	29.31	36.75	33.31
Operable Capacity (daily average)	1,337	97	1,434	2,285	401	713	3,400
Operating	1,297	97	1,394	2,285	401	703	3,389
Idle	40	0	40	0	0	11	11
Alaskan Crude Oil Receipts	0	0	0	519	0	0	519

See footnotes at end of table.

**Table 28. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts,
October 1996 (Continued)**
(Thousand Barrels, Except Where Noted)

Commodity	PAD District III						PAD Dist.	PAD Dist.	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	IV	V	
							Rocky Mt.	West Coast	
Crude Oil	17,304	100,750	80,700	4,855	2,924	206,533	14,836	79,467	442,558
Natural Gas Liquids	893	3,420	2,539	169	239	7,260	491	3,802	15,287
Pentanes Plus	427	1,355	587	122	133	2,624	93	1,754	5,754
Liquefied Petroleum Gases	466	2,065	1,952	47	106	4,636	398	2,048	9,533
Ethane	0	0	0	0	0	0	0	0	0
Propane	0	0	0	0	0	0	0	0	0
Normal Butane	385	1,060	1,332	21	0	2,798	282	1,426	5,994
Isobutane	81	1,005	620	26	106	1,838	116	622	3,539
Other Liquids	506	5,896	2,296	60	-35	8,723	139	3,330	25,135
Other Hydrocarbons/Hydrogen/Oxygenates	145	1,789	739	0	18	2,691	69	3,933	9,564
Other Hydrocarbons/Hydrogen	126	409	446	0	0	981	0	841	1,897
Oxygenates	19	1,380	293	W	W	1,710	69	3,092	7,667
Fuel Ethanol	W	W	W	W	W	W	W	W	895
Methanol	W	W	W	W	W	W	W	W	25
MTBE	W	1,261	W	W	W	1,524	W	3,020	6,490
Other Oxygenates ^a	W	W	W	W	W	W	W	W	257
Unfinished Oils (net)	157	6,849	1,713	60	-32	8,747	-125	-97	11,104
Motor Gasoline Blend. Comp. (net)	204	-2,741	-165	0	-21	-2,723	195	-497	4,619
Aviation Gasoline Blend. Comp. (net)	0	-1	9	0	0	8	0	-9	-152
Total Input to Refineries	18,703	110,066	85,535	5,084	3,128	222,516	15,466	86,599	482,980
Atmospheric Crude Oil Distillation									
Gross Input (daily average)	562	3,265	2,618	147	94	6,687	483	2,674	14,442
Operable Capacity (daily average)	609	3,357	2,727	200	95	6,986	518	2,925	15,263
Operable Utilization Rate (percent) ^{b,c}	92.3	97.3	96.0	73.5	99.7	95.7	93.3	91.4	94.6
Downstream Processing									
Fresh Feed Input (daily average)									
Catalytic Cracking	174	1,264	873	16	29	2,357	147	720	4,781
Catalytic Hydrocracking	46	244	191	0	0	481	4	530	1,197
Delayed and Fluid Coking	4	387	378	10	0	779	34	482	1,691
Crude Oil Qualities									
Sulfur Content, Weighted Average (percent)	0.49	1.20	1.38	1.57	0.52	1.21	1.31	1.13	1.17
API Gravity, Weighted Average (degrees)	38.28	31.63	29.42	30.67	39.33	31.41	32.81	25.43	30.68
Operable Capacity (daily average)	609	3,357	2,727	200	95	6,986	518	2,925	15,263
Operating	609	3,330	2,727	200	95	6,959	518	2,849	15,109
Idle	0	27	0	0	0	27	0	76	153
Alaskan Crude Oil Receipts	0	0	0	0	6	6	0	44,172	44,697

^a Includes ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).

^b Represents gross input divided by operable calendar day capacity.

^c See Table H2 in the Highlights Section for additional information concerning utilization rates.

W = Withheld to avoid disclosure of individual company data.

Note: • Totals may not equal sum of components due to independent rounding. • Refer to Appendix A for Refining District descriptions.

Source: Energy Information Administration (EIA) Form EIA-810, "Monthly Refinery Report."

**Table 29. Refinery Net Production of Finished Petroleum Products by PAD and Refining Districts,
October 1996
(Thousand Barrels)**

Commodity	PAD District I			PAD District II			Total
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	
Liquefied Refinery Gases	968	14	982	2,221	202	467	2,890
Ethane/Ethylene	0	0	0	0	0	0	0
Ethane	W	W	W	W	W	W	W
Ethylene	W	W	W	W	W	W	W
Propane/Propylene	1,147	37	1,184	2,488	301	549	3,338
Propane	W	W	W	W	W	W	W
Propylene	W	W	W	W	W	W	W
Normal Butane/Butylene	-191	-17	-208	-357	-105	-79	-541
Normal Butane	W	W	W	W	W	W	W
Butylene	W	W	W	W	W	W	W
Isobutane/Isobutylene	12	-6	6	90	6	-3	93
Isobutane	W	W	W	W	W	W	W
Isobutylene	W	W	W	W	W	W	W
Finished Motor Gasoline	24,866	1,124	25,990	37,142	7,171	10,570	54,883
Reformulated	16,479	0	16,479	6,461	1,031	0	7,492
Oxygenated	0	0	0	666	1,199	28	1,893
Other	8,387	1,124	9,511	30,015	4,941	10,542	45,498
Finished Aviation Gasoline	22	0	22	31	18	18	67
Jet Fuel	1,126	43	1,169	4,851	821	1,259	6,931
Naphtha-Type	0	0	0	10	0	0	10
Kerosene-Type	1,126	43	1,169	4,841	821	1,259	6,921
Commercial	1,126	30	1,156	4,525	821	1,140	6,486
Military	0	13	13	316	0	119	435
Kerosene	739	68	807	519	100	150	769
Distillate Fuel Oil	12,313	843	13,156	17,528	3,191	5,913	26,632
0.05 percent sulfur and under	4,061	695	4,756	11,604	2,454	4,693	18,751
Greater than 0.05 percent sulfur	8,252	148	8,400	5,924	737	1,220	7,881
Residual Fuel Oil	3,780	70	3,850	1,105	308	83	1,496
Less than 0.31 percent sulfur	1,638	35	1,673	6	0	0	6
0.31 to 1.00 percent sulfur	1,745	35	1,780	328	0	0	328
Greater than 1.00 percent sulfur	397	0	397	771	308	83	1,162
Naphtha for Petrochemical Feedstock Use	242	0	242	694	0	29	723
Other Oils for Petrochemical Feedstock Use	0	0	0	685	0	87	772
Special Naphthas	36	27	63	350	0	86	436
Lubricants	473	215	688	478	0	246	724
Naphthenic	0	0	0	0	0	0	0
Paraffinic	473	215	688	478	0	246	724
Waxes	0	134	134	54	0	36	90
Petroleum Coke	1,353	24	1,377	2,638	848	776	4,262
Marketable	576	0	576	1,585	673	570	2,828
Catalyst	777	24	801	1,053	175	206	1,434
Asphalt and Road Oil	3,113	329	3,442	4,673	1,064	642	6,379
Still Gas	1,614	112	1,726	2,472	459	775	3,706
Miscellaneous Products	26	42	68	175	63	51	289
Fuel Use	0	0	0	0	0	0	0
Nonfuel Use	26	42	68	175	63	51	289
Total	50,671	3,045	53,716	75,616	14,245	21,188	111,049
Processing Gain(-) or Loss(+) ^a	-1,609	-20	-1,629	-3,217	-859	-661	-4,737

See footnotes at end of table.

**Table 29. Refinery Net Production of Finished Petroleum Products by PAD and Refining Districts,
October 1996 (Continued)**
(Thousand Barrels)

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	636	6,918	3,451	64	83	11,152	138	2,512	17,674
Ethane/Ethylene	1	814	156	0	0	971	0	0	971
Ethane	W	W	W	W	W	W	W	W	775
Ethylene	W	W	W	W	W	W	W	W	196
Propane/Propylene	654	5,361	3,747	49	72	9,883	261	1,454	16,120
Propane	W	W	W	W	W	W	W	W	11,440
Propylene	W	W	W	W	W	W	W	W	4,680
Normal Butane/Butylene	-98	521	-450	15	11	-1	-76	1,088	262
Normal Butane	W	W	W	W	W	W	W	W	484
Butylene	W	W	W	W	W	W	W	W	-222
Isobutane/Isobutylene	79	222	-2	0	0	299	-47	-30	321
Isobutane	W	W	W	W	W	W	W	W	223
Isobutylene	W	W	W	W	W	W	W	W	98
Finished Motor Gasoline	10,443	48,538	38,539	1,174	1,789	100,483	7,802	40,856	230,014
Reformulated	711	13,236	3,952	0	0	17,899	0	26,933	68,803
Oxygenated	0	0	0	0	28	28	791	667	3,379
Other	9,732	35,302	34,587	1,174	1,761	82,556	7,011	13,256	157,832
Finished Aviation Gasoline	124	160	202	0	0	486	10	212	797
Jet Fuel	1,569	10,621	10,726	284	212	23,412	745	13,818	46,075
Naphtha-Type	0	0	0	0	0	0	17	12	39
Kerosene-Type	1,569	10,621	10,726	284	212	23,412	728	13,806	46,036
Commercial	1,095	9,917	9,998	226	0	21,236	650	12,289	41,817
Military	474	704	728	58	212	2,176	78	1,517	4,219
Kerosene	8	715	282	85	-3	1,087	82	124	2,869
Distillate Fuel Oil	4,580	26,013	20,843	1,205	800	53,441	4,520	14,648	112,397
0.05 percent sulfur and under	3,257	16,369	10,128	653	773	31,180	3,524	11,296	69,507
Greater than 0.05 percent sulfur	1,323	9,644	10,715	552	27	22,261	996	3,352	42,890
Residual Fuel Oil	313	4,762	3,645	210	22	8,952	454	6,726	21,478
Less than 0.31 percent sulfur	140	3	227	0	0	370	102	253	2,404
0.31 to 1.00 percent sulfur	103	708	651	185	22	1,669	108	986	4,871
Greater than 1.00 percent sulfur	70	4,051	2,767	25	0	6,913	244	5,487	14,203
Naphtha for Petrochemical Feedstock Use	92	4,302	832	0	0	5,226	0	78	6,269
Other Oils for Petrochemical Feedstock Use	119	2,540	2,150	0	0	4,809	17	202	5,800
Special Naphthas	105	572	114	125	0	916	0	60	1,475
Lubricants	W	1,932	W	W	W	3,390	0	845	5,647
Naphthenic	W	394	W	W	W	955	0	331	1,286
Paraffinic	W	1,538	W	W	W	2,435	0	514	4,361
Waxes	1	248	72	92	0	413	0	85	722
Petroleum Coke	300	5,189	4,301	79	19	9,888	346	4,685	20,558
Marketable	30	3,192	3,178	61	0	6,461	138	3,538	13,541
Catalyst	270	1,997	1,123	18	19	3,427	208	1,147	7,017
Asphalt and Road Oil	532	723	821	1,004	141	3,221	1,129	1,832	16,003
Still Gas	715	4,533	3,362	148	97	8,855	582	4,738	19,607
Miscellaneous Products	64	333	322	0	0	719	54	196	1,326
Fuel Use	23	0	53	0	0	76	0	11	87
Nonfuel Use	41	333	269	0	0	643	54	185	1,239
Total	19,652	118,099	90,407	5,132	3,160	236,450	15,879	91,617	508,711
Processing Gain(-) or Loss(+) ^a	-949	-8,033	-4,872	-48	-32	-13,934	-413	-5,018	-25,731

^a Represents the arithmetic difference between input and production.

W = Withheld to avoid disclosure of individual company data.

Note: Refer to Appendix A for Refining District descriptions.

Source: Energy Information Administration (EIA) Form EIA-810, "Monthly Refinery Report."

**Table 30. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts,
October 1996
(Thousand Barrels)**

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Crude Oil	11,858	579	12,437	8,935	1,896	2,225	13,056
Petroleum Products	44,079	1,955	46,034	37,806	5,982	12,235	56,023
Pentanes Plus	0	0	0	4	163	112	279
Liquefied Petroleum Gases	2,290	19	2,309	3,141	612	995	4,748
Ethane/Ethylene	0	0	0	2	0	0	2
Propane/Propylene	651	2	653	1,538	36	437	2,011
Normal Butane/Butylene	1,404	14	1,418	1,264	488	432	2,184
Isobutane/Isobutylene	235	3	238	337	88	126	551
Other Hydrocarbons/Hydrogen/Oxygenates	1,528	11	1,539	413	140	32	585
Other Hydrocarbons/Hydrogen	0	0	0	18	0	0	18
Oxygenates	W	W	1,539	395	140	32	567
Fuel Ethanol	W	W	W	W	W	W	373
Methanol	W	W	W	W	W	W	W
MTBE	W	W	1,092	W	W	W	W
Other Oxygenates ^a	W	W	W	W	W	W	W
Unfinished Oils	9,970	610	10,580	10,330	438	4,371	15,139
Naphthas and Lighter	1,790	164	1,954	2,345	138	1,050	3,533
Kerosene and Light Gas Oils	2,356	7	2,363	1,466	73	217	1,756
Heavy Gas Oils	4,753	360	5,113	3,954	223	1,723	5,900
Residuum	1,071	79	1,150	2,565	4	1,381	3,950
Motor Gasoline Blending Components	6,529	99	6,628	5,920	878	874	7,672
Aviation Gasoline Blending Components	192	0	192	8	0	0	8
Finished Motor Gasoline	7,121	233	7,354	4,869	1,228	1,858	7,955
Reformulated	4,578	0	4,578	367	30	0	397
Oxygenated	0	0	0	210	245	0	455
Other	2,543	233	2,776	4,292	953	1,858	7,103
Finished Aviation Gasoline	659	0	659	21	35	65	121
Jet Fuel	1,144	20	1,164	2,529	244	649	3,422
Naphtha-Type	0	0	0	0	0	0	0
Kerosene-Type	1,144	20	1,164	2,529	244	649	3,422
Kerosene	586	85	671	375	22	138	535
Distillate Fuel Oil	7,350	316	7,666	5,108	1,253	1,867	8,228
0.05 percent sulfur and under	1,511	268	1,779	2,909	645	1,302	4,856
Greater than 0.05 percent sulfur	5,839	48	5,887	2,199	608	565	3,372
Residual Fuel Oil	3,932	45	3,977	1,069	155	132	1,356
Less than 0.31 percent sulfur	1,689	34	1,723	13	0	0	13
0.31 to 1.00 percent sulfur	1,370	11	1,381	333	0	1	334
Greater than 1.00 percent sulfur	873	0	873	723	155	131	1,009
Naphtha for Petrochemical Feedstock Use	355	0	355	370	0	6	376
Other Oils for Petrochemical Feedstock Use	0	0	0	0	0	0	0
Special Naphthas	71	11	82	205	0	40	245
Lubricants	609	156	765	836	0	0	836
Waxes	0	152	152	92	0	24	116
Petroleum Coke (Marketable)	539	0	539	502	0	264	766
Asphalt and Road Oil	1,199	138	1,337	1,944	809	791	3,544
Miscellaneous Products	5	60	65	70	5	17	92
Total Stocks, All Oils	55,937	2,534	58,471	46,741	7,878	14,460	69,079

See footnotes at end of table.

**Table 30. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts,
October 1996 (Continued)**
(Thousand Barrels)

Commodity	PAD District III						PAD Dist.	PAD Dist.	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	IV	V	
							Rocky Mt.	West Coast	
Crude Oil	952	27,253	18,346	917	346	47,814	1,861	20,232	95,400
Petroleum Products	11,238	69,081	47,932	3,954	1,273	133,478	9,792	64,336	309,663
Pentanes Plus	61	148	264	0	14	487	3	0	769
Liquefied Petroleum Gases	2,581	4,665	5,148	87	23	12,504	483	2,065	22,109
Ethane/Ethylene	85	1,018	0	0	0	1,103	0	0	1,105
Propane/Propylene	1,126	1,861	1,012	2	3	4,004	118	155	6,941
Normal Butane/Butylene	949	1,119	3,663	74	6	5,811	247	1,326	10,986
Isobutane/Isobutylene	421	667	473	11	14	1,586	118	584	3,077
Other Hydrocarbons/Hydrogen/Oxygenates	30	1,367	726	13	19	2,155	135	2,990	7,404
Other Hydrocarbons/Hydrogen	0	0	1	0	0	1	0	3	22
Oxygenates	30	1,367	725	W	W	2,154	135	2,987	7,382
Fuel Ethanol	W	W	W	W	W	W	W	W	501
Methanol	W	W	W	W	W	W	W	W	566
MTBE	W	1,240	W	W	W	1,899	W	2,967	6,211
Other Oxygenates ^a	W	W	W	W	W	W	W	W	104
Unfinished Oils	2,591	23,185	15,983	1,043	352	43,154	2,234	20,590	91,697
Naphthas and Lighter	840	6,125	3,141	230	160	10,496	391	3,246	19,620
Kerosene and Light Gas Oils	313	3,344	3,645	123	72	7,497	300	3,983	15,899
Heavy Gas Oils	920	9,529	6,325	661	120	17,555	1,007	10,040	39,615
Residuum	518	4,187	2,872	29	0	7,606	536	3,321	16,563
Motor Gasoline Blending Components	960	6,321	4,982	85	286	12,634	1,503	7,431	35,868
Aviation Gasoline Blending Components	0	0	15	0	0	15	0	10	225
Finished Motor Gasoline	2,018	8,675	5,606	295	147	16,741	2,018	11,633	45,701
Reformulated	107	2,664	517	0	0	3,288	0	6,031	14,294
Oxygenated	0	0	0	0	0	0	56	146	657
Other	1,911	6,011	5,089	295	147	13,453	1,962	5,456	30,750
Finished Aviation Gasoline	47	280	181	0	0	508	18	273	1,579
Jet Fuel	594	3,849	2,447	100	64	7,054	282	4,259	16,181
Naphtha-Type	0	0	0	0	0	0	0	14	14
Kerosene-Type	594	3,849	2,447	100	64	7,054	282	4,245	16,167
Kerosene	20	397	220	27	23	687	48	77	2,018
Distillate Fuel Oil	1,406	8,848	4,879	417	193	15,743	1,280	6,462	39,379
0.05 percent sulfur and under	752	3,794	2,153	247	139	7,085	919	4,617	19,256
Greater than 0.05 percent sulfur	654	5,054	2,726	170	54	8,658	361	1,845	20,123
Residual Fuel Oil	325	3,056	2,900	186	5	6,472	392	4,394	16,591
Less than 0.31 percent sulfur	23	1	55	0	0	79	70	501	2,386
0.31 to 1.00 percent sulfur	123	681	443	133	5	1,385	226	962	4,288
Greater than 1.00 percent sulfur	179	2,374	2,402	53	0	5,008	96	2,931	9,917
Naphtha for Petrochemical Feedstock Use	17	1,263	288	0	12	1,580	0	100	2,411
Other Oils for Petrochemical Feedstock Use	57	1,324	285	0	0	1,666	0	154	1,820
Special Naphthas	73	1,188	54	102	0	1,417	1	72	1,817
Lubricants	24	3,080	1,230	749	0	5,083	0	961	7,645
Waxes	6	238	131	36	0	411	0	145	824
Petroleum Coke (Marketable)	0	710	2,129	0	0	2,839	222	733	5,099
Asphalt and Road Oil	416	345	325	814	135	2,035	1,173	1,855	9,944
Miscellaneous Products	12	142	139	0	0	293	0	132	582
Total Stocks, All Oils	12,190	96,334	66,278	4,871	1,619	181,292	11,653	84,568	405,063

^a Includes ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).

W = Withheld to avoid disclosure of individual company data.

Notes: • Stocks are reported as of the last day of the month. • Refer to Appendix A for Refining District descriptions.

Source: Energy Information Administration (EIA) Form EIA-810, "Monthly Refinery Report."

**Table 31. Percent Refinery Yield of Petroleum Products by PAD and Refining Districts,^a
October 1996**

Commodity	PAD District I			PAD District II			
	East Coast	Appalachian No. 1	Total	Ind., Ill., Ky.	Minn., Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	2.3	0.5	2.2	3.2	1.6	2.5	2.9
Finished Motor Gasoline ^b	41.6	37.9	41.3	48.6	49.3	46.9	48.4
Finished Aviation Gasoline ^c	0.4	0.0	0.4	0.0	0.1	0.1	0.1
Naphtha-Type Jet Fuel	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kerosene-Type Jet Fuel	2.7	1.4	2.6	7.1	6.7	6.7	7.0
Kerosene	1.8	2.2	1.8	0.8	0.8	0.8	0.8
Distillate Fuel Oil	29.5	27.5	29.4	25.6	26.0	31.6	26.7
Residual Fuel Oil	9.1	2.3	8.6	1.6	2.5	0.4	1.5
Naphtha for Petrochemical Feedstock Use	0.6	0.0	0.5	1.0	0.0	0.2	0.7
Other Oils for Petrochemical Feedstock Use	0.0	0.0	0.0	1.0	0.0	0.5	0.8
Special Naphthas	0.1	0.9	0.1	0.5	0.0	0.5	0.4
Lubricants	1.1	7.0	1.5	0.7	0.0	1.3	0.7
Waxes	0.0	4.4	0.3	0.1	0.0	0.2	0.1
Petroleum Coke	3.2	0.8	3.1	3.8	6.9	4.1	4.3
Asphalt and Road Oil	7.5	10.7	7.7	6.8	8.7	3.4	6.4
Still Gas	3.9	3.7	3.9	3.6	3.7	4.1	3.7
Miscellaneous Products	0.1	1.4	0.2	0.3	0.5	0.3	0.3
Processing Gain(-) or Loss(+) ^d	-3.9	-0.7	-3.6	-4.7	-7.0	-3.5	-4.8

Commodity	PAD District III						PAD Dist. IV	PAD Dist. V	U.S. Total
	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	West Coast	
Liquefied Refinery Gases	3.6	6.4	4.2	1.3	2.9	5.2	0.9	3.2	3.9
Finished Motor Gasoline ^b	52.7	42.8	43.0	20.4	53.7	43.3	47.9	42.4	44.2
Finished Aviation Gasoline ^c	0.7	0.1	0.2	0.0	0.0	0.2	0.1	0.3	0.2
Naphtha-Type Jet Fuel	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Kerosene-Type Jet Fuel	9.0	9.9	13.0	5.8	7.3	10.9	4.9	17.4	10.1
Kerosene	0.0	0.7	0.3	1.7	-0.1	0.5	0.6	0.2	0.6
Distillate Fuel Oil	26.2	24.2	25.3	24.5	27.7	24.8	30.7	18.5	24.8
Residual Fuel Oil	1.8	4.4	4.4	4.3	0.8	4.2	3.1	8.5	4.7
Naphtha for Petrochemical Feedstock Use	0.5	4.0	1.0	0.0	0.0	2.4	0.0	0.1	1.4
Other Oils for Petrochemical Feedstock Use	0.7	2.4	2.6	0.0	0.0	2.2	0.1	0.3	1.3
Special Naphthas	0.6	0.5	0.1	2.5	0.0	0.4	0.0	0.1	0.3
Lubricants	0.3	1.8	0.9	13.5	0.0	1.6	0.0	1.1	1.2
Waxes	0.0	0.2	0.1	1.9	0.0	0.2	0.0	0.1	0.2
Petroleum Coke	1.7	4.8	5.2	1.6	0.7	4.6	2.4	5.9	4.5
Asphalt and Road Oil	3.0	0.7	1.0	20.4	4.9	1.5	7.7	2.3	3.5
Still Gas	4.1	4.2	4.1	3.0	3.4	4.1	4.0	6.0	4.3
Miscellaneous Products	0.4	0.3	0.4	0.0	0.0	0.3	0.4	0.2	0.3
Processing Gain(-) or Loss(+) ^d	-5.4	-7.5	-5.9	-1.0	-1.1	-6.5	-2.8	-6.3	-5.7

^a Based on crude oil input and net reruns of unfinished oils.

^b Based on total finished motor gasoline output minus net input of motor gasoline blending components, minus input of natural gas plant liquids, other hydrocarbons and oxygenates.

^c Based on finished aviation gasoline output minus net input of aviation gasoline blending components.

^d Represents the difference between input and production.

Notes: * Totals may not equal sum of components due to independent rounding. * Refer to Appendix A for Refining District descriptions.

Sources: Calculated from data on Tables 28 and 29.

**Table 32. Imports of Residual Fuel Oil by Sulfur Content and by PAD District and State of Entry,
October 1996
(Thousand Barrels)**

PAD District and State of Entry	Residual Fuel Oil			
	Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
PAD District I	1,657	2,116	2,778	6,551
Connecticut	497	0	0	497
Delaware	0	0	185	185
Florida	0	0	547	547
Georgia	0	0	104	104
Maine	39	0	94	133
New Jersey	130	1,727	693	2,550
New York	991	338	11	1,340
North Carolina	0	0	519	519
Pennsylvania	0	0	220	220
South Carolina	0	51	238	289
Virginia	0	0	167	167
PAD District III	0	391	1,131	1,522
Louisiana	0	53	0	53
Mississippi	0	0	1,131	1,131
Texas	0	338	0	338
U.S. Total	1,657	2,507	3,909	8,073

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 33. Imports of Crude Oil and Petroleum Products by PAD District,
October 1996
(Thousand Barrels)**

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil^{a,b}	39,160	43,001	140,079	3,844	12,096	238,180	7,683
Natural Gas Liquids	529	2,147	4,151	355	0	7,182	232
Pentanes Plus	0	0	1,578	87	0	1,665	54
Liquefied Petroleum Gases	529	2,147	2,573	268	0	5,517	178
Ethane	0	0	434	0	0	434	14
Ethylene	0	13	0	0	0	13	(s)
Propane	520	1,601	2,139	112	0	4,372	141
Propylene	0	170	0	0	0	170	5
Normal Butane	7	68	0	125	0	200	6
Butylene	0	0	0	0	0	0	0
Isobutane	2	295	0	31	0	328	11
Isobutylene	0	0	0	0	0	0	0
Other Liquids	8,463	4	9,718	0	1,746	19,931	643
Other Hydrocarbons/Hydrogen/Oxygenates	405	0	339	0	1,488	2,232	72
Other Hydrocarbons/Hydrogen	0	0	147	0	0	147	5
Oxygenates	405	0	192	0	1,488	2,085	67
Fuel Ethanol	0	0	0	0	0	0	0
MTBE	405	0	27	0	1,488	1,920	62
Other Oxygenates ^c	0	0	165	0	0	165	5
Unfinished Oils ^a	1,163	4	9,379	0	230	10,776	348
Naphthas and Lighter	0	4	1,066	0	0	1,070	35
Kerosene and Light Gas Oils	0	0	288	0	0	288	9
Heavy Gas Oils	1,163	0	4,782	0	0	5,945	192
Residuum	0	0	3,243	0	230	3,473	112
Motor Gasoline Blending Components	6,895	0	0	0	28	6,923	223
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	27,016	540	8,654	429	226	36,865	1,189
Finished Motor Gasoline	7,931	127	0	40	13	8,111	262
Reformulated	4,362	0	0	0	0	4,362	141
Oxygenated	0	0	0	0	0	0	0
Other	3,569	127	0	40	13	3,749	121
Finished Aviation Gasoline	1	0	0	0	0	1	(s)
Jet Fuel	3,764	0	0	0	134	3,898	126
Naphtha-Type	0	0	0	0	0	0	0
Kerosene-Type	3,764	0	0	0	134	3,898	126
Bonded Aircraft Fuel	1,606	0	0	0	2	1,608	52
Other	2,158	0	0	0	132	2,290	74
Kerosene	43	0	0	0	5	48	2
Distillate Fuel Oil	6,865	312	0	379	69	7,625	246
Bonded Ship Bunkers	0	0	0	0	61	61	2
0.05 percent sulfur and under	0	0	0	0	0	0	0
Greater than 0.05 percent sulfur	0	0	0	0	61	61	2
Other	6,865	312	0	379	8	7,564	244
0.05 percent sulfur and under	3,533	217	0	90	2	3,842	124
Greater than 0.05 percent sulfur	3,332	95	0	289	6	3,722	120
Residual Fuel Oil	6,551	0	1,522	0	0	8,073	260
Bonded Ship Bunkers	0	0	0	0	0	0	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	0
Greater than 1.00 percent sulfur	0	0	0	0	0	0	0
Other	6,551	0	1,522	0	0	8,073	260
Less than 0.31 percent sulfur	1,657	0	0	0	0	1,657	53
0.31 to 1.00 percent sulfur	2,116	0	391	0	0	2,507	81
Greater than 1.00 percent sulfur	2,778	0	1,131	0	0	3,909	126
Naphtha for Petrochemical Feedstock Use	180	27	2,295	0	0	2,502	81
Other Oils for Petrochemical Feedstock Use	0	0	4,700	0	0	4,700	152
Special Naphthas	193	14	100	0	4	311	10
Lubricants	272	23	0	0	0	295	10
Waxes	22	14	2	0	0	38	1
Petroleum Coke	0	0	0	0	0	0	0
Asphalt and Road Oil	1,191	19	35	10	0	1,255	40
Miscellaneous Products	3	4	0	0	1	8	(s)
Total	75,168	45,692	162,602	4,628	14,068	302,158	9,747

^a 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 entry.

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

^c Includes ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).

(s) = Less than 500 barrels per day.

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

Sources: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 34. Year-to-Date Imports of Crude Oil and Petroleum Products by PAD District,
January-October 1996
(Thousand Barrels)**

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil^{a,b}	385,864	429,351	1,327,485	38,508	109,897	2,291,105	7,512
Natural Gas Liquids	8,473	18,121	34,362	3,243	495	64,694	212
Pentanes Plus	143	171	13,293	732	0	14,339	47
Liquefied Petroleum Gases	8,330	17,950	21,069	2,511	495	50,355	165
Ethane	0	2	4,430	0	0	4,432	15
Ethylene	0	108	0	0	0	108	(s)
Propane	7,999	13,571	10,322	1,333	39	33,264	109
Propylene	0	2,126	0	0	0	2,126	7
Normal Butane	280	1,293	3,562	877	0	6,012	20
Butylene	0	0	67	0	0	67	(s)
Isobutane	51	850	2,688	301	456	4,346	14
Isobutylene	0	0	0	0	0	0	0
Other Liquids	52,131	203	84,706	0	19,822	156,862	514
Other Hydrocarbons/Hydrogen/Oxygenates	2,714	38	850	0	11,526	15,128	50
Other Hydrocarbons/Hydrogen	0	38	147	0	0	185	1
Oxygenates	2,714	0	703	0	11,526	14,943	49
Fuel Ethanol	0	0	75	0	191	266	1
MTBE	2,677	0	27	0	11,335	14,039	46
Other Oxygenates ^c	37	0	601	0	0	638	2
Unfinished Oils ^a	19,302	43	83,809	0	7,390	110,544	362
Naphthas and Lighter	1,011	43	13,685	0	583	15,322	50
Kerosene and Light Gas Oils	0	0	288	0	863	1,151	4
Heavy Gas Oils	11,725	0	38,704	0	1,299	51,728	170
Residuum	6,566	0	31,132	0	4,645	42,343	139
Motor Gasoline Blending Components	30,115	122	47	0	906	31,190	102
Aviation Gasoline Blending Components	0	0	0	0	0	0	0
Finished Petroleum Products	276,935	3,821	67,321	2,713	10,647	361,437	1,185
Finished Motor Gasoline	104,244	925	1,722	347	4,173	111,411	365
Reformulated	53,238	0	827	0	3,005	57,070	187
Oxygenated	0	0	0	0	0	0	0
Other	51,006	925	895	347	1,168	54,341	178
Finished Aviation Gasoline	9	28	0	0	10	47	(s)
Jet Fuel	29,557	0	1,644	0	2,685	33,886	111
Naphtha-Type	318	0	496	0	555	1,369	4
Kerosene-Type	29,239	0	1,148	0	2,130	32,517	107
Bonded Aircraft Fuel	16,493	0	956	0	17	17,466	57
Other	12,746	0	192	0	2,113	15,051	49
Kerosene	353	0	0	0	12	365	1
Distillate Fuel Oil	62,525	1,646	41	2,287	1,975	68,474	225
Bonded Ship Bunkers	0	0	0	5	418	423	1
0.05 percent sulfur and under	0	0	0	5	0	5	(s)
Greater than 0.05 percent sulfur	0	0	0	0	418	418	1
Other	62,525	1,646	41	2,282	1,557	68,051	223
0.05 percent sulfur and under	29,163	1,144	0	617	1,456	32,380	106
Greater than 0.05 percent sulfur	33,362	502	41	1,665	101	35,671	117
Residual Fuel Oil	65,094	62	6,549	0	1,386	73,091	240
Bonded Ship Bunkers	0	0	0	0	0	0	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	0
Greater than 1.00 percent sulfur	0	0	0	0	0	0	0
Other	65,094	62	6,549	0	1,386	73,091	240
Less than 0.31 percent sulfur	13,013	62	1,744	0	699	15,518	51
0.31 to 1.00 percent sulfur	13,660	0	1,488	0	470	15,618	51
Greater than 1.00 percent sulfur	38,421	0	3,317	0	217	41,955	138
Naphtha for Petrochemical Feedstock Use	2,949	333	12,729	0	111	16,122	53
Other Oils for Petrochemical Feedstock Use	0	0	42,975	0	40	43,015	141
Special Naphthas	1,630	197	1,076	0	26	2,929	10
Lubricants	2,997	222	101	0	0	3,320	11
Waxes	228	146	14	0	17	405	1
Petroleum Coke	0	0	143	0	164	307	1
Asphalt and Road Oil	7,330	228	302	79	39	7,978	26
Miscellaneous Products	19	34	25	0	9	87	(s)
Total	723,403	451,496	1,513,874	44,464	140,861	2,874,098	9,423

^a 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 entry.

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

^c Includes ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).

(s) = Less than 500 barrels per day.

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

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

Table 35. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,^a
October 1996
(Thousand Barrels)

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
Arab OPEC	46,064	951	2,492	0	250	0	0	1,131	0	0
Algeria	0	572	1,102	0	0	0	0	0	0	0
Kuwait	8,073	0	0	0	0	0	0	0	0	0
Saudi Arabia	37,465	379	1,390	0	250	0	0	1,131	0	0
United Arab Emirates	526	0	0	0	0	0	0	0	0	0
Other OPEC	62,575	1,079	1,632	936	1,206	1,194	1,958	3,051	0	0
Indonesia	2,554	0	0	0	0	0	0	1,317	0	0
Nigeria	15,132	0	160	0	0	0	0	857	0	0
Venezuela	44,889	1,079	1,472	936	1,206	1,194	1,958	877	0	0
Non OPEC	129,541	3,487	6,652	5,987	6,655	2,704	5,667	3,891	48	311
Angola	15,050	0	0	0	0	0	0	512	0	0
Argentina	2,092	0	304	249	0	0	0	262	0	0
Australia	2,017	0	0	0	0	0	0	0	0	0
Belgium	0	0	847	0	0	0	0	0	0	0
Benin	198	0	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0	0	0	0
Cameroon	0	0	0	0	0	0	0	261	0	0
Canada	32,842	3,226	279	432	2,048	207	2,443	572	48	311
China, People's Republic of	1,118	0	0	0	0	0	0	0	0	0
Colombia	7,804	0	0	0	0	103	0	309	0	0
Ecuador ^d	1,868	0	0	0	0	0	0	190	0	0
Egypt	1,389	0	0	0	0	0	0	0	0	0
France	0	0	0	887	18	0	0	0	0	0
Gabon ^e	6,476	0	0	0	0	0	0	0	0	0
Germany, FR	0	0	0	0	31	0	0	237	0	0
Greece	0	0	0	0	0	0	0	0	0	0
Guatemala	440	0	0	0	0	0	0	0	0	0
India	0	0	0	0	0	0	0	0	0	0
Italy	0	0	0	0	120	0	0	0	0	0
Ivory Coast	0	0	74	0	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	28	0	0	0	0	0	0
Malaysia	0	0	645	0	0	0	0	0	0	0
Mexico	36,860	0	288	169	0	0	0	0	0	0
Netherlands	0	0	0	707	38	0	0	0	0	0
Netherlands Antilles	0	0	1,445	118	24	815	0	0	0	0
New Zealand	0	0	0	0	0	0	0	0	0	0
Norway	11,137	261	392	0	279	0	0	0	0	0
Oman	1,379	0	285	0	0	0	0	0	0	0
Peru	317	0	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0
Russia	1,008	0	0	241	64	0	0	0	0	0
Singapore	0	0	0	0	0	132	0	0	0	0
Spain	0	0	280	279	317	0	0	0	0	0
Trinidad and Tobago	1,709	0	199	0	0	0	0	104	0	0
Tunisia	0	0	451	0	0	0	0	0	0	0
United Kingdom	4,207	0	0	2,303	269	0	31	272	0	0
Virgin Islands	0	0	1,163	284	3,012	1,447	3,193	974	0	0
Zaire	347	0	0	0	0	0	0	0	0	0
Other	1,283	0	0	290	435	0	0	198	0	0
Total	238,180	5,517	10,776	6,923	8,111	3,898	7,625	8,073	48	311
Persian Gulf^f	46,064	379	1,390	0	250	0	0	1,131	0	0

See footnotes at end of table.

**Table 35. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,^a
October 1996 (Continued)
(Thousand Barrels)**

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
Arab OPEC	479	3,232	0	0	2,556	11,091	57,155	1,486	358	1,844
Algeria	0	3,232	0	0	1,578	6,484	6,484	0	209	209
Kuwait	0	0	0	0	0	0	8,073	260	0	260
Saudi Arabia	479	0	0	0	978	4,607	42,072	1,209	149	1,357
United Arab Emirates	0	0	0	0	0	0	526	17	0	17
Other OPEC	0	0	0	779	447	12,282	74,857	2,019	396	2,415
Indonesia	0	0	0	0	0	1,317	3,871	82	42	125
Nigeria	0	0	0	0	0	1,017	16,149	488	33	521
Venezuela	0	0	0	779	447	9,948	54,837	1,448	321	1,769
Non OPEC	2,023	1,468	295	476	941	40,605	170,146	4,179	1,310	5,489
Angola	0	0	0	0	0	512	15,562	485	17	502
Argentina	203	0	0	0	0	1,018	3,110	67	33	100
Australia	0	440	0	0	0	440	2,457	65	14	79
Belgium	22	0	0	0	0	869	869	0	28	28
Benin	0	0	0	0	0	0	198	6	0	6
Brazil	0	0	0	0	27	27	27	0	1	1
Cameroon	0	0	0	0	0	261	261	0	8	8
Canada	83	0	88	303	525	10,565	43,407	1,059	341	1,400
China, People's Republic of	0	0	0	0	0	0	1,118	36	0	36
Colombia	0	0	0	0	0	412	8,216	252	13	265
Ecuador ^d	0	0	0	0	0	190	2,058	60	6	66
Egypt	505	0	0	0	0	505	1,894	45	16	61
France	9	0	0	0	165	1,079	1,079	0	35	35
Gabon ^e	0	0	0	0	0	0	6,476	209	0	209
Germany, FR	0	0	0	0	6	274	274	0	9	9
Greece	0	0	0	0	147	147	147	0	5	5
Guatemala	0	0	0	0	0	0	440	14	0	14
India	310	222	0	0	0	532	532	0	17	17
Italy	0	0	0	0	0	120	120	0	4	4
Ivory Coast	0	0	0	0	0	74	74	0	2	2
Japan	4	0	0	0	2	6	6	0	(s)	(s)
Korea, Republic of	0	0	0	0	64	92	92	0	3	3
Malaysia	0	312	0	0	0	957	957	0	31	31
Mexico	283	0	0	0	0	740	37,600	1,189	24	1,213
Netherlands	0	0	0	0	0	745	745	0	24	24
Netherlands Antilles	352	238	0	0	0	2,992	2,992	0	97	97
New Zealand	0	256	0	0	0	256	256	0	8	8
Norway	0	0	0	0	0	932	12,069	359	30	389
Oman	0	0	0	0	0	285	1,664	44	9	54
Peru	0	0	0	0	0	0	317	10	0	10
Portugal	21	0	0	0	0	21	21	0	1	1
Puerto Rico	231	0	207	0	0	438	438	0	14	14
Russia	0	0	0	0	0	305	1,313	33	10	42
Singapore	0	0	0	0	0	132	132	0	4	4
Spain	0	0	0	173	0	1,049	1,049	0	34	34
Trinidad and Tobago	0	0	0	0	0	303	2,012	55	10	65
Tunisia	0	0	0	0	0	451	451	0	15	15
United Kingdom	0	0	0	0	0	2,875	7,082	136	93	228
Virgin Islands	0	0	0	0	0	10,073	10,073	0	325	325
Zaire	0	0	0	0	0	0	347	11	0	11
Other	0	0	0	0	5	928	2,211	41	30	71
Total	2,502	4,700	295	1,255	3,944	63,978	302,158	7,683	2,064	9,747
Persian Gulf^f	479	0	0	0	978	4,607	50,671	1,486	149	1,635

^a 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 entry.

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

^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.

^d On December 31, 1992, Ecuador withdrew as a member of OPEC. As of January 1, 1994, imports of petroleum from Ecuador appear under imports from Non-OPEC Sources.

^e On December 31, 1994, Gabon withdrew as a member of OPEC. As of January 1, 1995, imports of petroleum from Gabon appear under imports from Non-OPEC Sources.

^f Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 36. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1996
(Thousand Barrels)**

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
Arab OPEC	4,204	0	0	0	250	0	0	0	0	0
Saudi Arabia	4,204	0	0	0	250	0	0	0	0	0
Other OPEC	13,574	0	0	936	1,206	1,194	1,958	2,660	0	0
Indonesia	1,120	0	0	0	0	0	0	1,317	0	0
Nigeria	3,980	0	0	0	0	0	0	466	0	0
Venezuela	8,474	0	0	936	1,206	1,194	1,958	877	0	0
Non OPEC	21,382	529	1,163	5,959	6,475	2,570	4,907	3,891	43	193
Angola	7,375	0	0	0	0	0	0	512	0	0
Argentina	0	0	0	249	0	0	0	262	0	0
Cameroon	0	0	0	0	0	0	0	261	0	0
Canada	1,921	268	0	432	1,868	205	1,683	572	43	193
China, People's Republic of	458	0	0	0	0	0	0	0	0	0
Colombia	837	0	0	0	0	103	0	309	0	0
Ecuador ^d	0	0	0	0	0	0	0	190	0	0
Egypt	1,389	0	0	0	0	0	0	0	0	0
France	0	0	0	887	18	0	0	0	0	0
Gabon ^e	2,313	0	0	0	0	0	0	0	0	0
Germany, FR	0	0	0	0	31	0	0	237	0	0
Italy	0	0	0	0	120	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0
Mexico	377	0	0	169	0	0	0	0	0	0
Netherlands	0	0	0	707	38	0	0	0	0	0
Netherlands Antilles	0	0	0	118	24	815	0	0	0	0
Norway	4,795	261	0	0	279	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0
Russia	0	0	0	241	64	0	0	0	0	0
Spain	0	0	0	279	317	0	0	0	0	0
Trinidad and Tobago	0	0	0	0	0	0	0	104	0	0
United Kingdom	1,570	0	0	2,303	269	0	31	272	0	0
Virgin Islands	0	0	1,163	284	3,012	1,447	3,193	974	0	0
Zaire	347	0	0	0	0	0	0	0	0	0
Other	0	0	0	290	435	0	0	198	0	0
Total	39,160	529	1,163	6,895	7,931	3,764	6,865	6,551	43	193
Persian Gulf^f	4,204	0	0	0	250	0	0	0	0	0

See footnotes at end of table.

**Table 36. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1996 (Continued)
(Thousand Barrels)**

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
Arab OPEC	0	0	0	0	188	438	4,642	136	14	150
Saudi Arabia	0	0	0	0	188	438	4,642	136	14	150
Other OPEC	0	0	0	744	217	8,915	22,489	438	288	725
Indonesia	0	0	0	0	0	1,317	2,437	36	42	79
Nigeria	0	0	0	0	0	466	4,446	128	15	143
Venezuela	0	0	0	744	217	7,132	15,606	273	230	503
Non OPEC	180	0	272	447	26	26,655	48,037	690	860	1,550
Angola	0	0	0	0	0	512	7,887	238	17	254
Argentina	0	0	0	0	0	511	511	0	16	16
Cameroon	0	0	0	0	0	261	261	0	8	8
Canada	6	0	65	274	15	5,624	7,545	62	181	243
China, People's Republic of	0	0	0	0	0	0	458	15	0	15
Colombia	0	0	0	0	0	412	1,249	27	13	40
Ecuador ^d	0	0	0	0	0	190	190	0	6	6
Egypt	0	0	0	0	0	0	1,389	45	0	45
France	9	0	0	0	0	914	914	0	29	29
Gabon ^e	0	0	0	0	0	0	2,313	75	0	75
Germany, FR	0	0	0	0	6	274	274	0	9	9
Italy	0	0	0	0	0	120	120	0	4	4
Japan	0	0	0	0	2	2	2	0	(s)	(s)
Mexico	0	0	0	0	0	169	546	12	5	18
Netherlands	0	0	0	0	0	745	745	0	24	24
Netherlands Antilles	0	0	0	0	0	957	957	0	31	31
Norway	0	0	0	0	0	540	5,335	155	17	172
Puerto Rico	165	0	207	0	0	372	372	0	12	12
Russia	0	0	0	0	0	305	305	0	10	10
Spain	0	0	0	173	0	769	769	0	25	25
Trinidad and Tobago	0	0	0	0	0	104	104	0	3	3
United Kingdom	0	0	0	0	0	2,875	4,445	51	93	143
Virgin Islands	0	0	0	0	0	10,073	10,073	0	325	325
Zaire	0	0	0	0	0	0	347	11	0	11
Other	0	0	0	0	3	926	926	0	30	30
Total	180	0	272	1,191	431	36,008	75,168	1,263	1,162	2,425
Persian Gulf^f	0	0	0	0	188	438	4,642	136	14	150

^a 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 entry.

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

^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.

^d On December 31, 1992, Ecuador withdrew as a member of OPEC. As of January 1, 1994, imports of petroleum from Ecuador appear under imports from Non-OPEC Sources.

^e On December 31, 1994, Gabon withdrew as a member of OPEC. As of January 1, 1995, imports of petroleum from Gabon appear under imports from Non-OPEC Sources.

^f Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 37. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1996
(Thousand Barrels)**

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
Arab OPEC	3,707	0	0	0	0	0	0	0	0	0
Kuwait	1,403	0	0	0	0	0	0	0	0	0
Saudi Arabia	2,304	0	0	0	0	0	0	0	0	0
Other OPEC	7,499	0	0	0	0	0	0	0	0	0
Nigeria	1,181	0	0	0	0	0	0	0	0	0
Venezuela	6,318	0	0	0	0	0	0	0	0	0
Non OPEC	31,795	2,147	4	0	127	0	312	0	0	14
Angola	1,889	0	0	0	0	0	0	0	0	0
Canada	24,427	2,147	4	0	127	0	312	0	0	14
Colombia	2,126	0	0	0	0	0	0	0	0	0
Ecuador ^d	375	0	0	0	0	0	0	0	0	0
Mexico	1,873	0	0	0	0	0	0	0	0	0
Norway	1,105	0	0	0	0	0	0	0	0	0
Total	43,001	2,147	4	0	127	0	312	0	0	14
Persian Gulf^f	3,707	0	0	0	0	0	0	0	0	0

See footnotes at end of table.

**Table 37. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1996 (Continued)
(Thousand Barrels)**

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
Arab OPEC	0	0	0	0	0	0	3,707	120	0	120
Kuwait	0	0	0	0	0	0	1,403	45	0	45
Saudi Arabia	0	0	0	0	0	0	2,304	74	0	74
Other OPEC	0	0	0	0	0	0	7,499	242	0	242
Nigeria	0	0	0	0	0	0	1,181	38	0	38
Venezuela	0	0	0	0	0	0	6,318	204	0	204
Non OPEC	27	0	23	19	18	2,691	34,486	1,026	87	1,112
Angola	0	0	0	0	0	0	1,889	61	0	61
Canada	27	0	23	19	18	2,691	27,118	788	87	875
Colombia	0	0	0	0	0	0	2,126	69	0	69
Ecuador ^d	0	0	0	0	0	0	375	12	0	12
Mexico	0	0	0	0	0	0	1,873	60	0	60
Norway	0	0	0	0	0	0	1,105	36	0	36
Total	27	0	23	19	18	2,691	45,692	1,387	87	1,474
Persian Gulf^f	0	0	0	0	0	0	3,707	120	0	120

^a 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 entry.

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

^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.

^d On December 31, 1992, Ecuador withdrew as a member of OPEC. As of January 1, 1994, imports of petroleum from Ecuador appear under imports from Non-OPEC Sources.

^e On December 31, 1994, Gabon withdrew as a member of OPEC. As of January 1, 1995, imports of petroleum from Gabon appear under imports from Non-OPEC Sources.

^f Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 38. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1996
(Thousand Barrels)**

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
Arab OPEC	35,962	951	2,492	0	0	0	0	1,131	0	0
Algeria	0	572	1,102	0	0	0	0	0	0	0
Kuwait	5,005	0	0	0	0	0	0	0	0	0
Saudi Arabia	30,957	379	1,390	0	0	0	0	1,131	0	0
Other OPEC	40,279	1,079	1,632	0	0	0	0	391	0	0
Indonesia	443	0	0	0	0	0	0	0	0	0
Nigeria	9,971	0	160	0	0	0	0	391	0	0
Venezuela	29,865	1,079	1,472	0	0	0	0	0	0	0
Non OPEC	63,838	543	5,255	0	0	0	0	0	0	100
Angola	5,786	0	0	0	0	0	0	0	0	0
Argentina	2,092	0	304	0	0	0	0	0	0	0
Australia	0	0	0	0	0	0	0	0	0	0
Belgium	0	0	847	0	0	0	0	0	0	0
Benin	198	0	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0	0	0	0
Canada	0	543	275	0	0	0	0	0	0	100
Colombia	4,841	0	0	0	0	0	0	0	0	0
Ecuador ^d	1,117	0	0	0	0	0	0	0	0	0
Egypt	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0	0	0	0
Gabon ^e	4,163	0	0	0	0	0	0	0	0	0
Greece	0	0	0	0	0	0	0	0	0	0
Guatemala	440	0	0	0	0	0	0	0	0	0
India	0	0	0	0	0	0	0	0	0	0
Ivory Coast	0	0	74	0	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0
Malaysia	0	0	415	0	0	0	0	0	0	0
Mexico	34,610	0	288	0	0	0	0	0	0	0
Netherlands Antilles	0	0	1,445	0	0	0	0	0	0	0
New Zealand	0	0	0	0	0	0	0	0	0	0
Norway	5,237	0	392	0	0	0	0	0	0	0
Oman	0	0	285	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0
Russia	1,008	0	0	0	0	0	0	0	0	0
Spain	0	0	280	0	0	0	0	0	0	0
Trinidad and Tobago	1,709	0	199	0	0	0	0	0	0	0
Tunisia	0	0	451	0	0	0	0	0	0	0
United Kingdom	2,637	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Total	140,079	2,573	9,379	0	0	0	0	1,522	0	100
Persian Gulf^f	35,962	379	1,390	0	0	0	0	1,131	0	0

See footnotes at end of table.

**Table 38. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1996 (Continued)
(Thousand Barrels)**

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
Arab OPEC	479	3,232	0	0	1,578	9,863	45,825	1,160	318	1,478
Algeria	0	3,232	0	0	1,578	6,484	6,484	0	209	209
Kuwait	0	0	0	0	0	0	5,005	161	0	161
Saudi Arabia	479	0	0	0	0	3,379	34,336	999	109	1,108
Other OPEC	0	0	0	35	0	3,137	43,416	1,299	101	1,401
Indonesia	0	0	0	0	0	0	443	14	0	14
Nigeria	0	0	0	0	0	551	10,522	322	18	339
Venezuela	0	0	0	35	0	2,586	32,451	963	83	1,047
Non OPEC	1,816	1,468	0	0	341	9,523	73,361	2,059	307	2,366
Angola	0	0	0	0	0	0	5,786	187	0	187
Argentina	203	0	0	0	0	507	2,599	67	16	84
Australia	0	440	0	0	0	440	440	0	14	14
Belgium	22	0	0	0	0	869	869	0	28	28
Benin	0	0	0	0	0	0	198	6	0	6
Brazil	0	0	0	0	27	27	27	0	1	1
Canada	50	0	0	0	0	968	968	0	31	31
Colombia	0	0	0	0	0	0	4,841	156	0	156
Ecuador ^d	0	0	0	0	0	0	1,117	36	0	36
Egypt	505	0	0	0	0	505	505	0	16	16
France	0	0	0	0	165	165	165	0	5	5
Gabon ^e	0	0	0	0	0	0	4,163	134	0	134
Greece	0	0	0	0	147	147	147	0	5	5
Guatemala	0	0	0	0	0	0	440	14	0	14
India	310	222	0	0	0	532	532	0	17	17
Ivory Coast	0	0	0	0	0	74	74	0	2	2
Japan	4	0	0	0	0	4	4	0	(s)	(s)
Malaysia	0	312	0	0	0	727	727	0	23	23
Mexico	283	0	0	0	0	571	35,181	1,116	18	1,135
Netherlands Antilles	352	238	0	0	0	2,035	2,035	0	66	66
New Zealand	0	256	0	0	0	256	256	0	8	8
Norway	0	0	0	0	0	392	5,629	169	13	182
Oman	0	0	0	0	0	285	285	0	9	9
Portugal	21	0	0	0	0	21	21	0	1	1
Puerto Rico	66	0	0	0	0	66	66	0	2	2
Russia	0	0	0	0	0	0	1,008	33	0	33
Spain	0	0	0	0	0	280	280	0	9	9
Trinidad and Tobago	0	0	0	0	0	199	1,908	55	6	62
Tunisia	0	0	0	0	0	451	451	0	15	15
United Kingdom	0	0	0	0	0	0	2,637	85	0	85
Other	0	0	0	0	2	2	2	0	(s)	(s)
Total	2,295	4,700	0	35	1,919	22,523	162,602	4,519	727	5,245
Persian Gulf^f	479	0	0	0	0	3,379	39,341	1,160	109	1,269

^a 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 entry.

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

^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.

^d On December 31, 1992, Ecuador withdrew as a member of OPEC. As of January 1, 1994, imports of petroleum from Ecuador appear under imports from Non-OPEC Sources.

^e On December 31, 1994, Gabon withdrew as a member of OPEC. As of January 1, 1995, imports of petroleum from Gabon appear under imports from Non-OPEC Sources.

^f Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 39. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1996
(Thousand Barrels)**

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
PAD District IV										
Non OPEC	3,844	268	0	0	40	0	379	0	0	0
Canada	3,844	268	0	0	40	0	379	0	0	0
Total	3,844	268	0	0	40	0	379	0	0	0
PAD District V										
Arab OPEC	2,191	0	0	0	0	0	0	0	0	0
Kuwait	1,665	0	0	0	0	0	0	0	0	0
Saudi Arabia	0	0	0	0	0	0	0	0	0	0
United Arab Emirates	526	0	0	0	0	0	0	0	0	0
Other OPEC	1,223	0	0	0	0	0	0	0	0	0
Indonesia	991	0	0	0	0	0	0	0	0	0
Venezuela	232	0	0	0	0	0	0	0	0	0
Non OPEC	8,682	0	230	28	13	134	69	0	5	4
Australia	2,017	0	0	0	0	0	0	0	0	0
Canada	2,650	0	0	0	13	2	69	0	5	4
China, People's Republic of	660	0	0	0	0	0	0	0	0	0
Ecuador ^d	376	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	28	0	0	0	0	0	0
Malaysia	0	0	230	0	0	0	0	0	0	0
Oman	1,379	0	0	0	0	0	0	0	0	0
Peru	317	0	0	0	0	0	0	0	0	0
Singapore	0	0	0	0	0	132	0	0	0	0
Other	1,283	0	0	0	0	0	0	0	0	0
Total	12,096	0	230	28	13	134	69	0	5	4
Persian Gulf ^f	2,191	0	0	0	0	0	0	0	0	0

See footnotes at end of table.

**Table 39. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,^a
October 1996 (Continued)
(Thousand Barrels)**

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use					Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
PAD District IV										
Non OPEC	0	0	0	10	87	784	4,628	124	25	149
Canada	0	0	0	10	87	784	4,628	124	25	149
Total	0	0	0	10	87	784	4,628	124	25	149
PAD District V										
Arab OPEC	0	0	0	0	790	790	2,981	71	25	96
Kuwait	0	0	0	0	0	0	1,665	54	0	54
Saudi Arabia	0	0	0	0	790	790	790	0	25	25
United Arab Emirates	0	0	0	0	0	0	526	17	0	17
Other OPEC	0	0	0	0	230	230	1,453	39	7	47
Indonesia	0	0	0	0	0	0	991	32	0	32
Venezuela	0	0	0	0	230	230	462	7	7	15
Non OPEC	0	0	0	0	469	952	9,634	280	31	311
Australia	0	0	0	0	0	0	2,017	65	0	65
Canada	0	0	0	0	405	498	3,148	85	16	102
China, People's Republic of	0	0	0	0	0	0	660	21	0	21
Ecuador ^d	0	0	0	0	0	0	376	12	0	12
Korea, Republic of	0	0	0	0	64	92	92	0	3	3
Malaysia	0	0	0	0	0	230	230	0	7	7
Oman	0	0	0	0	0	0	1,379	44	0	44
Peru	0	0	0	0	0	0	317	10	0	10
Singapore	0	0	0	0	0	132	132	0	4	4
Other	0	0	0	0	0	0	1,283	41	0	41
Total	0	0	0	0	1,489	1,972	14,068	390	64	454
Persian Gulf ^f	0	0	0	0	790	790	2,981	71	25	96

^a 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 entry.

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

^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.

^d On December 31, 1992, Ecuador withdrew as a member of OPEC. As of January 1, 1994, imports of petroleum from Ecuador appear under imports from Non-OPEC Sources.

^e On December 31, 1994, Gabon withdrew as a member of OPEC. As of January 1, 1995, imports of petroleum from Gabon appear under imports from Non-OPEC Sources.

^f Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

Table 40. Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,^a January-October 1996
(Thousand Barrels)

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
Arab OPEC	457,590	12,419	25,701	635	6,313	259	433	8,803	0	0
Algeria	2,885	10,431	10,504	542	467	158	433	6,546	0	0
Kuwait	71,163	0	0	0	0	101	0	0	0	0
Saudi Arabia	382,562	1,988	15,197	93	5,846	0	0	2,257	0	0
United Arab Emirates	980	0	0	0	0	0	0	0	0	0
Other OPEC	605,237	3,010	26,794	4,781	14,403	16,151	15,507	26,284	0	0
Indonesia	14,794	0	1,184	0	0	103	0	1,995	0	0
Nigeria	193,803	0	2,418	0	0	0	0	4,342	0	0
Venezuela	396,640	3,010	23,192	4,781	14,403	16,048	15,507	19,947	0	0
Non OPEC	1,228,278	34,926	58,049	25,774	90,695	17,476	52,534	38,004	365	2,929
Angola	102,691	0	749	0	0	0	330	1,256	0	0
Argentina	14,553	0	1,364	756	86	0	30	349	0	0
Australia	7,586	0	0	0	0	0	0	0	0	0
Bahama Islands	0	0	0	0	0	0	0	335	0	0
Belgium	0	0	3,729	564	1,191	0	0	0	0	0
Benin	634	0	0	0	0	0	0	0	0	0
Brazil	0	0	230	1,062	1,212	0	0	153	0	99
Cameroon	748	0	252	0	0	0	0	669	0	0
Canada	318,118	29,373	1,504	1,776	25,573	700	26,698	6,291	365	2,664
China, People's Republic of	15,494	0	0	0	0	0	0	0	0	0
Colombia	68,019	0	198	0	97	328	0	1,532	0	0
Congo	8,471	0	0	0	0	0	0	0	0	0
Ecuador ^d	28,409	0	1,148	0	0	0	0	1,084	0	0
Egypt	10,242	0	1,055	266	0	0	0	265	0	0
France	0	0	517	2,654	754	0	0	0	0	0
Gabon ^e	53,067	0	0	0	0	0	0	0	0	0
Germany, FR	0	0	3,196	0	31	0	459	579	0	0
Greece	0	0	612	0	0	0	0	0	0	0
Guatemala	3,979	0	0	0	0	0	0	0	0	0
India	0	0	526	0	0	0	0	0	0	0
Italy	0	0	313	551	537	0	0	476	0	31
Ivory Coast	0	0	837	0	0	0	0	756	0	0
Japan	0	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	2,472	65	0	101	0	0	0	0
Malaysia	2,064	0	1,489	0	0	0	0	0	0	0
Mexico	368,013	2,776	1,246	1,505	0	1,079	41	0	0	85
Netherlands	0	0	701	1,350	2,533	0	0	0	0	0
Netherlands Antilles	0	0	8,538	311	372	3,246	375	1,123	0	50
New Zealand	0	0	0	0	0	0	0	0	0	0
Norway	95,494	2,409	1,048	256	1,066	0	222	0	0	0
Oman	11,711	0	285	0	0	0	0	0	0	0
Panama	0	0	223	0	0	0	0	0	0	0
Peru	8,085	0	0	0	0	0	0	1,917	0	0
Portugal	0	0	983	82	2,557	0	0	0	0	0
Puerto Rico	0	0	0	0	456	0	0	0	0	0
Romania	0	0	0	432	0	0	0	0	0	0
Russia	6,517	0	394	797	129	0	0	291	0	0
Singapore	0	0	1,717	0	445	134	0	0	0	0
Spain	311	0	3,975	1,548	2,563	0	0	319	0	0
Sweden	0	0	934	0	15	0	0	0	0	0
Thailand	566	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	17,346	0	1,576	0	0	110	131	2,764	0	0
Tunisia	0	0	451	0	0	0	0	0	0	0
Turkey	0	0	344	0	651	0	0	0	0	0
United Kingdom	68,956	368	3,193	7,657	14,267	0	31	992	0	0
Virgin Islands	0	0	11,584	2,097	32,545	11,749	24,036	15,682	0	0
Yemen	0	0	200	0	0	0	0	303	0	0
Zaire	4,749	0	0	0	0	0	0	0	0	0
Other	12,455	0	466	2,045	3,615	29	181	868	0	0
Total	2,291,105	50,355	110,544	31,190	111,411	33,886	68,474	73,091	365	2,929
Persian Gulf^f	454,705	1,988	15,197	93	5,846	101	0	2,257	0	0

See footnotes at end of table.

Table 40. Year-to-Date Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,^a January-October 1996 (Continued)
(Thousand Barrels)

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
Arab OPEC	2,411	36,230	0	0	18,552	111,756	569,346	1,500	366	1,867
Algeria	676	36,230	0	0	11,643	77,630	80,515	9	255	264
Kuwait	0	0	0	0	143	244	71,407	233	1	234
Saudi Arabia	1,735	0	0	0	6,766	33,882	416,444	1,254	111	1,365
United Arab Emirates	0	0	0	0	0	0	980	3	0	3
Other OPEC	853	412	0	4,859	4,691	117,745	722,982	1,984	386	2,370
Indonesia	0	0	0	0	10	3,292	18,086	49	11	59
Nigeria	0	230	0	0	0	6,990	200,793	635	23	658
Venezuela	853	182	0	4,859	4,681	107,463	504,103	1,300	352	1,653
Non OPEC	12,858	6,373	3,320	3,119	7,070	353,492	1,581,770	4,027	1,159	5,186
Angola	0	0	0	0	0	2,335	105,026	337	8	344
Argentina	437	0	0	0	0	3,022	17,575	48	10	58
Australia	0	1,652	0	0	0	1,652	9,238	25	5	30
Bahama Islands	0	0	0	0	0	335	335	0	1	1
Belgium	261	0	0	0	0	5,745	5,745	0	19	19
Benin	0	0	0	0	0	0	634	2	0	2
Brazil	0	0	0	0	27	2,783	2,783	0	9	9
Cameroon	0	0	0	0	0	921	1,669	2	3	5
Canada	842	0	637	2,238	3,574	102,235	420,353	1,043	335	1,378
China, People's Republic of	0	0	0	0	0	0	15,494	51	0	51
Colombia	0	0	0	0	0	2,155	70,174	223	7	230
Congo	0	0	0	0	0	0	8,471	28	0	28
Ecuador ^d	0	0	0	0	0	2,232	30,641	93	7	100
Egypt	742	0	0	0	0	2,328	12,570	34	8	41
France	145	0	0	0	611	4,681	4,681	0	15	15
Gabon ^e	0	0	0	0	0	0	53,067	174	0	174
Germany, FR	0	0	0	0	59	4,324	4,324	0	14	14
Greece	1,039	0	0	0	290	1,941	1,941	0	6	6
Guatemala	0	0	0	0	0	0	3,979	13	0	13
India	594	222	0	0	250	1,592	1,592	0	5	5
Italy	21	0	101	0	0	2,030	2,030	0	7	7
Ivory Coast	0	0	0	0	0	1,593	1,593	0	5	5
Japan	121	0	0	0	23	144	144	0	(s)	(s)
Korea, Republic of	111	0	0	0	168	2,917	2,917	0	10	10
Malaysia	0	312	0	0	120	1,921	3,985	7	6	13
Mexico	1,953	0	0	355	967	10,007	378,020	1,207	33	1,239
Netherlands	1,087	60	0	0	399	6,130	6,130	0	20	20
Netherlands Antilles	806	1,842	0	0	0	16,663	16,663	0	55	55
New Zealand	0	1,149	0	0	185	1,334	1,334	0	4	4
Norway	21	780	0	0	0	5,802	101,296	313	19	332
Oman	0	0	0	0	0	285	11,996	38	1	39
Panama	0	0	0	0	0	223	223	0	1	1
Peru	177	0	0	0	0	2,094	10,179	27	7	33
Portugal	75	0	0	0	0	3,697	3,697	0	12	12
Puerto Rico	3,253	0	2,582	0	0	6,291	6,291	0	21	21
Romania	0	0	0	0	0	432	432	0	1	1
Russia	0	0	0	0	0	1,611	8,128	21	5	27
Singapore	0	40	0	0	0	2,336	2,336	0	8	8
Spain	22	0	0	526	43	8,996	9,307	1	29	31
Sweden	0	0	0	0	0	949	949	0	3	3
Thailand	0	0	0	0	0	0	566	2	0	2
Trinidad and Tobago	371	0	0	0	37	4,989	22,335	57	16	73
Tunisia	0	0	0	0	0	451	451	0	1	1
Turkey	44	0	0	0	0	1,039	1,039	0	3	3
United Kingdom	58	0	0	0	0	26,566	95,522	226	87	313
Virgin Islands	179	0	0	0	0	97,872	97,872	0	321	321
Yemen	0	0	0	0	0	503	503	0	2	2
Zaire	0	0	0	0	0	0	4,749	16	0	16
Other	499	316	0	0	317	8,336	20,791	41	27	68
Total	16,122	43,015	3,320	7,978	30,313	582,993	2,874,098	7,512	1,911	9,423
Persian Gulf^f	2,234	0	0	0	6,909	34,625	489,330	1,491	114	1,604

^a 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 entry.

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

^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.

^d On December 31, 1992, Ecuador withdrew as a member of OPEC. As of January 1, 1994, imports of petroleum from Ecuador appear under imports from Non-OPEC Sources.

^e On December 31, 1994, Gabon withdrew as a member of OPEC. As of January 1, 1995, imports of petroleum from Gabon appear under imports from Non-OPEC Sources.

^f Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 41. PAD District I—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a
January-October 1996
(Thousand Barrels)**

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
Arab OPEC	53,333	2,391	638	635	6,313	129	433	6,546	0	0
Algeria	0	2,391	638	542	467	28	433	6,546	0	0
Kuwait	549	0	0	0	0	101	0	0	0	0
Saudi Arabia	52,784	0	0	93	5,846	0	0	0	0	0
Other OPEC	123,790	1,161	2,151	4,734	14,403	13,947	15,507	23,492	0	0
Indonesia	2,054	0	615	0	0	0	0	1,317	0	0
Nigeria	60,774	0	1,149	0	0	0	0	3,006	0	0
Venezuela	60,962	1,161	387	4,734	14,403	13,947	15,507	19,169	0	0
Non OPEC	208,741	4,778	16,513	24,746	83,528	15,481	46,585	35,056	353	1,630
Angola	60,263	0	0	0	0	0	330	863	0	0
Argentina	0	0	0	756	86	0	30	262	0	0
Bahama Islands	0	0	0	0	0	0	0	335	0	0
Belgium	0	0	0	564	1,191	0	0	0	0	0
Brazil	0	0	0	1,062	1,212	0	0	153	0	0
Cameroon	0	0	0	0	0	0	0	261	0	0
Canada	18,747	2,830	147	1,654	24,170	664	22,250	6,038	353	1,630
China, People's Republic of	7,354	0	0	0	0	0	0	0	0	0
Colombia	7,605	0	0	0	97	328	0	1,202	0	0
Congo	1,019	0	0	0	0	0	0	0	0	0
Ecuador ^d	3,733	0	0	0	0	0	0	723	0	0
Egypt	9,725	0	0	266	0	0	0	0	0	0
France	0	0	171	2,654	754	0	0	0	0	0
Gabon ^e	22,152	0	0	0	0	0	0	0	0	0
Germany, FR	0	0	3,045	0	31	0	459	579	0	0
Greece	0	0	0	0	0	0	0	0	0	0
India	0	0	271	0	0	0	0	0	0	0
Italy	0	0	0	551	537	0	0	476	0	0
Ivory Coast	0	0	282	0	0	0	0	756	0	0
Japan	0	0	0	0	0	0	0	0	0	0
Mexico	5,866	0	0	1,505	0	0	0	0	0	0
Netherlands	0	0	0	1,350	2,533	0	0	0	0	0
Netherlands Antilles	0	0	776	311	372	3,223	375	1,123	0	0
Norway	48,234	1,730	0	256	1,066	0	222	0	0	0
Peru	712	0	0	0	0	0	0	1,235	0	0
Portugal	0	0	0	82	1,011	0	0	0	0	0
Puerto Rico	0	0	0	0	456	0	0	0	0	0
Romania	0	0	0	432	0	0	0	0	0	0
Russia	0	0	0	797	129	0	0	291	0	0
Spain	0	0	727	1,548	2,563	0	0	319	0	0
Sweden	0	0	0	0	15	0	0	0	0	0
Trinidad and Tobago	534	0	289	0	0	110	131	2,764	0	0
Turkey	0	0	240	0	0	0	0	0	0	0
United Kingdom	20,667	218	447	7,657	14,267	0	31	992	0	0
Virgin Islands	0	0	10,118	2,097	31,153	11,156	22,757	15,682	0	0
Yemen	0	0	0	0	0	0	0	303	0	0
Zaire	2,130	0	0	0	0	0	0	0	0	0
Other	0	0	0	1,204	1,885	0	0	699	0	0
Total	385,864	8,330	19,302	30,115	104,244	29,557	62,525	65,094	353	1,630
Persian Gulf^f	53,333	0	0	93	5,846	101	0	0	0	0

See footnotes at end of table.

**Table 41. PAD District I—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a
January-October 1996 (Continued)
(Thousand Barrels)**

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
Arab OPEC	175	0	0	0	1,400	18,660	71,993	175	61	236
Algeria	175	0	0	0	0	11,220	11,220	0	37	37
Kuwait	0	0	0	0	0	101	650	2	(s)	2
Saudi Arabia	0	0	0	0	1,400	7,339	60,123	173	24	197
Other OPEC	0	0	0	4,557	1,064	81,016	204,806	406	266	671
Indonesia	0	0	0	0	0	1,932	3,986	7	6	13
Nigeria	0	0	0	0	0	4,155	64,929	199	14	213
Venezuela	0	0	0	4,557	1,064	74,929	135,891	200	246	446
Non OPEC	2,774	0	2,997	2,773	649	237,863	446,604	684	780	1,464
Angola	0	0	0	0	0	1,193	61,456	198	4	201
Argentina	0	0	0	0	0	1,134	1,134	0	4	4
Bahama Islands	0	0	0	0	0	335	335	0	1	1
Belgium	0	0	0	0	0	1,755	1,755	0	6	6
Brazil	0	0	0	0	0	2,427	2,427	0	8	8
Cameroon	0	0	0	0	0	261	261	0	1	1
Canada	77	0	415	1,892	142	62,262	81,009	61	204	266
China, People's Republic of	0	0	0	0	0	0	7,354	24	0	24
Colombia	0	0	0	0	0	1,627	9,232	25	5	30
Congo	0	0	0	0	0	0	1,019	3	0	3
Ecuador ^d	0	0	0	0	0	723	4,456	12	2	15
Egypt	0	0	0	0	0	266	9,991	32	1	33
France	35	0	0	0	0	3,614	3,614	0	12	12
Gabon ^e	0	0	0	0	0	0	22,152	73	0	73
Germany, FR	0	0	0	0	59	4,173	4,173	0	14	14
Greece	0	0	0	0	143	143	143	0	(s)	(s)
India	0	0	0	0	0	271	271	0	1	1
Italy	0	0	0	0	0	1,564	1,564	0	5	5
Ivory Coast	0	0	0	0	0	1,038	1,038	0	3	3
Japan	0	0	0	0	8	8	8	0	(s)	(s)
Mexico	0	0	0	355	0	1,860	7,726	19	6	25
Netherlands	83	0	0	0	170	4,136	4,136	0	14	14
Netherlands Antilles	0	0	0	0	0	6,180	6,180	0	20	20
Norway	0	0	0	0	0	3,274	51,508	158	11	169
Peru	177	0	0	0	0	1,412	2,124	2	5	7
Portugal	0	0	0	0	0	1,093	1,093	0	4	4
Puerto Rico	2,360	0	2,582	0	0	5,398	5,398	0	18	18
Romania	0	0	0	0	0	432	432	0	1	1
Russia	0	0	0	0	0	1,217	1,217	0	4	4
Spain	0	0	0	526	43	5,726	5,726	0	19	19
Sweden	0	0	0	0	0	15	15	0	(s)	(s)
Trinidad and Tobago	0	0	0	0	37	3,331	3,865	2	11	13
Turkey	0	0	0	0	0	240	240	0	1	1
United Kingdom	42	0	0	0	0	23,654	44,321	68	78	145
Virgin Islands	0	0	0	0	0	92,963	92,963	0	305	305
Yemen	0	0	0	0	0	303	303	0	1	1
Zaire	0	0	0	0	0	0	2,130	7	0	7
Other	0	0	0	0	47	3,835	3,835	0	13	13
Total	2,949	0	2,997	7,330	3,113	337,539	723,403	1,265	1,107	2,372
Persian Gulf^f	0	0	0	0	1,400	7,440	60,773	175	24	199

^a 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 entry.

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

^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.

^d On December 31, 1992, Ecuador withdrew as a member of OPEC. As of January 1, 1994, imports of petroleum from Ecuador appear under imports from Non-OPEC Sources.

^e On December 31, 1994, Gabon withdrew as a member of OPEC. As of January 1, 1995, imports of petroleum from Gabon appear under imports from Non-OPEC Sources.

^f Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 42. PAD District II—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a
January-October 1996
(Thousand Barrels)**

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
Arab OPEC	36,482	0	0	0	0	0	0	0	0	0
Kuwait	15,156	0	0	0	0	0	0	0	0	0
Saudi Arabia	21,326	0	0	0	0	0	0	0	0	0
Other OPEC	88,144	0	0	0	0	0	0	0	0	0
Nigeria	28,027	0	0	0	0	0	0	0	0	0
Venezuela	60,117	0	0	0	0	0	0	0	0	0
Non OPEC	304,725	17,950	43	122	925	0	1,646	62	0	197
Angola	10,593	0	0	0	0	0	0	0	0	0
Canada	229,359	17,950	43	122	925	0	1,646	62	0	197
Colombia	9,528	0	0	0	0	0	0	0	0	0
Ecuador ^d	5,167	0	0	0	0	0	0	0	0	0
Gabon ^e	1,172	0	0	0	0	0	0	0	0	0
Malaysia	710	0	0	0	0	0	0	0	0	0
Mexico	36,190	0	0	0	0	0	0	0	0	0
Norway	3,668	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	2,183	0	0	0	0	0	0	0	0	0
United Kingdom	5,200	0	0	0	0	0	0	0	0	0
Zaire	955	0	0	0	0	0	0	0	0	0
Total	429,351	17,950	43	122	925	0	1,646	62	0	197
Persian Gulf^f	36,482	0	0	0	0	0	0	0	0	0

See footnotes at end of table.

**Table 42. PAD District II—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a
January-October 1996 (Continued)
(Thousand Barrels)**

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
Arab OPEC	0	0	0	0	0	0	36,482	120	0	120
Kuwait	0	0	0	0	0	0	15,156	50	0	50
Saudi Arabia	0	0	0	0	0	0	21,326	70	0	70
Other OPEC	0	0	0	0	0	0	88,144	289	0	289
Nigeria	0	0	0	0	0	0	28,027	92	0	92
Venezuela	0	0	0	0	0	0	60,117	197	0	197
Non OPEC	333	0	222	228	417	22,145	326,870	999	73	1,072
Angola	0	0	0	0	0	0	10,593	35	0	35
Canada	333	0	222	228	417	22,145	251,504	752	73	825
Colombia	0	0	0	0	0	0	9,528	31	0	31
Ecuador ^d	0	0	0	0	0	0	5,167	17	0	17
Gabon ^e	0	0	0	0	0	0	1,172	4	0	4
Malaysia	0	0	0	0	0	0	710	2	0	2
Mexico	0	0	0	0	0	0	36,190	119	0	119
Norway	0	0	0	0	0	0	3,668	12	0	12
Trinidad and Tobago	0	0	0	0	0	0	2,183	7	0	7
United Kingdom	0	0	0	0	0	0	5,200	17	0	17
Zaire	0	0	0	0	0	0	955	3	0	3
Total	333	0	222	228	417	22,145	451,496	1,408	73	1,480
Persian Gulf^f	0	0	0	0	0	0	36,482	120	0	120

^a 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 entry.

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

^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.

^d On December 31, 1992, Ecuador withdrew as a member of OPEC. As of January 1, 1994, imports of petroleum from Ecuador appear under imports from Non-OPEC Sources.

^e On December 31, 1994, Gabon withdrew as a member of OPEC. As of January 1, 1995, imports of petroleum from Gabon appear under imports from Non-OPEC Sources.

^f Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 43. PAD District III—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a
January-October 1996
(Thousand Barrels)**

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
Arab OPEC	352,027	10,028	25,063	0	0	0	0	2,040	0	0
Algeria	2,885	8,040	9,866	0	0	0	0	0	0	0
Kuwait	42,056	0	0	0	0	0	0	0	0	0
Saudi Arabia	306,632	1,988	15,197	0	0	0	0	2,040	0	0
United Arab Emirates	454	0	0	0	0	0	0	0	0	0
Other OPEC	376,854	1,849	22,386	47	0	1,373	0	1,814	0	0
Indonesia	1,030	0	0	0	0	0	0	0	0	0
Nigeria	105,002	0	1,269	0	0	0	0	1,336	0	0
Venezuela	270,822	1,849	21,117	47	0	1,373	0	478	0	0
Non OPEC	598,604	9,192	36,360	0	1,722	271	41	2,695	0	1,076
Angola	31,835	0	749	0	0	0	0	393	0	0
Argentina	14,553	0	1,364	0	0	0	0	87	0	0
Australia	0	0	0	0	0	0	0	0	0	0
Belgium	0	0	3,729	0	0	0	0	0	0	0
Benin	634	0	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0	0	0	99
Cameroon	748	0	252	0	0	0	0	408	0	0
Canada	2,238	5,587	1,102	0	0	16	0	0	0	811
Colombia	49,747	0	198	0	0	0	0	330	0	0
Congo	7,452	0	0	0	0	0	0	0	0	0
Ecuador ^d	15,562	0	953	0	0	0	0	361	0	0
Egypt	517	0	1,055	0	0	0	0	265	0	0
France	0	0	346	0	0	0	0	0	0	0
Gabon ^e	29,743	0	0	0	0	0	0	0	0	0
Germany, FR	0	0	151	0	0	0	0	0	0	0
Greece	0	0	612	0	0	0	0	0	0	0
Guatemala	3,979	0	0	0	0	0	0	0	0	0
India	0	0	255	0	0	0	0	0	0	0
Italy	0	0	313	0	0	0	0	0	0	31
Ivory Coast	0	0	317	0	0	0	0	0	0	0
Japan	0	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	2,472	0	0	0	0	0	0	0
Malaysia	524	0	415	0	0	0	0	0	0	0
Mexico	325,957	2,776	1,246	0	0	226	41	0	0	85
Netherlands	0	0	338	0	0	0	0	0	0	0
Netherlands Antilles	0	0	7,021	0	0	0	0	0	0	50
New Zealand	0	0	0	0	0	0	0	0	0	0
Norway	43,592	679	1,048	0	0	0	0	0	0	0
Oman	499	0	285	0	0	0	0	0	0	0
Panama	0	0	223	0	0	0	0	0	0	0
Peru	3,500	0	0	0	0	0	0	682	0	0
Portugal	0	0	983	0	1,071	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0
Russia	6,417	0	394	0	0	0	0	0	0	0
Spain	311	0	3,248	0	0	0	0	0	0	0
Sweden	0	0	934	0	0	0	0	0	0	0
Thailand	566	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	14,629	0	1,287	0	0	0	0	0	0	0
Tunisia	0	0	451	0	0	0	0	0	0	0
Turkey	0	0	104	0	651	0	0	0	0	0
United Kingdom	43,089	150	2,746	0	0	0	0	0	0	0
Virgin Islands	0	0	1,103	0	0	0	0	0	0	0
Yemen	0	0	200	0	0	0	0	0	0	0
Zaire	1,664	0	0	0	0	0	0	0	0	0
Other	848	0	466	0	0	29	0	169	0	0
Total	1,327,485	21,069	83,809	47	1,722	1,644	41	6,549	0	1,076
Persian Gulf^f	349,142	1,988	15,197	0	0	0	0	2,040	0	0

See footnotes at end of table.

**Table 43. PAD District III—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a
January-October 1996 (Continued)
(Thousand Barrels)**

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use	Lubricants	Asphalt and Road Oil	Other Products ^c	Total Products	Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
Arab OPEC	2,236	36,230	0	0	11,786	87,383	439,410	1,154	287	1,441
Algeria	501	36,230	0	0	11,643	66,280	69,165	9	217	227
Kuwait	0	0	0	0	143	143	42,199	138	(s)	138
Saudi Arabia	1,735	0	0	0	0	20,960	327,592	1,005	69	1,074
United Arab Emirates	0	0	0	0	0	0	454	1	0	1
Other OPEC	853	412	0	302	275	29,311	406,165	1,236	96	1,332
Indonesia	0	0	0	0	10	10	1,040	3	(s)	3
Nigeria	0	230	0	0	0	2,835	107,837	344	9	354
Venezuela	853	182	0	302	265	26,466	297,288	888	87	975
Non OPEC	9,640	6,333	101	0	2,264	69,695	668,299	1,963	229	2,191
Angola	0	0	0	0	0	1,142	32,977	104	4	108
Argentina	437	0	0	0	0	1,888	16,441	48	6	54
Australia	0	1,652	0	0	0	1,652	1,652	0	5	5
Belgium	261	0	0	0	0	3,990	3,990	0	13	13
Benin	0	0	0	0	0	0	634	2	0	2
Brazil	0	0	0	0	27	126	126	0	(s)	(s)
Cameroon	0	0	0	0	0	660	1,408	2	2	5
Canada	432	0	0	0	0	7,948	10,186	7	26	33
Colombia	0	0	0	0	0	528	50,275	163	2	165
Congo	0	0	0	0	0	0	7,452	24	0	24
Ecuador ^d	0	0	0	0	0	1,314	16,876	51	4	55
Egypt	742	0	0	0	0	2,062	2,579	2	7	8
France	110	0	0	0	611	1,067	1,067	0	3	3
Gabon ^e	0	0	0	0	0	0	29,743	98	0	98
Germany, FR	0	0	0	0	0	151	151	0	(s)	(s)
Greece	1,039	0	0	0	147	1,798	1,798	0	6	6
Guatemala	0	0	0	0	0	0	3,979	13	0	13
India	594	222	0	0	250	1,321	1,321	0	4	4
Italy	21	0	101	0	0	466	466	0	2	2
Ivory Coast	0	0	0	0	0	317	317	0	1	1
Japan	121	0	0	0	15	136	136	0	(s)	(s)
Korea, Republic of	0	0	0	0	0	2,472	2,472	0	8	8
Malaysia	0	312	0	0	0	727	1,251	2	2	4
Mexico	1,953	0	0	0	950	7,277	333,234	1,069	24	1,093
Netherlands	1,004	60	0	0	0	1,402	1,402	0	5	5
Netherlands Antilles	806	1,842	0	0	0	9,719	9,719	0	32	32
New Zealand	0	1,149	0	0	185	1,334	1,334	0	4	4
Norway	21	780	0	0	0	2,528	46,120	143	8	151
Oman	0	0	0	0	0	285	784	2	1	3
Panama	0	0	0	0	0	223	223	0	1	1
Peru	0	0	0	0	0	682	4,182	11	2	14
Portugal	75	0	0	0	0	2,129	2,129	0	7	7
Puerto Rico	893	0	0	0	0	893	893	0	3	3
Russia	0	0	0	0	0	394	6,811	21	1	22
Spain	22	0	0	0	0	3,270	3,581	1	11	12
Sweden	0	0	0	0	0	934	934	0	3	3
Thailand	0	0	0	0	0	0	566	2	0	2
Trinidad and Tobago	371	0	0	0	0	1,658	16,287	48	5	53
Tunisia	0	0	0	0	0	451	451	0	1	1
Turkey	44	0	0	0	0	799	799	0	3	3
United Kingdom	16	0	0	0	0	2,912	46,001	141	10	151
Virgin Islands	179	0	0	0	0	1,282	1,282	0	4	4
Yemen	0	0	0	0	0	200	200	0	1	1
Zaire	0	0	0	0	0	0	1,664	5	0	5
Other	499	316	0	0	79	1,558	2,406	3	5	8
Total	12,729	42,975	101	302	14,325	186,389	1,513,874	4,352	611	4,964
Persian Gulf^f	2,234	0	0	0	143	21,602	370,744	1,145	71	1,216

^a 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 entry.

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

^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.

^d On December 31, 1992, Ecuador withdrew as a member of OPEC. As of January 1, 1994, imports of petroleum from Ecuador appear under imports from Non-OPEC Sources.

^e On December 31, 1994, Gabon withdrew as a member of OPEC. As of January 1, 1995, imports of petroleum from Gabon appear under imports from Non-OPEC Sources.

^f Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

Table 44. PAD Districts IV and V—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a January-October 1996
(Thousand Barrels)

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
PAD District IV										
Non OPEC	38,508	2,511	0	0	347	0	2,287	0	0	0
Canada	38,508	2,511	0	0	347	0	2,287	0	0	0
Total	38,508	2,511	0	0	347	0	2,287	0	0	0
PAD District V										
Arab OPEC	15,748	0	0	0	0	130	0	217	0	0
Algeria	0	0	0	0	0	130	0	0	0	0
Kuwait	13,402	0	0	0	0	0	0	0	0	0
Saudi Arabia	1,820	0	0	0	0	0	0	217	0	0
United Arab Emirates	526	0	0	0	0	0	0	0	0	0
Other OPEC	16,449	0	2,257	0	0	831	0	978	0	0
Indonesia	11,710	0	569	0	0	103	0	678	0	0
Venezuela	4,739	0	1,688	0	0	728	0	300	0	0
Non OPEC	77,700	495	5,133	906	4,173	1,724	1,975	191	12	26
Australia	7,586	0	0	0	0	0	0	0	0	0
Brazil	0	0	230	0	0	0	0	0	0	0
Canada	29,266	495	212	0	131	20	515	191	12	26
China, People's Republic of	8,140	0	0	0	0	0	0	0	0	0
Colombia	1,139	0	0	0	0	0	0	0	0	0
Ecuador ^d	3,947	0	195	0	0	0	0	0	0	0
Ivory Coast	0	0	238	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	65	0	101	0	0	0	0
Malaysia	830	0	1,074	0	0	0	0	0	0	0
Mexico	0	0	0	0	0	853	0	0	0	0
Netherlands	0	0	363	0	0	0	0	0	0	0
Netherlands Antilles	0	0	741	0	0	23	0	0	0	0
Oman	11,212	0	0	0	0	0	0	0	0	0
Peru	3,873	0	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	475	0	0	0	0	0
Russia	100	0	0	0	0	0	0	0	0	0
Singapore	0	0	1,717	0	445	134	0	0	0	0
Virgin Islands	0	0	363	0	1,392	593	1,279	0	0	0
Other	11,607	0	0	841	1,730	0	181	0	0	0
Total	109,897	495	7,390	906	4,173	2,685	1,975	1,386	12	26
Persian Gulf^f	15,748	0	0	0	0	0	0	217	0	0

See footnotes at end of table.

Table 44. PAD Districts IV and V—Year-to-Date Imports of Crude Oil and Petroleum Products by Country of Origin,^a January-October 1996 (Continued)
(Thousand Barrels)

Country of Origin	Naphtha for Petrochemical Feedstock Use	Other Oils for Petrochemical Feedstock Use					Total Crude Oil and Products	Daily Average		
								Crude Oil	Products	Total
PAD District IV										
Non OPEC	0	0	0	79	732	5,956	44,464	126	20	146
Canada	0	0	0	79	732	5,956	44,464	126	20	146
Total	0	0	0	79	732	5,956	44,464	126	20	146
PAD District V										
Arab OPEC	0	0	0	0	5,366	5,713	21,461	52	19	70
Algeria	0	0	0	0	0	130	130	0	(s)	(s)
Kuwait	0	0	0	0	0	0	13,402	44	0	44
Saudi Arabia	0	0	0	0	5,366	5,583	7,403	6	18	24
United Arab Emirates	0	0	0	0	0	0	526	2	0	2
Other OPEC	0	0	0	0	3,352	7,418	23,867	54	24	78
Indonesia	0	0	0	0	0	1,350	13,060	38	4	43
Venezuela	0	0	0	0	3,352	6,068	10,807	16	20	35
Non OPEC	111	40	0	39	3,008	17,833	95,533	255	58	313
Australia	0	0	0	0	0	0	7,586	25	0	25
Brazil	0	0	0	0	0	230	230	0	1	1
Canada	0	0	0	39	2,283	3,924	33,190	96	13	109
China, People's Republic of	0	0	0	0	0	0	8,140	27	0	27
Colombia	0	0	0	0	0	0	1,139	4	0	4
Ecuador ^d	0	0	0	0	0	195	4,142	13	1	14
Ivory Coast	0	0	0	0	0	238	238	0	1	1
Korea, Republic of	111	0	0	0	168	445	445	0	1	1
Malaysia	0	0	0	0	120	1,194	2,024	3	4	7
Mexico	0	0	0	0	17	870	870	0	3	3
Netherlands	0	0	0	0	229	592	592	0	2	2
Netherlands Antilles	0	0	0	0	0	764	764	0	3	3
Oman	0	0	0	0	0	0	11,212	37	0	37
Peru	0	0	0	0	0	0	3,873	13	0	13
Portugal	0	0	0	0	0	475	475	0	2	2
Russia	0	0	0	0	0	0	100	(s)	0	(s)
Singapore	0	40	0	0	0	2,336	2,336	0	8	8
Virgin Islands	0	0	0	0	0	3,627	3,627	0	12	12
Other	0	0	0	0	191	2,943	14,550	38	10	48
Total	111	40	0	39	11,726	30,964	140,861	360	102	462
Persian Gulf ^f	0	0	0	0	5,366	5,583	21,331	52	18	70

^a 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 entry.

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

^c Includes aviation gasoline, aviation gasoline blending components, miscellaneous products, other hydrocarbons and oxygenates, pentanes plus, petroleum coke, and waxes.

^d On December 31, 1992, Ecuador withdrew as a member of OPEC. As of January 1, 1994, imports of petroleum from Ecuador appear under imports from Non-OPEC Sources.

^e On December 31, 1994, Gabon withdrew as a member of OPEC. As of January 1, 1995, imports of petroleum from Gabon appear under imports from Non-OPEC Sources.

^f Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Source: Energy Information Administration (EIA) Form EIA-814, "Monthly Imports Report."

**Table 45. Exports of Crude Oil and Petroleum Products by PAD District,
October 1996
(Thousand Barrels)**

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil^a	760	0	0	0	3,384	4,144	134
Natural Gas Liquids	24	280	551	1	383	1,239	40
Pentanes Plus	5	95	1	0	(s)	101	3
Liquefied Petroleum Gases	19	184	551	1	383	1,138	37
Ethane/Ethylene	0	0	0	0	0	0	0
Propane/Propylene	18	33	502	0	332	885	29
Normal Butane/Butylene	2	152	49	1	50	253	8
Isobutane/Isobutylene	0	0	0	0	0	0	0
Other Liquids	44	(s)	533	0	62	639	21
Other Hydrocarbons/Oxygenates	1	(s)	136	0	3	140	5
Motor Gasoline Blend. Comp.	43	0	397	0	59	499	16
Finished Petroleum Products	1,382	791	17,955	15	6,230	26,373	851
Finished Motor Gasoline	32	12	3,147	1	314	3,505	113
Naphtha-Type Jet Fuel	(s)	0	241	0	15	257	8
Kerosene-Type Jet Fuel	126	92	227	0	375	821	26
Kerosene	0	1	92	0	6	99	3
Distillate Fuel Oil	569	83	6,620	0	2,025	9,297	300
Residual Fuel Oil	141	68	2,826	0	186	3,221	104
Special Naphthas	86	6	96	0	943	1,131	36
Lubricants	191	69	898	6	94	1,258	41
Waxes	12	29	41	7	13	101	3
Petroleum Coke	211	150	3,736	0	2,246	6,343	205
Asphalt and Road Oil	11	280	31	1	10	334	11
Miscellaneous Products	4	1	(s)	0	2	6	(s)
Total	2,211	1,071	19,040	16	10,058	32,396	1,045

^a Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) Alaskan North Slope crude oil; (3) certain domestically produced crude oil destined for Canada; (4) shipments to U.S. territories; and (5) California crude oil to Pacific Rim countries. On December 6, 1991, the U.S. Department of Commerce approved a license to export 25,000 barrels per day of California heavy crude oil (less than 20 degrees API gravity) to Pacific Rim countries for one year.

(s) = Less than 500 barrels or less than 500 barrels per day.

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

Sources: Energy Information Administration (EIA) Form EIA-810, "Monthly Refinery Report" and the U.S. Bureau of the Census.

**Table 46. Year-to-Date Exports of Crude Oil and Petroleum Products by PAD District,
January-October 1996
(Thousand Barrels)**

Commodity	Petroleum Administration for Defense Districts						Daily Average
	I	II	III	IV	V	U.S. Total	
Crude Oil^a	2,292	1,703	0	(s)	28,056	32,052	105
Natural Gas Liquids	967	3,274	5,189	3	6,895	16,327	54
Pentanes Plus	35	678	1	0	1	715	2
Liquefied Petroleum Gases	932	2,596	5,188	3	6,893	15,612	51
Ethane/Ethylene	0	0	0	0	0	0	0
Propane/Propylene	437	662	4,755	0	2,362	8,215	27
Normal Butane/Butylene	494	1,934	434	3	4,532	7,397	24
Isobutane/Isobutylene	0	0	0	0	0	0	0
Other Liquids	332	50	6,172	(s)	153	6,707	22
Other Hydrocarbons/Oxygenates	14	22	3,887	(s)	11	3,934	13
Motor Gasoline Blend. Comp.	318	28	2,285	0	141	2,773	9
Finished Petroleum Products	10,824	5,230	142,630	150	82,842	241,676	792
Finished Motor Gasoline	322	150	27,278	26	2,876	30,651	100
Naphtha-Type Jet Fuel	1	(s)	243	0	311	555	2
Kerosene-Type Jet Fuel	518	117	7,187	0	4,388	12,210	40
Kerosene	198	6	336	0	229	769	3
Distillate Fuel Oil	3,235	205	29,024	0	25,627	58,092	190
Residual Fuel Oil	1,696	613	18,165	0	10,502	30,977	102
Special Naphthas	206	84	740	2	6,209	7,241	24
Lubricants	1,501	555	6,948	71	1,049	10,124	33
Waxes	162	174	323	35	121	816	3
Petroleum Coke	2,474	1,967	52,163	3	31,378	87,985	288
Asphalt and Road Oil	462	1,357	222	12	132	2,185	7
Miscellaneous Products	48	1	2	0	20	71	(s)
Total	14,416	10,257	153,991	153	117,946	296,762	973

^a Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) Alaskan North Slope crude oil; (3) certain domestically produced crude oil destined for Canada; (4) shipments to U.S. territories; and (5) California crude oil to Pacific Rim countries. On December 6, 1991, the U.S. Department of Commerce approved a license to export 25,000 barrels per day of California heavy crude oil (less than 20 degrees API gravity) to Pacific Rim countries for one year.

(s) = Less than 500 barrels or less than 500 barrels per day.

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

Sources: Energy Information Administration (EIA) Form EIA-810, "Monthly Refinery Report" and the U.S. Bureau of the Census.

Table 47. Exports of Crude Oil and Petroleum Products by Destination, October 1996
(Thousand Barrels)

Destination	Crude Oil ^a	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
Argentina	0	0	0	0	0	0	(s)	0
Australia	0	0	(s)	0	0	0	0	0
Bahama Islands	0	0	21	38	15	0	100	127
Bahrain	0	0	(s)	0	0	0	0	0
Belgium & Luxembourg	0	0	7	0	0	0	(s)	0
Brazil	0	0	0	0	0	0	601	(s)
Cameroon	0	0	0	0	0	0	0	0
Canada	760	97	216	116	575	97	251	230
Chile	0	0	0	263	0	0	76	0
China, People's Republic of	0	0	1	0	0	0	4	0
China, Taiwan	0	0	0	0	0	0	358	8
Colombia	0	0	39	226	0	0	0	0
Costa Rica	0	0	0	0	0	0	(s)	0
Denmark	0	0	0	0	0	0	2	0
Dominican Republic	0	3	38	0	0	0	2	0
Ecuador	0	0	0	0	0	0	0	0
Egypt	0	0	0	0	0	0	0	0
El Salvador	0	0	38	77	0	0	3	33
Finland	0	0	0	0	0	0	1	0
France	0	0	0	0	0	0	666	412
French Pacific Islands	0	0	0	0	0	0	27	0
Germany, FR	0	0	0	0	0	0	1	0
Ghana	0	0	0	0	0	(s)	(s)	0
Greece	0	0	0	0	0	0	0	0
Guatemala	0	0	0	115	0	0	78	30
Guinea	0	0	0	0	(s)	0	(s)	0
Honduras	0	0	0	159	8	0	193	185
Hong Kong	0	0	0	0	0	0	0	0
India	0	0	0	0	0	0	(s)	0
Indonesia	0	0	0	0	0	0	0	0
Ireland	0	0	0	0	0	0	0	0
Israel	0	0	0	0	0	0	2	0
Italy	0	0	0	0	0	0	1	0
Jamaica	0	0	5	0	25	0	237	855
Japan	0	0	0	166	0	0	14	13
Korea, Republic of	3,384	0	0	0	175	0	115	48
Malaysia	0	0	0	0	0	0	1	0
Mexico	0	1	762	1,831	0	2	956	320
Netherlands	0	0	0	0	241	0	3,778	325
Netherlands Antilles	0	0	0	0	0	0	0	311
New Zealand	0	0	0	0	0	0	0	0
Nigeria	0	0	0	0	0	0	1	0
Norway	0	0	0	0	0	0	0	0
Panama	0	0	(s)	0	0	0	521	0
Peru	0	0	(s)	0	0	0	0	0
Philippines	0	0	0	0	0	0	413	0
Poland	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	255	0	0	52	(s)
Russia	0	0	1	200	0	0	590	0
Saudi Arabia	0	0	(s)	0	0	0	0	0
Singapore	0	(s)	0	0	0	0	208	322
South Africa	0	0	0	0	0	0	1	0
Spain	0	0	0	0	0	0	(s)	0
Suriname	0	0	0	0	0	0	0	0
Sweden	0	0	0	0	0	0	(s)	0
Switzerland	0	0	0	0	0	0	0	0
Thailand	0	0	0	0	(s)	0	(s)	0
Trinidad and Tobago	0	0	0	0	0	0	1	0
Turkey	0	0	0	0	0	0	0	0
United Arab Emirates	0	0	0	(s)	0	0	(s)	0
United Kingdom	0	0	0	1	0	0	(s)	0
Uruguay	0	0	0	0	0	0	5	0
Venezuela	0	0	(s)	0	1	0	5	0
Virgin Islands	0	0	0	0	0	0	0	0
Other	0	0	8	58	38	0	30	0
Total	4,144	101	1,138	3,505	1,078	99	9,297	3,221

See footnotes at end of table.

Table 47. Exports of Crude Oil and Petroleum Products by Destination, October 1996 (Continued)
(Thousand Barrels)

Destination	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Other Products ^b	Crude Oil and Products	
							Total	Daily Average
Argentina	0	12	1	(s)	(s)	(s)	13	(s)
Australia	(s)	5	1	425	(s)	0	431	14
Bahama Islands	0	2	0	0	2	0	306	10
Bahrain	0	(s)	0	0	0	0	(s)	(s)
Belgium & Luxembourg	1	3	(s)	781	(s)	(s)	792	26
Brazil	(s)	1	(s)	27	6	(s)	636	21
Cameroon	0	(s)	0	0	0	0	(s)	(s)
Canada	82	147	43	469	291	3	3,377	109
Chile	0	14	(s)	0	0	(s)	353	11
China, People's Republic of	(s)	36	1	0	0	1	44	1
China, Taiwan	1	24	(s)	1	(s)	(s)	392	13
Colombia	0	17	(s)	(s)	0	(s)	283	9
Costa Rica	2	4	(s)	0	0	0	6	(s)
Denmark	0	(s)	0	133	(s)	0	135	4
Dominican Republic	1	9	0	0	0	0	53	2
Ecuador	0	5	(s)	0	0	0	5	(s)
Egypt	0	(s)	0	0	0	0	(s)	(s)
El Salvador	1	3	(s)	0	0	0	156	5
Finland	0	(s)	0	0	0	0	1	(s)
France	0	2	2	212	1	0	1,295	42
French Pacific Islands	0	(s)	(s)	0	0	0	27	1
Germany, FR	0	2	1	18	1	(s)	23	1
Ghana	0	(s)	0	39	0	0	40	1
Greece	0	2	0	216	(s)	0	218	7
Guatemala	1	4	(s)	0	0	10	239	8
Guinea	0	2	0	0	0	0	2	(s)
Honduras	1	8	(s)	0	(s)	17	571	18
Hong Kong	0	7	1	0	(s)	(s)	8	(s)
India	0	23	(s)	0	2	0	26	1
Indonesia	0	2	0	0	0	(s)	3	(s)
Ireland	0	(s)	1	0	0	(s)	1	(s)
Israel	(s)	5	0	0	(s)	0	7	(s)
Italy	(s)	1	(s)	411	0	(s)	414	13
Jamaica	(s)	1	(s)	0	0	(s)	1,123	36
Japan	944	19	5	1,001	1	4	2,166	70
Korea, Republic of	0	15	1	1	1	(s)	3,740	121
Malaysia	(s)	2	1	(s)	(s)	(s)	4	(s)
Mexico	6	133	37	157	20	452	4,676	151
Netherlands	1	2	(s)	860	(s)	55	5,263	170
Netherlands Antilles	0	526	0	0	0	0	838	27
New Zealand	(s)	1	0	0	(s)	0	1	(s)
Nigeria	0	42	0	0	(s)	0	44	1
Norway	0	1	0	55	1	0	57	2
Panama	0	2	(s)	(s)	0	58	581	19
Peru	(s)	1	(s)	1	0	0	3	(s)
Philippines	(s)	1	(s)	0	0	(s)	415	13
Poland	0	(s)	0	0	0	0	(s)	(s)
Portugal	0	(s)	0	355	0	0	356	11
Puerto Rico	83	22	1	0	(s)	(s)	413	13
Russia	1	5	0	0	0	0	797	26
Saudi Arabia	0	1	(s)	0	0	(s)	1	(s)
Singapore	0	10	(s)	1	(s)	(s)	541	17
South Africa	0	3	(s)	154	0	(s)	157	5
Spain	1	(s)	(s)	501	(s)	0	503	16
Suriname	0	(s)	0	0	0	0	(s)	(s)
Sweden	0	1	(s)	31	0	0	33	1
Switzerland	0	(s)	0	0	0	0	(s)	(s)
Thailand	(s)	10	(s)	0	(s)	(s)	11	(s)
Trinidad and Tobago	(s)	96	(s)	0	0	(s)	97	3
Turkey	0	1	(s)	165	(s)	0	166	5
United Arab Emirates	0	(s)	(s)	61	(s)	0	62	2
United Kingdom	(s)	2	1	20	5	0	29	1
Uruguay	0	1	0	0	0	0	7	(s)
Venezuela	3	3	(s)	0	(s)	0	12	(s)
Virgin Islands	0	0	0	0	0	43	43	1
Other	(s)	16	(s)	248	(s)	(s)	399	13
Total	1,131	1,258	101	6,343	334	645	32,396	1,045

^a Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) Alaskan North Slope crude oil; (3) certain domestically produced crude oil destined for Canada; (4) shipments to U.S. territories; and (5) California crude oil to Pacific Rim countries. On December 6, 1991, the U.S. Department of Commerce approved a license to export 25,000 barrels per day of California heavy crude oil (less than 20 degrees API gravity) to Pacific Rim countries for one year.

^b Includes miscellaneous products, motor gasoline blending components, and other hydrocarbons and oxygenates.

(s) = Less than 500 barrels or less than 500 barrels per day.

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

Sources: Energy Information Administration (EIA) Form EIA-810, "Monthly Refinery Report" and the U.S. Bureau of the Census.

**Table 48. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination,
January-October 1996
(Thousand Barrels)**

Destination	Crude Oil ^a	Pentanes Plus	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil
Argentina	0	0	1	35	108	0	292	0
Australia	0	0	4	1	0	(s)	2	0
Bahama Islands	0	0	175	356	274	1	1,304	1,246
Bahrain	0	0	(s)	0	0	0	(s)	0
Belgium & Luxembourg	0	0	7	2	0	0	6	0
Brazil	0	(s)	115	507	1,920	3	4,794	241
Cameroon	0	0	0	0	0	0	0	0
Canada	4,047	691	3,009	1,238	3,082	294	2,853	4,060
Chile	0	0	1	1,691	2	0	1,158	160
China, People's Republic of	0	0	854	239	0	0	828	1
China, Taiwan	1,311	0	91	0	0	1	4,342	1,035
Colombia	0	0	275	1,825	(s)	0	128	0
Costa Rica	0	0	1	47	20	0	218	2
Denmark	0	0	0	0	0	0	2	0
Dominican Republic	0	18	280	170	0	1	397	85
Ecuador	0	0	1,166	94	0	0	3	0
Egypt	0	0	0	0	0	0	1	0
El Salvador	0	2	389	237	0	0	285	33
Finland	0	0	0	0	0	0	1	(s)
France	0	0	0	0	0	(s)	1,180	413
French Pacific Islands	0	(s)	0	0	0	0	265	0
Germany, FR	0	1	1	(s)	0	(s)	305	0
Ghana	0	0	0	0	0	(s)	(s)	0
Greece	0	0	0	0	0	0	3	0
Guatemala	0	0	61	1,306	19	31	764	317
Guinea	0	0	0	0	1	0	1	0
Honduras	0	0	87	693	58	30	699	1,285
Hong Kong	27	(s)	0	0	0	0	32	21
India	0	0	(s)	0	0	0	233	0
Indonesia	0	0	0	0	0	3	9	0
Ireland	0	0	2	0	0	0	269	0
Israel	0	0	1	0	1,799	(s)	226	43
Italy	0	0	6	2	0	0	285	396
Jamaica	0	0	270	0	25	0	1,383	5,853
Japan	2,102	0	1,222	545	3,091	202	1,380	343
Korea, Republic of	4,770	0	414	1	910	2	8,713	127
Malaysia	0	1	0	0	0	0	4	0
Mexico	267	1	6,340	17,443	1	21	4,024	8,195
Netherlands	0	0	24	0	241	0	5,113	735
Netherlands Antilles	0	0	0	0	0	0	1,171	311
New Zealand	0	0	(s)	0	0	1	1	0
Nigeria	0	0	0	0	256	0	2	0
Norway	0	0	0	0	0	0	(s)	0
Panama	0	0	69	117	258	0	2,413	1,569
Peru	0	0	(s)	308	4	176	213	61
Philippines	0	0	422	0	0	0	3,243	0
Poland	0	0	0	0	0	0	0	0
Portugal	0	0	0	0	0	0	2	0
Puerto Rico	6	0	12	2,807	0	0	974	144
Russia	0	0	1	463	28	(s)	1,456	6
Saudi Arabia	0	0	1	0	0	0	4	0
Singapore	0	2	(s)	1	466	(s)	5,458	2,877
South Africa	0	0	0	0	0	0	256	0
Spain	0	0	1	39	0	1	141	0
Suriname	0	0	0	0	0	0	(s)	0
Sweden	0	0	0	1	0	0	4	1
Switzerland	0	0	3	0	0	0	1	5
Thailand	0	0	2	0	(s)	0	91	0
Trinidad and Tobago	0	0	(s)	(s)	0	0	221	0
Turkey	0	0	0	0	0	0	146	412
United Arab Emirates	0	0	0	(s)	0	0	2	0
United Kingdom	0	0	155	4	(s)	1	10	23
Uruguay	0	0	0	0	0	0	23	0
Venezuela	0	0	17	1	1	1	24	0
Virgin Islands	19,521	0	0	(s)	0	0	0	0
Yugoslavia	0	0	0	0	0	0	2	0
Other	0	0	132	478	202	0	734	976
Total	32,052	715	15,612	30,651	12,765	769	58,092	30,977

See footnotes at end of table.

**Table 48. Year-to-Date Exports of Crude Oil and Petroleum Products by Destination,
January-October 1996 (Continued)**
(Thousand Barrels)

Destination	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Other Products ^b	Crude Oil and Products	
							Total	Daily Average
Argentina	7	137	7	3	4	423	1,015	3
Australia	9	95	6	3,553	4	1	3,675	12
Bahama Islands	(s)	68	0	0	15	(s)	3,439	11
Bahrain	0	1	0	666	(s)	0	667	2
Belgium & Luxembourg	6	64	3	7,982	6	5	8,082	26
Brazil	213	135	4	615	7	846	9,401	31
Cameroon	0	2	0	126	0	0	127	(s)
Canada	210	1,266	326	4,735	1,805	230	27,847	91
Chile	6	96	3	216	(s)	3	3,337	11
China, People's Republic of	(s)	114	9	0	4	1	2,051	7
China, Taiwan	8	237	4	18	2	1	7,051	23
Colombia	1	71	5	1	6	4	2,316	8
Costa Rica	13	77	3	0	(s)	100	480	2
Denmark	(s)	1	1	1,035	(s)	0	1,039	3
Dominican Republic	11	167	1	88	21	(s)	1,237	4
Ecuador	2	20	2	0	(s)	1	1,289	4
Egypt	1	30	0	236	(s)	(s)	268	1
El Salvador	7	104	2	0	0	2	1,060	3
Finland	1	3	0	0	1	(s)	7	(s)
France	1	9	17	4,247	15	0	5,881	19
French Pacific Islands	(s)	1	(s)	0	(s)	0	267	1
Germany, FR	1	40	37	460	32	3	880	3
Ghana	0	2	0	294	0	0	297	1
Greece	(s)	13	(s)	1,404	(s)	(s)	1,421	5
Guatemala	15	244	10	0	0	10	2,776	9
Guinea	0	14	0	0	0	0	16	(s)
Honduras	8	84	2	0	1	86	3,032	10
Hong Kong	1	102	8	0	1	(s)	193	1
India	0	198	5	0	11	(s)	448	1
Indonesia	(s)	22	1	338	1	1	376	1
Ireland	1	(s)	5	278	0	1	555	2
Israel	2	29	(s)	945	1	(s)	3,046	10
Italy	11	16	9	9,044	2	(s)	9,773	32
Jamaica	13	12	2	170	12	108	7,848	26
Japan	5,681	194	43	16,545	12	83	31,441	103
Korea, Republic of	250	99	11	1,492	7	3	16,800	55
Malaysia	1	21	2	1	1	1	34	(s)
Mexico	43	1,188	237	1,356	101	3,038	42,252	139
Netherlands	2	40	3	6,386	23	59	12,625	41
Netherlands Antilles	(s)	1,268	(s)	0	1	157	2,908	10
New Zealand	(s)	16	2	594	1	0	615	2
Nigeria	(s)	164	(s)	0	1	(s)	423	1
Norway	0	4	(s)	762	1	(s)	767	3
Panama	(s)	37	1	126	(s)	58	4,650	15
Peru	4	20	1	2	1	1	791	3
Philippines	1	74	7	5	0	3	3,754	12
Poland	(s)	3	0	6	0	0	9	(s)
Portugal	0	1	0	753	0	(s)	756	2
Puerto Rico	574	164	15	(s)	(s)	298	4,993	16
Russia	3	42	0	0	(s)	(s)	1,999	7
Saudi Arabia	0	17	(s)	127	(s)	(s)	150	(s)
Singapore	(s)	231	2	55	4	(s)	9,096	30
South Africa	(s)	86	(s)	890	1	(s)	1,233	4
Spain	2	5	3	9,923	1	2	10,116	33
Suriname	0	1	0	0	0	(s)	1	(s)
Sweden	0	9	2	466	0	(s)	482	2
Switzerland	16	3	0	0	0	2	29	(s)
Thailand	47	97	1	(s)	2	6	246	1
Trinidad and Tobago	5	563	(s)	(s)	1	(s)	791	3
Turkey	(s)	25	(s)	5,013	1	(s)	5,598	18
United Arab Emirates	1	1,562	(s)	612	8	(s)	2,185	7
United Kingdom	1	37	8	2,429	35	2	2,705	9
Uruguay	(s)	12	(s)	0	0	(s)	36	(s)
Venezuela	3	22	5	1,660	15	1,075	2,824	9
Virgin Islands	0	(s)	(s)	0	(s)	158	19,679	65
Yugoslavia	0	2	0	0	0	0	3	(s)
Other	60	645	2	2,332	15	1	5,578	18
Total	7,241	10,124	816	87,985	2,185	6,778	296,762	973

^a Crude oil exports are restricted to: (1) crude oil derived from fields under the State waters of Alaska's Cook Inlet; (2) Alaskan North Slope crude oil; (3) certain domestically produced crude oil destined for Canada; (4) shipments to U.S. territories; and (5) California crude oil to Pacific Rim countries. On December 6, 1991, the U.S. Department of Commerce approved a license to export 25,000 barrels per day of California heavy crude oil (less than 20 degrees API gravity) to Pacific Rim countries for one year.

^b Includes miscellaneous products, motor gasoline blending components, and other hydrocarbons and oxygenates.

(s) = Less than 500 barrels or less than 500 barrels per day.

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

**Table 49. Net Imports of Crude Oil and Petroleum Products into the United States by Country,
October 1996
(Thousand Barrels per Day)**

Country	Crude Oil ^a	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Petroleum Coke	Lubricants	Other Products ^b	Total Products	Total Crude Oil and Products
Arab OPEC	1,486	31	8	0	(s)	36	-2	(s)	283	356	1,842
Algeria	0	18	0	0	0	0	0	(s)	191	209	209
Kuwait	260	0	0	0	0	0	0	(s)	0	(s)	260
Qatar	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Saudi Arabia	1,209	12	8	0	0	36	0	(s)	92	149	1,357
United Arab Emirates	17	0	(s)	0	(s)	0	-2	(s)	(s)	-2	15
Other OPEC	2,019	35	39	38	63	98	0	-2	122	394	2,413
Indonesia	82	0	0	0	0	42	0	(s)	(s)	42	125
Nigeria	488	0	0	0	(s)	28	0	-1	5	31	520
Venezuela	1,448	35	39	38	63	28	0	(s)	117	321	1,769
Non OPEC	4,045	76	102	52	-117	22	-203	-29	500	402	4,447
Angola	485	0	0	0	0	17	0	(s)	0	16	502
Argentina	67	0	0	0	(s)	8	(s)	(s)	24	32	100
Australia	65	(s)	0	0	0	0	-14	(s)	14	(s)	65
Bahama Islands	0	-1	-1	(s)	-3	-4	0	(s)	(s)	-10	-10
Belgium & Luxembourg	0	(s)	0	0	(s)	0	-25	(s)	28	2	2
Benin	6	0	0	0	0	0	0	0	0	0	6
Brazil	0	0	0	0	-19	(s)	-1	(s)	1	-20	-20
Brunei	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Cameroon	0	0	0	0	0	8	0	(s)	0	8	8
Canada	1,035	97	62	-12	71	11	-15	-2	44	256	1,291
China, People's Republic of	36	(s)	0	0	(s)	0	0	-1	(s)	-1	35
China, Taiwan	0	0	0	0	-12	(s)	(s)	-1	(s)	-13	-13
Colombia	252	-1	-7	3	0	10	(s)	-1	(s)	4	256
Congo	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Ecuador ^c	60	0	0	0	0	6	0	(s)	(s)	6	66
Egypt	45	0	0	0	0	0	0	(s)	16	16	61
France	0	0	1	0	-21	-13	-7	(s)	34	-7	-7
Gabon ^d	209	0	0	0	0	0	0	0	0	0	209
Germany, FR	0	0	1	0	(s)	8	-1	(s)	(s)	8	8
Greece	0	0	0	0	0	0	-7	(s)	5	-2	-2
Guatemala	14	0	-4	0	-3	-1	0	(s)	(s)	-8	6
India	0	0	0	0	(s)	0	0	-1	17	16	16
Italy	0	0	4	0	(s)	0	-13	(s)	(s)	-9	-9
Jamaica	0	(s)	0	-1	-8	-28	0	(s)	(s)	-36	-36
Japan	0	0	-5	0	(s)	(s)	-32	-1	-31	-70	-70
Korea, Republic of	-109	0	0	-6	-4	-2	(s)	(s)	3	-9	-118
Malaysia	0	0	0	0	(s)	0	(s)	(s)	31	31	31
Mexico	1,189	-25	-59	0	-31	-10	-5	-4	7	-127	1,062
Netherlands	0	0	1	-8	-122	-10	-28	(s)	21	-146	-146
Netherlands Antilles	0	0	1	26	0	-10	0	-17	69	69	69
Norway	359	8	9	0	0	0	-2	(s)	13	28	387
Oman	44	(s)	0	0	0	0	0	(s)	9	9	54
Panama	0	(s)	0	0	-17	0	(s)	(s)	-2	-19	-19
Peru	10	(s)	0	0	0	0	(s)	(s)	(s)	(s)	10
Puerto Rico	0	0	-8	0	-2	(s)	0	6	5	1	1
Romania	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Russia	33	(s)	-4	0	-19	0	0	(s)	8	-16	17
Spain	0	0	10	0	(s)	0	-16	(s)	24	18	18
Syria	0	0	0	0	(s)	0	0	0	(s)	(s)	(s)
Sweden	0	0	0	0	(s)	0	-1	(s)	(s)	-1	-1
Thailand	0	0	0	(s)	(s)	0	0	(s)	(s)	(s)	(s)
Trinidad and Tobago	55	0	0	0	(s)	3	0	-3	6	7	62
Turkey	0	0	0	0	0	0	-5	(s)	(s)	-5	-5
United Kingdom	136	0	9	0	1	9	-1	(s)	74	92	228
Virgin Islands	0	0	97	47	103	31	0	0	45	324	324
Zaire	11	0	0	0	0	0	0	0	0	0	11
Other	41	-3	-4	3	-31	-11	-30	-3	34	-44	-3
Total	7,550	141	149	91	-54	157	-205	-31	905	1,152	8,702
Persian Gulf^e	1,486	12	8	0	(s)	36	-2	(s)	92	147	1,632

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

^b Includes asphalt and road oil, aviation gasoline, aviation gasoline blending components, kerosene, miscellaneous products, motor gasoline blending components, naphtha for petrochemical feedstock use, other hydrocarbons and oxygenates, other oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

^c On December 31, 1992, Ecuador withdrew as a member of OPEC. As of January 1, 1994, imports of petroleum from Ecuador appear under imports from Non-OPEC Sources.

^d On December 31, 1994, Gabon withdrew as a member of OPEC. As of January 1, 1995, imports of petroleum from Gabon appear under imports from Non-OPEC Sources.

^e Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-814, "Monthly Imports Report" and the U.S. Bureau of the Census.

Table 50. Year-to-Date Net Imports of Crude Oil and Petroleum Products into the United States by Country, January-October 1996
(Thousand Barrels per Day)

Country	Crude Oil ^a	Liquefied Petroleum Gases	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Petroleum Coke	Lubricants	Other Products ^b	Total Products	Total Crude Oil and Products
Arab OPEC	1,500	41	21	1	1	29	-2	-5	273	359	1,859
Algeria	9	34	2	1	1	21	0	(s)	195	255	264
Kuwait	233	0	0	(s)	(s)	0	(s)	(s)	(s)	1	234
Qatar	0	0	0	0	(s)	0	0	(s)	(s)	(s)	(s)
Saudi Arabia	1,254	7	19	0	(s)	7	(s)	(s)	78	111	1,365
United Arab Emirates	3	0	(s)	0	(s)	0	-2	-5	(s)	-7	-4
Other OPEC	2,072	10	47	52	51	86	-7	-1	135	374	2,446
Indonesia	49	0	0	(s)	(s)	7	-1	(s)	4	10	58
Nigeria	635	0	0	-1	(s)	14	0	-1	9	22	657
Venezuela	1,300	10	47	53	51	65	-5	(s)	123	343	1,644
Non OPEC	3,834	63	197	16	-18	23	-279	-16	325	311	4,145
Angola	337	0	0	0	1	4	0	(s)	2	8	344
Argentina	48	(s)	(s)	(s)	-1	1	(s)	(s)	7	7	54
Australia	25	(s)	(s)	0	(s)	0	-12	(s)	5	-7	18
Bahama Islands	0	-1	-1	-1	-4	-3	0	(s)	(s)	-10	-10
Belgium & Luxembourg	0	(s)	4	0	(s)	0	-26	(s)	15	-8	-8
Benin	2	0	0	0	0	0	0	0	0	0	2
Brazil	0	(s)	2	-6	-16	(s)	-2	(s)	1	-22	-22
Brunei	0	0	0	0	0	0	0	(s)	0	(s)	(s)
Cameroon	2	0	0	0	0	2	(s)	(s)	1	3	5
Canada	1,030	86	80	-8	78	7	-15	-2	30	257	1,287
China, People's Republic of	51	-3	-1	0	-3	(s)	0	(s)	(s)	-7	44
China, Taiwan	-4	(s)	0	0	-14	-3	(s)	-1	(s)	-19	-23
Colombia	223	-1	-6	1	(s)	5	(s)	(s)	1	-1	222
Congo	28	0	0	0	0	0	0	(s)	(s)	(s)	28
Ecuador ^c	93	-4	(s)	0	(s)	4	0	(s)	4	3	96
Egypt	34	0	0	0	(s)	1	-1	(s)	7	7	40
France	0	0	2	0	-4	-1	-14	(s)	13	-4	-4
Gabon ^d	174	0	0	0	0	0	0	(s)	0	(s)	174
Germany, FR	0	(s)	(s)	0	1	2	-2	(s)	10	11	11
Greece	0	0	0	0	(s)	0	-5	(s)	6	2	2
Guatemala	13	(s)	-4	(s)	-3	-1	0	-1	(s)	-9	4
India	0	(s)	0	0	-1	0	0	-1	5	4	4
Italy	0	(s)	2	0	-1	(s)	-30	(s)	3	-25	-25
Jamaica	0	-1	0	(s)	-5	-19	-1	(s)	(s)	-26	-26
Japan	-7	-4	-2	-10	-5	-1	-54	-1	-19	-96	-103
Korea, Republic of	-16	-1	(s)	-3	-29	(s)	-5	(s)	8	-30	-46
Malaysia	7	0	0	0	(s)	0	(s)	(s)	6	6	13
Mexico	1,206	-12	-57	4	-13	-27	-4	-4	9	-105	1,101
Netherlands	0	(s)	8	-1	-17	-2	-21	(s)	12	-21	-21
Netherlands Antilles	0	0	1	11	-3	3	0	-4	37	45	45
Norway	313	8	3	0	1	0	-2	(s)	7	17	330
Oman	38	(s)	0	0	0	0	0	(s)	1	1	39
Panama	0	(s)	(s)	-1	-8	-5	(s)	(s)	1	-15	-15
Peru	27	(s)	-1	(s)	-1	6	(s)	(s)	(s)	4	31
Puerto Rico	(s)	(s)	-8	0	-3	(s)	(s)	8	8	4	4
Romania	0	0	0	0	(s)	0	0	(s)	1	1	1
Russia	21	(s)	-1	(s)	-5	1	0	(s)	4	-1	20
Spain	1	(s)	8	0	(s)	1	-33	(s)	20	-4	-3
Syria	0	0	0	0	(s)	0	0	(s)	(s)	(s)	(s)
Sweden	0	0	(s)	0	(s)	(s)	-2	(s)	3	2	2
Thailand	2	(s)	0	(s)	(s)	0	(s)	(s)	(s)	-1	1
Trinidad and Tobago	57	(s)	(s)	(s)	(s)	9	(s)	-2	6	14	71
Turkey	0	0	2	0	(s)	-1	-16	(s)	1	-15	-15
United Kingdom	226	1	47	(s)	(s)	3	-8	(s)	36	78	304
Virgin Islands	-64	0	107	39	79	51	0	(s)	45	320	256
Yemen	0	0	0	0	0	1	0	0	1	2	2
Zaire	16	0	0	0	0	0	0	(s)	0	(s)	16
Other	41	-4	11	-8	-43	-13	-27	-6	29	-61	-20
Total	7,407	114	265	69	34	138	-287	-22	733	1,044	8,450
Persian Gulf^e	1,491	7	19	(s)	(s)	7	-4	-5	80	104	1,594

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

^b Includes asphalt and road oil, aviation gasoline, aviation gasoline blending components, kerosene, miscellaneous products, motor gasoline blending components, naphtha for petrochemical feedstock use, other hydrocarbons and oxygenates, other oils for petrochemical feedstock use, pentanes plus, special naphthas, unfinished oils, and waxes.

^c On December 31, 1992, Ecuador withdrew as a member of OPEC. As of January 1, 1994, imports of petroleum from Ecuador appear under imports from Non-OPEC Sources.

^d On December 31, 1994, Gabon withdrew as a member of OPEC. As of January 1, 1995, imports of petroleum from Gabon appear under imports from Non-OPEC Sources.

^e Includes Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and United Arab Emirates.

(s) = Less than 500 barrels per day.

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

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-814, "Monthly Imports Report" and the U.S. Bureau of the Census.

**Table 51. Stocks of Crude Oil and Petroleum Products by PAD District,
October 1996
(Thousand Barrels)**

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Crude Oil	13,381	65,981	725,366	10,716	68,204	883,648
Refinery	12,437	13,056	47,814	1,861	20,232	95,400
Tank Farms and Pipelines	925	51,905	89,776	7,877	31,165	181,648
Leases	19	1,020	14,159	978	717	16,893
Strategic Petroleum Reserve	0	0	573,617	0	0	573,617
Alaskan In Transit	0	0	0	0	16,090	16,090
Total Stocks, All Oils (excluding Crude Oil)	152,343	147,140	249,130	14,811	92,545	655,969
Refinery	46,034	56,023	133,478	9,792	64,336	309,663
Bulk Terminal	79,223	53,448	68,793	1,957	22,124	225,545
Pipeline	27,037	35,178	44,224	2,822	5,935	115,196
Natural Gas Processing Plant	49	2,491	2,635	240	150	5,565
Pentanes Plus	26	1,911	5,392	182	57	7,568
Refinery	0	279	487	3	0	769
Bulk Terminal	16	966	3,057	1	41	4,081
Pipeline	0	491	1,231	67	0	1,789
Natural Gas Processing Plant	10	175	617	111	16	929
Liquefied Petroleum Gases	7,289	32,491	63,531	1,226	6,410	110,947
Refinery	2,309	4,748	12,504	483	2,065	22,109
Bulk Terminal	3,033	17,712	36,538	131	4,211	61,625
Pipeline	1,908	7,715	12,471	483	0	22,577
Natural Gas Processing Plant	39	2,316	2,018	129	134	4,636
Ethane/Ethylene	1	2,671	16,752	216	0	19,640
Refinery	0	2	1,103	0	0	1,105
Bulk Terminal	1	888	12,138	0	0	13,027
Pipeline	0	1,298	3,218	213	0	4,729
Natural Gas Processing Plant	0	483	293	3	0	779
Propane/Propylene	4,859	19,584	23,447	476	2,233	50,599
Refinery	653	2,011	4,004	118	155	6,941
Bulk Terminal	2,275	12,241	12,727	129	1,959	29,331
Pipeline	1,908	4,299	6,091	157	0	12,455
Natural Gas Processing Plant	23	1,033	625	72	119	1,872
Normal Butane/Butylene	2,188	8,053	17,293	363	3,514	31,411
Refinery	1,418	2,184	5,811	247	1,326	10,986
Bulk Terminal	757	3,609	8,376	2	2,178	14,922
Pipeline	0	1,619	2,359	74	0	4,052
Natural Gas Processing Plant	13	641	747	40	10	1,451
Isobutane/Isobutylene	241	2,183	6,039	171	663	9,297
Refinery	238	551	1,586	118	584	3,077
Bulk Terminal	0	974	3,297	0	74	4,345
Pipeline	0	499	803	39	0	1,341
Natural Gas Processing Plant	3	159	353	14	5	534
Other Hydrocarbons/Hydrogen/Oxygenates	1,672	1,363	3,816	234	4,318	11,403
Refinery	1,539	585	2,155	135	2,990	7,404
Bulk Terminal	133	723	1,394	88	1,104	3,442
Pipeline	0	55	267	11	224	557
Other Hydrocarbons/Hydrogen	0	18	1	0	3	22
Refinery	0	18	1	0	3	22
Fuel Ethanol	23	1,095	91	106	376	1,691
Refinery	W	373	W	W	W	501
Bulk Terminal ^a	W	W	W	W	W	W
Pipeline	W	W	W	W	W	W
ETBE	W	W	W	W	W	W
Refinery	W	W	W	W	W	W
Bulk Terminal	W	W	W	W	W	W
Pipeline	W	W	W	W	W	W
Methanol	W	W	W	W	W	566
Refinery	W	W	W	W	W	566

See footnotes at end of table.

**Table 51. Stocks of Crude Oil and Petroleum Products by PAD District,
October 1996 (Continued)
(Thousand Barrels)**

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
MTBE	1,224	W	3,241	W	3,933	8,771
Refinery	1,092	W	1,899	W	2,967	6,211
Bulk Terminal	W	W	1,075	W	753	2,025
Pipeline	W	W	267	W	213	535
Other Oxygenates^b	W	W	W	W	W	W
Refinery	W	W	W	W	W	W
Bulk Terminal	W	W	W	W	W	W
Pipeline	W	W	W	W	W	W
Unfinished Oils	10,580	15,139	43,154	2,234	20,590	91,697
Refinery						
Naphthas and Lighter	1,954	3,533	10,496	391	3,246	19,620
Kerosene and Light Gas Oils	2,363	1,756	7,497	300	3,983	15,899
Heavy Gas Oils	5,113	5,900	17,555	1,007	10,040	39,615
Residuum	1,150	3,950	7,606	536	3,321	16,563
Motor Gasoline Blending Components	7,387	9,070	14,154	1,503	7,502	39,616
Refinery	6,628	7,672	12,634	1,503	7,431	35,868
Bulk Terminal	759	347	999	0	21	2,126
Pipeline	0	1,051	521	0	50	1,622
Aviation Gasoline Blending Components	192	8	15	0	10	225
Refinery	192	8	15	0	10	225
Finished Motor Gasoline	43,498	37,602	41,218	4,226	22,622	149,166
Refinery	7,354	7,955	16,741	2,018	11,633	45,701
Bulk Terminal	23,390	15,649	8,773	841	8,441	57,094
Pipeline	12,754	13,998	15,704	1,367	2,548	46,371
Reformulated	17,581	1,254	7,929	0	11,192	37,956
Refinery	4,578	397	3,288	0	6,031	14,294
Bulk Terminal	8,475	659	2,083	0	3,892	15,109
Pipeline	4,528	198	2,558	0	1,269	8,553
Oxygenated	305	554	3	191	151	1,204
Refinery	0	455	0	56	146	657
Bulk Terminal	209	87	3	130	4	433
Pipeline	96	12	0	5	1	114
Other	25,612	35,794	33,286	4,035	11,279	110,006
Refinery	2,776	7,103	13,453	1,962	5,456	30,750
Bulk Terminal	14,706	14,903	6,687	711	4,545	41,552
Pipeline	8,130	13,788	13,146	1,362	1,278	37,704
Finished Aviation Gasoline	874	337	621	19	669	2,520
Refinery	659	121	508	18	273	1,579
Bulk Terminal	215	145	87	1	396	844
Pipeline	0	71	26	0	0	97
Naphtha-Type Jet Fuel	0	25	0	48	267	340
Refinery	0	0	0	0	14	14
Bulk Terminal	0	0	0	0	0	0
Pipeline	0	25	0	48	253	326
Kerosene-Type Jet Fuel	9,736	8,547	14,069	666	7,783	40,801
Refinery	1,164	3,422	7,054	282	4,245	16,167
Bulk Terminal	4,342	1,928	1,992	252	2,254	10,768
Pipeline	4,230	3,197	5,023	132	1,284	13,866

See footnotes at end of table.

**Table 51. Stocks of Crude Oil and Petroleum Products by PAD District,
October 1996 (Continued)
(Thousand Barrels)**

Commodity	Petroleum Administration for Defense Districts					U. S. Total
	I	II	III	IV	V	
Kerosene	5,221	1,514	1,363	99	90	8,287
Refinery	671	535	687	48	77	2,018
Bulk Terminal	4,252	852	425	0	8	5,537
Pipeline	298	127	251	51	5	732
Distillate Fuel Oil	43,377	27,230	30,157	2,338	11,691	114,793
Refinery	7,666	8,228	15,743	1,280	6,462	39,379
Bulk Terminal	27,864	10,559	5,700	402	3,892	48,417
Pipeline	7,847	8,443	8,714	656	1,337	26,997
0.05 Percent Sulfur and Under	14,858	19,150	16,030	1,884	8,334	60,256
Refinery	1,779	4,856	7,085	919	4,617	19,256
Bulk Terminal	9,878	7,601	3,633	346	2,681	24,139
Pipeline	3,201	6,693	5,312	619	1,036	16,861
Greater than 0.05 Percent Sulfur	28,519	8,080	14,127	454	3,357	54,537
Refinery	5,887	3,372	8,658	361	1,845	20,123
Bulk Terminal	17,986	2,958	2,067	56	1,211	24,278
Pipeline	4,646	1,750	3,402	37	301	10,136
Residual Fuel Oil^c	16,239	2,050	13,788	392	5,807	38,276
Refinery	3,977	1,356	6,472	392	4,394	16,591
Bulk Terminal	12,262	694	7,316	0	1,179	21,451
Pipeline	0	0	0	0	234	234
Less than 0.31% Sulfur	5,003	191	163	70	547	5,974
Refinery	1,723	13	79	70	501	2,386
Bulk Terminal	3,280	178	84	0	46	3,588
0.31 to 1.00% Sulfur	5,493	587	5,182	226	1,102	12,590
Refinery	1,381	334	1,385	226	962	4,288
Bulk Terminal	4,112	253	3,797	0	140	8,302
Greater than 1.00% Sulfur	5,743	1,272	8,443	96	3,924	19,478
Refinery	873	1,009	5,008	96	2,931	9,917
Bulk Terminal	4,870	263	3,435	0	993	9,561
Naphtha for Petrochemical Feedstock Use	355	376	1,580	0	100	2,411
Refinery	355	376	1,580	0	100	2,411
Other Oils for Petrochemical Feedstock Use	0	0	1,666	0	154	1,820
Refinery	0	0	1,666	0	154	1,820
Special Naphthas	101	245	1,637	1	72	2,056
Refinery	82	245	1,417	1	72	1,817
Bulk Terminal	19	0	220	0	0	239
Lubricants	2,367	1,603	6,335	0	1,308	11,613
Refinery	765	836	5,083	0	961	7,645
Bulk Terminal	1,602	767	1,252	0	347	3,968
Waxes	152	116	411	0	145	824
Refinery	152	116	411	0	145	824
Petroleum Coke	539	766	2,839	222	733	5,099
Refinery	539	766	2,839	222	733	5,099
Asphalt and Road Oil	2,609	6,571	2,623	1,406	2,064	15,273
Refinery	1,337	3,544	2,035	1,173	1,855	9,944
Bulk Terminal	1,272	3,027	588	233	209	5,329
Miscellaneous Products	129	176	761	15	153	1,234
Refinery	65	92	293	0	132	582
Bulk Terminal	64	79	452	8	21	624
Pipeline	0	5	16	7	0	28
Total Stocks, All Oils	165,724	213,121	974,496	25,527	160,749	1,539,617

^a Includes stocks held by producers.

^b Includes tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).

^c Sulfur content not available for stocks held by pipelines.

W = Withheld to avoid disclosure of individual company data.

Note: Stocks are reported as of the last day of the month.

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," and EIA-816, "Monthly Natural Gas Liquids Report."

Table 52. Refinery, Bulk Terminal, and Natural Gas Plant Stocks of Selected Petroleum Products by PAD District and State, October 1996
(Thousand Barrels)

PAD District and State	Motor Gasoline				Kerosene	Distillate Fuel Oil			Residual Fuel	Propane/Propylene
	Total	Reformulated	Oxygenated	Other		Total	0.05% Sulfur and Under	Greater than 0.05% Sulfur		
PAD District I	30,744	13,053	209	17,482	4,923	35,530	11,657	23,873	16,239	2,951
Connecticut	808	808	0	0	146	2,427	902	1,525	100	W
Delaware, D.C., Maryland	1,907	1,624	0	283	181	1,585	519	1,066	2,319	W
Florida	4,528	0	0	4,528	170	1,659	861	798	992	44
Georgia	1,414	0	0	1,414	70	726	427	299	67	W
Maine, New Hampshire, Vermont	943	375	0	568	400	1,902	468	1,434	660	W
Massachusetts	1,435	1,435	0	0	541	3,874	766	3,108	1,092	W
New Jersey	6,503	4,769	2	1,732	942	7,694	1,881	5,813	6,375	W
New York	2,524	848	129	1,547	1,075	6,182	1,625	4,557	1,777	W
North Carolina	1,984	0	0	1,984	365	1,524	843	681	585	W
Pennsylvania	4,255	1,245	78	2,932	653	4,185	1,650	2,535	1,018	W
Rhode Island	490	490	0	0	W	881	154	727	W	W
South Carolina	1,267	0	0	1,267	158	926	582	344	W	W
Virginia	2,456	1,459	0	997	211	1,829	851	978	593	W
West Virginia	230	0	0	230	W	136	128	8	W	W
PAD District II	23,604	1,056	542	22,006	1,387	18,787	12,457	6,330	2,050	15,285
Illinois	3,173	278	42	2,853	217	3,088	2,142	946	630	629
Indiana	2,700	160	111	2,429	306	2,203	1,198	1,005	163	W
Iowa	694	0	0	694	W	899	829	70	W	W
Kansas, Nebraska	1,648	0	0	1,648	18	1,732	1,378	354	10	9,074
Kentucky	1,433	335	53	1,045	105	1,104	613	491	W	W
Michigan	2,748	0	11	2,737	146	1,378	961	417	89	3,042
Minnesota	1,384	30	245	1,109	W	1,221	939	282	102	W
Missouri	1,017	0	0	1,017	W	721	616	105	W	W
North Dakota, South Dakota	452	0	1	451	W	586	338	248	W	W
Ohio	3,456	69	8	3,379	315	1,996	986	1,010	316	W
Oklahoma	2,080	0	2	2,078	W	1,337	955	382	246	716
Tennessee	1,340	0	11	1,329	101	1,122	696	426	198	W
Wisconsin	1,479	184	58	1,237	W	1,400	806	594	28	W
PAD District III	25,514	5,371	3	20,140	1,112	21,443	10,718	10,725	13,788	17,356
Alabama	992	0	0	992	58	659	339	320	175	13
Arkansas	802	0	0	802	W	549	310	239	W	W
Louisiana	5,397	517	0	4,880	220	4,817	2,220	2,597	6,742	2,693
Mississippi	2,039	176	0	1,863	394	1,817	672	1,145	W	4,792
New Mexico	458	0	2	456	W	273	219	54	5	W
Texas	15,826	4,678	1	11,147	417	13,328	6,958	6,370	6,224	9,748
PAD District IV	2,859	0	186	2,673	48	1,682	1,265	417	392	319
Colorado	632	0	186	446	W	282	242	40	W	W
Idaho	232	0	0	232	W	139	88	51	W	W
Montana	983	0	0	983	W	436	436	0	46	13
Utah	518	0	0	518	W	533	249	284	114	232
Wyoming	494	0	0	494	W	292	250	42	W	50
PAD District V	20,074	9,923	150	10,001	85	10,354	7,298	3,056	5,573	2,233
Alaska	490	0	0	490	W	645	287	358	W	W
Arizona	844	0	148	696	W	189	135	54	W	W
California	12,009	9,923	0	2,086	77	5,878	4,859	1,019	3,189	658
Hawaii	635	0	0	635	W	749	254	495	W	W
Nevada	232	0	1	231	W	163	131	32	W	W
Oregon	2,133	0	1	2,132	W	869	612	257	197	W
Washington	3,731	0	0	3,731	W	1,861	1,020	841	833	385
U.S. Total	102,795	29,403	1,090	72,302	7,555	87,796	43,395	44,401	38,042	38,144

W = Withheld to avoid disclosure of individual company data.

Notes: • Stocks are reported as of the last day of the month. • Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration (EIA) Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," and EIA-816, "Monthly Natural Gas Liquids Report."

Table 53. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, October 1996
(Thousand Barrels)

Commodity	From I to			From II to				From III to	
	II	III	V	I	III	IV	V	I	II
Crude Oil	67	611	0	208	1,489	865	0	0	59,566
Petroleum Products	8,583	320	0	3,257	6,429	3,032	0	92,851	29,509
Pentanes Plus	0	0	0	0	419	1	0	0	632
Liquefied Petroleum Gases	0	0	0	736	4,584	126	0	2,654	4,217
Unfinished Oils	17	0	0	28	0	0	0	0	85
Motor Gasoline Blending Components	0	21	0	0	0	0	0	304	1,593
Finished Motor Gasoline	5,575	29	0	1,079	985	1,153	0	50,177	12,889
Reformulated	18	0	0	0	730	0	0	11,673	750
Oxygenated	0	0	0	221	0	13	0	0	0
Other	5,557	29	0	858	255	1,140	0	38,504	12,139
Finished Aviation Gasoline	0	0	0	0	0	14	0	51	106
Jet Fuel	355	0	0	278	0	913	0	14,335	4,657
Naphtha-Type	0	0	0	0	0	0	0	0	0
Kerosene-Type	355	0	0	278	0	913	0	14,335	4,657
Kerosene	71	0	0	84	0	0	0	109	67
Distillate Fuel Oil	2,565	261	0	741	290	825	0	23,998	4,315
0.05 percent sulfur and under	1,959	10	0	362	274	807	0	13,670	3,761
Greater than 0.05 percent sulfur	606	251	0	379	16	18	0	10,328	554
Residual Fuel Oil	0	0	0	41	141	0	0	299	7
Petrochemical Feedstocks ^a	0	0	0	0	0	0	0	0	48
Special Naphthas	0	0	0	0	0	0	0	70	61
Lubricants	0	9	0	56	10	0	0	657	267
Waxes	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	214	0	0	0	186	565
Miscellaneous Products	0	0	0	0	0	0	0	11	0
Total	8,650	931	0	3,465	7,918	3,897	0	92,851	89,075

Commodity	From III to		From IV to			From V to			
	IV	V	II	III	V	I	II	III	IV
Crude Oil	0	0	962	945	0	0	0	5,804	0
Petroleum Products	568	2,559	2,418	2,709	470	0	0	227	0
Pentanes Plus	0	0	168	245	0	0	0	0	0
Liquefied Petroleum Gases	0	0	1,268	2,464	0	0	0	0	0
Unfinished Oils	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	117	0
Finished Motor Gasoline	409	1,868	514	0	395	0	0	0	0
Reformulated	0	0	0	0	0	0	0	0	0
Oxygenated	0	0	0	0	0	0	0	0	0
Other	409	1,868	514	0	395	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0
Jet Fuel	114	317	39	0	55	0	0	0	0
Naphtha-Type	0	0	0	0	55	0	0	0	0
Kerosene-Type	114	317	39	0	0	0	0	0	0
Kerosene	0	0	18	0	0	0	0	0	0
Distillate Fuel Oil	45	374	411	0	20	0	0	0	0
0.05 percent sulfur and under	45	239	411	0	10	0	0	0	0
Greater than 0.05 percent sulfur	0	135	0	0	10	0	0	0	0
Residual Fuel Oil	0	0	0	0	0	0	0	0	0
Petrochemical Feedstocks ^a	0	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	0	0	0
Lubricants	0	0	0	0	0	0	0	110	0
Waxes	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0
Total	568	2,559	3,380	3,654	470	0	0	6,031	0

^a Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

Sources: Energy Information Administration (EIA) Forms EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," and EIA-817, "Monthly Tanker and Barge Movement Report."

**Table 54. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts,
October 1996
(Thousand Barrels)**

Commodity	From I to		From II to			From III to	
	II	III	I	III	IV	I	II
Crude Oil	0	611	0	1,489	865	0	59,566
Petroleum Products	8,566	0	1,167	6,063	3,032	75,023	25,526
Pentanes Plus	0	0	0	419	1	0	632
Liquefied Petroleum Gases	0	0	736	4,584	126	2,654	4,217
Motor Gasoline Blending Components	0	0	0	0	0	83	1,593
Finished Motor Gasoline	5,575	0	89	985	1,153	39,065	10,979
Reformulated	18	0	0	730	0	11,419	730
Oxygenated	0	0	0	0	13	0	0
Other	5,557	0	89	255	1,140	27,646	10,249
Finished Aviation Gasoline	0	0	0	0	14	0	96
Jet Fuel	355	0	157	0	913	12,039	4,424
Naphtha-Type	0	0	0	0	0	0	0
Kerosene-Type	355	0	157	0	913	12,039	4,424
Kerosene	71	0	0	0	0	109	50
Distillate Fuel Oil	2,565	0	185	75	825	21,073	3,535
0.05 percent sulfur and under	1,959	0	50	59	807	11,732	3,297
Greater than 0.05 percent sulfur	606	0	135	16	18	9,341	238
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0
Total	8,566	611	1,167	7,552	3,897	75,023	85,092

Commodity	From III to		From IV to			From V to	
	IV	V	II	III	V	III	IV
Crude Oil	0	0	962	945	0	5,804	0
Petroleum Products	568	2,299	2,418	2,709	470	0	0
Pentanes Plus	0	0	168	245	0	0	0
Liquefied Petroleum Gases	0	0	1,268	2,464	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0
Finished Motor Gasoline	409	1,608	514	0	395	0	0
Reformulated	0	0	0	0	0	0	0
Oxygenated	0	0	0	0	0	0	0
Other	409	1,608	514	0	395	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0
Jet Fuel	114	317	39	0	55	0	0
Naphtha-Type	0	0	0	0	55	0	0
Kerosene-Type	114	317	39	0	0	0	0
Kerosene	0	0	18	0	0	0	0
Distillate Fuel Oil	45	374	411	0	20	0	0
0.05 percent sulfur and under	45	239	411	0	10	0	0
Greater than 0.05 percent sulfur	0	135	0	0	10	0	0
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0
Total	568	2,299	3,380	3,654	470	5,804	0

Sources: Energy Information Administration (EIA) Forms EIA-812, "Monthly Product Pipeline Report," and EIA-813, Monthly Crude Oil Report."

Table 55. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, October 1996
(Thousand Barrels)

Commodity	From I to			From II to			From III to	
	II	III	V	I	III	V	I	New England
Crude Oil	67	0	0	208	0	0	0	0
Petroleum Products	17	320	0	2,090	366	0	17,828	478
Liquefied Petroleum Gases	0	0	0	0	0	0	0	0
Unfinished Oils	17	0	0	28	0	0	0	0
Motor Gasoline Blending Components	0	21	0	0	0	0	221	0
Finished Motor Gasoline	0	29	0	990	0	0	11,112	254
Reformulated	0	0	0	0	0	0	254	254
Oxygenated	0	0	0	221	0	0	0	0
Other	0	29	0	769	0	0	10,858	0
Finished Aviation Gasoline	0	0	0	0	0	0	51	15
Jet Fuel	0	0	0	121	0	0	2,296	209
Naphtha-Type	0	0	0	0	0	0	0	0
Kerosene-Type	0	0	0	121	0	0	2,296	209
Kerosene	0	0	0	84	0	0	0	0
Distillate Fuel Oil	0	261	0	556	215	0	2,925	0
0.05 percent sulfur and under	0	10	0	312	215	0	1,938	0
Greater than 0.05 percent sulfur	0	251	0	244	0	0	987	0
Residual Fuel Oil	0	0	0	41	141	0	299	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	0	0
Greater than 1.00 percent sulfur	0	0	0	41	141	0	299	0
Petrochemical Feedstocks ^a	0	0	0	0	0	0	0	0
Special Naphthas	0	0	0	0	0	0	70	0
Lubricants	0	9	0	56	10	0	657	0
Waxes	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	214	0	0	186	0
Miscellaneous Products	0	0	0	0	0	0	11	0
Total	84	320	0	2,298	366	0	17,828	478

Commodity	From III to				From V to		
	Central Atlantic	Lower Atlantic	II	V	I	II	III
Crude Oil	0	0	0	0	0	0	0
Petroleum Products	856	16,494	3,983	260	0	0	227
Liquefied Petroleum Gases	0	0	0	0	0	0	0
Unfinished Oils	0	0	85	0	0	0	0
Motor Gasoline Blending Components	205	16	0	0	0	0	117
Finished Motor Gasoline	0	10,858	1,910	260	0	0	0
Reformulated	0	0	20	0	0	0	0
Oxygenated	0	0	0	0	0	0	0
Other	0	10,858	1,890	260	0	0	0
Finished Aviation Gasoline	20	16	10	0	0	0	0
Jet Fuel	0	2,087	233	0	0	0	0
Naphtha-Type	0	0	0	0	0	0	0
Kerosene-Type	0	2,087	233	0	0	0	0
Kerosene	0	0	17	0	0	0	0
Distillate Fuel Oil	242	2,683	780	0	0	0	0
0.05 percent sulfur and under	0	1,938	464	0	0	0	0
Greater than 0.05 percent sulfur	242	745	316	0	0	0	0
Residual Fuel Oil	106	193	7	0	0	0	0
Less than 0.31 percent sulfur	0	0	0	0	0	0	0
0.31 to 1.00 percent sulfur	0	0	0	0	0	0	0
Greater than 1.00 percent sulfur	106	193	7	0	0	0	0
Petrochemical Feedstocks ^a	0	0	48	0	0	0	0
Special Naphthas	0	70	61	0	0	0	0
Lubricants	272	385	267	0	0	0	110
Waxes	0	0	0	0	0	0	0
Asphalt and Road Oil	0	186	565	0	0	0	0
Miscellaneous Products	11	0	0	0	0	0	0
Total	856	16,494	3,983	260	0	0	227

^a Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

Source: Energy Information Administration (EIA) Form EIA-817, "Monthly Tanker and Barge Movement Report."

Table 56. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, October 1996
(Thousand Barrels)

Commodity	PAD District I			PAD District II		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	208	678	-470	60,595	2,562	58,033
Petroleum Products	96,108	8,903	87,205	40,510	12,718	27,792
Pentanes Plus	0	0	0	800	420	380
Liquefied Petroleum Gases	3,390	0	3,390	5,485	5,446	39
Ethane/Ethylene	0	0	0	782	2,938	-2,156
Propane/Propylene	3,390	0	3,390	3,645	1,935	1,710
Normal Butane/Butylene	0	0	0	595	484	111
Isobutane/Isobutylene	0	0	0	463	89	374
Unfinished Oils	28	17	11	102	28	74
Motor Gasoline Blending Components	304	21	283	1,593	0	1,593
Finished Motor Gasoline	51,256	5,604	45,652	18,978	3,217	15,761
Reformulated	11,673	18	11,655	768	730	38
Oxygenated	221	0	221	0	234	-234
Other	39,362	5,586	33,776	18,210	2,253	15,957
Finished Aviation Gasoline	51	0	51	106	14	92
Jet Fuel	14,613	355	14,258	5,051	1,191	3,860
Naphtha-Type	0	0	0	0	0	0
Kerosene-Type	14,613	355	14,258	5,051	1,191	3,860
Kerosene	193	71	122	156	84	72
Distillate Fuel Oil	24,739	2,826	21,913	7,291	1,856	5,435
0.05 percent sulfur and under	14,032	1,969	12,063	6,131	1,443	4,688
Greater than 0.05 percent sulfur	10,707	857	9,850	1,160	413	747
Residual Fuel Oil	340	0	340	7	182	-175
Petrochemical Feedstocks ^a	0	0	0	48	0	48
Special Naphthas	70	0	70	61	0	61
Lubricants	713	9	704	267	66	201
Waxes	0	0	0	0	0	0
Asphalt and Road Oil	400	0	400	565	214	351
Miscellaneous Products	11	0	11	0	0	0
Total	96,316	9,581	86,735	101,105	15,280	85,825

Commodity	PAD District III			PAD District IV			PAD District V		
	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	8,849	59,566	-50,717	865	1,907	-1,042	0	5,804	-5,804
Petroleum Products	9,685	125,487	-115,802	3,600	5,597	-1,997	3,029	227	2,802
Pentanes Plus	664	632	32	1	413	-412	0	0	0
Liquefied Petroleum Gases	7,048	6,871	177	126	3,732	-3,606	0	0	0
Ethane/Ethylene	4,378	205	4,173	0	2,017	-2,017	0	0	0
Propane/Propylene	1,690	5,886	-4,196	124	1,028	-904	0	0	0
Normal Butane/Butylene	709	406	303	2	416	-414	0	0	0
Isobutane/Isobutylene	271	374	-103	0	271	-271	0	0	0
Unfinished Oils	0	85	-85	0	0	0	0	0	0
Motor Gasoline Blending Components	138	1,897	-1,759	0	0	0	0	117	-117
Finished Motor Gasoline	1,014	65,343	-64,329	1,562	909	653	2,263	0	2,263
Reformulated	730	12,423	-11,693	0	0	0	0	0	0
Oxygenated	0	0	0	13	0	13	0	0	0
Other	284	52,920	-52,636	1,549	909	640	2,263	0	2,263
Finished Aviation Gasoline	0	157	-157	14	0	14	0	0	0
Jet Fuel	0	19,423	-19,423	1,027	94	933	372	0	372
Naphtha-Type	0	0	0	0	55	-55	55	0	55
Kerosene-Type	0	19,423	-19,423	1,027	39	988	317	0	317
Kerosene	0	176	-176	0	18	-18	0	0	0
Distillate Fuel Oil	551	28,732	-28,181	870	431	439	394	0	394
0.05 percent sulfur and under	284	17,715	-17,431	852	421	431	249	0	249
Greater than 0.05 percent sulfur	267	11,017	-10,750	18	10	8	145	0	145
Residual Fuel Oil	141	306	-165	0	0	0	0	0	0
Petrochemical Feedstocks ^a	0	48	-48	0	0	0	0	0	0
Special Naphthas	0	131	-131	0	0	0	0	0	0
Lubricants	129	924	-795	0	0	0	0	110	-110
Waxes	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	751	-751	0	0	0	0	0	0
Miscellaneous Products	0	11	-11	0	0	0	0	0	0
Total	18,534	185,053	-166,519	4,465	7,504	-3,039	3,029	6,031	-3,002

^a Includes naphtha less than 401° F endpoint and other oils equal to or greater than 401° F endpoint.

Sources: Energy Information Administration (EIA) Forms EIA-812, "Monthly Product Pipeline Report," EIA-813, "Monthly Crude Oil Report," and EIA-817, "Monthly Tanker and Barge Movement Report."

Appendix A

District Descriptions and Maps

Tank trucks are used to distribute heating oil to remote areas.

District Descriptions and Maps

The following are the Refining Districts which make up the Petroleum Administration for Defense (PAD) Districts.

PAD 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 No. 1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

Sub-PAD District I

New England: The States of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.

Central Atlantic: The District of Columbia and the States of Delaware, Maryland, New Jersey, New York, and Pennsylvania.

Lower Atlantic: The States of Florida, Georgia, North Carolina, South Carolina, Virginia and West Virginia.

PAD District II

Indiana-Illinois-Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and Ohio.

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.

PAD District III

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.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, 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.

PAD District IV

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

PAD District V

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

Petroleum Administration for Defense (PAD) Districts

Refining Districts

Appendix B

Detailed Statistics
Explanatory
Notes

The cluster of pipes and valves that control the flow of oil at the mouth of an oil well is what oilmen call a "Christmas Tree."

Explanatory Notes

The following Explanatory Notes are provided to assist in understanding and interpreting the data presented in the Detailed Statistics section of this publication.

- Note 1. Petroleum Supply Reporting System
- Note 2. Monthly Petroleum Supply Reporting System
- Note 3. Technical Notes for Detailed Statistics Tables
- Note 4. Domestic Crude Oil Production
- Note 5. Export Data
- Note 6. Quality Control and Data Revision
- Note 7. Frames Maintenance
- Note 8. Practical Limitations of Data Collection Efforts
- Note 9. 1994 Changes in the Petroleum Supply Monthly

Note 1. Petroleum Supply Reporting System

The Petroleum Supply Reporting System (PSRS) represents a family of data collection survey forms, data processing systems, and publication systems that have been consolidated to achieve comparability and consistency throughout. The survey forms that comprise the PSRS are listed below:

Form Number	Name
EIA-800	"Weekly Refinery Report"
EIA-801	"Weekly Bulk Terminal Report"
EIA-802	"Weekly Product Pipeline Report"
EIA-803	"Weekly Crude Oil Stocks Report"
EIA-804	"Weekly Imports Report"
EIA-807	"Propane Telephone Survey"
EIA-810	"Monthly Refinery Report"
EIA-811	"Monthly Bulk Terminal Report"
EIA-812	"Monthly Product Pipeline Report"
EIA-813	"Monthly Crude Oil Report"
EIA-814	"Monthly Imports Report"
EIA-816	"Monthly Natural Gas Liquids Report"
EIA-817	"Monthly Tanker and Barge Movement Report"
EIA-819M	"Monthly Oxygenate Telephone Report"
EIA-819A	"Annual Oxygenate Capacity Report"
EIA-820	"Annual Refinery Report"

Forms EIA-800 through 804 comprise the Weekly Petroleum Supply Reporting System (WPSRS). A sample of all petroleum companies report weekly data to the Energy Information Administration (EIA) on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Data collected from the WPSRS are used to develop estimates of the most current monthly quantities in the Summary Statistics section of the *Petroleum Supply Monthly* (PSM) and which appear in the *Weekly Petroleum Status Report* (WPSR).

The Form EIA-807, "Propane Telephone Survey" is used to collect data on production, stocks, and imports of propane. These data are used to monitor the supply of propane and to report to the Congress and others on supplies when requested. Data are collected from a sample of respondents reporting on the Monthly Petroleum Supply Reporting System (MPSRS) surveys. Data are collected on a weekly basis during the heating season (October through March) and published in the *Winter Fuels Report*. During the non-heating season (April through September) data are collected on end-of-month stocks only. These data are published in the *WPSR*.

Forms EIA-810 through 814, 816, and 817 comprise the MPSRS. These surveys are used to collect detailed refinery/blender and natural gas plant operations data; refinery/blender, bulk terminal, natural gas plant, and pipeline stocks data; crude oil and petroleum product imports data; and data on movements of petroleum products and crude oil between Petroleum Administration for Defense (PAD) Districts. A description of the MPSRS forms follows in Explanatory Note 2.

Data from these surveys are published in preliminary form in the *PSM*. They are published in final form in the *Petroleum Supply Annual* (PSA), Volumes 1 and 2.

Summary information on the revision error between preliminary and final data is published once a year in the *PSM* feature article entitled, "Timeliness and Accuracy of Petroleum Supply Data." The last article was published in the August 1993 issue and evaluated the accuracy of the data for 1992 compared with previous years.

The Form EIA-819M, "Monthly Oxygenate Telephone Report," is used to collect preliminary data on production, imports, and stocks of oxygenates by PAD District. These

data are used to monitor the supply of oxygenates. Data are collected from a sample of respondents reporting on the MPSRS surveys and from the universe of oxygenate producers. Data are published in Appendix D of this publication and in the *WPSR*.

The Form EIA-819A, "Annual Oxygenate Capacity Report," is used to collect data on current and projected production capacity of oxygenates and annual production and end-of-year inventories of fuel ethanol. The results of this survey are published in the Oxygenate Capacity section of the *PSA*, Volume 1.

The Form EIA-820, "Annual Refinery Report," is used to collect data on refinery fuel use and consumption of steam and electricity, refinery receipts of crude oil by method of transportation, operable capacity for atmospheric crude oil distillation units and downstream units, as well as production capacity and storage capacity for petroleum products. This survey is the primary source of data in the Refinery Capacity section of the *PSA* Volume 1.

Note 2. Monthly Petroleum Supply Reporting System

The Monthly Petroleum Supply Reporting System (MPSRS) was implemented in January 1983 as the result of an extensive effort by the Energy Information Administration (EIA) to integrate the collection and processing of petroleum supply data that had been collected on other survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the U.S. Bureau of Mines began collecting data on refinery operations, crude oil stocks and movements. The collection systems were further expanded in 1925 to include natural gas plant liquids production and storage, imports of crude oil and petroleum products and storage and movement of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1964. Since their inception, each survey has undergone numerous changes, but the MPSRS was the first effort to make them all consistent and comparable. The forms that comprise the MPSRS are:

Form Number	Name
EIA-810	"Monthly Refinery Report"
EIA-811	"Monthly Bulk Terminal Report"
EIA-812	"Monthly Product Pipeline Report"
EIA-813	"Monthly Crude Oil Report"
EIA-814	"Monthly Imports Report"
EIA-816	"Monthly Natural Gas Liquids Report"
EIA-817	"Monthly Tanker and Barge Movement Report"
EIA-819M	"Monthly Oxygenate Telephone Report"

Respondent Frame

Form EIA-810, "Monthly Refinery Report" - Operators of all operating and idle petroleum refineries and blending plants located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam and other U.S. possessions. Approximately 240 respondents report on the Form EIA-810.

Form EIA-811, "Monthly Bulk Terminal Report" - Every bulk terminal operating company located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, and other U.S. possessions. A bulk terminal is primarily used for storage and/or marketing of petroleum products and has a total bulk storage capacity of 50,000 barrels or more, and/or receives petroleum products by tanker, barge, or pipeline. Bulk terminal facilities associated with a product pipeline are included. In addition, the Form EIA-811 must be completed by merchant oxygenate plants that produce oxygenates. Approximately 330 respondents report on the Form EIA-811.

Form EIA-812, "Monthly Product Pipeline Report" - All product pipeline companies that carry petroleum products (including interstate, intrastate, and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 80 respondents report on the Form EIA-812.

Form EIA-813, "Monthly Crude Oil Report" - All companies which carry or store 1,000 barrels or more of crude oil. Included in this survey are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil (except refineries), and companies transporting Alaskan crude oil by water in the 50 States and the District of Columbia. Approximately 160 respondents report on the Form EIA-813.

Form EIA-814, "Monthly Imports Report" - All companies, including subsidiary or affiliated companies, that import crude oil or petroleum products (1) into the 50 States and the District of Columbia, (2) into Puerto Rico, the Virgin Islands and other U.S. possessions (Guam, Midway Islands, Wake Island, American Samoa, and Northern Mariana Islands), and (3) from Puerto Rico, the Virgin Islands and other U.S. possessions into the 50 States and the District of Columbia. Imports into Foreign Trade Zones located in the 50 States and the District of Columbia are considered imports into the 50 States and the District of Columbia and must be reported. A report is required only if there has been an import during the month unless the importer has been selected as part of a sample to report every month regardless of activity. Approximately 220 respondents report on the Form EIA-814.

Form EIA-816, "Monthly Natural Gas Liquids Report" - Operators of all facilities that extract liquid hydrocarbons from a natural gas stream (natural gas processing plant) and/or separate a liquid hydrocarbon stream into its com-

ponent products (fractionator). Approximately 720 respondents report on the Form EIA-816.

Form EIA-817, "Monthly Tanker and Barge Movement Report" - All companies that have custody of crude oil or petroleum products transported by tanker or barge between Petroleum Administration for Defense (PAD) Districts or between the Panama Canal and the United States. For purposes of this report, custody is defined as physical possession of crude oil or petroleum products on a company-owned tanker or barge. Also, companies which lease vessels or contract for the movement of crude oil or petroleum products on a tanker or barge between PAD Districts or between the Panama Canal and the United States are considered to have custody. Approximately 40 respondents report on the Form EIA-817.

Form EIA-819M, "Monthly Oxygenate Telephone Report" - The sample of companies that report on the EIA-819M are selected from the universe of companies that report on the MPSRS surveys and from the universe of oxygenate producers. The universe consists of (1) operators of facilities that produce (manufacture or distill) oxygenates (including MTBE plants, petrochemical plants, and refineries that produce oxygenates as part of their operations); (2) operators of petroleum refineries; (3) operators of bulk terminals, bulk stations, blending plants, and other nonrefinery facilities that store and/or blend oxygenates; and (4) importers of oxygenates (importer of record) located in or importing oxygenates into the 50 States and the District of Columbia. Approximately 100 respondents report on the Form EIA-819M.

Sampling

The sampling procedure used for the survey Form EIA-819M is the cut-off method and is performed using software developed by EIA's Office of Statistical Standards. In the cut-off method, companies are ranked from largest to smallest on the basis of quantities reported (oxygenate production, oxygenate stocks, and oxygenate imports) during 1993. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers approximately 90 percent of the total for each oxygenate item and supply type by geographic region (PAD Districts I through V) for which data may be published.

Description of Survey Forms

The Form EIA-810, "Monthly Refinery Report," is used to collect data on refinery input and capacity, sulfur content and API gravity of crude oil, and data on supply (beginning stocks, receipts, and production) and disposition (inputs, shipments, fuel use and losses, and ending stocks) of crude oil and refined products.

The Form EIA-811, "Monthly Bulk Terminal Report," is used to collect data on end-of-month stock levels of finished petroleum products by State in the custody of the

bulk terminal company or merchant oxygenate plant regardless of ownership. Leased tankage at other facilities is excluded. All domestic and foreign stocks held at bulk terminals and in-transit thereto, except those in-transit by pipeline are included. Petroleum products in-transit by pipeline are reported by pipeline operators on Form EIA-812, "Monthly Product Pipeline Report."

The Form EIA-812, "Monthly Product Pipeline Report," is used to collect data on end-of-month stock levels and movements of petroleum products transported by pipeline. Intermediate movements for pipeline systems operating in more than two PAD Districts are included.

The Form EIA-813, "Monthly Crude Oil Report," is used to collect data on end-of-month stocks of crude oil held at pipeline and tank farms (associated with the pipelines) and terminals operated by the reporting company. Also, crude oil consumed by pipelines and on leases as pump fuel, boiler fuel, etc., is reported. Data are reported on a PAD District basis.

Total Alaskan crude oil stocks in-transit by water (including stocks held at transshipment terminals between Alaska and the continental United States) to the 50 States, the District of Columbia, Puerto Rico, and the Virgin Islands are also reported by the transporting company having custody of the stocks.

Inter-PAD District movements of crude oil by pipeline are collected by the shipping and receiving PAD District. Intermediate movements for pipeline systems operating in more than two PAD Districts are not included.

The Form EIA-814, "Monthly Imports Report," is used to collect data on imports of crude oil and petroleum products (1) into the 50 States and the District of Columbia, (2) into Puerto Rico, the Virgin Islands, and other U.S. possessions (Guam, Midway Islands, Wake Island, American Samoa, and Northern Mariana Islands), and (3) from Puerto Rico, the Virgin Islands, and other U.S. possessions into the 50 States and the District of Columbia. Imports into Foreign Trade Zones located in the 50 States and the District of Columbia are considered imports into the 50 States and the District of Columbia.

The type of commodity, port of entry, country of origin, quantity (thousand barrels), sulfur percent by weight, API gravity, and name and location of the processing or storage facility are reported. Sulfur percent by weight is requested for crude oil, crude oil burned as fuel, and residual fuel oil only. API gravity is requested for crude oil only. The name and location of the processing or storage facility is requested for crude oil, unfinished oils, other hydrocarbons/hydrogen/oxygenates and blending components only.

The Form EIA-816, "Monthly Natural Gas Liquids Report," is used to collect data on the operations of natural gas processing plants and fractionators. Beginning and end-of-month stocks, receipts, inputs, production, ship-

ments, and plant fuel use and losses during the month are collected from operators of natural gas processing plants. End-of-month stocks are collected from fractionators.

The Form EIA-817, "Monthly Tanker and Barge Movement Report," is used to collect data on the movements of crude oil and petroleum products between PAD Districts. Data are reported by shipping and receiving PAD District and sub-PAD District. Shipments to and from the Panama Canal are also included if the shipment was delivered to the Canal.

The Form EIA-819M, "Monthly Oxygenate Telephone Report," is used to collect data on production, stocks, and imports of oxygenates. Data on end-of-month stocks are reported on a custody basis regardless of ownership. Data are reported on a PAD District basis.

Collection Methods

Except for the EIA-819M, survey forms for the MPSRS can be submitted by mail, facsimile, or electronic transmission. Completed forms are required to be postmarked by the 20th calendar day following the end of the report month. Data collection for the 819M begins on the seventh working day of each month. Data are solicited by telephone or transmitted to the EIA by facsimile. Receipt of the reports are monitored using an automated respondent mailing list. Telephone follow-up calls are made to nonrespondents prior to the publication deadline.

Response Rate

The response rate is generally 98 to 100 percent. Chronic nonrespondents and late filing respondents are contacted in writing and reminded of their requirement to report. Companies that file late or fail to file are subject to criminal fines, civil penalties, and other sanctions as provided by Section 13(i) of the Federal Energy Administration (FEA) Act.

Data Imputation

Imputation is performed for companies that fail to file Forms EIA-810 through 813, 816, and 819M. For such companies, previous monthly values are used for current values.

On the EIA-819M, data are aggregated for each geographic region. Estimation factors, which are derived from the previous year's data, are then applied to each cell to generate published estimates.

Data for nonrespondents on the Forms EIA-814 and 817 are not imputed because these data series, by respondent, are highly variable.

Confidentiality

The Office of Legal Counsel of the Department of Justice concluded on March 20, 1991, that the Federal Energy Administration Act requires the EIA to provide company-specific data to the Department of Justice, or to any Federal agency when requested for official use, which may include enforcement of Federal law. The information contained on this form may also be made available, upon request, to another component of the Department of Energy (DOE), to any Committee of Congress, the General Accounting Office, or other Congressional agencies authorized by law to receive such information. A court of competent jurisdiction may obtain this information in response to an order.

The information contained on Forms EIA-810 through 813, 816, 817, and 819M are kept confidential and not disclosed to the public to the extent that they satisfy the criteria for exemption under the Freedom of Information Act (FOIA), 5 U.S.C. 552, the Department of Energy (DOE) regulations, 10 C.F.R. 1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C. 1905. The information contained on Form EIA-814 are not considered confidential and historically has not been treated as such.

Upon receipt of a request for this information under the FOIA, the DOE shall make a final determination whether the information is exempt from disclosure in accordance with the procedures and criteria provided in the regulations. To assist us in this determination, respondents should demonstrate to the DOE that, for example, their information contains trade secrets or commercial or financial information whose release would be likely to cause substantial harm to their company's competitive position. A letter accompanying the submission that explains (on an element-by-element basis) the reasons why the information would be likely to cause the respondent substantial competitive harm if released to the public would aid in this determination. A new justification does not need to be provided each time information is submitted on the form, if the company has previously submitted a justification for that information and the justification has not changed. Company specific data are also provided to other DOE offices for the purpose of examining operations in the context of emergency response planning and actual emergencies.

The data collected on Forms EIA-810 through 814, 816, and 817 appear in EIA publications such as *Petroleum Supply Monthly* (PSM), *Monthly Energy Review*, *Petroleum Supply Annual* (PSA), and the *Annual Energy Review*.

Data on the breakdown between liquefied refinery gases and olefins, and lubricants is suppressed on PSM Table 29, "Refinery Net Production of Finished Petroleum Products by PAD and Refining Districts" and the corresponding

PSA table to avoid disclosure of company identifiable data.

Statistics representing data aggregated from less than three companies or aggregated data representing 60 percent or more of a single company's data are suppressed on the PSM and corresponding PSA tables listed below. In addition, complementary suppression is performed to avoid any residual disclosure.

- Table 28, "Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts," (inputs of oxygenates)
- Table 30, "Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts," (stocks of oxygenates)
- Table 51, "Stocks of Crude Oil and Petroleum Products by PAD District," (stocks of oxygenates)
- Table 52, "Refinery, Bulk Terminal, and Natural Gas Plant Stocks of Selected Petroleum Products," (all products)
- Table D2, "Monthly Fuel Ethanol Production and Stocks by PAD Districts," and
- Table D3, "Monthly MTBE Production and Stocks by PAD Districts."

With the exception of the tables listed above, the tables in the *PSM* (and corresponding PSA tables) are not subject to statistical nondisclosure procedures. Thus, there may be some table cells which are based on data from only one or two respondents, or which are dominated by data from one or two large respondents. In these cases, it may be possible for a knowledgeable user of the data to make inferences about the data reported by a specific respondent.

Note 3. Technical Notes for Detailed Statistics Tables

The detailed statistics tables in the *Petroleum Supply Monthly* (PSM) provide complete supply and demand information for the current year. The tables are organized to locate National and Petroleum Administration for Defense (PAD) District summary data at the front followed by tables on crude oil and petroleum product production, import/export data, stocks information, and lastly, data on crude oil and petroleum product movements. To assist in the interpretation of these tables, the following technical notes are provided. Column and row headings are defined in the Glossary.

Supply

Field Production - Field production is the sum of crude oil production, natural gas plant liquids production, other liquids production, and finished petroleum products production.

Crude oil production is an estimate based on data received from State conservation agencies and the Mineral Management Service of the U.S. Department of the Interior. Refer to Explanatory Note 4 for further details.

Field production of natural gas plant liquids is reported on Form EIA-816 and published on a net basis (i.e., production minus inputs) in this column.

Other liquids field production is calculated by forcing the product supplied to be zero; thereby backing into field production.

Field production of finished petroleum products is calculated by (1) adding the amount of fuel ethanol that has been blended into finished motor gasoline, and (2) plus (+) or minus (-) the field production of motor gasoline blending components. Refer to Explanatory Note 8 for a further discussion of this calculation.

Negative field production of motor gasoline blending components represents an understatement for finished motor gasoline.

Negative field production of other finished motor gasoline represents an overstatement of other finished motor gasoline and an understatement of oxygenated motor gasoline.

Refinery Production - Published production of these products equal refinery production minus refinery input. Refinery production of other hydrocarbons, hydrogen and oxygenates, unfinished oils, and motor and aviation gasoline blending components appear on a net basis under refinery input. Negative refinery 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.

Unaccounted for Crude Oil - This column is a balancing item for crude oil. This data element represents the difference between crude oil supply and disposition. Crude oil supply is the sum of field production and imports. Crude oil disposition is the sum of stock change, losses, refinery inputs, exports, and products supplied. A positive 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 indicates that more crude oil was reported to have been supplied to refiners and exporters than they reported to have used.

Disposition

Stock Change - This column is calculated as the difference between the Ending Stocks column of this table and the Ending Stocks column of this table in the prior month's publication. A negative number indicates a

decrease in stocks and a positive number indicates an increase in stocks.

Crude Losses - The volume of crude oil reported by petroleum refineries as being lost in their operations. These losses are due to spills, contamination, fires, etc., as opposed to refining processing losses or gains.

Refinery Inputs - Refinery inputs of crude oil and intermediate materials (unfinished oils, gasoline blending components, other hydrocarbons and oxygenates, liquefied petroleum gases, and pentanes plus) that are processed at refineries to produce finished petroleum products.

Crude oil inputs represents total crude oil (domestic and foreign) input to atmospheric crude oil distillation units and other refinery processing units (i.e., catalytic cracking units, cokers).

Inputs of natural gas liquids are natural gas liquids received from natural gas plants for blending and processing. Published inputs of natural gas liquids are reported on a gross basis.

Inputs of unfinished oils, motor and aviation gasoline blending components, and other hydrocarbons and oxygenates are published on a net basis (i.e., refinery input minus refinery production).

Inputs of finished petroleum products are published on a net basis (i.e., refinery production minus refinery inputs) and displayed under the refinery production column.

Exports - Exports include crude oil shipments from the 50 States to Puerto Rico, and the Virgin Islands.

Products Supplied - Products supplied is equal to field production, plus refinery production, plus imports, plus unaccounted for crude oil, (plus net receipts on a PAD District basis), minus stock change, minus crude losses, minus refinery inputs, minus exports.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of the product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported; (2) data were misreported or reported late; (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete; and (4) products such as gasoline blending components and unfinished oils have entered the primary supply channels with their production not having been reported, e.g., streams returned to refineries from petrochemical plants.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel. Prior to January 1983, crude oil burned on leases and by pipelines as fuel

were reported as either distillate or residual fuel oil and were included in product supplied for these products.

Yields

The refinery yield of finished motor gasoline is calculated by subtracting the inputs of pentanes plus, liquefied petroleum gases, other hydrocarbons/oxygenates and motor gasoline blending components from the production of finished motor gasoline before dividing by the sum of crude oil input and unfinished oils input (net).

The refinery yield of finished aviation gasoline is calculated by subtracting the inputs of aviation gasoline blending components from the production of finished aviation gasoline before dividing by the sum of crude oil input and unfinished oils input (net).

Refinery yields for all products (except finished motor gasoline and finished aviation gasoline) are calculated by dividing the production for each product by the sum of crude oil input and unfinished oils input (net) reported in the U.S. total.

Stocks

Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or tertiary stocks held by consumers.

Movements

Movements of crude oil by pipeline between PAD Districts include trunk pipeline companies (interstate, intrastate, and intracompany pipelines). Intermediate movements for crude oil pipeline systems operating in more than two PAD Districts are not included.

Movements of petroleum products by pipeline between PAD Districts include trunk pipeline companies (interstate, intrastate and intracompany pipelines). Intermediate movements for product pipeline systems operating in more than two PAD Districts are included. For example, a shipment originating in PAD District 3, passing through PAD District 2 to PAD District 1, is reported as a movement from PAD District 3 to PAD District 2 and also from PAD District 2 to PAD District 1.

Waterborne movements of crude oil and petroleum products between PAD Districts include all shipments of crude oil or petroleum products for which the transporter has custody at the time of shipment. Custody is defined as physical possession of crude oil or petroleum products on a company-owned tanker and barge.

Note 4. Domestic Crude Oil Production

The Energy Information Administration (EIA) collects monthly crude oil production data on an ongoing basis. Data on crude oil production for States are reported to the

EIA by State government agencies. Data on crude oil production for Federal offshore areas are reported to the EIA by the Minerals Management Service of the U.S. Department of the Interior and the California Department of Conservation.

Currently, all except four crude oil producing States (Michigan, New York, Ohio, and Pennsylvania) report production on a monthly basis. These four States report crude oil production on an annual basis. Estimates of monthly crude oil production for these four States are made by the EIA using data reported on Form EIA-182, "Domestic Crude Oil First Purchase Report." After the end of each calendar year, the monthly crude oil production estimates are updated using annual reports from various State agencies, the Minerals Management Service, and the California Department of Conservation. The final estimate is published in the Petroleum Supply Annual (PSA).

Table 26 of this publication provides estimates of crude oil production in the latest month for which most State production data are available. There is a time lag of approximately 4 months between the end of the production month and the time when most monthly State crude oil production data become available.

In order to present more timely crude oil production estimates, the EIA prepares a weekly crude oil production estimate, which is used in the Weekly Petroleum Status Report. At the end of the production month, these weekly estimates are aggregated into an original estimate of monthly crude oil production. Approximately 45 days later, this original estimate is replaced by State-level interim estimates. The State-level interim estimates are based on: (a) data reported by the States (e.g., production data for Alaska are typically reported to the EIA before the interim estimate is made); (b) first purchase data reported on Form EIA-182, "Domestic Crude Oil First Purchase Report;" (c) exponential or hyperbolic curve fitted projections based on recent State data; or (d) constant level projections based on the average production rate during a recent time period.

Table B1 is intended to provide further insight into the EIA's estimates of monthly U.S. crude oil production. It shows: (a) how the aggregate of reported State data evolves over a period of 18 months; (b) the number of producing States that have not reported production for a given month within that period; and (c) various EIA estimates of monthly crude oil production within that period:

- The original estimate is a monthly aggregate of the weekly crude oil production estimates published in the Weekly Petroleum Status Report. This original monthly estimate is used in the Petroleum Supply Monthly (PSM) Tables S1 and S2 until replaced by the interim estimate.

- The interim estimate is used in the PSM Tables 1 through 25, and in Tables S1 and S2 until replaced by the final estimate.
- The initial estimate based upon first purchase data collected on the Form EIA-182 is used as an estimation tool in generating the interim estimate. The initial volume represents the best estimate available 40 days after the end of the production month and includes imputation for nonresponse and possible reporting errors. The revised volume is the best estimate available about 70 days after the production month and includes imputation as needed. A final revision is published concurrent with publication of Form EIA-182 price data in the Petroleum Marketing Annual.
- The final estimate is published in the PSA.

Note 5. Export Data

Each month the Energy Information Administration (EIA) receives magnetic tapes of aggregated export statistics from the U.S. Bureau of the Census (EM-522 and EM-594).

Census export statistics used in the Petroleum Supply Monthly reflect both government and nongovernment exports of domestic and foreign merchandise from the United States (the 50 States and the District of Columbia) to foreign countries and U.S. possessions, without regard to whether or not the exportation involves a commercial transaction. The following types of transactions are excluded from the statistics:

- (1) Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
- (2) 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 U.S. Bureau of the Census. Exporters are required to file export documents with U.S. Customs officials (Customs Form 7525).

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.

Table B1. U.S. Crude Oil^a Production Estimates and Reported States^b Data by Month
(Thousand Barrels per Day)

Date of Data	Month of Production																	
Availability	6-95	7-95	8-95	9-95	10-95	11-95	12-95	1-96	2-96	3-96	4-96	5-96	6-96	7-96	8-96	9-96	10-96	11-96
Reported State Data ^c																		
8-14-95	1513	0																
9-14-95	3463	1417	0															
10-14-95	5886	3482	1457	0														
11-14-95	5898	5743	3529	1389	0													
12-14-95	5901	5761	5694	3392	1483	0												
1-14-96	6101	5785	5701	4766	3426	1494	0											
2-14-96	6102	5797	5720	5685	5628	3390	1486	0										
3-14-96	6174	5796	5765	5739	5727	4795	3429	1455	0									
4-14-96	6182	5882	5850	5796	5754	5900	4864	3340	1501	0								
5-14-96	6238	6098	6073	6037	6043	6143	6037	3992	3464	1469	0							
6-14-96	6238	6098	6099	6038	6044	6147	6059	5818	4754	3443	1472	0						
7-14-96	6236	6096	6097	6060	6067	6172	6086	5821	5878	4808	3344	1355	0					
8-14-96	6603	6457	6096	6062	6072	6176	6088	5917	5968	5969	4925	3311	1550	0				
9-14-96	6600	6457	6459	6062	6072	6176	6089	6117	6157	5683	5534	4643	1879	1451	0			
10-14-96	6600	6457	6459	6422	6439	6548	6089	6121	6163	5753	5805	5685	4767	1781	1425	0		
11-14-96	6600	6457	6459	6422	6439	6549	6090	6121	6164	5954	5811	5699	5759	3177	1823	1497	0	
12-14-96	6600	6457	6459	6422	6439	6549	6091	6125	6166	5956	5843	5766	5800	4641	4533	1915	1421	0
Producing States Without Reported Monthly Production ^d																		
12-14-96	1	1	1	1	1	1	2	6	6	7	7	8	8	10	11	18	28	33
Type of Estimate	Month of Production																	
	6-95	7-95	8-95	9-95	10-95	11-95	12-95	1-96	2-96	3-96	4-96	5-96	6-96	7-96	8-96	9-96	10-96	11-96
Product Estimates																		
Original ^e	6557	6462	6481	6388	6441	6489	6447	6460	6505	6463	6364	6321	6474	6401	6434	6494	6503	6531
Interim ^f	6540	6449	6462	6380	6429	6554	6520	6495	6550	6516	6479	6443	6502	6383	6389	6504	6490	
Form EIA-182																		
Initial.....	6192	6051	6090	6042	6083	6214	6141	6118	6170	6166	6024	5964	6040	5791	5908	5959	5985	
Revised....	6213	6058	6108	6051	6070	6211	6146	6110	6193	6171	6018	5928	5997	5841	5878	5956		
Final ^g	6579	6449	6447	6416	6421	6585	6530											

^a Includes lease condensate.

^b Includes Federal offshore areas, Gulf of Mexico (PADD III) and Pacific (PADD V), as two separate reporting entities.

^c Includes EIA prorated monthly production in 1994 (annual average of 58 thousand barrels per day) for three States (Michigan, New York, and Ohio) for which only annual State data are available. Includes EIA prorated monthly production in 1995 (annual average of 55 thousand barrels per day) for three States (Michigan, New York, and Ohio) for which only annual State data are available.

^d Michigan, New York, and Ohio are counted as having monthly reported data in 1994 after their annual reports were received. These data are first reported as of 5-16-95. Michigan, New York, and Ohio are counted as having monthly reported data in 1995 after their annual reports were received. These data are first reported as of 5-16-96.

^e Original estimates are weighted averages based on the weekly estimates published in the *Weekly Petroleum Status Report*.

^f Interim estimates were made 44 days after the end of the production month.

^g Published in the *Petroleum Supply Annual* 1994, DOE/EIA 0340(94)/2.

Note 6. Quality Control and Data Revision

Quality Control

The Energy Information Administration (EIA) monitors the supply and disposition of crude oil, petroleum products, and natural gas liquids in the United States. Through a tracking system, the EIA provides insight into the activities of primary operators and distributors in the petroleum industry. The tracking system, known as the Petroleum Supply Reporting System (PSRS), consists of production, inputs, imports, inventories, movements, and other petroleum-related data collected on weekly, monthly, and annual surveys.

Survey forms are periodically reviewed for completeness, meaningfulness, and clarity. Modifications are made, when needed, to maintain efficient measure of the intended data items and to track product movement accurately throughout the industry. Through this process, the EIA can maintain consistency among forms, minimize respondent burden, and eliminate ambiguity.

Sampling and Nonsampling Errors

There are two types of errors usually associated with data produced from a survey: nonsampling errors and sampling errors. Because the estimates for the monthly surveys 810 through 813, 816, and 817 are based on a complete census of the frame, there is no sampling error in the data presented. The data, however, are subject to nonsampling errors. Nonsampling errors, sometimes referred to as biases, are those which can arise from a number of sources: (1) the inability to obtain data from all companies in the frame or sample (nonresponse and the method used to account for nonresponses), (2) definitional difficulties and/or improperly worded questions which lead to different interpretations, (3) mistakes in recording or coding the data obtained from respondents, and (4) other errors of collection, response, coverage, and estimation.

Response rates on the monthly surveys are very high. In general, response rates average above 95 percent for the weekly survey and above 98 percent for monthly surveys. Whenever survey responses are not received in time to be included in published statistics, the data are imputed. Although imputing for missing data may not eliminate the total error associated with nonresponse, it can serve to reduce the error. The data reported in the previous month are used as imputed values for missing data for all surveys except the Forms EIA-814, "Monthly Imports Report," and EIA-817, "Monthly Tanker and Barge Movement Report." There is no imputation procedure for these surveys because these data series, by respondent, are highly variable.

Response error is the major factor affecting the accuracy of PSRS data. Response, or reporting error, is the dif-

ference between the true value and the value reported on a survey form. Response error can occur for any number of reasons. For example, figures may be entered incorrectly when written on forms by the respondent, or errors may result from the misunderstanding of survey form instructions or definitions. Response error can also occur from the use of preliminary data when final data are not available. This can result in differences between published preliminary and final data. To help detect and minimize probable reporting errors, automated editing procedures are used to check current data for consistency with past data, as well as for internal consistency (e.g., totals equal to the sums of the parts), and to flag those data elements that fail edit criteria.

Errors can also be introduced during data processing. For example, while creating computer data files, key errors can occur in transcribing or coding the data; or information can be entered into the wrong cell. Using well designed edit criteria which examine orders of magnitude, cell position, and historical reporting patterns, many of these errors can be identified and corrected.

Monthly data are compared to weekly data on a regular basis. Discrepancies between weekly and monthly data are documented and respondents are called when discrepancies are either large (usually over 300 thousand barrels) or consistent (e.g., weekly data are always lower than monthly data). In addition, a comparison of the data collected on the PSRS with other similar data series from sources outside of the Petroleum Supply Division is performed each year. The results of this data comparison are published once a year in the *Petroleum Supply Monthly* (PSM) feature article, "Comparison of Independent Statistics on Petroleum Supply."

Sampling errors are those errors that occur when survey estimates are based on a sample rather than being derived from a complete census of the frame. The 819M data, which are based on sample estimates, serve as leading indicators of the PSRS monthly data for oxygenates. To assess the accuracy of the 819M statistics, data are compared with the monthly aggregate data for the EIA-810, 811, and 812 surveys. Although monthly data are still subject to error, they have been thoroughly reviewed and edited, and are considered to be the most accurate data available.

Data Revision

Resubmissions are any changes to the originally submitted data that were either requested by the EIA or initiated by the respondent. Resubmissions are compared with the original submission and processed at the time of receipt. For Forms EIA-810 through 813, 816, and 817 the Resubmission Tracking System (RTS) is run after resubmissions have been processed for the month. The RTS enables the user to study major products and data series to see how company resubmissions impact published data on a month by month basis. During the processing year, a

summary of the effect of these resubmissions to major series is provided in Appendix C.

For the EIA-819M data, a determination is made on whether to process the resubmissions based on the magnitude of the revision. Cell entries on publication tables are marked with an "R" for revised.

Late Response

Respondents who fail to respond within the prescribed time limit (25th day following the end of the report month) become nonrespondents for that particular report period and are contacted by phone to obtain the current month's data. Respondents who are chronically late (i.e., 3 consecutive months) are notified by EIA either by letter or telephone.

Nonresponse

Follow-up action is taken when a company fails to respond adequately to data requests from the EIA. Preliminary attempts to gather delinquent reports are made by phone. Noncompliance form letters are sent to those companies that have not submitted reports and have not responded to data requests by phone.

Note 7. Frames Maintenance

The Petroleum Supply Division (PSD) maintains complete lists of respondents to its monthly surveys. Each survey has a list of companies and facilities required to submit petroleum activity data. This list is known as the survey frame. Frame maintenance procedures are used to monitor the status of petroleum companies and facilities currently contained in each survey frame as well as to identify new members to be added to the frame. As a result, all known petroleum supply organizations falling within the definition of "Who Must Submit" participate in the survey.

The activities for frames maintenance are conducted on a monthly and annual basis. Monthly frames maintenance procedures focus on examining several frequently published industry periodicals that report changes in status (births, deaths, sales, and acquisitions) of petroleum facilities producing, transporting, importing, and/or storing crude oil and petroleum products. These sources are augmented by articles in newspapers, letters from respondents indicating changes in status, and information received from survey systems operated by other offices. Survey managers review these sources regularly to monitor changes in company operations and to develop lists of potential respondents. These activities assure coverage of the reporting universe and maintain accurate facility information on addresses and ownership.

Annual frames maintenance focuses on re-evaluating the "must submit" companies filing the Form EIA-814 and

reviewing the sample frame for the Form EIA-819M, "Monthly Oxygenate Telephone Report."

To supplement monthly and annual frames maintenance activities and to provide more thorough coverage, the PSD periodically conducts a comprehensive frames investigation. These investigations result in the reassessment and recompilation of the complete frame for each survey. The effort also includes the evaluation of the impact of potential frame changes on the historical time series data published from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

Note 8. Practical Limitations of Data Collection Efforts

Crude Oil Lease Stock Adjustment

End-of-month crude oil stocks held on leases are reported on the EIA-813, "Monthly Crude Oil Report." However, only those companies that store 1,000 barrels or more of crude oil are required to submit a report. Previous frames analysis has shown that crude oil stocks held on leases reported to the EIA are consistently lower than the lease stocks reported to individual states.

Up until 1983, monthly state government data on lease stocks were substituted for EIA data wherever possible in order to rectify the understatement of lease crude oil stocks. State data were available from three states -- Texas, New Mexico, and Montana. To calculate the "lease adjustment," a comparison between EIA reported data and the state government data was made and the difference added to the EIA data for the respective states.

In 1983, the EIA modified the Form EIA-813 to eliminate state data on crude oil stocks and began collecting crude oil stock data by Petroleum Administration for Defense (PAD) District. With this change, the "lease adjustment" could no longer be calculated on a state basis and was changed to a PAD District level.

Trans Alaskan Pipeline System Adjustment

Beginning with the January 1989 data, adjustments are made to refinery inputs and product supplied of natural gas liquids (NGLs) and refinery inputs of crude oil to account for refiner misreporting. Substantial volumes of NGLs are produced at natural gas processing plants in Alaska and injected into the crude oil moving in the Trans Alaska Pipeline System (TAPS). Refiners receiving any crude oil commingled with NGLs are instructed to report the NGL portion of that stream separately from the crude oil portion. This has not been done for Alaskan crude oil because refiners are unable to identify these volumes for accounting purposes. As a result, the NGL production in Alaska has been credited directly toward product supplied and also toward product supplied from refinery production when the refiner processes the crude oil-NGL mix-

ture. In addition, the reporting of the commingled stream as crude oil by the refiner has overstated crude oil inputs and resulted in an increase in unaccounted for crude oil equal to the volume of NGL in the crude oil.

To offset this reporting error, an adjustment is made to refinery input in all PAD Districts receiving Alaskan crude oil. The adjustment reduces the crude oil inputs and increases the NGL inputs by an equal amount. Each PAD District adjustment is a portion of the known Alaskan-NGL production that is proportional to the PAD District's share of Alaskan crude oil received at all refineries in the United States. The greatest impact occurs in PAD District V for butane and pentanes plus.

The reporting problem which began in 1987 grew as injections on NGLs into the TAPS increased. Data for 1988 was revised in the *Petroleum Supply Annual* to account for the adjustment.

Finished Motor Gasoline Product Supplied Adjustment

Beginning with the reporting of January 1993 data, adjustments were made to the product supplied series for finished motor gasoline. It was recognized that motor gasoline statistics published by the EIA through 1992 were underreported because the reporting system was not collecting all fuel ethanol and motor gasoline blending components being blended downstream from the refinery. The EIA was able to quantify these volumes and make corrective adjustments for 1992 in 1993 (refer to Table B2).

Fuel Ethanol Adjustment

Prior to 1993, an estimated 60 to 70 thousand barrels per day of fuel ethanol were added to motor gasoline to produce gasohol but were not included in the EIA finished motor gasoline production data. In 1992, the EIA attempted to collect these data from downstream fuel ethanol motor gasoline blenders but found that this effort was impractical and the results were inaccurate.

Beginning in January 1993, an estimate for the missing fuel ethanol blended into motor gasoline was calculated. This estimate was calculated as production (from the EIA-819M, "Monthly Oxygenate Telephone Report"), plus imports (from the EIA-814, "Monthly Imports Report"), minus inputs at refineries (from the EIA-810, "Monthly Refinery Report"), plus or minus stock change (from the EIA-819M survey). This estimate for the amount of fuel ethanol blended into motor gasoline was added to Table 1 for Natural Gas Liquids Field Production (line 14) and in the Field Production column for finished motor gasoline in Tables 2 through 25 published in the *PSM*.

An estimate for the total amount of gasohol produced with the ethanol is given as 10 times the estimated fuel ethanol blended (this assumes a 10 percent ethanol blend). This amount is added to the column labeled field production of

"oxygenated gasoline" and subtracted from the field production of "other" finished gasoline. The PAD District level detail was obtained by allocating the national level estimates according to the percent of gasohol sales from the U.S. Department of Transportation, Federal Highway Administration, *Monthly Motor Fuel Reported by States*, 1994.

Motor Gasoline Blending Component Adjustment

Prior to 1993, the EIA published a "product supplied" for motor gasoline blending components. Since these components are to be blended into finished motor gasoline, there is no actual demand for this intermediate product. The EIA corrected this series by including the quantity of "product supplied" for motor gasoline blending components with "other" finished motor gasoline. This change was accomplished in Tables 2 through 25 by adding product supplied for motor gasoline blending components to the column labeled field production of "other" motor gasoline, and subtracting it from the field production column for "motor gasoline blending components."

Fuel Ethanol Stock Adjustment

Total end-of-month stocks of fuel ethanol are underreported in the PSRS because of the inability to collect data from downstream fuel ethanol motor gasoline blenders. Total stocks of fuel ethanol are assumed to be those reported by ethanol producers on the Form EIA-819M, "Monthly Oxygenate Telephone Report." The difference between the stocks reported on the EIA-819M and the stocks reported in the PSRS (from refiners, bulk terminal and pipeline operators) is added to the stocks shown for bulk terminals. If the stocks for the PSRS are higher than those reported on the EIA-819M, no adjustment is made.

Note 9. 1994 Changes in the Petroleum Supply Monthly

Effective with January 1994 data, several enhancements were made to the tables in the *Petroleum Supply Monthly* to reflect changes in the petroleum industry and to provide more meaningful petroleum statistics. These changes primarily affect data reported for imports, exports, and product supplied.

- On December 31, 1992, Ecuador withdrew as a member of the Organization of Petroleum Exporting Countries (OPEC). As of January 1994, imports of petroleum from Ecuador now appear under imports from Non-OPEC sources. No revision was made to 1993 data. Countries have been realphabetized accordingly. This change is evident in Tables S3 and 35 through 44, 49 and 50.
- Exports data are now published for oxygenates and the sub-categories of finished motor gasoline (reformu-

**Table B2. Finished Motor Gasoline Product Supplied Adjustment, 1993 - Present
(Thousand Barrels per Day)**

Item/Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
1993													
Fuel Ethanol Adj	61	67	70	61	58	63	62	48	68	69	84	81	66
Motor Gas Blending	-59	-61	15	-32	-3	-5	-19	54	79	-72	-72	48	-10
Product Supplied	6,639	7,112	7,389	7,435	7,585	7,700	7,785	7,864	7,607	7,382	7,533	7,661	7,476
1994													
Fuel Ethanol Adj	86	73	76	71	69	63	65	73	59	90	82	82	74
Motor Gas Blending	33	-7	27	58	51	82	98	98	81	-16	56	113	57
Product Supplied	6,980	7,275	7,395	7,564	7,644	7,922	7,884	7,975	7,615	7,548	7,464	7,924	7,601
1995													
Fuel Ethanol Adj	66	66	79	74	58	81	49	36	57	72	91	58	65
Motor Gas Blending	8	37	56	86	131	113	46	110	35	89	28	29	64
Product Supplied	7,163	7,481	7,788	7,651	7,894	8,220	7,888	8,187	7,786	7,781	7,866	7,742	7,789
1996													
Fuel Ethanol Adj	58	53	49	37	27	14	9	20	23	36			
Motor Gas Blending	39	23	-16	14	5	66	2	-18	2	40			
Product Supplied	7,254	7,552	7,729	7,869	7,998	8,089	8,135	8,216	7,641	8,038			

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

Source: • Fuel Ethanol Adjustment - 1993 and 1994, EIA, *Petroleum Supply Annual*, Volumes I and II; 1995, Energy Information Administration (EIA), *Petroleum Supply Monthly*, Appendix D. • Motor Gasoline Blending Component Adjustment - 1993 and 1994, EIA, *Petroleum Supply Annual*, Volumes I and II; 1995, EIA, *Petroleum Supply Monthly*.

lated, oxygenated, and other) and distillate fuel oil (0.05% sulfur and under, and greater than 0.05% sulfur).

as the sulfur categories of distillate fuel oil (0.05% sulfur and under, and greater than 0.05% sulfur).

- Product supplied is now calculated for reformulated, oxygenated, and other finished motor gasoline as well

Appendix C

Impact of Resubmissions on Major Series, 1996

This section contains information on revisions to published statistics caused by resubmission of respondent survey forms. The section shows the published value in the *Petroleum Supply Monthly* (PSM) and the cumulative difference resulting from resubmissions for the major product series. The official published petroleum supply statistics are not changed to reflect revisions until publication of the *Petroleum Supply Annual* (PSA), except in cases of catastrophic error.

This section is provided as a service to analysts who need to know the latest available statistics. It should be used with caution because resubmissions are received on an irregular basis and the impact on published data can change from month to month. In some cases, the pattern of revision caused by resubmissions during the year is a poor indicator of final statistics that will be published in the *PSA*.

Surface aerators are used at U.S. petroleum refineries to help prevent water pollution. These aerators speed up the oxidation process by beating air into water.

Table C1. Impact of Resubmissions on Major Series, 1995

(Thousand Barrels per Day, Except Where Noted)

Product	January		February		March		April		May		June	
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference
Inputs.....	14,739	29	14,707	70	14,734	58	15,296	36	15,591	57	15,909	71
Crude Oil.....	13,708	22	13,529	36	13,755	38	14,263	32	14,401	38	14,535	34
Pentanes Plus.....	172	0	163	0	168	0	152	0	162	0	176	0
LPGs.....	416	3	318	1	246	0	226	0	215	0	211	(s)
Ethane/Ethylene.....	0	0	0	0	0	0	0	0	0	0	0	0
Propane/Propylene.....	0	0	0	0	0	0	0	0	0	0	0	0
Normal Butane/Butylene.....	261	4	186	(s)	110	0	76	0	79	0	72	(s)
Isobutane/isobutylene.....	155	-1	132	1	135	0	150	0	136	0	139	(s)
Oth Hydrocbrns/Oxygenates..	281	3	287	6	294	-1	300	(s)	322	0	318	0
Unfinished Oils.....	241	-7	372	7	176	-5	273	-14	431	-12	571	-16
Motor Gas. Blend. Comp.....	-74	8	44	19	102	26	87	19	66	31	102	54
Aviation Gas. Blend. Comp....	-5	0	-6	0	-7	0	-4	0	-6	0	-3	0
Production.....	17,572	47	17,457	92	17,654	65	18,267	48	18,559	55	18,821	71
Pentanes Plus.....	310	-1	314	2	327	1	333	1	332	0	350	(s)
LPGs.....	1,909	-3	1,903	9	2,176	4	2,298	7	2,289	(s)	2,286	(s)
Ethane/Ethylene.....	596	-1	557	(s)	642	1	662	4	652	(s)	648	0
Propane/Propylene.....	989	6	998	2	1,041	2	1,046	2	1,049	(s)	1,031	(s)
Normal Butane/Butylene.....	133	-6	158	13	281	2	370	(s)	371	(s)	364	(s)
Isobutane/isobutylene.....	191	-2	190	-6	212	(s)	221	1	216	-1	243	(s)
Oth Hydrocbrns/Oxygenates..	291	3	244	3	273	6	269	-1	273	(s)	242	(s)
Motor Gas Blend. Comp.....	-39	12	-23	6	16	14	-14	5	-5	18	-66	26
Finished Motor Gasoline.....	7,333	15	7,303	33	7,242	11	7,475	14	7,724	13	7,820	28
Reformulated.....	1,825	13	1,901	20	2,138	28	2,200	19	2,309	31	2,222	41
Oxygenated.....	969	-8	635	6	581	0	459	0	347	0	226	0
Other.....	4,539	10	4,768	7	4,523	-16	4,816	-5	5,069	-18	5,372	-13
Finished Aviation Gasoline....	14	0	9	0	20	0	24	0	22	0	24	1
Jet Fuel.....	1,597	0	1,500	0	1,470	0	1,466	0	1,419	0	1,514	0
Naphtha-Type Jet.....	3	0	4	0	2	0	2	0	1	0	2	0
Kerosene-Type Jet.....	1,594	0	1,496	0	1,468	0	1,464	0	1,418	0	1,512	0
Kerosene.....	94	0	76	0	40	0	29	0	29	0	25	0
Distillate Fuel Oil.....	3,110	-6	3,145	-13	3,110	-4	3,305	-5	3,258	-3	3,291	-9
Residual Fuel Oil.....	774	24	776	21	701	(s)	671	(s)	732	0	731	(s)
Naphtha Pet. Feedstock.....	136	29	181	11	171	12	181	15	194	14	167	12
Other Oils Pet. Feedstock.....	211	-26	164	22	151	17	195	10	185	13	203	14
Special Naphthas.....	46	0	48	0	55	0	54	0	58	0	46	0
Lubricants.....	167	0	178	(s)	162	4	168	1	160	0	188	0
Waxes.....	22	0	22	0	21	(s)	23	0	23	0	25	0
Petroleum Coke.....	630	(s)	645	-1	678	(s)	689	(s)	659	0	664	0
Asphalt and Road Oil.....	283	0	293	(s)	372	(s)	401	(s)	481	0	569	0
Still Gas.....	642	-1	638	-2	628	-1	658	-1	683	(s)	696	(s)
Miscellaneous Products.....	40	0	41	0	41	0	41	0	42	0	45	0
Imports.....	9,272	50	8,287	86	8,967	100	9,357	62	9,914	17	9,920	2
Crude Oil.....	7,260	43	6,553	59	7,136	79	7,316	55	8,029	0	7,958	0
Pentanes Plus.....	53	0	44	0	42	0	38	0	48	0	60	0
LPGs.....	208	(s)	136	3	165	(s)	125	-3	156	0	183	(s)
Ethane/Ethylene.....	14	0	14	0	14	0	20	0	14	0	14	0
Propane/Propylene.....	150	(s)	103	3	116	(s)	82	-3	103	0	121	(s)
Normal Butane/Butylene.....	29	0	14	0	20	0	14	0	24	0	27	0
Isobutane/isobutylene.....	14	0	4	0	15	0	10	0	14	0	21	0
Oth Hydrocbrns/Oxygenates..	30	0	51	0	50	0	44	0	47	0	43	0
Unfinished Oils.....	385	(s)	283	16	361	5	444	5	337	0	417	0
Motor Gas. Blend. Comp.....	83	25	67	13	73	7	71	0	69	38	91	40
Aviation Gas. Blend. Comp....	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline.....	343	-30	305	-12	310	(s)	501	0	444	-31	426	-40
Reformulated.....	181	-16	157	-12	140	-7	207	3	307	-38	217	-40
Oxygenated.....	0	0	0	0	0	0	0	0	0	0	0	0
Other.....	162	-14	148	0	170	7	295	-3	137	7	209	0
Finished Aviation Gasoline....	(s)	0	(s)	0	(s)	0	(s)	0	(s)	0	(s)	0
Jet Fuel.....	80	9	108	-8	101	4	108	5	112	10	127	0
Naphtha-Type Jet.....	0	0	16	-16	5	-5	5	-5	19	0	0	0
Kerosene-Type Jet.....	80	9	92	9	96	9	102	10	93	10	127	0
Kerosene.....	7	(s)	1	0	(s)	0	(s)	0	(s)	0	(s)	0
Distillate Fuel Oil.....	243	11	271	8	253	3	258	0	215	1	185	0
Residual Fuel Oil.....	320	0	222	0	227	0	237	0	203	0	174	-6
Naphtha Pet. Feedstock.....	77	-9	73	6	77	0	42	0	29	0	38	7
Other Oils Pet. Feedstock.....	152	0	134	0	124	0	119	0	168	0	165	0
Special Naphthas.....	8	0	10	(s)	11	(s)	13	(s)	11	(s)	8	0
Lubricants.....	9	0	8	0	22	0	7	0	12	0	14	0
Waxes.....	1	(s)	1	0	1	0	1	0	1	0	2	0
Petroleum Coke.....	2	0	1	0	1	0	0	0	1	0	1	0
Asphalt and Road Oil.....	14	0	18	1	12	1	33	0	31	-1	29	1
Miscellaneous Products.....	(s)	0	(s)	(s)	(s)	0	1	(s)	(s)	0	(s)	0

(s) = Less than 500 barrels per day.

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication. • Totals may not equal sum of components due to independent rounding.

Table C1. Impact of Resubmissions on Major Series, 1995 (Continued)
(Thousand Barrels per Day, Except Where Noted)

Product	July		August		September		October		November		December		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Average Difference
Inputs.....	15,669	5	15,901	-19	--	--	--	--	--	--	--	--	38
Crude Oil	14,319	40	14,423	3	--	--	--	--	--	--	--	--	30
Pentanes Plus	175	0	177	0	--	--	--	--	--	--	--	--	0
LPGs.....	201	0	202	(s)	--	--	--	--	--	--	--	--	(s)
Ethane/Ethylene.....	0	0	0	0	--	--	--	--	--	--	--	--	0
Propane/Propylene.....	0	0	0	0	--	--	--	--	--	--	--	--	0
Normal Butane/Butylene....	66	0	69	0	--	--	--	--	--	--	--	--	(s)
Isobutane/Isobutylene.....	135	0	132	(s)	--	--	--	--	--	--	--	--	(s)
Oth Hydrocbns/Oxygenates..	327	0	320	0	--	--	--	--	--	--	--	--	1
Unfinished Oils	529	-35	600	-19	--	--	--	--	--	--	--	--	-13
Motor Gas. Blend. Comp.....	118	(s)	182	-3	--	--	--	--	--	--	--	--	19
Aviation Gas. Blend. Comp...	(s)	0	-3	0	--	--	--	--	--	--	--	--	0
Production.....	18,649	16	18,905	-24	--	--	--	--	--	--	--	--	46
Pentanes Plus	350	(s)	353	(s)	--	--	--	--	--	--	--	--	(s)
LPGs.....	2,266	(s)	2,278	-4	--	--	--	--	--	--	--	--	2
Ethane/Ethylene.....	650	(s)	662	(s)	--	--	--	--	--	--	--	--	1
Propane/Propylene.....	1,045	(s)	1,055	-1	--	--	--	--	--	--	--	--	1
Normal Butane/Butylene....	353	(s)	349	-2	--	--	--	--	--	--	--	--	1
Isobutane/Isobutylene.....	219	(s)	212	(s)	--	--	--	--	--	--	--	--	-1
Oth Hydrocbns/Oxygenates..	306	2	289	-2	--	--	--	--	--	--	--	--	1
Motor Gas Blend. Comp.....	-2	-82	18	-42	--	--	--	--	--	--	--	--	-5
Finished Motor Gasoline.....	7,811	82	7,696	42	--	--	--	--	--	--	--	--	30
Reformulated.....	2,300	0	2,287	0	--	--	--	--	--	--	--	--	19
Oxygenated.....	182	0	270	0	--	--	--	--	--	--	--	--	(s)
Other	5,329	82	5,138	42	--	--	--	--	--	--	--	--	11
Finished Aviation Gasoline....	24	0	24	0	--	--	--	--	--	--	--	--	(s)
Jet Fuel.....	1,496	0	1,510	(s)	--	--	--	--	--	--	--	--	(s)
Naphtha-Type Jet.....	3	0	3	0	--	--	--	--	--	--	--	--	0
Kerosene-Type Jet.....	1,493	0	1,508	(s)	--	--	--	--	--	--	--	--	(s)
Kerosene.....	47	0	52	0	--	--	--	--	--	--	--	--	0
Distillate Fuel Oil.....	3,139	-14	3,295	-17	--	--	--	--	--	--	--	--	-9
Residual Fuel Oil.....	646	(s)	732	(s)	--	--	--	--	--	--	--	--	6
Naphtha Pet. Feedstock.....	170	11	199	(s)	--	--	--	--	--	--	--	--	13
Other Oils Pet. Feedstock....	204	19	231	-1	--	--	--	--	--	--	--	--	8
Special Naphthas.....	47	0	51	0	--	--	--	--	--	--	--	--	0
Lubricants.....	162	-1	172	(s)	--	--	--	--	--	--	--	--	(s)
Waxes	23	0	22	0	--	--	--	--	--	--	--	--	(s)
Petroleum Coke.....	640	0	656	(s)	--	--	--	--	--	--	--	--	(s)
Asphalt and Road Oil.....	590	(s)	602	(s)	--	--	--	--	--	--	--	--	(s)
Still Gas.....	687	(s)	682	(s)	--	--	--	--	--	--	--	--	-1
Miscellaneous Products.....	43	(s)	44	(s)	--	--	--	--	--	--	--	--	0
Imports	9,752	34	9,866	53	--	--	--	--	--	--	--	--	50
Crude Oil	7,771	29	8,020	0	--	--	--	--	--	--	--	--	33
Pentanes Plus	57	0	38	0	--	--	--	--	--	--	--	--	0
LPGs.....	189	-7	159	6	--	--	--	--	--	--	--	--	(s)
Ethane/Ethylene.....	14	0	14	0	--	--	--	--	--	--	--	--	0
Propane/Propylene.....	122	-7	119	6	--	--	--	--	--	--	--	--	(s)
Normal Butane/Butylene....	33	0	10	0	--	--	--	--	--	--	--	--	0
Isobutane/Isobutylene.....	21	0	15	0	--	--	--	--	--	--	--	--	0
Oth Hydrocbns/Oxygenates..	55	0	59	0	--	--	--	--	--	--	--	--	0
Unfinished Oils	339	0	394	-10	--	--	--	--	--	--	--	--	2
Motor Gas. Blend. Comp.....	95	27	107	37	--	--	--	--	--	--	--	--	24
Aviation Gas. Blend. Comp...	0	0	0	0	--	--	--	--	--	--	--	--	0
Finished Motor Gasoline.....	378	-27	346	0	--	--	--	--	--	--	--	--	-18
Reformulated.....	210	-27	136	0	--	--	--	--	--	--	--	--	-17
Oxygenated.....	0	0	0	0	--	--	--	--	--	--	--	--	0
Other	168	0	210	0	--	--	--	--	--	--	--	--	(s)
Finished Aviation Gasoline....	(s)	0	(s)	0	--	--	--	--	--	--	--	--	0
Jet Fuel.....	89	0	104	0	--	--	--	--	--	--	--	--	3
Naphtha-Type Jet.....	0	0	0	0	--	--	--	--	--	--	--	--	-6
Kerosene-Type Jet.....	89	0	104	0	--	--	--	--	--	--	--	--	6
Kerosene.....	(s)	0	(s)	0	--	--	--	--	--	--	--	--	(s)
Distillate Fuel Oil.....	194	0	195	0	--	--	--	--	--	--	--	--	3
Residual Fuel Oil.....	335	0	217	10	--	--	--	--	--	--	--	--	1
Naphtha Pet. Feedstock.....	41	9	35	0	--	--	--	--	--	--	--	--	2
Other Oils Pet. Feedstock....	165	0	145	0	--	--	--	--	--	--	--	--	0
Special Naphthas.....	10	0	7	(s)	--	--	--	--	--	--	--	--	(s)
Lubricants.....	7	0	9	0	--	--	--	--	--	--	--	--	0
Waxes	1	0	1	0	--	--	--	--	--	--	--	--	(s)
Petroleum Coke.....	0	0	5	0	--	--	--	--	--	--	--	--	0
Asphalt and Road Oil.....	25	3	24	10	--	--	--	--	--	--	--	--	2
Miscellaneous Products.....	(s)	0	(s)	0	--	--	--	--	--	--	--	--	(s)

(s) = Less than 500 barrels per day.

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication. • Totals may not equal sum of components due to independent rounding.

Table C1. Impact of Resubmissions on Major Series, 1995 (Continued)

(Thousand Barrels per Day, Except Where Noted)

Product	January		February		March		April		May		June	
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference
Stocks (Thousand Barrels)	1,543,332	844	1,499,930	70	1,481,933	623	1,501,194	870	1,519,363	1,102	1,545,513	2,001
Crude Oil (excl. SPR)	303,334	433	301,502	613	299,622	910	302,969	1,040	304,778	410	314,280	1,306
Pentanes Plus	5,514	-5	5,248	-2	5,653	47	5,447	15	6,926	12	7,817	-10
LPGs	72,562	124	55,478	99	56,380	-300	64,310	1	73,972	83	87,457	-4
Ethane/Ethylene	20,153	0	16,047	-3	14,791	-529	14,521	0	15,537	266	16,146	0
Propane/Propylene	31,587	283	21,679	197	21,674	173	25,228	-1	31,731	-27	40,540	-2
Normal Butane/Butylene	14,255	-119	11,508	-108	13,335	-15	17,364	-2	19,524	-55	22,757	-2
Isobutane/Isobutylene	6,567	-40	6,244	13	6,580	71	7,197	4	7,180	-101	8,014	0
Oth Hydrocns/Oxygenates	12,506	-125	12,545	-205	12,626	7	12,537	4	12,155	2	10,893	3
Unfinished Oils	91,886	-302	89,123	-475	94,473	53	100,657	49	99,712	494	98,443	122
Motor Gas. Blend. Comp	44,561	934	44,508	919	43,812	781	42,655	372	42,037	1,124	39,664	1,521
Aviation Gas. Blend. Comp	175	0	183	0	237	0	162	0	160	0	132	0
Finished Motor Gasoline	169,280	-568	168,830	-1,250	159,400	-1,105	160,306	-551	163,102	-1,302	164,962	-1,140
Reformulated	39,180	-839	40,265	-956	40,911	-1,107	40,721	-569	44,053	-1,466	40,544	-1,216
Oxygenated	4,761	122	1,902	78	1,226	-7	1,105	-47	1,386	-166	1,083	0
Other	125,339	149	126,663	-372	117,263	9	118,480	65	117,663	330	123,335	76
Finished Aviation Gasoline	2,359	0	2,230	-1	2,083	0	2,185	0	2,201	0	2,081	10
Jet Fuel	38,660	-206	34,677	-110	34,083	-104	35,585	-74	36,738	-24	38,848	0
Naphtha-Type Jet	522	-124	551	-80	567	-86	555	-74	372	-26	365	0
Kerosene-Type Jet	38,138	-82	34,126	-30	33,516	-18	35,030	0	36,366	2	38,483	0
Kerosene	7,433	-80	5,784	17	3,654	18	3,333	-1	3,383	-1	3,079	-2
Distillate Fuel Oil	113,099	600	96,821	219	89,707	-8	90,053	0	95,586	113	101,602	30
Residual Fuel Oil	35,721	64	31,537	234	31,682	10	33,669	72	34,275	17	34,924	-33
Naphtha Pet. Feedstock	3,107	41	2,605	19	2,014	40	2,303	114	2,964	104	2,787	151
Other Oils Pet. Feedstock	1,477	255	1,672	361	1,453	229	1,958	142	1,578	163	1,667	201
Special Naphthas	1,913	0	1,864	0	1,913	0	1,886	0	2,006	0	1,957	0
Lubricants	12,718	0	13,052	-11	12,357	46	12,220	32	11,450	-3	11,717	0
Waxes	873	0	867	0	851	-10	828	0	823	0	897	0
Petroleum Coke	8,145	-321	7,518	-411	7,377	0	7,223	0	7,277	0	6,784	0
Asphalt and Road Oil	25,096	0	30,886	54	32,213	9	33,208	-353	31,230	-80	29,864	-154
Miscellaneous Products	1,283	0	1,383	0	1,218	0	1,215	8	1,207	-10	1,204	0
Product Supplied	18,212	33	18,498	118	18,180	58	17,837	46	17,857	24	18,049	36
Crude Oil	11	0	8	0	7	0	6	0	7	0	6	0
Pentanes Plus	237	5	204	2	187	(s)	226	3	170	(s)	204	1
LPGs	2,323	-19	2,249	12	2,029	17	1,877	-6	1,851	-3	1,772	4
Ethane/Ethylene	675	-1	713	(s)	697	18	691	-14	634	-8	642	9
Propane/Propylene	1,476	-5	1,404	8	1,132	3	978	5	922	1	838	(s)
Normal Butane/Butylene	99	-10	59	12	120	-1	148	(s)	200	2	196	-2
Isobutane/Isobutylene	73	-3	73	-9	80	-2	61	4	95	3	96	-3
Unfinished Oils	-22	8	7	15	13	-7	-35	19	-64	-3	-111	29
Aviation Gas. Blend. Comp	4	0	6	0	5	0	7	0	6	0	4	0
Finished Motor Gasoline	7,254	5	7,552	44	7,729	7	7,869	-5	7,998	7	8,089	-18
Reformulated	1,930	24	2,020	11	2,255	26	2,413	3	2,505	23	2,552	-8
Oxygenated	979	-13	733	8	603	3	463	1	338	4	236	-6
Other	4,345	-6	4,799	25	4,871	-22	4,993	-10	5,154	-19	5,301	-5
Finished Aviation Gasoline	14	0	13	(s)	25	(s)	21	0	22	0	28	(s)
Jet Fuel	1,609	16	1,678	-11	1,531	4	1,512	4	1,481	8	1,559	-1
Naphtha-Type Jet	4	4	19	-18	-2	-5	8	-5	26	-2	2	-1
Kerosene-Type Jet	1,605	12	1,659	7	1,534	9	1,505	9	1,455	10	1,557	(s)
Kerosene	93	2	133	-3	103	(s)	40	1	28	0	28	(s)
Distillate Fuel Oil	3,681	-7	3,722	8	3,453	7	3,385	-6	3,118	-6	3,194	-6
0.05% & under	2,051	-7	2,078	14	2,086	16	2,163	-2	2,143	2	2,206	-2
Greater than 0.05%	1,630	-1	1,644	-5	1,367	-9	1,222	-4	976	-9	989	-5
Residual Fuel Oil	1,020	36	1,028	16	829	7	745	-2	826	2	739	-4
Naphtha Pet. Feedstock	204	19	271	18	267	11	214	13	201	14	211	18
Other Oils Pet. Feedstock	362	-35	291	18	282	21	298	13	365	12	366	12
Special Naphthas	50	0	34	(s)	58	(s)	52	(s)	33	(s)	36	0
Lubricants	133	2	144	1	190	2	133	1	168	1	141	(s)
Waxes	20	(s)	21	0	21	(s)	23	(s)	22	0	22	0
Petroleum Coke	328	2	350	2	442	-13	372	(s)	328	0	383	0
Asphalt and Road Oil	211	(s)	110	-1	338	3	393	12	571	-10	636	3
Still Gas	642	-1	638	-2	628	-1	658	-1	683	(s)	696	(s)
Miscellaneous Products	38	0	38	(s)	46	0	42	(s)	42	1	45	(s)

(s) = Less than 500 barrels per day.

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication. • Totals may not equal sum of components due to independent rounding.

Table C1. Impact of Resubmissions on Major Series, 1995 (Continued)
(Thousand Barrels per Day, Except Where Noted)

Product	July		August		September		October		November		December		Year to Date
	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	PSM Value	Difference	Average Difference
Stocks (Thousand Barrels)....	1,549,769	700	1,547,361	-1,188	--	--	--	--	--	--	--	--	628
Crude Oil (excl. SPR)	309,624	459	315,236	-939	--	--	--	--	--	--	--	--	529
Pentanes Plus.....	8,886	-5	8,977	-4	--	--	--	--	--	--	--	--	6
LPGs.....	99,154	-8	108,786	9	--	--	--	--	--	--	--	--	1
Ethane/Ethylene.....	16,429	0	16,694	1	--	--	--	--	--	--	--	--	-33
Propane/Propylene.....	46,288	-9	48,705	50	--	--	--	--	--	--	--	--	83
Normal Butane/Butylene	27,500	0	33,985	-43	--	--	--	--	--	--	--	--	-43
Isobutane/Isobutylene.....	8,937	1	9,402	1	--	--	--	--	--	--	--	--	-6
Oth Hydrocbns/Oxygenates ..	11,445	59	11,959	0	--	--	--	--	--	--	--	--	-32
Unfinished Oils.....	97,724	208	95,033	6	--	--	--	--	--	--	--	--	19
Motor Gas. Blend. Comp.....	38,670	-159	36,633	-218	--	--	--	--	--	--	--	--	659
Aviation Gas. Blend. Comp.....	125	0	179	0	--	--	--	--	--	--	--	--	0
Finished Motor Gasoline.....	162,846	238	154,896	-3	--	--	--	--	--	--	--	--	-710
Reformulated.....	41,744	106	38,549	0	--	--	--	--	--	--	--	--	-756
Oxygenated.....	1,194	0	1,006	0	--	--	--	--	--	--	--	--	-3
Other.....	119,908	132	115,341	-3	--	--	--	--	--	--	--	--	48
Finished Aviation Gasoline	2,218	0	2,323	-3	--	--	--	--	--	--	--	--	1
Jet Fuel.....	38,353	0	38,388	7	--	--	--	--	--	--	--	--	-64
Naphtha-Type Jet.....	269	0	358	0	--	--	--	--	--	--	--	--	-49
Kerosene-Type Jet.....	38,084	0	38,030	7	--	--	--	--	--	--	--	--	-15
Kerosene.....	3,958	-1	4,664	0	--	--	--	--	--	--	--	--	-6
Distillate Fuel Oil.....	106,349	54	110,187	23	--	--	--	--	--	--	--	--	129
Residual Fuel Oil.....	34,774	-4	35,765	1	--	--	--	--	--	--	--	--	45
Naphtha Pet. Feedstock.....	2,689	13	2,477	0	--	--	--	--	--	--	--	--	60
Other Oils Pet. Feedstock.....	2,027	28	1,877	-7	--	--	--	--	--	--	--	--	172
Special Naphthas.....	1,809	0	1,855	0	--	--	--	--	--	--	--	--	0
Lubricants.....	11,667	-163	11,499	-52	--	--	--	--	--	--	--	--	-19
Waxes.....	880	1	799	0	--	--	--	--	--	--	--	--	-1
Petroleum Coke.....	6,196	0	5,154	0	--	--	--	--	--	--	--	--	-92
Asphalt and Road Oil.....	26,269	-6	22,016	-8	--	--	--	--	--	--	--	--	-67
Miscellaneous Products.....	1,202	-14	1,085	0	--	--	--	--	--	--	--	--	-2
Product Supplied	18,143	70	18,513	67	--	--	--	--	--	--	--	--	56
Crude Oil.....	5	0	6	0	--	--	--	--	--	--	--	--	0
Pentanes Plus.....	197	(s)	200	-1	--	--	--	--	--	--	--	--	1
LPGs.....	1,804	-8	1,875	2	--	--	--	--	--	--	--	--	(s)
Ethane/Ethylene.....	655	(s)	668	(s)	--	--	--	--	--	--	--	--	(s)
Propane/Propylene.....	952	-8	1,072	3	--	--	--	--	--	--	--	--	1
Normal Butane/Butylene	123	(s)	55	-1	--	--	--	--	--	--	--	--	(s)
Isobutane/Isobutylene.....	75	(s)	80	(s)	--	--	--	--	--	--	--	--	-1
Unfinished Oils.....	-167	32	-119	16	--	--	--	--	--	--	--	--	13
Aviation Gas. Blend. Comp.....	(s)	0	1	0	--	--	--	--	--	--	--	--	0
Finished Motor Gasoline.....	8,135	10	8,216	50	--	--	--	--	--	--	--	--	12
Reformulated.....	2,460	-70	2,526	3	--	--	--	--	--	--	--	--	1
Oxygenated.....	178	0	276	0	--	--	--	--	--	--	--	--	(s)
Other.....	5,496	80	5,413	47	--	--	--	--	--	--	--	--	11
Finished Aviation Gasoline	20	(s)	21	(s)	--	--	--	--	--	--	--	--	(s)
Jet Fuel.....	1,574	0	1,580	-1	--	--	--	--	--	--	--	--	3
Naphtha-Type Jet.....	6	0	-1	0	--	--	--	--	--	--	--	--	-3
Kerosene-Type Jet.....	1,567	0	1,580	-1	--	--	--	--	--	--	--	--	6
Kerosene.....	19	(s)	24	(s)	--	--	--	--	--	--	--	--	(s)
Distillate Fuel Oil.....	3,046	-15	3,184	-16	--	--	--	--	--	--	--	--	-5
0.05% & under.....	2,095	2	2,223	-8	--	--	--	--	--	--	--	--	2
Greater than 0.05%	950	-17	961	-9	--	--	--	--	--	--	--	--	-7
Residual Fuel Oil.....	897	-1	861	10	--	--	--	--	--	--	--	--	8
Naphtha Pet. Feedstock.....	214	25	241	1	--	--	--	--	--	--	--	--	15
Other Oils Pet. Feedstock.....	358	24	381	(s)	--	--	--	--	--	--	--	--	8
Special Naphthas.....	36	0	21	(s)	--	--	--	--	--	--	--	--	(s)
Lubricants.....	152	4	160	-4	--	--	--	--	--	--	--	--	1
Waxes.....	22	(s)	23	(s)	--	--	--	--	--	--	--	--	(s)
Petroleum Coke.....	381	0	357	(s)	--	--	--	--	--	--	--	--	-1
Asphalt and Road Oil.....	720	-2	753	10	--	--	--	--	--	--	--	--	2
Still Gas	687	(s)	682	(s)	--	--	--	--	--	--	--	--	-1
Miscellaneous Products.....	43	(s)	48	(s)	--	--	--	--	--	--	--	--	(s)

(s) = Less than 500 barrels per day.

Note: Volumes indicate cumulative changes resulting from resubmissions received for that month as of the date of this publication. • Totals may not equal sum of components due to independent rounding.

Appendix D

EIA 819M Monthly Oxygenate Telephone Report

The Clean Air Act Amendments of 1990 include provisions intended to reduce toxic vehicle emissions.

THEORY

1. The first part of the theory is the basic principles of the theory.

2. The second part of the theory is the application of the theory to the practice.

3. The third part of the theory is the development of the theory.

4. The fourth part of the theory is the conclusion.

5. The fifth part of the theory is the summary.

6. The sixth part of the theory is the conclusion.

7. The seventh part of the theory is the conclusion.

8. The eighth part of the theory is the conclusion.

9. The ninth part of the theory is the conclusion.

10. The tenth part of the theory is the conclusion.

11. The eleventh part of the theory is the conclusion.

12. The twelfth part of the theory is the conclusion.

13. The thirteenth part of the theory is the conclusion.

14. The fourteenth part of the theory is the conclusion.

15. The fifteenth part of the theory is the conclusion.

16. The sixteenth part of the theory is the conclusion.

17. The seventeenth part of the theory is the conclusion.

18. The eighteenth part of the theory is the conclusion.

19. The nineteenth part of the theory is the conclusion.

20. The twentieth part of the theory is the conclusion.

21. The twenty-first part of the theory is the conclusion.

22. The twenty-second part of the theory is the conclusion.

23. The twenty-third part of the theory is the conclusion.

24. The twenty-fourth part of the theory is the conclusion.

25. The twenty-fifth part of the theory is the conclusion.

26. The twenty-sixth part of the theory is the conclusion.

27. The twenty-seventh part of the theory is the conclusion.

28. The twenty-eighth part of the theory is the conclusion.

29. The twenty-ninth part of the theory is the conclusion.

30. The thirtieth part of the theory is the conclusion.

31. The thirty-first part of the theory is the conclusion.

32. The thirty-second part of the theory is the conclusion.

33. The thirty-third part of the theory is the conclusion.

34. The thirty-fourth part of the theory is the conclusion.

35. The thirty-fifth part of the theory is the conclusion.

36. The thirty-sixth part of the theory is the conclusion.

37. The thirty-seventh part of the theory is the conclusion.

38. The thirty-eighth part of the theory is the conclusion.

39. The thirty-ninth part of the theory is the conclusion.

40. The fortieth part of the theory is the conclusion.

EIA-819M

Monthly Oxygenate Telephone Report

The EIA-819M, "Monthly Oxygenate Telephone Report," provides production data and preliminary stock data for fuel ethanol and methyl tertiary butyl ether (MTBE) in the United States and major U.S. geographic regions. Data are collected from a sample of respondents reporting on the Monthly Petroleum Supply Reporting System surveys and from the universe of oxygenate producers. Refer to Appendix B, Explanatory Note 2 for further detail. Final data on stocks of fuel ethanol and MTBE are presented in the Detailed Statistics section. The quantity of oxygenates blended into motor gasoline previously published in this appendix is now presented in Appendix B, Table B2.

Table D1. U.S. Summary, November 1996

Products	November 1996		October 1996		Year-to-Date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Fuel Ethanol						
Production.....	2,313	77	2,404	78	20,780	62
Stocks	1,641	--	1,625	--	--	--
MTBE						
Production.....	5,489	183	5,802	187	62,053	185
Stocks	8,812	--	8,773	--	--	--

Source: Energy Information Administration (EIA) Form EIA-819M, "Monthly Oxygenate Telephone Report."

**Table D2. Monthly Fuel Ethanol Production and Stocks by Petroleum Administration
for Defense Districts (PADD)**

(Thousand Barrels per Day, Except Where Noted)

District/Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total U.S.												
Production												
1995	98	100	94	96	91	87	81	76	84	84	82	88
1996	87	74	75	66	46	39	39	49	53	78	77	
Stocks (thous. bbls.)												
1995	2,673	3,006	2,958	3,072	3,578	3,274	3,626	4,160	4,209	3,523	2,192	2,015
1996	1,806	1,415	1,264	1,293	1,037	947	942	1,002	1,239	1,625	1,641	
East Coast (PADD I)												
Production												
1995	W	W	W	W	W	W	W	W	W	W	W	W
1996	W	W	W	W	W	W	W	W	W	W	W	
Stocks (thous. bbls.)												
1995	65	390	51	87	76	102	109	209	201	103	174	212
1996	172	123	24	7	7	7	9	8	8	21	15	
Midwest (PADD II)												
Production												
1995	96	98	93	94	89	85	79	74	83	83	81	87
1996	86	73	74	66	46	38	38	48	52	77	76	
Stocks (thous. bbls.)												
1995	1,460	1,760	1,880	2,041	2,276	2,088	2,108	2,149	2,104	1,669	970	1,112
1996	947	748	845	810	678	681	623	666	686	1,096	1,164	
Gulf Coast (PADD III)												
Production												
1995	W	W	W	W	W	W	W	W	W	W	W	W
1996	W	W	W	W	W	W	W	W	W	W	W	
Stocks (thous. bbls.)												
1995	587	474	702	516	677	497	600	870	869	821	264	165
1996	166	183	129	239	117	84	84	73	81	48	45	
Rocky Mountain (PADD IV)												
Production												
1995	W	W	W	W	W	W	W	W	W	W	W	W
1996	W	W	W	W	W	W	W	W	W	W	W	
Stocks (thous. bbls.)												
1995	123	75	72	81	89	96	125	137	133	135	94	68
1996	97	66	49	50	40	41	37	41	55	83	78	
West Coast (PADD V)												
Production												
1995	W	W	W	W	W	W	W	W	W	W	W	W
1996	W	W	W	W	W	W	W	W	W	W	W	
Stocks (thous. bbls.)												
1995	439	307	254	348	459	491	684	795	903	795	690	458
1996	425	295	216	186	195	134	189	214	409	377	338	

W=Withheld to avoid disclosure of individual company data.

Note: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration (EIA) Form EIA-819M, "Monthly Oxygenate Telephone Report."

**Table D3. Monthly Methyl Tertiary Butyl Ether (MTBE) Production and Stocks by Petroleum Administration
for Defense Districts (PADD)**
(Thousand Barrels per Day, Except Where Noted)

District/Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total U.S.												
Production												
1995	149	144	121	168	169	182	181	171	163	167	174	171
1996	173	172	182	183	194	202	197	179	186	187	183	
Stocks (thous. bbls.)												
1995	11,406	11,047	10,585	10,264	9,322	9,300	9,970	10,070	9,164	8,811	7,919	8,228
1996	9,050	9,148	9,313	9,061	9,148	9,323	9,156	9,352	8,361	8,773	8,812	
East Coast (PADD I)												
Production												
1995	W	W	W	W	W	W	W	W	W	W	W	W
1996	W	W	W	W	W	W	W	W	W	W	W	
Stocks (thous. bbls.)												
1995	2,617	2,132	1,951	1,335	1,186	1,216	1,343	1,750	1,567	1,773	1,467	1,230
1996	1,214	1,411	1,285	1,579	1,592	1,245	1,230	1,317	1,289	1,191	1,541	
Midwest (PADD II)												
Production												
1995	W	W	W	W	W	W	W	W	W	W	W	W
1996	W	W	W	W	W	W	W	W	W	W	W	
Stocks (thous. bbls.)												
1995	W	W	W	W	W	W	W	W	W	W	W	W
1996	W	W	W	W	W	W	W	W	W	W	W	
Gulf Coast (PADD III)												
Production												
1995	132	128	103	148	147	158	158	151	142	148	157	152
1996	154	150	163	160	172	183	174	158	164	169	162	
Stocks (thous. bbls.)												
1995	4,716	4,375	3,933	3,599	3,033	3,208	3,493	3,911	3,499	3,225	3,254	3,190
1996	3,600	4,224	4,332	4,093	4,416	4,543	4,353	3,507	3,434	3,106	3,665	
Rocky Mountain (PADD IV)												
Production												
1995	W	W	W	W	W	W	W	W	W	W	W	W
1996	W	W	W	W	W	W	W	W	W	W	W	
Stocks (thous. bbls.)												
1995	W	W	W	W	W	W	W	W	W	W	W	W
1996	W	W	W	W	W	W	W	W	W	W	W	
West Coast (PADD V)												
Production												
1995	W	W	W	W	W	W	W	W	W	W	W	W
1996	W	W	W	W	W	W	W	W	W	W	W	
Stocks (thous. bbls.)												
1995	3,614	3,950	4,055	4,810	4,620	4,515	4,855	4,271	3,811	3,528	2,780	3,366
1996	3,999	3,316	3,394	3,172	2,926	3,243	3,319	4,270	3,345	4,154	3,299	

W=Withheld to avoid disclosure of individual company data.

Note: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration (EIA) Form EIA-819M, "Monthly Oxygenate Telephone Report."

Table D4. Monthly Methyl Tertiary Butyl Ether (MTBE) Production by Merchant and Captive Plants
(Thousand Barrels per Day, Except Where Noted)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Total U.S.												
1992	98	94	89	79	90	90	101	91	104	118	128	125
1993	115	114	112	138	132	126	155	142	157	146	148	144
1994	123	140	129	140	139	115	154	166	160	164	150	144
1995	149	144	121	168	169	182	181	171	163	167	174	171
1996	173	172	182	183	194	202	197	179	186	187	183	
Merchant Plants												
1992	65	62	58	48	55	53	63	53	61	76	81	77
1993	63	66	67	87	75	70	89	79	87	76	81	75
1994	63	76	66	73	72	50	73	89	90	81	84	69
1995	76	68	61	86	85	91	90	88	79	90	97	92
1996	94	92	93	95	109	123	111	96	101	98	94	
Captive Plants												
1992	33	32	31	31	35	37	38	38	43	42	47	48
1993	52	48	45	50	57	55	67	62	70	70	67	69
1994	60	64	63	67	67	65	81	78	70	83	66	75
1995	73	76	60	83	84	91	91	83	84	76	78	79
1996	79	80	89	89	84	79	85	83	85	89	89	

Note: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.
Source: Energy Information Administration (EIA) Form EIA-819M, "Monthly Oxygenate Telephone Report."

Pipelines carry natural gas across geographic regions.

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; $\text{CH}_3-(\text{CH}_2)_n-\text{OH}$ (e.g., methanol, ethanol, and tertiary butyl alcohol).

Alkylate. The product of an alkylation reaction. It usually refers to the high octane product from alkylation units. This alkylate is used in blending high octane gasoline.

Alkylation. A refining process for chemically combining isobutane with olefin hydrocarbons (e.g., propylene, butylene) through the control of temperature and pressure in the presence of an acid catalyst, usually sulfuric acid or hydrofluoric acid. The product, alkylate, an isoparaffin, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it may be calculated in terms of the following formula:

$$\text{Degrees API} = \frac{141.5}{\text{sp. gr. } 60^\circ \text{ F}/60^\circ \text{ F}} - 131.5$$

The higher the API gravity, the lighter the compound. Light crudes generally exceed 38 degrees API and heavy crudes are commonly labeled as all crudes with an API gravity of 22 degrees or below. Intermediate crudes fall in the range of 22 degrees to 38 degrees API gravity.

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene (BTX).

Asphalt. A dark-brown-to-black cement-like material containing bitumens as the predominant constituent 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 cutback asphalts. The conversion factor for asphalt is 5.5 barrels per short ton.

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

Shaded areas in the definitions represent changes introduced in November 1995.

Atmospheric Crude Oil Distillation. The refining process of separating crude oil components at atmospheric pressure by heating to temperatures of about 600° to 750° F (depending on the nature of the crude oil and desired products) and subsequent condensing of the fractions by cooling.

Aviation Gasoline (Finished). All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Aviation Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation gasoline (e.g., straight-run gasoline, alkylate, reformat, benzene, toluene, and xylene). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus. Oxygenates are reported as other hydrocarbons, hydrogen, and oxygenates.

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, still gas and wax to barrels are given in the definitions of these products.

Barrels Per Calendar Day. The maximum number of barrels of input that can be processed during a 24-hour period after making allowances for the following limitations:

the capability of downstream facilities to absorb the output of crude oil processing facilities of a given refinery. No reduction is made when a planned distribution of intermediate streams through other than downstream facilities is part of a refinery's normal operation;

the types and grades of inputs to be processed;

the types and grades of products expected to be manufactured;

the environmental constraints associated with refinery operations;

the reduction of capacity for scheduled downtime such as routine inspection, mechanical problems, maintenance, repairs, and turnaround; and

the reduction of capacity for unscheduled downtime such as mechanical problems, repairs, and slowdowns.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude oil and product slate conditions.

Benzene (C₆H₆). An aromatic hydrocarbon present in small proportion in some crude oils and made commercially from petroleum by the catalytic reforming of naphthenes in petroleum naphtha. Also made from coal in the manufacture of coke. Used as a solvent, in manufacturing detergents, synthetic fibers, and petrochemicals and as a component of high-octane gasoline.

Blending Components. See Motor or Aviation Gasoline Blending Components.

Blending Plant. A facility which has no refining capability but is either capable of producing finished motor gasoline through mechanical blending or blends oxygenates with motor gasoline.

Bonded Petroleum Imports. Petroleum imported and entered into Customs bonded storage. These imports are not included in the import statistics until they are: (1) withdrawn from storage free of duty for use as fuel for vessels and aircraft engaged in international trade; or (2) withdrawn from storage with duty paid for domestic use.

BTX. The acronym for the commercial petroleum aromatics benzene, toluene, and xylene. See individual categories for definitions.

Bulk Station. A facility used primarily for the storage and/or marketing of petroleum products which has a total bulk storage capacity of less than 50,000 barrels and receives its petroleum products by tank car or truck.

Bulk Terminal. A facility used primarily for the storage and/or marketing of petroleum products which has a total bulk storage capacity of 50,000 barrels or more and/or receives petroleum products by tanker, barge, or pipeline.

Butane (C₄H₁₀). A normally gaseous straight-chain or branch-chain hydrocarbon extracted from natural gas or refinery gas streams. It includes isobutane and normal butane and is designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial butane.

Isobutane (C₄H₁₀). A normally gaseous branch-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 10.9° F. It is extracted from natural gas or refinery gas streams.

Normal Butane (C₄H₁₀). A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of 31.1° F. It is extracted from natural gas or refinery gas streams.

Butylene (C₄H₈). An olefinic hydrocarbon recovered from refinery processes.

Captive Refinery Oxygenate Plants. Oxygenate production facilities located within or adjacent to a refinery complex.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil. Catalytic cracking processes fresh feeds and recycled feeds.

Fresh Feeds. Crude oil or petroleum distillates which are being fed to processing units for the first time.

Recycled Feeds. Feeds that are continuously fed back for additional processing.

Catalytic Hydrocracking. A refining process that uses hydrogen and catalysts with relatively low temperatures and high pressures for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel, and/or high grade fuel oil. The process uses one or more catalysts, depending upon product output, and can handle high sulfur feedstocks without prior desulfurization.

Catalytic Hydrotreating. A refining process for treating petroleum fractions from atmospheric or vacuum distillation units (e.g., naphthas, middle distillates, reformer feeds, residual fuel oil, and heavy gas oil) and other petroleum (e.g., cat cracked naphtha, coker naphtha, gas oil, etc.) in the presence of catalysts and substantial quantities of hydrogen. Hydrotreating includes desulfurization, removal of substances (e.g., nitrogen compounds) that deactivate catalysts, conversion of olefins to paraffins to reduce gum formation in gasoline, and other processes to upgrade the quality of the fractions.

Catalytic Reforming. A refining process using controlled heat and pressure with catalysts to rearrange certain hydrocarbon molecules, thereby converting paraffinic and naphthenic type hydrocarbons (e.g., low-octane gasoline boiling range fractions) into petrochemical feedstocks and higher octane stocks suitable for blending into finished gasoline. Catalytic reforming is reported in two categories. They are:

Low Pressure. A processing unit operating at less than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

High Pressure. A processing unit operating at either equal to or greater than 225 pounds per square inch gauge (PSIG) measured at the outlet separator.

Charge Capacity. The input (feed) capacity of the refinery processing facilities.

Coal. A black or brownish-black solid combustible substance formed by the partial decomposition of vegetable matter without access to air. The rank of coal, which includes anthracite, bituminous coal, subbituminous coal, and lignite, is based on fixed carbon, volatile matter, and heating value. Coal rank indicates the progressive alteration, or coalification, from lignite to anthracite. Lignite contains approximately 9 to 17 million BTU per ton. The heat contents of subbituminous and bituminous coal range from 16 to 24 million BTU per ton, and from 19 to 30 million BTU per ton, respectively. Anthracite contains approximately 22 to 28 million BTU per ton.

Commercial Kerosene-Type Jet Fuel. See Kerosene-Type Jet Fuel.

Crude Oil (Including Lease Condensate). A mixture of hydrocarbons that exists in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface-separating facilities. Included are lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale. Drip gases are also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed 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 USC 1331.

Foreign. Crude oil produced outside the United States. Imported Athabasca hydrocarbons (tar sands from Canada) are included.

Crude Oil, Refinery Receipts. Receipts of domestic and foreign crude oil at a refinery. Includes all crude oil in transit except crude oil in transit by pipeline. Foreign crude oil is reported as a receipt only after entry through customs. Crude oil of foreign origin held in bonded storage is excluded.

Crude Oil Losses. Represents the volume of crude oil reported by petroleum refineries as being lost in their operations. These losses are due to spills, contamination, fires, etc. as opposed to refinery processing losses.

Crude Oil Production. The volume of crude oil produced from oil reservoirs during given periods of time. The amount of such production for a given period is measured as volumes delivered from lease storage tanks (i.e., the point of custody transfer) to pipelines, trucks, or other media for transport to refineries or terminals with adjustments for (1) net differences between opening and closing lease inventories, and (2) basic sediment and water (BS&W).

Crude Oil Qualities. Refers to two properties of crude oil, the sulfur content and API gravity, which affect processing complexity and product characteristics.

Delayed Coking. A process by which heavier crude oil fractions can be thermally decomposed under conditions of elevated temperatures and pressure to produce a mixture of lighter oils and petroleum coke. The light oils can be processed further in other refinery units to meet product specifications. The coke can be used either as a fuel or in other applications such as the manufacturing of steel or aluminum.

Disposition. The components of petroleum disposition are stock change, crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

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, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels. Distillate fuel oil is reported in the following sulfur categories: 0.05% sulfur and under, for use in on-highway diesel engines which could be described as meeting EPA regulations; and greater than 0.05% sulfur, for use in all other distillate applications.

No. 1 Distillate. A petroleum distillate which meets the specifications for No. 1 heating or fuel oil as defined in ASTM D 396 and/or the specifications for No. 1 diesel fuel as defined in ASTM Specification D 975 with distillation temperatures of 420° F at the 10-percent recovery point and 550° F at the 90-percent recovery point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100° F.

No. 2 Distillate. A petroleum distillate which meets the specifications for No. 2 heating or fuel oil as defined in

ASTM D 396 and/or the specifications for No. 2 diesel fuel as defined in ASTM Specification D 975 with distillation temperatures of 540° and 640° F at the 90-percent recovery point, and kinematic viscosities between 2.0 and 4.3 centistokes at 100° F.

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 D396 or Federal Specification VV-F-815C; with minimum and maximum kinematic viscosities 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 D975.

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

Ending Stocks. Primary stocks of crude oil and petroleum products held in storage as of 12 midnight on the last day of the month. Primary stocks include 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 by water from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. Primary Stocks exclude stocks of foreign origin that are held in bonded warehouse storage.

ETBE (Ethyl tertiary butyl ether) (CH₃)₃COC₂H₅. An oxygenate blend stock formed by the catalytic etherification of isobutylene with ethanol.

Ethane (C₂H₆). A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of -127.48° F. It is extracted from natural gas and refinery gas streams.

Ether. A generic term applied to a group of organic chemical compounds composed of carbon, hydrogen, and oxygen, characterized by an oxygen atom attached to two carbon atoms (e.g., methyl tertiary butyl ether).

Ethylene (C₂H₄). An olefinic hydrocarbon recovered from refinery processes or petrochemical processes.

Exports. Shipments of crude oil and petroleum products from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, new supply of other hydrocarbons/oxygenates and motor gasoline blending components, and fuel ethanol blended into finished motor gasoline.

Flexicoking. A thermal cracking process which converts heavy hydrocarbons such as crude oil, tar sands bitumen, and distillation residues into light hydrocarbons. Feedstocks can be any pumpable hydrocarbons including those containing high concentrations of sulfur and metals.

Fluid Coking. A thermal cracking process utilizing the fluidized-solids technique to remove carbon (coke) for continuous conversion of heavy, low-grade oils into lighter products.

Fresh Feed Input. Represents input of material (crude oil, unfinished oils, natural gas liquids, other hydrocarbons and oxygenates or finished products) to processing units at a refinery that is being processed (input) into a particular unit for the first time.

Examples:

- (1) Unfinished oils coming out of a crude oil distillation unit which are input into a catalytic cracking unit are considered fresh feed to the catalytic cracking unit.
- (2) Unfinished oils coming out of a catalytic cracking unit being looped back into the same catalytic cracking unit to be reprocessed are not considered fresh feed.

Fuel Ethanol (C₂H₅OH). An anhydrous denatured aliphatic alcohol intended for gasoline blending as described in Oxygenates definition.

Fuels Solvent Deasphalting. A refining process for removing asphalt compounds from petroleum fractions, such as reduced crude oil. The recovered stream from this process is used to produce fuel products.

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. It derives its name from having originally been used in the manufacture of illuminating gas. It is now used to produce distillate fuel oils and gasoline.

Gasohol. A blend of finished motor gasoline and alcohol (generally ethanol but sometimes methanol), limited to 10 percent by volume of alcohol.

Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation or motor gasoline (e.g., straight-run gasoline,

alkylate, reformat, benzene, toluene, and xylene). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus.

Gross Input to Atmospheric Crude Oil Distillation Units.

Total input to atmospheric crude oil distillation units. Includes all crude oil, lease condensate, natural gas plant liquids, unfinished oils, liquefied refinery gases, slop oils, and other liquid hydrocarbons produced from tar sands, gilsonite, and oil shale.

Heavy Gas Oil. Petroleum distillates with an approximate boiling range from 651° to 1000° F.

Hydrogen. The lightest of all gases, occurring chiefly in combination with oxygen in water; exists also in acids, bases, alcohols, petroleum, and other hydrocarbons.

Idle Capacity. The component of operable capacity that is not in operation and not under active repair, but capable of being placed in operation within 30 days; and capacity not in operation but under active repair that can be completed within 90 days.

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 sands, gilsonite, and oil shale.

Imports. Receipts of crude oil and petroleum products into the 50 States and the District of Columbia from foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

Isobutane. See Butane.

Isobutylene (C₄H₈). An olefinic hydrocarbon recovered from refinery processes or petrochemical processes.

Isohexane (C₆H₁₄). A saturated branch-chain hydrocarbon. It is a colorless liquid that boils at a temperature of 156.2° F.

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule without adding or removing anything from the original material. Used to convert normal butane into isobutane (C₄), an alkylation process feedstock, and normal pentane and hexane into isopentane (C₅) and isohexane (C₆), high-octane gasoline components.

Isopentane. See Natural Gasoline and Isopentane.

Kerosene. A petroleum distillate that has a maximum distillation temperature of 401° F at the 10-percent

recovery point, a final boiling point of 572° F, and a minimum flash point of 100° F. Included are the two grades designated in ASTM D3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-Type Jet Fuel. A quality kerosene product with a maximum distillation temperature of 400° F at the 10-percent recovery point and a final maximum boiling point of 572° F. The fuel is designated in ASTM Specification D1655 and Military Specifications MIL-T-5624R and MIL-T-83133D (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type used primarily for turbojet and turboprop aircraft engines.

Commercial. Kerosene-type jet fuel intended for use in commercial aircraft.

Military. Kerosene-type jet fuel intended for use in military aircraft.

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.

Light Gas Oils. Liquid petroleum distillates heavier than naphtha, with an approximate boiling range from 401° F to 650° F.

Liquefied Petroleum Gases (LPG). Ethane, ethylene, propane, propylene, normal butane, butylene, isobutane, and isobutylene produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

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/ethylene, propane/propylene, normal butane/butylene, and isobutane/isobutylene. Excludes still gas.

Lubricants. A substance used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacturing of other products, or as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. Do not include byproducts of lubricating oil refining such as aromatic extracts derived from solvent extraction or tars derived from deasphalting. "Lubricants" includes all

grades of lubricating oils from spindle oil to cylinder oil and those used in greases. Reporting categories include:

Paraffinic. Includes all grades of bright stock and neutrals with a Viscosity Index > 75.

Naphthenic. Includes all lubricating oil base stocks with a Viscosity Index < 75.

Note: The criterion for categorizing the lubricants is based solely on the Viscosity Index of the stocks and is independent of crude sources and type of processing used to produce the oils.

Exceptions: Lubricating oil base stocks that have been historically classified as naphthenic or paraffinic by a refiner may continue to be so categorized irrespective of the Viscosity Index criterion.

Example:

- (1) Unextracted paraffinic oils that would not meet the Viscosity Index test.

Merchant Oxygenate Plants. Oxygenate production facilities that are not associated with a petroleum refinery. Production from these facilities is sold under contract or on the spot market to refiners or other gasoline blenders.

Methanol (CH₃OH). A light, volatile alcohol intended for gasoline blending as described in Oxygenate definition.

Middle Distillates. A general classification of refined petroleum products that includes distillate fuel oil and kerosene.

Military Kerosene-Type Jet Fuel. See Kerosene-Type Jet Fuel.

Miscellaneous Products. Includes all finished products not classified elsewhere (e.g., petrolatum, lube refining byproducts (aromatic extracts and tars), absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, and specialty oils).

Motor Gasoline (Finished). A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that has been blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as given in ASTM Specification D-4814 or Federal Specification VV-G-1690C, includes a range in distillation temperatures from 122 degrees to 158 degrees F at the 10-percent recovery point and from 365 degrees to 374 degrees F at the 90-percent recovery point. "Motor gasoline" includes reformulated gasoline, oxygenated

gasoline, and other finished gasoline. Blendstock is excluded until blending has been completed.

Reformulated Gasoline. Gasoline formulated for use in motor vehicles, the composition and properties of which meet the requirements of the reformulated gasoline regulations promulgated by the U.S. Environmental Protection Agency under Section 211K of the Clean Air Act. Includes oxygenated fuels program reformulated gasoline (OPRG). Excludes reformulated gasoline blendstock for oxygenate blending (RBOB).

Oxygenated Gasoline. Gasoline formulated for use in motor vehicles that has an oxygen content of 1.8 percent or higher, by weight. Includes gasohol. Excludes reformulated gasoline, oxygenated fuels program reformulated gasoline (OPRG) and reformulated gasoline blendstock for oxygenate blending (RBOB).

OPRG. "Oxygenated Fuels Program Reformulated Gasoline" is reformulated gasoline which is intended for use in an oxygenated fuels program control period.

Other Finished or Conventional Gasoline. Motor gasoline not included in the oxygenated or reformulated gasoline categories. Excludes reformulated gasoline blendstock for oxygenate blending (RBOB).

Motor Gasoline Blending. Mechanical mixing of motor gasoline blending components and oxygenates to produce finished motor gasoline. Mechanical mixing of finished motor gasoline with motor gasoline blending components or oxygenates which results in increased volumes of finished motor gasoline, and/or changes in the classification of finished motor gasoline (e.g., other finished motor gasoline mixed with MTBE to produce oxygenated motor gasoline), is considered motor gasoline blending.

Motor Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished motor gasoline (e.g., straight-run gasoline, alkylate, reformate, benzene, toluene, xylene) and includes reformulated gasoline blendstock for oxygenate blending (RBOB). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus. Oxygenates are reported as individual components and included in the total for other hydrocarbons, hydrogens, and oxygenates.

MTBE (Methyl tertiary butyl ether) (CH₃)₃COCH₃. An ether intended for gasoline blending as described in Oxygenate definition.

Naphtha. A generic term applied to a petroleum fraction with an approximate boiling range between 122° and 400° F.

Naphtha Less Than 401° F. See **Petrochemical Feedstocks.**

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range. ASTM Specification D1655 specifies for this fuel maximum distillation temperatures of 290° F at the 20-percent recovery point and 470° F at the 90-percent point, meeting Military Specification MIL-T-5624L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, normal butane, pentanes plus, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials and are classified as follows: ethane, propane, normal butane, isobutane, and pentanes plus.

Natural Gas Processing Plant. A facility designed (1) to achieve the recovery of natural gas liquids from the stream of natural gas which may or may not have been processed through lease separators and field facilities, and (2) to control the quality of the natural gas to be marketed. Cycling plants are classified as gas processing plants.

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes isopentane which is a saturated branch-chain hydrocarbon, (C₅H₁₂), obtained by fractionation of natural gasoline or isomerization of normal pentane.

Net Receipts. The difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge.

Normal Butane. See **Butane.**

OPEC. The acronym for the Organization of Petroleum Exporting Countries, that have organized for the purpose of negotiating with oil companies on matters of oil production, prices and future concession rights. Current members are Algeria, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela. The Neutral Zone between Kuwait and Saudi Arabia is considered part of OPEC. **Prior to January 1, 1993, Ecuador was a member of OPEC.**

OPRG. "Oxygenated Fuels Program Reformulated Gasoline" is reformulated gasoline which is intended for use in an oxygenated fuels program control area during an oxygenated fuels program control period.

Operable Capacity. The amount of capacity that, at the beginning of the period, is in operation; not in operation and not under active repair, but capable of being placed in operation within 30 days; or not in operation but under active repair that can be completed within 90 days. Operable capacity is the sum of the operating and idle capacity and is measured in barrels per calendar day or barrels per stream day.

Operating Capacity. The component of operable capacity that is in operation at the beginning of the period.

Operable Utilization Rate. Represents the utilization of the atmospheric crude oil distillation units. The rate is calculated by dividing the gross input to these units by the operable refining capacity of the units.

Operating Utilization Rate. Represents the utilization of the atmospheric crude oil distillation units. The rate is calculated by dividing the gross input to these units by the operating refining capacity of the units.

Other Finished. See **Motor Gasoline (Finished).**

Other Hydrocarbons. Materials received by a refinery and consumed as a raw material. 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.

Other Oils Equal To or Greater Than 401° F. See **Petrochemical Feedstocks.**

Other Oxygenates. Other aliphatic alcohols and aliphatic ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).

Oxygenated Gasoline. See **Motor Gasoline (Finished).**

Oxygenates. Any substance which, when added to gasoline, increases the amount of oxygen in that gasoline

blend. Through a series of waivers and interpretive rules, the Environmental Protection Agency (EPA) has determined the allowable limits for oxygenates in unleaded gasoline. The "Substantially Similar" Interpretive Rules (56 FR (February 11, 1991)) allows blends of aliphatic alcohols other than methanol and aliphatic ethers, provided the oxygen content does not exceed 2.7 percent by weight. The "Substantially Similar" Interpretive Rules also provides for blends of methanol up to 0.3 percent by volume exclusive of other oxygenates, and butanol or alcohols of a higher molecular weight up to 2.75 percent by weight. Individual waivers pertaining to the use of oxygenates in unleaded gasoline have been issued by the EPA. They include:

Fuel Ethanol. Blends of up to 10 percent by volume anhydrous ethanol (200 proof) (commonly referred to as the "gasohol waiver").

Methanol. Blends of methanol and gasoline-grade tertiary butyl alcohol (GTBA) such that the total oxygen content does not exceed 3.5 percent by weight and the ratio of methanol to GTBA is less than or equal to 1. It is also specified that this blended fuel must meet ASTM volatility specifications (commonly referred to as the "ARCO" waiver).

Blends of up to 5.0 percent by volume methanol with a minimum of 2.5 percent by volume cosolvent alcohols having a carbon number of 4 or less (i.e., ethanol, propanol, butanol, and/or GTBA). The total oxygen must not exceed 3.7 percent by weight, and the blend must meet ASTM volatility specifications as well as phase separation and alcohol purity specifications (commonly referred to as the "DuPont" waiver).

MTBE (Methyl tertiary butyl ether). Blends up to 15.0 percent by volume MTBE which must meet the ASTM D4814 specifications. Blenders must take precautions that the blends are not used as base gasolines for other oxygenated blends (commonly referred to as the "Sun" waiver).

Pentanes Plus. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas. Includes isopentane, natural gasoline, and plant condensate.

Persian Gulf. The countries that comprise the Persian Gulf are: Bahrain, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates.

Petrochemical Feedstocks. Chemical feedstocks derived from petroleum principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics. The categories reported are "Naphtha Less Than 401° F" and "Other Oils Equal To or Greater Than 401° F."

Naphtha Less Than 401° F. A naphtha with a boiling range of less than 401° F that is intended for use as a petrochemical feedstock.

Other Oils Equal To or Greater Than 401° F. Oils with a boiling range equal to or greater than 401° F that are intended for use as a petrochemical feedstock.

Petroleum Administration for Defense (PAD) Districts. Geographic aggregations of the 50 States and the District of Columbia into five districts by the Petroleum Administration for Defense in 1950. These districts were originally defined during World War II for purposes of administering oil allocation.

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 barrels per short ton.

Marketable Coke. Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This "green" coke may be sold as is or further purified by calcining.

Catalyst Coke. In many catalytic operations (e.g., 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 a fuel in the refining 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, liquefied petroleum gases, pentanes plus, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt, road oil, still gas, and miscellaneous products.

Pipeline (Petroleum). Crude oil and product pipelines used to transport crude oil and petroleum products respectively, (including interstate, intrastate, and intracompany pipelines) within the 50 States and the District of Columbia.

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

Processing Gain. The volumetric amount by which total output is greater than input for a given period of time. This difference is due to the processing of crude oil into

products which, in total, have a lower specific gravity than the crude oil processed.

Processing Loss. The volumetric amount by which total refinery output is less than input for a given period of time. This difference is due to the processing of crude oil into products which, in total, have a higher specific gravity than the crude oil processed.

Product Supplied, Crude Oil. Crude oil burned on leases and by pipelines as fuel.

Production Capacity. The maximum amount of product that can be produced from processing facilities.

Products Supplied. Approximately represents consumption of petroleum products because it measures the disappearance of these products from primary sources, i.e., refineries, natural gas processing plants, blending plants, pipelines, and bulk terminals. In general, product supplied of each product in any given period is computed as follows: field production, plus refinery production, plus imports, plus unaccounted for crude oil, (plus net receipts when calculated on a PAD District basis), minus stock change, minus crude oil losses, minus refinery inputs, minus exports.

Propane (C₃H₈). A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of -43.67° F. It is extracted from natural gas or refinery gas streams. It includes all products designated in ASTM Specification D1835 and Gas Processors Association Specifications for commercial propane and HD-5 propane.

Propylene (C₃H₆). An olefinic hydrocarbon recovered from refinery processes or petrochemical processes.

RBOB. "Reformulated Gasoline Blendstock for Oxygenate Blending" is a motor gasoline blending component which, when blended with a specified type and percentage of oxygenate, meets the definition of reformulated gasoline.

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

Refinery Input, Crude Oil. Total crude oil (domestic plus foreign) input to crude oil distillation units and other refinery processing units (cokers, etc.).

Refinery Input, Total. The raw materials and intermediate materials processed at refineries to produce finished petroleum products. They include crude oil, products of natural gas processing plants, unfinished oils, other hydrocarbons and oxygenates, motor gasoline and

aviation gasoline blending components and finished petroleum products.

Refinery Production. Petroleum products produced at a refinery or blending plant. Published production of these products equals refinery production minus 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 of unfinished oils, and motor and aviation gasoline blending components appear on a net basis under refinery input.

Refinery Yield. Refinery yield (expressed as a percentage) represents the percent of finished product produced from input of crude oil and net input of unfinished oils. It is calculated by dividing the sum of crude oil and net unfinished input into the individual net production of finished products. Before calculating the yield for finished motor gasoline, the input of natural gas liquids, other hydrocarbons and oxygenates, and net input of motor gasoline blending components must be subtracted from the net production of finished motor gasoline. Before calculating the yield for finished aviation gasoline, input of aviation gasoline blending components must be subtracted from the net production of finished aviation gasoline.

Reformulated Gasoline. See **Motor Gasoline (Finished).**

Residual Fuel Oil. The heavier oils that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations and that conform to ASTM Specification D396. Included are No. 5, a residual fuel oil of medium viscosity; Navy Special, for use in steam-powered vessels in government service and in shore power plants; No. 6, which includes Bunker C fuel oil, and is used for commercial and industrial heating, electricity generation and to power ships.

Residuum. Residue from crude oil after distilling off all but the heaviest components, with a boiling range greater than 1000° F.

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

Shell Storage Capacity. The design capacity of a petroleum storage tank which is always greater than or equal to working storage capacity.

Special Naphthas. All finished products within the naphtha boiling range that are used as paint thinners,

cleaners, or solvents. These products are refined to a specified flash point. Special naphthas include all commercial hexane and cleaning solvents conforming to ASTM Specification D1836 and D484, 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, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gases produced in refineries by distillation, cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, normal butane, butylene, propane, propylene, etc. Still gas is used as a refinery fuel and a petrochemical feedstock. The conversion factor is 6 million BTU's per fuel oil equivalent barrel.

Stock Change. The difference between stocks at the beginning of the month and stocks at the end of the month. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.

Strategic Petroleum Reserve (SPR). Petroleum stocks maintained by the Federal Government for use during periods of major supply interruption.

Sulfur. A yellowish nonmetallic element, sometimes known as "brimstone".

Supply. The components of petroleum supply are field production, refinery production, imports, and net receipts when calculated on a PAD District basis.

TAME (Tertiary amyl methyl ether) $(CH_3)_2(C_2H_5)COCH_3$. An oxygenate blend stock formed by the catalytic etherification of isoamylene with methanol.

Tank Farm. An installation used by gathering and trunk pipeline companies, crude oil producers, and terminal operators (except refineries) to store crude oil.

Tanker and Barge. Vessels that transport crude oil or petroleum products. Data are reported for movements between PAD Districts; from a PAD District to the Panama Canal; or from the Panama Canal to a PAD District.

TBA (Tertiary butyl alcohol) $(CH_3)_3COH$. An alcohol primarily used as a chemical feedstock, a solvent or feedstock for isobutylene production for MTBE; produced as a co-product of propylene oxide production or by direct hydration of isobutylene.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking includes gas oil, visbreaking, fluid coking, delayed coking, and other thermal cracking processes (e.g., flexicoking). See individual categories for definition.

Toluene $(C_6H_5CH_3)$. Colorless liquid of the aromatic group of petroleum hydrocarbons, made by the catalytic reforming of petroleum naphthas containing methyl cyclohexane. A high-octane gasoline-blending agent, solvent, and chemical intermediate, base for TNT.

Unaccounted for Crude Oil. Represents the arithmetic difference between the calculated supply and the calculated disposition of crude oil. The calculated supply is the sum of crude oil production plus imports minus changes in crude oil stocks. The calculated disposition of crude oil is the sum of crude oil input to refineries, crude oil exports, crude oil burned as fuel, and crude oil losses.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending. Includes naphthas and lighter oils, kerosene and light gas oils, heavy gas oils, and residuum. See individual categories for definition.

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

United States. The United States is defined as the 50 States and the District of Columbia.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid being distilled. This technique with its relatively low temperatures prevents cracking or decomposition of the charge stock.

Visbreaking. A thermal cracking process in which heavy atmospheric or vacuum-still bottoms are cracked at moderate temperatures to increase production of distillate products and reduce viscosity of the distillation residues.

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 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 included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 280 pounds per 42 U.S. gallons per 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 (D1321)-60 maximum; viscosity at 210° F in Saybolt Universal Seconds (SUS); (D88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum; oil content (D721)-5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored paraffin wax having the following characteristics: viscosity at 210° F (D88)-59.9 SUS (10.18 centistokes) maximum; oil content (D721)-0.5 percent maximum; other +20 color, Saybolt minimum.

Crystalline-Other Wax. A paraffin wax having the following characteristics: viscosity at 210° F (D88)-59.9 SUS (10.18 centistokes) maximum; oil content (D721)-0.51 percent minimum to 15 percent maximum.

Working Storage Capacity. The difference in volume between the maximum safe fill capacity and the quantity below which pump suction is ineffective (bottoms).

Xylene ($C_6H_4(CH_3)_2$). Colorless liquid of the aromatic group of hydrocarbons made the catalytic reforming of certain naphthenic petroleum fractions. Used as high-octane motor and aviation gasoline blending agents, solvents, chemical intermediates. Isomers are metaxylene, orthoxylene, paraxylene.

Introducing the Energy InfoDisc...

How much oil does the U.S. import from the Persian Gulf?

How many U.S. households use personal computers?

What's the long range outlook for nuclear power, and how will it affect other fuels?

How are clean air regulations affecting emissions in the electric power industry?

Find answers to all your energy questions with **Energy InfoDisc**, the new CD-ROM providing the most comprehensive collection of energy information and analysis tools available today. **Energy InfoDisc** is a valuable resource for industry and government analysts, forecasters, journalists, and academic researchers - almost anyone needing access to current or historical energy information.

The **Energy InfoDisc** comes with advanced search capability to find the information you need in seconds - from over 180 of the most current periodicals and analytical publications of the Energy Information Administration (EIA), the independent statistical and analytical agency within the U.S. Department of Energy. With **Energy InfoDisc**, you also have instant access to EIA's wide range of national energy databases and special analysis applications. Don't be without this important resource; subscribe today.

NOTE: Documents can be accessed using either Microsoft Windows or Macintosh System 7 operating systems. Databases and applications can only be accessed using Microsoft Windows.

STAT-USA Order Form

Yes, enter my order for the Energy InfoDisc CD-ROM:

Number of copies:

- ☐ Single issue (U.S., Canada, & Mexico): \$45
- ☐ Single issue outside the U.S., Canada & Mexico: \$60
- ☐ Quarterly subscription in the U.S., Canada, & Mexico: \$100
- ☐ Quarterly subscription outside the U.S., Canada & Mexico: \$160

Contact or personal name (please type or print)

Company	Revenue	Profit	Assets	Liabilities	Equity
Company A	100	20	120	80	40
Company B	150	30	180	120	60
Company C	200	40	240	160	80
Company D	250	50	300	200	100
Company E	300	60	360	240	120
Company F	350	70	420	280	140
Company G	400	80	480	320	160
Company H	450	90	540	360	180
Company I	500	100	600	400	200
Company J	550	110	660	440	220
Company K	600	120	720	480	240
Company L	650	130	780	520	260
Company M	700	140	840	560	280
Company N	750	150	900	600	300
Company O	800	160	960	640	320
Company P	850	170	1020	680	340
Company Q	900	180	1080	720	360
Company R	950	190	1140	760	380
Company S	1000	200	1200	800	400

Street address

Additional address

City, State, ZIP Code _____

Daytime phone _____

**Charge your order
It's easy!**

To fax your orders (202) 482-2164

To phone your orders (202)482-1986

For privacy protection, check the box below:

- ☐ Do not make my name available to requesters.

Check method of payment:

- ☐ AMEX ☐ Discover ☐ MasterCard ☐ VISA

--	--	--	--

(expiration date)

[illegible]

Thank you for your order!

Authorizing signature

37/96

- ☐
- Check payable to
- STAT-USA**

Mail to: U.S. Department of Commerce
STAT-USA, Room H-4885
Washington, DC 20230