Petroleum Supply Annual 2001

Volume 1

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Data Available Electronically

Data from the Weekly Petroleum Status Report, Petroleum Supply Monthly, and the Petroleum Supply Annual publications as well as data from other sources are available electronically on the Energy Information Administration's World Wide Web Site, and the Comprehensive Oil and Gas Information Source (COGIS). The schedule for data release is as follows:

Information
Table 1 (U.S. Balance Sheet) and Data Log (Table 14 plus 4-week averages)
Table H1 (Petroleum Supply Summary)
All tables and highlights
Propane Stocks
Table H1 (Petroleum Supply Summary) and all Summary Statistics and Detailed Statistics Tables
All tables and data bases
Table D1 U.S. Summary Table D2 (Fuel Ethanol Production/Stocks) Table D3 (MTBE Production/Stocks) and Table D4 (MTBE Merchant and Captive)
Import data by company from the Form EIA-814,
"Monthly Imports Report"

Preface

The *Petroleum Supply Annual* (PSA) contains information on the supply and disposition of crude oil and petroleum products. The publication reflects data that were collected from the petroleum industry during 2001 through annual and monthly surveys. The *PSA* is divided into two volumes. This first volume contains three sections: Summary Statistics, Detailed Statistics, and Refinery Statistics; each with final annual data. The second volume contains final statistics for each month of 2001, and replaces data previously published in the *Petroleum Supply Monthly* (PSM). The tables in Volumes 1 and 2 are similarly numbered to facilitate comparison between them. Below is a description of each section in Volume 1 of the *PSA*.

Summary Statistics

This section contains a summary of the data presented each month in the *PSM* and in Volume 2 of the *PSA*. Graphs and tables are provided which show 16 years of data depicting the balance between supply, disposition and ending stocks for various commodities including crude oil, motor gasoline, distillate fuel oil, residual fuel oil, jet fuel, propane/propylene, and liquefied petroleum gases.

Detailed Statistics

The tables contained in this section provide 2001 detailed statistics on supply and disposition, refinery operations, imports and exports, stocks, and transportation of crude oil and petroleum products. In most cases, the statistics are presented for several geographic areas — the United States (50 States and the District of Columbia), five Petroleum Administration for Defense (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.

Refinery Statistics

The tables contained in this section are compiled from the Form EIA-820 "Annual Refinery Report." Of particular note are listings of refineries and associated crude oil distillation and downstream capacities by State, including Puerto Rico and the Virgin Islands, as of January 1, 2002, as well as summaries of corporate refinery capacities and refinery storage capacities. In addition, refinery receipts of crude oil by method of transportation for 2001 are provided. Also included are fuels consumed at refineries, and lists of shutdowns, sales, reactivations, and mergers during 2001.

Appendices

Three appendices are provided to assist in understanding and interpreting the data presented in this publication. Industry terminology and product definitions are listed alphabetically in the Glossary.

- 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 (2000 Revised Crude Oil Production) -Updated monthly and annual crude oil production statistics received after the publication of the 2000 *PSA*.
- Appendix D (Northeast Heating Oil Reserve) -Contains volumes of heating oil held in terminals by the government as a reserve to reduce the risks of home heating oil shortages.

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### **PSA Residual Fuel Oil and Unfinished Oils Revisions**

Beginning with the January 2002 data, significant changes to residual fuel oil and unfinished oils product supplied are evident. These changes are primarily the result of importers misclassifying unfinished oils imports as residual fuel oil on the Form EIA-814 "Monthly Imports Report." In addition, exports of residual fuel oil were revised. The table below shows the original published data (PSM) for residual fuel oil and unfinished oils as well as the revised data for 2001. This table includes all revisions and their impact on product supplied for these products.

### **Residual Fuel Oil**

(Thousand Barrels)

(Thousand Bane	.0,											
PSM-Published	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Refinery Production	25,252	20,808	23,213	24,515	24,372	23,494	19,798	19,295	19,672	21,666	20,414	20,298
Imports	15,869	11,841	11,619	12,057	13,920	12,438	12,865	12,780	10,299	8,154	8,677	9,543
Stock Change	1,085	1,280	746	1,613	1,676	346	-3,618	-3,525	1,534	794	1,227	1,883
Exports	4,362	4,779	5,136	4,811	6,931	5,556	3,510	5,391	3,749	2,994	4,991	5,365
Product Supplied	35,674	26,590	28,950	30,148	29,685	30,030	32,771	30,209	24,688	26,032	22,873	22,593
PSA-Revised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>PSA-Revised</b> Refinery Production						<b>Jun</b> 23,487						
	25,076			24,504		23,487	19,798		19,596	22,000	20,563	
Refinery Production	25,076	20,807	23,236	24,504	24,356 10,516	23,487 9,386	19,798 9,588	19,295 8,199	19,596 6,055	22,000 6,128	20,563	20,299
Refinery Production Imports	25,076 14,196	20,807 11,238 1,239	23,236 9,716 617	24,504 9,477 618	24,356 10,516 1,432	23,487 9,386 574	19,798 9,588 -2,552	19,295 8,199 -4,086	19,596 6,055 2,169	22,000 6,128 1,022	20,563 6,979 995	20,299 6,210
Refinery Production Imports Stock Change	25,076 14,196 973 4,964	20,807 11,238 1,239 5,592	23,236 9,716 617 5,673	24,504 9,477 618 5,548	24,356 10,516 1,432 7,615	23,487 9,386 574	19,798 9,588 -2,552 4,893	19,295 8,199 -4,086 6,638	19,596 6,055 2,169 4,840	22,000 6,128 1,022 4,303	20,563 6,979 995 6,274	20,299 6,210 1,846 7,162

### **Unfinished Oils**

(Thousand Barrels)

PSM-Published	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Refinery Production	-7,294	-3,579	-9,050	-12,980	-16,519	-19,421	-21,839	-14,586	-14,350	-13,028	-11,939	-10,918
Imports	8,195	8,642	8,573	5,582	6,799	7,479	8,159	7,462	6,856	5,987	8,017	6,298
Stock Change	4,493	5,359	4,556	-1,790	-3,286	-3,273	-3,463	604	2,749	-850	-901	-3,619
Exports	0	0	0	0	0	0	0	0	0	0	0	0
Product Supplied	-3,592	-296	-5,033	-5,608	-6,434	-8,669	-10,217	-7,728	-10,243	-6,191	-3,021	-1,001
PSA-Revised	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
PSA-Revised Refinery Production		<b>Feb</b> -3,225					<b>Jul</b> -20,939					
	-7,120	-3,225	-8,606	-12,522	-15,917	-18,630		-13,686	-14,720	-12,820	-12,117	
Refinery Production	-7,120	-3,225 11,069	-8,606	-12,522 10,038	-15,917 11,714	-18,630 11,459	-20,939	-13,686	-14,720	-12,820	-12,117 11,173	-10,183 9,631
Refinery Production Imports	-7,120 12,443	-3,225 11,069	-8,606 11,761	-12,522 10,038	-15,917 11,714	-18,630 11,459	-20,939 13,436	-13,686 12,373	-14,720 12,826	-12,820 10,229	-12,117 11,173	-10,183 9,631

Table S1. Crude Oil and Petroleum Products Overview, 1986 - Present

	1	Field Production	n	Stock	Change ^a		Ending Stocks (Million Barrels
Year/Month	Total Domestic ^c	Crude Oil	Natural Gas Plant Liquids	Crude Oil ^d	Petroleum Products	Petroleum Products Supplied	Crude Oil ^d and Petroleum Products
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 <b>70</b>	17,237	1,647
1994 Average	8,645	6,662	1,727	18	-2	17,718	1,653
1995 Average	8,626	6,560	1,762	-93	-153	17,725	1,563
1996 Average	8,607	6,465	1,830	-124	-28	18,309	1,507
1997 Average	8,611	6,452	1,817	51	93	18,620	1,560
1998 Average	8,392	6,252	1,759	74	165	18,917	1,647
1999 January	8,001	5,963	1,656	297	-454	19,029	1,642
February	8,068	5,966	1,722	50	-291	19,107	1,635
March	8,023	5,883	1,787	367	-859	19,497	1,620
April	8,015	5,887	1,806	-301	433	19,152	1,624
May	8,091	5,875	1,790	182	897	18,705	1,658
June	7,997	5,760	1,874	-235	-273	19,836	1,642
July	8,013	5,798	1,902	34	10	19,820	1,644
August	8,069	5,780	1,874	-566	-145	20,093	1,622
September	8,127	5,804	1,917	-368	142	19,483	1,615
October	8,283	5,947	1,953	-85	-875	19,868	1,585
November	8,275	5,960	1,949	-297	-188	19,087	1,571
December	8,320	5,959	1,957	-507	-1,995	20,498	1,493
Average	8,107	5,881	1,850	-118	-304	19,519	_
2000 January	8,096	5,784	1,956	21	-520	19,026	1,477
February	8,227	5,852	1,987	98	-486	19,635	1,466
March	8,256	5,918	1,987	364	-38	19,218	1,476
April	8,232	5,854	1,968	225	746	18,816	1,505
May	8,196	5,847	1,943	-294	691	19,605	1,518
June	8,106	5,823	1,922	-154	427	20,054	1,526
July	8,073	5,739	1,934	-225	666	19,696	1,540
August	8,087	5,789	1,941	197	-450	20,496	1,532
September	8,066	5,758	1,923	-347	184	19,899	1,527
October	8,151	5,809	1,919	-189	-464	19,798	1,507
November	8,089	5,833	1,876	-281	240	19,328	1,505
December	7,750	5,855	1,583	-250	-971	20,814	1,468
Average	8,110	5,822	1,911	-70	(s)	19,701	_
2001 January	7,528	5,799	1,398	317	38	20,092	1,479
February	7,891	5,780	1,732	-424	223	19,689	1,473
March	8,127	5,880	1,833	861	-501	19,876	1,484
April	8,062	5,863	1,831	736	513	19,729	1,522
May	8,146	5,829	1,912	-42	1,130	19,501	1,555
June	8,062	5,766	1,908	-671	929	19,561	1,563
July	8,066	5,749	1,899	164	7	19,919	1,568
August	8,062	5,725	1,955	-160	-488	20,153	1,548
September	8,128	5,709	2,034	79	944	19,016	1,579
October	8,164	5,746	2,025	142	-205	19,824	1,577
November	8,274	5,881	2,001	36	323	19,396	1,588
December	8,131	5,887	1,889	87	-133	19,003	1,586
Average	8,054	5,801	1,868	99	227	19,649	_

^a A negative number indicates a decrease in stocks and a positive number indicates an increase. Distillate stocks located in the "Northeast Heating Oil

Reserve" are not included. For details see Appendix D.

b Stocks are totals as of end of period. Distillate stocks located in the "Northeast Heating Oil Reserve" are not included. For details see Appendix D.

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.

In January 1993, bulk terminal, pipeline, and merchant-producer stocks of oxygenates were added to surveys affecting stock levels and stock change calculations. See Summary Statistics Explanatory Note 2.

Footnotes continued on following page.

Table S1. Crude Oil and Petroleum Products Overview, 1986 - Present (Continued)

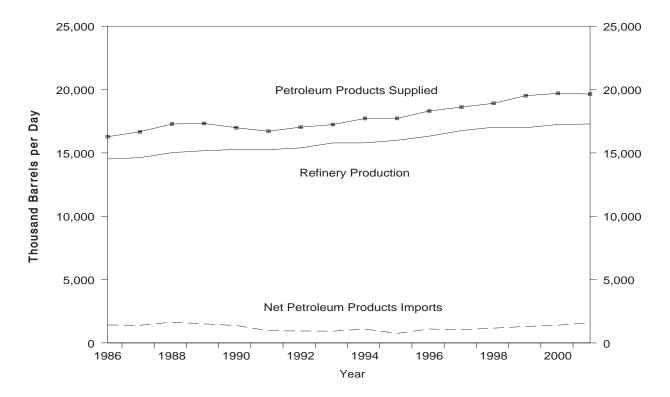
		Imports			Exports			
Year/Month	Total	Crude Oil ^e	Petroleum Products	Total	Crude Oil	Petroleum Products	Net Imports	
	IOIAI	Oii	Froducts	IOtal	Oii	Froducts	illiports	
986 Average	6,224	4.178	2.045	785	154	631	5.439	
987 Average	6,678	4,674	2,004	764	151	613	5,914	
988 Average	7,402	5,107	2,295	815	155	661	6,587	
89 Average	8,061	5,843	2,217	859	142	717	7,202	
90 Average	8,018	5,894	2,123	857	109	748	7,161	
91 Average	7,627	5,782	1.844	1,001	116	885	6,626	
92 Average	7,888	6,083	1,805	950	89	861	6,938	
993 Average	8,620	6,787	1,833	1,003	98	904	7,618	
994 Average	8,996	7,063	1,933	942	99	843	8,054	
	8,835	7,003	1,605	949	95	855	7,886	
		,	,		110			
996 Average	9,478	7,508	1,971	981		871	8,498	
97 Average	10,162	8,225	1,936	1,003	108	896	9,158	
998 Average	10,708	8,706	2,002	945	110	835	9,764	
999 January	10,424	8,393	2,031	896	107	788	9,529	
February	10,650	8,468	2,182	756	119	636	9,894	
March	10,658	8,739	1,919	764	95	669	9,894	
April	11,618	9,256	2,362	1,196	332	864	10,422	
May	11,511	9,098	2.412	915	88	826	10,596	
June	11,160	8,888	2,272	907	123	784	10,253	
July	11,697	9,391	2,306	918	120	798	10,779	
August	11,142	8,908	2,234	902	132	769	10,240	
September	10.657	8.527	2,130	889	27	862	9.768	
October	10,595	8,613	1,983	944	56	888	9,651	
November	10,033	8,224	1,809	950	83	866	9,083	
	10,065	8,234	1,830	1,230	133	1,096	8,835	
December Average	10,852	8,731	2,122	940	118	822	9,912	
_		•					ŕ	
000 January	10,140	7,829	2,311	1,006	176	830	9,134	
February	11,003	8,318	2,684	870	30	840	10,133	
March	11,052	8,790	2,261	1,159	144	1,015	9,893	
April	11,558	9,341	2,217	1,131	124	1,007	10,427	
May	11,415	9,085	2,331	856	34	822	10,559	
June	12,032	9,533	2,499	925	9	915	11,107	
July	11,588	9,398	2,190	900	15	885	10,688	
August	12,173	9,939	2,234	1,073	17	1,056	11,099	
September	11,900	9.484	2,416	1.059	23	1.036	10.841	
October	11,290	8,969	2,321	1,292	9	1,283	9,998	
November	11,309	8,913	2,396	1,108	2	1,106	10,201	
December	12,053	9,229	2,824	1,095	16	1,079	10,958	
Average	11,459	9,071	2,389	1,040	50	990	10,419	
<b>001</b> January	12,555	8,933	3,623	954	18	936	11,601	
February	11,643	8,609	3,035	1,004	24	980	10,639	
March	12,132	9,603	2,530	938	37	901	11,194	
April	12,653	10,111	2,542	942	5	937	11,711	
May	12,529	9,885	2,644	1,069	64	1,005	11,461	
June	11,732	9,105	2,627	976	15	960	10,756	
July	11,760	9,552	2,208	879	11	868	10,881	
August	11,622	9,383	2,239	1,048	28	1,020	10,573	
September	11,818	9,339	2,478	825	8	817	10,993	
October	11,379	9,211	2,168	946	11	935	10,432	
November	11.628	9,320	2,309	960	9	951	10.669	
December	10,994	8,839	2,154	1,109	12	1,097	9,885	
	10,001	0,000	2,101	971	14	1,001	0,000	

Footnotes continued.

Notes: • Crude oil includes lease condensate. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of

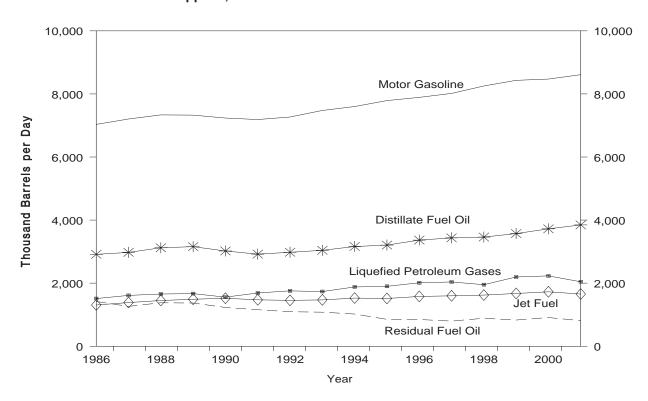
components due to independent rounding.
Source: See Summary Statistics Table and Figure Sources.

Figure S1. Petroleum Overview, 1986 - Present



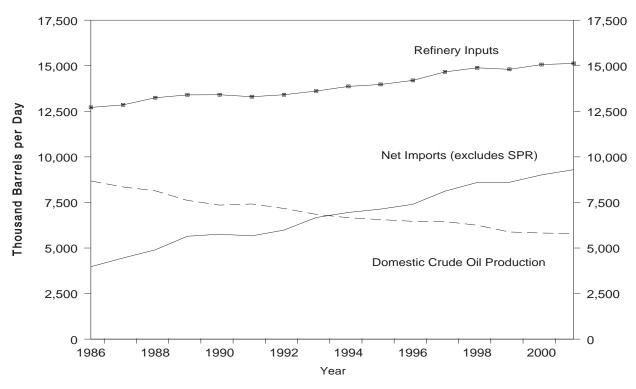
Source: Energy Information Administration, Petroleum Supply Annual, Table S1. See Summary Statistics Table and Figure Sources.

Figure S2. Petroleum Products Supplied, 1986 - Present



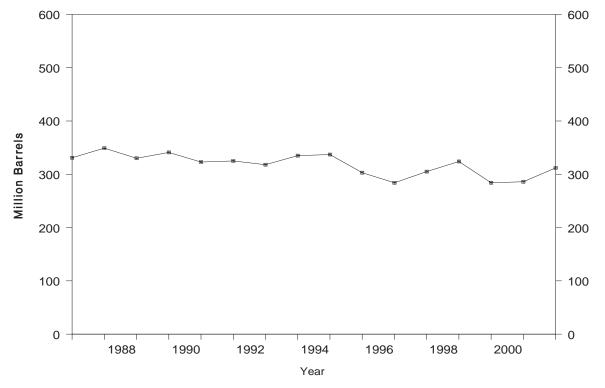
Source: Energy Information Administration, Petroleum Supply Annual, Tables S4 - S8. See Summary Statistics Table and Figure Sources.

Figure S3. Crude Oil Supply and Disposition, 1986 - Present



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

Figure S4. Crude Oil Ending Stocks, 1986 - Present



¹Excludes stocks held in the Strategic Petroleum Reserve (SPR). Source: Energy Information Administration, *Petroleum Supply Annual*, Table S2. See Summary Statistics Table and Figure Sources.

Table S2. Crude Oil Supply and Disposition, 1986 - Present

				Su	pply			Dispositio
		Field Pr	oduction		Imports			
	Year/Month	Total Domestic	Alaskan	Total	SPR	Other	Unaccounted for Crude Oil ^a	Crude Losses
986	Average	8,680	1,867	4,178	48	4,130	139	(s)
987	Average	8,349	1,962	4,674	73	4,601	145	(s)
88	Average	8,140	2,017	5,107	51	5,055	196	(s)
89	Average	7,613	1,874	5,843	56	5,787	200	(s)
90	Average	7,355	1,773	5,894	27	5,867	258	(s)
91	Average	7,417	1,798	5,782	0	5,782	195	(s)
92	Average	7,171	1,714	6,083	10	6,073	258	(s)
93	Average	6,847	1,582	6,787	15	6,772	168	(s)
94	Average	6,662	1,559	7,063	12	7,051	266	(s)
95	Average	6,560	1,484	7,230	0	7,230	193	(s)
96	Average	6,465	1,393	7,508	0	7,508	215	(s)
97	Average	6,452	1,296	8,225	0	8,225	145	0
98	Average	6,252	1,175	8,706	0	8,706	115	(s)
99	January	5,963	1,164	8,393	0	8,393	490	0
	February	5,966	1,104	8,468	0	8,468	45	(s)
	March	5,883	1,134	8,739	0	8,739	338	(s)
	April	5,887	1,056	9,256	0	9,256	-18	`ó
	May	5,875	1,088	9,098	0	9,098	270	Ō
	June	5,760	967	8,888	0	8,888	198	Ö
	July	5,798	990	9,391	0	9,391	202	Ō
	August	5,780	1,011	8,908	31	8,877	177	0
	September	5,804	933	8,527	17	8,509	436	Ö
	October	5,947	1,068	8,613	17	8,595	(s)	0
	November	5,960	1,023	8,224	17	8,207	306	0
	December	5,959	1,058	8,234	16	8,218	-156	0
	Average	5,881	1,050	8,731	8	8, <b>722</b>	<b>191</b>	(s)
00	January	5,784	1,024	7,829	3	7,826	362	0
00	February	5,852	1,024	8,318	17	8,301	-14	0
		5,918	1,013	,	0	8,790	412	0
	March		1,008	8,790	0		206	0
	April	5,854	,	9,341	0	9,341		0
	May	5,847	966	9,085		9,085	303	
	June	5,823	925	9,533	16	9,518	143	0
	July	5,739	913	9,398	15	9,383	471	0
	August	5,789	914	9,939	0	9,939	127	0
	September	5,758	892	9,484	0	9,484	-159	0
	October	5,809	966	8,969	32	8,938	70	0
	November	5,833	986	8,913	17	8,896	-1	0
	December	5,855	1,010	9,229	0	9,229	-86	0
	Average	5,822	970	9,071	8	9,062	155	0
01	January	5,799	980	8,933	32	8,901	392	0
	February	5,780	977	8,609	0	8,609	25	0
	March	5,880	1,009	9,603	15	9,588	64	0
	April	5,863	986	10,111	0	10,111	304	0
	May	5,829	957	9,885	30	9,856	70	0
	June	5,766	935	9,105	0	9,105	123	0
		5,749	927	9,552	15	9,538	243	0
	July		928	9,383	0	9,383	19	0
		5,725						
	August	5,725 5,709	892	9,339	0	9,339	44	0
	AugustSeptember	5,709	892					
	August September October	5,709 5,746	892 895	9,211	0	9,211	198	0
	AugustSeptember	5,709	892					

Unaccounted for crude oil represents the difference between the supply and disposition of crude oil.
 A negative number indicates a decrease in stocks and a positive number indicates an increase.
 Stocks are totals as of end of period.
 Crude oil stocks in the Strategic Petroleum Reserve include non-U.S. stocks held under foreign or commercial storage agreements.
 Footnotes continued on following page.

Table S2. Crude Oil Supply and Disposition, 1986 - Present (Continued)

				Disposition	I			Ending Stocks	
		Stock (	Change ^b					(Million Barrels	s) 
	Year/Month	SPR	Other	Refinery Inputs	Exports	Product Supplied	Total	SPR ^d	Other Primary
986	Average	50	28	12,716	154	49	843	512	331
987	Average	80	49	12,854	151	34	890	541	349
988	Average	52	-51	13,246	155	40	890	560	330
989	Average	56	30	13,401	142	28	921	580	341
990	Average	16	-51	13,409	109	24	908	586	323
991	Average	-47	.5	13,301	116	18	893	569	325
992	Average	17	-18	13,411	89	13	893	575	318
993	Average	34	47	13,613	98	10	922	587	335
994	Average	13	5	13,866	99	9	929	592	337
995	Average	(s)	-93	13,973	95	7	895	592	303
996	Average	-71	-53	14,195	110	6 2	850	566	284
997	Average	-7	57	14,662	108		868	563	305
998	Average	22	52	14,889	110	0	895	571	324
999	January	18	280	14,442	107	0	904	572	332
	February	(s)	50	14,309	119	0	906	572	334
	March	0	367	14,498	95	0	917	572	345
	April	17	-317	15,094	332	0	908	572	335
	May	37	145	14,973	88	0	914	574	340
	June	40	-276	14,959	123	0	907	575	332
	July	29	5	15,237	120	0	908	576	332
	August	-27	-539	15,299	132	0	890	575	315
	September	20	-388	15,107	27	0	879	575	304
	October	-103	18	14,589	56	0	876	572	304
	November	-105	-191	14,704	83	0	867	569	298
	December  Average	-60 <b>-11</b>	-447 <b>-107</b>	14,410 <b>14,804</b>	133 <b>118</b>	0 <b>0</b>	852 —	567 —	284 —
000	January	41	-20	13,779	176	0	852	568	284
000	February	30	-20 68	14,028	30	0	855	569	286
	March	1	363	14,613	144	0	867	569	297
	April	0	225	15,053	124	0	873	569	304
	May	0	-294	15,494	34	0	864	569	295
	June	-17	-136	15,643	9	0	860	569	291
	July	47	-272	15,819	15	0	853	570	282
	August	33	164	15,640	17	0	859	570 571	287
	September	-34	-313	15,407	23	0	848	570	278
	October	-189	(s)	15,029	9	0	842	564	278
	November	-566	285	15,023	2	0	834	548	286
	December	-220	-30	15,232	16	0	826	541	286
	Average	-73	3	15,067	50	Ö	_	_	_
001	January	32	285	14,789	18	0	836	542	294
	February	(s)	-424	14,813	24	Ö	824	542	282
	March	20	841	14,649	37	0	851	542	309
	April	2	734	15,536	5	0	873	542	331
	May	30	-71	15,763	64	0	872	543	328
	June	0	-671	15,650	15	0	852	543	308
	July	15	149	15,369	11	0	857	544	313
	August	0	-160	15,259	28	0	852	544	308
	September	34	45	15,005	8	0	854	545	309
	October	14	127	15,002	11	0	858	545	313
	November	71	-35	15,001	9	0	860	547	312
	December	94	-7	14,688	12	0	862	550	312
	Average	26	73	15,128	20	0	_	_	_

Footnotes continued.

SPR = Strategic Petroleum Reserve. (s)=Less than 500 barrels per day.

Notes: • Crude oil includes lease condensate. • 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, 1986 - Present

(Thousand Barrels per Day)

					Imports from Aral	b-OPEC Sour	ces		
	Year/Month	Al	geria		Iraq	Ku	wait ^b	L	ibya
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
986	Average	271	78	81	81	68	28	0	0
987	Average	295	115	83	82	84	70	0	0
988	Average	300	58	345	343	92	80	0	0
989	Average	269	60	449	441	157	155	0	0
990	Average	280	63	518	514	86	79	0	0
991	Average	253	44	0	0	6	6	0	0
992	Average	196	24	0	0	51	39	0	0
993	Average	220	24	0	0	353	344	0	0
994	Average	243	21	0	0	312	307	0	0
995	Average	234	27	0	0	218	213	0	0
996	Average	256	8	1	1	236	235	0	0
997	Average	285	6	89	89	253	253	0	0
998	Average	290	10	336	336	301	300	0	0
999	January	246	20	485	485	132	132	0	0
	February	209	6	681	681	205	205	0	0
	March	285	6	791	791	324	324	0	0
	April	321	80	829	829	286	279	0	0
	May	303	107	750	750	227	227	0	0
	June	255	7	773	773	259	259	0	0
	July	302	48	680	680	311	311	0	0
	August	249	0	672	672	348	348	0	0
	September	255	4 0	741	741	261	261	0	0
	October	183	-	922	922	205	205	0 0	0
	November	211 279	11	713	713	216	216	0	0
	December  Average	279 <b>259</b>	15 <b>25</b>	668 <b>725</b>	668 <b>725</b>	200 <b>248</b>	186 <b>246</b>	<b>0</b>	<b>0</b>
000	January	240	7	254	254	239	218	0	0
.000	February	256	0	750	750	267	264	0	0
	March	199	0	468	468	162	162	0	0
	April	195	(s)	657	657	264	247	0	0
	May	270	0	438	438	170	166	0	0
	June	222	0	830	830	210	210	0	0
	July	205	Ö	762	762	264	264	0	Ö
	August	236	0	765	765	405	405	0	0
	September	216	0	765 765	765	352	338	0	0
	October	210	Ö	653	653	337	337	Ö	Ő
	November	212	Ö	585	585	248	237	Ö	Ö
	December	240	0	528	528	344	311	0	0
	Average	225	1	620	620	272	263	0	0
001	January	286	0	310	310	247	206	0	0
-	February	223	0	253	253	280	251	Ō	0
	March	279	19	579	579	308	302	Ō	0
	April	326	0	880	880	263	242	Ō	0
	May	379	54	1,011	1,011	256	240	0	0
	June	265	20	810	810	270	270	0	0
	July	190	0	710	710	292	287	0	0
	August	243	0	563	563	261	256	0	0
	September	200	0	1,192	1,192	259	237	0	0
	October	293	0	1,177	1,177	226	221	0	0
	November	320	37	889	889	196	196	0	0
	December	326	0	1,126	1,126	145	140	0	0
	Average	278	11	795	795	250	237	0	0

**Table S3.** Crude Oil and Petroleum Product Imports, 1986 - Present (Continued) (Thousand Barrels per Day)

			Imports from Arab-OPEC Sources United						
	Year/Month	G	atar		audi abia ^b	A	nited rab irates	Α	otal Arab PEC
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oi
1986	Average	13	12	685	618	44	38	1.162	854
1987	Average	0	0	751	642	61	56	1,274	965
988	Average	Ö	Ö	1.073	911	29	23	1,839	1,415
989	Average	2	2	1,224	1,116	28	21	2,130	1,794
990	Average	4	4	1,339	1,195	17	9	2,244	1,864
991	Average	0	0	1,802	1,703	3	2	2,064	1,754
992	Average	1	0	1,720	1,597	6	0	1,974	1,660
993	Average	1	0	1,414	1,282	14	12	2,000	1,661
994	Average	0	0	1,402	1,297	13	11	1,970	1,636
995	Average	0	0	1,344	1,260	10	5	1,806	1,505
996	Average	0	0	1,363	1,248	3	3	1,859	1,496
997	Average	4	0	1,407	1,293	2	0	2,040	1,641
998	Average	4	1	1,491	1,404	3	3	2,424	2,053
999	January	0	0	1,511	1,410	0	0	2,375	2,047
	February	0	0	1,497	1,417	0	0	2,592	2,309
	March	34	0	1,652	1,584	0	0	3,086	2,704
	April	31	0	1,482	1,417	5	0	2,954	2,606
	May	0	0	1,502	1,406	0	0	2,783	2,491
	June	0	0	1,539	1,438	19	0	2,845	2,477
	July	0	0	1,436	1,296	0	0	2,729	2,335
	August	18	0	1,474	1,373	3	0	2,763	2,392
	September	14	0	1,441	1,330	0	0	2,712	2,337
	October	0	0	1,353	1,251	0	0	2,663	2,378
	November	11	11	1,396	1,334	0	0	2,547	2,285
	December	8	0	1,455	1,391	0	0	2,610	2,260
	Average	10	1	1,478	1,387	2	0	2,722	2,385
000	January	12	0	1,543	1,483	0	0	2,288	1,962
	February	2	0	1,317	1,265	25	18	2,618	2,297
	March	9	0	1,548	1,490	17	0	2,404	2,120
	April	13	0	1,466	1,452	0	0	2,595	2,356
	May	9	0	1,566	1,510	34	0	2,488	2,115
	June	10	0	1,512	1,436	24	0	2,808	2,476
	July	8	0	1,554	1,486	24	15	2,817	2,528
	August	6	0	1,649	1,587	0	0	3,060	2,756
	September	10	0	1,669	1,645	31	0	3,043	2,748
	October	7	0	1,499	1,462	9	0	2,713	2,451
	November	15	0	1,624	1,567	9	0	2,693	2,389
	December Average	3 <b>9</b>	0 <b>0</b>	1,897 <b>1,572</b>	1,882 <b>1,523</b>	9 <b>15</b>	0 <b>3</b>	3,022 <b>2,712</b>	2,721 <b>2,410</b>
001	_	7	0	1,804	1,629	138	79	2,790	2,224
JU I	January February	0	0	1,804	1,629	44	79 0	2,790	2,224
	March	20	0	1,788	1,734	44	0	2,000	2,239
	April	20 19	0	1,768	1,730	84 84	76	3,231	2,630
	May	30	0	1,770	1,724	52	76 35	3,500	3,065
	June	23	2	1,764	1,694	28	0	3,160	2,796
	July	11	0	1,713	1,683	10	0	2,925	2,790
	August	10	0	1,835	1,826	26	17	2,939	2,661
	September	14	0	1,478	1,439	84	32	3,228	2,900
	October	6	0	1,432	1,384	16	16	3,150	2,797
	November	10	0	1,543	1,514	0	0	2,957	2,635
	December	10	0	1,370	1,357	0	0	2,978	2,623
						-			
	Average	13	(s)	1,662	1,611	40	21	3,039	2,675

Table S3. Crude Oil and Petroleum Product Imports, 1986 - Present (Continued)

(Thousand Barrels per Day)

				Imports from Other-OPEC Sources									
	Year/Month	Ecu	ıador ^c	Ga	abon	Indo	onesia	ı	ran				
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oi				
986	Average	77	64	26	25	318	297	19	19				
987	Average	29	23	35	35	285	262	98	98				
988	Average	47	33	16	15	205	186	g (s)	g (s)				
989	Average	89	80	50	49	183	158	0	0				
990	Average	49	38	64	64	114	98	Õ	Ŏ				
991	Average	63	53	84	84	111	102	32	32				
992	Average	65	62	124	123	78	70	0	0				
993	Average	81	78	152	151	81	65	Ö	Ō				
994	Average	(c)	(c)	194	194	111	92	Ö	Ö				
995	Average	(c)	(c)	(d)	(d)	88	64	0	0				
996	Average	(c)	(c)	(d)	(d)	59	44	Õ	Ö				
997	Average	(c)	(c)	(d)	(d)	58	51	Õ	Ö				
998	Average	(c)	(c)	(d)	(d)	66	50	0	Ō				
		(c)	(c)	(d)	(d)								
999	January	(c)	(c)	(d) (d)	(d)	100	75	0	0				
	February	(c)	(c)	(d) (d)	(d)	66	66	0	0				
	March					43	40	0	0				
	April	(c)	(c)	(d) (d)	(d) (d)	98	94	0	0				
	May	(c)	(c)	, ,	, ,	105	98	0	0				
	June	(c)	(c)	(d)	(d)	66	52	0	0				
	July	(c)	(c)	(d)	(d)	19	14	0	0				
	August	(c)	(c)	(d)	(d)	95	85	0	0				
	September	(c)	(c)	(d)	(d)	95	63	0	0				
	October	(c)	(c)	(d)	(d)	98	79	0	0				
	November	(c)	(c)	(d)	(d)	74	68	0	0				
	December	(c)	(c)	(d)	(d)	118	99	0	0				
	Average	(c)	(c)	(d)	(d)	81	70	0	0				
000	January	(c)	(c)	(d)	(d)	31	22	0	0				
	February	(c)	(c)	(d)	(d)	32	28	0	0				
	March	(c)	(c)	(d)	(d)	45	45	0	0				
	April	(c)	(c)	(d)	(d)	91	70	0	0				
	May	(c)	(c)	(d)	(d)	35	30	0	0				
	June	(c)	(c)	(d)	(d)	46	42	0	0				
	July	(c)	(c)	(d)	(d)	20	14	0	0				
	August	(c)	(c)	(d)	(d)	61	55	0	0				
	September	(c)	(c)	(d)	(d)	28	28	0	0				
	October	(c)	(c)	(d)	(d)	37	34	0	0				
	November	(c)	(c)	(d)	(d)	60	29	0	0				
	December	(c)	(c)	(d)	(d)	92	41	0	0				
	Average	(c)	(c)	(d)	(d)	48	36	0	0				
001	January	(c)	(c)	(d)	(d)	61	20	0	0				
	February	(c)	(c)	(d)	(d)	76	42	0	0				
	March	(c)	(c)	(d)	(d)	76	60	0	0				
	April	(c)	(c)	(d)	(d)	58	52	Ö	Ő				
	May	(c)	(c)	(d)	(d)	78	73	Ö	Ö				
	June	(c)	(c)	(d)	(d)	65	57	0	0				
	July	(c)	(c)	(d)	(d)	29	28	0	0				
	August	(c)	(c)	(d)	(d)	38	37	Õ	Ö				
	September	(c)	(c)	(d)	(d)	26	25	Õ	Ő				
	October	(c)	(c)	(d)	(d)	39	29	Ö	0				
	November	(c)	(c)	(d)	(d)	22	21	0	0				
	December	(c)	(c)	(d)	(d)	51	42	0	0				
	Average	(c)	(c)	(d)	(d)	51 51	42 40	0	0				
	Average		• •			31	+0	U	U				

**Table S3.** Crude Oil and Petroleum Product Imports, 1986 - Present (Continued) (Thousand Barrels per Day)

			lm	ports from Otl	ner-OPEC Source	s			
	Year/Month	Ni	geria	Vend	ezuela	0	otal ther PEC ^c	To OPE	otal C ^{c,d,e}
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
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
990	Average	800	784	1,025	666	2,052	1,650	4,296	3,514
991	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
993	Average	740	722	1,300	1,010	2,354	2,026	4,354	3,687
994	Average	637	624	1,334	1,034	2,277	1,944	4,247	3,580
1995	Average	627	621	1,480	1,151	2,196	1,835	4,002	3,341
1996	Average	617	595	1,676	1,303	2,353	1,942	4,211	3,438
1997	Average	698	689	1,773	1,394	2,529	2,134	4,569	3,775
998	Average	696	689	1,719	1,377	2,481	2,116	4,905	4,169
999	January	702	686	1,641	1,243	2,444	2,004	4,819	4,051
	February	701	661	1,751	1,298	2,518	2,025	5,110	4,334
	March	650	613	1,331	1,001	2,023	1,654	5,109	4,358
	April	890	848	1,737	1,420	2,725	2,362	5,679	4,968
	May	617	572	1,574	1,213	2,296	1,883	5,079	4,374
	June	703	667	1,426	1,047	2,195	1,766	5,040	4,243
	July	666	645	1,602	1,222	2,287	1,881	5,016	4,216
	August	800	766	1,480	1,183	2,374	2,035	5,137	4,427
	September	535	505	1,484	1,138	2,113	1,707	4,825	4,044
	October	543	522	1,340	1,041	1,981	1,642	4,645	4,020
	November	588	548	1,222	942	1,885	1,558	4,431	3,843
	December Average	490 <b>657</b>	450 <b>623</b>	1,346 <b>1,493</b>	1,069 <b>1,150</b>	1,954 <b>2,231</b>	1,618 <b>1,843</b>	4,564 <b>4,953</b>	3,878 <b>4,228</b>
		400	400	4.000	4.054	4.004	4.540	4.400	0.474
000	January	490 657	439 636	1,360 1,600	1,051 1,198	1,881	1,512 1,863	4,169 4,907	3,474 4,160
	February	1,038	1,005	,	1,198	2,289	2,260	4,90 <i>7</i> 5,054	,
	March April	948	931	1,567 1,537	1,209	2,651 2,576	2,260	5,034	4,379 4,533
		913	902	1,468	1,170	2,376	2,035	4,904	4,150
	May June	1.189	1.136	1,516	1,207	2,750	2,385	5,558	4,861
	July	895	876	1,446	1,159	2,750	2,049	5,178	4,577
	August	1,122	1,108	1,661	1,429	2,844	2,591	5,904	5,348
	September	1,020	1,008	1,378	1,075	2,426	2,112	5,470	4,859
	October	946	943	1,610	1,293	2,594	2,270	5,307	4,721
	November	851	836	1,632	1,358	2,543	2,222	5,236	4,612
	December	686	673	1,776	1,419	2,553	2,132	5,575	4,854
	Average	896	875	1,546	1,223	2,491	2,134	5,203	4,544
001	January	881	842	1,796	1,431	2,737	2,294	5,527	4,517
	February	894	859	1,500	1,250	2,471	2,150	5,071	4,389
	March	1,076	1,057	1,702	1,384	2,854	2,501	5,832	5,131
	April	1,192	1,137	1,623	1,333	2,873	2,522	6,104	5,346
	May	988	916	1,514	1,312	2,580	2,300	6,080	5,365
	June	793	724	1,623	1,297	2,480	2,077	5,641	4,873
	July	869	834	1,685	1,445	2,583	2,308	5,509	4,987
	August	727	690	1,586	1,374	2,350	2,101	5,289	4,763
	September	1,057	994	1,282	1,041	2,365	2,060	5,593	4,960
	October	842	812	1,511	1,288	2,392	2,129	5,542	4,926
	November	696	662	1,423	1,144	2,141	1,827	5,097	4,462
	December	614	579	1,382	1,178	2,047	1,799	5,024	4,423
		885							

**Table S3.** Crude Oil and Petroleum Product Imports, 1986 - Present (Continued) (Thousand Barrels per Day)

		Imports from Non-OPEC Sources ^a Bahama Angola Australia Islands Brazil Canada											
	Year/Month	Ar	ngola	Au	stralia			В	razil	Ca	nada	Ped	nina, oples ublic of
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oi
1986	Average	112	102	41	30	37	0	50	0	807	570	90	68
1987	Average	192	180	58	49	37	ŏ	84	ŏ	848	608	82	63
1988	Average	212	203	64	59	32	Ö	98	Ō	999	681	88	82
1989	Average		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	Average	331	322	17	16	29	0	31	1	1,272	983	65	64
1995 1996	Average	367 351	360 344	16 31	16 25	2 1	0 0	8 9	0 0	1,332	1,040 1,075	53 57	53 57
1997	Average Average	427	425	48	25 31	1	0	5	0	1,424 1,563	1,075	49	48
1998	Average	468	465	57	31	4	0	26	0	1,598	1,266	42	42
1999	January	421	421	0	0	0	0	3	0	1,600	1,196	(s)	0
	February	380	364	73	49	0	0	22	0	1,459	1,081	2	0
	March	270	270	53	53	0	0	15	0	1,365	1,056	31	30
	April	401	393	19	19	7	0	26	0	1,373	1,057	21	21
	May	407	400	55	37	23	0	47	0	1,523	1,104	2	0
	June	334	334	56	34	0	0	48	0	1,477	1,159	67	19
	July	349	349	30	30	8	0	31	0	1,694	1,354	19	19
	August	309	309	65	47 65	0 0	0 0	30 16	0	1,653	1,263	72 37	33 34
	September October	465 444	465 444	110 0	65 0	0	0	18	0	1,407 1,627	1,067 1,229	0	0
	November	307	307	22	22	0	0	37	0	1,592	1,264	1	0
	December	244	227	23	23	0	ő	18	Ö	1,684	1,291	1	0
	Average	361	357	42	31	3	0	26	0	1,539	1,178	21	13
2000	January	249	247	43	43	0	0	59	0	1,869	1,378	7	0
	February	186	177	58	50	0	0	21	0	1,904	1,350	22	21
	March	312	308	44	44	0	0	10	0	1,673	1,261	91	37
	April	348	335	97 94	70 65	0	0 0	57 33	0	1,750	1,323	61	18 28
	May June	378 376	366 359	56	65 56	0 0	0	102	0 19	1,907 1,830	1,488 1,430	39 55	26 54
	July	310	310	87	84	0	0	88	11	1,775	1,376	44	39
	August	279	279	45	45	0	0	72	17	1,790	1,318	33	32
	September	266	266	42	22	0	ő	22	0	1,789	1,321	40	40
	October	266	254	42	42	Ō	0	37	Ō	1,716	1,262	70	69
	November	341	329	22	22	0	0	80	13	1,736	1,283	21	20
	December	301	301	42	42	0	0	36	0	1,948	1,380	45	39
	Average	301	295	56	49	0	0	51	5	1,807	1,348	44	33
2001	January	312	300	53	44	0	0	143	35	1,935	1,342	33	33
	February	499	485	27	20	0	0	88	0	1,867	1,346	2	0
	March	374	374	47	20	6	0	81	21	1,938	1,411	35	14
	April	381 358	381 356	111 31	68 21	14 0	0 0	87 127	31 16	1,852	1,391	24 31	14 21
	May June	302	302	22	22	5	0	67	0	1,780 1,900	1,368 1,472	26	0
	July	297	285	65	65	0	0	86	0	1,690	1,472	23	20
	August	323	311	20	20	19	0	54	0	1,723	1,270	57	28
	September	334	324	46	46	10	ő	80	17	1,685	1,262	22	0
	October	242	222	30	21	26	0	84	32	1,734	1,316	22	21
	November	267	267	21	21	31	0	56	0	1,899	1,414	0	0
	December	263	263	46	46	10	0	33	0	1,944	1,408	9	0
	Average	328	321	43	34	10	0	82	13	1,828	1,356	24	13

**Table S3.** Crude Oil and Petroleum Product Imports, 1986 - Present (Continued) (Thousand Barrels per Day)

	_					Impor	ts from Non	-OPEC S	ources ^a				
	Year/Month	Cole	ombia	Ecu	ıador ^c	Ga	bon ^d	It	aly	Ma	ılaysia	м	exico
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
1986	Average	87	57	(c)	(c)	(d)	(d)	76	0	12	11	699	621
1987	Average	148	115	(c)	(c)	(d)	(d)	54	1	13	12	655	602
1988	Average	134	106	(c)	(c)	(d)	(d)	65	5	19	19	747	674
1989	Average	172	136	(c)	(c)	(d)	(d)	34	3	39	39	767	716
1990	Average	182	140	(c)	(c) (c)	(d) (d)	(d) (d)	58	2	41	40	755	689
1991	Average	163	123	(c)	(c)	(d)	(d)	47	3	24	24	807	759
1992 1993	Average	126 171	102 141	(c)	(c)	(d)	(d)	55 31	0 0	10 11	10 10	830 919	787 863
1993	Average Average	161	141	91	91	(d)	(d)	22	0	10	6	919	939
1995	Average	219	207	97	96	229	229	5	0	8	6	1,068	1,027
1996	Average	234	226	104	96	184	184	8	ŏ	11	6	1,244	1,207
1997	Average	271	270	115	114	230	230	7	Ö	23	8	1,385	1,360
1998	Average	354	349	101	98	207	207	12	0	35	26	1,351	1,321
1999	January	445	440	70	66	194	194	0	0	28	13	1,337	1,254
	February	480	458	51	45	175	175	17	0	20	0	1,279	1,231
	March	592	572	131	123	111	111	10	0	0	0	1,490	1,434
	April	435	425 443	67	61	269	269	19 30	0	27	14	1,403	1,315
	May June	458 370	351	145 112	128 112	190 92	190 92	8	0	67 31	56 22	1,333 1,355	1,246 1,297
	July	600	572	88	88	140	140	0	0	30	17	1,333	1,310
	August	547	521	133	133	95	95	0	0	64	49	1,339	1,225
	September	406	388	136	136	159	159	8	0	44	22	1,282	1,219
	October	432	432	163	163	186	186	7	Ō	39	36	1,189	1,131
	November	416	396	185	179	190	190	6	0	30	10	1,230	1,165
	December	433	421	128	128	216	216	13	0	32	13	1,272	1,217
	Average	468	452	118	114	168	168	10	0	35	21	1,324	1,254
2000	January	452	426	83	83	150	150	16	0	84	65	1,340	1,266
	February	355	335	102	102	155	155	48	0	71	36	1,237	1,150
	March	464	460	122	122	136	128	29	0	34	15 25	1,382	1,286
	April May	402 346	370 338	114 91	114 91	172 155	172 155	20 13	0	34 35	25 20	1,417 1,362	1,359 1,314
	June	283	265	106	96	88	88	36	0	29	14	1,499	1,431
	July	237	199	112	112	105	105	18	0	55	42	1,311	1,241
	August	313	299	190	184	106	106	20	Ō	21	0	1,426	1,381
	September	360	332	205	202	182	182	24	0	15	0	1,494	1,437
	October	207	180	166	160	164	164	23	0	86	66	1,263	1,248
	November	324	283	141	136	181	181	49	0	21	11	1,340	1,290
	December	359	327	104	96	129	129	69	0	59	55 <b>20</b>	1,405	1,348
	Average	342	318	128	125	143	143	30	0	45	29	1,373	1,313
2001	January	379	345	103	94	94	94	43	0	41	4	1,456	1,391
	February	321	294	92	90	177	177	44	0	18	0	1,120	1,058
	March	228	204	103	103	152	152	64	0	87	54	1,454	1,371
	April	301	257	123	120	177	177	24	0	39	22	1,572	1,548
	May	323	260 248	155	149	127	127	49	0 0	31 24	0	1,312	1,266
	June July	308 239	248 215	111 126	84 117	155 149	155 149	32 55	0	24 13	13 0	1,234 1,348	1,214 1,322
	August	350	326	126	117	98	98	19	0	26	10	1,346	1,422
	September	307	268	133	132	86	86	63	0	29	21	1,490	1,437
	October	234	226	184	178	136	136	27	0	59	34	1,432	1,399
	November	278	236	97	97	173	173	47	Ö	25	12	1,765	1,717
	December	283	242	80	80	159	159	8	0	47	15	1,603	1,558
	Average	296	260	120	113	140	140	40	0	37	15	1,440	1,394

**Table S3.** Crude Oil and Petroleum Product Imports, 1986 - Present (Continued) (Thousand Barrels per Day)

						Impo	rts from Non	-OPEC S	ources ^a				
	Year/Month	Neth	<u>erlands</u>		erlands ntilles	No	orway		uerto Rico	Rı	ıssia ^f	s	pain
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil
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	Ó	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 0	81	0	82	74	27	0	29	1 5	33 32	0
1992 1993	Average Average	26 10	0	65 82	0 0	127 142	119 137	26 29	0	18 55	36	32 37	0
1994	Average	32	0	98	0	202	190	22	0	30	27	37	0
1995	Average	15	ő	52	Ö	273	258	15	ő	25	14	16	1
1996	Average	19	ő	64	Ö	313	293	20	ő	25	18	29	i
1997	Average	25	Ö	74	Ö	309	288	16	Ö	13	3	21	ò
1998	Average	31	0	82	0	236	221	15	0	24	9	18	0
1999	January	21	0	95	0	216	179	18	0	28	0	4	0
	February	7	0	160	0	203	157	0	0	28	0	0	0
	March	20	0	58	0	248	199	3	0	26	0	5	0
	April	34	0	76	0	265	192	15	0	75	43	13	0
	May	65	0	81	0	293	244	10	0	109	45	26	0
	June	44	0	31	0	524	497	15	0	149	22	0	0
	July	37	0	83	0	408	396	13	0	139	32	8	0
	August	35	0	58	0	244	222	12	0	138	14	13	0
	September	2	0	30	0	235	195	22	0	142	39	(s)	0
	October	17	0	49	0	341	292	13	0	110	31	22	0
	November	24 11	0 0	44 24	0 0	288 371	255 326	12 15	0 0	94 31	16 12	23 9	0
	Average	27	0	65	0	304	263	13	0	89	21	10	0 <b>0</b>
2000	January	12	0	110	0	314	262	14	0	29	0	37	0
	February	45	Ő	60	Ö	381	328	15	Ő	120	Ö	35	0
	March	39	0	74	Ö	346	305	13	0	63	17	23	0
	April	21	Ö	41	Ö	397	348	14	Ö	83	25	31	Ö
	May	16	0	75	0	307	295	20	0	44	13	8	0
	June	43	0	95	0	274	240	17	0	75	0	28	0
	July	8	0	63	0	545	482	13	0	78	0	23	0
	August	22	8	138	0	377	334	11	0	73	6	47	0
	September	39	0	56	0	363	323	16	0	89	8	21	0
	October	40	0	142	0	306	283	16	0	111	13	20	0
	November	34	0	103	0	293	241	8	0	50	0	6	0
	December	41	0	119	0	220	186	21	0	55 <b>73</b>	0	16	0
	Average	30	1	90	0	343	302	15	0	72	7	25	0
2001	January	77	0	141	0	321	229	11	0	190	0	58	0
	February	48	0	101	0	395	299	8	0	183	0	47	0
	March	48	0	125	0	400	313	5	0	53	0	35	0
	April	23	0	105	0	382	325	6	0	115	0	19	0
	May	61	0	44	0	411	376	3	0	88	0	31	0
	June	56	0	66	0	284	254	12	0	47	0	33	0
	July	25	0	70	0	448	363	0	0	81	0	25	0
	August	40	0	67	0	287	227	0	0	118	0	11	0
	September	34	0	55	0	388	350	3	0	124	0	27	0
	October	50	0	75 77	0	259	211	0	0	34	0	22	0
	November	22 33	0	77 46	0 0	387 140	331 106	0 0	0	22 30	0 0	16 43	0
	December	33 <b>43</b>	<b>0</b>	46 <b>81</b>	<b>0</b>	341	281	4	<b>0</b>	30 <b>90</b>	<b>0</b>	43 <b>31</b>	0
	Average	43	U	0.1	U	341	201	4	U	90	U	31	U

Table S3. Crude Oil and Petroleum Product Imports, 1986 - Present (Continued) (Thousand Barrels per Day)

					Imports	s from N	on-OPEC So	urces ^a					
	Year/Month		inidad and obago		nited ngdom		/irgin lands	i	other Non- OPEC	ı	Total Non- PEC ^c		otal ports
		Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oil	Total	Crude Oi
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		76	189	155	282	0	417	180	3,721	2,381	8,018	5,894
1991	Average	88 95	72 70	138 230	106 200	243 249	0	282 335	137 149	3,535	2,405	7,627 7,888	5,782 6,083
1992 1993	Average Average	95 74	70 55	230 350	200 312	249 254	0	335 452	240	3,796 4,266	2,676 3,100	8,620	6,787
1994	Average	77	62	458	396	328	0	450	239	4,749	3,483	8,996	7,063
1995	Average	70	62	383	341	278	ő	302	181	4,833	3,889	8,835	7,230
1996	Average		58	308	216	313	ŏ	440	265	5,267	4,070	9,478	7,508
1997	Average	61	56	226	169	300	0	422	250	5,593	4,450	10,162	8,225
1998	Average	66	53	250	161	293	0	531	288	5,803	4,537	10,708	8,706
1999	January	52	34	242	160	300	0	529	386	5,605	4,342	10,424	8,393
	February	48	38	260	165	295	0	583	372	5,540	4,134	10,650	8,468
	March		18	314	261	319	0	460	254	5,549	4,382	10,658	8,739
	April		37	319	143	271	0	756	300	5,939	4,288	11,618	9,256
	May	41 52	18 33	569	471	298 290	0	659	344 357	6,432	4,725	11,511	9,098
	June July	52 57	33 31	373 644	317 537	290 278	0	689 646	300	6,119 6,681	4,645 5,175	11,160 11,697	8,888 9,391
	August	53	36	321	256	206	0	617	278	6,005	4,481	11,142	8,908
	September	83	67	445	366	305	16	499	244	5,831	4,483	10,657	8,527
	October	75	66	344	267	284	0	592	318	5,951	4,593	10,595	8,613
	November	66	42	336	281	277	0	421	254	5.602	4.381	10.033	8,224
	December	92	64	198	174	236	0	450	244	5,501	4,357	10,065	8,234
	Average	58	40	365	284	280	1	575	304	5,899	4,502	10,852	8,731
2000	January	89	71	273	171	255	0	486	194	5,971	4,355	10,140	7,829
	February	71	52	241	149	306	0	660	255	6,095	4,159	11,003	8,318
	March	60	37	283	240	226	0	574	150	5,997	4,411	11,052	8,790
	April	96	70	444	348	312	0	476	232	6,387	4,808	11,558	9,341
	May	77 107	51 52	560 349	449 282	307 356	0	645 671	262 286	6,512 6,474	4,935 4,672	11,415 12,032	9,085 9,533
	June July	93	52 54	476	458	267	0	703	307	6,410	4,821	11,588	9,338
	August	80	55	405	343	297	0	526	184	6,268	4,591	12,173	9,939
	September	97	58	291	248	323	Ö	695	186	6,430	4,625	11,900	9,484
	October	95	56	381	275	237	0	593	175	5,983	4,248	11,290	8,969
	November	80	56	332	263	299	0	613	174	6,073	4,301	11,309	8,913
	December	75	55	342	252	318	0	775	164	6,478	4,376	12,053	9,229
	Average	85	56	366	291	291	0	618	214	6,257	4,526	11,459	9,071
2001	January	95	55	417	287	339	0	785	164	7,028	4,415	12,555	8,933
	February	45	16	378	249	273	0	840	186	6,573	4,220	11,643	8,609
	March		57	253	167	263	0	483	211	6,301	4,472	12,132	9,603
	April		60	254	155	201	0	656	216	6,549	4,764	12,653	10,111
	May	58 70	38 59	418 241	359 192	223 339	0	793 759	164 218	6,450 6,091	4,520 4,232	12,529 11,732	9,885 9,105
	June July	70 85	59 58	368	309	320	0	739	392	6,252	4,232 4,565	11,732	9,105
	August	86	50 51	314	273	202	0	920	469	6,333	4,620	11,760	9,383
	September	91	51	229	165	283	0	704	221	6,225	4,379	11,818	9,339
	October		39	365	265	263	Ö	514	182	5,837	4,284	11,379	9,211
	November	68	56	367	278	259	0	656	257	6,531	4,858	11,628	9,320
	December	69	69	286	225	247	0	592	246	5,969	4,417	10,994	8,839
	Average	72	51	324	244	268	0	702	244	6,343	4,480	11,871	9,328

^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.

dOn December 31, 1994, Gabon withdrew as a member of OPEC. As of January 1, 1995, imports of petroleum from Gabon appear under imports from Conditional Conditions of the Conditions of th

Non-OPEC Sources.

⁶ 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.

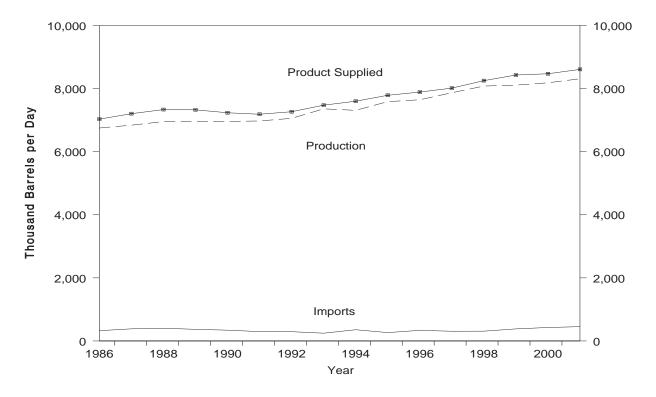
f Imports from other States in the former U.S.S.R. may be included in imports from Russia for the years 1981 through 1992.

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.

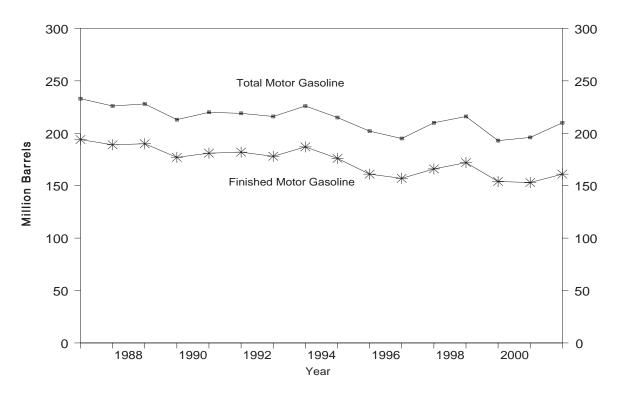
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding. Source: See Summary Statistics Table and Figure Sources.

Figure S5. Finished Motor Gasoline Supply and Disposition, 1986 - Present



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

Figure S6. Motor Gasoline Ending Stocks, 1986 - Present



Note: Total motor gasoline includes motor gasoline blending components and finished motor gasoline. Source: Energy Information Administration, *Petroleum Supply Annual*, Table S4. See Summary Statistics Table and Figure Sources.

Table S4. Finished Motor Gasoline Supply and Disposition, 1986 - Present (Thousand Barrels per Day, Except Where Noted)

		Sup	ply		Disposition			g Stocks ^a n Barrels)	Ending Stocks ^a (Million Barrels)
	Year/Month						Motor	Gasoline	
		Total Production ^b	Imports ^c	Stock Change ^{c,d}	Exports	Product Supplied ^b	Total ^e	Finished	Oxygenates
1986	Average	6,752	326	11	33	7,034	233	194	_
1987	Average		384	-15	35	7,206	226	189	_
1988	Average	6,956	405	3	22	7,336	228	190	_
1989	Average	,	369	-35	39	7,328	213	177	_
1990	Average		342	10	55	7,235	220	181	_
1991	Average		297	3	82	7,188	219	182	_
1992	Average		294	-11	96	7,268	216	178	
1993	Average		247	26	105	7,476	226	187	13
1994	Average		356	-31	97	7,601	215	176	17
1995	Average		265	-40	104	7,789	202	161	12
1996	Average		336	-12	104	7,891	195	157	13
1997	Average		309	26	137	8,017	210	166	12
1998	Average	8,082	311	15	125	8,253	216	172	14
1999	January		313	368	130	7,701	231	183	14
	February		393	-136	105	8,031	229	179	16
	March		350	-328	81	8,128	217	169	15
	April		521	68	85	8,506	218	171	13
	May		485	173	100	8,420	225	177	15
	June		444	-111	71	8,886	217	173	14
	July		471	-280	89	8,942	204	165	13
	August		338	-160	101	8,579	201	160	14
	September		335	90	128	8,305	207	162	15
	October		375	-31	130	8,542	204	161	15
	November		299	72	128	8,240	205	164	13
	December Average		260 <b>382</b>	-305 <b>-49</b>	177 <b>111</b>	8,859 <b>8,431</b>	193	154	14
	Average					,			
2000	January		343	362	127	7,653	208	165	14
	February		410	-306	83	8,291	201	156	15
	March		403	22	108	8,305	204	157	14
	April		472	117	111	8,375	206	161	13
	May		441	52	126	8,661	208	162	14
	June		451	76	100	8,824	210	165	14
	July		435	3	110	8,642	209	165	14
	August		426	-438 106	194 184	8,921 8.518	194 197	151	13 13
	September		449		217			154 147	13
	October November		381 471	-221 311	217 170	8,417 8,384	188 198	147	14
	December	,	443	-120	190	8,670	196	153	12
	Average	-,	427	-120 -3	144	8,472	<del>-</del>	—	<u></u>
2001	_		519	183	125	8,099	206	159	12
200 I	January		394	-146	125	8,234	206	155	12
	February March	, -	346	-320	145	8,532	194	145	12
	April	,	455	-320 187	143	8,575	200	150	12
	May		473	316	102	8,706	213	160	12
	June		490	310	127	8,690	221	169	13
	July		443	-229	129	9,023	209	162	13
	August		415	-378	117	8,953	193	151	13
	September		539	248	115	8,557	206	158	14
			435	70	156	8,655	208	160	13
	October								
	October November			34	107		212	161	13
	October  November  December	8,366	452 491			8,677 8,585			

^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. Refer to Appendix B, Explanatory Note 10 for 1992 new basis product supplied.

^c Beginning in 1981, excludes blending components.

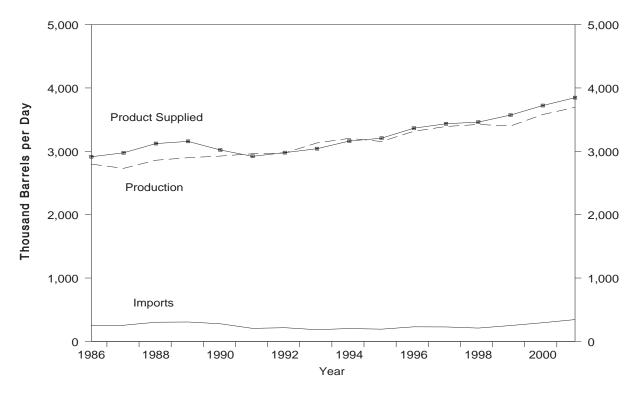
Beginning in 1981, excludes blending components.

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.

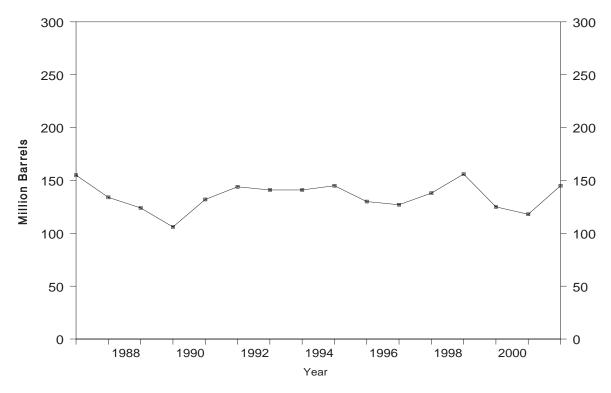
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding. Source: See Summary Statistics Table and Figure Sources.

Figure S7. Distillate Fuel Oil Supply and Disposition, 1986 - Present



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

Figure S8. Distillate Fuel Oil Ending Stocks, 1986 - Present



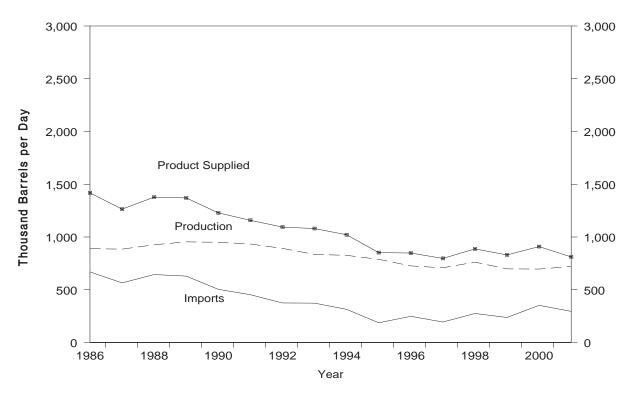
Source: Energy Information Administration, Petroleum Supply Annual, Table S5. See Summary Statistics Table and Figure Sources.

Table S5. Distillate Fuel Oil Supply and Disposition, 1986 - Present

		Sup	ply		Disposition			Ending Stocks	
	Year/Month							(Million Barrels	)
		Total Production	Imports	Stock Change ^b	Exports	Product Supplied	Total	0.05% Sulfur and Under	Greater than 0.05% Sulfur
1986	Average	2,798	247	31	100	2,914	155	_	_
1987	Average		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		278	73	109	3,021	132	_	_
1991	Average		205	31	215	2,921	144	_	_
1992	Average		216	-8	219	2,979	141		
1993	Average		184	1	274	3,041	141	64	77
1994	Average		203	12	234	3,162	145	73	73
1995	Average		193	-41	183	3,207	130	67	63
1996 1997	Average		230 228	-10 32	190 152	3,365 3.435	127 138	68 68	58 70
1998	Average Average	,	210	48	124	3,461	156	77	70 79
1999	January	3,176	304	-426	117	3,788	143	74	69
1000	February		322	-83	116	3,542	141	73	67
	March		248	-513	159	3,785	125	69	56
	April	,	213	14	191	3,415	125	68	57
	May		261	219	187	3,314	132	70	62
	June	,	238	25	180	3,407	133	68	65
	July		234	153	123	3,479	137	71	66
	August		273	126	130	3,437	141	69	73
	September		249	139	162	3,431	145	73	72
	October	3,506	216	-219	192	3,749	139	69	69
	November	3,608	265	94	170	3,608	141	72	69
	December	,	188 <b>250</b>	-514 <b>-84</b>	212 <b>162</b>	3,892	125	69	56
	Average	3,399	230	-04	102	3,572	_	_	_
2000	January		218	-609	132	3,818	107	66	41
	February		510	-49	112	3,794	105	64	41
	March		260	-302	211	3,693	96	60	36
	April	- /	234	135	178	3,455	100	66	34
	May		316 258	158 41	127 149	3,681	105 106	67 68	38 38
	June		258 199	219	132	3,549 3,369	113	72	36 41
	July August	,	234	-67	253	3,726	111	66	44
	September		283	147	194	3,786	115	68	47
	October		259	66	255	3,712	117	68	49
	November	,	332	97	191	3,829	120	71	49
	December	,	447	-65	135	4,250	118	72	46
	Average		295	-20	173	3,722	_	_	_
2001	January	3,609	789	6	67	4,325	118	68	50
	February		635	-42	77	4,212	117	70	47
	March	3,483	348	-387	75	4,143	105	68	37
	April	3,650	288	-3	107	3,834	105	66	39
	May		310	71	146	3,746	107	65	42
	June		302	225	120	3,659	114	69	45
	July		209	364	113	3,569	125	74	51
	August		212	-102	140	3,829	122	68	54
	September		317	166	152	3,624	127	72	55
	October		253	62	99	3,888	129	69	60
	November		244	334	132	3,746	139	76	63
	December		241	180	202	3,604	145	82	62
	Average	3,695	344	73	119	3,847	_	_	_

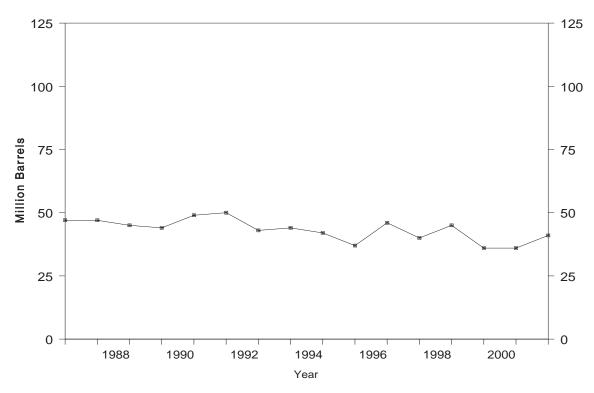
Stocks are totals as of end of period. Distillate stocks located in the "Northeast Heating Oil Reserve" are not included. For details see Appendix D.
 A negative number indicates a decrease in stocks and a positive number indicates an increase. Distillate stocks located in the "Northeast Heating Oil Reserve" are not included. For details see Appendix D.
 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 S9. Residual Fuel Oil Supply and Disposition, 1986 - Present



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

Figure S10. Residual Fuel Oil Ending Stocks, 1986 - Present



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

Table S6. Residual Fuel Oil Supply and Disposition, 1986 - Present

		Sup	ply		Disposition		
	Year/Month	Total Production	Imports	Stock Change ^a	Exports	Product Supplied	Ending Stocks ^b (Million Barrels
1986	Averen	889	669	-8	147	4 440	47
1987	Average	885	565		186	1,418 1,264	47 47
1988	Average	926	644	(s) -8	200		47 45
	Average	926 954	629	-o -2	200 215	1,378	45 44
1989 1990	Average	954 950	629 504	-2 13	215	1,370 1,229	44 49
1990	Average	934	453	4	226	1,229	50
	Average	934 892		-20		,	43
1992	Average		375		193	1,094	
1993	Average	835	373	4	123	1,080	44
1994	Average	826	314	-6	125	1,021	42
1995	Average	788	187	-13	136	852	37
1996	Average	726	248	24	102	848	46
1997	Average	708	194	-15	120	797	40
1998	Average	762	275	12	138	887	45
1999	January	775	218	-33	133	893	44
	February	726	248	-62	70	967	42
	March	683	249	-84	72	943	40
	April	679	234	26	185	702	40
	May	725	334	9	153	898	41
	June	706	228	63	151	721	42
	July	736	261	62	182	753	44
	August	701	236	-183	124	996	39
	September	702	258	68	136	756	41
	October	658	183	-7	130	719	41
	November	596	222	-5	60	763	40
	December	690	168	-147	154	852	36
	Average	698	237	-25	129	830	_
2000	January	640	336	10	137	830	36
2000	February	627	316	-60	149	854	34
	March	649	269	-60	167	685	36
		620	267	-37	139	784	35
	April				123	764 719	35 37
	May	640	265	63			
	June	679	390	-8	133	945	37
	July	741	409	-54	113	1,091	35
	August	760	333	57	94	941	37
	September	702	360	19	148	895	38
	October	747	497	-87	221	1,110	35
	November	778	341	133	100	885	39
	Average	768 <b>696</b>	440 <b>352</b>	-90 <b>1</b>	143 <b>139</b>	1,156 <b>909</b>	36 —
	71101ugo				100		
2001	January	809	458	31	160	1,075	37
	February	743	401	44	200	901	38
	March	750	313	20	183	860	39
	April	817	316	21	185	927	40
	May	786	339	46	246	833	41
	June	783	313	19	209	867	42
	July	639	309	-82	158	872	39
	August	622	264	-132	214	805	35
	September	653	202	72	161	621	37
	October	710	198	33	139	736	38
	November	685	233	33	209	676	39
	December	655	200	60	231	565	41
	Average	721	295	13	191	811	• • •

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

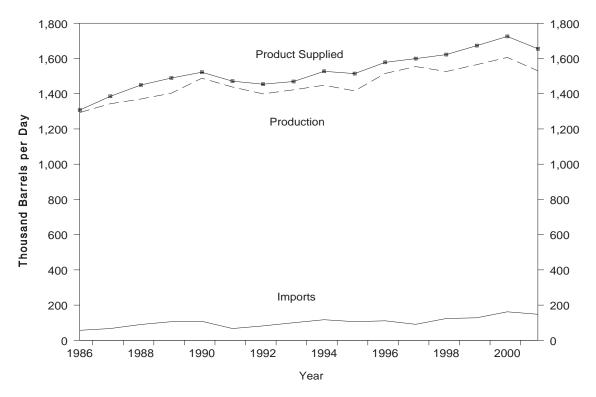
A negative number indicates a decrease in stocks and a positive number indicates an increase.

b Stocks are totals as of end of period.
(s)=Less than 500 barrels per day.

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

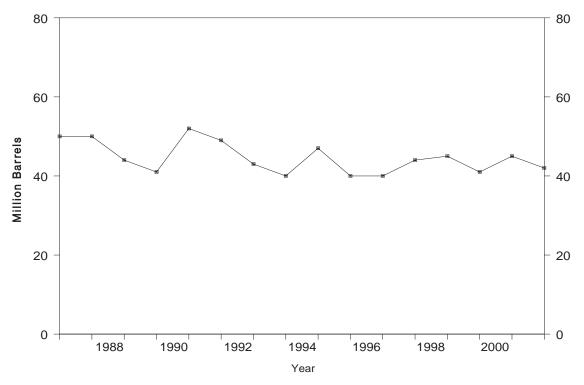
Source: See Summary Statistics Table and Figure Sources.

Figure S11. Jet Fuel Supply and Disposition, 1986 - Present



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

Figure S12. Jet Fuel Ending Stocks, 1986 - Present



Source: Energy Information Adminstration, Petroleum Supply Annual, Table S7. See Summary Statistics Table and Figure Sources.

Table S7. Jet Fuel Supply and Disposition, 1986 - Present (Thousand Barrels per Day, Except Where Noted)

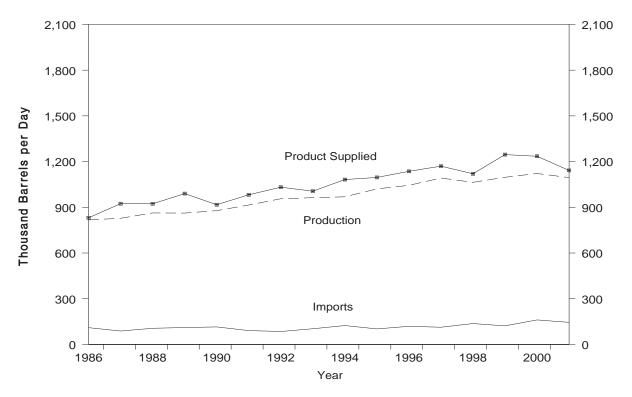
			Supply			Disp	osition			Stocks ^a Barrels)
		Pr	oduction				Produ	ct Supplied	(	
	Year/Month	Total	Kerosene-Type	Imports	Stock Change ^b	Exports	Total	Kerosene-Type	Total	Kerosene Type
1986	Average		1,097	57	25	18	1,307	1,105	50	43
1987	Average		1,138	67	(s)	24	1,385	1,181	50	42
1988	Average		1,164	90	-17	28	1,449	1,236	44	38
1989	Average		1,197	106	-8	27	1,489	1,284	41	34
1990	Average		1,311	108	31	43	1,522	1,340	52	46
1991	Average		1,274	67	-9	43	1,471	1,296	49	44
1992 1993	Average		1,254	82 100	-16 -7	43 59	1,454	1,310	43 40	39 38
1993	Average		1,309 1.410	117	- <i>/</i> 18	59 20	1,469	1,357 1.480	40 47	38 46
1994	Average		1,410 1,407	106	-18 -19	20 26	1,527 1,514	1,480	47 40	46 39
1996	Average Average	,	1,513	111	(s)	48	1,578	1,575	40	40
1997	Average	,	1,554	91	11	35	1,599	1,598	44	44
1998	Average	,	1,525	124	2	26	1,622	1,623	45	45
		,	•				•	•		
1999	January		1,594	132	3	26	1,697	1,698	45	45
	February	,	1,566	157	26	9	1,689	1,689	46	45
	March		1,520	85	-109	23	1,691	1,692	42	42
	April		1,641	162	126	29	1,647	1,652	46	46
	May		1,545	148	51	33	1,609	1,609	48	47
	June	,	1,541	65	-60	36	1,631	1,640	46	46
	July		1,550	155	22	39	1,644	1,648	46	46
	August		1,575	176	3	9	1,739	1,739	47	46
	September		1,600	152	74	34	1,643	1,645	49 44	49 44
	October		1,500	97 82	-154	28 64	1,724	1,725	44 41	44 41
	November		1,530 1.615	62 128	-89 -25	53	1,637 1.717	1,640 1.717	41	40
	Average		1,565	128	-25 -11	32	1,673	1,675	<del>4</del> 1	<del>4</del> 0
		. ===		400		4.0				
2000	January		1,595	122	99	13	1,604	1,604	44	44
	February	,	1,450	173	-70	17	1,676	1,677	42	41
	March April		1,561 1,615	120 127	-35 28	33 37	1,683 1,677	1,682 1,677	40 41	40 41
	May		1,589	144	28	35	1,669	1,669	42	42
	June		1,600	194	52	27	1,715	1,715	44	44
	July	,	1,649	125	-25	21	1,779	1,779	43	43
	August	,	1,636	221	-8	19	1,846	1,846	43	43
	September	,	1.643	128	-13	34	1.750	1.750	42	42
	October	, -	1,645	186	12	42	1,778	1,778	43	43
	November		1,620	162	-11	64	1,729	1,729	42	42
	December		1,665	239	71	39	1,794	1,796	45	44
	Average		1,606	162	11	32	1,725	1,725	_	_
2001	January	1,508	1,508	242	-20	27	1,742	1,743	44	44
2001	February	,	1,497	230	-44	18	1,753	1.752	43	43
	March	, -	1,512	145	-69	41	1,685	1,685	41	41
	April		1,547	153	-4	17	1,688	1,687	40	40
	May	,	1,620	175	59	17	1,720	1,722	42	42
	June	,	1,637	161	30	18	1,750	1,749	43	43
	July		1,633	129	-27	23	1,766	1,763	42	42
	August		1,597	123	-21	24	1,718	1,720	42	42
	September		1,420	166	38	21	1,527	1,525	43	43
	October	1,458	1,458	63	-79	31	1,569	1,568	40	40
	November	1,398	1,398	104	-6	64	1,443	1,444	40	40
	December	,	1,521	94	58	51	1,507	1,512	42	42
	Average	1,530	1,529	148	-7	29	1,655	1,656		

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 and 1983, 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 2.

⁽s) = Less than 500 barrels per day.

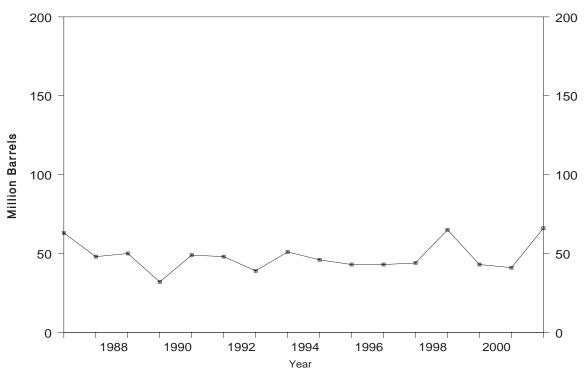
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding. Source: See Summary Statistics Table and Figure Sources.

Figure S13. Propane/Propylene Supply and Disposition, 1986 - Present



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

Figure S14. Propane/Propylene Ending Stocks, 1986 - Present



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

Table S8. Propane/Propylene Supply and Disposition, 1986 - Present

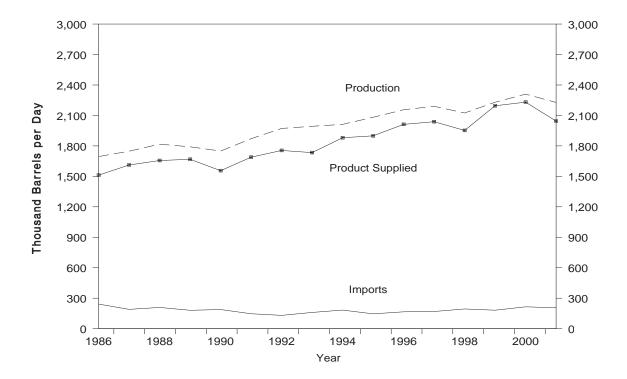
		Sup	ply		Dispo	sition		
	Year/Month	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Product Supplied	Ending Stocks ^b (Million Barrels
1986	Average	817	110	64	4	28	831	63
1987	Average	828	88	-41	8	24	924	48
1988	Average	863	106	7	8	31	923	50
1989	Average	862	111	-52	11	24	990	32
1990	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	Average	969	124	-13	0	24	1,082	46
1995	Average	1,021	102	-10	0	38	1,096	43
1996	Average	1,044	119	(s)	0	28	1,136	43
1997	Average	1,092	113	3	0	32	1,170	44
1998	Average	1,064	137	56	0	25	1,120	65
1999	January	1,041	118	-550	0	50	1,659	48
	February	1,050	125	-133	0	41	1,267	44
	March	1,031	135	-240	0	19	1,388	36
	April	1,073	116	126	0	13	1,051	40
	May	1,085	98	183	0	20	979	46
	June	1,105	92	156	0	23	1,018	51
	July	1,107	122	213	0	27	988	57
	August	1,112	113	108	0	32	1,086	60
	September	1,134	108	-34	0	20	1,256	59
	October	1,132	125	-93	0	65	1,286	57
	November	1,127	136	-64	0	34	1,293	55
	December	1,169	178	-375	0	49	1,672	43
	Average	1,097	122	-59	0	33	1,246	_
2000	January	1,133	244	-439	0	94	1,723	29
	February	1,127	221	-215	0	53	1,510	23
	March	1,136	142	-19	0	84	1,213	23
	April	1,143	125	101	0	62	1,105	26
	May	1,153	102	347	0	27	881	36
	June	1,163	132	252	0	40	1,002	44
	July	1,133	125	278	0	28	951	53
	August	1,123	124	166	0	55	1,026	58
	September	1,110	114	87	0	41	1,096	60
	October	1,103	167	80	0	41	1,149	63
	November	1,112	189	-97	0	55	1,343	60
	Average	1,031 <b>1,122</b>	248 <b>161</b>	-603 <b>-5</b>	0 <b>0</b>	58 <b>53</b>	1,823 <b>1,235</b>	41 —
	_	,			-		,	
2001	January	957	312	-379	0	62	1,586	29
	February	1,048	222	-155	0	41	1,383	25
	March	1,072	151	-25	0	22	1,226	24
	April	1,110	105	232	0	18	965	31
	May	1,121	80	392	0	15	794	43
	June	1,093	103	348	0	32	816	54
	July	1,102	92	186	0	42	966	60
	August	1,111	95	187	0	27	992	65 67
	September	1,146	92	54	0	27	1,157	67
	October	1,138	146	38	0	26	1,220	68
	November	1,135	175	68	0	26	1,216	70
	December	1,104	176	-145	0	35	1,390	66
	Average	1,095	145	67	0	31	1,142	_

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 2.
(s) = Less than 500 barrels per day.

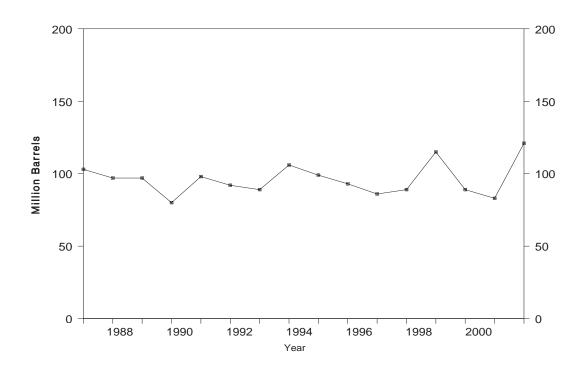
Notes: • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding. Source: See Summary Statistics Table and Figure Sources.

Figure S15. Liquefied Petroleum Gases Supply and Disposition, 1986 - Present



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

Figure S16. Liquefied Petroleum Gases Ending Stocks, 1986 - Present



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

**Table S9.** Liquefied Petroleum Gases Supply and Disposition, 1986 - Present (Thousand Barrels per Day, Except Where Noted)

		Sup	ply		Dispo	sition		
	Year/Month	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Product Supplied	Ending Stocks ^b (Million Barrels
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	Average	2,012	183	-19	296	38	1,880	99
1995	Average	2.082	146	-17	289	58	1,899	93
1996	Average	2,156	166	-19	278	51	2,012	86
1997	•	2,190	169	9	263	50	2,038	89
1998	Average Average	2,190	194	70	253	42	1,952	115
1330	Average	2,124	134	70	233	72	1,332	113
1999	January	1,871	173	-757	308	75	2,417	92
	February	1,987	163	-311	254	64	2,142	83
	March	2,144	172	-200	225	32	2,258	77
	April	2,355	165	276	201	21	2,023	85
	May	2,340	177	424	196	33	1,864	98
	June	2,402	164	331	177	37	2,021	108
	July	2,435	204	354	177	39	2,068	119
	August	2,402	172	259	179	47	2,089	127
	September	2,329	155	-89	223	58	2,293	124
	October	2,223	182	-273	275	81	2,322	116
	November	2,121	199	-151	306	47	2,118	111
	December	2,143	250	-712	334	61	2,710	89
	Average	2,230	182	-71	238	50	2,195	_
2000	January	2,195	315	-696	321	101	2,784	68
2000	February	2,268	281	-359	281	81	2,546	57
	March	2,395	190	6	231	109	2,239	58
	April	2,593	169	330	174	75	2,239	67
	May	2,530	157	548	175	38	1,927	84
	•	,	209	410	179	69	,	97
	June	2,528 2.511	193	486	180	63	2,079 1,976	112
	July	2,479	195	333	182	76	,	122
	August						2,084	
	September	2,259	164	84	230	62 65	2,046	125
	October	2,169	201	-225	273		2,257	118
	November	2,035	223	-299	342	72	2,143	109
	Average	1,820 <b>2,310</b>	283 <b>215</b>	-843 <b>-19</b>	288 <b>238</b>	81 <b>74</b>	2,577 <b>2,231</b>	83 —
	· · · · · · · · · · · · · · · · · · ·	•						
2001	January	1,644	349	-601	272	75	2,246	64
	February	2,002	263	-140	266	59	2,081	60
	March	2,221	203	75	212	33	2,105	62
	April	2,380	204	288	209	35	2,053	71
	May	2,484	170	696	219	31	1,709	93
	June	2,423	235	589	199	56	1,815	110
	July	2,412	119	363	196	51	1,920	121
	August	2,448	162	432	189	34	1,956	135
	September	2,356	160	158	228	35	2,095	140
	October	2,234	181	-55	258	37	2,175	138
	November	2,115	211	-191	312	37	2,168	132
	December	2,009	217	-361	334	43	2,210	121
	Average	2,228	206	105	241	44	2,044	

Source: See Summary Statistics Table and Figure Sources.

^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 2.

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.

Table S10.Other Petroleum Products Supply and Disposition, 1986 - Present

	-	Sup	pply		Dispo	sition		
	Year/Month	Total Production	Imports	Stock Change ^a	Refinery Inputs	Exports	Products Supplied	Ending Stocks ^b (Million Barrels
1986	Average	2,704	504	-15	888	291	2,045	201
1987	Average	2,737	543	-1	829	264	2.187	200
988	Average	2,773	645	22	799	294	2,303	208
989	Average	2,771	627	12	797	305	2,285	213
990	Average	2,842	705	-32	887	289	2,402	201
991	Average	2,826	675	18	936	277	2,269	208
992	Average	2,928	707	-3	906	263	2,470	^c 207
993	Average	3,035	770	c <b>-3</b>	1,081	300	2,426	206
994	Average	2,973	761	24	861	329	2,518	215
995	Average	3,031	701	-23	958	348	2,457	206
996	Average	3,108	879	-11	1.014	376	2,608	202
997	Average	3,204	945	30	985	402	2,733	213
998		3,253	888	18	1.002	380	2,741	219
990	Average	3,233	000	10	1,002	300	2,741	219
999	January	3,097	891	390	759	307	2,532	232
	February	3,159	900	276	775	272	2,736	239
	March	3,145	815	375	593	302	2,691	251
	April	3,108	1,067	-76	1,041	352	2,859	249
	May	3,363	1,007	21	1,427	321	2,602	249
	June	3,216	1,132	-520	1,387	311	3,170	234
	July	3,271	981	-302	1,295	325	2,935	224
	August	3,465	1,040	-190	1,083	359	3,253	218
	September	3,373	981	-139	1,094	345	3,054	214
	October	3,124	929	-192	1,105	327	2,812	208
	November	3,120	743	-110	856	396	2,722	205
	December	3,083	835	-292	1,300	439	2,470	196
	Average	3,211	943	-64	1,061	338	2,819	_
000	January	2.802	977	314	808	319	2,338	206
	February	2,945	994	358	710	397	2,473	216
	March	3,001	1,019	205	817	387	2,612	222
	April	3.146	948	174	1.041	468	2.411	228
	May	3,272	1,009	-158	1,117	372	2,949	223
	June	3,427	997	-143	1,188	438	2,941	218
	July	3,454	828	38	959	446	2,839	220
	August	3.341	826	-328	1.095	421	2.979	210
	September	3,319	1,032	-159	1,192	415	2,904	205
	October	3,202	797	-9	998	484	2,525	204
	November	3.135	868	8	1,128	509	2.358	205
	December	2,798	971	76	835	490	2,368	207
	Average	3,154	938	30	991	429	2,642	_
204	I	0.000	4.000	400	E 4.4	400	0.004	004
001	January	2,802	1,266	438	544 507	483 499	2,604	221 236
	February	3,045 2.883	1,111	551 180	597	499 424	2,509	236 242
	March	,	1,174		902		2,550	
	April	2,984	1,126	23	984	451 465	2,651	242
	May	3,120	1,177	-57	1,103	465	2,787	241
	June	3,229	1,126	-243	1,388	430	2,780	233
	July	3,214	998	-382	1,432	393	2,769	221
	August	3,197	1,062	-287	1,162	492	2,893	213
	September	3,140	1,094	261	1,048	334	2,591	220
	October	3,061	1,038	-236	1,060	473	2,802	213
	November	3,107	1,066	119	965	402	2,686	217
	December	2,858	910	-75	941	370	2,533	214
	Average	3,053	1,095	20	1,013	434	2,681	_

^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, pipeline, and merchant-producer stocks of oxygenates were added beginning in January 1993. See Summary Statistics Explanatory Note 2.

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, and 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* (1986 through 2001).
- Data on crude oil production 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. Crude oil production data for 2001 reflect data received as of April 2002. Data for 2001 received after April will be published as an appendix in the following year's *Petroleum Supply Annual*.

 Data on exports of crude oil and petroleum products are received from the U.S. Bureau of the Census. Export statistics reflect 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.

## **Summary Statistics Explanatory Notes**

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

#### Note 1. 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.

Currently, all except six crude oil producing States (Michigan, New York, Pennsylvania, Ohio, Virginia, and West Virginia) report production on a monthly basis. These five States report crude oil on an annual basis. Estimates of monthly crude oil production for these five 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, and the Minerals Management Service. The EIA incorporates production data into its Crude Oil Production System (COPS) as the data are received from the reporting agencies. Tables S1 and S2 present the 2001 crude oil production data received by the EIA as of April 2002. Crude oil production data for 2001 received after April 2002 will be published later as an appendix in the following year's *Petroleum Supply Annual* (PSA). Table C1 of this publication presents the 2000 crude oil production a year after it was published in the *PSA* 2000.

#### Note 2. 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.

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:

- Propane/Propylene: 1983-55.
- Liquefied Petroleum Gases: 1983- 108.
- Other Petroleum Products: 1983- 210.

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.

	Commodity	Thousand Barrels	Thousand Barrel per Day
	Crude Oil	<u>'</u>	
	Field Production		
(1)	Alaska		963
(2)	Lower 48 States	,,	4,839
(3)	Total U.S.	2,117,511	5,801
(4)	Net Imports (ORB)	0.400.000	0.040
(4)	Imports (Gross Excluding Strategic Petroleum Reserve (SPR))		9,318
(5)	SPR Imports		11
(6)	Exports	,	20
(7)	Imports (Net Including SPR)	3,397,508	9,308
(0)	Other Sources	0.563	-26
(8) (9)	SPR Stock Change (Withdrawal (+), Addition (-))		-26 -73
0)	Product Supplied and Losses		0
,	Unaccounted for ^a		117
1)	Total Other Sources	,	18
2)		- / -	
3)	Crude Input to Refineries(13) = (3) + (7) + (12)	5,521,637	15,128
	Natural Gas Liquids (NGL)		
4)	Field Production Field Production	787,637	2,158
5)	Net Imports ^c		43
6)	Stock Change (Withdrawal (+), Addition (-)) ^c	2,194	-6
7)	Total NGL Supply	801,159	2,195
	Other Liquids		
	Unfinished Oils and Gasoline Blending Components, Total		
8)	Stock Change (Withdrawal (+), Addition (-))		-20
9)	Net Imports		719
20)	Other Liquids New Supply(Field Production)	34,498	95
21)	Refinery Processing Gain ^a	329,663	903
22)	Crude Oil Product Supplied	0	0
23)	Total Other Liquids	619,139	1,696
24)	(23) = (18) through (22)  Total Production of Products	6,941,935	19,019
	(24) = (13) + (17) + (23)		
\ <b>-</b> \	Net Imports of Refined Products	202 202	4.740
25)	Imports (Gross)		1,743
26)	Exports		912
27)	Imports (Net)	303,077	830
28)	Total New Supply of Products	7,245,012	19,849
29)	Refined Products Stock Change (Withdrawal (+), Addition (-)) ^f	73,235	-201
			40.640
30)	Total Petroleum Products Supplied for Domestic Use(30) = (28) + (29)	7,171,777	19,649
31)	Finished Motor Gasoline	3,142,660	8,610
32)	Distillate Fuel Oil		3,847
33)	Residual Fuel Oil		811
34)	Jet Fuel	,	1,655
	Liquefied Petroleum Gases		2,044
,	Other ^d	978,562	2,681
35)			0
35) 36)	Crude Oil		U
35) 36) 37)	Crude Oil		19 649
35) 36)	Crude Oil		19,649
35) 36) 37)	Total Products Supplied	7,171,777	19,649
35) 36) 37)	Total Products Supplied	<b>7,171,777</b> 311,980	19,649
35) 36) 37) <b>38)</b>	Total Products Supplied	<b>7,171,777</b> 311,980	19,649 
35) 36) 37) 38)	Total Products Supplied	<b>7,171,777</b> 311,980 550,241	19,649 — — —
35) 36) 37) <b>38)</b>	Total Products Supplied	<b>7,171,777</b> 311,980 550,241 161,459	19,649 — — —
35) 36) 37) 38) 39) 40)	Total Products Supplied (38) = (31) through (37)  Ending Stocks, All Oils Crude Oil (Excluding SPR) Strategic Petroleum Reserve ⁶ Finished Motor Gasoline	<b>7,171,777</b> 311,980 550,241 161,459 144,513	19,649 — — — —
35) 36) 37) <b>88)</b> 39) 40) 41) 42)	Total Products Supplied (38) = (31) through (37)  Ending Stocks, All Oils Crude Oil (Excluding SPR) Strategic Petroleum Reserve ^e Finished Motor Gasoline Distillate Fuel Oil	7,171,777 311,980 550,241 161,459 144,513 41,047	19,649 — — — — —
35) 36) 37) 38) 39) 40) 41) 42)	Total Products Supplied (38) = (31) through (37)  Ending Stocks, All Oils Crude Oil (Excluding SPR) Strategic Petroleum Reserve ^e Finished Motor Gasoline Distillate Fuel Oil Residual Fuel Oil	7,171,777 311,980 550,241 161,459 144,513 41,047 41,953	19,649 — — — — — —
35) 36) 37) <b>88)</b> 39) 40) 41) 42)	Total Products Supplied (38) = (31) through (37)  Ending Stocks, All Oils Crude Oil (Excluding SPR) Strategic Petroleum Reserve ^e Finished Motor Gasoline Distillate Fuel Oil Residual Fuel Oil Jet Fuel	7,171,777 311,980 550,241 161,459 144,513 41,047 41,953 120,900	19,649 — — — — — — —

^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.

b Includes fuel ethanol blended into finished motor gasoline.

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.

Crude oil stocks in the Strategic Petroleum Reserve include non-U.S. stocks held under foreign or commercial storage agreements.

f Distillate stocks located in the "Northeast Heating Oil Reserve" are not included. For details see Appendix D.

⁽s) = Less than 500 barrels per day.

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, 2001 (Thousand Barrels)

		Su	ipply				Disposition	n		
Commodity	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil ^a	Stock Change ^b	Crude Losses	Refinery Inputs	Exports	Products Supplied ^c	Ending Stocks ^d
Crude Oil	2,117,511	_	3,404,894	42,653	36,036	0	5,521,637	7,386	0	862,221
Natural Gas Liquids and LRGs	681,964	243,322	91,374	_	40,550	_	156,479	16,492	803,139	128,272
Pentanes Plus	111,966	· —	16,280	_	2,194	_	68,523	564	56,965	7,372
Liquefied Petroleum Gases	569,998	243,322	75.094	_	38,356	_	87,956	15,928	746,174	120,900
Ethane/Ethylene	252,746	7,291	1,657	_	8,048	_	0,000	0	253,646	24,431
Propane/Propylene	196,453	203,121	53,059	_	24,579	_	0	11,395	416,659	65,771
Normal Butane/Butylene	48,363	33,537	15,283	_	5.640		44,412	4.533	42,598	24.758
Isobutane/Isobutylene	72,436	-627	5,095	_	5,640 89	_	43,544	4,333	33,271	5,940
isobutarie/isobutylerie	12,430	-021	3,033		03		40,044	U	33,271	3,340
Other Liquids	34,498	_	275,838	_	7,337	_	301,221	13,523	-11,745	149,384
Other Hydrocarbons/Oxygenates	115,654	_	28,982	_	1,340	_	133,492	9,804	0	13,162
Unfinished Oils	_	_	138,152	_	615	_	150,485	0	-12,948	87,700
Motor Gasoline Blend. Comp	-81,157	_	108,704	_	5,544	_	18,285	3,718	0	48,392
Aviation Gasoline Blend. Comp	_	_	0	_	-162	_	-1,041	0	1,203	130
Finished Petroleum Products	105,673	6,065,678	560,932	_	34.879		_	317.020	6,380,383	446,472
Finished Motor Gasoline		, ,		_	- ,	_	_	. ,		,
	105,673	2,928,050	165,878		8,455			48,485	3,142,660	161,459
Reformulated		947,745	79,339	_	3,033	_	_	1,870	1,022,181	44,918
Oxygenated	245,160	32,983	451	_	-88	_	_	69	278,613	378
Other		1,947,322	86,088	_	5,510	_	_	46,546	1,841,866	116,163
Finished Aviation Gasoline	_	6,522	598	_	199	_	_	0	6,921	1,484
Jet Fuel	_	558,319	54,065	_	-2,565	_	_	10,728	604,221	41,953
Naphtha-Type	_	89	0	_	-27	_	_	231	-115	82
Kerosene-Type	_	558,230	54,065	_	-2,538	_	_	10,496	604,337	41,871
Kerosene		26,679	1,773	_	1,281	_	_	768	26,403	5,388
Distillate Fuel Oil	_	1,348,525	125,586	_	26,486	_	_	43,543	1,404,082	144,513
0.05 percent sulfur and under	_	955,247	47,265	_	10,791	_	_	14,181	977,540	82,334
Greater than 0.05 percent sulfur	_	393,278	78,321	_	15,695	_	_	29,362	426,542	62,179
Residual Fuel Oil	_	263.017	107.688	_	4.847	_	_	69.779	296.079	41.047
Naphtha For Petro. Feed. Use	_	60.729	32.989	_	-359	_	_	09,779	94,077	2,393
		,	- ,			_	_	0	,	
Other Oils For Petro. Feed. Use	_	61,677	51,749	_	-300		_	-	113,726	1,512
Special Naphthas	_	18,334	4,926	_	-106	_	_	8,410	14,956	2,006
Lubricants	_	63,961	2,841	_	1,686	_	_	9,331	55,785	13,783
Waxes	_	6,523	918	_	-435	_	_	1,313	6,563	612
Petroleum Coke	_	280,077	2,016	_	-179	_	_	122,746	159,526	8,305
Asphalt and Road Oil	_	177,189	9,638	_	-4,403	_	_	1,829	189,401	20,638
Still Gas	_	244,432	0	_	0	_	_	0	244,432	0
Miscellaneous Products	_	21,644	267	_	272	_	_	88	21,551	1,379
Total	2,939,646	6,309,000	4,333,038	42,653	118,802	0	5,979,337	354,421	7,171,777	1,586,349

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

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 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."

b A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks. Distillate stocks located in the "Northeast Heating Oil Reserve" are not included. For details see Appendix D.

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.

d Distillate stocks located in the "Northeast Heating Oil Reserve" are not included. For details see Appendix D.

LRG = Liquefied Refinery Gas.

Table 3. U.S. Daily Average Supply and Disposition of Crude Oil and Petroleum Products, 2001 (Thousand Barrels per Day)

		Su	pply				Disposition		
Commodity	Field Production	Refinery Production	Imports	Unaccounted For Crude Oil ^a	Stock Change ^b	Crude Losses	Refinery Inputs	Exports	Products Supplied ⁶
Crude Oil	5,801	_	9,328	117	99	0	15,128	20	0
Natural Gas Liquids and LRGs	1,868	667	250	_	111	_	429	45	2,200
Pentanes Plus	307	_	45	_	6	_	188	2	156
Liquefied Petroleum Gases	1.562	667	206	_	105	_	241	44	2.044
Ethane/Ethylene		20	5	_	22	_	0	0	695
Propane/Propylene		556	145	_	67	_	0	31	1,142
Normal Butane/Butylene		92	42	_	15	_	122	12	117
Isobutane/Isobutylene		-2	14	_	(s)	_	119	0	91
Other Liquids	95	_	756	_	20	_	825	37	-32
Other Hydrocarbons/Oxygenates		_	79	_	4	_	366	27	0
Unfinished Oils	_	_	378	_	2	_	412	0	-35
Motor Gasoline Blend. Comp	-222	_	298	_	15	_	50	10	0
Aviation Gasoline Blend. Comp		_	0	_	(s)	_	-3	0	3
Finished Petroleum Products	290	16,618	1,537	_	96	_	_	869	17,481
Finished Motor Gasoline		8,022	454	_	23	_	_	133	8,610
Reformulated		2,597	217	_	8	_	_	5	2,800
Oxygenated		90	1	_	(s)	_	_	(s)	763
Other		5,335	236	_	15	_	_	128	5.046
Finished Aviation Gasoline		18	2	_	1	_	_	0	19
Jet Fuel		1.530	148	_	-7	_	_	29	1,655
Naphtha-Type		(s)	0	_	(s)	_	_	1	(s)
Kerosene-Type		1,529	148	_	-7	_	_	29	1.656
Kerosene		73	5	_	4	_	_	2	72
Distillate Fuel Oil		3,695	344	_	73	_	_	119	3,847
0.05 percent sulfur and under		2,617	129	_	30	_	_	39	2,678
Greater than 0.05 percent sulfur		1,077	215	_	43	_	_	80	1,169
Residual Fuel Oil		721	295	_	13	_	_	191	811
Naphtha For Petro. Feed. Use		166	90	_	-1	_	_	0	258
Other Oils For Petro. Feed. Use		169	142		-1			0	312
Special Naphthas		50	13	_	(s)	_	_	23	41
Lubricants		175	8		5			26	153
Waxes		18	3	_	-1	_	_	4	18
Petroleum Coke		767	6	_	(s)	_	_	336	437
Asphalt and Road Oil		485	26		-12	_	_	5	519
Still Gas		670	0		0	_		0	670
Miscellaneous Products		59	1	_	1	_	_	(s)	59
Total	8,054	17,285	11,871	117	325	0	16,382	971	19,649

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

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 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."

b A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks. Distillate stocks located in the "Northeast Heating Oil Reserve" are not included. For details see Appendix D.

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.

LRG = Liquefied Refinery Gas.

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

Table 4. PAD District I—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, 2001 (Thousand Barrels)

			Supply					Dispositio	n		_
Commodity	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unac- counted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	Ending ^f Stocks
Crude Oil	7,449	_	539,388	747	1,135	732	0	547,272	715	0	13,575
Natural Gas Liquids and LRGs	9,421	16,871	15,259	_	39,182	2,436	_	1,590	590	76,117	7,599
Pentanes Plus	1,095	_	0	_	0	14	_	0	12	1,069	21
Liquefied Petroleum Gases	8,326	16,871	15,259	_	39,182	2,422	_	1,590	578	75,048	7,578
Ethane/Ethylene	2,708	0	0	_	0	0	_	0	0	2,708	0
Propane/Propylene	3,817	17,544	13,298	_	38.417	1.872	_	0	344	70.860	5,875
Normal Butane/Butylene	1,331	1,137	1,687	_	802	481	_	543	233	3,700	1,477
Isobutane/Isobutylene	470	-1,810	274	_	-37	69	_	1,047	0	-2,219	226
Other Liquids	5,646	_	127,177	_	2,112	1,677	_	136,219	2,103	-5,064	19,354
Other Hydrocarbons/Oxygenates	21,873	_	6,061	_	. 0	460	_	25,985	1,489	, 0	2,549
Unfinished Oils		_	30,599	_	52	244	_	36.661	0	-6.254	8.762
Motor Gasoline Blend. Comp	-16,228	_	90,517	_	2,060	1,125	_	74,611	613	0,_0	7,966
Aviation Gasoline Blend. Comp		_	0	_	0	-152	_	-1,038	0	1,190	77
Finished Petroleum Products	18,189	701,492	401,042	_	1,008,186	26,810	_	_	13,962	2,088,136	151,658
Finished Motor Gasoline	18,189	369,750	153,633	_	573,519	888	_	_	2,608	1,111,595	50,715
Reformulated	_	228,030	76,746	_	119,410	-855	_	_	551	424,490	19,233
Oxygenated	19,613	722	19	_	0	-17	_	_	1	20,370	53
Other	-1.424	140,998	76,868	_	454.109	1.760	_	_	2.056	666.735	31,429
Finished Aviation Gasoline	-,	74	1	_	806	65	_	_	0	816	157
Jet Fuel	_	30,831	26,055	_	158.725	-189	_	_	1,041	214.759	10,213
Naphtha-Type		0	20,033		130,723	0	_	_	62	-62	0,213
	_		-	_				_			
Kerosene-Type		30,831	26,055	_	158,725	-189	_		978	214,822	10,213
Kerosene	_	4,595	1,748	_	844	980	_	_	67	6,140	3,257
Distillate Fuel Oil	_	170,109	112,318	_	253,482	20,979	_	_	1,863	513,067	62,072
0.05 percent sulfur and under	_	85,664	38,627	_	154,471	5,816	_	_	781	272,165	22,320
Greater than 0.05 percent sulfur	_	84,445	73,691	_	99,011	15,163	_	_	1,082	240,902	39,752
Residual Fuel Oil	_	38,473	91,520	_	7,981	4,097	_	_	1,975	131,902	17,757
Petrochemical Feedstocks ^e	_	4,396	1,817	_	-772	-36	_	_	0	5,477	437
Special Naphthas	_	668	2,690	_	531	-5	_	_	422	3,472	110
Lubricants	_	5,477	2,184	_	8,215	-108	_	_	1,485	14,499	2,242
Waxes	_	183	477	_	0	-168	_	_	378	450	148
Petroleum Coke	_	18,983	0	_	0	130	_	_	3,818	15,035	344
Asphalt and Road Oil	_	35,063	8,599	_	4,855	-20	_	_	251	48,286	3,927
Still Gas	_	22,296	0	_	0	0	_	_	0	22,296	0
Miscellaneous Products	_	594	0	_	0	197	_	_	53	344	279
Total	40,704	718,363	1,082,866	747	1,050,615	31,655	0	685,081	17,370	2,159,189	192,186

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.

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.'

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. Distillate stocks located in the "Northeast Heating Oil Reserve" are not included. For details see Appendix 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.

Distillate stocks located in the "Northeast Heating Oil Reserve" are not included. For details see Appendix D.

⁽s) = Less than 500 barrels.

LRG = Liquefied Refinery Gas.

Table 5. PAD District I—Daily Average Supply and Disposition of Crude Oil and Petroleum Products, 2001 (Thousand Barrels per Day)

			Supply					Disposition	n	
Commodity	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unac- counted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	20	_	1,478	2	3	2	0	1,499	2	0
Natural Gas Liquids and LRGs	26	46	42	_	107	7	_	4	2	209
Pentanes Plus	3	_	0	_	0	(s)	_	0	(s)	3
Liquefied Petroleum Gases		46	42	_	107	` 7	_	4	`ź	206
Ethane/Ethylene	7	0	0	_	0	0	_	0	0	7
Propane/Propylene		48	36	_	105	5	_	0	1	194
Normal Butane/Butylene		3	5	_	2	1		1	1	10
Isobutane/Isobutylene		-5	1	_		(s)	_	3	0	-6
isobutane/isobutylene		-5	ı	_	(s)	(S)	_	3	U	-0
Other Liquids	15	_	348	_	6	5	_	373	6	-14
Other Hydrocarbons/Oxygenates		_	17	_	0	1	_	71	4	0
Unfinished Oils	_	_	84	_	(s)	1		100	0	-17
Motor Gasoline Blend, Comp.			248	_	6	3	_	204	2	0
		_	0	_	0		_		0	3
Aviation Gasoline Blend. Comp	_	_	U	_	U	(s)	_	-3	U	3
Finished Petroleum Products	50	1,922	1,099	_	2,762	73	_	_	38	5,721
Finished Motor Gasoline	50	1,013	421	_	1,571	2	_	_	7	3,045
Reformulated	_	625	210	_	327	-2	_	_	2	1,163
Oxygenated		2	(s)	_	0	(s)	_	_	(s)	56
Other		386	211	_	1,244	5	_	_	6	1,827
Finished Aviation Gasoline		(s)	(s)	_	2	(s)			0	2
		, ,	(S) 71	_		. ,	_	_	-	
Jet Fuel		84		_	435	-1	_	_	3	588
Naphtha-Type		0	0	_	0	0	_	_	(s)	(s)
Kerosene-Type		84	71	_	435	-1	_	_	3	589
Kerosene		13	5	_	2	3	_	_	(s)	17
Distillate Fuel Oil		466	308	_	694	57	_	_	5	1,406
0.05 percent sulfur and under	_	235	106	_	423	16	_	_	2	746
Greater than 0.05 percent sulfur	_	231	202	_	271	42	_	_	3	660
Residual Fuel Oil	_	105	251	_	22	11	_	_	5	361
Petrochemical Feedstocks ^e	_	12	5	_	-2	(s)	_	_	0	15
Special Naphthas		2	7	_	1	(s)	_	_	1	10
Lubricants		15	6	_	23	(s)	_	_	4	40
Waxes		1	1	_	0	(s)	_	_	1	1
Petroleum Coke		52	0		0	(s)		_	10	41
		96	24	_	13	` '	_	_	10	132
Asphalt and Road Oil				_		(s)	_	_	-	
Still Gas		61	0	_	0	0	_	_	0	61
Miscellaneous Products	_	2	0	_	0	1	_	_	(s)	1
Total	112	1,968	2,967	2	2,878	87	0	1,877	48	5,916

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.

LRG = Liquetted Retinery Gas.

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."

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. Distillate stocks located in the "Northeast Heating Oil Reserve" are not included. For details see Appendix D.

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.

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.

LRG = Liquefied Refinery Gas.

PAD District II—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, 2001 Table 6. (Thousand Barrels)

			Supply					Dispositio	on		
Commodity	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unac- counted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	Ending Stocks
Crude Oil	. 167,287	_	330,563	-1,343	729,448	13,576	0	1,205,747	6,632	0	68,935
Natural Gas Liquids and LRGs		43,537	35,035	_	6,677	8,727	_	37,509	2,807	148,781	38,172
Pentanes Plus	. 15,372	_	548	_	5,858	625	_	15,334	300	5,519	1,927
Liquefied Petroleum Gases		43,537	34,487	_	819	8,102	_	22,175	2,507	143,262	36,245
Ethane/Ethylene	. 41,076	0	217	_	-21,268	-799	_	0	0	20,824	2,847
Propane/Propylene	. 37,365	40,788	30,730	_	15,300	9,233	_	0	954	113,996	25,691
Normal Butane/Butylene		3,349	3,268	_	1,821	9	_	11,224	1,553	6,285	6,269
Isobutane/Isobutylene		-600	272	_	4,966	-341	_	10,951	0	2,157	1,438
Other Liquids	42,999	_	716	_	29,916	2,018	_	-7,507	536	-7,414	27,253
Other Hydrocarbons/Oxygenates	. 13,602	_	33	_	0	841	_	12,547	247	0	2,615
Unfinished Oils		_	334	_	632	324	_	8.071	0	-7.429	13,222
Motor Gasoline Blend, Comp		_	349	_	29.284	873	_	-28.130	289	0	11,398
Aviation Gasoline Blend. Comp	,	_	0	_	0	-20	_	5	0	15	18
Finished Petroleum Products	. 74,252	1,255,202	6,371	_	326,670	6,121	_	_	4,330	1,652,044	98,365
Finished Motor Gasoline	. 74,252	641,720	892	_	182,196	4,451	_	_	103	894,507	39,661
Reformulated	. —	100,199	0	_	23,012	735	_	_	6	122,470	1,707
Oxygenated	. 176,515	13,089	0	_	0	10	_	_	(s)	189,594	273
Other	102.263	528,432	892	_	159.184	3.706	_	_	96	582,443	37,681
Finished Aviation Gasoline	. ′ —	1,477	31	_	736	-133	_	_	0	2,377	299
Jet Fuel		80,182	0	_	43,791	-460	_	_	416	124,017	7,655
Naphtha-Type		0	0	_	0	59	_	_	14	-73	59
Kerosene-Type		80.182	0	_	43.791	-519	_	_	402	124.090	7.596
Kerosene		4,630	0	_	-21	301	_	_	1	4,307	1,282
Distillate Fuel Oil		316,023	2,057	_	93,542	4.176	_	_	489	406,957	33,783
0.05 percent sulfur and under		243,170	1.550	_	76,680	3,373	_	_	398	317,629	25,362
Greater than 0.05 percent sulfur		72,853	507	_	16,862	803	_	_	91	89,328	8,421
Residual Fuel Oil		24,242	1,374	_	-3,356	88	_	_	325	21,847	1,991
Petrochemical Feedstocks ^e		6,900	489		802	-20			0	8,211	369
Special Naphthas		6,851	575	_	681	-132		_	143	8,096	315
		,	529			583				,	
Lubricants		5,378	93	_	4,463		_	_	890	8,897	2,159
Waxes		1,271	93	_	0	-33 -293	_	_	217	1,180	59 1 770
Petroleum Coke		51,686		_	-		_		1,109	50,870	1,779
Asphalt and Road Oil		61,953	321	_	3,836	-2,423	_	_	637	67,896	8,791
Still Gas		48,740	0	_	0	0	_	_	0	48,740	0
Miscellaneous Products	. –	4,149	10	_	0	16	_	_	1	4,142	222
Total	. 311,115	1,298,739	372,685	-1,343	1,092,711	30,442	0	1,235,749	14,305	1,793,410	232,725

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.

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 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."

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.

LRG = Liquefied Refinery Gas.

Table 7. PAD District II—Daily Average Supply and Disposition of Crude Oil and Petroleum Products, 2001 (Thousand Barrels per Day)

			Supply					Dispositio	n	
Commodity	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unac- counted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	458	_	906	-4	1,998	37	0	3,303	18	0
Natural Gas Liquids and LRGs	308	119	96	_	18	24	_	103	8	408
Pentanes Plus	42	_	2	_	16	2	_	42	1	15
Liquefied Petroleum Gases	266	119	94	_	2	22	_	61	7	392
Ethane/Ethylene		0	1	_	-58	-2	_	0	0	57
Propane/Propylene		112	84	_	42	25	_	0	3	312
Normal Butane/Butylene		9	9		5	(s)		31	4	17
Isobutane/Isobutylene		-2	1	_	14	-1	_	30	0	6
Other Liquids	-118	_	2	_	82	6	_	-21	1	-20
Other Hydrocarbons/Oxygenates	37	_	(s)	_	0	2	_	34	1	0
Unfinished Oils			1		2	1		22	0	-20
		_	1	_	80		_		1	-20
Motor Gasoline Blend. Comp		_	•	_		2	_	-77		•
Aviation Gasoline Blend. Comp	_	_	0	_	0	(s)	_	(s)	0	(s)
Finished Petroleum Products		3,439	17	_	895	17	_	_	12	4,526
Finished Motor Gasoline	203	1,758	2	_	499	12	_	_	(s)	2,451
Reformulated	_	275	0	_	63	2	_	_	(s)	336
Oxygenated	484	36	0	_	0	(s)	_	_	(s)	519
Other	-280	1.448	2	_	436	10	_	_	(s)	1,596
Finished Aviation Gasoline		4	(s)	_	2	(s)	_	_	Ò	7
Jet Fuel		220	0	_	120	-1	_	_	1	340
Naphtha-Type		0	0	_	0	(s)	_	_	(s)	(s)
		220	0	_	120	(s) -1	_	_	(5)	340
Kerosene-Type			-	_		-	_	_	-	
Kerosene		13	0	_	(s)	1	_	_	(s)	12
Distillate Fuel Oil		866	6	_	256	11	_	_	1	1,115
0.05 percent sulfur and under		666	4	_	210	9	_	_	1	870
Greater than 0.05 percent sulfur		200	1	_	46	2	_	_	(s)	245
Residual Fuel Oil		66	4	_	-9	(s)	_	_	1	60
Petrochemical Feedstocks ^e	_	19	1	_	2	(s)	_	_	0	22
Special Naphthas	_	19	2	_	2	(s)	_	_	(s)	22
Lubricants		15	1	_	12	2	_	_	2	24
Waxes		3	(s)	_	0	(s)	_	_	1	3
Petroleum Coke		142	0	_	0	-1	_	_	3	139
Asphalt and Road Oil		170	1	_	11	-7		_	2	186
Still Gas		134	0	_	0	0		_	0	134
			-	_	-	-	_	_	-	
Miscellaneous Products	_	11	(s)	_	0	(s)	_	_	(s)	11
	852	3,558	1,021	-4	2,994	83	0	3,386	39	4,913

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.

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 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."

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.

LRG = Liquefied Refinery Gas.

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

Table 8. PAD District III—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, 2001 (Thousand Barrels)

			Supply					Dispositio	on		
Commodity	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unac- counted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	Ending Stocks
Crude Oil	1,193,844	_	2,162,472	20,624	-696,175	24,113	0	2,656,652	0	0	709,292
Natural Gas Liquids and LRGs		155,164	33,303	_	15,320	28,137	_	84,532	10,310	535,128	75,216
Pentanes Plus	69,480	_	14,421	_	174	1,499	_	39,506	2	43,068	4,997
Liquefied Petroleum Gases		155,164	18,882	_	15,146	26,638	_	45,026	10,309	492,059	70,219
Ethane/Ethylene		7,291	1,440	_	51,198	8,839	_	0	0	228,767	21,121
Propane/Propylene		122.699	4,893	_	-37.934	12.226	_	0	7,872	198.833	31,001
Normal Butane/Butylene		23,521	8,068	_	3,014	5,033	_	20,085	2.437	30,117	14,355
Isobutane/Isobutylene		1,653	4,481	_	-1,132	540	_	24,941	0	34,342	3,742
Other Liquids	39,217	_	105,596	_	-40,437	1,130	_	104,108	10,072	-10,934	63,698
Other Hydrocarbons/Oxygenates		_	173	_	0	-450	_	45.102	7,265	0	4,936
Unfinished Oils		_	93,057	_	-562	-597	_	104,024	7,203	-10,932	42,444
Motor Gasoline Blend. Comp		_	12,366	_	-39,875	2.167	_	-45,010	2.807	0	16,284
			,		,	, -		-43,010	,	-2	,
Aviation Gasoline Blend. Comp	_	_	0	_	0	10	_	-8	0	-2	34
Finished Petroleum Products		2,859,062	101,262		-1,392,352	2,681	_	_	209,479	1,369,810	127,782
Finished Motor Gasoline	- ,	1,306,448	1,609	_	-789,225	2,231	_	_	39,571	491,029	44,606
Reformulated		246,581	240	_	-142,516	2,982	_	_	391	100,932	11,546
Oxygenated		1,301	0	_	-7,043	-58	_	_	1	9,025	1
Other	-712	1,058,566	1,369	_	-639,666	-693	_	_	39,179	381,072	33,059
Finished Aviation Gasoline	_	3,821	0	_	-1,644	181	_	_	0	1,996	493
Jet Fuel	_	288,749	211	_	-218,976	-1,165	_	_	6,366	64,783	13,371
Naphtha-Type	_	9	0	_	0	-70	_	_	155	-76	1
Kerosene-Type	_	288,740	211	_	-218,976	-1,095	_	_	6,211	64,859	13,370
Kerosene	_	15,556	0	_	-703	26	_	_	576	14.251	672
Distillate Fuel Oil	_	629,328	2,988	_	-354.649	1.468	_	_	15,918	260,281	32,753
0.05 percent sulfur and under	_	438,524	111	_	-238,239	1.879	_	_	7.900	190.617	21,739
Greater than 0.05 percent sulfur	_	190,804	2,877	_	-116,410	-411	_	_	8,018	69,664	11,014
Residual Fuel Oil		132,028	10.541	_	-4.625	1.336	_	_	56,811	79.797	15,647
Petrochemical Feedstocks ^e		106,956	81,924	_	-30	-516	_	_	0,011	189.366	2.882
Special Naphthas		10,274	1,262		-1,212	40		_	1,234	9,050	1,549
Lubricants		44,255	1,202		-12.597	491		_	5,974	25,321	7,235
			79	_	-12,597	-113	_				395
Waxes		3,979							500	3,671	
Petroleum Coke		147,222	1,946	_	0	-752	_	_	82,156	67,764	3,576
Asphalt and Road Oil		44,582	459	_	-8,691	-614	_	_	365	36,599	4,123
Still Gas		112,247	0	_	0	0	_	_	0	112,247	0
Miscellaneous Products	_	13,617	115	_	0	68	_	_	8	13,656	480
Total	1,701,380	3,014,226	2,402,633	20,624	-2,113,644	56,061	0	2,845,292	229,862	1,894,004	975,988

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.

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

LRG = Liquefied Refinery Gas

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 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."

PAD District III—Daily Average Supply and Disposition of Crude Oil and Petroleum Products, 2001 (Thousand Barrels per Day)

			Supply					Dispositio	n	
Commodity	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unac- counted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	3,271	_	5,925	57	-1,907	66	0	7,278	0	0
Natural Gas Liquids and LRGs Pentanes Plus		425	<b>91</b> 40	_	<b>42</b> (s)	<b>77</b> 4	_	<b>232</b> 108	<b>28</b> (s)	<b>1,466</b> 118
Liquefied Petroleum Gases		425	52	_	41	73	_	123	28	1,348
Ethane/Ethylene		20	4	_	140	24	_	0	0	627
Propane/Propylene		336	13	_	-104	33	_	0	22	545
Normal Butane/Butylene		64	22	_	-104	14	_	55	7	83
Isobutane/Isobutylene		5	12	_	-3	1	_	68	0	94
Other Liquids	107	_	289	_	-111	3	_	285	28	-30
Other Hydrocarbons/Oxygenates		_	(s)	_	0	-1	_	124	20	0
Unfinished Oils	_	_	255	_	-2	-2	_	285	0	-30
Motor Gasoline Blend. Comp	-34	_	34	_	-109	6	_	-123	8	0
Aviation Gasoline Blend. Comp		_	0	_	0	(s)	_	(s)	0	(s)
Finished Petroleum Products		7,833	277	_	-3,815	7	_	_	574	3,753
Finished Motor Gasoline		3,579	4	_	-2,162	6	_	_	108	1,345
Reformulated		676	1	_	-390	8	_	_	1	277
Oxygenated		4	0	_	-19	(s)	_	_	(s)	25
Other		2,900	4	_	-1,753	-2	_	_	107	1,044
Finished Aviation Gasoline		10	0	_	-5	(s)	_	_	0	5
Jet Fuel		791	1	_	-600	-3	_	_	17	177
Naphtha-Type		(s)	0	_	0	(s)	_	_	(s)	(s)
Kerosene-Type	_	791	1	_	-600	-3	_	_	17	178
Kerosene		43	0	_	-2	(s)	_	_	2	39
Distillate Fuel Oil	_	1,724	8	_	-972	4	_	_	44	713
0.05 percent sulfur and under	_	1,201	(s)	_	-653	5	_	_	22	522
Greater than 0.05 percent sulfur		523	8	_	-319	-1	_	_	22	191
Residual Fuel Oil		362	29	_	-13	4	_	_	156	219
Petrochemical Feedstocks ^e	_	293	224	_	(s)	-1	_	_	0	519
Special Naphthas	_	28	3	_	-3	(s)	_	_	3	25
Lubricants	_	121	(s)	_	-35	1	_	_	16	69
Waxes	_	11	(s)	_	0	(s)	_	_	1	10
Petroleum Coke	_	403	`Ś	_	0	-2	_	_	225	186
Asphalt and Road Oil	_	122	1	_	-24	-2	_	_	1	100
Still Gas	_	308	0	_	0	0	_	_	0	308
Miscellaneous Products	_	37	(s)	_	0	(s)	_	_	(s)	37
Total	4,661	8,258	6,583	57	-5,791	154	0	7,795	630	5,189

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.

LRG = Liquetied Retinery Gas.

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 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."

^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.

LRG = Liquefied Refinery Gas.

Table 10. PAD District IV—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, 2001 (Thousand Barrels)

			Supply					Dispositio	on		
Commodity	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unac- counted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	Ending Stocks
Crude Oil	105,120	_	100,200	12,190	-34,408	648	0	182,429	25	0	14,011
Natural Gas Liquids and LRGs		2,303	5,100	_	-61,179	140	_	6,387	359	16,450	1,914
Pentanes Plus	10,987	_	1,311	_	-6,032	-63	_	2,417	92	3,820	218
Liquefied Petroleum Gases	66,125	2,303	3,789	_	-55,147	203	_	3,970	266	12,631	1,696
Ethane/Ethylene	31,180	0	. 0	_	-29,930	8	_	. 0	0	1,242	463
Propane/Propylene		2,970	2,686	_	-15,783	132	_	0	63	11,807	630
Normal Butane/Butylene	8,781	-252	1,057	_	-5,637	66	_	2.342	204	1,337	421
Isobutane/Isobutylene	4,035	-232 -415	46	_	-3,797	-3	_	1,628	0	-1,756	182
·	,				,					•	
Other Liquids	4,893	_	0	_	0	640	_	5,526	13	-1,286	4,777
Other Hydrocarbons/Oxygenates	1,605	_	0	_	0	33	_	1,559	13	0	189
Unfinished Oils	_	_	0	_	0	181	_	1,105	0	-1,286	2,403
Motor Gasoline Blend. Comp	3,288	_	0	_	0	426	_	2,862	0	0	2,185
Aviation Gasoline Blend. Comp	<i>'</i> —	_	0	_	0	0	_	0	0	0	0
Finished Petroleum Products	-2.307	198,723	2,636	_	19,482	184	_	_	207	218,143	11,823
Finished Motor Gasoline		97.869	119	_	3.805	746	_	_	1	98.739	5.163
Reformulated	,	0 0	0	_	0,000	0			0	90,739	0,103
		-	0		0	-22			0	-	-
Oxygenated		7,726	-	_	-		_	_	-	17,554	51
Other	,	90,143	119	_	3,805	768	_	_	1	81,185	5,112
Finished Aviation Gasoline	_	156	154	_	102	-2	_	_	0	414	36
Jet Fuel		9,787	11	_	13,602	9	_	_	(s)	23,391	862
Naphtha-Type		0	0	_	0	0	_	_	0	0	0
Kerosene-Type	_	9,787	11	_	13,602	9	_	_	(s)	23,391	862
Kerosene	_	547	0	_	-120	-10	_	_	1	436	81
Distillate Fuel Oil	_	54,698	2,069	_	2,093	91	_	_	0	58.769	3.407
0.05 percent sulfur and under	_	45,016	1.965	_	2.097	224	_	_	0	48,854	3,059
Greater than 0.05 percent sulfur	_	9,682	104	_	-4	-133	_	_	0	9,915	348
Residual Fuel Oil		4,151	3	_	0	238	_	_	0	3,916	609
Petrochemical Feedstocks ^e	_	293	0		0	0			0	293	009
					-			_			
Special Naphthas		-7	0	_	0	-2	_		8	-13	4
Lubricants		0	0	_	0	0	_	_	169	-169	0
Waxes		1,108	0	_	0	1	_	_	(s)	1,107	7
Petroleum Coke		5,999	0	_	0	-56	_	_	11	6,044	34
Asphalt and Road Oil	_	15,866	259	_	0	-834	_	_	17	16,942	1,595
Still Gas	_	7,516	0	_	0	0	_	_	0	7,516	0
Miscellaneous Products	_	740	21	_	0	3	_	_	(s)	758	25
Total	184.817	201,026	107,936	12,190	-76,105	1,612	0	194,342	603	233,307	32,525

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.

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 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."

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

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. LRG = Liquefied Refinery Gas.

Table 11. PAD District IV—Daily Average Supply and Disposition of Crude Oil and Petroleum Products, 2001 (Thousand Barrels per Day)

			Supply					Dispositio	n	
Commodity	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unac- counted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	288	_	275	33	-94	2	0	500	(s)	0
Natural Gas Liquids and LRGs		6	14	_	-168	(s)	_	17	1	45
Pentanes Plus	30	_	4	_	-17	(s)	_	7	(s)	10
Liquefied Petroleum Gases	181	6	10	_	-151	1	_	11	1	35
Ethane/Ethylene		0	0	_	-82	(s)	_	0	0	3
Propane/Propylene		8	7	_	-43	(s)	_	0	(s)	32
Normal Butane/Butylene		-1	3		-15	(s)		6	1	4
Isobutane/Isobutylene		-1	(s)	_	-10	(s)	_	4	Ö	-5
Other Liquids	13		0		0	2		15	(e)	-4
		_	0	_	0	(s)	_	4	<b>(s)</b> (s)	0
Other Hydrocarbons/Oxygenates		_		_		. ,	_		` '	
Unfinished Oils		_	0	_	0	(s)	_	3	0	-4
Motor Gasoline Blend. Comp		_	0	_	0	1	_	8	0	0
Aviation Gasoline Blend. Comp	_	_	0	_	0	0	_	0	0	0
Finished Petroleum Products	-6	544	7	_	53	1	_	_	1	598
Finished Motor Gasoline	-6	268	(s)	_	10	2	_	_	(s)	271
Reformulated	_	0	0	_	0	0	_	_	0	0
Oxygenated	27	21	0	_	0	(s)	_	_	0	48
Other		247	(s)	_	10	ĹŹ	_	_	(s)	222
Finished Aviation Gasoline		(s)	(s)	_	(s)	(s)	_	_	0	1
Jet Fuel		27	(s)		37	(s)			(s)	64
Naphtha-Type		0	0	_	0	0	_	_	0	0
				_			_	_		
Kerosene-Type		27	(s)	_	37	(s)	_	_	(s)	64
Kerosene		1	0	_	(s)	(s)	_	_	(s)	1
Distillate Fuel Oil	_	150	6	_	6	(s)	_	_	0	161
0.05 percent sulfur and under	_	123	5	_	6	1	_	_	0	134
Greater than 0.05 percent sulfur	_	27	(s)	_	(s)	(s)	_	_	0	27
Residual Fuel Oil	_	11	(s)	_	Ò	ìí	_	_	0	11
Petrochemical Feedstocks ^e	_	1	0	_	0	0	_	_	0	1
Special Naphthas		(s)	Ö		0	(s)	_		(s)	(s)
Lubricants		(5)	0	_	0	(5)	_	_	(s)	(s)
		-	-	_	-	-		_	` '	
Waxes		3	0	_	0	(s)	_	_	(s)	3
Petroleum Coke		16	0	_	0	(s)	_	_	(s)	17
Asphalt and Road Oil		43	1	_	0	-2	_	_	(s)	46
Still Gas	_	21	0	_	0	0	_	_	0	21
Miscellaneous Products	_	2	(s)	_	0	(s)	_	_	(s)	2
Total	506	551	296	33	-209	4	0	532	2	639

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.

LING = Liquetiled Retinery Gas.

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 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."

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

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. LRG = Liquefied Refinery Gas.

Table 12. PAD District V—Supply, Disposition, and Ending Stocks of Crude Oil and Petroleum Products, 2001 (Thousand Barrels)

			Supply					Dispositio	on		
Commodity	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unac- counted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d	Ending Stocks
Crude Oil	643,811	_	272,271	10,436	0	-3,033	0	929,537	14	0	56,408
Natural Gas Liquids and LRGs		25,447	2,677	_	0	1,110	_	26,461	2,426	26,663	5,371
Pentanes Plus	15,032	_	0	_	0	119	_	11,266	157	3,490	209
Liquefied Petroleum Gases	13,504	25,447	2,677	_	0	991	_	15,195	2,269	23,173	5,162
Ethane/Ethylene		0	0	_	0	0	_	0	0	105	0
Propane/Propylene	3,869	19,120	1,452	_	0	1,116	_	0	2,162	21,163	2,574
Normal Butane/Butylene		5,782	1,203	_	0	51	_	10,218	107	1,158	2,236
Isobutane/Isobutylene		545	22	_	0	-176	_	4,977	0	747	352
Other Liquids	27,741	_	42,349	_	8,409	1,872	_	62,875	799	12,953	34,302
Other Hydrocarbons/Oxygenates	26.831	_	22.715	_	0	456	_	48,299	791	0	2,873
Unfinished Oils		_	14,162	_	-122	463	_	624	0	12,953	20,869
Motor Gasoline Blend. Comp		_	5,472	_	8,531	953	_	13,952	9	0	10,559
Aviation Gasoline Blend. Comp		_	0, 112	_	0	0	_	0	Ö	0	1
Finished Petroleum Products	1,541	1,051,199	49,621	_	38,014	-917	_	_	89,042	1,052,250	56,844
Finished Motor Gasoline		512,263	9,625	_	29,705	139	_	_	6,204	546,791	21,314
Reformulated	, -	372,935	2,353	_	94	171	_	_	922	374,289	12,432
Oxygenated		10,145	432	_	7.043	-1	_	_	68	42,069	0
Other		129,183	6,840	_	22,568	-31	_	_	5,214	130,432	8,882
Finished Aviation Gasoline	,	994	412		0	88			0,214	1,318	499
				_	-	-760	_	_			
Jet Fuel		148,770	27,788	_	2,858			_	2,905	177,271	9,852
Naphtha-Type		80	0	_	0	-16	_	_	1	95	22
Kerosene-Type		148,690	27,788	_	2,858	-744	_	_	2,905	177,175	9,830
Kerosene		1,351	25	_	0	-16	_	_	122	1,270	96
Distillate Fuel Oil	_	178,367	6,154	_	5,532	-228	_	_	25,272	165,009	12,498
0.05 percent sulfur and under		142,873	5,012	_	4,991	-501	_	_	5,102	148,275	9,854
Greater than 0.05 percent sulfur		35,494	1,142	_	541	273	_	_	20,170	16,734	2,644
Residual Fuel Oil	_	64,123	4,250	_	0	-912	_	_	10,667	58,618	5,043
Petrochemical Feedstocks ^e	_	3,861	508	_	0	-87	_	_	0	4,456	217
Special Naphthas	_	548	399	_	0	-7	_	_	6,603	-5,649	28
Lubricants	_	8,851	0	_	-81	720	_	_	813	7,237	2,147
Waxes	_	-18	269	_	0	-122	_	_	217	156	3
Petroleum Coke	_	56,187	70	_	0	792	_	_	35,652	19,813	2,572
Asphalt and Road Oil	_	19,725	0	_	0	-512	_	_	559	19,678	2,202
Still Gas		53,633	0	_	0	0.2	_	_	0	53,633	0
Miscellaneous Products		2,544	121	_	0	-12	_	_	26	2,651	373
Total	701,629	1,076,646	366,918	10,436	46,423	-968	0	1,018,873	92,280	1,091,867	152,925

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.

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 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."

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

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.

LRG = Liquefied Refinery Gas.

Table 13. PAD District V — Daily Average Supply and Disposition of Crude Oil and Petroleum Products, 2001 (Thousand Barrels per Dav)

			Supply					Dispositio	n	
Commodity	Field Production	Refinery Production	Imports by PAD District of Entry ^a	Unac- counted For Crude Oil ^b	Net Receipts	Stock Change ^c	Crude Losses	Refinery Inputs	Exports	Products Supplied ^d
Crude Oil	1,764	_	746	29	0	-8	0	2,547	(s)	0
Natural Gas Liquids and LRGs	78	70	7	_	0	3	_	72	7	73
Pentanes Plus		_	0	_	0	(s)	_	31	(s)	10
Liquefied Petroleum Gases		70	7	_	Ö	3	_	42	6	63
Ethane/Ethylene		0	0	_	Ö	0	_	0	0	(s)
Propane/Propylene		52	4	_	0	3	_	0	6	58
Normal Butane/Butylene		16	3	_	0	(s)	_	28	(s)	3
Isobutane/Isobutylene		1	(s)	_	0	(s)	_	14	0	2
	• •	•	(-/		-	(-)			-	_
Other Liquids	76	_	116	_	23	5	_	172	2	35
Other Hydrocarbons/Oxygenates	74	_	62	_	0	1	_	132	2	0
Unfinished Oils		_	39	_	(s)	1	_	2	0	35
Motor Gasoline Blend. Comp		_	15	_	23	3	_	38	(s)	0
Aviation Gasoline Blend. Comp	_	_	0	_	0	0	_	0	`ó	0
Finished Petroleum Products	4	2.880	136	_	104	-3	_	_	244	2.883
Finished Motor Gasoline	-	1.403	26		81	(s)		_	17	1.498
Reformulated		1.022	6	_	(s)	(s)	_	_	3	1.025
Oxygenated		28	1	_	19	(s)	_	_	(s)	1,023
Other		354	19	_	62	(s)	_	_	14	357
Finished Aviation Gasoline		3	19	_	02		_		0	4
Jet Fuel		408	76	_	8	(s) -2	_	_	8	486
			0	_	0		_	_		
Naphtha-Type		(s)		_	8	(s) -2	_		(s)	(s)
Kerosene-Type		407	76	_			_	_	8	485 3
Kerosene Distillate Fuel Oil		4 489	(s) 17	_	0 15	(s) -1	_	_	(s) 69	3 452
		391	17	_	14	-1 -1	_	_	14	452 406
0.05 percent sulfur and under		391 97	3	_	14	-1 1	_	_	14 55	406 46
Greater than 0.05 percent sulfur Residual Fuel Oil		97 176	3 12	_	0	-2	_		55 29	46 161
Petrochemical Feedstocks ^e		110	12	_	0		_	_	29 0	12
Special Naphthas		2	1	_	0	(s)	_	_	18	-15
			0	_	-	(s)				
Lubricants		24	1	_	(s) 0	2	_	_	2	20
Waxes Petroleum Coke		(s) 154	-	_	0	(s) 2	_	_	1 98	(s) 54
		154 54	(s) 0	_	0	∠ -1	_	_		54 54
Asphalt and Road OilStill Gas		54 147	0	_	0	-1	_	_	2	54 147
Miscellaneous Products		7	-	_	0	-	_	_	-	7
IVIISCEIIATIECUS FTOCUCIS	_	/	(s)	_	U	(s)	_	_	(s)	1
Total	1,922	2,950	1,005	29	127	-3	0	2,791	253	2,991

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.

Note: Totals frialy not equal sum of components due to independent routing.

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 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."

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

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.

LRG = Liquefied Refinery Gas.

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

Table 14. Production of Crude Oil by PAD District and State, 2001 (Thousand Barrels)

PAD District and State	Total	Daily Average
		7.10.490
PAD District I	7,449	20
Florida	4,426	12
New York	166	(s)
Pennsylvania	1,620	4
Virginia	12	(s)
West Virginia	1,225	3
PAD District II	167,287	458
Illinois	10,092	28
Indiana	2,022	-6
Kansas	33,942	93
Kentucky	2.970	8
Michigan	7.374	20
Missouri	90	(s)
Nebraska	2,922	8
North Dakota	31,691	87
Ohio	6,050	17
Oklahoma	68,531	188
South Dakota	1,255	3
Tennessee	349	1
PAD District III	1,193,844	3,271
Alabama	9,333	26
Arkansas	7,591	21
Louisiana ^a	104,608	287
Mississippi	19,530	54
New Mexico	68,001	186
Texas ^a	424,295	1,162
Federal Offshore PAD District III	560,486	1,536
PAD District IV	105,120	288
Colorado	16,518	45
Montana	15,919	44
Utah	15,251	42
Wyoming	57,432	157
PAD District V	643,811	1,764
Alaska ^a	351,412	963
South Alaska	11,498	32
North Slope	339,914	931
Arizona	60	(s)
California ^a	260,665	714
Nevada	571	2
Federal Offshore PAD District V	31,103	85

Revised 2000 crude oil production statistics are available in Appendix C.

^a Includes the following offshore production (thousand barrels): Alaska: State - 79,547; California: State - 16,972; Louisiana: State - 12,740; Texas: State - 875; U.S. Total, including Federal offshore - 701,722.

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

Note: • A final revision to the State data for 2001 will appear in the 2002 Petroleum Supply Annual. • 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 EIA Reserves and Production Division estimates based on Form EIA-182, "Domestic Crude Oil First Purchase Report" data.

Table 15. Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining Districts, 2001

		PAD District I			PAD Dis	strict II	
Commodity	East Coast	Appalachian No. 1	Total	Ind., III., Ky.	Minn., Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
				Net Production	on		
Natural Gas Liquids	1,220	8,201	9,421	21,291	4,475	86,809	112,575
Pentanes Plus	129	966	1,095	1,267	1,040	13,065	15,372
Liquefied Petroleum Gases	1,091	7,235	8,326	20,024	3,435	73,744	97,203
Ethane	399	2,309	2,708	10,359	0	30,717	41,076
Propane	421	3,396	3,817	6,523	2,170	28,672	37,365
Normal Butane	271	1,060	1,331	1,904	1,265	7,464	10,633
Isobutane	0	470	470	1,238	0	6,891	8,129
				Stocks			
Natural Gas Liquids	9	52	61	162	56	1,175	1,393
Pentanes Plus	0	21	21	23	18	56	97
Liquefied Petroleum Gases	9	31	40	139	38	1,119	1,296
Ethane	0	0	0	17	0	192	209
Propane	7	20	27	83	23	730	836
Normal Butane	2	6	8	19	15	137	171
Isobutane	0	5	5	20	0	60	80

			PAD D	istrict III			PAD Dist.	PAD Dist.	
Commodity	Texas	Texas Gulf	La. Gulf	N. La.,	New		IV	V	U.S.
	Inland	Coast	Coast	Ark.	Mexico	Total	Rocky Mt.	West Coast	Total
					Net Produc	tion			
Natural Gas Liquids		46,264	119,651	4,548	77,540	454,320	77,112	28,536	681,964
Pentanes Plus		6,580	19,516	1,417	8,649	69,480	10,987	15,032	111,966
Liquefied Petroleum Gases		39,684	100,135	3,131	68,891	384,840	66,125	13,504	569,998
Ethane	80,065 58.151	20,384 12.396	40,111 36.347	576 1,268	36,541 21.111	177,677 129.273	31,180 22.129	105 3.869	252,746 196,453
Propane  Normal Butane	22.526	-20,114	12.394	870	7,393	23.069	8.781	4,549	48,363
Isobutane	12,257	27,018	11,283	417	3,846	54,821	4,035	4,981	72,436
					Stocks				
Natural Gas Liquids	236	1,642	921	26	80	2,905	211	220	4,790
Pentanes Plus	57	198	200	10	9	474	54	17	663
Liquefied Petroleum Gases	179	1,444	721	16	71	2,431	157	203	4,127
Ethane	25	347	0	0	0	372	21	0	602
Propane	88	348	361	9	49	855	63	162	1,943
Normal Butane	52	606	276	6	13	953	59	35	1,226
Isobutane	14	143	84	1	9	251	14	6	356

Note: • Stocks are reported as of the end of December. • Refer to Appendix A for Refining District descriptions. Source: Energy Information Administration (EIA) Form EIA-816, "Monthly Natural Gas Liquids Report."

Table 16. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, 2001

(Thousand Barrels, Except Where Noted)

		PAD District I			PAD District II						
Commodity	East Coast	Appalachian No. 1	Total	Ind., III., Ky.	Minn., Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total				
Crude Oil	515,781	31,491	547,272	790,360	151,269	264,118	1,205,747				
Natural Gas Liquids	1,590	0	1,590	22,687	2,470	12,352	37,509				
Pentanes Plus	0	0	0	6,124	1,198	8,012	15,334				
Liquefied Petroleum Gases	1,590	0	1,590	16,563	1,272	4,340	22,175				
Ethane	0	0	0	0	0	0	0				
Propane	0	0	0	0	0	0	0				
Normal Butane	543	0	543	8,896	546	1,782	11,224				
Isobutane	1,047	0	1,047	7,667	726	2,558	10,951				
Other Liquids	136,499	-280	136,219	-9,755	7,334	-5,086	-7,507				
Other Hydrocarbons/Hydrogen/Oxygenates	25,985	0	25,985	8,640	2.761	1,146	12.547				
Other Hydrocarbons/Hydrogen	0	0	0	874	73	257	1.204				
Oxygenates	w	W	25,985	7.766	2.688	889	11,343				
Fuel Ethanol	W	W	20,000 W	. ,, 55 W	_,000 W	W	10,403				
Methanol	W	W	W	W	W	W	W				
MTBE	W	W	24,114	W	W	W	W				
Other Oxygenates ^a	W	W	24,114 W	W	W	W	W				
	36,925	-264	36,661	17,142	384	-9,455	8,071				
Unfinished Oils (net)	74.627	-204 -16	,	-35.556	4.203		-28.130				
Aviation Gasoline Blend. Comp. (net)	-1,038	0	74,611 -1,038	-35,556 19	4,203 -14	3,223 0	-26,130 5				
Total Input to Refineries	653,870	31,211	685,081	803,292	161,073	271,384	1,235,749				
Atmospheric Crude Oil Distillation											
Gross Input (daily average)	1,394	86	1,481	2,167	414	728	3,309				
Operable Capacity (daily average)	1.607	91	1.698	2,336	426	763	3.526				
Operable Utilization Rate (percent) ^b	86.8	94.9	87.2	92.8	97.2	95.4	93.9				
Downstream Processing											
Fresh Feed Input (daily average)											
Catalytic Cracking	603	18	621	779	134	197	1.110				
Catalytic Hydrocracking	36	0	36	136	0	4	140				
Delayed and Fluid Coking	85	Ö	85	206	62	83	351				
Crude Oil Qualities											
Sulfur Content, Weighted Average (percent)	0.86	1.27	0.89	1.31	2.19	0.87	1.32				
API Gravity, Weighted Average (degrees)	31.76	32.89	31.83	32.91	28.23	35.00	32.78				
Operable Capacity (daily average)	1,607	91	1,698	2,336	426	763	3,526				
Operating	1,510	91	1,601	2,323	421	763	3,508				
Idle	97	0	97	13	5	0	18				
Alaskan Crude Oil Receipts	0	0	0	0	0	0	0				

Table 16. Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts, 2001 (Continued)

(Thousand Barrels, Except Where Noted)

			PAD	istrict III			PAD Dist.	PAD Dist.	
Commodity	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	IV Rocky Mt.	V West Coast	U.S. Total
Crude Oil	209,646	1,295,345	1,066,652	56,225	28,784	2,656,652	182,429	929,537	5,521,637
Natural Gas Liquids	12,404	41,840	24,859	2,340	3,089	84,532	6,387	26,461	156,479
Pentanes Plus	6,502	18,536	11,116	1,692	1,660	39,506	2,417	11,266	68,523
Liquefied Petroleum Gases	5,902	23,304	13,743	648	1,429	45,026	3,970	15,195	87,956
Ethane		0	0	0	, 0	0	0	0	0
Propane		0	0	0	0	0	0	0	0
Normal Butane		8.017	6.450	245	6	20.085	2.342	10,218	44.412
Isobutane	-,	15,287	7,293	403	1,423	24,941	1,628	4,977	43,544
Other Liquids	-1.093	90.377	19.109	-1,350	-2,935	104.108	5.526	62.875	301,221
Other Hydrocarbons/Hydrogen/Oxygenates		27,979	15,153	15	280	45,102	1,559	48,299	133,492
Other Hydrocarbons/Hydrogen		4,229	8,428	0	0	14,161	361	9,177	24,903
Oxygenates		23,750	6,725	w	w	30.941	1,198	39,122	108.589
Fuel Ethanol		25,750 W	0,723 W	W	W	30,941 W	1,190 W	W	16,929
		W	W	W	W	W	W	W	
Methanol									1,431
MTBE		22,715	W	W	W	28,983	W	33,482	87,116
Other Oxygenates ^a		W	W	W	W	W	W	W	3,113
Unfinished Oils (net)		89,884	13,696	-1,275	675	104,024	1,105	624	150,485
Motor Gasoline Blend. Comp. (net)	-3,805	-27,486	-9,739	-90	-3,890	-45,010	2,862	13,952	18,285
Aviation Gasoline Blend. Comp. (net)	-7	0	-1	0	0	-8	0	0	-1,041
Total Input to Refineries	220,957	1,427,562	1,110,620	57,215	28,938	2,845,292	194,342	1,018,873	5,979,337
Atmospheric Crude Oil Distillation									
Gross Input (daily average)	577	3,529	2,941	145	79	7,271	508	2,784	15,352
Operable Capacity (daily average)	584	3,777	3,019	197	96	7,672	560	3,127	16,582
Operable Utilization Rate (percent) ^b	98.9	93.4	97.4	73.5	82.5	94.8	90.7	89.1	92.6
Downstream Processing									
Fresh Feed Input (daily average)									
Catalytic Cracking	185	1,317	1,013	21	25	2,562	132	710	5.135
Catalytic Hydrocracking		270	217	0	0	527	4	469	1,177
Delayed and Fluid Coking		525	459	10	Ő	999	40	488	1,963
Crude Oil Qualities									
Sulfur Content, Weighted Average (percent)	0.86	1.75	1.68	1.96	0.51	1.64	1.29	1.23	1.42
API Gravity, Weighted Average (degrees)		29.64	29.50	28.35	38.98	30.32	33.19	26.82	30.49
Operable Capacity (daily average)	584	3,777	3,019	197	96	7,672	560	3,127	16,582
Operating		3,768	3,004	169	96	7,621	553	3,037	16,320
Idle		8	15	28	0	51	7	89	262
Alaskan Crude Oil Receipts	0	0	0	0	0	0	0	364,800	364,800

^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 capacity.

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 17. Refinery Net Production of Finished Petroleum Products by PAD and Refining Districts, 2001

		PAD District I			PAD Di	istrict II	
Commodity	East Coast	Appalachian No. 1	Total	Ind., III., Ky.	Minn., Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Liquefied Refinery Gases	. 16,547	324	16,871	34,467	2,716	6,354	43,537
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	. 17,146	398	17,544	29,765	3,613	7,410	40,788
Propane	. W	W	W	20,404	W	W	W
Propylene		W	W	9,361	W	W	W
Normal Butane/Butylene	. 1,177	-40	1,137	4,216	-634	-233	3,349
Normal Butane		W	W	W	W	W	W
Butylene		W	W	W	W	W	W
Isobutane/Isobutylene		-34	-1.810	486	-263	-823	-600
Isobutane	,	W	W	W	W	W	W
Isobutylene		W	W	W	W	W	W
Finished Motor Gasoline		11,917	369,750	415,950	85,314	140,456	641,720
Reformulated		0	228,030	81.077	14.240	4.882	100.199
Oxygenated	- ,	0	722	01,077	13,089	0	13,089
Other		11,917	140,998	334,873	57,985	135,574	,
Finished Aviation Gasoline	- /	0	74	334,673	443	639	528,432 1,477
		379					,
Jet Fuel	,		30,831	57,134	10,450	12,598	80,182
Naphtha-Type		0	0	0	0	0	00.400
Kerosene-Type		379	30,831	57,134	10,450	12,598	80,182
Commercial		280	30,732	54,671	9,766	7,848	72,285
Military		99	99	2,463	684	4,750	7,897
Kerosene	- ,	677	4,595	3,378	337	915	4,630
Distillate Fuel Oil	- ,	8,205	170,109	189,868	41,949	84,206	316,023
0.05 percent sulfur and under		6,903	85,664	143,890	35,205	64,075	243,170
Greater than 0.05 percent sulfur		1,302	84,445	45,978	6,744	20,131	72,853
Residual Fuel Oil		475	38,473	18,145	3,675	2,422	24,242
Less than 0.31 percent sulfur	. 15,136	214	15,350	0	0	0	0
0.31 to 1.00 percent sulfur	. 20,309	261	20,570	3,372	150	43	3,565
Greater than 1.00 percent sulfur	. 2,553	0	2,553	14,773	3,525	2,379	20,677
Naphtha for Petrochemical Feedstock Use	. 4,396	0	4,396	7,197	0	-3	7,194
Other Oils for Petrochemical Feedstock Use	. 0	0	0	-898	0	604	-294
Special Naphthas	. 405	263	668	6,127	0	724	6,851
Lubricants	. 3,320	2,157	5,477	2,430	0	2,948	5,378
Naphthenic	. 0	0	0	0	0	0	0
Paraffinic	. 3,320	2,157	5,477	2,430	0	2,948	5,378
Waxes	. 0	183	183	597	0	674	1.271
Petroleum Coke		305	18.983	32.871	8.760	10.055	51.686
Marketable	,	0	7,186	19,939	6,603	7,834	34,376
Catalyst	,	305	11,797	12,932	2,157	2,221	17,310
Asphalt and Road Oil		5,932	35,063	41,735	11.841	8,377	61.953
Still Gas	,	730	22,296	31,222	7,268	10,250	48,740
Miscellaneous Products	,	227	594	2,839	1,103	207	4,149
Fuel Use		0	0	2,039	0	0	4,149
Nonfuel Use		227	594	2,839	1,103	207	4,149
Total	. 686,589	31,774	718,363	843,457	173,856	281,426	1,298,739
Processing Gain(-) or Loss(+) ^a	32,719	-563	-33,282	-40,165	-12,783	-10,042	-62,990

Table 17. Refinery Net Production of Finished Petroleum Products by PAD and Refining **Districts, 2001 (Continued)** 

			PAD D	District III			PAD Dist.	PAD Dist.	
Commodity	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	IV Rocky Mt.	V West Coast	U.S. Total
Liquefied Refinery Gases	10,760	88,040	54,884	702	778	155,164	2,303	25,447	243,322
Ethane/Ethylene	0	6,614	677	0	0	7,291	0	0	7,291
Ethane	W	W	W	W	W	W	W	W	5,457
Ethylene	W	W	W	W	W	W	W	W	1,834
Propane/Propylene	8,597	63,596	49,205	658	643	122,699	2,970	19,120	203,121
Propane		32,716	26,263	W	W	66,063	W	W	128,516
Propylene		30,880	22,942	W	W	56,636	W	W	74,605
Normal Butane/Butylene		16,204	4,255	64	135	23,521	-252	5,782	33,537
Normal Butane		W	W	W	W	W	W	W	28,819
Butylene		W	W	W	W	W	W	W	4,718
Isobutane/Isobutylene		1.626	747	-20	0	1.653	-415	545	-627
Isobutane		W	W	W	w	W	W	W	-1,551
Isobutylene		W	W	W	W	W	W	W	924
Finished Motor Gasoline		656,509	501,649	15,045	15,345	1,306,448	97,869	512,263	2,928,050
Reformulated		190.944	50.284	0	0	246,581	0	372,203	947.745
Oxygenated		190,944	202	0	1.099	1,301	7,726	10,145	32,983
, 0					,	,	,	,	,
Other		465,565	451,163	15,045	14,246	1,058,566	90,143	129,183	1,947,322
Finished Aviation Gasoline		1,460	954	0	0	3,821	156	994	6,522
Jet Fuel	,	135,944	130,633	348	2,553	288,749	9,787	148,770	558,319
Naphtha-Type		0	0	0	0	9	0	80	89
Kerosene-Type		135,944	130,633	348	2,553	288,740	9,787	148,690	558,230
Commercial		114,290	123,314	265	0	252,894	7,712	131,895	495,518
Military		21,654	7,319	83	2,553	35,846	2,075	16,795	62,712
Kerosene		11,016	3,237	1,224	18	15,556	547	1,351	26,679
Distillate Fuel Oil	- , -	303,239	252,423	14,396	7,598	629,328	54,698	178,367	1,348,525
0.05 percent sulfur and under		254,169	129,279	6,083	7,431	438,524	45,016	142,873	955,247
Greater than 0.05 percent sulfur		49,070	123,144	8,313	167	190,804	9,682	35,494	393,278
Residual Fuel Oil	4,061	73,419	52,280	2,083	185	132,028	4,151	64,123	263,017
Less than 0.31 percent sulfur	2,370	15	5,232	0	0	7,617	438	1,647	25,052
0.31 to 1.00 percent sulfur	850	8,575	7,937	1,712	185	19,259	906	18,761	63,061
Greater than 1.00 percent sulfur	841	64,829	39,111	371	0	105,152	2,807	43,715	174,904
Naphtha for Petrochemical Feedstock Use	803	36,599	10,800	0	-1	48,201	0	938	60,729
Other Oils for Petrochemical Feedstock Use	1,806	31,557	25,392	0	0	58,755	293	2,923	61,677
Special Naphthas		5,390	1,320	2,077	0	10,274	-7	548	18,334
Lubricants		21,573	W	W	W	44,255	0	8,851	63,961
Naphthenic		2,585	W	W	W	9,481	Ö	2,831	12,312
Paraffinic		18.988	W	W	W	34,774	Õ	6,020	51.649
Waxes		2.504	1.331	144	0	3.979	1.108	-18	6.523
Petroleum Coke		81,919	60.578	941	378	147.222	5,999	56,187	280.077
Marketable	,	57,557	46,688	695	0	105,283	3,437	42,619	192,901
Catalyst		24,362	13,890	246	378	41,939	2,562	13,568	87,176
Asphalt and Road Oil	,	11,442	13,248	11,939	1,482	44,582	15,866	19,725	177,189
Still Gas	,	57,895	42,596	1,779	838	112,247	7,516	53,633	244,432
Miscellaneous Products	,	6,642	6,501	0	0.30	13,617	7,310	2,544	21,644
		0,642	2,348	0	0	2,348	740 6	2,544 -114	2,240
Fuel Use Nonfuel Use		6,642	4,153	0	0	11,269	734	2,658	19,404
Total	229,223	1,525,148	1,172,808	57,873	29,174	3,014,226	201,026	1,076,646	6,309,000
Processing Gain(-) or Loss(+) ^a	8,266	-97,586	-62,188	-658	-236	-168,934	-6,684	-57,773	-329,663

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 18. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, 2001

		PAD District I			PAD D	istrict II	
Commodity	East Coast	Appalachian No. 1	Total	Ind., III., Ky.	Minn., Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
Crude Oil	12,368	420	12,788	9,582	2,072	2,647	14,301
Petroleum Products	56,341	2,035	58,376	35,723	8,867	12,156	56,746
Pentanes Plus		0	0	84	35	224	343
Liquefied Petroleum Gases	2,026	12	2,038	2,344	522	875	3,741
Ethane/Ethylene	0	0	0	0	0	0	0
Propane/Propylene		4	704	1,381	38	462	1,881
Normal Butane/Butylene		5	1.113	791	426	277	1,494
Isobutane/Isobutylene		3	221	172	58	136	366
Other Hydrocarbons/Hydrogen/Oxygenates		1	2.156	313	109	16	438
Other Hydrocarbons/Hydrogen		0	0	53	0	0	53
Oxygenates		W	2.156	260	109	16	385
Fuel Ethanol		W	2,100 W	W	W	W	305
Methanol		W	W	W	W	W	W
MTBE		W	1,779	W	W	W	W
Other Oxygenates ^a		W	W	W	w	W	W
Unfinished Oils		429	8,762	8,692	639	3,891	13.222
Naphthas and Lighter		200	1,685	3,126	196	1,529	4,851
Kerosene and Light Gas Oils		0	2,233	1,209	151	388	1,748
		210	3.306	2.283	231	1.191	3.705
Heavy Gas Oils		19	- ,	,	61	, -	-,
Residuum		16	1,538	2,074		783	2,918
Motor Gasoline Blending Components		0	7,574	6,273	1,189	1,227	8,689
Aviation Gasoline Blending Components			77	18	0	0	18
Finished Motor Gasoline	- ,	150	10,033	4,503	1,254	1,729	7,486
Reformulated	,	0 7	6,756	232	0	0	232
Oxygenated		-	7	0	114	0	114
Other		143	3,270	4,271	1,140	1,729	7,140
Finished Aviation Gasoline		0	75	19	49	22	90
Jet Fuel	,	27	2,310	2,190	121	562	2,873
Naphtha-Type		0	0	0	0	0	0
Kerosene-Type		27	2,310	2,190	121	562	2,873
Kerosene		30	170	378	57	104	539
Distillate Fuel Oil		301	15,156	6,053	1,698	1,819	9,570
0.05 percent sulfur and under	,	278	3,085	4,162	1,242	977	6,381
Greater then 0.05 percent sulfur		23	12,071	1,891	456	842	3,189
Residual Fuel Oil	6,331	30	6,361	1,131	146	99	1,376
Less than 0.31 percent sulfur		22	1,640	0	0	0	0
0.31 to 1.00 percent sulfur	4,000	8	4,008	213	0	0	213
Greater than 1.00 percent sulfur	713	0	713	918	146	99	1,163
Naphtha for Petrochemical Feedstock Use	437	0	437	300	0	0	300
Other Oils for Petrochemical Feedstock Use		0	0	69	0	0	69
Special Naphthas	76	16	92	275	0	40	315
Lubricants	421	336	757	43	0	275	318
Waxes	0	148	148	11	0	48	59
Petroleum Coke (Marketable)		0	344	335	1,348	96	1,779
Asphalt and Road Oil		524	1,868	2,596	1,668	1,127	5,391
Miscellaneous Products	,	15	18	96	32	2	130
Total Stocks, All Oils	68,709	2,455	71,164	45,305	10,939	14,803	71,047

Table 18. Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts, 2001 (Continued)

			PAD Di	strict III			PAD Dist.	PAD Dist.	
Commodity	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	IV Rocky Mt.	V West Coast	U.S. Total
Crude Oil	789	27,753	20,336	783	446	50,107	2,331	23,103	102,630
Petroleum Products	9,791	63,778	51,178	4,212	1,564	130,523	11,732	63,187	320,564
Pentanes Plus	65	100	168	14	4	351	17	0	711
Liquefied Petroleum Gases	2,034	582	5,033	21	58	7,728	415	1,462	15,384
Ethane/Ethylene	61	0	0	0	0	61	0	0	61
Propane/Propylene		71	851	5	3	2.196	130	140	5,051
Normal Butane/Butylene		330	3,560	7	19	4.460	205	988	8.260
Isobutane/Isobutylene		181	622	9	36	1,011	80	334	2,012
Other Hydrocarbons/Hydrogen/Oxygenates		1.526	424	0	19	2.006	103	2,062	6.765
Other Hydrocarbons/Hydrogen		1,520	1	0	0	2,000	0	2,002	60
Oxygenates		1,526	423	W	w	2.005	103	2,056	6,705
Fuel Ethanol		1,320 W	423 W	W	W	2,003 W	W	2,030 W	610
Methanol		W	W	W	W	W	W	W	734
		1.172	W	W	W	1.529	W		
MTBE	vv W	,	W	W		,		1,915	5,280
Other Oxygenates ^a	۷۷	W			W	W	W	W	81
Unfinished Oils		20,900	17,618	1,022	566	42,444	2,403	20,869	87,700
Naphthas and Lighter	,	5,547	4,317	610	209	11,715	578	3,445	22,274
Kerosene and Light Gas Oils		4,122	2,909	275	69	7,669	321	4,003	15,974
Heavy Gas Oils		7,662	7,811	126	288	16,377	1,253	11,091	35,732
Residuum	522	3,569	2,581	11	0	6,683	251	2,330	13,720
Motor Gasoline Blending Components	1,212	6,794	5,422	78	295	13,801	2,185	8,787	41,036
Aviation Gasoline Blending Components	11	0	23	0	0	34	0	1	130
Finished Motor Gasoline	1,348	10,173	5,865	178	195	17,759	2,561	9,723	47,562
Reformulated	30	3,998	559	0	0	4,587	0	5,783	17,358
Oxygenated		0	0	0	1	, 1	51	0	173
Other	1,318	6,175	5,306	178	194	13,171	2,510	3,940	30,031
Finished Aviation Gasoline		258	136	0	0	470	27	345	1.007
Jet Fuel		3.358	2.463	Ö	43	6,271	378	4.872	16,704
Naphtha-Type		0,000	2, .00	0	0	1	0	11	12
Kerosene-Type		3,358	2,463	Ö	43	6,270	378	4,861	16,692
Kerosene		225	178	36	3	471	48	77	1,305
Distillate Fuel Oil		8,899	5,180	482	229	15,886	1,617	5,568	47,797
0.05 percent sulfur and under		6.289	2.573	214	148	10.049	1,354	4.425	25.294
•		-,	,		81	,	,	, -	-, -
Greater then 0.05 percent sulfur		2,610	2,607	268		5,837	263	1,143	22,503
Residual Fuel Oil		3,110	1,687	278	11	5,146	609	3,382	16,874
Less than 0.31 percent sulfur		1	66	0	0	93	9	513	2,255
0.31 to 1.00 percent sulfur		166	141	234	11	552	370	1,260	6,403
Greater than 1.00 percent sulfur		2,943	1,480	44	0	4,501	230	1,609	8,216
Naphtha for Petrochemical Feedstock Use		1,227	273	0	24	1,556	0	100	2,393
Other Oils for Petrochemical Feedstock Use		765	459	0	0	1,326	0	117	1,512
Special Naphthas		1,134	55	147	0	1,428	4	28	1,867
Lubricants		2,681	2,545	772	0	6,014	0	1,363	8,452
Waxes	0	245	127	23	0	395	7	3	612
Petroleum Coke (Marketable)	0	983	2,593	0	0	3,576	34	2,572	8,305
Asphalt and Road Oil		631	761	1,161	117	3,490	1,324	1,554	13,627
Miscellaneous Products		187	168	0	0	371	0	302	821
Total Stocks, All Oils	10,580	91,531	71,514	4,995	2,010	180,630	14,063	86,290	423,194

^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 end of December. • Refer to Appendix A for Refining District descriptions. Source: Energy Information Administration (EIA) Form EIA-810, "Monthly Refinery Report."

Table 19. Percent Refinery Yield of Petroleum Products by PAD and Refining Districts, a 2001

		PAD District I			PAD Di	strict II	
Commodity	East Coast	Appalachian No. 1	Total	Ind., III., Ky.	Minn., Wis., N. Dak., S. Dak.	Okla., Kans., Mo.	Total
iquefied Refinery Gaseş	3.0	1.0	2.9	4.3	1.8	2.5	3.6
Finished Motor Gasoline ^D	46.3	38.2	45.8	52.0	50.0	48.6	51.1
Finished Aviation Gasoline ^c	0.2	0.0	0.2	0.0	0.3	0.3	0.1
Naphtha-Type Jet Fuel	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kerosene-Type Jet Fuel	5.5	1.2	5.3	7.1	6.9	4.9	6.6
Gerosene	0.7	2.2	0.8	0.4	0.2	0.4	0.4
istillate Fuel Oil	29.3	26.3	29.1	23.5	27.7	33.1	26.0
esidual Fuel Oil	6.9	1.5	6.6	2.2	2.4	1.0	2.0
laphtha for Petrochemical Feedstock Use	0.8	0.0	0.8	0.9	0.0	0.0	0.6
Other Oils for Petrochemical Feedstock Use	0.0	0.0	0.0	-0.1	0.0	0.2	0.0
special Naphthas	0.1	0.8	0.1	0.8	0.0	0.3	0.6
ubricants	0.6	6.9	0.9	0.3	0.0	1.2	0.4
Vaxes	0.0	0.6	0.0	0.1	0.0	0.3	0.1
etroleum Coke	3.4	1.0	3.3	4.1	5.8	3.9	4.3
sphalt and Road Oil	5.3	19.0	6.0	5.2	7.8	3.3	5.1
Still Gas	3.9	2.3	3.8	3.9	4.8	4.0	4.0
/liscellaneous Products	0.1	0.7	0.1	0.4	0.7	0.1	0.3
rocessing Gain(-) or Loss(+) ^d	-5.9	-1.8	-5.7	-5.0	-8.4	-3.9	-5.2

			PAD D	istrict III			PAD Dist.		
Commodity	Texas Inland	Texas Gulf Coast	La. Gulf Coast	N. La., Ark.	New Mexico	Total	Rocky Mt.	V West Coast	U.S. Total
Liquefied Refinery Gases	5.1	6.4	5.1	1.3	2.6	5.6	1.3	2.7	4.3
Finished Motor Gasoline ^b	51.1	44.3	43.6	23.3	53.9	44.3	47.4	45.5	46.2
Finished Aviation Gasoline ^C	0.7	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1
Naphtha-Type Jet Fuel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kerosene-Type Jet Fuel		9.8	12.1	0.6	8.7	10.5	5.3	16.0	9.8
Kerosene	0.0	8.0	0.3	2.2	0.1	0.6	0.3	0.1	0.5
Distillate Fuel Oil	24.5	21.9	23.4	26.2	25.8	22.8	29.8	19.2	23.8
Residual Fuel Oil	1.9	5.3	4.8	3.8	0.6	4.8	2.3	6.9	4.6
Naphtha for Petrochemical Feedstock Use	0.4	2.6	1.0	0.0	0.0	1.7	0.0	0.1	1.1
Other Oils for Petrochemical Feedstock Use	0.9	2.3	2.4	0.0	0.0	2.1	0.2	0.3	1.1
Special Naphthas	0.7	0.4	0.1	3.8	0.0	0.4	0.0	0.1	0.3
Lubricants	0.2	1.6	1.4	13.1	0.0	1.6	0.0	1.0	1.1
Waxes	0.0	0.2	0.1	0.3	0.0	0.1	0.6	0.0	0.1
Petroleum Coke	1.6	5.9	5.6	1.7	1.3	5.3	3.3	6.0	4.9
Asphalt and Road Oil	3.1	0.8	1.2	21.7	5.0	1.6	8.6	2.1	3.1
Still Gas	4.3	4.2	3.9	3.2	2.8	4.1	4.1	5.8	4.3
Miscellaneous Products	0.2	0.5	0.6	0.0	0.0	0.5	0.4	0.3	0.4
Processing Gain(-) or Loss(+) ^d	-3.9	-7.0	-5.8	-1.2	-0.8	-6.1	-3.6	-6.2	-5.8

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 16 and 17.

Table 20. Imports of Crude Oil and Petroleum Products by PAD District, 2001 (Thousand Barrels)

Crude Oil ^{a,b} Natural Gas Liquids  Pentanes Plus  Liquefied Petroleum Gases  Ethane  Ethylene  Propane	15,259 0 15,259	568,149 35,035 548	1,954,060	IV Z4 000	V	U.S. Total	Daily Average
Natural Gas Liquids Pentanes Plus Liquefied Petroleum Gases Ethane Ethylene	15,259 0 15,259	35,035	1,954,060	74 000			1
Pentanes Plus Liquefied Petroleum Gases Ethane Ethylene	. 0 15,259 . 0	,		71,026	272,271	3,404,894	9,328
Pentanes Plus Liquefied Petroleum Gases Ethane Ethylene	. 0 15,259 . 0	,	33,303	5,100	2,677	91,374	250
EthaneEthylene	. 0		14,421	1,311	0	16,280	45
Ethylene	-	34,487	18,882	3,789	2,677	75,094	206
_ *	. 0	77	1,440	0	0	1,517	4
Propage		140	0	0	0	140	(s)
		28,682	4,893	2,686	1,452	51,011	140
Propylene		2,048	0	0	0	2,048	6
Normal Butane	,	3,244	8,068	1,057	1,203	15,248	42
Butylene		24	0	0	0	35	(s)
Isobutane		272	4,481	46	22	5,095	14
Isobutylene	. 0	0	0	0	0	0	0
Other Liquids		1,157	105,155	0	42,349	275,838	756
Other Hydrocarbons/Hydrogen/Oxygenates		33	173	0	22,715	28,982	79
Other Hydrocarbons/Hydrogen		0	35	0	0	245	1
Oxygenates		33 33	138 0	0	22,715 282	28,737 315	79 1
Fuel Ethanol		33 0	105	0			77
MTBE Other Oxygenates ^c		0	33	0	22,433 0	27,960 462	1
Unfinished Oils ^a		775	92,616	0	14,162	138,152	378
Naphthas and Lighter		0	6,932	0	0	10,653	29
Kerosene and Light Gas Oils	,	0	0,332	0	2,363	2,425	7
Heavy Gas Oils		775	56,565	Ö	1,553	85,709	235
Residuum		0	29,119	0	10.246	39,365	108
Motor Gasoline Blending Components		349	12,366	Ō	5,472	108,704	298
Aviation Gasoline Blending Components		0	0	0	0	0	0
Finished Petroleum Products	401,042	6,371	101,262	2,636	49,621	560,932	1,537
Finished Motor Gasoline		892	1,609	119	9,625	165,878	454
Reformulated	76,746	0	240	0	2,353	79,339	217
Oxygenated	. 19	0	0	0	432	451	1
Other	76,868	892	1,369	119	6,840	86,088	236
Finished Aviation Gasoline		31	0	154	412	598	2
Jet Fuel	,	0	211	11	27,788	54,065	148
Naphtha-Type		0	0	0	0	0	0
Kerosene-Type		0	211	11	27,788	54,065	148
Bonded Aircraft Fuel	,	0	0	0	18,001	27,951	77
Other		0	211	11	9,787	26,114	72
Kerosene		0	0	0	25	1,773	5
Distillate Fuel Oil		2,057 0	2,988 0	2,069 18	6,154 812	125,586 830	344 2
Bonded Ship Bunkers		0	0	18	812	830	2
Greater than 0.05 percent sulfur	-	0	0	0	0	0	0
Other		2,057	2,988	2,051	5,342	124,756	342
0.05 percent sulfur and under		1,550	111	1,947	4,200	46,435	127
Greater than 0.05 percent sulfur	,	507	2,877	104	1,142	78,321	215
Residual Fuel Oil		1,374	10,541	3	4,250	107,688	295
Bonded Ship Bunkers		0	0	0	0	0	0
Less than 0.31 percent sulfur		0	0	0	0	0	0
0.31 to 1.00 percent sulfur		0	0	0	0	0	0
Greater than 1.00 percent sulfur		0	0	0	0	0	0
Other	91,520	1,374	10,541	3	4,250	107,688	295
Less than 0.31 percent sulfur	,	324	1,722	0	850	14,573	40
0.31 to 1.00 percent sulfur		229	6,441	3	350	37,402	102
Greater than 1.00 percent sulfur		821	2,378	0	3,050	55,713	153
Naphtha for Petrochemical Feedstock Use		486	30,630	0	508	32,989	90
Other Oils for Petrochemical Feedstock Use		3	51,294	0	0	51,749	142
Special Naphthas		575 520	1,262	0	399	4,926	13
Lubricants	,	529	128	0	0	2,841	8
Waxes Petroleum Coke		93 0	79 1 946	0	269 70	918 2.016	3 6
Asphalt and Road Oil		321	1,946 459	259	70	2,016 9,638	26
Miscellaneous Products		10	459 115	259	121	9,636 267	1
Total	4 000 000	610,712	2,193,780	78,762	366,918	4,333,038	11,871

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 21. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin, a 2001 (Thousand Barrels)

Arab OPEC	Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
Irist	Arab OPEC	976,445	15,240		3,195	1,203	6,553				0
Number   N	. •							,			
Calar								-			
Saud Arabia	_					-	,	-	-	-	-
United Arab Emirates   7,802			-	-		-	-	-	-	-	•
Indonesia		,	,		,						-
Nigeria   307,173   3,251   4,003   1,029   0   20   706   5,613   0   831	Other OPEC	793,175	3,489	12,417	8,681	21,257	9,544	17,346	27,030	0	831
Venezuela		, ,							,	-	
Non OPEC	•		,	,	,				,		
Angola		,	238	7,920	7,052	21,257	9,524	16,530	18,341	U	Ü
Argentina				,							
Australia	. •									-	-
Behamas	. •	,					-			-	-
Belgium				-					-	-	-
Brazil				-		-	-	-		•	-
Brune	0				,		-				
Canada		,	0				0	,	,	0	
Canada	_				0	0	0	546	276	0	0
Colombia	Canada	494,796	50,282	1,552	10,662	43,778	813	35,165	11,723	660	1,278
Congo (Brazzaville	China, People's Republic of	4,684	0	0	2,926	420	223	0	0	0	55
Congo (Kinshasa)   Garden	Colombia		0		3,717	206	1,832	638	5,424	-	96
Denmark					-	-	-			-	-
Ecuador						-	-	•		-	
Egypt						-	-	-		-	
France	_					-	-	-	,	-	
Gabon         51,065         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	_071						•	0	-	-	
Germany, FR		-				,	-	,		•	
Greece         0         0         40         528         0         195         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>-</td><td>-</td><td></td><td>-</td><td></td></th<>							-	-		-	
Guatemala							-			-	-
India						T.		-	0	•	-
Ireland					-	-	-	-	-	-	-
Nory Coast					7				99	Ō	Ō
Norry Coast			0		5,604	4,612	177		386	0	181
Korea, Republic of         0         0         0         1,059         2,722         11,381         2,320         0         0         464           Malaysia         5,643         0         3,257         0         0         1,321         2,029         0         25         0           Mexico         508,715         0         340         2,692         125         948         101         0         0         0           Netherlands         0         0         3,107         3,473         4,751         0         906         1,842         0         198           Netherlands Antilles         0         0         0         11,617         1,907         376         5,546         4,185         4,061         0         136           Norway         102,724         3,433         4,752         20         4,941         0         0         2,666         0         0         0           Oman         7,138         0         0         0         0         0         0         0         0         0         0           Peru         2,524         0         781         739         0         0         330         1,755			0	554	0	0	0	0	224	0	0
Malaysia         5,643         0         3,257         0         0         1,321         2,029         0         25         0           Mexico         508,715         0         340         2,692         125         948         101         0         0         0         0           Netherlands         0         0         3,107         3,473         4,751         0         906         1,842         0         198           Netherlands Antilles         0         0         11,617         1,907         376         5,546         4,185         4,061         0         136           Norway         102,724         3,433         4,752         20         4,941         0         4,061         0         136           Oman         7,138         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 </td <td>Japan</td> <td>. 0</td> <td>0</td> <td>0</td> <td>43</td> <td>292</td> <td>2,519</td> <td>811</td> <td>439</td> <td>0</td> <td>0</td>	Japan	. 0	0	0	43	292	2,519	811	439	0	0
Mexico         508,715         0         340         2,692         125         948         101         0         0         0         Netherlands         0         0         3,107         3,473         4,751         0         906         1,842         0         198           Netherlands Antilles         0         0         11,617         1,907         376         5,546         4,185         4,061         0         136           Norway         102,724         3,433         4,752         20         4,941         0         0         2,666         0         0           Oman         7,138         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	Korea, Republic of	. 0	0	0	1,059	2,722	11,381	2,320	0	-	464
Netherlands         0         0         3,107         3,473         4,751         0         906         1,842         0         198           Netherlands Antilles         0         0         11,617         1,907         376         5,546         4,185         4,061         0         136           Norway         102,724         3,433         4,752         20         4,941         0         0         2,666         0         0           Oman         7,138         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	Malaysia		0	3,257	0	0	1,321	2,029	0	25	
Netherlands Antilles         0         0         11,617         1,907         376         5,546         4,185         4,061         0         136           Norway         102,724         3,433         4,752         20         4,941         0         0         2,666         0         0           Oman         7,138         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0			-		,				-	-	-
Norway         102,724         3,433         4,752         20         4,941         0         0         2,666         0         0           Oman         7,138         0         0         0         0         0         0         0         0         0           Peru         2,524         0         781         739         0         0         330         1,705         0         0           Portugal         0         0         327         1,630         1,734         0         0         0         0         0           Portugal         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0										-	
Oman         7,138         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0<							,	,		-	
Panama         0         0         0         52         0         0         198         634         0         0           Peru         2,524         0         781         739         0         0         330         1,705         0         0           Portugal         0         0         327         1,630         1,734         0         0         0         0         0           Puerto Rico         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0			,	,				-	,	0	
Peru         2,524         0         781         739         0         0         330         1,705         0         0           Portugal         0         0         327         1,630         1,734         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0			-	-	-	-	O	-	-	0	-
Portugal         0         0         327         1,630         1,734         0         0         0         0         0           Puerto Rico         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	_					-	-			•	-
Puerto Rico         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 <th< td=""><td></td><td></td><td></td><td></td><td></td><td>-</td><td>-</td><td></td><td></td><td>0</td><td>-</td></th<>						-	-			0	-
Romania         0         0         0         276         0         0         486         0         0         0           Russia         0         0         12,027         7,793         968         0         10,345         1,051         0         61           Singapore         0         0         2,989         1,696         1,358         1,270         180         0         0         0         0           Spain         0         74         1,269         6,206         2,574         0         253         266         0         37           Sweden         0         0         475         4,891         238         0         0         1,059         1,697         0         0           Syria         0         0         910         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0							ŭ			0	0
Russia         0         0         12,027         7,793         968         0         10,345         1,051         0         61           Singapore         0         0         2,989         1,696         1,358         1,270         180         0         0         0         0           Spain         0         74         1,269         6,206         2,574         0         253         266         0         37           Sweden         0         475         4,891         238         0         0         1,059         1,697         0         0           Syria         0         0         910         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 </td <td>_</td> <td></td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>U</td> <td>0</td> <td>-</td> <td>0</td> <td>0</td>	_		-	-	-	-	U	0	-	0	0
Singapore         0         0         2,989         1,696         1,358         1,270         180         0         0         0           Spain         0         74         1,269         6,206         2,574         0         253         266         0         37           Sweden         0         475         4,891         238         0         0         1,059         1,697         0         0           Syria         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0											
Spain         0         74         1,269         6,206         2,574         0         253         266         0         37           Sweden         0         475         4,891         238         0         0         1,059         1,697         0         0         0         0           Syria         0         0         910         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>											
Sweden         0         475         4,891         238         0         0         1,059         1,697         0         0           Syria         0         0         910         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0										-	
Syria         0         0         910         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         21         Trinidad and Tobago         18,562         0         1,452         1,750         481         430         321         2,884         0         0         0         0         1         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>											
Thailand         1,751         0         0         21         0         892         0         0         0         21           Trinidad and Tobago         18,562         0         1,452         1,750         481         430         321         2,884         0         0           Tunisia         0         0         163         0         0         0         914         603         0         0           Turkey         0         0         0         1,373         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         11         0         0         0         0         0         0         0         0						0	0			0	0
Tunisia         0         0         163         0         0         914         603         0         0           Turkey         0         0         1,373         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         29         0         0         0         1,20         3,964         0         29         0         0         0         1,20         3,964         0         29         0         0         0         0         1,20         3,964         0         29         0         0         0         0         0         1,120         3,964         0         29         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	Thailand	1,751	0		21	0	892	0	0	0	21
Turkey         0         0         1,373         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         29           Virgin Islands, U.S.         0         0         0         4,839         213         38,882         8,191         31,540         13,502         111         306           Yemen         8,702         0         0         0         0         485         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         131         0         0         0         131         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0	Trinidad and Tobago	18,562			1,750	481			,		
United Kingdom       89,142       1,929       5,643       10,473       5,826       0       1,120       3,964       0       29         Virgin Islands, U.S.       0       0       4,839       213       38,882       8,191       31,540       13,502       111       306         Yemen       8,702       0       0       0       0       485       0       0       0       0         Other       15,874       0       2,732       9,640       3,490       569       2,864       2,607       0       131         Total       3,404,894       75,094       138,152       108,704       165,878       54,065       125,586       107,688       1,773       4,926					-	-	-			-	
Virgin Islands, U.S.       0       0       4,839       213       38,882       8,191       31,540       13,502       111       306         Yemen       8,702       0       0       0       0       485       0       0       0       0       0         Other       15,874       0       2,732       9,640       3,490       569       2,864       2,607       0       131         Total       3,404,894       75,094       138,152       108,704       165,878       54,065       125,586       107,688       1,773       4,926											
Yemen       8,702       0       0       0       0       485       0       0       0       0         Other       15,874       0       2,732       9,640       3,490       569       2,864       2,607       0       131         Total       3,404,894       75,094       138,152       108,704       165,878       54,065       125,586       107,688       1,773       4,926								,	,		
Other       15,874       0       2,732       9,640       3,490       569       2,864       2,607       0       131         Total       3,404,894       75,094       138,152       108,704       165,878       54,065       125,586       107,688       1,773       4,926											
Total								-	-		
Persian Gulf ^e		, ,	75,094	138,152	108,704	165,878	54,065	125,586	107,688	1,773	4,926

Table 21. Imports of Crude Oil and Petroleum Products into the United States by Country of Origin,^a 2001 (Continued)

	Manifelia	045-07-1							Daily Average	9
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	Crude Oil	Products	Total
Arab OPEC		40,519	0	0	25,782	132,631	1,109,076	2,675	363	3,039
Algeria		37,715	0	0	12,353	97,474	101,440	11	267	278
Iraq		0	0	0	0	0	289,998	795	0	795
Kuwait		0	0	0	1,008	4,738	91,273	237	13	250
Qatar		1,828	0	0	2,832	4,825	4,894	(s)	13	13
Saudi Arabia		227	0	0	7,504	18,678	606,753	1,611	51	1,662
United Arab Emirates	713	749	0	0	2,085	6,916	14,718	21	19	40
Other OPEC	3.022	1,041	0	6,326	4,643	115,627	908,802	2,173	317	2,490
Indonesia		314	0	0	10	4,004	18,763	40	11	51
Nigeria		0	0	0	145	15,870	323,043	842	43	885
Venezuela		727	0	6,326	4,488	95,753	566,996	1,291	262	1,553
Non OPEC	25 166	10,189	2,841	3,312	18,636	679,886	2,315,160	4,480	1,863	6,343
Angola		0	<b>2,04</b> 1	3,312 0	0	2,456	119,710	321	7	328
Argentina		0	0	0	771	15,300	36,313	58	42	99
Australia		1,946	Ō	Ō	0	3,183	15,750	34	9	43
Bahamas		0	Ö	Ö	Ö	3,696	3,696	0	10	10
Belgium		Ö	Ö	Ö	25	23,141	23,141	0	63	63
Brazil		0	0	0	1,343	25,333	30,000	13	69	82
Brunei		Ö	Ö	Ö	0	0	8,174	22	0	22
Cameroon		0	0	0	0	1,164	2,419	3	3	7
Canada		926	1,660	2,896	9,904	172,578	667,374	1,356	473	1,828
China, People's Republic of		0	0	0	427	4,051	8,735	13	11	24
Colombia		0	0	0	0	13,052	107,896	260	36	296
Congo (Brazzaville)		0	0	0	0	3,000	17,430	40	8	48
Congo (Kinshasa) ^d		0	0	0	0	0	345	1	0	1
Denmark		0	Ö	Ō	0	1,662	1,662	0	5	5
Ecuador		0	0	0	0	2,273	43,676	113	6	120
Egypt		0	0	0	0	2,552	2,552	0	7	7
France		399	0	0	80	16,401	16,401	0	45	45
Gabon		0	Ö	Ō	0	0	51,065	140	0	140
Germany, FR		0	0	0	42	13,755	13,755	0	38	38
Greece		0	0	0	0	1,278	1,278	0	4	4
Guatemala	0	0	0	0	0	0	6,485	18	0	18
India		0	0	0	248	5,052	5,052	0	14	14
Ireland		0	0	0	0	1,012	1,012	0	3	3
Italy		273	0	0	10	14,462	14,462	0	40	40
Ivory Coast		0	0	0	0	778	2,295	4	2	6
Japan		0	0	0	56	4,160	4,160	0	11	11
Korea, Republic of		0	107	0	555	19,036	19,036	0	52	52
Malaysia		0	0	0	1,158	7,790	13,433	15	21	37
Mexico		0	0	202	1,746	16,842	525,557	1,394	46	1.440
Netherlands		0	0	0	1,071	15,729	15,729	0	43	43
Netherlands Antilles		Ö	Ö	98	19	29,484	29,484	Ö	81	81
Norway	,	4,150	Ö	0	0	21,818	124,542	281	60	341
Oman	*	0	Ö	Ö	Ö	0	7,138	20	0	20
Panama		Ö	Ö	Ö	Ö	884	884	0	2	2
Peru	-	Ö	Ö	Ö	Ö	4,151	6,675	7	11	18
Portugal		Ö	Ö	Ö	132	3,823	3,823	0	10	10
Puerto Rico		0	1,053	Ō	0	1,427	1,427	Ō	4	4
Romania		0	0	Ō	Ō	762	762	Ō	2	2
Russia		Ö	Ö	Ö	164	32,783	32,783	0	90	90
Singapore		0	Ō	Ō	123	7,696	7,696	Ō	21	21
Spain		96	Ō	116	0	11,159	11,159	Ō	31	31
Sweden		0	Ō	0	Ō	8,360	8,360	Ö	23	23
Syria		0	0	0	0	1,223	1,223	0	3	3
Thailand		0	Ō	Ō	47	981	2,732	5	3	7
Trinidad and Tobago		0	0	0	0	7,720	26,282	51	21	72
Tunisia		0	0	0	0	1,680	1,680	0	5	5
Turkey		0	0	0	65	1,638	1,638	0	4	4
United Kingdom		0	21	0	40	29,190	118,332	244	80	324
Virgin Islands, U.S		0	0	0	88	97,672	97,672	0	268	268
Yemen		0	0	0	0	485	9,187	24	1	25
Other		2,399	0	0	522	27,214	43,088	43	75	118
Total	32,989	51,749	2,841	9,638	49,061	928,144	4,333,038	9,328	2,543	11,871

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 Formerly Zaire.

Formerly Zaire.
 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 22. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,^a 2001 (Thousand Barrels)

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
Arab OPEC	77,240	4,509	18,965	2,057	875	3,409	1,913	404	977	0
Algeria	, 0	4,356	18,965	342	21	198	632	404	434	0
Iraq	4,935	0	0	0	0	0	0	0	0	0
Kuwait	300	0	0	0	0	1,436	0	0	0	0
Qatar	0	0	0	165	0	0	0	0	0	0
Saudi Arabia	69,545	153	0	1,547	385	1,199	684	Ö	Ö	Ö
United Arab Emirates	2,460	0	0	3	469	576	597	0	543	0
Other OPEC	162,828	248	583	8,090	21,017	6,235	17,346	25,418	0	831
Indonesia	0	0	0	0	0	0	110	2,423	0	0
Nigeria	110,739	248	146	1,029	0	20	706	5,328	0	831
Venezuela	52,089	0	437	7,061	21,017	6,215	16,530	17,667	0	0
Non OPEC	299,320	10,502	11,051	80,370	131,741	16,411	93,059	65,698	771	1,859
Angola	62,242	0	0	0	0	0	752	751	0	0
Argentina	5,790	0	142	5,750	4,210	0	400	896	0	0
Bahamas	0	0	0	718	0	0	0	2,978	0	0
Belgium	0	0	844	3,948	6,219	0	0	870	0	286
Brazil	0	0	295	3,552	8,286	0	1,472	8,361	0	128
Cameroon	1,255	0	0	0	0	0	546	276	0	0
Canada	43,720	7,529	476	9,034	41,711	778	30,350	9,483	660	520
China, People's Republic of	0	0	0	2,143	420	0	0	0	0	0
Colombia	9,902	0	426	211	0	992	638	4,981	0	96
Congo (Brazzaville)	12,484	137	377	0	0	0	1,256	1,230	0	0
Congo (Kinshasa) ^d	345	0	0	0	0	0	0	0	0	0
Denmark	0	0	0	10	0	0	0	1,263	0	0
Ecuador	10,593	0	0	176	0	0	0	405	0	0
Egypt	0	0	0	367	446	0	0	0	0	0
France	0	0	1,697	4,502	3,919	0	1,031	267	0	329
Gabon	47,748	0	0	0	0	0	0	0	0	0
Germany, FR	0	0	678	1,585	935	0	981	1,263	0	0
Greece	0	0	0	528	0	195	0	0	0	0
India	0	0	0	1,669	431	0	1,554	0	0	0
Ireland	0	0	0	7	0	0	329	0	0	0
Italy	0	0	722	5,143	4,598	177	904	386	0	0
Ivory Coast	1,014	0	0	0	0	0	0	224	0	0
Japan	0	0	0	0	0	0	0	0	0	0
Korea, Republic of	0	0	0	0	0	0	264	0	0	0
Malaysia	0	0	0	0	0	0	541	0	0	0
Mexico	13,842	0	0	1,102	125	75	0	0	0	0
Netherlands	0	0	0	3,434	3,549	0	906	1,321	0	85
Netherlands Antilles	0	0	60	407	0	5,512	3,883	3,743	0	136
Norway	58,362	1,244	0	20	4,941	0	0	2,666	0	0
Panama	0	0	0	0	0	0	0	344	0	0
Peru	0	0	0	220	0	0	330	517	0	0
Portugal	0	0	0	1,387	1,696	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0
Romania	0	0	0	276	0	0	486	0	0	0
Russia	0	0	816	6,945	869	0	10,345	174	0	61
Singapore	0	0	0	547	329	55	16	0	0	0
Spain	0	0	89	5,958	2,570	0	253	266	0	37
Sweden	0	342	885	238	0	0	1,059	1,341	0	0
Thailand	0	0	0	0	0	0	0	0	0	21
Trinidad and Tobago	0	0	249	1,521	481	430	0	2,830	0	0
Tunisia	0	0	0	0	0	0	914	603	0	0
United Kingdom	32,023	1,250	559	10,471	5,492	0	703	2,752	0	29
Virgin Islands, U.S	0	0	1,919	37	38,135	8,191	30,810	13,412	111	0
Other	0	0	817	8,464	2,379	6	2,336	2,095	0	131
Total	539,388	15,259	30,599	90,517	153,633	26,055	112,318	91,520	1,748	2,690

Table 22. PAD District I—Imports of Crude Oil and Petroleum Products by Country of Origin,^a 2001 (Continued)

	Nambal - C	Other City (					Tarri		Daily Average	е
Country of Origin	Naphtha for Petrochemical Feedstock	Other Oils for Petrochemical Feedstock		Asphalt and	Other	Total	Total Crude Oil and	Crude		
	Use	Use	Lubricants	Road Oil	Products ^c	Products	Products	Oil	Products	Total
Arab OPEC		252	0	0	1,043	34,404	111,644	212	94	306
Algeria		0	0	0	0	25,352	25,352	0	69	69
Iraq	0	0	0	0	0	0	4,935	14	0	14
Kuwait	0	0	0	0	0	1,436	1,736	1	4	5
Qatar	0	0	0	0	188	353	353	0	1	1
Saudi Arabia		227	0	0	600	4,795	74,340	191	13	204
United Arab Emirates		25	0	0	255	2,468	4,928	7	7	14
Other OPEC	133	0	0	6,031	2,164	88,096	250,924	446	241	687
Indonesia		0	0	0	0	2,533	2,533	0	7	7
Nigeria	-	Ö	Ö	Õ	Ö	8,309	119,048	303	23	326
Venezuela		0	0	6,031	2,164	77,254	129,343	143	212	354
Non OPEC	1 222	200	2 104	2 560	2 222	420.079	720 200	920	1 152	1.072
Non OPEC		200	2,184	2,568	3,332	420,978	720,298	820	1,153	1,973
Angola		0	0	0	0	1,503	63,745	171	4	175
Argentina		0	0	0	0	11,398	17,188	16	31	47
Bahamas		0	0	0	0	3,696	3,696	0	10	10
Belgium		0	0	0	25	12,356	12,356	0	34	34
Brazil	23	0	0	0	1,192	23,309	23,309	0	64	64
Cameroon	0	0	0	0	0	822	2,077	3	2	6
Canada	199	0	1,131	2,152	330	104,353	148,073	120	286	406
China, People's Republic of		0	0	0	67	2,630	2,630	0	7	7
Colombia		0	0	0	0	7,344	17,246	27	20	47
		0	Ő	0	0	3,000	15,484	34	8	42
Congo (Brazzaville) Congo (Kinshasa) ^d	0	0	0	0	0	0,000	345	1	0	1
		-	-	-	-			•	-	
Denmark		0	0	0	0	1,273	1,273	0	3	3
Ecuador		0	0	0	0	581	11,174	29	2	31
Egypt		0	0	0	0	813	813	0	2	2
France	0	0	0	0	80	11,825	11,825	0	32	32
Gabon	0	0	0	0	0	0	47,748	131	0	131
Germany, FR	0	0	0	0	42	5,484	5,484	0	15	15
Greece		0	0	0	0	723	723	0	2	2
India		0	0	0	248	3,902	3,902	0	11	11
Ireland	53	0	0	0	0	389	389	0	1	1
Italy		0	0	0	Ö	11,930	11,930	0	33	33
		0	0	0	0	224		3		
Ivory Coast		-	-		-		1,238	-	1	3
Japan	0	0	0	0	9	9	9	0	(s)	(s)
Korea, Republic of		0	0	0	0	264	264	0	1	1
Malaysia		0	0	0	0	541	541	0	1	1
Mexico	0	0	0	202	0	1,504	15,346	38	4	42
Netherlands	0	0	0	0	759	10,054	10,054	0	28	28
Netherlands Antilles		Ō	Ō	98	0	13,839	13,839	Ö	38	38
Norway		0	Ö	0	0	8,976	67,338	160	25	184
Panama		0	0	0	0	344	344	0	1	104
		0	0	0	0			0	3	3
Peru		-	-			1,067	1,067	-		
Portugal		0	0	0	132	3,215	3,215	0	9	9
Puerto Rico		0	1,053	0	0	1,357	1,357	0	4	4
Romania	0	0	0	0	0	762	762	0	2	2
Russia	144	0	0	0	164	19,518	19,518	0	53	53
Singapore	0	0	0	0	0	947	947	0	3	3
Spain	0	0	0	116	0	9,289	9,289	0	25	25
Sweden		Ō	Ō	0	Ō	3,865	3,865	Ö	11	11
Thailand		0	0	0	Ö	21	21	0	(s)	(s)
Trinidad and Tobago		0	0	0	0	5,511	5,511	0	15	15
	0	0	0	0				0		
Tunisia		-	-	-	0	1,517	1,517	-	4	4
United Kingdom		0	0	0	39	21,440	53,463	88	59	146
Virgin Islands, U.S		0	0	0	88	92,703	92,703	0	254	254
Other	95	200	0	0	157	16,680	16,680	0	46	46
Total	1,365	452	2,184	8,599	6,539	543,478	1,082,866	1,478	1,489	2,967
Persian Gulf ^e	0	252	0	0	1,043	9,223	86,463	212	25	237

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.

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

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

waxes.

d Formerly Zaire.
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.

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

Table 23. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin, a 2001
(Thousand Barrels)

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
Arab OPEC		0	74	0	0	0	0	0	0	0
Algeria	314	0	0	0	0	0	0	0	0	0
Iraq		0	0	0	0	0	0	0	0	0
Kuwait	6,223	0	0	0	0	0	0	0	0	0
Saudi Arabia	70,476	0	74	0	0	0	0	0	0	0
Other OPEC	59,044	0	0	0	0	0	0	0	0	0
Nigeria	40,237	0	0	0	0	0	0	0	0	0
Venezuela		0	0	0	0	0	0	0	0	0
Non OPEC	401,202	34,487	701	349	892	0	2,057	1,374	0	575
Angola	9,046	0	0	0	0	0	0	0	0	0
Brazil		0	0	0	0	0	0	0	0	0
Canada	351,175	34,487	260	349	892	0	2,057	1,374	0	575
Colombia	12.042	0	0	0	0	0	0	0	0	0
Ecuador	2.539	0	0	0	0	0	0	0	0	0
Italy	0	0	314	0	0	0	0	0	0	0
Mexico	6,388	0	0	0	0	0	0	0	0	0
Norway	5,317	0	0	0	0	0	0	0	0	0
Russia	0	0	127	0	0	0	0	0	0	0
United Kingdom	13,487	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Total	568,149	34,487	775	349	892	0	2,057	1,374	0	575
Persian Gulf ^e	107,589	0	74	0	0	0	0	0	0	0

Table 23. PAD District II—Imports of Crude Oil and Petroleum Products by Country of Origin,^a 2001 (Continued) (Thousand Barrels)

									Daily Average	е
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	Crude Oil	Products	Total
Arab OPEC	0	0	0	0	0	74	107,977	296	(s)	296
Algeria	0	0	0	0	0	0	314	1	0	1
Iraq	Ō	0	Ö	Ö	Ö	Ō	30.890	85	Ö	85
Kuwait	0	0	0	0	0	0	6.223	17	0	17
Saudi Arabia	0	0	0	0	0	74	70,550	193	(s)	193
Other OPEC	0	0	0	0	0	0	59,044	162	0	162
Nigeria	0	0	0	0	0	0	40,237	110	0	110
Venezuela	0	0	0	0	0	0	18,807	52	0	52
lon OPEC	486	3	529	321	715	42,489	443,691	1,099	116	1,216
Angola	0	0	0	0	0	0	9,046	25	0	25
Brazil	0	0	0	0	0	0	1,208	3	0	3
Canada	486	3	529	321	702	42,035	393,210	962	115	1,077
Colombia	0	0	0	0	0	0	12,042	33	0	33
Ecuador	0	0	0	0	0	0	2,539	7	0	7
Italy	0	0	0	0	0	314	314	0	1	1
Mexico	0	0	0	0	0	0	6,388	18	0	18
Norway	0	0	0	0	0	0	5,317	15	0	15
Russia	0	0	0	0	0	127	127	0	(s)	(s)
United Kingdom	0	0	0	0	0	0	13,487	37	0	37
Other	0	0	0	0	13	13	13	0	(s)	(s)
otal	486	3	529	321	715	42,563	610,712	1,557	117	1,673
Persian Gulf ^e	0	0	0	0	0	74	107,663	295	(s)	295

(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."

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 Formerly Zaire.

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

Table 24. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin, a 2001

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
Arab OPEC	685,744	10,731	8,304	225	0	0	368	996	0	0
Algeria	3,652	6,837	8,304	225	0	0	368	0	0	0
Iraq	198,850	0	0	0	0	0	0	0	0	0
Kuwait	78,284	464	0	0	0	0	0	0	0	0
Qatar	69	0	0	0	0	0	0	0	0	0
Saudi Arabia	404,889	3,430	0	0	0	0	0	996	0	0
United Arab Emirates	0	0	0	0	0	0	0	0	0	0
Other OPEC	549,768	3,241	10,732	591	240	211	0	959	0	0
Indonesia		0	104	0	0	0	0	0	0	0
Nigeria	155,735	3,003	3,857	0	0	0	0	285	0	0
Venezuela	393,960	238	6,771	591	240	211	0	674	0	0
Non OPEC		4,910	73,580	11,550	1,369	0	2,620	8,586	0	1,262
Angola		0	651	0	0	0	0	302	0	0
Argentina		0	896	0	13	0	330	152	0	0
Australia		0	0	0	0	0	0	0	0	0
Belgium		0	9,730	292	277	0	95	177	0	0
Brazil		0	325	162	0	0	360	744	0	200
Brunei		0	0	0	0	0	0	0	0	0
Cameroon		0	342	0	0	0	0	0	0	0
Canada		1,800	459	0	0	0	0	0	0	178
China, People's Republic of	0	0	0	783	0	0	0	0	0	55
Colombia		0	553	3,506	0	0	0	443	0	0
Congo (Brazzaville)		0	0	0	0	0	0	0	0	0
Denmark	0	0	389	0	0	0	0	0	0	0
Ecuador	,	0	0	0	0	0	0	186	0	0
Egypt		0	689	0	235	0	0	0	0	0
France	0	35	3,323	148	391	0	0	0	0	0
Gabon	,	0	0	0	0	0	0	0	0	0
Germany, FR		0	5,021	100	0	0	0	2,314	0	0
Greece		0	40	0	0	0	0	0	0	0
Guatemala	,	0 0	0 497	0 0	0	0	0	0	0	0
India	0	0		0	0	0	0	99	0	0
Ireland	-	0	524 1,279	288	0	0	0	0	0	181
Italy		0	1,279 554	0	0	0	0	0	0	0
Ivory Coast		0	0	0	0	0	0	0	0	0
Japan	-	0	0	170	0	0	0	0	0	229
Korea, Republic of		0	121	0	0	0	0	0	0	0
Malaysia		0	340	1,590	0	0	101	0	0	0
Mexico Netherlands	,	0	3,107	39	451	0	0	521	0	113
Netherlands Antilles		0	11,557	1,500	0	0	302	318	0	0
Norway		2,189	4,752	0	0	0	0	0	0	0
Panama		2,109	4,752	52	0	0	0	0	0	0
Peru		0	451	519	0	0	0	229	0	0
Portugal	0	0	327	0	0	0	0	0	0	0
Puerto Rico	-	0	0	0	0	0	0	0	0	0
Russia	0	0	10.712	848	0	0	0	877	0	0
Spain	ŭ	74	1,180	248	0	0	0	0	0	0
Sweden		133	4,006	0	0	0	0	356	0	0
Syria		0	910	0	0	0	0	0	0	0
Thailand		0	0	0	0	Ö	0	0	0	Ő
Trinidad and Tobago		Ö	880	229	Ö	Ö	321	54	Ö	Õ
Tunisia		Ö	163	0	Ö	Ö	0	0	Ő	Ő
Turkey		0	1,373	Ö	Ö	Ö	Ö	Ö	Ö	Ö
United Kingdom		679	5,084	2	Ö	Ö	417	1,212	Ö	Ö
Virgin Islands, U.S.		0	2,187	176	Ö	Ö	694	90	Ö	306
Other	6,780	0	1,158	898	2	0	0	512	0	0
Total	1,954,060	18,882	92,616	12,366	1,609	211	2,988	10,541	0	1,262
Persian Gulf ^e	682.092	3,894	0	0	0	0	0	996	0	0

Table 24. PAD District III—Imports of Crude Oil and Petroleum Products by Country of Origin,^a 2001 (Continued)

									Daily Average	Э
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	Crude Oil	Products	Total
Arab OPEC	4,801	40,267	0	0	13,361	79,053	764,797	1,879	217	2,095
Algeria		37,715	0	0	12,353	68,785	72,437	10	188	198
Iraq		0	0	0	0	0	198,850	545	0	545
Kuwait		0	0	0	1,008	1,472	79,756	214	4	219
Qatar		1,828	0	0	0	1,828	1,897	(s)	5	5
Saudi Arabia		0	0	0	0	5,531	410,420	1,109	15	1,124
United Arab Emirates	713	724	0	0	0	1,437	1,437	0	4	4
Other OPEC		1,041	0	295	396	20,595	570,363	1,506	56	1,563
Indonesia		314	0	0	10	428	501	(s)	1	1
Nigeria		0	0	0	145	7,561	163,296	427	21	447
Venezuela	2,618	727	0	295	241	12,606	406,566	1,079	35	1,114
Non OPEC		9,986	128	164	2,977	140,072	858,620	1,969	384	2,352
Angola		0	0	0	0	953	43,522	117	3	119
Argentina		0	0	0	771	3,777	7,038	9	10	19
Australia		1,946	0	0	0	1,946	1,946	0	5	5
Belgium		0	0	0	0	10,767	10,767	0	29	29
Brazil		0	0	0	89	1,962	5,421	9	5	15
Brunei		0	0	0	0	0	1,016	3	0	3
Cameroon		0	0	0	0	342	342	0	1	1
Canada		923	0	164	0	4,118	5,069	3	11	14
China, People's Republic of		0	0	0	139	977	977	0	3	3
Colombia		0	0	0	0	4,662	75,574	194	13	207
Congo (Brazzaville)		0	0	0	0	0	1,547	4	0	4
Denmark		0	0	0	0	389	389	0	1	1
Ecuador		0	0	0	0	487	4,506	11	1	12
Egypt	594	0	0	0	0	1,518	1,518	0	4	4
France		399	0	0	0	4,576	4,576	0	13	13
Gabon		0	0	0	0	0	3,317	9	0	9
Germany, FR		0	0	0	0	7,435	7,435	0	20	20
Greece		0	0	0	0	555	555	0	2	2
Guatemala	0	0	0	0	0 0	0 407	6,485	18 0	0 1	18
India	-	0	0	0	0	497	497 623	0	2	1 2
Ireland		273	0	0	10	623	2,031	0	6	6
Italy		0	0	0	0	2,031 554	1,057	1	2	3
Ivory Coast	-	0	0	0	40	40	40	0		
Japan		0	107	0	0	506	506	0	(s) 1	(s)
Korea, Republic of Malaysia	-	0	0	0	0	121	2,451	6	(s)	7
		0	0	0	1,746	14,465	484,662	1,288	40	1,328
Mexico Netherlands		0	0	0	67	4,679	4,679	0	13	1,320
Netherlands Antilles		0	0	0	19	15,235	15,235	0	42	42
Norway		4,150	0	0	0	12,842	51,850	107	35	142
Panama	,	4,130	0	0	0	52	52	0	(s)	(s)
Peru	596	0	0	0	0	1,795	1,795	0	5	(s) 5
Portugal		0	0	0	0	327	327	0	1	1
Puerto Rico		0	0	0	0	70	70	0	(s)	(s)
Russia	230	0	0	0	0	12,667	12.667	0	35	35
Spain		96	0	0	0	1,866	1,866	0	5	5
Sweden		0	0	0	ő	4,495	4,495	0	12	12
Syria		Ö	0	0	Ö	1,223	1,223	0	3	3
Thailand		Ö	Ö	Ö	6	6	6	0	(s)	(s)
Trinidad and Tobago		Ö	Ö	Ő	Ő	1,886	20,448	51	5	56
Tunisia		0	0	Ō	Ō	163	163	0	(s)	(s)
Turkey		Ö	Ö	Õ	65	1,638	1,638	0	4	4
United Kingdom		0	21	Ō	1	7,416	51,048	120	20	140
Virgin Islands, U.S		0	0	0	0	3,453	3,453	0	9	9
Other		2,199	0	0	24	6,958	13,738	19	19	38
Total	30,630	51,294	128	459	16,734	239,720	2,193,780	5,354	657	6,010
Persian Gulf ^e	1,818	2,552	0	0	1,008	10,268	692,360	1,869	28	1,897

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 Formerly Zaire.

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.

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

Table 25. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,^a 2001 (Thousand Barrels)

Country of Origin	Crude Oil ^b	Liquefied Petroleum Gases	Unfinished Oils	Gasoline Blending Compo- nents	Finished Motor Gasoline	Jet Fuel	Distillate Fuel Oil	Residual Fuel Oil	Kerosene	Special Naphthas
					PAD Dis	strict IV				
Non OPEC	71,026	3,789	0	0	119	11	2,069	3	0	0
Canada	71,026	3,789	0	0	119	11	2,069	3	0	0
Total	71,026	3,789	0	0	119	11	2,069	3	0	0
					PAD D	istrict V				
Arab OPEC	105,558	0	3,337	913	328	3,144	0	0	0	0
Algeria	0	0	3,337	0	0	0	0	0	0	0
Iraq	55,323	Ö	0	Ö	ő	Ö	Ő	Ö	ő	0
Kuwait	1,728	Ö	Ö	Ö	ő	1,830	Ő	Ö	Ö	0
Qatar	0	Ö	Ö	Ö	Ö	0	Ö	Ö	Ö	0
Saudi Arabia	43,165	0	0	913	6	455	0	0	0	0
United Arab Emirates	5,342	0	0	0	322	859	0	0	0	0
Other OPEC	21,535	0	1,102	0	0	3,098	0	653	0	0
Indonesia	14,686	0	390	0	0	0	0	653	0	0
Nigeria	462	0	0	0	0	0	0	0	0	0
Venezuela	6,387	0	712	0	0	3,098	0	0	0	0
lon OPEC	145,178	2,677	9,723	4,559	9,297	21,546	6,154	3,597	25	399
Angola	3,397	0	0	0	0	0	0	0	0	0
Argentina	11,962	0	0	125	0	0	0	0	0	0
Australia	12,567	0	0	249	281	523	184	0	0	0
Belgium	0	0	0	0	18	0	0	0	0	0
Brazil	0	0	0	0	0	0	0	0	0	0
Brunei	7,158	0	0	0	0	0	0	0	0	0
Canada	27,924	2,677	357	1,279	1,056	24	689	863	0	5
China, People's Republic of	4,684	0	0	0	0	223	0	0	0	0
Colombia	1,988	0	0	0	206	840	0	0	0	0
Congo (Brazzaville)	399	0	0	0	0	0	0	0	0	0
Ecuador	24,252	0	0	0	0	0	0	1,046	0	159
Egypt	0	0	0 726	110	221 0	0 0	0	0 0	0	0
Germany, FRIndia	0	0	726	110 0	0	653	0	0	0	0
	0	0	0	173	14	0	0	0	0	0
Italy Japan	0	0	0	43	292	2,519	811	439	0	0
Korea, Republic of	0	0	0	889	2,722	11,381	2,056	0	0	235
Malaysia	3,313	0	3,136	0	0	1,321	1,488	0	25	0
Mexico	18.288	0	0,100	Ô	Ő	873	0	Ô	0	0
Netherlands	0	0	Ö	Ö	751	0	0	Ö	Ö	0
Netherlands Antilles	0	0	0	0	376	34	0	0	0	0
Norway	37	0	Ö	Ō	0	0	0	Ō	0	0
Oman	7,138	0	0	0	0	0	0	0	0	0
Panama	0	0	0	0	0	0	198	290	0	0
Peru	2,524	0	330	0	0	0	0	959	0	0
Portugal	0	0	0	243	38	0	0	0	0	0
Russia	0	0	372	0	99	0	0	0	0	0
Singapore	0	0	2,989	1,149	1,029	1,215	164	0	0	0
Spain	0	0	0	0	4	0	0	0	0	0
Thailand	1,751	0	0	21	0	892	0	0	0	0
Trinidad and Tobago	0	0	323	0	0	0	0	0	0	0
United Kingdom	0	0	0	0	334	0	0	0	0	0
Virgin Islands, U.S	0	0	733	0	747	0	36	0	0	0
Yemen	8,702	0	0 757	0 279	1 100	485	0	0	0	0
Other	9,094	0	757	278	1,109	563	528	0	0	0
Total	272,271	2,677	14,162	5,472	9,625	27,788	6,154	4,250	25	399

Table 25. PAD Districts IV and V—Imports of Crude Oil and Petroleum Products by Country of Origin,^a 2001 (Continued)

	Namhtha far	Other Oile for					Total		Daily Average	е
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	Crude Oil	Products	Total
				P	AD District	IV				
Non OPEC	<b>0</b> 0	<b>0</b> 0	<b>0</b> 0	<b>259</b> 259	<b>1,486</b> 1,486	<b>7,736</b> 7,736	<b>78,762</b> 78,762	<b>195</b> 195	<b>21</b> 21	<b>216</b> 216
Total	0	0	0	259	1,486	7,736	78,762	195	21	216
				F	PAD District	v				
Arab OPEC	0	0	0	0	11,378	19,100	124,658	289	52	342
Algeria	0	0	0	0	0	3,337	3,337	0	9	9
Iraq	0	0	0	0	0	0	55,323	152	0	152
Kuwait Qatar	0 0	0 0	0 0	0	0 2,644	1,830 2,644	3,558 2,644	5 0	5 7	10 7
Saudi Arabia	0	0	0	0	2,644 6,904	2,644 8,278	2,644 51,443	118	23	141
United Arab Emirates	0	0	0	0	1,830	3,011	8,353	15	8	23
W	•	•	•	•	0.000		00.474	50	40	70
other OPEC	<b>0</b> 0	<b>0</b> 0	<b>0</b> 0	<b>0</b> 0	<b>2,083</b> 0	<b>6,936</b>	28,471 15,720	<b>59</b> 40	<b>19</b> 3	<b>78</b> 43
Indonesia Nigeria	0	0	0	0	0	1,043 0	15,729 462	40 1	0	43
Venezuela	0	0	0	0	2,083	5,893	12,280	17	16	34
les OREO	500		•	•	40.400	00.044	040 700	200	400	500
on OPEC	<b>508</b> 0	<b>0</b> 0	<b>0</b> 0	<b>0</b> 0	<b>10,126</b> 0	<b>68,611</b> 0	<b>213,789</b> 3,397	<b>398</b> 9	<b>188</b> 0	<b>586</b> 9
Argentina	0	0	0	Ö	0	125	12,087	33	(s)	33
Australia	0	0	Ö	0	Ö	1,237	13,804	34	3	38
Belgium	0	0	0	0	0	18	18	0	(s)	(s)
Brazil	0	0	0	0	62	62	62	0	(s)	(s)
Brunei	0	0	0	0	0	0	7,158	20	0	20
Canada	0	0	0	0	7,386	14,336	42,260	77	39	116
China, People's Republic of	0	0	0	0	221	444	5,128	13	1	14
Colombia	0	0	0	0	0	1,046	3,034	5	3	8
Congo (Brazzaville)	0 0	0 0	0 0	0	0 0	0 1,205	399 25,457	1 66	0 3	1 70
Egypt	0	0	0	0	0	221	23,437	0	3 1	1
Germany, FR	0	0	0	Ö	0	836	836	0	2	2
India	0	0	0	0	0	653	653	Ö	2	2
Italy	0	0	0	0	0	187	187	0	1	1
Japan	0	0	0	0	7	4,111	4,111	0	11	11
Korea, Republic of	428	0	0	0	555	18,266	18,266	0	50	50
Malaysia	0	0	0	0	1,158	7,128	10,441	9	20	29
Mexico	0	0	0	0	0	873	19,161	50	2	52
Netherlands Netherlands Antilles	0 0	0	0 0	0	245 0	996 410	996 410	0	3 1	3
Norway	0	0	0	0	0	0	37	(s)	0	(s)
Oman	0	0	0	0	0	0	7,138	20	0	20
Panama	0	0	0	Ö	0	488	488	0	1	1
Peru	0	0	Ö	Ö	Ö	1,289	3,813	7	4	10
Portugal	0	0	0	0	0	281	281	0	1	1
Russia	0	0	0	0	0	471	471	0	1	1
Singapore	80	0	0	0	123	6,749	6,749	0	18	18
Spain	0	0	0	0	0	4	2.705	0	(s)	(s)
Thailand	0 0	0	0 0	0	41 0	954 323	2,705 323	5 0	3 1	1
Trinidad and Tobago United Kingdom	0	0	0	0	0	323 334	323 334	0	1	1
Virgin Islands, U.S.	0	0	0	0	0	1,516	1,516	0	4	4
Yemen	0	0	0	0	0	485	9,187	24	1	25
Other	0	0	Ö	0	328	3,563	12,657	25	10	35
	500	0	0	0	00 507	04.647	200 040	740		4 005
otal	508	U	U	U	23,587	94,647	366,918	746	259	1,005

^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.

(s) = Less than 500 barrels per day.

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

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 Formerly Zaire.

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

Table 26. Imports of Residual Fuel Oil by Sulfur Content and by PAD District and State of Entry, 2001 (Thousand Barrels)

		Residu	al Fuel Oil	
PAD District and State of Entry	Less than 0.31% Sulfur	0.31 to 1.00% Sulfur	Greater than 1.00% Sulfur	Total
PAD District I	11,677	30,379	49,464	91,520
Connecticut	0	338	198	536
Delaware	63	1.660	2.158	3.881
Florida	413	7.856	11.266	19.535
Georgia	0	0	2.069	2.069
Maine	1,357	121	1.082	2,560
Maryland	326	3,307	2,393	6.026
Massachusetts	364	3.319	843	4.526
New Jersey	4,942	7,356	8.471	20,769
New York	3.611	3.999	5.108	12.718
North Carolina	0	3,999	3,691	3,777
Pennsylvania	350	1.076	5.852	7.278
•	160	0	0,002	160
Rhode IslandSouth Carolina	0	233	2.881	3.114
	4		,	- ,
Vermont	•	58	12	74
Virginia	87	970	3,440	4,497
PAD District II	324	229	821	1,374
Illinois	0	32	120	152
Michigan	324	44	561	929
Minnesota	0	81	0	81
North Dakota	0	72	6	78
Ohio	0	0	134	134
PAD District III	1,722	6,441	2,378	10,541
Louisiana	213	2,471	1,121	3,805
Texas	1,509	3,970	1,257	6,736
PAD District IV	0	3	0	3
Montana	0	3	0	3
PAD District V	850	350	3,050	4,250
California	439	242	2.362	3,043
Hawaii	411	0	0	411
Oregon	0	18	178	196
Washington	0	90	510	600
U.S. Total	14,573	37,402	55,713	107,688

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

Table 27. Exports of Crude Oil and Petroleum Products by PAD District, 2001 (Thousand Barrels)

	Petroleum Administration for Defense Districts						
Commodity	1	II	Ш	IV	v	U.S. Total	Daily Average
Crude Oil ^a	715	6,632	0	25	14	7,386	20
Natural Gas Liquids	590	2,807	10,310	359	2,426	16,492	45
Pentanes Plus	12	300	2	92	157	564	2
Liquefied Petroleum Gases	578	2,507	10,309	266	2,269	15,928	44
Ethane/Ethylene	0	0	0	0	0	0	0
Propane/Propylene	344	954	7,872	63	2,162	11,395	31
Normal Butane/Butylene	233	1,553	2,437	204	107	4,533	12
Isobutane/Isobutylene	0	0	0	0	0	0	0
Other Liquids	2,103	536	10,072	13	799	13,523	37
Other Hydrocarbons/Oxygenates	1,489	247	7,265	13	791	9,804	27
Motor Gasoline Blend. Comp	613	289	2,807	0	9	3,718	10
Finished Petroleum Products	13,962	4,330	209,479	207	89,042	317,020	869
Finished Motor Gasoline	2.608	103	39,571	1	6.204	48,485	133
Naphtha-Type Jet Fuel	62	14	155	0	1	231	1
Kerosene-Type Jet Fuel	978	402	6,211	(s)	2,905	10,496	29
Kerosene	67	1	576	ìí	122	768	2
Distillate Fuel Oil	1,863	489	15,918	0	25,272	43,543	119
Residual Fuel Oil	1,975	325	56,811	0	10,667	69,779	191
Special Naphthas	422	143	1,234	8	6,603	8,410	23
Lubricants	1,485	890	5,974	169	813	9,331	26
Waxes	378	217	500	(s)	217	1,313	4
Petroleum Coke	3,818	1,109	82,156	ÌÍ	35,652	122,746	336
Asphalt and Road Oil	251	637	365	17	559	1,829	5
Miscellaneous Products	53	1	8	(s)	26	88	(s)
Total	17.370	14,305	229,862	603	92,280	354,421	971

^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.

⁽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 28. Exports of Crude Oil and Petroleum Products by Destination, 2001 (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	(s)	0	1	6	9
Australia	0	Ö	119	285	Ö	0	3	4
Bahamas	Ö	Ö	96	133	47	(s)	101	1,965
Bahrain	0	0	0	0	0	Ó	0	(s)
Belgium & Luxembourg	0	0	6	3	0	0	290	20
Brazil	0	0	901	(s)	1	1	444	18
Cameroon	0	0	0	(s)	0	5	0	0
Canada	7,386	561	3,509	3,441	4,211	8	4,307	5,161
Chile	0	0	2	1	0	0	401	15
China, People's Republic of	0	0	(s)	711	0	0	224	535
China, Taiwan	0	1	1	(s)	0	0	422	31
Colombia	0	0	0	0	0	(s)	0	5
Costa Rica	0	0	65	245	0	0	339	789
Denmark  Dominican Republic	0	0	0 93	(s) 83	(s)	150	0 796	(s) 1,331
Ecuador	0	0	0	493	(5)	130	700	25
Egypt	0	0	0	0	0	0	0	0
El Salvador	0	0	145	0	(s)	0	299	321
Finland	Ö	Ö	0	(s)	350	3	1,083	1
France	0	Ö	50	(s)	0	1	514	7
French Pacific Islands	0	0	0	Ó	0	0	0	(s)
Germany, FR	0	0	3	1	(s)	0	2	2
Ghana	0	0	0	0	Ó	0	0	0
Greece	0	0	1	0	0	0	1	2
Guatemala	0	0	473	1,422	12	0	1,117	18
Guinea	0	0	0	0	1	0	0	(s)
Honduras	0	0	432	26	0	0	29	313
Hong Kong	0	0	(s)	1	0	0	4	348
India	0	0	3	0	0	0	(s)	51
Indonesia	0	0	188	0	0	(s)	17	0
Ireland	0	0	0	(s)	(s)	0	1	0
IsraelItaly	0 0	0	1 141	250 0	2,400 0	3 (s)	1	6 565
Jamaica	0	0	0	107	66	(S) ()	51	8,331
Japan	0	0	108	3	(s)	0	116	545
Korea, Republic of	Ö	Ö	(s)	3	(s)	3	188	645
Malaysia	Ö	Ö	(s)	0	0	0	409	(s)
Mexico	0	1	9,362	39,207	890	119	13,532	16,889
Netherlands	Ö	0	(s)	252	1,385	230	2,302	4,682
Netherlands Antilles	0	0	Ò	218	444	103	979	4,450
New Zealand	0	0	(s)	285	0	0	1	2
Nigeria	0	0	(s)	0	0	0	(s)	0
Norway	0	0	2	0	0	0	(s)	(s)
Panama	0	0	1	418	0	55	1,208	4,415
Peru	0	0	100	0	0	(s)	1,026	151
Philippines	0	0	(s)	0	0	0	1	5
Poland	0	0	0	0	0	0	0	(s)
Portugal	0	0	0	0	0	0	0	0
Puerto Rico	0	1	3	327	2	0	168	1
Russia	0	0	(s)	0	0	(s)	5	35
Saudi Arabia	0 0	(s) 0	(s) 2	0 415	7 0	0 0	1 9,465	5 14 124
Singapore South Africa	0	0	(s)	0	0	0	9,465	14,124
Spain	0	0	0	(s)	0	0	437	2,587
Suriname	0	Ö	0	0	Ö	0	0	0
Sweden	0	0	0	2	0	0	971	(s)
Switzerland	Ö	Ö	Ö	2	Ö	Ö	44	6
Thailand	Ö	Ö	1	0	Ö	Ö	149	206
Trinidad and Tobago	Ö	Ö	(s)	(s)	Ö	6	1	246
Turkey	0	0	Ò	`ó	0	0	(s)	1
United Arab Emirates	0	0	0	(s)	0	1	(s)	2
United Kingdom	0	0	22	11	538	0	664	313
Uruguay	0	0	0	0	0	0	0	0
Venezuela	0	(s)	9	3	0	8	322	10
Virgin Islands, U.S	0	0	0	0	0	(s)	(s)	219
Yugoslavia	0	0	0	0	0	3	0	0
Other	0	0	86	136	371	66	402	363
Total	7 200	EC.4	45.000	40.405	40.700	760	42 F 42	60.770
Total	7,386	564	15,928	48,485	10,728	768	43,543	69,779

Table 28. Exports of Crude Oil and Petroleum Products by Destination, 2001 (Continued) (Thousand Barrels)

							Crude Oil a	nd Products
Destination	Special Naphthas	Lubricants	Waxes	Petroleum Coke	Asphalt and Road Oil	Other Products ^b	Total	Daily Average
Argentina	11	141	16	407	8	3	604	2
Australia	11	81	5	3,357	3	1	3,870	11
Bahamas	0	22	(s)	0	5	11	2,381	7
Bahrain	0	2	0	398	(s)	0	400	1
Belgium & Luxembourg	121	46	12	5,093	32	175	5,799	16
Brazil	31	57	44	6,912	12	37	8.459	23
Cameroon	0	1	0	155	0	0	161	(s)
Canada	282	1,727	584	5,978	999	2,638	40,792	112
Chile	7	463	4	(s)	3	(s)	896	2
China, People's Republic of	20	58	21	470	3	1	2,044	6
China, Taiwan	215	153	5	60	5	10	902	2
Colombia	10	256	5	1	6	3	288	1
Costa Rica	7	94	3	307	0	23	1,873	5
Denmark	0	1	(s)	1,131	(s)	0	1,132	3
Dominican Republic	33	181	(s)	3	(s)	1	2.672	7
Ecuador	(s)	217	(s)	(s)	(s)	(s)	1,437	4
Egypt	(s)	17	0	143	4	0	165	(s)
_071	(5)	129	-	0	0	5	900	(5)
El SalvadorFinland		4	(s) (s)	0	3	0	1,444	4
France	(s) 7		. ,	-	3	-	,	-
French Pacific Islands	7 (c)	56 1	7	3,762	0	284	4,691 2	13
	(s) 3	1 21	(s) 34	0 739	40	0 16	∠ 861	(s) 2
Germany, FR	-							
Ghana	0	4 8	0	150	0	0 0	154	(s)
Greece	3		(s)	2,172	(s)		2,183	6
Guatemala	-	93	7	0	(s)	172	3,318	9
Guinea	0	10	0	0	0	0	12	(s)
Honduras	8	62	1	0	22	(s)	893	2
Hong Kong	1	46	42	0	(s)	2	445	1
India	0	259	8	753	29	10	1,113	3
Indonesia	3	11	2	201	2	16	439	1
Ireland	0	1	2	694	(s)	2	700	2
Israel	1	29	(s)	2,413	(s)	33	5,137	14
Italy	(s)	96	5	11,339	4	(s)	12,152	33
Jamaica	24	32	1	0	0	350	8,961	25
Japan		241	27	17,172	22	434	22,583	62
Korea, Republic of		69	8	1,543	10	142	5,006	14
Malaysia	(s)	55	5	(s)	1	1	471	1
Mexico	492	2,082	399	11,417	341	5,226	99,957	274
Netherlands	430	24	1	6,977	4	207	16,493	45
Netherlands Antilles	0	974	(s)	172	3	34	7,377	20
New Zealand	3	7	1	622	150	1	1,072	3
Nigeria	(s)	218	0	1	1	0	220	1
Norway	0	3	(s)	938	0	0	943	3
Panama	8	141	(s)	257	(s)	230	6,733	18
Peru	2	95	Ì	(s)	1	8	1,385	4
Philippines	1	25	4	1	0	6	44	(s)
Poland	(s)	1	(s)	0	(s)	0	2	(s)
Portugal	(s)	2	Ó	535	Ò	0	537	1
Puerto Rico	326	216	7	0	(s)	3	1,054	3
Russia	2	21	1	41	1	0	105	(s)
Saudi Arabia	5	29	2	173	1	(s)	223	Ì
Singapore	1	172	2	52	1	246	24,481	67
South Africa	(s)	60	1	1,752	1	6	1,821	5
Spain	(s)	14	1	15,549	6	3	18,597	51
Suriname	(s)	7	0	0	0	0	7	(s)
Sweden	0	13	(s)	356	(s)	(s)	1,343	4
Switzerland	(s)	4	(s)	0	(s)	(s)	55	(s)
Thailand	2	30	7	279	6	12	693	2
Trinidad and Tobago	1	20	1	2	1	19	296	1
Turkey	(s)	37	(s)	5,915	i	0	5,955	16
United Arab Emirates	2	19	(s)	797	3	(s)	824	2
United Kingdom	1	59	8	3,217	29	27	4,889	13
Uruguay	Ö	8	(s)	(s)	0	(s)	9	(s)
Venezuela	8	66	26	1,374	7	3,198	5,030	14
Virgin Islands, U.S.	1	3	0	0	8	0	232	1
Yugoslavia	(s)	3	0	288	0	(s)	293	1
Other	17	230	2	6,678	49	(5)	8,413	23
Ott 101	17	200	2	0,070	+3	14	0,+13	23
Total	8,410	9,331	1,313	122,746	1,829	13,610	354,421	971

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.

^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 29. Net Imports of Crude Oil and Petroleum Products into the United States by Country, 2001 (Thousand Barrels per Day)

Angola         321           Argentina         58           Australia         34           Bahamas         0           Belgium & Luxembourg         0           Benin         0           Berazil         13           Brunei         22           Cameroon         3           Canada         1,335           China, People's Republic of         13           China, Taiwan         0           Colombia         260           Congo (Brazzaville)         40           Congo (Kinshasa) C         1           Ecuador         113           Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands Antilles         0           Norway         281<	42 31 0 1 0 10 0 9 -1 9 1 111 0 (s) (s) (s) (s)	3 (s) 0 (s) 0 1 2 58 0 0 58 260 0 12 (s) (s) 18 0 0 58	18 1 0 9 0 5 4 26 0 (s) 26 75 0 0 1 (s) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	6 3 0 (s) 0 2 2 47 (s) 2 44 172 2 2 (s) (s) -1 0 4	4 1 0 (s) 0 3 (s) 74 8 15 50 26 3 3 (s) 3 (s)	(s) (s) 0 3 0 (s) -2 -4 -1 (s) -4 -326 (s) 1 -9 0 -14	(s) (s) (s) (s) (s) (s) (s) -1 (s) -17 (s) (s) (s) (s) (s) (s)	287 232 0 (s) 13 31 11 92 2 17 73 630 2 23 6	360 267 0 13 13 51 17 301 10 43 249 931 7	3,035 277 795 250 13 1,662 38 2,474 50 884 1,540 5,391 328 98
Iraq	0 1 0 1 0 0 1 0 0 0 9 1 1 1 1 1 1 0 0 (s) (s) (s) (s) (s) 0 0 0 0 0	58 0 0 58 0 0 58 260 0 12 (s) (s) 18 0 23 0 (s)	0 9 0 5 4 <b>26</b> 0 (s) 26 <b>75</b> 0 0 1 (s) 0 0 (s)	0 (s) 0 2 2 47 (s) 2 44 172 2 (s) (s) (s) -1 0 4	0 (s) 0 3 (s) 74 8 15 50 26 3 3 (s) 3 3	(s) 0 3 0 (s) -2 -4 -1 (s) -4 -326 (s) 1 -9 0	(s) 0 (s) (s) (s) (s) -1 (s) -17 (s) (s) (s)	0 (s) 13 31 11 <b>92</b> 2 17 73 <b>630</b> 2 23	0 13 13 51 17 <b>301</b> 10 43 249 <b>931</b> 7 40	277 795 250 13 1,662 38  2,474 50 884 1,540  5,391 328
Kuwait         237           Qatar         (s)           Saudi Arabia         1,611           United Arab Emirates         21           Other OPEC         2,173           Indonesia         40           Nigeria         842           Venezuela         1,291           Non OPEC         4,460           Angola         321           Argentina         58           Australia         34           Bahamas         0           Belgium & Luxembourg         0           Benin         0           Berazil         13           Brunei         22           Cameroon         3           Canada         1,335           China, People's Republic of         13           China, People's Republic of         13           China, Taiwan         0           Congo (Brazzaville)         40           Congo (Brazzaville)         40           Congo (Brazzaville)         40           Congo (Kinshasa) ^c 1           1         Ecuador         113           Egypt         0           Grance         0           Gabon <td>1 0 10 0 9 -1 9 1 1111 0 (s) (s) (s) (s) 0 -2 0 0</td> <td>(s) 0 1 2 58 0 0 58 260 0 12 (s) (s) (s) 23 0 (s) 111</td> <td>9 0 5 4 <b>26</b> 0 (s) 26 <b>75</b> 0 0 1 (s) 0 0 0 0 0</td> <td>(s) 0 2 2 47 (s) 2 44 172 2 (s) (s) (s)</td> <td>(s) 0 3 (s) 74 8 15 50 26 3 3 (s) 3</td> <td>3 0 (s) -2 -4 -1 (s) -4 -326 (s) 1 -9 0</td> <td>(s) (s) (s) (s) -1 (s) -17 (s) -17 (s) (s)</td> <td>(s) 13 31 11  92 2 17 73  630 2 23</td> <td>13 13 51 17 <b>301</b> 10 43 249 <b>931</b> 7</td> <td>250 13 1,662 38 <b>2,474</b> 50 884 1,540 <b>5,391</b> 328</td>	1 0 10 0 9 -1 9 1 1111 0 (s) (s) (s) (s) 0 -2 0 0	(s) 0 1 2 58 0 0 58 260 0 12 (s) (s) (s) 23 0 (s) 111	9 0 5 4 <b>26</b> 0 (s) 26 <b>75</b> 0 0 1 (s) 0 0 0 0 0	(s) 0 2 2 47 (s) 2 44 172 2 (s) (s) (s)	(s) 0 3 (s) 74 8 15 50 26 3 3 (s) 3	3 0 (s) -2 -4 -1 (s) -4 -326 (s) 1 -9 0	(s) (s) (s) (s) -1 (s) -17 (s) -17 (s) (s)	(s) 13 31 11  92 2 17 73  630 2 23	13 13 51 17 <b>301</b> 10 43 249 <b>931</b> 7	250 13 1,662 38 <b>2,474</b> 50 884 1,540 <b>5,391</b> 328
Qatar         (s)           Saudi Arabia         1,611           United Arab Emirates         21           Other OPEC         2,173           Indonesia         40           Nigeria         842           Venezuela         1,291           Non OPEC         4,460           Angola         321           Argentina         58           Australia         34           Bahamas         0           Belgium & Luxembourg         0           Benin         0           Berazil         13           Brunei         22           Cameroon         3           Canada         1,335           China, People's Republic of         13           China, People's Republic of         13           China, Taiwan         0           Congo (Brazzaville)         40           Congo (Brazzaville)         40           Congo (Kinshasa) of         1           I         113           Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0	0 10 0 9 -1 9 1 111 0 (s) (s) (s) (s) 0	58 0 0 58 260 0 12 (s) (s) (s) 23 0 (s) 111	26 0 (s) 26 75 0 0 1 (s) 0 0 (s) 0 0	172 (s) 244 172 2 2 (s) (s) -1 0 4	74 8 15 50 26 3 3 (s) 3	0 (s) -2 -4 -1 (s) -4 -326 (s) 1 -9 0	(s) (s) (s) -1 (s) -1 (s) -17 (s) (s) (s)	13 31 11 92 2 17 73 630 2 23	13 51 17 <b>301</b> 10 43 249 <b>931</b> 7 40	13 1,662 38  2,474 50 884 1,540  5,391 328
Saudi Arabia         1,611           United Arab Emirates         21           Other OPEC         2,173           Indonesia         40           Nigeria         842           Venezuela         1,291           Non OPEC         4,460           Angola         321           Argentina         58           Australia         34           Bahamas         0           Belgium & Luxembourg         0           Berin         0           Berzil         13           Brunei         22           Cameroon         3           Canada         1,335           China, People's Republic of         13           China, Taiwan         0           Colombia         260           Congo (Kinshasa) C         1           1         Ecuador         113           Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Japan         0           Kore	10 0 9 -1 9 1 1111 0 (s) (s) (s) (s) -2 0	58 0 0 58 260 0 12 (s) (s) (s) 18 0 23 0 (s) 111	5 4  26 0 (s) 26  75 0 0 1 (s) 0 0 (s) 0 0 (s) 0 0	47 (s) 2 44 172 2 2 (s) (s) (s) -1 0 4	3 (s) 74 8 15 50 26 3 3 (s) (s) 3 3	(s) -2 -4 -1 (s) -4 -326 (s) 1 -9 0	(s) (s) -1 (s) -1 (s) -17 (s) (s) (s) (s)	31 11 92 2 17 73 630 2 23	51 17 <b>301</b> 10 43 249 <b>931</b> 7 40	1,662 38 <b>2,474</b> 50 884 1,540 <b>5,391</b> 328
United Arab Emirates         21           Other OPEC         2,173           Indonesia         40           Nigeria         842           Venezuela         1,291           Non OPEC         4,460           Angola         321           Argentina         58           Australia         34           Bahamas         0           Belgium & Luxembourg         0           Benin         0           Berazil         13           Brunei         22           Cameroon         3           Canada         1,335           China, People's Republic of         13           China, People's Republic of         13           China, People's Republic of         1           Congo (Kinshasa) congo (Brazzaville)         40           Congo (Brazzaville)         40           Congo (Kinshasa) congo (Brazzaville)         41 <td>0 9 -1 9 1 111 0 (s) (s) (s) (s) -2 0 0</td> <td>58 0 0 58 260 0 12 (s) (s) 18 0 23 0 (s)</td> <td>26 0 (s) 26 75 0 0 1 (s) 0 0 (s)</td> <td>2 47 (s) 2 44 172 2 2 (s) (s) (s) -1 0 4</td> <td>(s)  74  8  15 50  26  3  (s) 3 3</td> <td>-2 -4 -1 (s) -4 -326 (s) 1 -9 0</td> <td>(s) -1 (s) -1 (s) -17 (s) (s) (s)</td> <td>11 92 2 17 73 630 2 23</td> <td>17 301 10 43 249 931 7 40</td> <td>38 2,474 50 884 1,540 5,391 328</td>	0 9 -1 9 1 111 0 (s) (s) (s) (s) -2 0 0	58 0 0 58 260 0 12 (s) (s) 18 0 23 0 (s)	26 0 (s) 26 75 0 0 1 (s) 0 0 (s)	2 47 (s) 2 44 172 2 2 (s) (s) (s) -1 0 4	(s)  74  8  15 50  26  3  (s) 3 3	-2 -4 -1 (s) -4 -326 (s) 1 -9 0	(s) -1 (s) -1 (s) -17 (s) (s) (s)	11 92 2 17 73 630 2 23	17 301 10 43 249 931 7 40	38 2,474 50 884 1,540 5,391 328
Indonesia	-1 9 1 1 111 0 (s) (s) (s) (s) 0 -2 0 0	0 0 58 260 0 12 (s) (s) (s) 18 0 23 0 (s)	0 (s) 26 <b>75</b> 0 0 1 (s) 0 0 (s) 0	(s) 2 44 172 2 2 (s) (s) -1 0 4	8 15 50 <b>26</b> 3 3 (s) 3	-1 (s) -4 -326 (s) 1 -9 0	(s) -1 (s) -17 (s) (s) (s)	2 17 73 <b>630</b> 2 23	10 43 249 <b>931</b> 7 40	50 884 1,540 <b>5,391</b> 328
Indonesia	-1 9 1 1 111 0 (s) (s) (s) (s) 0 -2 0 0	0 0 58 260 0 12 (s) (s) (s) 18 0 23 0 (s)	0 (s) 26 <b>75</b> 0 0 1 (s) 0 0 (s) 0	(s) 2 44 172 2 2 (s) (s) -1 0 4	8 15 50 <b>26</b> 3 3 (s) 3	-1 (s) -4 -326 (s) 1 -9 0	(s) -1 (s) -17 (s) (s) (s)	2 17 73 <b>630</b> 2 23	10 43 249 <b>931</b> 7 40	50 884 1,540 <b>5,391</b> 328
Nigeria         842           Venezuela         1,291           Non OPEC         4,460           Angola         321           Argentina         58           Australia         34           Bahamas         0           Belgium & Luxembourg         0           Benin         0           Berail         13           Brunei         22           Cameroon         3           Canada         1,335           China, People's Republic of         13           China, Taiwan         0           Colombia         260           Congo (Brazzaville)         40           Congo (Brazzaville)         40           Congo (Kinshasa) composition         1           Ecuador         113           Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Japan         0           Korea, Republic of         0           Malaysia <td>9 1 1111 0 (s) (s) (s) (s) (s) 0 -2 0</td> <td>0 58 260 0 12 (s) (s) 18 0 23 0 (s)</td> <td>(s) 26 <b>75</b> 0 0 1 (s) 0 0 (s) 0</td> <td>2 44 172 2 2 (s) (s) -1 0 4</td> <td>15 50 <b>26</b> 3 3 (s) 3</td> <td>(s) -4 -326 (s) 1 -9 0</td> <td>-1 (s) -17 (s) (s) (s)</td> <td>17 73 <b>630</b> 2 23</td> <td>43 249 <b>931</b> 7 40</td> <td>884 1,540 <b>5,391</b> 328</td>	9 1 1111 0 (s) (s) (s) (s) (s) 0 -2 0	0 58 260 0 12 (s) (s) 18 0 23 0 (s)	(s) 26 <b>75</b> 0 0 1 (s) 0 0 (s) 0	2 44 172 2 2 (s) (s) -1 0 4	15 50 <b>26</b> 3 3 (s) 3	(s) -4 -326 (s) 1 -9 0	-1 (s) -17 (s) (s) (s)	17 73 <b>630</b> 2 23	43 249 <b>931</b> 7 40	884 1,540 <b>5,391</b> 328
Venezuela         1,291           Non OPEC         4,460           Angola         321           Argentina         58           Australia         34           Bahamas         0           Belgium & Luxembourg         0           Benin         0           Benin         0           Brazil         13           Brunei         22           Cameroon         3           Canada         1,335           China, People's Republic of         13           China, People's Republic of         13           China, Taiwan         0           Colombia         260           Congo (Brazzaville)         40           Congo (Kinshasa) congo (Brazzaville)         40           Congo (Brazzaville)         40           Congo (Brazzaville)         40           Congo (Brazzaville)         41           Ecuador<	1 111 0 (s) (s) (s) (s) 0 -2 0 0	260 0 12 (s) (s) 18 0 23 0 (s)	26 75 0 0 1 (s) 0 (s) 0 (s) 0	44 172 2 2 (s) (s) -1 0 4	50 26 3 3 (s) 3 3	-4 -326 (s) 1 -9	-17 (s) (s) (s)	73 <b>630</b> 2 23	249 <b>931</b> 7 40	1,540 <b>5,391</b> 328
Angola         321           Argentina         58           Australia         34           Bahamas         0           Belgium & Luxembourg         0           Benin         0           Brazil         13           Brunei         22           Cameroon         3           Canada         1,335           China, People's Republic of         13           China, Taiwan         0           Colombia         260           Congo (Brazzaville)         40           Congo (Kinshasa) C         1           Ecuador         113           Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands         0           Netherlands Antilles	0 (s) (s) (s) (s) 0 -2 0	0 12 (s) (s) 18 0 23 0 (s)	0 0 1 (s) 0 0 (s) 0	2 (s) (s) -1 0 4	3 (s) 3 3	(s) 1 -9 0	(s) (s) (s)	2 23	7 40	328
Angola         321           Argentina         58           Australia         34           Bahamas         0           Belgium & Luxembourg         0           Benin         0           Brazil         13           Brunei         22           Cameroon         3           Canada         1,335           China, People's Republic of         13           China, Taiwan         0           Colombia         260           Congo (Brazzaville)         40           Congo (Kinshasa) C         1           Ecuador         113           Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands         0           Norway         281     <	0 (s) (s) (s) (s) 0 -2 0	0 12 (s) (s) 18 0 23 0 (s)	0 0 1 (s) 0 0 (s) 0	2 (s) (s) -1 0 4	3 (s) 3 3	(s) 1 -9 0	(s) (s) (s)	2 23	7 40	328
Australia         34           Bahamas         0           Belgium & Luxembourg         0           Benin         0           Berazil         13           Brunei         22           Cameroon         3           Canada         1,335           China, People's Republic of         13           China, People's Republic of         13           China, Taiwan         0           Colombia         260           Congo (Brazzaville)         40           Congo (Kinshasa) c         1           Ecuador         113           Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands Antilles         0           Norway         281           Oman	(s) (s) (s) 0 -2 0	(s) (s) 18 0 23 0 (s)	1 (s) 0 0 (s) 0	(s) (s) -1 0 4	(s) 3 3	-9 0	(s)			98
Bahamas         0           Belgium & Luxembourg         0           Benin         0           Brazil         13           Brunei         22           Cameroon         3           Canada         1,335           China, People's Republic of         13           China, Taiwan         0           Colombia         260           Congo (Brazzaville)         40           Congo (Kinshasa) C         1           Ecuador         113           Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands Antilles         0           Norway         281           Oman         20           Panama         0           Peru         7	(s) (s) 0 -2 0	(s) 18 0 23 0 (s)	(s) 0 0 (s) 0	(s) -1 0 4	3	0		6	2	
Belgium & Luxembourg         0           Benin         0           Brazil         13           Brunei         22           Cameroon         3           Canada         1,335           China, People's Republic of         13           China, Taiwan         0           Colombia         260           Congo (Brazzaville)         40           Congo (Kinshasa) c         1           Ecuador         113           Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands         0           Netherlands Antilles         0           Norway         281           Oman         20           Panama         0           Peru         7     <	(s) 0 -2 0	18 0 23 0 (s) 111	0 0 (s) 0	-1 0 4	3		(2)	_	-2	33
Benin         0           Brazil         13           Brunei         22           Cameroon         3           Canada         1,335           China, People's Republic of         13           China, Taiwan         0           Colombia         260           Congo (Brazzaville)         40           Congo (Kinshasa) C         1           Ecuador         113           Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands Antilles         0           Norway         281           Oman         20           Panama         0           Peru         7           Puerto Rico         0           Romania         0	0 -2 0 0	0 23 0 (s) 111	0 (s) 0	0		-14	` '	2	4 48	4 48
Brazil         13           Brunei         22           Cameroon         3           Canada         1,335           China, People's Republic of         13           China, Taiwan         0           Colombia         260           Congo (Brazzaville)         40           Congo (Kinshasa) c         1           Ecuador         113           Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands Antilles         0           Norway         281           Oman         20           Panama         0           Peru         7           Puerto Rico         0           Romania         0           Romania         0 <t< td=""><td>-2 0 0</td><td>23 0 (s) 111</td><td>(s) 0 0</td><td>4</td><td>U</td><td>0</td><td>(s) (s)</td><td>41 0</td><td>48 (s)</td><td>48 (s)</td></t<>	-2 0 0	23 0 (s) 111	(s) 0 0	4	U	0	(s) (s)	41 0	48 (s)	48 (s)
Brunei         22           Cameroon         3           Canada         1,335           China, People's Republic of         13           China, Taiwan         0           Colombia         260           Congo (Brazzaville)         40           Congo (Kinshasa) C         1           Ecuador         113           Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands Antilles         0           Norway         281           Oman         20           Panama         0           Peru         7           Puerto Rico         0           Romania         0           Ryria         0	0 0	0 (s) 111	0	0	25	-19	(s)	16	46	59
Canada         1,335           China, People's Republic of         13           China, Taiwan         0           Colombia         260           Congo (Brazzaville)         40           Congo (Kinshasa) C         1           Ecuador         113           Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands Antilles         0           Norway         281           Oman         20           Panama         0           Peru         7           Puerto Rico         0           Romania         0           Ryria         0	-	111		U	0	0	(s)	0	(s)	22
China, People's Republic of         13           China, Taiwan         0           Colombia         260           Congo (Brazzaville)         40           Congo (Kinshasa) ^c 1           Ecuador         113           Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands Antilles         0           Norway         281           Oman         20           Panama         0           Peru         7           Puerto Rico         0           Romania         0           Ryria         0			^	1	1	(s)	(s)	1	3	6
China, Taiwan         0           Colombia         260           Congo (Brazzaville)         40           Congo (Kinshasa) c         1           Ecuador         113           Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands Antilles         0           Norway         281           Oman         20           Panama         0           Peru         7           Puerto Rico         0           Romania         0           Russia         0           Syria         0	128		-9	85	18	-16	(s)	66	381	1,717
Colombia         260           Congo (Brazzaville)         40           Congo (Kinshasa) C         1           Ecuador         113           Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands         0           Netherlands Antilles         0           Norway         281           Oman         20           Panama         0           Peru         7           Puerto Rico         0           Romania         0           Russia         0           Syria         0	(s)	-1 (-)	1	-1	-1 (-)	-1 (-)	(s)	9	5	18
Congo (Brazzaville)         40           Congo (Kinshasa) c         1           Ecuador         113           Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands         0           Netherlands Antilles         0           Norway         281           Oman         20           Panama         0           Peru         7           Puerto Rico         0           Romania         0           Russia         0           Syria         0	(s) 0	(s) 1	2 5	2 2	(s) 15	(s) (s)	(s) -1	1 13	3 35	3 295
Congo (Kinshasa) ^c 1           Ecuador         113           Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands Antilles         0           Norway         281           Oman         20           Panama         0           Peru         7           Puerto Rico         0           Romania         0           Russia         0           Syria         0	(s)	0	0	3	3	0	(s)	13	8	48
Egypt         0           France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands         0           Netherlands Antilles         0           Norway         281           Oman         20           Panama         0           Peru         7           Puerto Rico         0           Romania         0           Russia         0           Syria         0	0	0	0	0	0	Ö	(s)	0	(s)	1
France         0           Gabon         140           Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands         0           Netherlands Antilles         0           Norway         281           Oman         20           Panama         0           Peru         7           Puerto Rico         0           Romania         0           Russia         0           Syria         0	0	-1	0	-2	4	(s)	-1	2	ĺź	116
Gabon       140         Germany, FR       0         Greece       0         Guatemala       18         India       0         Italy       0         Jamaica       0         Japan       0         Korea, Republic of       0         Malaysia       15         Mexico       1,394         Netherlands       0         Netherlands Antilles       0         Norway       281         Oman       20         Panama       0         Peru       7         Puerto Rico       0         Romania       0         Russia       0         Syria       0	0	2	0	0	0	(s)	(s)	5	7	7
Germany, FR         0           Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands         0           Netherlands Antilles         0           Norway         281           Oman         20           Panama         0           Peru         7           Puerto Rico         0           Romania         0           Russia         0           Syria         0	(s)	12	0	1	1	-10	(s)	29	32	32
Greece         0           Guatemala         18           India         0           Italy         0           Jamaica         0           Japan         0           Korea, Republic of         0           Malaysia         15           Mexico         1,394           Netherlands         0           Netherlands Antilles         0           Norway         281           Oman         20           Panama         0           Peru         7           Puerto Rico         0           Romania         0           Russia         0           Syria         0	0 (s)	0 3	0 (s)	0	0 10	0 -2	(s) (s)	0 22	(s) 35	140 35
Guatemala       18         India       0         Italy       0         Jamaica       0         Japan       0         Korea, Republic of       0         Malaysia       15         Mexico       1,394         Netherlands       0         Netherlands Antilles       0         Norway       281         Oman       20         Panama       0         Peru       7         Puerto Rico       0         Romania       0         Russia       0         Syria       0	(s)	0	1	(s)	(s)	-6	(s)	3	-2	-2
Italy     0       Jamaica     0       Japan     0       Korea, Republic of     0       Malaysia     15       Mexico     1,394       Netherlands     0       Netherlands Antilles     0       Norway     281       Oman     20       Panama     0       Peru     7       Puerto Rico     0       Romania     0       Russia     0       Syria     0	-1	-4	(s)	-3	(s)	Ö	(s)	(s)	-9	9
Jamaica       0         Japan       0         Korea, Republic of       0         Malaysia       15         Mexico       1,394         Netherlands       0         Netherlands Antilles       0         Norway       281         Oman       20         Panama       0         Peru       7         Puerto Rico       0         Romania       0         Russia       0         Syria       0	(s)	1	2	4	(s)	-2	-1	6	11	11
Japan       0         Korea, Republic of       0         Malaysia       15         Mexico       1,394         Netherlands       0         Netherlands Antilles       0         Norway       281         Oman       20         Panama       0         Peru       7         Puerto Rico       0         Romania       0         Russia       0         Syria       0	(s)	13	(s)	2	(s)	-31	(s)	23	6	6
Korea, Republic of       0         Malaysia       15         Mexico       1,394         Netherlands       0         Netherlands Antilles       0         Norway       281         Oman       20         Panama       0         Peru       7         Puerto Rico       0         Romania       0         Russia       0         Syria       0	0	(s)	(s)	(s) 2	-23	0	(s)	-1 10	-25	-25 -50
Malaysia       15         Mexico       1,394         Netherlands       0         Netherlands Antilles       0         Norway       281         Oman       20         Panama       0         Peru       7         Puerto Rico       0         Romania       0         Russia       0         Syria       0	(s) (s)	1 7	7 31	6	(s) -2	-47 -4	-1 (s)	-12 (s)	-50 38	-50 38
Mexico       1,394         Netherlands       0         Netherlands Antilles       0         Norway       281         Oman       20         Panama       0         Peru       7         Puerto Rico       0         Romania       0         Russia       0         Syria       0	(s)	0	4	4	(s)	(s)	(s)	12	20	36
Netherlands Antilles       0         Norway       281         Oman       20         Panama       0         Peru       7         Puerto Rico       0         Romania       0         Russia       0         Syria       0	-26	-107	(s)	-37	-46	-31	-6	25	-228	1,166
Norway       281         Oman       20         Panama       0         Peru       7         Puerto Rico       0         Romania       0         Russia       0         Syria       0	(s)	12	-4	-4	-8	-19	(s)	20	-2	-2
Oman       20         Panama       0         Peru       7         Puerto Rico       0         Romania       0         Russia       0         Syria       0	0	(s)	14	9	-1	(s)	-3	42	61	61
Panama       0         Peru       7         Puerto Rico       0         Romania       0         Russia       0         Syria       0	9 0	14 0	0	(s)	7 0	-3 0	(s)	30	57 (s)	339
Peru       7         Puerto Rico       0         Romania       0         Russia       0         Syria       0	(s)	-1	0 0	0 -3	-10	-1	(s) (s)	(s) -1	(s) -16	20 -16
Puerto Rico         0           Romania         0           Russia         0           Syria         0	(s)	0	0	-2	4	(s)	(s)	6	8	14
Russia 0 Syria 0		-1	(s)	(s)	(s)	0	Ź	(s)	1	1
Syria 0	(s)	0	0	1	(s)	-2	(s)	1	(s)	(s)
2 <b>2</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0	3	0	28	3	(s)	(s)	56	90	90
Spain 0	0 (s)	0 7	0 0	0 -1	0 -6	0 -43	(s) (s)	3 22	3 -20	3 -20
Spain         0           Sweden         0	0 (s) 0	(s)	0	(s)	-6 5	-43 -1	(s)	14	-20 19	-20 19
Thailand5	0 (s) 0 (s)	0	2	(s)	-1	-1	(s)	(s)	1	6
Trinidad and Tobago51	0 (s) 0	1	1	Ì Í	7	(s)	(s)	10	20	71
Turkey 0	0 (s) 0 (s) 1		0	(s)	(s)	-16	(s)	4	-12	-12
United Kingdom	(s) 0 (s) 1 (s) (s) (s)	0	-1	1	10	-9	(s)	45 45	67	311
Virgin Islands, U.S 0 Yemen 24	(s) (s) (s) 1 (s) (s) (s) 0 5	16	22	86 0	36 0	0 0	(s) 0	15 0	267 1	267 25
Other	(s) (s) (s) 1 (s) (s) (s) 0	16 107	- 1	-26	-35	-39	-4	68	-29	25 18
Total 9,308	(s) (s) (s) 1 (s) (s) (s) 0 5	16	1 -5					1,010	1,592	10,900
Persian Gulf ^d 2,664	(s) (s) (s) 1 (s) (s) (s) 0 5	16 107 0		225	104	-331	-18	1,010	1,002	,

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.

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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," and the U.S. Bureau of the Census.

Table 30. Stocks of Crude Oil and Petroleum Products by PAD District, 2001 (Thousand Barrels)

		Petroleum Adm	inistration for D	efense Districts	1	
Commodity	ı	II	III	IV	v	U. S. Total
Crude Oil	13,575	68,935	709,292	14,011	56.408	862,221
Refinery	12,788	14,301	50,107	2,331	23,103	102,630
Tank Farms and Pipelines		53,851	95,317	10,551	27,043	187,512
Leases		783	13,627	1,129	735	16,311
Strategic Petroleum Reserve*a	0	0	550,241	0	0	550,241
Alaskan In Transit	0	Ō	0	0	5,527	5,527
Total Stocks, All Oils (excluding Crude Oil)	178,611	163,790	266,696	18,514	96,517	724,128
Refinery	58,376	56,746	130,523	11,732	63,187	320,564
Bulk Terminal	91,691	68,853	82,066	2,346	25,840	270,796
Pipeline	28,483	36,798	51,202	4,225	7,270	127,978
Natural Gas Processing Plant	61	1,393	2,905	211	220	4,790
Pentanes Plus	21	1,927	4,997	218	209	7,372
Refinery	0	343	351	17	0	711
Bulk Terminal	0	998	2,216	0	192	3,406
Pipeline	0	489	1,956	147	0	2,592
Natural Gas Processing Plant	21	97	474	54	17	663
Liquefied Petroleum Gases		36,245	70,219	1,696	5,162	120,900
Refinery		3,741	7,728	415	1,462	15,384
Bulk Terminal	3,269	25,237	43,984	146	3,497	76,133
Pipeline	2,231	5,971	16,076	978	0	25,256
Natural Gas Processing Plant	40	1,296	2,431	157	203	4,127
Ethane/Ethylene	0	2,847	21,121	463	0	24,431
Refinery	0	0	61	0	0	61
Bulk Terminal		1,783	17,698	0	0	19,481
Pipeline	0	855	2,990	442	0	4,287
Natural Gas Processing Plant	0	209	372	21	0	602
Propane/Propylene		25,691	31,001	630	2,574	65,771
Refinery	704	1,881	2,196	130	140	5,051
Bulk Terminal		19,361	19,362	146	2,272	44,244
Pipeline	2,041 27	3,613 836	8,588 855	291	0 162	14,533 1,943
Natural Gas Processing Plant	21	030	655	63	102	1,943
Normal Butane/Butylene	1,477	6,269	14,355	421	2,236	24,758
Refinery	1,113	1,494	4,460	205	988	8,260
Bulk Terminal		3,485	5,557	0	1,213	10,421
Pipeline	190	1,119	3,385	157	0	4,851
Natural Gas Processing Plant	8	171	953	59	35	1,226
Isobutane/Isobutylene		1,438	3,742	182	352	5,940
Refinery		366	1,011	80	334	2,012
Bulk Terminal		608	1,367	0	12	1,987
Pipeline  Natural Gas Processing Plant	0 5	384 80	1,113 251	88 14	0 6	1,585 356
Natural Gas Frocessing Flant	3	80	251	14	0	330
Other Hydrocarbons/Hydrogen/Oxygenates		2,615	4,936	189	2,873	13,162
Refinery	2,156	438	2,006	103	2,062	6,765
Bulk Terminal Pipeline	393 0	2,175 2	2,930 0	61 25	407 404	5,966 431
·						
Other Hydrocarbons/HydrogenRefinery		<b>53</b> 53	1 1	<b>0</b> 0	<b>6</b> 6	<b>60</b> 60
Tollioly	Ü	00		O	Ü	00
Fuel Ethanol		<b>2,479</b>	800	143	<b>519</b>	<b>4,298</b>
Refinery		305 W	W	W	W	610
Bulk Terminal *b Pipeline		VV	W	W	W	W W
·		147	147	144	147	147
ETBE	<b>W</b> W	W W	W	<b>W</b> W	W W	W W
Refinery Bulk Terminal ^{*b}		W	W	W	W	W
Pipeline		VV	W	W	VV	W
Methanol	w	w	W	w	W	734

Table 30. Stocks of Crude Oil and Petroleum Products by PAD District, 2001 (Continued) (Thousand Barrels)

		Petroleum Adm	inistration for D	efense Districts	1	
Commodity	ı	II	III	IV	v	U. S. Total
MTBE	1,857	W	3,347	W	2,344	7,65
Refinery	1,779	W	1,529	W	1,915	5,28
Bulk Terminal *b	W	W	1,818	W	49	1,99
Pipeline	W	W	0	W	380	38
Other Oxygenates *C	W	w	w	w	w	V
Refinery	W	W	W	W	W	V
Bulk Terminal *b	W	W	W	W	W	V
Pipeline	W	W	W	W	W	V
nfinished Oils	8,762	13,222	42,444	2,403	20,869	87,70
Refinery	0,. 0_	,	,	_,	_0,000	0.,.0
Naphthas and Lighter	1,685	4,851	11,715	578	3,445	22,27
Kerosene and Light Gas Oils	2,233	1,748	7,669	321	4,003	15,97
Heavy Gas Oils	3,306	3,705	16,377	1,253	11,091	35,73
·	,	,	,	,	,	,
Residuum	1,538	2,918	6,683	251	2,330	13,72
otor Gasoline Blending Components	7,966	11,398	16,284	2,185	10,559	48,39
Refinery	7,574	8,689	13,801	2,185	8,787	41,03
Bulk Terminal	302	1,019	2,146	0	1,020	4,48
Pipeline	90	1,690	337	Õ	752	2,86
1 1001110	00	1,000	001	· ·	702	2,00
viation Gasoline Blending Components	77	18	34	0	1	13
Refinery	77	18	34	0	1	13
nished Motor Gasoline	50,715	39,661	44.606	5,163	21,314	161,45
Refinery	10,033	7,486	17,759	2,561	9,723	47,56
Bulk Terminal	27,262	17,567	9,681	1,057	8,990	64,55
Pipeline	13,420	14,608	17,166	1,545	2,601	49,34
Reformulated	19,233	1,707	11,546	0	12 422	44,91
			,	0	12,432	
Refinery	6,756	232	4,587		5,783	17,35
Bulk Terminal	9,233	1,025	2,595	0	4,655	17,50
Pipeline	3,244	450	4,364	0	1,994	10,05
Oxygenated	53	273	1	51	0	37
Refinery	7	114	1	51	0	17
Bulk Terminal	46	159	0	0	0	20
Pipeline	0	0	0	0	0	
Other	31,429	37,681	33,059	5,112	8,882	116,16
Refinery	3,270	7,140	13,171	2,510	3,940	30,03
Bulk Terminal	17.983	16,383	7,086	1,057	4,335	46,84
Pipeline	10,176	14,158	12,802	1,545	607	39,28
mished Asiation Cossiling	457	200	400	20	400	4.40
inished Aviation Gasoline	157	299	<b>493</b>	36	499	1,48
Refinery	75	90	470	27	345	1,00
Bulk Terminal	82	199	23	9	154	46
Pipeline	0	10	0	0	0	1
aphtha-Type Jet Fuel	0	59	1	0	22	8
Refinery	0	0	1	0	11	1
Bulk Terminal	0	59	0	0	11	7
Pipeline	0	0	0	0	0	
erosene-Type Jet Fuel	10,213	7,596	13,370	862	9,830	41,87
Refinery	2,310	2,873	6,270	378	4,861	16,69
Bulk Terminal	3,248	1,466	1,799	144	3,493	10,03
Pipeline	3,246 4,655	3,257	5,301	340	3,493 1,476	15,02

Table 30. Stocks of Crude Oil and Petroleum Products by PAD District, 2001 (Continued) (Thousand Barrels)

		Petroleum Adn	ninistration for [	Defense District	s	
Commodity	ı	II	III	IV	V	U. S. Total
Kerosene	3,257	1,282	672	81	96	5,388
Refinery	170	539	471	48	77	1,305
Bulk Terminal	2,937	702	171	0	12	3,822
Pipeline	150	41	30	33	7	261
Distillate Fuel Oil	62,072	33,783	32,753	3,407	12.498	144,513
Refinery	15,156	9,570	15,886	1,617	5,568	47,797
Bulk Terminal	38,979	13,497	6,549	640	4,901	64,566
Pipeline	7,937	10,716	10,318	1,150	2,029	32,150
0.05 Percent Sulfur and Under	22,320	25 262	21 720	2.050	0.954	82,334
Refinery	3,085	<b>25,362</b> 6,381	<b>21,739</b> 10,049	<b>3,059</b> 1,354	<b>9,854</b> 4,425	25,294
Bulk Terminal	15,416	10,757	4,720	589	3,624	35,106
	,	,	,		,	,
Pipeline	3,819	8,224	6,970	1,116	1,805	21,934
Greater than 0.05 Percent Sulfur	39,752	8,421	11,014	348	2,644	62,179
Refinery	12,071	3,189	5,837	263	1,143	22,503
Bulk Terminal	23,563	2,740	1,829	51	1,277	29,460
Pipeline	4,118	2,492	3,348	34	224	10,216
Residual Fuel Oil*d	17,757	1,991	15,647	609	5,043	41,047
Refinery	6,361	1,376	5,146	609	3,382	16,874
Bulk Terminal	11,396	615	10,501	0	1,660	24,172
Pipeline	0	0	0	0	1	1
Loca than 0.219/ Sulfur	4,009	220	2,798	9	550	7 504
Less than 0.31% Sulfur		228	,	9		7,594
Refinery Bulk Terminal	1,640 2,369	0 228	93 2,705	0	513 37	2,255 5,339
	,		,			
0.31 to 1.00% Sulfur	9,073	328	3,735	370	1,640	15,146
Refinery	4,008	213	552	370 0	1,260	6,403
Bulk Terminal	5,065	115	3,183	Ü	380	8,743
Greater than 1.00% Sulfur	4,675	1,435	9,114	230	2,852	18,306
Refinery	713	1,163	4,501	230	1,609	8,216
Bulk Terminal	3,962	272	4,613	0	1,243	10,090
Naphtha for Petrochemical Feedstock Use	437	300	1,556	0	100	2,393
Refinery	437	300	1,556	0	100	2,393
Other Oils for Petrochemical Feedstock Use	0	69	1,326	0	117	1,512
Refinery	0	69	1,326	0	117	1,512
Special Naphthas	110	315	1,549	4	28	2,006
Refinery	92	315	1,428	4	28	1,867
Bulk Terminal	18	0	121	0	0	139
Lubricanto	2 242	2.450	7 225	0	2 4 47	42 702
Lubricants	2,242	2,159	7,235	<b>0</b> 0	2,147	13,783
Refinery Bulk Terminal	757 1,485	318 1,841	6,014 1,221	0	1,363 784	8,452 5,331
Waxes	148	59	395	7	3	612
Refinery	148	59	395	7	3	612
Petroleum Coke	344	1,779	3,576	34	2,572	8,305
Refinery	344	1,779	3,576	34	2,572	8,305
Asphalt and Road Oil	3,927	8,791	4,123	1,595	2,202	20,638
Refinery	1,868	5,391	3,490	1,324	1,554	13,627
Bulk Terminal	2,059	3,400	633	271	648	7,011
Miccelleneous Products	270	222	400	25	272	4 270
Miscellaneous Products	279	<b>222</b>	480 271	25	373	1,379
Refinery	18	130	371	0	302	821
Bulk Terminal Pipeline	261 0	78 14	91 18	18 7	71 0	519 39
•						
Total Stocks, All Oils	192,186	232,725	975,988	32,525	152,925	1,586,349

Crude oil stocks in the Strategic Petroleum Reserve include non-U.S. stocks held under foreign or commercial storage agreements.

b Includes stocks held by producers.

c 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).

d Sulfur content not available for stocks held by pipelines.

e Distillate stocks located in the "Northeast Heating Oil Reserve" are not included. For details see Appendix D.

W = Withheld to avoid disclosure of individual company data.

Note: Stocks are reported as of the end of December.

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 31. Refinery, Bulk Terminal, and Natural Gas Plant Stocks of Selected Petroleum Products by PAD District and State, 2001

(Thousand Barrels)

		Motor G	asoline				Distillate Fue	ı o:ıa		
PAD District and State							Distillate Fue	Greater than	Residual	Propane/
	Total	Reformulated	Oxygenated	Other	Kerosene	Total	and Under	0.05% Sulfur	Fuel	Propylene
PAD District I	37,295	15,989	53	21,253	3,107	54,135	18,501	35,634	17,757	3,834
Connecticut	1,201	1,201	0	0	191	4,832	789	4,043	96	W
Delaware, D.C., Maryland	1,837	1,433	0	404	309	4,635	1,260	3,375	3,106	W
Florida		0	0	5,480	14	2,288	1,564	724	1,249	476
Georgia		4	0	2,014	65	1,796	1,234	562	312	W
Maine, New Hampshire, Vermont		415	0	883	410	2,128	764	1,364	655	W
Massachusetts		1,714	0	0	101	1,838	572	1,266	714	W
New Jersey		6,638	0	1,906	549	15,922	2,924	12,998	5,299	W
New York	-, -	1,302	46	1,884	408	7,454	2,124	5,330	3,176	W
North Carolina		16	0	2,658	265	2,280	1,455	825	503	W
PennsylvaniaRhode Island		1,373 474	0	3,523 0	431 W	6,059 972	3,048 253	3,011 719	1,347 W	W
South Carolina		29	0	1,160	125	1,071	716	355	W	W
Virginia		1,390	0	1,184	195	2,736	1,696	1,040	577	W
West Virginia		0	7	157	W	124	102	22	W	W
PAD District II	25,053	1,257	273	23,523	1,241	23,067	17,138	5,929	1,991	22,078
Illinois		530	0	2,546	60	3,585	2,833	752	767	952
Indiana	3,015	185	0	2,830	338	3,675	2,487	1,188	230	W
lowa	, -	11	0	1,165	W	1,057	971	86	W	W
Kansas, Nebraska		0	0	2,328	3	1,996	1,647	349	53	14,650
Kentucky		283	0	720	59	1,059	622	437	W	W
Michigan		0	0	2,679	300	1,392	1,097	295	63	3,780
Minnesota		0 110	114 0	1,729 928	W	1,615 594	1,423 486	192 108	86 W	W
Missouri  North Dakota, South Dakota		0	1	535	W	693	592	108	W	W
Ohio		0	0	3.374	270	2.514	1.531	983	207	W
Oklahoma	- , -	0	0	1,579	W	1,473	872	601	84	377
Tennessee		0	158	1.689	29	1,347	1,043	304	272	W
Wisconsin		138	0	1,421	W	2,067	1,534	533	53	W
PAD District III		7,182	1	20,257	642	22,435	14,769	7,666	15,647	22,413
Alabama		13	0	1,338	43	874	563	311	107	103
Arkansas		0	0	625	W	747	492	255	W	W
Louisiana		559	0	4,997	332	4,824	2,438	2,386	6,887	3,126
Mississippi		112 0	0	1,831 414	10 W	1,890 391	992	898 81	W 11	7,702 W
New Mexico Texas		6,498	1 0	11,052	254	13,709	310 9,974	3,735	8,356	11,346
PAD District IV	3,618	0	51	3,567	48	2,257	1,943	314	609	339
Colorado	,	0	51	683	W	588	508	80	W	W
Idaho		0	0	431	W	278	227	51	W	W
Montana	1,149	0	0	1,149	W	476	476	0	99	19
Utah	565	0	0	565	W	507	361	146	78	228
Wyoming	739	0	0	739	W	408	371	37	W	52
PAD District V	,	10,438	0	8,275	89	10,469	8,049	2,420	5,042	2,574
Alaska Arizona		0 76	0	626 464	W	756 682	3 668	753 14	W	W
California		10,362	0	812	80	5,235	5,041	194	2,341	621
Hawaii		0	0	638	W	550	97	453	2,341 W	W
Nevada		0	0	124	W	159	146	13	W	W
Oregon		0	0	1,684	W	967	733	234	343	W
Washington	,	0	Ö	3,927	W	2,120	1,361	759	854	148
U.S. Total	112,119	34,866	378	76,875	5,127	112,363	60,400	51,963	41,046	51,238

^aDistillate stocks located in the "Northeast Heating Oil Reserve" are not included. For details see Appendix D.

W = Withheld to avoid disclosure of individual company data.

Notes: • Stocks are reported as of the end of December. • 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 Bulk Termi Natural Gas Liquids Report."

Table 32. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, 2001

(Thousand Barrels)

		From I to			Fron	n II to		From	III to
Commodity	II	III	V	ı	III	IV	V	ı	II
Crude Oil	0	3,863	0	4,998	11,600	10,430	0	0	720,443
Petroleum Products	110,306	1,055	0	31,609	81,011	37,182	0	1,129,232	373,800
Pentanes Plus	0	0	0	0	2,157	8	0	0	6,036
Liquefied Petroleum Gases	875	0	0	13,720	48,313	1,118	0	26,337	46,719
Unfinished Oils	412	198	0	344	2,057	0	0	318	2,621
Motor Gasoline Blending Components	379	0	0	683	287	0	0	1,756	29,875
Finished Motor Gasoline	73,383	0	0	7,644	17,682	14,955	0	639,258	142,593
Reformulated	18	0	0	0	6,917	0	0	119,428	29,911
Oxygenated	0	0	0	0	0	0	0	0	0
Other	73,365	0	0	7,644	10,765	14,955	0	519,830	112,682
Finished Aviation Gasoline	0	0	0	0	0	102	0	806	838
Jet Fuel	3,159	0	0	1,543	0	13,600	0	160,341	55,393
Naphtha-Type	0	0	0	0	0	0	0	0	0
Kerosene-Type	3,159	0	0	1,543	0	13,600	0	160,341	55,393
Kerosene	41	0	0	276	0	0	0	609	94
Distillate Fuel Oil	31,446	0	0	4,728	5,474	7,399	0	280,200	76,104
0.05 percent sulfur and under	25,316	0	0	2,568	4,360	7,399	0	177,219	62,102
Greater than 0.05 percent sulfur	6,130	0	0	2,160	1,114	0	0	102,981	14,002
Residual Fuel Oil	0	0	0	343	3,690	0	0	7,638	677
Petrochemical Feedstocks ^a	527	383	0	85	847	0	0	53	1,207
Special Naphthas	0	45	0	0	39	0	0	576	720
Lubricants	0	429	0	524	237	0	0	8,120	5,224
Waxes	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	84	0	0	1,719	228	0	0	3,220	5,699
Miscellaneous Products	0	0	0	0	0	0	0	0	0
Total	110,306	4,918	0	36,607	92,611	47,612	0	1,129,232	1,094,243

	From	ı III to		From IV to			From	V to	
Commodity	IV	v	II	III	v	I	II	Ш	IV
Crude Oil	0	0	36,033	8,805	0	0	0	0	0
Petroleum Products	4,368	36,536	28,959	43,942	10,346	0	0	459	0
Pentanes Plus	0	0	1,987	4,053	0	0	0	0	0
Liquefied Petroleum Gases	0	0	16,376	39,889	0	0	0	0	0
Unfinished Oils	0	138	0	0	0	0	0	260	0
Motor Gasoline Blending Components	0	8,531	0	0	0	0	0	0	0
Finished Motor Gasoline	3,129	21,927	6,501	0	7,778	0	0	0	0
Reformulated	0	94	0	0	0	0	0	0	0
Oxygenated	0	7,043	0	0	0	0	0	0	0
Other	3,129	14,790	6,501	0	7,778	0	0	0	0
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0
Jet Fuel	633	2,609	382	0	249	0	0	0	0
Naphtha-Type	0	0	0	0	0	0	0	0	0
Kerosene-Type	633	2,609	382	0	249	0	0	0	0
Kerosene	0	0	120	0	0	0	0	0	0
Distillate Fuel Oil	606	3,213	3,593	0	2,319	0	0	0	0
0.05 percent sulfur and under	606	2,672	3,589	0	2,319	0	0	0	0
Greater than 0.05 percent sulfur	0	541	4	0	0	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	118	0	0	0	0	0	199	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	4,368	36,536	64,992	52,747	10,346	0	0	459	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 33. Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts, 2001 (Thousand Barrels)

	Fro	m I to		From II to		Fro	om III to
Commodity	II	ш	1	Ш	IV	1	II
Crude Oil	0	3,713	2,556	11,395	10,430	0	720,443
Petroleum Products	108,450	0	15,635	66,517	37,182	877,094	314,974
Pentanes Plus	0	0	0	2,157	8	0	6,036
Liquefied Petroleum Gases	875	0	13,720	48,313	1,118	23,532	46,711
Motor Gasoline Blending Components	4	0	671	0	0	474	25,999
Finished Motor Gasoline	73,289	0	556	12,802	14,955	486,914	123,460
Reformulated	18	0	0	6,917	0	109,083	22,388
Oxygenated	0	0	0	0	0	0	0
Other	73,271	0	556	5,885	14,955	377,831	101,072
Finished Aviation Gasoline	0	0	0	0	102	0	628
Jet Fuel	3,159	0	526	0	13,600	128,527	53,006
Naphtha-Type	0	0	0	0	0	0	0
Kerosene-Type	3,159	0	526	0	13,600	128,527	53,006
Kerosene	41	0	0	0	0	454	0
Distillate Fuel Oil	31,082	0	162	3,245	7,399	237,193	59,134
0.05 percent sulfur and under	25,264	0	85	2,376	7,399	145,809	52,971
Greater than 0.05 percent sulfur	5,818	0	77	869	0	91,384	6,163
Residual Fuel Oil	0	0	0	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0
otal	108,450	3,713	18,191	77,912	47,612	877,094	1,035,417

	Froi	m III to		From IV to		From V to		
Commodity	IV	v	II	III	v	Ш	IV	
Crude Oil	0	0	36,033	8,805	0	0	0	
Petroleum Products	4,368	32,984	28,959	43,942	10,346	0	0	
Pentanes Plus	0	0	1,987	4,053	0	0	0	
Liquefied Petroleum Gases	0	0	16,376	39,889	0	0	0	
Motor Gasoline Blending Components	0	7,051	0	0	0	0	0	
Finished Motor Gasoline	3,129	20,369	6,501	0	7,778	0	0	
Reformulated	0	0	0	0	0	0	0	
Oxygenated	0	7,043	0	0	0	0	0	
Other	3,129	13,326	6,501	0	7.778	0	0	
Finished Aviation Gasoline	0	0	0	0	0	0	0	
Jet Fuel	633	2,560	382	0	249	0	0	
Naphtha-Type	0	0	0	0	0	0	0	
Kerosene-Type	633	2,560	382	0	249	0	0	
Kerosene	0	0	120	0	0	0	0	
Distillate Fuel Oil	606	3,004	3,593	0	2,319	0	0	
0.05 percent sulfur and under	606	2,623	3,589	0	2,319	0	0	
Greater than 0.05 percent sulfur	0	381	4	0	0	0	0	
Residual Fuel Oil	Ō	0	0	0	0	Ö	Ō	
Miscellaneous Products	0	0	0	0	0	0	0	
Total	4,368	32,984	64,992	52,747	10,346	0	0	

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

Table 34. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, 2001

(Thousand Barrels)

		From I to			From II to		Fro	m III to
Commodity	II	III	V	ı	III	V	ı	New England
Crude Oil	0	150	0	2,442	205	0	0	0
Petroleum Products	1,856	1,055	0	15,974	14,494	0	252,138	4,929
Liquefied Petroleum Gases	0	0	0	0	0	0	2,805	0
Unfinished Oils	412	198	0	344	2,057	0	318	0
Motor Gasoline Blending Components	375	0	0	12	287	0	1,282	0
Finished Motor Gasoline	94	0	0	7,088	4,880	0	152,344	3,200
Reformulated	0	0	0	0	0	0	10,345	2,493
Oxygenated	0	0	0	0	0	0	0	0
Other	94	0	0	7,088	4,880	0	141,999	707
Finished Aviation Gasoline	0	0	0	0	0	0	806	55
Jet Fuel	0	0	0	1,017	0	0	31,814	0
Naphtha-Type	0	0	0	0	0	0	0	0
Kerosene-Type	0	0	0	1.017	0	0	31.814	0
Kerosene	0	0	0	276	0	0	155	0
Distillate Fuel Oil	364	0	0	4.566	2.229	0	43.007	1.660
0.05 percent sulfur and under	52	0	0	2,483	1,984	0	31,410	986
Greater then 0.05 percent sulfur	312	0	0	2,083	245	0	11,597	674
Residual Fuel Oil	0	0	0	343	3.690	0	7.638	14
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	343	3,690	0	7,638	14
Petrochemical Feedstocks ^a	527	383	0	85	847	0	53	0
Special Naphthas	0	45	Õ	0	39	0	576	ő
Lubricants	0	429	0	524	237	0	8,120	0
Waxes	Ô	0	0	0	0	0	0,120	0
Asphalt and Road Oil	84	0	0	1.719	228	0	3,220	0
Miscellaneous Products	0	0	0	0	0	0	0	0
Total	1,856	1,205	0	18,416	14,699	0	252,138	4,929

		From	ı III to			From V to	
Commodity	Central Atlantic	Lower Atlantic	II	v	ı	П	III
Crude Oil	0	0	0	0	0	0	0
Petroleum Products	12,353	234,856	58,826	3,552	0	0	459
Liquefied Petroleum Gases	0	2,805	8	0	0	0	0
Unfinished Oils	318	0	2,621	138	0	0	260
Motor Gasoline Blending Components	709	573	3,876	1,480	0	0	0
Finished Motor Gasoline	2,117	147,027	19,133	1,558	0	0	0
Reformulated	1,145	6,707	7,523	94	0	0	0
Oxygenated	0	0	0	0	0	0	0
Other	972	140.320	11,610	1.464	0	0	0
Finished Aviation Gasoline	201	550	210	0	0	0	0
Jet Fuel	645	31,169	2,387	49	0	0	0
Naphtha-Type	0	0	0	0	0	0	0
Kerosene-Type	645	31,169	2,387	49	0	0	0
Kerosene	50	105	94	0	0	0	0
Distillate Fuel Oil	2,480	38,867	16,970	209	0	0	0
0.05 percent sulfur and under	600	29,824	9,131	49	0	0	0
Greater then 0.05 percent sulfur	1.880	9.043	7.839	160	0	0	0
Residual Fuel Oil	365	7.259	677	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	360	0	0	0	0
Greater than 1.00 percent sulfur	365	7,259	317	0	0	0	0
Petrochemical Feedstocks ^a	53	0	1.207	0	0	0	0
Special Naphthas	0	576	720	0	0	0	0
Lubricants	4,930	3,190	5,224	118	0	0	199
Waxes	0	0	0	0	0	Ō	0
Asphalt and Road Oil	485	2,735	5,699	0	0	0	0
Miscellaneous Products	0	0	0	0	0	0	0
otal	12,353	234,856	58,826	3,552	0	0	459

^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 35. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, 2001

(Thousand Barrels)

		PAD District I			PAD District II	
Commodity	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	4,998	3,863	1,135	756,476	27,028	729,448
Petroleum Products	1,160,841	111,361	1,049,480	513,065	149,802	363,263
Pentanes Plus	0	0	, , 0	8,023	2,165	5,858
Liquefied Petroleum Gases	40,057	875	39,182	63,970	63,151	819
Ethane/Ethylene	0	0	0	8.081	29,349	-21.268
Propane/Propylene	38.454	37	38.417	41.162	25.862	15,300
Normal Butane/Butylene	1,562	760	802	7.530	5.709	1.821
Isobutane/Isobutylene	41	78	-37	7.197	2.231	4.966
Unfinished Oils	662	610	52	3.033	2.401	632
Motor Gasoline Blending Components	2,439	379	2,060	30,254	970	29,284
Finished Motor Gasoline	646,902	73.383	573,519	222,477	40,281	182,196
Reformulated	119,428	18	119,410	29,929	6,917	23,012
Oxygenated	0	0	0	0	0	0
Other	527.474	73.365	454.109	192.548	33.364	159.184
Finished Aviation Gasoline	806	0	806	838	102	736
Jet Fuel	161,884	3,159	158,725	58,934	15,143	43,791
Naphtha-Type	0	0	0	0	0	0
Kerosene-Type	161,884	3,159	158.725	58.934	15,143	43.791
Kerosene	885	41	844	255	276	-21
Distillate Fuel Oil	284,928	31,446	253,482	111,143	17,601	93,542
0.05 percent sulfur and under	179,787	25,316	154,471	91,007	14,327	76,680
Greater than 0.05 percent sulfur	105,141	6,130	99,011	20,136	3,274	16,862
Residual Fuel Oil	7.981	0	7,981	677	4,033	-3,356
Petrochemical Feedstocks ^a	138	910	-772	1.734	932	802
Special Naphthas	576	45	531	720	39	681
Lubricants	8.644	429	8,215	5,224	761	4,463
Waxes	0,011	0	0,210	0,221	0	0
Asphalt and Road Oil	4.939	84	4,855	5.783	1,947	3,836
Miscellaneous Products	0	0	0	0	0	0
Total	1,165,839	115,224	1,050,615	1,269,541	176,830	1,092,711

		PAD District I	II	ı	PAD District I	/		PAD District V	1
Commodity	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts	Receipts	Shipments	Net Receipts
Crude Oil	24,268	720,443	-696,175	10,430	44,838	-34,408	0	0	0
Petroleum Products	126,467	1,543,936	-1,417,469	41,550	83,247	-41,697	46,882	459	46,423
Pentanes Plus	6,210	6.036	174	8	6.040	-6,032	. 0	0	0
Liquefied Petroleum Gases	88,202	73.056	15.146	1.118	56,265	-55.147	0	0	0
Ethane/Ethylene	53,523	2,325	51,198	, 0	29,930	-29,930	0	0	0
Propane/Propylene	22,232	60.166	-37,934	1,055	16,838	-15,783	0	0	0
Normal Butane/Butylene	7,598	4,584	3,014	33	5,670	-5,637	0	0	0
Isobutane/Isobutylene	4.849	5,981	-1,132	30	3,827	-3,797	0	0	0
Unfinished Oils	2,515	3.077	-562	0	0	0	138	260	-122
Motor Gasoline Blending Components	287	40.162	-39.875	0	0	0	8,531	0	8,531
Finished Motor Gasoline	17,682	806,907	-789,225	18,084	14,279	3,805	29,705	0	29,705
Reformulated	6.917	149,433	-142,516	0	, 0	0	94	0	94
Oxygenated		7.043	-7.043	0	0	0	7,043	0	7,043
Other		650,431	-639,666	18.084	14,279	3.805	22,568	0	22,568
Finished Aviation Gasoline		1,644	-1.644	102	, 0	102	0	0	0
Jet Fuel	0	218,976	-218,976	14,233	631	13,602	2,858	0	2,858
Naphtha-Type	0	0	0	0	0	0	0	0	0
Kerosene-Type	0	218,976	-218,976	14,233	631	13,602	2,858	0	2,858
Kerosene	Ö	703	-703	0	120	-120	0	0	0
Distillate Fuel Oil	5.474	360.123	-354.649	8,005	5,912	2,093	5.532	0	5.532
0.05 percent sulfur and under	4.360	242,599	-238,239	8.005	5.908	2.097	4,991	0	4.991
Greater than 0.05 percent sulfur	1,114	117,524	-116,410	0	4	-4	541	0	541
Residual Fuel Oil	3.690	8,315	-4.625	0	0	0	0	0	0
Petrochemical Feedstocks ^a	1,230	1.260	-30	0	0	0	0	0	0
Special Naphthas	84	1,296	-1.212	0	0	0	0	0	0
Lubricants	865	13,462	-12,597	Ō	Ō	Ö	118	199	-81
Waxes	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	228	8,919	-8,691	Ō	Ō	Ō	Ō	Ō	0
Miscellaneous Products	0	0	0	0	0	0	0	0	0
Total	150,735	2,264,379	-2,113,644	51,980	128,085	-76,105	46,882	459	46,423

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 36. Number and Capacity of Operable Petroleum Refineries by PAD District and State as of January 1, 2002

PAD District and State PAD District I	Total 16	Number of perable Refiner Operating			Barrels per			Barrels per	
State PAD District I	Total 16	Operating							
PAD District I	16			1	Calendar Day			Stream Day	
			<b>Idle</b> ^a	Total	Operating	ldle	Total	Operating	ldle
		13	3	1,714,600	1,576,600	138,000	1,805,400	1,659,900	145,500
Delaware		1	0	175,000	175,000	0	180,000	180,000	0
Georgia	2	1	1	33,400	5,400	28,000	40,000	8,000	32,000
New Jersey	6	4	2	669,000	559,000	110,000	695,100	581,600	113,500
Pennsylvania		5	0	760,000	760,000	0	808,500	808,500	0
Virginia	. 1	1	0	58,600	58,600	0	61,800	61,800	0
West Virginia	1	1	0	18,600	18,600	0	20,000	20,000	0
PAD District II	27	26	1	3,590,623	3,428,053	162,570	3,767,449	3,600,449	167,000
Illinois	5	4	1	942,370	779,800	162,570	994,300	827,300	167,000
Indiana	2	2	0	433,000	433,000	0	444,000	444,000	0
Kansas	3	3	0	300,200	300,200	0	310,000	310,000	0
Kentucky	2	2	0	227,500	227,500	0	253,300	253,300	0
Michigan		1	0	74,000	74,000	0	76,000	76,000	0
Minnesota	2	2	0	335,000	335,000	0	369,000	369,000	0
North Dakota	1	1	0	58,000	58,000	0	60,000	60,000	0
Ohio	4	4	0	525,500	525,500	0	539,000	539,000	0
Oklahoma	5	5	0	482,053	482,053	0	501,849	501,849	0
Tennessee	1	1	0	180,000	180,000	0	182,000	182,000	0
Wisconsin	1	1	0	33,000	33,000	0	38,000	38,000	0
PAD District III	56	52	4	7,779,500	7,583,080	196,420	8,203,699	7,991,699	212,000
Alabama	3	2	1	130,000	113,500	16,500	140,000	120,000	20,000
Arkansas	2	2	0	64,800	64,800	0	73,500	73,500	0
Louisiana	18	16	2	2,735,920	2,656,000	79,920	2,864,355	2,775,355	89,000
Mississippi		4	0	334,800	334,800	0	393,300	393,300	0
New Mexico	3	3	0	95,600	95,600	0	101,107	101,107	0
Texas	26	25	1	4,418,380	4,318,380	100,000	4,631,437	4,528,437	103,000
PAD District IV	16	16	0	572,370	567,370	5,000	601,650	596,150	5,500
Colorado	2	2	0	89,000	89,000	0	94,500	94,500	0
Montana		4	0	180,000	180,000	0	188,800	188,800	0
Utah		5	0	162,700	157,700	5,000	172,000	166,500	5,500
Wyoming	5	5	0	140,670	140,670	0	146,350	146,350	0
PAD District V		37	1	3,128,298	3,091,198	37,100	3,297,353	3,254,353	43,000
Alaska	6	6	0	357,428	357,428	0	404,003	404,003	0
California		21	1	2,000,020	1,978,020	22,000	2,097,600	2,070,600	27,000
Hawaii		2	0	147,500	147,500	0	152,000	152,000	0
Nevada		2	0	5,000	5,000	0	5,000	5,000	0
Oregon		1	0	0	0	0	0	0	0
Washington	5	5	0	618,350	603,250	15,100	638,750	622,750	16,000
U.S. Total	153	144	9	16,785,391	16,246,301	539,090	17,675,551	17,102,551	573,000
Puerto Rico	3	0	3	87,000	0	87,000	93,000	0	93,000
Virgin Islands		1	0	495,000	470,000	25,000	525,000	495,000	30,000
virgin islanus		<u> </u>	<u> </u>	495,000	470,000	25,000	525,000	495,000	30,000

Table 36. Number and Capacity of Operable Petroleum Refineries by PAD District and State as of January 1, 2002 (Continued)

			Downstrear	n Charge Capa	city (Barrels p	er Stream Day	) _	
PAD District and	Vacuum Distillation	Thermal Cracking	Catalytic	Cracking	Catalytic Hydro-	Catalytic Reforming	Catalytic Hydro-	Fuels Solvent
State	Distillation	Ordoning	Fresh	Recycled	cracking	rtcrommig	treating	Deasphalting
PAD District I	735.900	90.000	722,200	7.000	42.000	311,300	1,002,460	21,000
Delaware	102,000	46,500	77,000	4,000	20,000	41,000	191,500	0
Georgia	0	0	0	0	0	0	0	0
New Jersey	288.000	24,500	316,500	0	0	83.000	309.500	21,000
Pennsylvania	300,000	24,000	300,500	1,000	22,000	171,800	460,300	21,000
Virginia	37,300	19.000	28,200	2,000	0	12.100	30,860	0
West Virginia	8,600	0	0	0	0	3,400	10,300	0
PAD District II	1,516,600	400,300	1,265,346	13,550	151,700	901,864	2,608,864	30,650
Illinois	406,900	143,300	336,000	3,000	60,500	255,200	652,300	0
Indiana	255,000	36,000	173,200	4,200	0	96,500	311,800	0
Kansas	123,000	58,000	90,000	500	0	68,000	268,900	0
Kentucky	96,000	0	101,000	0	0	49,000	205,800	13,000
Michigan	38,000	0	30,000	0	0	21,000	51,200	0
Minnesota	232,000	70,000	111,000	0	0	72,800	384,000	0
North Dakota	0	0	26,000	3,600	0	12,100	24,600	0
Ohio	183,500	58,500	184,000	0	85,200	165,500	273,100	12,800
Oklahoma	161,700	34,500	133,146	2,250	6,000	117,764	307,364	4,850
Tennessee	0	0 .,000	70.000	0	0	36,000	113,000	0
Wisconsin	20,500	0	11,000	0	0	8,000	16,800	0
PAD District III	3,694,775	1,188,300	2,980,010	49,000	836,200	1,817,700	5,880,600	221,500
Alabama	59,000	14,000	0	0	0	27,200	70,400	0
Arkansas	25,500	0	19,700	0	0	13,600	54,500	6,000
Louisiana	1,251,000	477,300	1,097,100	11,000	203,500	555,900	1,775,550	41,000
Mississippi	310,875	75,000	68,000	0	167,000	96,000	164,900	0
New Mexico	23,000	0	34,300	3,500	0	25,800	67,300	0
Texas	2,025,400	622,000	1,760,910	34,500	465,700	1,099,200	3,747,950	174,500
PAD District IV	234,200	45,700	184,293	6,490	16,600	126,193	369,245	9,040
Colorado	32,500	0	28,600	2,000	0	20,700	48,200	0
Montana	90,200	27,200	57,000	990	5,600	40,530	151,500	4,000
Utah	44,000	8,500	49,900	3,000	0	35,000	75,100	5,040
Wyoming	67,500	10,000	48,793	500	11,000	29,963	94,445	0
PAD District V	1,597,400	604,300	837,000	4,000	586,100	596,000	1,983,600	80,000
Alaska	25,800	0	0	0	12,500	12,000	12,000	0
California	1,210,200	504,300	680,000	1,000	498,600	428,300	1,650,400	50,000
Hawaii	74,300	13,000	22,000	0	18,000	13,000	15,500	0
Nevada	8,000	0	0	0	0	0	0	0
Oregon	12,000	0	0	0	0	0	0	0
Washington	267,100	87,000	135,000	3,000	57,000	142,700	305,700	30,000
U.S. Total	7,778,875	2,328,600	5,988,849	80,040	1,632,600	3,753,057	11,844,769	362,190
Puerto Rico	57,000	0	14,200	0	15,600	69,700	99,800	0
Virgin Islands	225,000	85,000	145,000	0	0	115,000	405,000	0

^a Refineries where distillation units were completely idle but not permanently shutdown on January 1, 2002. Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 37. Production Capacity of Operable Petroleum Refineries by PAD District and State as of January 1, 2002 (Barrels per Stream Day, Except Where Noted)

				Product	ion Capacity			
PAD District and State	Alkylates	Aromatics	Asphalt and Road Oil	Isomers	Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short tons/day)
PAD District I	107,400	20,900	141,370	24,900	20,145	21,610	84	1,289
Delaware	10,900	1,400	0	0	0	8,710	55	596
Georgia	0	0	29,400	0	0	0	0	0
New Jersey	38,200	7,500	91,500	13,100	12,000	7,500	21	283
Pennsylvania	54,100	12,000	20,000	11,800	2,945	0	7	370
Virginia	4,200	0	0	0	0	5,400	0	39
West Virginia	0	0	470	0	5,200	0	1	1
PAD District II	266,168	56,400	347,481	178,097	18,700	103,615	365	5,219
Illinois	92,500	13,500	105,150	17,750	0	32,560	60	1,739
Indiana	37,700	17,000	65,700	28,200	0	13,400	31	550
Kansas	26,200	3,000	0	26,000	0	15,325	6	462
Kentucky	13,000	11,700	23,000	14,250	9,900	0	0	448
Michigan	4,100	0	22,000	0	0	0	0	147
Minnesota	17.500	0	62,000	36.000	0	22.000	123	1.103
North Dakota	4,400	0	0	0	0	0	0	17
Ohio	26,300	11,200	28,000	26,000	0	12.700	99	524
Oklahoma	30,968	0	34,131	21,897	8,800	7,630	46	172
Tennessee	12,000	0	0	6,000	0	0	0	43
Wisconsin	1,500	0	7,500	2,000	0	0	0	14
PAD District III	574,100	231,160	243,075	329,998	146,895	289,568	1,404	17,191
Alabama	0	0	24,000	3,100	0	2,500	6	115
Arkansas	4,900	0	11,200	6,500	5,000	0	3	157
Louisiana	208,500	26,500	72,575	117,476	61,100	108,631	197	5,322
Mississippi	16,200	21,000	39,700	0	8,300	22,080	238	1,300
New Mexico	8,600	0	6,400	13,822	0	0	0	142
Texas	335,900	183,660	89,200	189,100	72,495	156,357	960	10,155
PAD District IV	40,783	0	65,600	15,420	0	9,948	91	672
Colorado	0	0	11,200	1,046	0	0	0	118
Montana	16,000	0	31,700	5,950	0	5,700	58	372
Utah	15,200	0	3,300	7,400	0	1,748	1	53
Wyoming	9,583	0	19,400	1,024	0	2,500	32	129
PAD District V	192,100	4,300	119,443	109,100	32,400	123,058	1,300	4,736
Alaska	0	2,800	3,000	4,000	0	0	13	20
California	158,000	1,500	76,783	85,500	32,400	119,110	1,136	4,226
Hawaii	5,000	0	16,000	3,200	0	0	21	34
Nevada	0	0	2,000	0	0	0	0	0
Oregon	0	0	8,160	0	0	0	0	0
Washington	29,100	0	13,500	16,400	0	3,948	130	456
U.S. Total	1,180,551	312,760	916,969	657,515	218,140	547,799	3,244	29,107
Puerto Rico	0	19,200	1,000	0	0	0	19	83
Virgin Islands	20.000	20,000	0	18,000	0	0	0	550
J	,	,	-	,	-	-	-	

MMcfd = Million cubic feet per day. Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

## Directory of Operable Petroleum Refineries on Tables 38 and 39

Refiner	State(s) ^a	Refiner	State(s) ^a
Age Refining & Marketing	TX	Lion Oil Co.	AR
Alon USA LP		Little America Refining Co	WY
Amerada Hess Corp		Lunday Thagard	CA
American International Rfy Inc	LA	Lyondell Citgo Refining Co. Ltd	TX
American Refining Group Inc			IL, KY, LA, MI, MN, OH, TX
Atofina Petrochemicals Inc		Montana Refining Co	MT
BP Expl (Alaska) Inc	AK	Motiva Enterprises LLC	DE, LA, TX
BP Products North America, Inc	IN, OH, TX, VA	Murphy Oil U.S.A. Inc.	LA, W
BP West Coast Products LLC		NCRA	KS
Big West Oil Co			NM
Calcasieu Refining Co		Orion Refining Corp	LA
Calumet Lubricants Co. LP			IL
Caribbean Petroleum Corp			CA
Cenex Harvest States Coop		•	Ak
Chalmette Refining LLC			CA, IL, LA, NJ, PA, TX, UT, WA
Chevron Phillips Chem PR Core		Phillips Alaska, Inc.	Ak
Chevron U.S.A. Inc.			LA
Citgo Asphalt Refining Co		9	IL, OH, TX
Citgo Petroleum Corp			CA
Citgo Refining & Chemical Inc			PF
Coastal Eagle Point Oil Co		Shell Chemical LP	
Coastal Mobile Refg Co			W
Colorado Refg Co			OK, W\
Conoco Inc.		Somerset Refinery Inc.	•
Countrymark Cooperative Inc		South Hampton Refining Co	
Cross Oil Refining and Mktg, Inc			MS
Crown Central Petroleum Corp			OH. OK. P/
Deer Park Refg Ltd Ptnrshp			P/
Diamond Shamrock Refg & Mktg		TPI Petro Inc.	
Edgington Oil Co			C <i>F</i>
Equilon Enterprises LLC		,	H
Ergon Refining Inc			Ar
Ergon West Virginia Inc.			ND, UT, WA
ExxonMobil Refg & Supply Co			C <i>F</i>
Farmland Industries Inc			T>
Flint Hills Resources LP		•	WA
		S S	C <i>F</i>
Foreland Refining Corp		United Refining Co	
Frontier Refg Inc.		Valero Refining Co. California	
Frontier Refining & Marketing Inc Giant Industries Inc			L
		Valero Refining Co. New Jersey	
Giant Refining Co		Valero Refining Co. New Jersey	
Greka Energy		3	Ak
Haltermann Products			
Hovensa LLC		Williams Refining LLC	
Hunt Refining Co.		,	Ok
nland Refining Inc			WY
Kern Oil & Refining Co La Gloria Oil & Gas Co		roung Ketining Corp	GA

^aIncludes Puerto Rico (PR) and Virgin Islands (VI).

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Barrels per Stream Day, Except Where Noted)

			Oil Distillation Ca	pacity		Downstr	eam Charge Ca		
	Barrel	s per	Barrel	s per			Thermal Cracking		
	Calend	ar Day	Stream	n Day	Vacuum	Delayed			Other/
State/Refiner/Location	Operating	Idle	Operating	Idle	Distillation	Coking	Fluid Coking	Visbreaking	Gas Oil
Alabama	113,500	16,500	120,000	20,000	59,000	14,000	0	0	0
Coastal Mobile Refg Co.									
Chickasaw	0	16,500	0	20,000	14,000	0	0	0	0
Hunt Refining Co.		,		*	,				
Tuscaloosa	33,500	0	35,000	0	15,000	14,000	0	0	0
Shell Chemical LP									
Saraland (Mobile)	80,000	0	85,000	0	30,000	0	0	0	0
Alaska	357,428	0	404,003	0	25,800	0	0	0	0
BP Expl (Alaska) Inc									
(Formerly Phillips Alaska, Inc.)									
Prudhoe Bay	12,500	0	14,200	0	0	0	0	0	0
Petro Star Inc.									
North Pole	15,000	0	15,500	0	0	0	0	0	0
Valdez	46,000	0	47,500	0	0	0	0	0	0
Phillips Alaska, Inc.	44.000	0	40,000	0	0	0	0	0	0
Kuparuk Tesoro Petroleum Corp.	14,000	0	16,000	0	0	0	0	0	0
Kenai	72,000	0	80,000	0	19,800	0	0	0	0
Williams Alaska Petro Inc.	72,000	O	00,000	O	13,000	O	O	O	U
North Pole	197,928	0	230,803	0	6,000	0	0	0	0
Arkansas	64.800	0	73,500	0	25,500	0	0	0	0
	0 1,000		. 0,000		_0,000	•	•	•	
Cross Oil Refining and Mktg, Inc. Smackover	6,800	0	7,000	0	3,500	0	0	0	0
Lion Oil Co.	0,000	U	7,000	U	3,300	U	Ü	Ü	U
El Dorado	58,000	0	66,500	0	22,000	0	0	0	0
	00,000	ŭ	00,000		,000				
California	1,978,020	22,000	2,070,600	27,000	1,210,200	399,300	100,000	5,000	0
BP West Coast Products LLC									
(Formerly Atlantic Richfield Co.)		_		_			_		_
Los Angeles	260,000	0	260,500	0	130,000	65,000	0	0	0
Chevron U.S.A. Inc.	260,000	0	272 000	0	127.000	66,000	0	0	0
El SegundoRichmond	260,000	0	273,000	0	137,000 115,000	66,000 0	0 0	0	0
Edgington Oil Co.	225,000	U	240,000	U	115,000	U	U	U	U
(Formerly Petroleum Fuel & Term	inal)								
		12.000	25.000	15.000	0	0	0	0	0
Long Beach	14,000	12,000	25,000	15,000	0	0	0	0	0
Long Beach Equilon Enterprises LLC		12,000 0	25,000 68,000	15,000 0	0 40,000	0 22,000	0	0	0
Long Beach Equilon Enterprises LLC Bakersfield Martinez	14,000			•					
Long Beach	14,000 66,000	0	68,000	0	40,000	22,000	0	0	0
Long Beach	14,000 66,000 159,250 98,500	0 0 0	68,000 162,500 107,000	0 0 0	40,000 108,500 61,000	22,000 26,000 43,500	0 22,500 0	0 0 0	0 0 0
Long Beach	14,000 66,000 159,250	0	68,000 162,500	0	40,000 108,500	22,000 26,000	0 22,500	0	0
Long Beach	14,000 66,000 159,250 98,500 148,500	0 0 0	68,000 162,500 107,000 154,600	0 0 0	40,000 108,500 61,000 102,300	22,000 26,000 43,500 53,400	0 22,500 0	0 0 0	0 0 0
Long Beach	14,000 66,000 159,250 98,500	0 0 0	68,000 162,500 107,000	0 0 0	40,000 108,500 61,000	22,000 26,000 43,500	0 22,500 0	0 0 0	0 0 0
Long Beach	14,000 66,000 159,250 98,500 148,500 9,500	0 0 0 0	68,000 162,500 107,000 154,600 10,000	0 0 0 0	40,000 108,500 61,000 102,300 10,000	22,000 26,000 43,500 53,400	0 22,500 0 0	0 0 0 0	0 0 0
Long Beach	14,000 66,000 159,250 98,500 148,500	0 0 0	68,000 162,500 107,000 154,600	0 0 0	40,000 108,500 61,000 102,300	22,000 26,000 43,500 53,400	0 22,500 0	0 0 0	0 0 0
Long Beach	14,000 66,000 159,250 98,500 148,500 9,500 24,700	0 0 0 0	68,000 162,500 107,000 154,600 10,000 25,000	0 0 0 0	40,000 108,500 61,000 102,300 10,000	22,000 26,000 43,500 53,400	0 22,500 0 0	0 0 0 0	0 0 0
Long Beach	14,000 66,000 159,250 98,500 148,500 9,500	0 0 0 0	68,000 162,500 107,000 154,600 10,000	0 0 0 0	40,000 108,500 61,000 102,300 10,000	22,000 26,000 43,500 53,400 0	0 22,500 0 0 0	0 0 0 0	0 0 0 0
Long Beach	14,000 66,000 159,250 98,500 148,500 9,500 24,700	0 0 0 0	68,000 162,500 107,000 154,600 10,000 25,000	0 0 0 0	40,000 108,500 61,000 102,300 10,000	22,000 26,000 43,500 53,400 0	0 22,500 0 0 0	0 0 0 0	0 0 0 0
Long Beach	14,000 66,000 159,250 98,500 148,500 9,500 24,700 8,500	0 0 0 0 0	68,000 162,500 107,000 154,600 10,000 25,000	0 0 0 0 0 0 0	40,000 108,500 61,000 102,300 10,000 0 7,000	22,000 26,000 43,500 53,400 0 0	0 22,500 0 0 0	0 0 0 0 0	0 0 0 0 0 0 0 0
Long Beach	14,000 66,000 159,250 98,500 148,500 9,500 24,700 8,500	0 0 0 0 0	68,000 162,500 107,000 154,600 10,000 25,000	0 0 0 0 0 0 0	40,000 108,500 61,000 102,300 10,000 0 7,000	22,000 26,000 43,500 53,400 0 0	0 22,500 0 0 0	0 0 0 0 0	0 0 0 0 0 0 0
Long Beach	14,000 66,000 159,250 98,500 148,500 9,500 24,700 8,500 48,000	0 0 0 0 0 0	68,000 162,500 107,000 154,600 10,000 25,000 10,000 50,000		40,000 108,500 61,000 102,300 10,000 0 7,000 28,000	22,000 26,000 43,500 53,400 0 0	0 22,500 0 0 0 0 0		0 0 0 0 0 0 0
Long Beach	14,000 66,000 159,250 98,500 148,500 9,500 24,700 8,500 48,000 41,800 73,200	0 0 0 0 0 0	68,000 162,500 107,000 154,600 10,000 25,000 10,000 50,000 44,000 77,000		40,000 108,500 61,000 102,300 10,000 0 7,000 28,000 33,600 40,000	22,000 26,000 43,500 53,400 0 0 0 23,400 22,000	0 22,500 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Long Beach	14,000 66,000 159,250 98,500 148,500 9,500 24,700 8,500 48,000	0 0 0 0 0 0	68,000 162,500 107,000 154,600 10,000 25,000 10,000 50,000		40,000 108,500 61,000 102,300 10,000 0 7,000 28,000	22,000 26,000 43,500 53,400 0 0	0 22,500 0 0 0 0 0		0 0 0 0 0 0 0
Long Beach	14,000 66,000 159,250 98,500 148,500 9,500 24,700 8,500 48,000 41,800 73,200	0 0 0 0 0 0	68,000 162,500 107,000 154,600 10,000 25,000 10,000 50,000 44,000 77,000		40,000 108,500 61,000 102,300 10,000 0 7,000 28,000 33,600 40,000	22,000 26,000 43,500 53,400 0 0 0 23,400 22,000	0 22,500 0 0 0 0 0		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued) (Barrels per Stream Day, Except Where Noted)

					stream Char	ge Capacity				
	Catalytic	Cracking	Catalytic	Catalytic Low	Reforming High	Heavy	Catalytic Hydro Naphtha	otreating	Other/	Fuel Solvents
Location	Fresh	Recycled	Hydrocracking	Pressure	Pressure	Gas Oil	Reformer Feed	Distillate	Residual	Deasphalting
Alabama	0	0	0	7,200	20,000	9,900	27,500	33,000	0	0
Chickasaw	0	0	0	0	0	0	0	0	0	0
Tuscaloosa	0	0	0	7,200	0	9,900	9,000	12,000	0	0
Saraland (Mobile)	0	0	0	0	20,000	0	18,500	21,000	0	0
Alaska	0	0	12,500	12,000	0	0	12,000	0	0	0
Prudhoe Bay	0	0	0	0	0	0	0	0	0	0
North PoleValdez	0		0 0	0	0	0	0 0	0		
Kuparuk	0	0	0	0	0	0	0	0	0	0
Kenai	0	0	12,500	12,000	0	0	12,000	0	0	0
North Pole	0	0	0	0	0	0	0	0	0	0
Arkansas	19,700	0	0	13,600	0	21,000	20,000	8,500	5,000	6,000
Smackover	0	0	0	0	0	0	0	0	5,000	0
El Dorado	19,700	0	0	13,600	0	21,000	20,000	8,500	0	6,000
California	680,000	1,000	498,600	188,300	240,000	626,200	472,100	410,900	141,200	50,000
Los Angeles	96,000	0	43,000	0	52,000	90,000	40,000	27,000	16,000	0
El Segundo	65,000 70,000		49,000 154,000	42,000 62,000	0	72,000 0	73,500 55,000	60,000 95,000	15,000 26,000	
Long Beach	0	0	0	0	0	0	0	0	0	0
Bakersfield Martinez Wilmington	73,000 36,000	0	24,000 38,000 32,000	16,300 31,000 0	0 0 29,500	21,000 77,000 33,000	13,800 28,000 22,000	0 24,000 15,000	9,500 41,100 10,500	0
Torrance	93,700	0	24,900	0	20,000	103,200	22,800	18,000	0	0
Santa Maria	0	0	0	0	0	0	0	0	0	0
Bakersfield	0	0	0	0	3,300	0	5,000	9,000	0	0
South Gate	0	0	0	0	0	0	0	0	0	0
Paramount	0	0	0	0	9,000	12,000	10,000	8,000	0	0
Arroyo Grande	0		0 35,000	0	32,000	0	0 21,000	0 23,000	0	
Rodeo Wilmington	47,000		27,000	0	32,000 37,000	52,000	53,000	36,000		

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued) (Barrels per Stream Day, Except Where Noted)

-		•	Dil Distillation C			Downstr	eam Charge Ca		
		ls per	I	ls per			Thermal C	racking	
		lar Day		m Day	Vacuum Distillation	Delayed	Fluid Caldina	Vialana akima	Other/
State/Refiner/Location	Operating	Idle	Operating	Idle	Distillation	Coking	Fluid Coking	Visbreaking	Gas Oi
Tenby Inc.	4.000		<b>5</b> 000				•	•	•
Oxnard  Tricor Refining LLC	4,000	0	5,000	0	0	0	0	0	0
(Formerly Golden Bear Oil Specia	ılties)								
Bakersfield	0	0	0	0	11,000	0	0	0	0
Jitramar Inc.					,				
Martinez	166,000	0	170,000	0	153,000	0	48,000	0	0
Wilmington	76,000	0	78,000	0	44,000	28,000	0	0	0
/alero Refining Co. California Benicia ^a	144,000	0	153,000	0	88,500	0	29,500	0	0
(Formerly Huntway Refining Co.)	144,000	U	133,000	U	00,000	U	29,500	0	U
Wilmington	5,770	0	6,000	0	5,000	0	0	0	0
Colorado	89,000	0	94,500	0	32,500	0	0	0	0
	69,000	U	34,300	U	32,300	U	U	U	U
Colorado Refg Co.  Commerce City	27,000	0	32,000	0	7,500	0	0	0	0
Conoco Inc.	2.,000	J	02,000	· ·	,,000	0	J	O	
Commerce City	62,000	0	62,500	0	25,000	0	0	0	C
Delaware	175,000	0	180,000	0	102,000	0	46,500	0	0
Notiva Enterprises LLC	110,000	-	100,000	-	10_,000		10,000		
Delaware City	175,000	0	180,000	0	102,000	0	46,500	0	C
							·		
Seorgia	5,400	28,000	8,000	32,000	0	0	0	0	0
Citgo Asphalt Refining Co.			_						_
Savannah	0	28,000	0	32,000	0	0	0	0	C
oung Refining Corp.  Douglasville	5,400	0	8,000	0	0	0	0	0	C
Douglacymo	0,100	Ü	0,000	Ü	ŭ	· ·	· ·	· ·	·
ławaii	147,500	0	152,000	0	74,300	0	0	13,000	0
Chevron U.S.A. Inc.									
Honolulu	54,000	0	57,000	0	31,300	0	0	0	C
esoro Hawaii Corp. Ewa Beach	93,500	0	95,000	0	43,000	0	0	13,000	C
Lwa Boadii	50,000	· ·	50,000	· ·	40,000	O .	· ·	10,000	
llinois	779,800	162,570	827,300	167,000	406,900	143,300	0	0	0
xxonMobil Refg & Supply Co.									
Joliet	235,500	0	245,300	0	117,700	57,800	0	0	C
Marathon Ashland Petro LLC Robinson	192,000	0	205,000	0	65,200	29,000	0	0	C
PDV Midwest Refining LLC	132,000	O	200,000	O	03,200	23,000	O	O	
Lemont (Chicago)	0	162,570	0	167,000	75,000	39,000	0	0	(
Phillips 66 Co.									
(Formerly Tosco Petro Co.) Wood River	200 200	0	310,000	0	119,000	0	0	0	C
Premcor Refg Group Inc	288,300	0	310,000	U	119,000	U	U	U	U
Hartford	64,000	0	67,000	0	30,000	17,500	0	0	0
ndiana	433,000	0	444,000	0	255,000	36,000	0	0	0
	733,000	U	777,000	U	233,000	30,000	U		
BP Products North America, Inc. (Formerly BP Amoco PLC)									
Whiting	410,000	0	420,000	0	247,000	36,000	0	0	0
Countrymark Cooperative Inc.	5,000	ŭ	3,003	· ·	,000	- 3,000	·	·	
	23,000	0	24,000	0	8,000	0	0	0	0
Mount Vernon									
Mount Vernon	300,200	0	310,000	0	123,000	58,000	0	0	0
Mount Vernon	300,200	0	310,000	0	123,000	58,000	0	0	C

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued) (Barrels per Stream Day, Except Where Noted)

(Barreis per Streat		<u>'</u>			stream Char	ge Capacity	(Continued)			
	Catalytic	Cracking	Catalytia	_	Reforming		Catalytic Hydro	otreating		Fuel
Location	Fresh	Recycled	Catalytic Hydrocracking	Low Pressure	High Pressure	Heavy Gas Oil	Naphtha Reformer Feed	Distillate	Other/ Residual	Solvents Deasphalting
Oxnard	0	0	0	0	0	0	0	0	0	0
Bakersfield	0	0	0	0	0	0	0	2,000	1,400	0
Martinez Wilmington	70,000 54,000	,	35,000 0	22,000 15,000	20,000	65,000 62,000	25,000 28,000	33,000 30,000	0	
Benicia ^a	75,300	0	36,700	0	37,200	39,000	75,000	27,900	21,700	0
Wilmington	0	0	0	0	0	0	0	0	0	0
Colorado	28,600	2,000	0	20,700	0	14,500	20,700	13,000	0	0
Commerce City	9,500	2,000	0	10,500	0	0	10,500	0	0	0
Commerce City	19,100	0	0	10,200	0	14,500	10,200	13,000	0	0
Delaware	77,000	4,000	20,000	41,000	0	0	97,000	61,500	33,000	0
Delaware City	77,000	4,000	20,000	41,000	0	0	97,000	61,500	33,000	0
Georgia	0	0	0	0	0	0	0	0	0	0
Savannah	0	0	0	0	0	0	0	0	0	0
Douglasville	0	0	0	0	0	0	0	0	0	0
Hawaii	22,000	0	18,000	13,000	0	0	12,000	0	3,500	0
Honolulu	22,000	0	0	0	0	0	0	0	3,500	0
Ewa Beach	0	0	18,000	13,000	0	0	12,000	0	0	0
Illinois	336,000	3,000	60,500	194,000	61,200	29,000	291,600	301,200	30,500	0
Joliet	98,000	0	0	44,000	0	0	92,400	86,000	0	0
Robinson	53,000	0	27,000	75,000	0	0	60,000	70,000	0	0
Lemont (Chicago)	64,000	3,000	0	0	31,200	0	61,700	50,500	0	0
Wood River	94,000	0	33,500	75,000	16,000	29,000	64,000	80,000	30,500	0
Hartford	27,000	0	0	0	14,000	0	13,500	14,700	0	0
Indiana	173,200	4,200	0	6,500	90,000	101,300	127,500	83,000	0	0
Whiting	165,000	4,000	0	0	90,000	101,300	117,500	83,000	0	0
Mount Vernon	8,200	200	0	6,500	0	0	10,000	0	0	0
Kansas	90,000	500	0	29,000	39,000	45,000	105,500	107,400	11,000	0
Coffeyville	30,000	0	0	0	17,000	0	30,000	37,000	0	0

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued) (Barrels per Stream Day, Except Where Noted)

			Oil Distillation Ca	pacity		Downstr	eam Charge Ca		
	Barre		Barre	•			Thermal C	racking	
	Calend		Strear		Vacuum Distillation	Delayed	Florid Caldina	Viahua akin n	Other/
State/Refiner/Location	Operating	Idle	Operating	Idle	Distillation	Coking	Fluid Coking	Visbreaking	Gas Oil
Frontier Refining & Marketing Inc. (Formerly Frontier El Dorado Ref	• ,								
El Dorado NCRA	107,000	0	110,000	0	39,000	18,500	0	0	0
McPherson	81,200	0	85,000	0	34,000	22,000	0	0	0
Kentucky	227,500	0	253,300	0	96,000	0	0	0	0
Marathon Ashland Petro LLC Catlettsburg	222,000	0	247,000	0	96,000	0	0	0	0
Somerset Refinery Inc. Somerset	5,500	0	6,300	0	0	0	0	0	0
Louisiana	2,656,000	79,920	2,775,355	89,000	1,251,000	453,700	0	13,000	10,600
American International Rfy Inc Lake Charles Calcasieu Refining Co.	0	30,000	0	35,000	15,000	0	0	0	0
Lake CharlesCalumet Lubricants Co. LP	29,400	0	30,000	0	0	0	0	0	0
Cotton Valley	9,300	3,720	10,000	4,000	0	0	0	0	0
Princeton(Formerly Pennzoil-Quaker State	8,300 Corp.)	0	8,655	0	7,000	0	0	0	0
Shreveport	0	46,200	0	50,000	24,300	0	0	0	0
Chalmette	182,500	0	190,200	0	106,000	33,400	0	0	0
Lake Charles	326,000	0	338,000	0	86,000	107,000	0	0	0
Westlake ExxonMobil Refg & Supply Co.	252,000	0	255,000	0	132,000	53,500	0	0	10,600
Baton Rouge Marathon Ashland Petro LLC	488,500	0	509,000	0	229,500	112,600	0	0	0
Garyville Motiva Enterprises LLC	232,000	0	252,000	0	125,000	34,500	0	0	0
Convent	225,000	0	235,000	0	119,400	0	0	13,000	0
Norco Murphy Oil U.S.A. Inc.	228,000	0	240,000	0	80,000	22,200	0	0	0
Meraux Orion Refining Corp.	95,000	0	110,000	0	50,000	0	0	0	0
Norco (Good Hope) Phillips 66 Co. (Formerly Tosco Refining Co.)	148,500	0	155,000	0	105,000	65,000	0	0	0
Belle ChassePlacid Refining Co.	250,000	0	257,000	0	92,000	25,500	0	0	0
Port Allen	48,500	0	49,500	0	20,000	0	0	0	0
Saint RoseValero Refining Co. Louisiana	55,000	0	56,000	0	28,000	0	0	0	0
Krotz Springs	78,000	0	80,000	0	31,800	0	0	0	0
Michigan	74,000	0	76,000	0	38,000	0	0	0	0
Marathon Ashland Petro LLC Detroit	74,000	0	76,000	0	38,000	0	0	0	0
Minnesota	335,000	0	369,000	0	232,000	70,000	0	0	0
Flint Hills Resources LP (Formerly Koch Petroleum Group	·								
Saint Paul Marathon Ashland Petro LLC	265,000	0	290,000	0	200,000	70,000	0	0	0
Saint Paul Park	70,000	0	79,000	0	32,000	0	0	0	0

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued) (Barrels per Stream Day, Except Where Noted)

	Catalytic	Cracking				ge Capacity	(Continued) Catalytic Hydr	otrootina		
Location	Fresh	Recycled	Catalytic Hydrocracking	Low	Reforming High Pressure	Heavy Gas Oil	Naphtha Reformer Feed	Distillate	Other/ Residual	Fuel Solvents Deasphalting
Location	110311	Recycleu		riessuie	Fiessure	Gas Oil	Kelolillei I eeu	Distillate	Residual	
El Dorado	38,500	0	0	7,500	22,000	45,000	42,000	35,400	0	0
McPherson	21,500	500	0	21,500	0	0	33,500	35,000	11,000	0
Kentucky	101,000	0	0	48,000	1,000	40,000	50,300	92,000	23,500	13,000
Catlettsburg	101,000	0	0	48,000	0	40,000	49,000	92,000	23,500	13,000
Somerset	0	0	0	0	1,000	0	1,300	0	0	0
Louisiana	1,097,100	11,000	203,500	388,900	167,000	335,100	647,750	638,600	154,100	41,000
Lake Charles	0	0	0	0	0	0	0	0	0	0
Lake Charles	0	0	0	0	0	0	0	0	0	0
Cotton Valley	0		0	0	0	0	4,750 0	0	0 8,500	
Shreveport	3,500	7,000	0	8,000	0	8,000	8,000	8,000	1,200	
Chalmette	71,600	0	20,000	18,900	29,400	58,000	40,000	29,800	0	0
Lake Charles	150,000	0	44,500	98,000	18,000	75,000	128,000	37,500	47,000	0
Westlake	49,000	0	28,000	48,000	0	0	52,500	135,500	11,600	0
Baton Rouge	233,000	0	25,000	74,000	0	0	156,000	90,000	69,800	0
Garyville	115,000	0	0	49,000	0	104,000	50,000	66,000	0	36,000
Convent	92,000 112,000		52,000 34,000	0 40,000	40,000 22,000	27,600 0	41,000 38,500	100,800 45,000	0	
Meraux	38,000	0	0	18,000	0	27,500	22,000	15,000	0	0
Norco (Good Hope)	85,000	0	0	25,000	0	35,000	35,000	40,000	16,000	0
Belle Chasse	98,000	2,000	0	0	44,600	0	48,000	71,000	0	0
Port Allen	19,000	2,000	0	10,000	0	0	10,000	0	0	5,000
Saint Rose	0	0	0	0	0	0	0	0	0	0
Krotz Springs	31,000	0	0	0	13,000	0	14,000	0	0	0
Michigan	30,000	0	0	21,000	0	17,800	14,000	19,400	0	0
Detroit	30,000	0	0	21,000	0	17,800	14,000	19,400	0	0
Minnesota	111,000	0	0	59,000	13,800	128,000	127,000	129,000	0	0
Saint Paul	85,000	0	0	38,000	13,800	102,000	105,000	102,000	0	0
Saint Paul Park	26,000	0	0	21,000	0	26,000	22,000	27,000	0	0

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued) (Barrels per Stream Day, Except Where Noted)

	Sels per   Sels per	Barres Stream Operating 393,300 350,000 24,300 6,500 12,500 63,000 60,500 7,300 5,000 0 581,600 0	ldle  0 0 0 0 0 0 0 0 0 0 113,500	Vacuum Distillation  310,875  286,000  18,000  0 6,875  90,200  27,850  30,000  28,900  3,450  8,000  5,000 3,000  288,000	Delayed Coking 75,000 75,000 0 0 18,300 0 18,300 0 0 24,500	Thermal C Fluid Coking  0 0 0 0 0 8,900 0 8,900 0 0 0 0 0 0 0 0		Other/Gas Oil  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
erating 34,800 95,000 23,000 5,800 11,000 30,000 55,000 5,000 5,000 5,000 0	Idle	Operating 393,300 350,000 24,300 6,500 12,500 188,800 63,000 60,500 7,300 5,000 0 581,600	ldle  0 0 0 0 0 0 0 0 0 0 113,500	Distillation 310,875 286,000 18,000 0 6,875 90,200 27,850 30,000 28,900 3,450 8,000 5,000 3,000	75,000 75,000 0 0 18,300 0 18,300 0 0 0 0 0	0 0 0 0 8,900 0 8,900 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
34,800 95,000 23,000 5,800 11,000 30,000 55,000 7,000 5,000 0 59,000	0 0 0 0 0 0 0 0 0	393,300 350,000 24,300 6,500 12,500 188,800 63,000 60,500 7,300 5,000 0 581,600	0 0 0 0 0 0 0 0 0	310,875 286,000 18,000 0 6,875 90,200 27,850 30,000 28,900 3,450 8,000 5,000 3,000	75,000 75,000 0 0 0 18,300 0 18,300 0 0 0 0	0 0 0 0 8,900 0 8,900 0	0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0
95,000 23,000 5,800 11,000 80,000 55,000 7,000 5,000 5,000 0	0 0 0 0 0 0 0 0 0	350,000 24,300 6,500 12,500 188,800 58,000 63,000 60,500 7,300 5,000 0 581,600	0 0 0 0 0 0 0 0 0	286,000 18,000 0 6,875 <b>90,200</b> 27,850 30,000 28,900 3,450 <b>8,000</b> 5,000 3,000	75,000 0 0 0 18,300 0 18,300 0 0	0 0 0 8,900 0 8,900 0	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0
23,000 5,800 11,000 80,000 65,000 60,000 7,000 5,000 0 59,000	0 0 0 0 0 0 0 0	24,300 6,500 12,500 188,800 58,000 63,000 7,300 5,000 0 581,600	0 0 0 0 0 0 0 0	18,000 0 6,875 <b>90,200</b> 27,850 30,000 28,900 3,450 <b>8,000</b> 5,000 3,000	0 0 0 18,300 0 18,300 0 0	0 0 0 8,900 0 8,900 0	0 0 0 0 0 0 0	0 0 0 0 0 0
23,000 5,800 11,000 80,000 65,000 60,000 7,000 5,000 0 59,000	0 0 0 0 0 0 0 0	24,300 6,500 12,500 188,800 58,000 63,000 7,300 5,000 0 581,600	0 0 0 0 0 0 0 0	18,000 0 6,875 <b>90,200</b> 27,850 30,000 28,900 3,450 <b>8,000</b> 5,000 3,000	0 0 0 18,300 0 18,300 0 0	0 0 0 8,900 0 8,900 0	0 0 0 0 0 0 0	0 0 0 0 0 0
5,800 11,000 80,000 55,000 60,000 58,000 7,000 5,000 0	0 0 0 0 0 0 0	6,500 12,500 188,800 58,000 63,000 7,300 5,000 5,000 0	0 0 0 0 0 0 0 0	0 6,875 <b>90,200</b> 27,850 30,000 28,900 3,450 <b>8,000</b> 5,000 3,000	0 0 18,300 0 18,300 0 0	0 0 8,900 0 0 8,900 0	0 0 0 0 0 0 0	0 0 0 0 0 0
5,800 11,000 80,000 55,000 60,000 58,000 7,000 5,000 0	0 0 0 0 0 0 0	6,500 12,500 188,800 58,000 63,000 7,300 5,000 5,000 0	0 0 0 0 0 0 0	0 6,875 <b>90,200</b> 27,850 30,000 28,900 3,450 <b>8,000</b> 5,000 3,000	0 0 18,300 0 18,300 0 0	0 0 8,900 0 0 8,900 0	0 0 0 0 0 0 0	0 0 0 0 0 0
11,000 30,000 55,000 5,000 5,000 5,000 0	0 0 0 0 0 0 0	12,500  188,800  58,000  63,000  7,300  5,000  0  581,600	0 0 0 0 0 0 0	6,875  90,200  27,850  30,000  28,900  3,450  8,000  5,000 3,000	0 18,300 0 18,300 0 0	0 8,900 0 0 8,900 0	0 0 0 0 0 0	0 0 0 0 0 0
<b>30,000</b> 55,000 5,000 5,000 5,000 0 59,000	0 0 0 0 0 0	188,800 58,000 63,000 60,500 7,300 5,000 0 581,600	0 0 0 0 0 0	90,200 27,850 30,000 28,900 3,450 8,000 5,000 3,000	18,300 0 18,300 0 0	8,900 0 0 8,900 0	0 0 0 0 0 0	0 0 0 0 0
55,000 60,000 58,000 7,000 5,000 0 59,000	0 0 0 0 0	58,000 63,000 60,500 7,300 5,000 0 581,600	0 0 0 0 0	27,850 30,000 28,900 3,450 <b>8,000</b> 5,000 3,000	0 18,300 0 0 <b>0</b>	0 0 8,900 0 <b>0</b>	0 0 0 0 <b>0</b>	0 0 0 0 <b>0</b>
50,000 58,000 7,000 5,000 5,000 0	0 0 0 0	63,000 60,500 7,300 <b>5,000</b> 5,000 0	0 0 0 0 0 113,500	30,000 28,900 3,450 <b>8,000</b> 5,000 3,000	18,300 0 0 <b>0</b>	0 8,900 0 <b>0</b>	0 0 0 <b>0</b>	0 0 0 0 0 0
50,000 58,000 7,000 5,000 5,000 0	0 0 0 0	63,000 60,500 7,300 <b>5,000</b> 5,000 0	0 0 0 0 0 113,500	30,000 28,900 3,450 <b>8,000</b> 5,000 3,000	18,300 0 0 <b>0</b> 0	0 8,900 0 <b>0</b>	0 0 0 <b>0</b>	0 0 0 0 0 0
5,000 5,000 5,000 5,000 0	0 0 0 0 110,000	60,500 7,300 <b>5,000</b> 5,000 0	0 0 0 0 113,500	28,900 3,450 <b>8,000</b> 5,000 3,000	0 0 <b>0</b>	8,900 0 <b>0</b> 0	0 0 <b>0</b> 0	0 0 0
5,000 5,000 5,000 5,000 0	0 0 0 0 110,000	60,500 7,300 <b>5,000</b> 5,000 0	0 0 0 0 113,500	28,900 3,450 <b>8,000</b> 5,000 3,000	0 0 <b>0</b>	8,900 0 <b>0</b> 0	0 0 <b>0</b> 0	0 0 <b>0</b>
7,000 <b>5,000</b> 5,000 0 5,000	0 0 0 0 110,000	7,300 <b>5,000</b> 5,000 0 <b>581,600</b>	0 0 0 0 113,500	3,450 <b>8,000</b> 5,000 3,000	0 0 0	0 <b>0</b> 0	0 <b>0</b> 0	0
5,000 5,000 0 59,000	0 0 110,000	5,000 5,000 0 581,600	0 0 0	<b>8,000</b> 5,000 3,000	<b>0</b> 0 0	0 0	<b>0</b> 0 0	0 0
5,000 5,000 0 59,000	0 0 110,000	5,000 5,000 0 581,600	0 0 0	<b>8,000</b> 5,000 3,000	<b>0</b> 0 0	0 0	<b>0</b> 0 0	0 0
5,000 0	0 0 110,000	5,000 0 <b>581,600</b>	0 0 113,500	5,000 3,000	0	0	0	0
0 5 <b>9,000</b>	0 <b>110,000</b>	5 <b>81,600</b>	113,500	3,000	0	0	0	0
0 5 <b>9,000</b>	0 <b>110,000</b>	5 <b>81,600</b>	113,500	3,000	0	0	0	0
59,000	110,000	581,600	113,500	·	-			
,	·	ŕ	·	288,000	24,500	0	0	0
0	0	0	0					
0	0	0	^					
			0	0	0	0	0	0
0	80,000	0	83,000	47,000	0	0	0	0
O	00,000	Ü	00,000	47,000	O	· ·	Ü	O
0	30,000	0	30,500	40,000	0	0	0	0
10.000	0	4.40,000	0	40.000	0	0	0	0
13,000	0	146,000	0	49,000	0	0	0	0
50,000	0	263,000	0	65,000	0	0	0	0
	•	470.000	•	07.000	0.4.500	•		
66,000	0	172,600	0	87,000	24,500	0	0	0
95,600	0	101,107	0	23,000	0	0	0	0
16 000	0	10 107	0	0	0	0	0	0
10,600	U	16,107	U	U	U	U	U	0
20,800	0	21,000	0	0	0	0	0	0
		•						
58,000	0	62,000	0	23,000	0	0	0	0
58,000	0	60,000	0	0	0	0	0	0
-0.000	•	00.000	-		-		•	_
58,000	0	60,000	0	0	0	0	0	0
25,500	0	539,000	0	183,500	58,500	0	0	0
57.000	0	160,000	0	71,500	36,000	0	0	C
.,,000	0	74 000	0	30,000	Ω	0	0	(
2	8,000 8,000 8,000 5,500	0,800 0 8,000 0 8,000 0 8,000 0 5,500 0	0,800       0       21,000         8,000       0       62,000         8,000       0       60,000         8,000       0       60,000         5,500       0       539,000         7,000       0       160,000	0,800       0       21,000       0         8,000       0       62,000       0         8,000       0       60,000       0         8,000       0       60,000       0         5,500       0       539,000       0         7,000       0       160,000       0	0,800       0       21,000       0       0         8,000       0       62,000       0       23,000         8,000       0       60,000       0       0         8,000       0       60,000       0       0         5,500       0       539,000       0       183,500         7,000       0       160,000       0       71,500	0,800       0       21,000       0       0       0         8,000       0       62,000       0       23,000       0         8,000       0       60,000       0       0       0         8,000       0       60,000       0       0       0         5,500       0       539,000       0       183,500       58,500         7,000       0       160,000       0       71,500       36,000	0,800       0       21,000       0       0       0       0         8,000       0       62,000       0       23,000       0       0         8,000       0       60,000       0       0       0       0         8,000       0       60,000       0       0       0       0         5,500       0       539,000       0       183,500       58,500       0         7,000       0       160,000       0       71,500       36,000       0	0,800       0       21,000       0       0       0       0       0         8,000       0       62,000       0       23,000       0       0       0         8,000       0       60,000       0       0       0       0       0         8,000       0       60,000       0       0       0       0       0         5,500       0       539,000       0       183,500       58,500       0       0         7,000       0       160,000       0       71,500       36,000       0       0

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued) (Barrels per Stream Day, Except Where Noted)

		-		Down	stream Char	ge Capacity	(Continued)			
	Catalytic	Cracking	Catalytic		Reforming		Catalytic Hydr	otreating	011 /	Fuel Solvents
Location	Fresh	Recycled	Hydrocracking	Low Pressure	High Pressure	Heavy Gas Oil	Naphtha Reformer Feed	Distillate	Other/ Residual	Deasphalting
Mississippi	68,000	0	167,000	62,000	34,000	0	54,800	65,500	44,600	0
Pascagoula	68,000	0	167,000	62,000	34,000	0	54,800	65,500	36,000	0
Vicksburg	0	0	0	0	0	0	0	0	8,600	0
Lumberton	0	0	0	0	0	0	0	0	0	
Sandersville					0					
Montana	57,000	990	5,600	12,000	28,530	41,500	44,100	58,400	7,500	4,000
Laurel	13,500	0	0	12,000	0	16,000	16,000	16,000	0	4,000
Billings	20,500	990	0	0	15,000	22,500	14,500	15,000	0	0
Billings	20,600	0	5,600	0	12,500	0	12,500	24,400	7,500	0
Great Falls	2,400	0	0	0	1,030	3,000	1,100	3,000	0	0
Nevada	0	0	0	0	0	0	0	0	0	0
Eagle Springs	0	0	0	0	0	0	0	0	0	
Tonapah	0	0	0	0	0	0	0	0	0	0
New Jersey	316,500	0	0	59,000	24,000	47,000	84,000	143,000	35,500	21,000
Port Reading	62,500	0	0	0	0	0	0	0	0	0
Perth Amboy	0	0	0	0	0	0	0	0	0	0
Paulsboro	0	0	0	0	0	0	0	0	0	0
Westville	55,000	0	0	30,000	0	0	30,000	18,000	11,000	0
Linden	145,000	0	0	29,000	0	47,000	30,000	83,000	0	21,000
Paulsboro	54,000	0	0	0	24,000	0	24,000	42,000	24,500	0
New Mexico	34,300	3,500	0	15,000	10,800	0	34,800	32,500	0	0
Bloomfield	6,000	500	0	0	4,000	0	4,000	3,000	0	0
Gallup	8,500	3,000	0	0	6,800	0	6,800	3,000	0	0
Artesia	19,800	0	0	15,000	0	0	24,000	26,500	0	0
North Dakota	26,000	3,600	0	0	12,100	0	12,600	12,000	0	0
Mandan	26,000	3,600	0	0	12,100	0	12,600	12,000	0	0
		·			·					
Ohio	184,000	0	85,200	19,000	146,500	68,000	180,600	24,500	0	12,800
Toledo	60,000	0	31,000	0	43,000	42,000	40,000	15,500	0	0
Canton	24,000	0	0	19,000	0	26,000	25,000	9,000	0	0

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued)
(Barrels per Stream Day, Except Where Noted)

			Oil Distillation C			Downstr	eam Charge Ca		
	Barre	•		ls per			Thermal C	racking	
	Calend		Stream		Vacuum Distillation	Delayed	Florid Oaking	Makasaldaa	Other/
State/Refiner/Location	Operating	Idle	Operating	Idle	Distillation	Coking	Fluid Coking	Visbreaking	Gas Oi
Premcor Refg Group Inc	161,500	0	165,000	0	52,000	22,500	0	0	0
Sunoco Inc.	·		•						
Toledo	134,000	0	140,000	0	30,000	0	0	0	0
Oklahoma	482,053	0	501,849	0	161,700	34,500	0	0	0
Conoco Inc. Ponca City Sinclair Oil Corp.	194,000	0	196,750	0	56,700	25,500	0	0	0
Tulsasunoco Inc.	65,695	0	74,599	0	27,000	0	0	0	C
Tulsa	85,000	0	90,000	0	29,000	9,000	0	0	C
PI Petro Inc. Ardmore	84,858	0	85,000	0	32,000	0	0	0	C
Vynnewood Refining Co. Wynnewood	52,500	0	55,500	0	17,000	0	0	0	0
Oregon	0	0	0	0	12,000	0	0	0	0
Chevron U.S.A. Inc. Portland (Willbridge)	0	0	0	0	12,000	0	0	0	0
Pennsylvania	760,000	0	808,500	0	300,000	0	0	0	C
merican Refining Group Inc. Bradford	10,000	0	10,500	0	0	0	0	0	(
Phillips 66 Co. (Formerly Tosco Refining Co.) Trainer	180,000	0	190,000	0	73,000	0	0	0	C
Sunoco Inc.  Marcus Hook	175,000	0	185,000	0	36,000	0	0	0	(
Sunoco Inc. (R&M) Philadelphia	330,000	0	355,000	0	160,000	0	0	0	(
Jnited Refining Co. Warren	65,000	0	68,000	0	31,000	0	0	0	(
ennessee	180,000	0	182,000	0	0	0	0	0	
	100,000	U	102,000	U	U	0	U	U	•
Villiams Refining LLC Memphis	180,000	0	182,000	0	0	0	0	0	C
exas	4,318,380	100,000	4,528,437	103,000	2,025,400	580,000	42,000	0	C
ge Refining & Marketing San Antonio	9,000	0	10,000	0	0	0	0	0	C
lon USA LP Big Spring	58,500	0	61,000	0	24,000	0	0	0	(
tofina Petrochemicals Inc. Port ArthurP Products North America, Inc.	178,500	0	183,500	0	52,000	0	0	0	(
(Formerly BP Amoco PLC) Texas City	437,000	0	460,000	0	240,000	44,400	0	0	(
hevron U.S.A. Inc.	90,000	0	102,000	0	43,000	0	0	0	(
itgo Refining & Chemical Inc. Corpus Christi	156,000	0	165,000	0	75,000	42,000	0	0	(
Pasadena	0	100,000	0	103,000	38,000	12,500	0	0	(
Deer Park Refg Ltd Ptnrshp Deer Park Diamond Shamrock Refg & Mktg	333,700	0	340,000	0	149,500	62,000	0	0	(
Sunray (McKee) Three Rivers	155,000 90,000	0	160,000 96,000	0	50,000 34,000	0	0	0 0	(
1111GG 1/1AG19	30,000	U	30,000	U	34,000	U	U	U	(

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued) (Barrels per Stream Day, Except Where Noted)

	Catalytic	Cracking			stream Char Reforming	ge Capacity	(Continued) Catalytic Hydr	otroating		
	Catalytic		Catalytic	Low	High	Heavy	Naphtha	Offeating	Other/	Fuel Solvents
Location	Fresh	Recycled	Hydrocracking	Pressure	Pressure	Gas Oil	Reformer Feed	Distillate	Residual	Deasphalting
Lima	40,000	0	26,000	0	55,500	0	63,000	0	0	0
Toledo	60,000	0	28,200	0	48,000	0	52,600	0	0	12,800
Oklahoma	133,146	2,250	6,000	33,964	83,800	54,000	132,760	100,604	20,000	4,850
Ponca City	63,100	0	0	0	49,000	22,800	49,000	49,800	9,500	0
Tulsa	23,746	2,250	0	0	16,800	0	20,000	17,628	0	0
Tulsa	0	0	0	0	18,000	0	25,000	0	10,500	0
Ardmore	26,300	0	0	19,964	0	31,200	25,760	33,176	0	0
Wynnewood	20,000	0	6,000	14,000	0	0	13,000	0	0	4,850
Oregon	0	0	0	0	0	0	0	0	0	0
Portland (Willbridge)	0	0	0	0	0	0	0	0	0	0
Pennsylvania	300,500	1,000	22,000	50,000	121,800	64,000	212,300	184,000	0	0
Bradford	0	0	0	0	1,800	0	3,300	0	0	0
Trainer	52,000	0	22,000	50,000	0	40,000	54,000	42,000	0	0
Marcus Hook	105,000	0	0	0	20,000	0	45,000	40,000	0	0
Philadelphia	118,500	0	0	0	86,000	24,000	88,000	79,000	0	0
Warren	25,000	1,000	0	0	14,000	0	22,000	23,000	0	0
Tennessee	70,000	0	0	36,000	0	0	60,000	53,000	0	0
Memphis	70,000	0	0	36,000	0	0	60,000	53,000	0	0
Texas	1,760,910	34,500	465,700	847,700	251,500	754,400	1,258,100	1,381,650	353,800	174,500
San Antonio	0	0	0	0	0	0	0	0	0	0
Big Spring	25,000	0	0	21,000	0	6,500	25,500	22,750	2,500	10,000
Port Arthur	67,000	0	11,000	37,600	0	30,000	45,500	44,000	0	19,500
Texas City	220,600	4,300	121,400	63,000	75,000	96,600	141,000	139,000	0	17,000
El Paso	30,000	0	0	22,700	0	0	23,100	21,500	0	0
Corpus Christi	80,000	0	0	50,000	0	70,000	50,000	49,000	0	0
Pasadena	56,000	0	0	23,000	0	0	28,000	16,000	0	0
Deer Park	70,000	5,000	67,000	44,000	24,500	85,500	65,000	100,000	36,000	0
Sunray (McKee) Three Rivers	52,000 24,000		30,000 28,500	28,000 21,000	18,000 11,000	0 10,500	35,000 22,000	34,000 10,000	0	

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued) (Barrels per Stream Day, Except Where Noted)

	Atmosp	heric Crude (	Dil Distillation Ca	pacity		Downstr	eam Charge Ca		
	Barrel	s per	Barrel	s per			Thermal C	racking	
	Calend	ar Day	Stream	n Day	Vacuum	Delayed			Other/
State/Refiner/Location	Operating	ldle	Operating	ldle	Distillation	Coking	Fluid Coking	Visbreaking	Gas Oil
ExxonMobil Refg & Supply Co.									
Baytown	516,500	0	538,000	0	258,000	40,000	42,000	0	0
Beaumont	348,500	0	363,100	0	144,400	47,600	0	0	0
Flint Hills Resources LP									
(Formerly Koch Petroleum Group	Inc.)								
Corpus Christi	279,300	0	305,000	0	87,500	13,000	0	0	0
Haltermann Products									
Channelview	880	0	1,100	0	0	0	0	0	0
La Gloria Oil & Gas Co.									
Tyler	55,000	0	60,000	0	15,000	6,000	0	0	0
Lyondell Citgo Refining Co. Ltd.									
Houston	274,500	0	283,000	0	192,500	92,500	0	0	0
Marathon Ashland Petro LLC									
Texas City	72,000	0	76,000	0	0	0	0	0	0
Motiva Enterprises LLC	,		-,						
Port Arthur	245,000	0	259,000	0	120,500	56,000	0	0	0
Phillips 66 Co.	,				1=0,000	,			
Borger	130.000	0	145.000	0	0	0	0	0	0
Sweeny	213,000	0	223,000	0	117,000	66,000	Ö	0	0
Premcor Refg Group Inc	,,,,,	ŭ	,	· ·	, 0 0 0	00,000	· ·	Ü	· ·
Port Arthur	255,000	0	260,000	0	110,000	80,000	0	0	0
South Hampton Refining Co.	200,000	O	200,000	O	110,000	00,000	O	O	O
Silsbee	0	0	0	0	0	0	0	0	0
Trigeant LTD	O	O	O	O	O	O	O	O	U
(Formerly Neste Trifinery Petro Se	arvo)								
Corpus Christi	0	0	0	0	29,000	0	0	0	0
Valero Refining Co. Texas	U	U	U	U	29,000	U	U	U	U
Corpus Christi ^b	134,000	0	129 000	0	07.000	19 000	0	0	0
•	,	0	138,000	0	97,000	18,000	0	0	
Houston	83,000	0	85,000	0	39,000	0	0	0	0
Texas City	204,000	U	214,737	U	110,000	U	U	U	U
Utah	157,700	5,000	166,500	5,500	44,000	8,500	0	0	0
Big West Oil Co.									
North Salt Lake	24,000	0	25,000	0	5,000	0	0	0	0
Chevron U.S.A. Inc.	_ ,,	-	,,		-,		-	-	-
Salt Lake City	45,000	0	49,000	0	27,500	8,500	0	0	0
Inland Refining Inc.	10,000	Ü	10,000	Ü	21,000	0,000	Ü	Ü	Ū
Woods Cross	6,000	5,000	6,500	5,500	6,000	0	0	0	0
Phillips 66 Co.	0,000	0,000	0,000	0,000	0,000	Ü	Ü	Ü	Ü
Woods Cross	24,700	0	26,000	0	5,500	0	0	0	0
Tesoro West Coast	24,700	O	20,000	O	0,000	O	O	O	O
(Formerly BP Amoco PLC)									
Salt Lake City	58,000	0	60,000	0	0	0	0	0	0
Sait Lake City	30,000	U	00,000	U	0	U	O	O	U
Virginia	58,600	0	61,800	0	37,300	19,000	0	0	0
BP Products North America, Inc.									
(Formerly BP Amoco PLC)									
Yorktown	58,600	0	61,800	0	37,300	19,000	0	0	0
TOTALOWIT	30,000	U	01,000	O	37,300	19,000	O	O	U
Washington	603,250	15,100	622,750	16,000	267,100	87,000	0	0	0
RD West Coast Droducts LLC									
(Formerly Atlantic Richfield Co.)	225 000	0	222.000	0	404.000	60.000	0	0	^
(Formerly Atlantic Richfield Co.) Ferndale (Cherry Point)	225,000	0	232,000	0	101,000	62,000	0	0	0
(Formerly Atlantic Richfield Co.) Ferndale (Cherry Point) Equilon Enterprises LLC	·				•				
(Formerly Atlantic Richfield Co.) Ferndale (Cherry Point) Equilon Enterprises LLC Anacortes	225,000 139,100	0 5,900	232,000 141,500	0 6,000	101,000 60,000	62,000 25,000	0	0	0
(Formerly Atlantic Richfield Co.) Ferndale (Cherry Point) Equilon Enterprises LLC Anacortes Phillips 66 Co.	·				•				
Ferndale (Cherry Point) Equilon Enterprises LLC	·				•				

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued) (Barrels per Stream Day, Except Where Noted)

				Down	stream Char	ge Capacity	(Continued)			
	Catalytic	Cracking		Catalytic	Reforming		Catalytic Hydr	otreating		Fuel
Location	Fresh	Recycled	Catalytic Hydrocracking	Low Pressure	High Pressure	Heavy Gas Oil	Naphtha Reformer Feed	Distillate	Other/ Residual	Solvents Deasphalting
BaytownBeaumont	208,000 113,500	8,000 0	27,500 64,800	123,000 154,900	0	107,000 0	149,000 150,800	222,500 116,800	26,500 32,200	
Corpus Christi	104,160	0	11,500	52,000	18,000	47,000	97,800	56,000	0	0
Channelview	0	0	0	0	0	0	0	0	0	0
Tyler	20,250	0	0	13,000	4,500	0	20,000	12,000	0	0
Houston	100,000	0	0	22,000	42,000	103,000	90,900	105,000	4,100	0
Texas City	44,000	0	0	0	11,000	0	0	0	0	0
Port Arthur	90,000	0	21,000	48,000	0	24,000	76,000	90,000	0	0
Borger	60,000 99,400	5,200 12,000	0 0	0 36,000	26,000 0	0 81,300	26,500 65,500	45,000 64,600	66,000 0	
Port Arthur	65,000	0	35,000	50,000	0	65,000	50,000	90,000	23,000	0
Silsbee	0	0	0	1,500	0	0	4,000	0	2,000	0
Corpus Christi	0	0	0	0	0	0	0	0	0	0
Corpus Christi ^b Houston Texas City	112,000 65,000 55,000	0 0 0	48,000 0 0	23,000 0 14,000	10,000 11,500 0	28,000 0 0	66,000 12,000 14,500	24,000 33,500 86,000	74,000 0 87,500	18,000
Utah	49,900	3,000	0	0	35,000	0	41,700	26,200	7,200	5,040
North Salt Lake	5,000	500	0	0	5,500	0	7,000	7,000	0	0
Salt Lake City	14,000	0	0	0	8,000	0	8,300	13,300	7,200	0
Woods Cross	0	0	0	0	2,200	0	2,200	4,000	0	0
Woods Cross	8,900	0	0	0	7,700	0	12,600	1,900	0	5,040
Salt Lake City	22,000	2,500	0	0	11,600	0	11,600	0	0	0
Virginia	28,200	2,000	0	0	12,100	0	11,900	18,960	0	0
Yorktown	28,200	2,000	0	0	12,100	0	11,900	18,960	0	0
Washington	135,000	3,000	57,000	42,500	100,200	7,600	144,000	115,100	39,000	30,000
Ferndale (Cherry Point)	0	0	57,000	0	63,000	0	57,000	26,000	0	0
Anacortes	60,000	0	0	0	31,000	0	29,000	16,000	39,000	0
Ferndale	30,000	0	0	16,500	0	0	16,500	38,000	0	0

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued) (Barrels per Stream Day, Except Where Noted)

	Atmos	pheric Crude	Oil Distillation C	apacity		Downstr	eam Charge Ca	pacity	
	Barre	ls per	Barre	ls per			Thermal C	racking	
	Calend	dar Day	Strea	m Day	Vacuum	Delayed			Other/
State/Refiner/Location	Operating	Idle	Operating	Idle	Distillation	Coking	Fluid Coking	Visbreaking	Gas Oil
Tesoro West Coast (Formerly Tesoro Northwest Co.)									
AnacortesU.S. Oil & Refining Co.	115,000	0	120,000	0	47,000	0	0	0	0
Tacoma	35,150	9,200	36,250	10,000	27,100	0	0	0	0
West Virginia	18,600	0	20,000	0	8,600	0	0	0	0
Ergon West Virginia Inc. Newell (Congo)	18,600	0	20,000	0	8,600	0	0	0	0
Wisconsin	33,000	0	38,000	0	20,500	0	0	0	0
Murphy Oil U.S.A. Inc. Superior	33,000	0	38,000	0	20,500	0	0	0	0
Wyoming	140,670	0	146,350	0	67,500	10,000	0	0	0
Frontier Refg Inc. Cheyenne	38,670	0	41,000	0	23,500	10,000	0	0	0
Little America Refining Co. Evansville (Casper)Silver Eagle Refining	24,500	0	25,500	0	12,000	0	0	0	0
Evanston	3,000	0	3,300	0	0	0	0	0	0
Sinclair	62,000	0	64,000	0	32,000	0	0	0	0
Newcastle	12,500	0	12,550	0	0	0	0	0	0
U.S. Total	16,246,301	539,090	17,102,551	573,000	7,778,875	2,089,600	197,400	31,000	10,600
Puerto Rico	0	87,000	0	93,000	57,000	0	0	0	0
Caribbean Petroleum Corp. Bayamon	0	42,000	0	48,000	22,000	0	0	0	0
Chevron Phillips Chem PR Core (Formerly Phillips Puerto Rico Co									
GuayamaShell Chem Yabucoa Inc (Formerly Sun Co Inc.)	0	0	0	0	0	0	0	0	0
Yabucoa	0	45,000	0	45,000	35,000	0	0	0	0
Virgin Islands	470,000	25,000	495,000	30,000	225,000	0	0	85,000	0
Hovensa LLC Kingshill (St Croix)	470,000	25,000	495,000	30,000	225,000	0	0	85,000	0

Table 38. Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued) (Barrels per Stream Day, Except Where Noted)

				Down	stream Char	ge Capacity	(Continued)			
	Catalytic	Cracking		Catalytic	Reforming		Catalytic Hyd	rotreating		Fuel
Location	Fresh	Recycled	Catalytic Hydrocracking	Low Pressure	High Pressure	Heavy Gas Oil	Naphtha Reformer Feed	Distillate	Other/ Residual	Solvents Deasphalting
Anacortes	45,000	3,000	0	26,000	0	7,600	34,000	29,300	0	30,000
Tacoma	0	0	0	0	6,200	0	7,500	5,800	0	0
West Virginia	0	0	0	3,400	0	6,100	4,200	0	0	0
Newell (Congo)	0	0	0	3,400	0	6,100	4,200	0	0	0
Wisconsin	11,000	0	0	8,000	0	0	9,000	7,800	0	0
Superior	11,000	0	0	8,000	0	0	9,000	7,800	0	0
Wyoming	48,793	500	11,000	7,500	22,463	15,000	32,691	43,754	3,000	0
Cheyenne	12,000	0	0	7,500	0	0	8,000	16,500	0	0
Evansville (Casper)	10,500	500	0	0	6,000	0	7,200	8,000	0	0
Evanston	0	0	0	0	2,150	0	3,250	0	0	0
Sinclair	21,500	0	11,000	0	12,500	15,000	12,500	16,000	3,000	0
Newcastle	4,793	0	0	0	1,813	0	1,741	3,254	0	0
U.S. Total	5,988,849	80,040	1,632,600 2	,238,264	1,514,793	2,425,400	4,342,501	4,164,468	912,400	362,190
Puerto Rico	14,200	0	15,600	43,200	26,500	0	76,800	23,000	0	0
Bayamon	14,200	0	0	0	6,500	0	6,800	11,000	0	0
Guayama	0	0	0	43,200	0	0	50,000	0	0	0
Yabucoa	0	0	15,600	0	20,000	0	20,000	12,000	0	0
Virgin Islands	145,000	0	0	90,000	25,000	135,000	115,000	155,000	0	0
Kingshill (St Croix)	145,000	0	0	90,000	25,000	135,000	115,000	155,000	0	0

a Includes former Huntway Refining Co. refinery at Benecia.
 b Includes former Coastal Corp.refinery at Corpus Christi.
 Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 39. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Barrels per Stream Day, Except Where Noted)

				Isor	ners				
State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isobutane	Isopentane and Isohexane	Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short tons per day)
Alabama	0	0	24,000	1,100	2,000	0	2,500	6	115
Coastal Mobile Refg Co.									
ChickasawHunt Refining Co.	0	0	12,000	0	0	0	0	0	0
Tuscaloosa	0	0	12,000	0	0	0	2,500	6	80
Saraland (Mobile)	0	0	0	1,100	2,000	0	0	0	35
Alaska	0	2,800	3,000	0	4,000	0	0	13	20
Tesoro Petroleum Corp. Kenai	0	0	0	0	4,000	0	0	13	20
Williams Alaska Petro Inc. North Pole	0	2,800	3,000	0	0	0	0	0	0
Arkansas	4,900	0	11,200	0	6,500	5,000	0	3	157
Cross Oil Refining and Mktg, Inc. Smackover	0	0	1,500	0	0	5,000	0	3	0
Lion Oil Co.						,	0	0	157
	4,900	0	9,700	0	6,500	0			
California	158,000	1,500	76,783	15,300	70,200	32,400	119,110	1,136	4,226
BP West Coast Products LLC (Formerly Atlantic Richfield Co.) Los Angeles	15.000	0	0	0	0	0	11,400	105	350
Chevron U.S.A. Inc.							•		
El Segundo		0 0	0	4,000 0	20,000 28,000	0 18,500	18,400 0	147 185	600 448
Edgington Oil Co. (Formerly Petroleum Fuel & Termi	,	Ü	Ü	O	20,000	10,000	O .	100	440
Long Beach Equilon Enterprises LLC	0	0	10,750	0	0	0	0	0	0
Bakersfield	0	0	0	700	0	0	6,000	25	105
Martinez		0 0	15,000 0	0 3,500	0	3,900 0	8,385 10,000	107 13	437 285
ExxonMobil Refg & Supply Co. Torrance	23,600	0	0	0	0	0	17,725	138	440
Greka Energy Santa Maria	0	0	6,500	0	0	0	0	0	0
Kern Oil & Refining Co. Bakersfield	0	0	0	0	0	0	0	0	5
Lunday Thagard South Gate	0	0	5,833	0	0	0	0	0	0
Paramount Petroleum Corp.			•						
Phillips 66 Co. (Formerly Tosco Refining Co.)	0	0	15,000	0	0	0	0	0	0
Arroyo Grande	0	0	0	0	0	0	5,500	0	110
Rodeo	0	0	0	0	9,400	0	5,200	84	310
WilmingtonSan Joaquin Refining Co Inc.	9,900	0	0	3,100	12,800	0	11,500	105	370
Bakersfield Tenby Inc.	0	1,500	6,500	0	0	4,000	0	4	3
Oxnard Tricor Refining LLC	0	0	1,200	0	0	0	0	0	0
(Formerly Golden Bear Oil Specia Bakersfield	lties) 0	0	4,000	0	0	6,000	0	0	0

Table 39. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued)
(Barrels per Stream Day, Except Where Noted)

				Isor	ners				
State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isobutane	Isopentane and Isohexane	Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short tons per day)
Ultramar Inc.			'			1			
Martinez Wilmington Valero Refining Co. California	14,000 14,500	0 0	0 0	0 4,000	0 0	0 0	8,600 10,000	82 0	200 260
Benicia ^a (Formerly Huntway Refining Co.)	15,800	0	9,000	0	0	0	6,400	141	303
Wilmington	0	0	3,000	0	0	0	0	0	0
Colorado	0	0	11,200	1,046	0	0	0	0	118
Colorado Refg Co. Commerce City	0	0	0	1,046	0	0	0	0	4
Conoco Inc. Commerce City	0	0	11,200	0	0	0	0	0	114
Delaware	10,900	1,400	0	0	0	0	8,710	55	596
Motiva Enterprises LLC Delaware City	10,900	1,400	0	0	0	0	8,710	55	596
Georgia	0	0	29,400	0	0	0	0	0	0
Citgo Asphalt Refining Co.	0	0	24,000	0	0	0	0	0	0
Young Refining Corp. Douglasville	0	0	5,400	0	0	0	0	0	0
Hawaii	5,000	0	16,000	3,200	0	0	0	21	34
Chevron U.S.A. Inc.  Honolulu	5,000	0	15,000	3,200	0	0	0	3	0
Tesoro Hawaii Corp. Ewa Beach	0	0	1,000	0	0	0	0	18	34
Illinois	92,500	13,500	105,150	0	17,750	0	32,560	60	1,739
ExxonMobil Refg & Supply Co. Joliet Marathon Ashland Petro LLC	28,000	0	10,500	0	0	0	18,500	0	672
RobinsonPDV Midwest Refining LLC	13,000	0	0	0	14,000	0	7,000	0	202
Lemont (Chicago) Phillips 66 Co. (Formerly Tosco Petro Co.)	21,000	9,000	39,400	0	0	0	2,260	0	350
Wood River	22,000	4,500	55,000	0	0	0	0	57	504
Hartford	8,500	0	250	0	3,750	0	4,800	3	11
Indiana	37,700	17,000	65,700	0	28,200	0	13,400	31	550
BP Products North America, Inc. (Formerly BP Amoco PLC)					<b>ac</b>				_
Whiting Countrymark Cooperative Inc.	36,000	17,000	63,000	0	26,000	0	13,400	31	550
Mount Vernon	1,700	0	2,700	0	2,200	0	0	0	0
Kansas	26,200	3,000	0	3,500	22,500	0	15,325	6	462
Farmland Industries Inc. Coffeyville Frontier Refining & Marketing Inc.	7,700	0	0	0	0	0	7,000	0	151
(Formerly Frontier El Dorado Refg El Dorado		3,000	0	0	12,500	0	5,000	6	230

Table 39. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued) (Barrels per Stream Day, Except Where Noted)

				Isor	ners				
State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isobutane	Isopentane and Isohexane	Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short tons per day)
NCRA									
McPherson	7,000	0	0	3,500	10,000	0	3,325	0	81
Kentucky	13,000	11,700	23,000	0	14,250	9,900	0	0	448
Marathon Ashland Petro LLC Catlettsburg	13,000	11,700	23,000	0	14,000	9,900	0	0	448
Somerset Refinery Inc. Somerset	0	0	0	0	250	0	0	0	0
Louisiana	208,500	26,500	72,575	40,701	76,775	61,100	108,631	197	5,322
American International Rfy Inc	,	.,	,	-, -	-, -	,	, , , , ,	-	- ,-
Lake CharlesCalcasieu Refining Co.	0	0	10,000	0	0	0	0	0	0
Lake CharlesCalumet Lubricants Co. LP	0	0	0	1	0	0	0	0	0
Cotton Valley	0	0	0	0	500	0	0	0	0
Princeton		0	2,000	0	0	7,000	0	5	3
(Formerly Pennzoil-Quaker State Shreveport Chalmette Refining LLC		0	575	4,000	0	9,000	0	6	10
Chalmette	13,100	10,200	0	10,000	10,000	0	11,000	0	777
Lake Charles	22,000	4,000	0	0	28,000	11,000	24,000	0	640
Westlake ExxonMobil Refg & Supply Co.	5,800	0	0	0	0	18,000	20,000	0	810
Baton Rouge Marathon Ashland Petro LLC	35,900	0	0	0	0	16,100	27,042	24	744
Garyville Motiva Enterprises LLC		0	42,000	24,000	20,000	0	12,800	0	790
Convent	,	0	0	0	12,500	0	0	63	728
Norco Murphy Oil U.S.A. Inc.	16,400	0	0	0	0	0	4,900	60	165
MerauxOrion Refining Corp.	8,500	0	18,000	0	0	0	0	0	70
Norco (Good Hope) Phillips 66 Co. (Formerly Tosco Refining Co.)	12,800	0	0	0	0	0	3,600	38	410
Belle ChassePlacid Refining Co.	38,000	12,300	0	0	0	0	5,289	1	125
Port AllenValero Refining Co. Louisiana	4,000	0	0	0	0	0	0	0	28
Krotz Springs	0	0	0	2,700	5,775	0	0	0	22
Michigan	4,100	0	22,000	0	0	0	0	0	147
Marathon Ashland Petro LLC Detroit	4,100	0	22,000	0	0	0	0	0	147
Minnesota	17,500	0	62,000	9,000	27,000	0	22,000	123	1,103
Flint Hills Resources LP (Formerly Koch Petroleum Group									
Saint Paul Marathon Ashland Petro LLC	,	0	50,000	7,000	20,000	0	22,000	113	1,000
Saint Paul Park	5,500	0	12,000	2,000	7,000	0	0	10	103

Table 39. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued)
(Barrels per Stream Day, Except Where Noted)

				Iso	mers				
State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isobutane	Isopentane and Isohexane	Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short ton per day)
Mississippi	16,200	21,000	39,700	0	0	8,300	22,080	238	1,300
Chevron U.S.A. Inc.									
Pascagoula	16,200	21,000	20,000	0	0	0	22,080	230	1,300
Ergon Refining Inc. Vicksburg Southland Oil Co.	0	0	10,000	0	0	8,300	0	8	0
Lumberton	0	0	3,575	0	0	0	0	0	0
Sandersville	0	0	6,125	0	0	0	0	0	0
Montana	16,000	0	31,700	5,250	700	0	5,700	58	372
Cenex Harvest States Coop									
Laurel Conoco Inc.	3,500	0	16,000	1,250	0	0	0	12	130
Billings	7,500	0	0	4,000	0	0	3,600	20	242
ExxonMobil Refg & Supply Co.									
Billings Montana Refining Co.	4,300	0	12,700	0	0	0	2,100	24	0
Great Falls	700	0	3,000	0	700	0	0	2	0
Nevada	0	0	2,000	0	0	0	0	0	0
Foreland Refining Corp.	U	0	2,000	0	U	0	0	0	U
Eagle Springs	0	0	2,000	0	0	0	0	0	0
New Jersey	38,200	7,500	91,500	3,100	10,000	12,000	7,500	21	283
Amerada Hess Corp. Port Reading	7,000	0	0	0	0	0	0	0	10
Chevron U.S.A. Inc. Perth Amboy	0	0	35,000	0	0	0	0	0	0
Citgo Asphalt Refining Co.		•	40.000						
PaulsboroCoastal Eagle Point Oil Co.	0	0	42,000	0	0	0	0	0	0
WestvillePhillips 66 Co.	4,000	7,500	0	0	10,000	0	0	0	15
(Formerly Tosco Refining Co.) Linden	16,000	0	0	3,100	0	0	0	12	100
Valero Refining Co. New Jersey				•					
Paulsboro	11,200	0	14,500	0	0	12,000	7,500	9	158
New Mexico	8,600	0	6,400	282	13,540	0	0	0	142
Giant Industries Inc. Bloomfield	0	0	0	282	0	0	0	0	2
Giant Refining Co.	Ü	· ·		202	· ·	Ü	Ŭ	Ü	_
Gallup	1,800	0	0	0	4,000	0	0	0	2
Navajo Refining Co. Artesia	6,800	0	6,400	0	9,540	0	0	0	138
North Dakota	4,400	0	0	0	0	0	0	0	17
Tesoro West Coast	,	-	-			-	-	-	
(Formerly BP Amoco PLC) Mandan	4,400	0	0	0	0	0	0	0	17
Ohio	26,300	11,200	28,000	4,500	21,500	0	12,700	99	524
BP Products North America, Inc.	20,300	11,200	20,000	4,300	21,300	U	12,700	33	J24
(Formerly BP Amoco PLC)									
Toledo	11,500	0	12,000	0	0	0	8,700	33	300

Table 39. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued) (Barrels per Stream Day, Except Where Noted)

		xcept Whei							
				Isomers					
State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isobutane	Isopentane and Isohexane	Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short ton per day)
Marathon Ashland Petro LLC									
Canton	7,000	0	11,500	0	4,000	0	0	0	110
Lima	0	2,200	0	4,500	17,500	0	4,000	29	52
Toledo	7,800	9,000	4,500	0	0	0	0	37	62
Oklahoma	30,968	0	34,131	9,100	12,797	8,800	7,630	46	172
Conoco Inc. Ponca CitySinclair Oil Corp.	14,700	0	0	8,200	0	0	5,680	11	34
TulsaSunoco Inc.	4,868	0	15,216	0	8,797	0	0	0	28
Tulsa  FPI Petro Inc.	0	0	0	900	0	8,800	1,950	0	0
Ardmore	6,400	0	12,915	0	0	0	0	26	110
Wynnewood	5,000	0	6,000	0	4,000	0	0	9	0
Oregon	0	0	8,160	0	0	0	0	0	0
Chevron U.S.A. Inc. Portland (Willbridge)	0	0	8,160	0	0	0	0	0	0
Pennsylvania	54,100	12,000	20,000	5,000	6,800	2,945	0	7	370
American Refining Group Inc. Bradford Phillips 66 Co.	0	0	0	0	0	2,945	0	0	0
(Formerly Tosco Refining Co.)	12,000	0	0	0	0	0	0	0	40
Sunoco Inc. Marcus HookSunoco Inc. (R&M)	12,000	8,000	0	0	0	0	0	7	0
Philadelphia	26,000	4,000	0	5,000	0	0	0	0	260
Warren	4,100	0	20,000	0	6,800	0	0	0	70
Tennessee	12,000	0	0	0	6,000	0	0	0	43
Williams Refining LLC Memphis	12,000	0	0	0	6,000	0	0	0	43
Texas	335,900	183,660	89,200	76,700	112,400	72,495	156,357	960	10,155
Age Refining & Marketing San Antonio	0	1,200	0	100	0	0	0	0	0
Alon USA LP  Big Spring	5,000	1,000	7,600	0	0	0	0	0	130
Atofina Petrochemicals Inc. Port Arthur	5,900	13,600	4,000	0	9,800	0	0	0	300
Texas City	62,000	45,000	0	18,000	28,000	0	20,400	210	1,400
El Paso	9,000	0	5,600	3,200	0	0	0	0	33
Corpus Christi	19,000	22,000	0	0	0	0	14,000	0	357
Pasadena	10,000	0	0	0	0	0	2,132	0	31

Table 39. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued)
(Barrels per Stream Day, Except Where Noted)

				Isomers					
State/Definer/Legation	Alkylates	Aromatics	Asphalt and Road Oil	Isobutane	Isopentane and Isohexane	Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short ton: per day)
State/Refiner/Location									
Deer Park Refg Ltd Ptnrshp									
Deer Park	16,600	0	4,700	0	0	12,000	20,610	108	1,150
Diamond Shamrock Refg & Mktg	40.000	0	40.500	4.500	0	0	0	0	67
Sunray (McKee)		0	10,500	1,500	0	0	0	0	67
Three Rivers	6,500	10,500	0	3,000	0	1,800	0	12	56
ExxonMobil Refg & Supply Co.	24 000	0	0	0	0	20.200	17 500	4.40	1 000
BaytownBeaumont		0	0	0 11,200	0 25,800	20,300 12,500	17,500 14,995	143 52	1,828 606
Flint Hills Resources LP	10,300	U	U	11,200	25,600	12,500	14,995	52	000
(Formerly Koch Petroleum Group	Inc.)								
Corpus Christi	,	37,100	0	3,600	2,200	0	3,625	10	233
a Gloria Oil & Gas Co.	13,000	37,100	O	3,000	2,200	O	3,023	10	200
Tyler	4,700	0	0	500	0	0	1,500	0	15
Lyondell Citgo Refining Co. Ltd.	1,7 00	· ·	· ·	000	Ü	Ü	1,000	Ü	10
Houston	11.500	12,260	0	0	0	3,895	23,500	0	720
Marathon Ashland Petro LLC	11,000	12,200	· ·	Ü	Ü	0,000	20,000	Ü	720
Texas City	11.000	2,500	0	0	0	0	0	0	0
Motiva Enterprises LLC	,	_,	-				-	-	-
Port Arthur	20,000	0	0	0	0	22,000	3,200	0	650
Phillips 66 Co.	,					,	•		
Borger	14,000	0	0	11,000	18,000	0	0	68	340
Sweeny		13,000	0	0	10,100	0	3,895	155	532
Premcor Refg Group Inc									
Port Arthur	17,500	0	0	3,600	0	0	22,000	0	467
South Hampton Refining Co.									
Silsbee	0	1,100	0	0	1,000	0	0	2	0
Trigeant LTD									
(Formerly Neste Trifinery Petro Se									
Corpus Christi	0	0	16,000	0	0	0	0	0	0
/alero Refining Co. Texas						_			
Corpus Christi ^b		24,000	38,000	21,000	12,000	0	9,000	195	630
Houston		400	2,800	0	0	0	0	5	110
Texas City	7,500	0	0	0	5,500	0	0	0	500
Jtah	15,200	0	3,300	2,700	4,700	0	1,748	1	53
Big West Oil Co.									
North Salt Lake	1,400	0	0	1,400	1,700	0	0	0	4
Chevron U.S.A. Inc.	,			•	,				
Salt Lake City	5,600	0	0	1,300	0	0	1,748	0	21
nland Refining Inc.									
Woods Cross	0	0	1,500	0	0	0	0	1	0
Phillips 66 Co.									
Woods Cross	2,200	0	1,800	0	3,000	0	0	0	10
Tesoro West Coast									
(Formerly BP Amoco PLC)									
Salt Lake City	6,000	0	0	0	0	0	0	0	18
/irginia	4,200	0	0	0	0	0	5,400	0	39
BP Products North America, Inc.									
(Formerly BP Amoco PLC)									
Yorktown	4,200	0	0	0	0	0	5,400	0	39
TOTALOWIT	4,200	U	U	U	O	O	3,400	O	39
Vashington	29,100	0	13,500	13,700	2,700	0	3,948	130	456
3P West Coast Products LLC									
(Formerly Atlantic Richfield Co.)							_		
Ferndale (Cherry Point)	0	0	0	6,000	0	0	2,451	130	242

Table 39. Production Capacity of Operable Petroleum Refineries by State as of January 1, 2002 (Continued) (Barrels per Stream Day, Except Where Noted)

(Barreis per Streat	П Бау, Е	T T T T T T T T T T T T T T T T T T T	10 110100)	'					
				Isomers					
State/Refiner/Location	Alkylates	Aromatics	Asphalt and Road Oil	Isobutane	Isopentane and Isohexane	Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short tons per day)
Equilon Enterprises LLC AnacortesPhillips 66 Co.	10,400	0	0	0	0	0	1,497	0	155
(Formerly Tosco Refining Co.) Ferndale Tesoro West Coast	6,300	0	0	4,100	0	0	0	0	49
(Formerly Tesoro Northwest Co.) Anacortes	12,400	0	5,500	3,600	0	0	0	0	0
Tacoma	0	0	8,000	0	2,700	0	0	0	10
West Virginia	0	0	470	0	0	5,200	0	1	1
Ergon West Virginia Inc. Newell (Congo)	0	0	470	0	0	5,200	0	1	1
Wisconsin	1,500	0	7,500	0	2,000	0	0	0	14
Murphy Oil U.S.A. Inc. Superior	1,500	0	7,500	0	2,000	0	0	0	14
Wyoming	9,583	0	19,400	24	1,000	0	2,500	32	129
Frontier Refg Inc. Cheyenne	4,200	0	10,000	0	0	0	2,500	6	80
Little America Refining Co. Evansville (Casper)	0	0	4,400	0	0	0	0	0	0
Evanston Sinclair Oil Corp.	0	0	0	0	1,000	0	0	0	0
Sinclair	4,500	0	5,000	0	0	0	0	26	47
Newcastle	883	0	0	24	0	0	0	0	2
U.S. Total1,	180,551	312,760	916,969	194,203	463,312	218,140	547,799	3,244	29,107
Puerto Rico	0	19,200	1,000	0	0	0	0	19	83
Caribbean Petroleum Corp. Bayamon Chevron Phillips Chem PR Core	0	0	1,000	0	0	0	0	0	33
(Formerly Phillips Puerto Rico Cor Guayama Shell Chem Yabucoa Inc	re Inc.) 0	19,200	0	0	0	0	0	0	0
(Formerly Sun Co Inc.) Yabucoa	0	0	0	0	0	0	0	19	50
Virgin Islands	20,000	20,000	0	0	18,000	0	0	0	550
Hovensa LLC Kingshill (St Croix)	20,000	20,000	0	0	18,000	0	0	0	550

Includes former Huntway Refining Co. refinery at Benecia.
 Includes former Coastal Corp. refinery at Corpus Christi.
 MMcfd = Million cubic feet per day.
 Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 40. Refiners' Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 2002

CORPORATION / Refiner / Location	Barrels per Calendar Day	CORPORATION / Refiner / Location	Barrels per Calendar Day	
Companies with Capacity		Valero Refining Co. Louisiana		
Over 100,000 bbl/cd		Krotz Springs, Louisiana	78,000	
		Colorado Refg Co.		
		Commerce Čity, Colorado ^e	27,000	
EXXON MOBIL CORP	1,795,500			
ExxonMobil Refg & Supply Co.				
Baytown, Texas	516,500	CHEVRON TEXACO CORPh	1,049,000	
Baton Rouge, Louisiana	488,500	Chevron U.S.A. Inc.		
Beaumont, Texas	348,500	Pascagoula, Mississippi	295,000	
Joliet, Illinois	235,500	El Segundo, California	260,000	
Torrance, California	148,500	Richmond, California	225,000	
Billings, Montana	58,000	El Paso, Texas	90,000	
		Perth Amboy, New Jersey		
DULL IDO DETDO CO	4 005 000	Honolulu, Hawaii		
PHILLIPS PETRO CO	1,685,000	Salt Lake City, Utah	45,000	
Phillips 66 Co. Wood River, Illinois ^a	200 200			
Linden, New Jersey ^a	288,300	MARATHON OIL CORP ⁱ	025 000	
Belle Chasse, Louisiana ^a	250,000 250,000	Marathon Ashland Petro LLC	935,000	
Sweeny, Texas	213,000	Garyville, Louisiana	232.000	
Trainer, Pennsylvania ^a	180,000	Catlettsburg, Kentucky	222,000	
Wilmington, California ^a	131,000	Robinson, Illinois	192,000	
Borger, Texas	130,000	Detroit, Michigan	•	
Ferndale, Washington ^a	89,000	Canton, Ohio		
Rodeo, California ^a	73,200	Texas City, Texas	72,000	
Arroyo Grande, California ^a	41,800	Saint Paul Park, Minnesota	70,000	
Woods Cross, Utah	24,700	Cant radir ark, WillingSola	70,000	
Phillips Alaska, Inc.	24,700			
Kuparuk, Alaska	14,000	MOTIVA ENTERPRISES LLC	873,000	
Taparan, Tiaona	1 1,000	Port Arthur, Texas	245,000	
		Norco, Louisiana	228,000	
BP PLC ^b	1,560,100	Convent, Louisiana	225,000	
BP Products North America, Inc.	1,000,100	Delaware City, Delaware	175,000	
Texas City, Texas	437,000		,	
Whiting, Indiana	410,000			
Toledo, Ohio	157,000	SUNOCO INC ^j	724,000	
Yorktown, Virginia	58,600	Sunoco Inc.		
BP West Coast Products LLC		Marcus Hook, Pennsylvania	175,000	
Los Angeles, California	260,000	Toledo, Ohio	134,000	
Ferndale (Cherry Point), Washington	225,000	Tulsa, Oklahoma	85,000	
BP Expl (Alaska) Inc		Sunoco Inc. (R&M)		
Prudhoe Bay, Alaska ^c	12,500	Philadelphia, Pennsylvania	330,000	
VALERO ENERGY CORP	1,413,628	PDV AMERICA INC	702,570	
Valero Refining Co. Texas	, ,	Citgo Petroleum Corp.	, 0	
Texas City, Texas	204,000	Lake Charles, Louisiana	326,000	
Corpus Christi, Texas ^d	134,000	PDV Midwest Refining LLC	,	
Houston, Texas	83,000	Lemont (Chicago), Illinois	162,570	
Diamond Shamrock Refg & Mktg	•	Citgo Refining & Chemical Inc.		
Sunray (McKee), Texas ^e	155,000	Corpus Christi, Texas	156,000	
Three Rivers, Texas ^e	90,000	Citgo Asphalt Refining Co.		
Ultramar Inc.		Paulsboro, New Jersey	30,000	
Martinez, California ^e	166,000	Savannah, Georgia	28,000	
Wilmington, California ^e	76,000			
Valero Refining Co. New Jersey				
Paulsboro, New Jersey	166,000	CONOCO INC	568,000	
Valero Refining Co. California		Westlake, Louisiana	252,000	
Benicia, California ^f	144,000	Ponca City, Oklahoma	194,000	
Wilmington, California ^g	5,770	Commerce City, Colorado	62,000	
TPI Petro Inc.		Billings, Montana	60,000	
Ardmore, Oklahoma ^e	84,858			

Table 40. Refiners' Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 2002 (Continued)

CORPORATION / Refiner / Location	Barrels per Calendar Day	CORPORATION / Refiner / Location	Barrels per Calendar Day
KOCH INDUS INC	544,300		
Flint Hills Resources LP	,	CROWN CENTRAL PETRO CORP	155,000
Corpus Christi, Texas	279,300	Crown Central Petroleum Corp.	,
Saint Paul, Minnesota	265,000	Pasadena, Texas	100,000
	,	La Gloria Oil & Gas Co.	,
		Tyler, Texas	55,000
BLACKSTONE GROUP LP	480,500	1,700,700,700	00,000
Premcor Refg Group Inc	.00,000		
Port Arthur, Texas	255,000	SINCLAIR OIL CORP	152,195
Lima, Ohio	161,500	Sinclair Oil Corp.	.02,.00
Hartford, Illinois	64,000	Tulsa, Oklahoma	65,695
Tidi tidid, illinoid	01,000	Sinclair, Wyoming	
		Little America Refining Co.	02,000
EQUILON ENTERPRISES LLC	468,750	Evansville (Casper), Wyoming	24,500
Martinez, California	,	Lvarisville (Casper), vvyorilling	24,500
·	159,250		
Anacortes, Washington	145,000	ODION DEFINING CORD	
Wilmington, California	98,500	ORION REFINING CORP	
Bakersfield, California	66,000	Orion Refining Corp.	
		Norco (Good Hope), Louisiana	148,500
TESORO PETRO CORP	396,500		
Tesoro West Coast		FRONTIER OIL CORP	145,670
Anacortes, Washington	115,000	Frontier Refining & Marketing Inc.	
Salt Lake City, Utah ^k	58,000	El Dorado, Kansas	107,000
Mandan, North Dakota ^k	58,000	Frontier Refg Inc.	
Tesoro Hawaii Corp.		Cheyenne, Wyoming	38,670
Ewa Beach, Hawaii	93,500		
Tesoro Petroleum Corp.			
Kenai, Alaska	72,000	CENEX HARVEST STATES COOP	136,200
		NCRA	•
		McPherson, Kansas	81,200
WILLIAMS CO, THE	377,928	Cenex Harvest States Coop	,
Williams Alaska Petro Inc.	- ,	Laurel, Montana	55,000
North Pole, Alaska	197,928		,
Williams Refining LLC	,		
Memphis, Tennessee	180,000	SHELL OIL CO	135,000
	.00,000	Shell Chemical LP	.00,000
		Saraland (Mobile), Alabama	80,000
DEER PARK REFG LTD PTNRSHP		Saint Rose, Louisiana	
Deer Park, Texas	333,700	Caint 1030, Eduisiana	33,000
Deci i ark, iexas	333,700		
		MURPHY OIL CORP	128,000
LYONDELL PETROCHEM CO		Murphy Oil U.S.A. Inc.	120,000
Lyondell Citgo Refining Co. Ltd.		Meraux, Louisiana	05 000
, -	074.500		
Houston, Texas	274,500	Superior, Wisconsin	33,000
CHALMETTE REFINING LLC		FARMLAND INDUSTRIES INC	
Chalmette, Louisiana	182,500	Farmland Industries Inc.	
•	,	Coffeyville, Kansas	112,000
TOTALFINAELF SA			
Atofina Petrochemicals Inc.		Total	15,815,041
Port Arthur, Texas	178,500		
T. 7.00 007		Companies with Capacity	
EL PASO CORP	159,500	30,001 to 100,000 bbl/cd	
Coastal Eagle Point Oil Co.			
Westville, New Jersey ^l	143,000		
Coastal Mobile Refg Co.		ERGON INC	99,600
Chickasaw, Alabama ¹		210011110	00,000

See footnotes at end of table.

Table 40. Refiners' Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 2002 (Continued)

(Continued)			
CORPORATION / Refiner / Location	Barrels per Calendar Day	CORPORATION / Refiner / Location	Barrels per Calendar Day
El Dorado, Arkansas	58,000		
Ergon Refining Inc. Vicksburg, Mississippi	23,000	HUNT CONSLD INC	
Ergon West Virginia Inc.		Hunt Refining Co.	
Newell (Congo), West Virginia	18,600	Tuscaloosa, Alabama	33,500
CALUMET LUBRICANTS CO LP	67,520	Total	681,070
Shreveport, Louisiana ^m	46,200		
Cotton Valley, Louisiana	13,020	Companies with Capacity	
Princeton, Louisiana	8,300	10,001 to 30,000 bbl/cd	
UNITED REFINING INC		AMERICAN INTL PETRO CORP	
United Refining Co.	05.000	American International Rfy Inc	00.000
Warren, Pennsylvania	65,000	Lake Charles, Louisiana	30,000
HOLLY CORP	65,000	TRANSWORLD OIL USA INC	
Navajo Refining Co. Artesia, New Mexico	58,000	Calcasieu Refining Co. Lake Charles, Louisiana	29,400
Montana Refining Co.	30,000	Lake Orlaites, Louisiaria	23,400
Great Falls, Montana	7,000		
•	•	APEX OIL CO INC	
		Edgington Oil Co.	
PETRO STAR INC	61,000	Long Beach, California	26,000
Petro Star Inc. Valdez, Alaska	46,000		
North Pole, Alaska	,	KERN OIL & REFINING CO	
101th 1 010, 7 table	10,000	Kern Oil & Refining Co.	
		Bakersfield, California	24,700
ALON USA ENERGY INC Alon USA LP			
Big Spring, Texas	58,500	SAN JOAQUIN REFINING CO INC	
		San Joaquin Refining Co Inc.	
0.4 DV/14/11 1 14.440 000		Bakersfield, California	24,300
GARY WILLIAMS CO Wynnewood Refining Co.			
Wynnewood, Oklahoma	52,500	FLYING J INC	
.,	,	Big West Oil Co.	
		North Salt Lake, Utah	24,000
PLACID REFINING CO			
Placid Refining Co.	49 500	COLINTDYMADIZ COOREDATIVE INC	
Port Allen, Louisiana	48,500	COUNTRYMARK COOPERATIVE INC Countrymark Cooperative Inc.	
		Mount Vernon, Indiana	23,000
PARAMOUNT ACQUISITION CORP			20,000
Paramount Petroleum Corp.			
Paramount, California	48,000	SOUTHLAND OIL CORP	16,800
		Southland Oil Co.	44.000
TIME OIL CO		Sandersville, Mississippi Lumberton, Mississippi	
U.S. Oil & Refining Co.		Lamborton, Inioσισσιρμι	5,600
Tacoma, Washington	44,350		
-		SILVER EAGLE REFINING	14,000
		Inland Refining Inc.	
GIANT INDUS INC	37,600	Woods Cross, Utah	11,000
Giant Refining Co.	20.000	Silver Eagle Refining	2.000
Gallup, New Mexico	20,800	Evanston, Wyoming	3,000
Bloomfield, New Mexico	16,800		
Biodifficia, 11011 Moxico	10,000		

See footnotes at end of table.

Table 40. Refiners' Operable Atmospheric Crude Oil Distillation Capacity as of January 1, 2002 (Continued)

CORPORATION / Refiner / Location	Barrels per Calendar Day	CORPORATION / Refiner / Location	Barrels per Calendar Day
WYOMING REFINING CO			
Wyoming Refining Co.			
Newcastle, Wyoming	12,500	SOMERSET REFINERY INC	
		Somerset Refinery Inc. Somerset, Kentucky	5,500
Total	224,700	Somerset, Remucky	3,300
Companies with Capacity		YOUNG REFINING CORP	
10.000 bbl/cd or Less		Young Refining Corp.	
10,000 88700 01 2035		Douglasville, Georgia	5,400
AMERICAN REFINING GROUP INC American Refining Group Inc.			,,,,,
Bradford, Pennsylvania	10,000	FORELAND REFINING CORP	
		Foreland Refining Corp.	
		Eagle Springs, Nevada	5,000
GREKA ENERGY	0.500		
Santa Maria, California	9,500	OIL HOLDING INC	
		Tenby Inc.	
AGE REFINING & MARKETING		Oxnard, California	4,000
San Antonio, Texas	9,000	·	
		DOW CHEM USA	
WORLD OIL CO		Haltermann Products	
Lunday Thagard		Channelview, Texas ⁿ	880
South Gate, California	8,500		
		Total	64,580
CROSS OIL & REFINING INC Cross Oil Refining and Mktg, Inc.			
Smackover, Arkansas	6,800	U.S. Total	16,785,391

^a Formerly owned by Tosco Corp.

b Formerly BP Amoco PLC

Formerly owned by Phillips Petro Co.
Includes former Coastal Corp. refinery at Corpus Christi.
Formerly owned by Ultramar Diamond Shamrock Corp.

Formerly owned by Ultramar Diamond Shamrock Corp.
Includes former Huntway Refining Co. refinery at Benecia.

Formerly owned by Huntway Refining Co.
Formerly Chevron Corp.
Formerly USX Corp.
Formerly listed as Sun Co. Inc.

Formerly owned by BP Amoco PLC
Formerly owned by Coastal Corp.
Formerly owned by Pennzoil-Quaker State Corp.
Formerly owned by Haltermann Products.
Source:Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 41. Operable Crude Oil and Downstream Charge Capacity of Petroleum Refineries, January 1, 1981 to January 1, 2002

(Thousand Barrels per Stream Day, Except Where Noted)

			Downstream Charge Capacity							
Year/PAD District	Atmospheric Crude Oil Distillation	Vacuum Distillation	Thermal Cracking	Catalytic Fresh	Cracking Recycled	Catalytic Hydro- cracking	Catalytic Reforming	Catalytic Hydro- treating	Fuels Solvent Deasphalting	
JAN 1, 1981	19,763	7,033	1,587	5,543	594	909	4,098	8,487	NA	
JAN 1, 1982	19,018	7,197	1,782	5,474	562	892	3,966	8,539	NA	
JAN 1, 1983	17,871	7,180	1,715	5,402	488	883	3,918	8,354	NA	
JAN 1, 1984	17,059	7,165	1,852	5,310	492	952	3,907	9,009	NA	
JAN 1, 1985	16,504	6,998	1,858	5,232	507	1,053	3,750	8,897	NA	
JAN 1, 1986	16,346	6,892	1,880	5,214	463	1,125	3,744	8,791	NA	
JAN 1, 1987	16,460	6,935	1,928	5,251	466	1,189	3,805	9,083	230	
JAN 1, 1988	16,825	7,198	2,080	5,424	381	1,202	3,891	9,170	240	
JAN 1, 1989	16,568	7,225	2,073	5,324	326	1,238	3,911	9,440	245	
JAN 1, 1990	16,507	7,245	2,108	5,441	314	1,282	3,896	9,537	279	
JAN 1, 1991	16,557	7,276	2,158	5,559	304	1,308	3,926	9,676	271	
JAN 1, 1992	16,633	7,172	2,100	5,608	280	1,363	3,907	9,644	276	
JAN 1, 1993	15,935	6,892	2,082	5,540	244	1,397	3,728	9,677	269	
JAN 1, 1994	15,904	6,892	2,107	5,586	191	1,376	3,875	10,616	261	
JAN 1, 1995	16,326	7,248	2,123	5,583	169	1,386	3,867	10,916	251	
JAN 1, 1997	16,287	7,349	2,050	5,595	155	1,388	3,727	11,041	275	
JAN 1, 1999	17,155	7,538	2,046	5,920	153	1,552	3,779	11,461	318	
JAN 1, 2000	17,393	7,617	2,163	5,949	99	1,576	3,770	11,440	351	
JAN 1, 2001	17,511	7,798	2,277	5,983	86	1,615	3,797	11,673	350	
JAN 1, 2002	17,676	7,779	2,329	5,989	80	1,633	3,753	11,845	362	
PADD I PADD II PADD III PADD IV PADD V	1,805 3,767 8,204 602 3,297	736 1,517 3,695 234 1,597	90 400 1,188 46 604	722 1,265 2,980 184 837	7 14 49 6 4	42 152 836 17 586	311 902 1,818 126 596	1,002 2,609 5,881 369 1,984	21 31 222 9 80	
JAN 1, 2003 ^a	17,681	7,815	2,352	6,017	80	1,633	3,747	11,963	362	
PADD I PADD II PADD III PADD IV PADD V	1,805 3,767 8,204 607 3,297	736 1,517 3,731 234 1,598	90 400 1,211 46 604	722 1,265 3,008 184 837	7 14 49 6 4	42 152 836 17 586	311 902 1,812 126 596	1,002 2,609 5,950 369 2,032	21 31 222 9 80	
2002-2003 (Not Change)	5	37	23	28	0	0	-6	118	0	
(Net Change) PADD I PADD II PADD III PADD IV PADD V	0 0 0 5	0 0 36 0	0 0 23 0	0 0 28 (s) 0	0 0 0 0	0 0 0 0	0 0 -6 (s) -1	0 0 70 (s) 49	0 0 0 0	

^aProjected data from refiners. NA = Not available.

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

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report." See Explanatory Note 3 for details.

Table 42. Operable Production Capacity of Petroleum Refineries, January 1, 1981 to January 1, 2002 (Thousand Barrels per Stream Day, Except Where Noted)

				Prod	uction Capacity			
Year/PAD District	Alkylates	Aromatics	Asphalt and Road Oil	Isomers	Lubricants	Marketable Petroleum Coke	Hydrogen (MMcfd)	Sulfur (short tons/day)
JAN 1, 1981	974	299	765	131	234	276	2,054	NA
JAN 1, 1982	984	290	740	162	242	267	1,944	NA
JAN 1, 1983	960	237	722	212	241	296	2,298	NA
JAN 1, 1984	945	218	800	208	241	407	2,444	NA
JAN 1, 1985	917	215	767	219	243	424	2,572	NA
JAN 1, 1986	941	276	804	258	246	356	2,357	NA
JAN 1, 1987	974	287	788	326	250	364	2,569	23,806
JAN 1, 1988	993	289	788	465	232	368	2,418	27,639
JAN 1, 1989	1,015	290	823	469	230	333	2,501	28,369
JAN 1, 1990	1,030	290	844	456	232	341	2,607	24,202
JAN 1, 1991	1,077	292	866	490	229	367	2,527	23,875
JAN 1, 1992	1,095	290	812	494	217	356	2,644	23,811
JAN 1, 1993	1,083	286	814	499	217	393	2,674	25,940
JAN 1, 1994	1,086	278	793	499	213	410	2,940	24,554
JAN 1, 1995	1,105	285	846	502	217	427	3,139	24,885
JAN 1, 1997	1,120	288	872	577	244	458	3,052	26,466
JAN 1, 1999	1,172	302	846	667	233	441	3,104	26,423
JAN 1, 2000	1,185	315	886	643	218	464	3,143	26,645
JAN 1, 2001	1,191	318	900	654	214	538	3,230	27,446
JAN 1, 2002	1,181	313	917	658	218	548	3,244	29,107
PADD I	107	21	141	25	20	22	84	1,289
PADD II	266	56	347	178	19	104	365	5,219
PADD III	574	231	243	330	147	290	1,404	17,191
PADD IV PADD V	41 192	0 4	66 119	15 109	0 32	10 123	91 1,300	672 4,736
JAN 1, 2003 ^a	1,181	326	926	658	218	548	3,244	29,109
PADD I	107	21	141	25	20	22	84	1,289
PADD II	266	56	347	178	19	104	365	5,219
PADD III	574	244	245	331	147	290	1,404	17,191
PADD IV PADD V	41 192	0 4	66 126	15 109	0 32	10 123	91 1,300	674 4,736
2002-2003 (Net Change)	(s)	13	9	1	0	0	0	2
PADD I	0	0	0	0	0	0	0	0
PADD II	0	0		0	0	0	0	0
PADD III		13	0 2	1	0	0	0	0
PADD III PADD IV	(s)	0		0	0		0	2
	(s)		0			0		
PADD V	0	0	6	0	0	0	0	0

^aProjected data from refiners. NA = Not available. MMcfd = Million cubic feet per day; (s) = Less than 500 barrels per stream day.

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

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report." See Explanatory Note 3 for details.

Table 43. Working Storage Capacity^a at Operable Refineries by PAD District as of January 1, 2002 (Thousand Barrels)

			PAD Districts	3		United
Commodity	I	II	III	IV	V	States
Crude Oil	24,044	20,991	74,440	3,579	34,528	157,582
Liquefied Petroleum Products	3,424	8,457	20,426	479	1,967	34,753
Propane/Propylene	925	4,293	8,549	168	222	14,157
Normal Butane/Butylene	2,499	4,164	11,877	311	1,745	20,596
Other Liquids	9,951	13,933	31,386	3,871	17,870	77,011
Oxygenates	2,161	196	2,934	111	2,463	7,865
Fuel Ethanol	0	79	27	111	1	218
Methanol	347	3	564	0	134	1,048
MTBE	1,814	114	2,171	0	2,304	6,403
Other Oxygenates ^b	0	0	172	0	24	196
Gasoline Blending Components	7,790	13,737	28,452	3,760	15,407	69,146
Petroleum Products	49,580	81,632	195,594	16,308	83,051	426,165
Finished Motor Gasoline	10,196	17,124	26,392	3,395	13,022	70,129
Reformulated	5,723	1,371	4,603	0	7,036	18,733
Oxygenated	21	178	0	180	0	379
Other Finished	4,452	15,575	21,789	3,215	5,986	51,017
Jet Fuel	2,716	3,821	10,730	745	6,233	24,245
Naphtha-Type	0	22	500	95	45	662
Kerosene-Type	2,716	3,799	10,230	650	6,188	23,583
Kerosene	442	1,056	1,932	125	91	3,646
Distillate Fuel Oil	11,279	15,253	27,193	3,084	9,779	66,588
0.05 percent sulfur and under	4,048	9,841	15,487	2,312	6,593	38,281
Greater than 0.05 percent sulfur	7,231	5,412	11,706	772	3,186	28,307
Residual Fuel Oil	2,835	3,895	10,533	1,030	6,969	25,262
Lubricants	2,373	729	12,968	0	2,573	18,643
Asphalt and Road Oil	3,441	11,007	6,862	3,211	3,840	28,361
Other Products ^c	16,298	28,747	98,984	4,718	40,544	189,291
Total	86,999	125,013	321,846	24,237	137,416	695,511

a The difference in volume between the maximum safe fill capacity and tank bottoms.
b 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).
c Includes ethane/ethylene, isobutane/isobutylene, pentanes plus, other hydrocarbons, hydrogen, unfinished oils, finished aviation gasoline, special naphthas, wax, petroleum coke, still gas, petrochemical feedstocks and miscellaneous products.
Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 44. Shell Storage Capacity^a at Operable Refineries by PAD District as of January 1, 2002 (Thousand Barrels)

			PAD Districts	5		United
Commodity	I	II	III	IV	V	States
Crude Oil	27,949	24,633	88,076	4,027	38,610	183,295
Liquefied Petroleum Products	3,773	8,888	22,481	508	2,134	37,784
Propane/Propylene	1,002	4,527	8,982	178	240	14,929
Normal Butane/Butylene	2,771	4,361	13,499	330	1,894	22,855
Other Liquids	11,530	15,551	36,156	4,240	26,456	93,933
Oxygenates	2,418	233	3,411	130	2,840	9,032
Fuel Ethanol	0	92	30	130	1	253
Methanol	373	4	665	0	158	1,200
MTBE	2,045	137	2,513	0	2,654	7,349
Other Oxygenates	0	0	203	0	27	230
Gasoline Blending Components	9,112	15,318	32,745	4,110	23,616	84,901
Petroleum Products	55,657	90,135	219,693	17,814	92.569	475,868
Finished Motor Gasoline	11,750	19,154	30,712	3,815	14,954	80,385
Reformulated	6.666	1.574	5,270	0,010	8.301	21,811
Oxygenated	23	214	0	208	0	445
Other Finished	5,061	17,366	25,442	3,607	6,653	58,129
Jet Fuel	3,015	4,203	11,916	821	6,955	26,910
Naphtha-Type	0	24	549	114	49	736
Kerosene-Type	3,015	4,179	11,367	707	6,906	26,174
Kerosene	473	1,150	2,299	136	120	4,178
Distillate Fuel Oil	12,380	16,482	30,215	3,371	10,817	73,265
0.05 percent sulfur and under	4,370	10,678	17,140	2,504	7,370	42,062
Greater than 0.05 percent sulfur	8,010	5,804	13,075	867	3,447	31,203
Residual Fuel Oil	3,145	4,222	11,783	1,123	7,693	27,966
Lubricants	2,503	819	14,143	0	2,675	20,140
Asphalt and Road Oil	3,770	12,227	7,410	3,447	4,048	30,902
Other Products	18,621	31,878	111,215	5,101	45,307	212,122
Total	98,909	139,207	366,406	26,589	159,769	790,880

a The design capacity of the tank.
b 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).
c Includes ethane/ethylene, isobutane/isobutylene, pentanes plus, other hydrocarbons, hydrogen, unfinished oils, finished aviation gasoline, special naphthas, wax, petroleum coke, still gas, petrochemical feedstocks and miscellaneous products.
Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 45. Capacity and Fresh Feed Input to Selected Downstream Units at U.S. Refineries, 2000-2002 (Barrels per Calendar Day, Expect Where Noted)

PAD District/Item	2000	2001	2002	2000	2001	2002
		PAD DISTRICT I			PAD DISTRICT II	
Cokers				<del>`</del>		
Capacity	81,250	85,600	87,100	368,122	374,516	375,926
Inputs	76,279	84,597	_	338,438	351,268	_
Catalytic Crackers						
Capacity	671,750	684,400	682,700	1,213,261	1,215,569	1,183,031
Inputs	628,923	621,460	_	1,124,622	1,110,129	_
lydrocrackers						
Capacity	38,000	38,000	38,000	143,100	145,300	139,200
Inputs	32,679	35,827	_	144,567	139,989	_
_		PAD DISTRICT III			PAD DISTRICT IV	
Cokers						
Capacity	923,200	1,009,325	1,085,750	36,900	40,900	40,900
Inputs	845,044	998,784	_	41,142	40,170	_
Catalytic Crackers						
Capacity	2,770,672	2,771,910	2,815,638	170,515	171,630	171,666
Inputs	2,600,704	2,561,518	_	144,274	132,052	_
Hydrocrackers						
Capacity	703,660	735,700	747,600	11,000	15,500	15,500
Inputs	522,079	527,438	_	4,334	3,992	_
_		PAD DISTRICT V			U.S. TOTAL	
Cokers						
Capacity	552,520	559,395	558,595	1,961,992	2,069,736	2,148,271
Inputs	493,701	488,126	_	1,794,605	1,962,945	_
Catalytic Crackers						
Capacity	772,800	795,310	793,126	5,598,998	5,638,819	5,646,161
Inputs	726,808	709,759	_	5,225,332	5,134,918	_
Hydrocrackers						
Capacity	509,645	507,194	510,200	1,405,405	1,441,694	1,450,500
Inputs	463,312	469,485	_	1,166,973	1,176,732	_

Note: Capacities are as of January 1 of the indicated year.
Sources: Capacities are from the Energy Information Administration Form EIA-820, "Annual Refinery Report." See Explanatory Note 3 for details. Inputs are from the Energy Information Administration Form EIA-810, "Monthly Refinery Report."

Table 46. Refinery Receipts of Crude Oil by Method of Transportation by PAD District, 2001 (Thousand Barrels)

			PAD Districts	i		United
Method	I	II	III	IV	V	States
Pipeline						
Domestic	2,555	610,946	711,718	96,050	344,171	1,765,440
Foreign	22,282	588,641	388,979	74,944	28,691	1,103,537
Tanker						
Domestic	0	0	0	0	336,937	336,937
Foreign	438,421	0	1,434,432	0	230,481	2,103,334
Barge						
Domestic	2,441	466	52,690	0	599	56,196
Foreign	76,554	0	39,686	0	12,501	128,741
Tank Cars						
Domestic	2,884	0	946	0	3,604	7,434
Foreign	0	0	3	0	0	3
Trucks						
Domestic	2,660	5,032	17,234	11,869	8,455	45,250
Foreign	0	0	0	50	0	50
Total						
Domestic	10,540	616,444	782,588	107,919	693,766	2,211,257
Foreign	537,257	588,641	1,863,100	74,994	271,673	3,335,665

Source: Energy Information Administration (EIA), Form EIA-820, "Annual Refinery Report."

Table 47. Fuel Consumed at Refineries by PAD District, 2001

(Thousand Barrels, Except Where Noted)

	PAD Districts							
Commodity	ı	II	III	IV	V	States		
2001								
Crude Oil	0	0	0	0	0	0		
Liquefied Petroleum Gases	366	879	693	39	2,972	4,949		
Distillate Fuel Oil	564	81	137	7	279	1,068		
Residual Fuel Oil	2,810	2,446	0	219	856	6,331		
Still Gas	20,330	48,241	111,685	7,514	48,451	236,221		
Marketable Petroleum Coke	138	77	91	144	790	1,240		
Catalyst Petroleum Coke	11,797	17,310	41,939	2,562	13,568	87,176		
Natural Gas (million cubic feet)	35,015	93,620	488,490	20,081	123,133	760,339		
Coal (thousand short tons)	W	W	W	W	W	39		
Purchased Electricity (million kWh)	3,450	8,728	15,868	1,446	4,695	34,187		
Purchased Steam (million pounds)	3,962	4,541	28,974	924	17,374	55,775		
Hydrogen (million cubic feet)	0	0	0	0	0	0		
Other Products ^a	340	1,282	1,945	796	1,420	5,783		

Note: Includes volumes used as fuel at refineries and all nonprocessing losses of crude oil and petroleum products (e.g., spills, fire losses, contamination,

etc.) a Includes pentanes plus, other hydrocarbons, oxygenates, unfinished oils, gasoline, special naphthas, jet fuel, lubricants, asphalt, road oil, and miscellaneous products.

W = Withheld to avoid disclosure of individual company data.

Source: Form EIA-820, "Annual Refinery Report" and Form EIA-810, "Monthly Refinery Report".

Table 48. Shutdown and Reactivated Refineries During 2001

PAD District / Refinery	Location	Total Atmospheric Crude Oil Distillation Capacity (bbl/cd)	Total Downstream Charge Capacity (bbl/sd)	Date Operable	Date of Last Operation	Date Shutdown
		SHUTDOWN	S			
PAD District II		80,515	124,500			
Premcor Refining Group	Blue Island, IL	80,515	124,500	01/48	01/01	04/01
		REACTIVATION	NS			
PAD District III						
American International	Lake Charles, LA	35,000	0	07/01		—

bbl/cd=Barrels per calendar day. bbl/sd=Barrels per stream day. Sources: Energy Information Administration (EIA) Form EIA-810, "Monthly Refinery Report" and Form EIA-820, "Annual Refinery Report."

Table 49. Refinery Sales During 2001

Former Corporation / Refiner	Total Atmospheric Crude Oil Distillation Capacity (bbl/cd) ^a	New Corporation / Refiner	Date of Sale
BP PLC/BP Products North America, Inc		Tesoro Petroleum Corp./Tesoro West Co	ast 9/01
Mandan, ND Salt Lake City UT	,		
Coastal Corp./Coastal Refining & Market Corpus Christi, TX		El Paso Corp./Coastal Refining & Market	ting Inc. 1/01
Coastal Corp./Coastal Eagle Point Oil C Westville, NJ		El Paso Corp./Coastal Eagle Point Oil Co	o. 1/01
Coastal Corp./Coastal Mobile Refining Cohickasaw, AL		El Paso Corp./Coastal Mobile Refining C	co. 1/01
El PasoCorp./Coastal Refining & Market Corpus Christi, TX ^b	ting Inc. 98,000	Valero Energy Corp./Valero Refining Co.	6/01
Golden Bear Oil Specialties  Bakersfield, CA ^c	0	Tricor Refining LLC	8/01
Haltermann Products Channelview, TX	800	Dow Chemical Co./Haltermann Products	7/01
Huntway Refining Co. Benicia, CA ^d Wilmington, CA		Valero Energy Corp./Valero Refining Co.	6/01
Neste Trifinery Petro Serv/Trifinery Petro Corpus Christi, TX		Trigeant Ltd	7/01
Pennzoil-Quaker State Corp. Shreveport, LA	46,200	Calumet Lubricants Co. LP	5/01
Phillips Petroleum Co./Phillips PR Core Guyama, PR ^e	Inc.	Chevron Phillips Chem PR Core	12/01
Phillips Petroleum Co./Phillips Alaska Ir Prudhoe Bay, AK		BP PLC/BP Exploration(Alaska) Inc.	8/01
Sun Co. Inc. Yabacoa, PR	45,000	Shell Chemical Co./Shell Chemical	12/01
Tosco Corp./Tosco Refining Co. Linden (Bayway), NJ		Phillips Petroleum Co./Phillips 66 Co.	9/01
Arroyo Grande, CA			

See footnotes at end of table.

Table 49. Refinery Sales During 2001(Continued)

Former Corporation / Refiner	Total Atmospheric Crude Oil Distillation Capacity (bbl/cd) ^a	New Corporation / Refiner	Date of Sale
Tosco Corp./Tosco Petro Co. Wood River, IL	288,300	Phillips Petroleum Co./Phillips 66 Co.	9/01
Ultramar Diamond Shamrock Corp./Ultr Martinez(Golden Eagle), CA Wilmington, CA	166,000	Valero Energy Corp./Ultramar Inc.	12/01
Ultramar Diamond Shamrock Corp./ Diamond Shamrock Refining & Marketin Sunray(McKee), TX Three Rivers, TX	151,000	Valero Energy Corp./ Diamond Shamrock Refining & Marketing Co	12/01 ).
Ultramar Diamond Shamrock Corp./ TPI Petroleum Inc. Ardmore, OK	84,400	Valero Energy Corp/TPI Petroleum Inc.	12/01
Ultramar Diamond Shamrock Corp./ Colorado Refining Co. Commerce City, CO	27,000	Valero Energy Corp./Colorado Refining Co.	12/01

^abbl/cd = Barrels per calendar day. As of January 1, 2002.

^bThis refinery has been acquired by Valero through a capital lease arrangment. Its operations have been integrated with Valero's existing Corpus Christi refinery.

^cThis plant has 11,000 bd/cd in Vacuum Distillation crude capacity.

^dThis refinery's operations have been integrated with Valero's existing Benecia refinery.

eThis refinery does not currently process crude oil, but it processes unfinished oils through catalytic hydrotreating and reforming.

Source: Energy Information Administration (EIA) Form EIA-810, "Monthly Refinery Report" and Form EIA-820, "Annual Refinery Report."

## Appendix A

# **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**

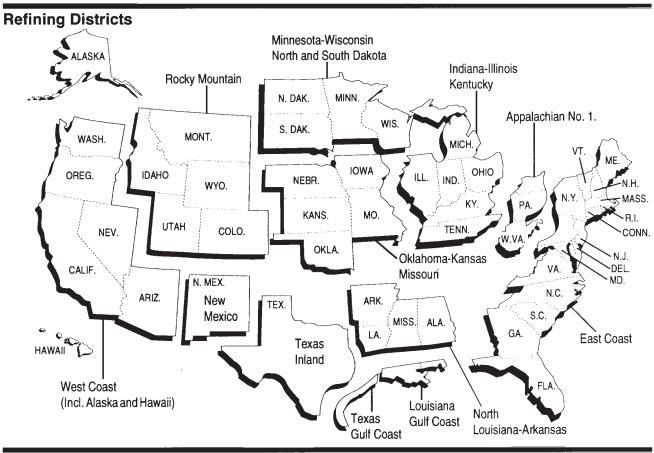
**Rocky Mountain:** The States of Montana, Idaho, Wyoming, Utah, and Colorado.

#### PAD District V

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

## Petroleum Administration for Defense (PAD) Districts





## Appendix B

# **Explanatory Notes**

The following Explanatory Notes are provided to assist in understanding and interpreting the data presented in this publication.

- Note 1. Petroleum Supply Reporting System
- Note 2. Monthly Petroleum Supply Reporting System
- Note 3. Form EIA-820: Annual Refinery Report
- Note 4. Technical Notes for Detailed Statistics Tables
- Note 5. Domestic Crude Oil Production
- Note 6. Export Data
- Note 7. Quality Control and Data Revision
- Note 8. Frames Maintenance
- Note 9. Descriptive Monthly Statistics
- Note 10. Practical Limitations of Data Collection Efforts
- Note 11. 1981 Changes in the Petroleum Supply Reporting System
- Note 12. 1983 Changes in the Petroleum Supply Reporting System
- Note 13. 1984 Changes in the Petroleum Supply Reporting System
- Note 14. 1985 Changes in the Petroleum Supply Reporting System
- Note 15. 1986 Changes in the Petroleum Supply Reporting System
- Note 16. 1987 Changes in the Petroleum Supply Reporting System
- Note 17. 1989 Changes in the Petroleum Supply Reporting System
- Note 18. 1990 Changes in the Petroleum Supply Reporting System
- Note 19. 1993 Changes in the Petroleum Supply Reporting System
- Note 20. 1994 Changes in the Petroleum Supply Reporting System
- Note 21. 1995 Changes in the Petroleum Supply Reporting System
- Note 22. 1997 Changes in the Petroleum Supply Reporting System
- Note 23. 1999 Changes in the Petroleum Supply Reporting System
- Note 24. Motor Gasoline Blending Plants

# 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:

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-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 pro-

pane. 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). 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, oxygenate plant, 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, "Accuracy of Petroleum Supply Data."

The Form EIA-819M, "Monthly Oxygenate Telephone Report," is used to collect preliminary data on production 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 a sample of fuel ethanol producers. Data are published in Appendix D of the *PSM* and also in the *WPSR*.

The Form EIA-819A, "Annual Oxygenate Capacity Report," was used to collect data on current and projected production capacity of oxygenates and annual production and end-of-year inventories of fuel ethanol. This survey, which was last conducted for January 1, 1995 and published in the *Petroleum Supply Annual* 1994, has been eliminated.

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. In 1996, this survey was moved to a biennial schedule (every other year). No surveys were conducted for January 1, 1996 and January 1, 1998 data. The survey was again conducted in January 1999 and reverted to an

annual schedule January 1, 2000. This survey is described in more detail in Explanatory Note 3.

# 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 and 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 250 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. Approximately 300 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 170 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 180 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 component products (fractionator). Approximately 525 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 45 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 fuel ethanol producers who reported on the Form EIA-819A, "Annual Oxygenate Capacity Report", in 1995. 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 soft-ware developed for EIA's Survey Methods Group. 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 the previous year. Companies are chosen for the sample beginning with the largest and adding companies until the sample covers approximately 90 percent of the total for each oxygenate product and supply type by geographic region (PAD Districts I through V).

#### **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 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 pipe-

line. 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, shipments, 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 EIA-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 95 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 Energy Information Administration 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 are suppressed on Table 16, "Refinery Net Production of Finished Petroleum Products by PAD and Refining Districts" 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 PSA tables listed below. In addition, complementary suppression is performed to avoid any residual disclosure.

- Table 16, "Refinery Input of Crude Oil and Petroleum Products by PAD and Refining Districts," (inputs of oxygenates)
- Table 18, "Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining Districts," (stocks of oxygenates)
- Table 30, "Stocks of Crude Oil and Petroleum Products by PAD District," (stocks of oxygenates)
- Table 31, "Refinery, Bulk Terminal, and Natural Gas Plant Stocks of Selected Petroleum Products," (all products)
- Table 47, "Fuel Consumed at Refineries by PAD District"

With the exception of the tables listed above, the tables in the *PSA* 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. Form EIA-820: Annual Refinery Report

Refinery capacity data collection was begun in 1918 by the Bureau of Mines, then in the Department of Commerce, and was operated on a voluntary basis until 1980. In 1980, the mandatory Energy Information Administration (EIA) Form EIA-177, Capacity of Petroleum Refineries, was implemented. Information on refining capacity was expanded to include not only current year operations, but two-year projections, and refinery input/production data. Working storage capacity data was also added to the form and product categories were added for total coverage. Information on refinery downstream facilities was expanded to include a breakdown of thermal operations and to add vacuum distillation, catalytic hydrorefining and hydrotreating. Production capacity was also added to include information on isomerization, alkylation, aromatics, asphalt/road oil, coking, lubricants and hydrogen.

In 1983, the form was revised to improve the consistency and quality of the data collected by the EIA and redesignated as Form EIA-820, "Annual Refinery Report." Two sections for data previously reported monthly were added: (1) refinery receipts of crude oil by method of transportation, and (2) fuels consumed for all purposes at refineries. Also, the second year projections on refining capacity were eliminated. As a result of a study conducted by the EIA evaluating motor gasoline data collected by the Federal Highway Administration (FHWA) and by the EIA, motor gasoline blending plants were included for the first

time in the respondent frame in order to produce more accurate statistics on the production of motor gasoline.

In 1987, the form was revised to reduce respondent burden and to better reflect current refinery operations through updated terminology. Information on projected input/production of refinery processing facilities was deleted. Several categories under catalytic hydrotreating were combined: naphtha and reformer feeds were combined into a single category as well as residual fuel oil and other. Thermal cracking types, gas oil and "other" were also combined into a single category. Catalytic reforming types, conventional and bi-metallic were replaced with low and high pressure processing units. Two new categories were added: fuels solvent deasphalting was added to downstream charge capacity and sulfur recovery was added to production capacity.

In 1994, the form was revised to enable EIA to calculate utilization rates for certain downstream processing units and to reflect storage capacity of fuels mandated by the Clean Air Act Amendments of 1990. Additions to the form included calendar day downstream charge capacity for fluid and delayed coking, catalytic cracking, and catalytic hydrocracking. Also storage capacity categories for reformulated, oxygenated, and other finished motor gasoline were added, as well as oxygenate storage capacity and

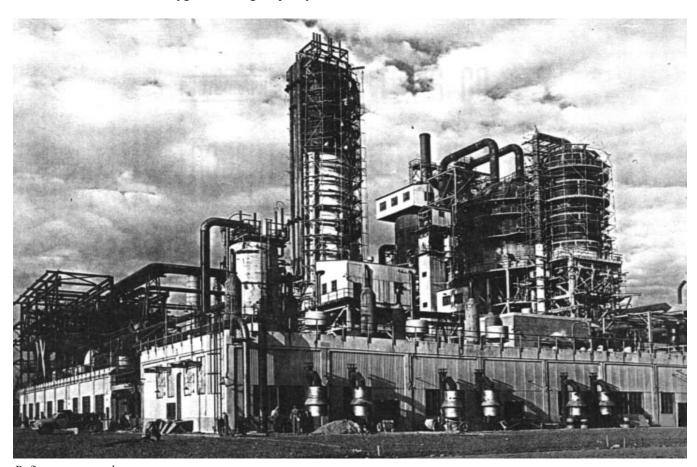
separate categories for high and low sulfur distillate fuel oil.

In 1995, motor gasoline blending plants were dropped from the survey frame, since by this time, the only section of the form that applied to them was working and shell storage capacity. Also in 1995, a decision was made to no longer collect storage capacity from shutdown refineries; therefore, these refineries were also eliminated from the survey frame.

In 1996, the survey was moved to a biennial schedule (every other year) and was renamed "Biennial Refinery Report." The survey was not conducted for January 1, 1996 or January 1, 1998.

Respondents were not required to submit data for crude oil and petroleum products consumed at refineries during 1995 and 1997. These data are available from the Form EIA-810, "Monthly Refinery Report." The requirement to submit data for refinery consumption of natural gas, coal, and purchased steam and electricity on the Form EIA-820 remained.

In 2000, the survey was moved to an annual schedule.



Refinery cat-cracker.

#### **Respondent Frame**

The respondent frame consists of all operating and idle petroleum refineries (including new refineries under construction), located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam and other U.S. possessions. As of January 1, 2002, there were 153 refineries and 59 motor gasoline blending plants in the 50 States. A list of motor gasoline blending plants operating during 2001 is provided in Explanatory Note 24.

The respondent frame is maintained by monitoring the monthly Form EIA-810, "Monthly Refinery Report," and industry publications for changes and developments in the petroleum industry such as refinery sales, mergers and new operations.

### **Description of Survey Form**

The Form EIA-820 is used to collect data on fuels consumed for all purposes at the refinery during the preceding year; refinery receipts of crude oil by method of transportation during the preceding year; current and next year projections for operable atmospheric crude oil distillation capacity, downstream charge capacity and production capacity; and current year working and shell storage capacity for crude oil and petroleum products at the refinery.

#### **Collection Methods**

The Form EIA-820 is sent to respondents in December. Survey forms can be submitted by electronic mail or facsimile. Completed forms are required to be postmarked by the 15th day of February of the current report year. Receipt of the reports is monitored using an automated respondent mailing list. Telephone follow-up calls are made to secure responses from those companies failing to report by February 15th.

## Response Rate

The response rate for the Form EIA-820 is normally very high. Data are estimated and non-compliance procedures are implemented for those companies still not reporting data by close-out for the report year.

## **Data Imputation**

Imputation is performed for companies that fail to file prior to the publication deadline. For the January 1, 2002 survey, there were no nonrespondents. When nonresponse occurs, values for these companies are imputed from data reported on the most recent year's Form EIA-820 and/or from data reported on Form EIA-810, "Monthly Refinery Report," for that company. For most surveyed items, the value imputed for nonrespondents is the value that com-

pany reported on the Form EIA-820 for the most recent year. For three categories of information however, the imputed value is also based on their data from the Form EIA-810 as follows:

## Section 2: Refinery Receipts of Crude Oil by Method of Transportation

The imputation methodology for this section is based on data reported on both the monthly Form EIA-810 and the annual Form EIA-820. Annual refinery receipts of domestic and foreign crude oil for a nonrespondent are imputed by aggregating the values for the refinery on the monthly survey. These values are allocated to the method of transportation by using the percentages reported for the refinery in the previous year. The difference between the values reported on the two surveys by all respondents in 2000 was about 2.4 percent.

## Section 3: Operable and Storage Capacity as of January 1

Operable atmospheric crude oil distillation capacity in barrels per calendar day is collected on the monthly Form EIA-810 as of the first day of each month and on the annual Form EIA-820 as of January 1. As part of the editing process for the Form EIA-820, these two values are compared. Companies are contacted and any discrepancies are resolved by the time of publication. Imputed values for operable atmospheric crude oil distillation capacity in barrels per calendar day are taken directly from the January Form EIA-810. A barrels per stream day capacity is then derived by dividing the reported barrels per calendar day capacity by .95.

Current year and projected year data for downstream charge capacity, production capacity, and data for working and shell storage capacity are taken directly from the previous year's annual report.

#### Confidentiality

The Office of Legal Counsel of the Department of Justice concluded on March 20, 1991, that the Federal Energy Administration Act requires the Energy Information Administration to provide company-specific data to the Department of Justice, or to any other 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.

Information on operable atmospheric crude oil distillation capacity, downstream charge capacity, and production capacity (Sections 3, 4 and 5) on Form EIA-820 are not considered as confidential, and historically have not been treated as such. Company identifiable data are published in the *Petroleum Supply Annual* (PSA) 2001, Volume 1, Tables 38, 39, and 40.

Other data (Sections 1, 2, 6 and respondent information) on the Form EIA-820 are kept confidential and not disclosed to the public to the extent that it satisfies the criteria for exemption under the Freedom of Information Act (FOIA), 5 U.S.C.552, Department of Energy (DOE) regulations, 10 C.F.R.1004.11, implementing the FOIA, and the Trade Secrets Act, 18 U.S.C.1905.

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.

The data collected on Form EIA-820, "Annual Refinery Report," is used to report aggregate statistics on and conduct analyses of the operation of U.S. petroleum refineries. The data appear in EIA publications such as *PSA*, and the *Annual Energy Review*. Company specific data are also provided to other DOE offices for the purpose of examining specific refinery operations in the context of emergency response planning and actual emergencies.

The tables pertaining to refinery receipts of crude oil by method of transportation and fuels consumed at the refinery published in the *PSA* 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.

#### **Quality Control**

There are two types of errors usually associated with data produced from a survey -sampling errors and nonsampling errors. Because estimates from the Form EIA-820 survey are based on a complete census of the frame of petroleum refineries, there is no sampling error in the data presented in this report. The data, however, are subject to nonsampling errors. Nonsampling errors are those which can arise from: (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. Quality control procedures are employed in the collection and editing operations to minimize misrepresentation and misreporting. Nonresponse follow-up procedures are employed to reduce the number of nonrespondents, and procedures employed to impute missing data, introduce a minimal amount of error, given the relatively small volume of imputed data.

#### Resubmissions

Resubmissions are required whenever an error greater than 5 percent of the true value is discovered. In the event of a reporting error, company reports are updated after contact with the company and are followed up by corrected report resubmissions. Late submissions or resubmissions received after the publication date are entered into a "working" file. This file contains the most up-to-date data for the Form EIA-820 and is used to edit next year's data.

# Note 4. Technical Notes for Detailed Statistics Tables

The detailed statistics tables in the Petroleum Supply Annual provide complete supply and demand information for the previous 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 various State agencies and the Minerals Management Service of the U.S. Department of the Interior. Refer to Explanatory Note 5 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 10 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 alcohol, 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 the prior year'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 products 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/alcohol 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 5. 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. Currently, all except six crude oil producing States (Michigan, New York, Pennsylvania, Ohio, Virginia and West Virginia) report production on a monthly basis. These five States report crude oil production on an annual basis. Estimates of monthly crude oil production for these five 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 and the Minerals Management Service. The EIA incorporates production data into its Crude Oil Production System (COPS) as the data are received from the reporting agencies. EIA publications show portions of this database at specific points in time. Table 14 of this publication presents the 2001 crude oil production data received by the EIA as of April 2002. Crude oil production data for 2001 received after April 2002 will be published later as an appendix in the following year's *Petroleum Supply Annual (PSA)*. Table Cl of this publication presents the 2000 crude oil production a year after it was published in the *PSA* 2000.

# Note 6. Export Data

Each month the Energy Information Administration (EIA) receives electronic files 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 Annual* 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.

# Note 7. 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 difference 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 Division is performed each year. The results of this data comparison are published once a year in the *Petroleum Supply Monthly* (PSM) feature article, "Comparisons of Independent Petroleum Supply Statistics."

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 of the PSM.

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 (20th calendar 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 8. Frames Maintenance

The Petroleum Division (PD) 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 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 the monthly and annual frames maintenance activities and to provide more comprehensive coverage, the PD 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.

### **Changes in Survey Frames**

Beginning in January 1981, the Energy Information Administration (EIA) expanded its universe to include non-refinery blenders; redefined motor gasoline into two categories (finished leaded and finished unleaded); and

separated blending components from finished motor gasoline as a reporting category. Refer to Explanatory Note 11 for further discussion.

In January 1981, 1983, and 1984 numerous respondents were added to bulk terminal and pipeline surveys affecting subsequent stocks reported and stock change calculations. Table B1 displays the end-of-year stocks, in million barrels using the expanded coverage (new basis).

Beginning in January 1986, as a result of frames maintenance activities, 39 respondents were added to the monthly survey frames: 2 motor gasoline blenders, 30 bulk terminal operators, 3 pipeline operators, 3 crude oil stock holders, and 1 tanker and barge operator. Table B2 shows the impact of the data reported by the new respondents on published data for production and stocks of major petroleum products.

Also, beginning in January 1986, a major petroleum company consolidated production and stocks reporting for some of its facilities. Data previously reported separately on Form EIA-811, "Monthly Bulk Terminal Report," and on Form EIA-816, "Monthly Natural Gas Liquids Report" for two facilities were combined with data reported for two refineries on Form EIA-810, "Monthly Refinery Report." The primary impact of this reporting change is on Table 18, "Stocks of Crude Oil and Petroleum Products by PAD District," of the *Petroleum Supply Annual*, 1986 which showed a decrease in natural gas liquids (NGL) stocks at bulk terminals and natural gas processing plants, and an increase in NGL stocks at refineries.

Table B1. New Basis Stocks¹ (Million Barrels)

1980	1982	1983	
488	645	723	
380	351	379	
1 425	1 461	1 151	
1,425	1,461	1,454	
263	244	222	
214	202		
205	186	140	
91	69	49	
40	20	20	
00	01	00	
128	102	108	
007	040	040	
207	219	210	
	488 380 1,425 263 214 205 91 42 36 69	488 645 380 351 1,425 1,461 263 244 214 202 205 186 91 69 42 39 36 32 69 57 128 102	488 645 723 380 351 379 1,425 1,461 1,454 263 244 222 214 202 186 205 186 140 91 69 49 42 39 39 36 32 32 69 57 55 128 102 108

¹ Stocks as of December 31.

# Note 9. Descriptive Monthly Statistics

The universe of each of the Petroleum Supply surveys (refinery, bulk terminal, pipeline, crude oil stock, import, etc.) is relatively small and ever-changing due to company formations, shutdowns, mergers and splits. The frequency distributions of the petroleum supply variables are non-normal, highly variable, positive skewed and leptokurtic; that is, there are many small units and few large ones. Zeros often dominate the responses; that is, not all of the sampling units produce and/or store all products.

Table B2. Impact of New Respondents to December 1985 PSM Data

	Refinery P (thousand bar		Stocks ^a (thousand barrels)		
Product	Reported by New Respondents	Published U.S. Total	Reported by New Respondents	Published U.S. Total	
Leaded Gasoline	1.3	2,326	224	81,379	
Unleaded Gasoline	0.6	4,323	276	108,422	
Distillate Fuel Oil	0	3,174	1,217	143,911	
Residual Fuel Oil	0	1,055	1,747	50,671	
NGLs & LRGs	0	393	409	80,898	
Other Products	0	3,302	1,413	239,158	
Crude Oil (excl. SPR)	_	_	2,314	318,695	

^a Stocks as of December 31, 1985.

The statistics described in Table B3 were calculated from the 1996 monthly surveys and display the following petroleum supply variables:

- (1) The number of active sampling units (respondents).
- (2) The number of sampling units reporting nonzero values (nonzero respondents).
- (3) The average of nonzero values reported in thousand barrels (average).
- (4) The standard deviation of nonzero values reported in thousand barrels (standard deviation).

# Note 10. 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 mixture. 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 states receiving Alaskan crude oil. The adjustment reduces the crude oil inputs and increases the NGL inputs by an equal amount. Each state adjustment is a portion of the known Alaskan-NGL production that is proportional to the state'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 B4 in the 1994 *PSA*).

#### **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 (refer to Table B4). 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

Table B3. Descriptive Statistics for Selected Petroleum Supply Variables¹, 2001

							<u> </u>					
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Refinery Gross Input to Respondents Nonzero Respondents Average Standard Deviation	246 146 3172 3153	oheric Cru 246 146 2877 2816	ide Oil Di 246 147 3133 3099	stillation ( 245 148 3196 3166	Jnits 244 148 3355 3281	244 146 3267 3143	243 147 3298 3243	242 147 3278 3199	245 146 3129 3056	244 145 3249 3178	243 145 3151 3074	242 143 3230 3251
Refinery Crude Oil Inp Respondents Nonzero Respondents Average Standard Deviation	ut 246 152 3016 3129	246 155 2676 2796	246 154 2949 3063	245 155 3007 3134	244 155 3153 3261	244 154 3049 3112	243 153 3114 3205	242 153 3092 3168	245 153 2942 3032	244 152 3060 3156	243 151 2980 3052	242 149 3056 3231
Refinery Finished Moto Respondents Nonzero Respondents Average Standard Deviation	or <b>Gasoli</b> 246 178 1329 1455	ne Gross 246 176 1226 1275	Production 246 173 1385 1448	on 245 171 1425 1596	244 164 1590 1722	244 163 1547 1607	243 164 1549 1652	242 161 1540 1629	245 168 1455 1586	244 175 1455 1621	243 175 1408 1540	242 174 1436 1624
Refinery Distillate Fuel Respondents Nonzero Respondents Average Standard Deviation	1 <b>Oil Gros</b> 246 143 798 786	246 246 144 721 700	tion 246 144 766 730	245 146 761 745	244 146 786 727	244 143 791 733	243 143 844 812	242 143 804 772	245 143 774 746	244 143 835 843	243 143 842 847	242 140 840 844
Refinery Residual Fuel Respondents Nonzero Respondents Average Standard Deviation	246 110 234 326	246 109 206 279	tion 246 111 218 288	245 112 226 309	244 109 230 325	244 111 220 320	243 103 205 283	242 105 191 266	245 109 186 244	244 106 216 285	243 106 202 270	242 102 205 258
Refinery Finished Gas Respondents Nonzero Respondents Average Standard Deviation	oline Sto 246 166 278 306	246 168 282 290	246 165 276 292	245 167 276 319	244 167 287 327	244 166 306 373	243 167 282 341	242 167 266 292	245 168 267 306	244 165 289 326	243 163 299 332	242 163 292 344
Bulk Terminal Finished Respondents Nonzero Respondents Average Standard Deviation	d <b>Motor 6</b> 263 120 536 1064	34 Sasoline 5	264 264 120 445 870	261 117 467 918	250 116 534 1063	250 116 571 1090	249 114 557 1096	247 113 518 986	247 113 558 1073	246 111 572 1130	243 111 576 1157	243 110 587 1141
Pipeline Finished Moto Respondents Nonzero Respondents Average Standard Deviation	or <b>Gasoli</b> 81 49 984 2063	ne Stocks 81 50 911 2004	81 49 933 2038	81 49 1012 2254	82 49 1025 2209	82 49 1068 2290	82 50 1035 2378	82 51 935 2152	82 51 982 2212	82 51 962 2185	82 51 954 2075	82 50 987 2169
Refinery Distillate Fuel Respondents Nonzero Respondents Average Standard Deviation	246 193 206 293	246 193 212 305	246 191 184 233	245 190 196 249	244 191 208 296	244 188 221 339	243 190 237 351	242 191 230 426	245 191 234 447	244 188 241 470	243 187 250 439	242 187 256 467
Bulk Terminal Distillate Respondents Nonzero Respondents Average Standard Deviation	e Fuel Oi 263 167 285 573	263 167 270 541	264 168 220 449	261 161 235 471	250 155 256 490	250 153 285 544	249 154 324 622	247 153 319 631	247 153 343 683	246 151 353 738	243 152 390 808	243 152 425 862
Pipeline Distillate Fuel Respondents Nonzero Respondents Average Standard Deviation	Oil Stoc 81 52 594 1319	81 52 595 1426	81 50 658 1529	81 50 598 1441	82 52 536 1179	82 52 554 1274	82 52 581 1540	82 52 563 1431	82 52 573 1339	82 53 572 1397	82 51 644 1605	82 53 607 1480
Refinery Residual Fuel Respondents Nonzero Respondents Average Standard Deviation	246 120 139 215	246 120 146 238	246 117 148 232	245 118 145 237	244 118 158 304	244 119 152 230	243 119 135 227	242 117 128 191	245 118 138 227	244 118 144 246	243 115 141 233	242 115 147 296
Bulk Terminal Residua Respondents Nonzero Respondents Average Standard Deviation	1 Fuel Oi 263 54 379 629	263 53 391 641	264 52 414 786	261 51 442 792	250 46 486 852	250 46 513 864	249 47 491 811	247 47 425 661	247 49 426 709	246 49 433 751	243 48 477 800	243 48 504 833
Refinery Crude Oil Sto Respondents Nonzero Respondents Average Standard Deviation	246 154 658 689	246 154 627 635	246 153 676 705	245 154 710 752	244 154 684 718	244 153 671 695	243 154 676 700	242 154 674 728	245 154 663 696	244 153 679 720	243 153 667 704	242 153 671 696
Pipeline/Tank Farm Cr Respondents Nonzero Respondents Average Standard Deviation	ude Oil S 160 105 1633 3695	160 160 104 1567 3544	160 105 1757 3903	160 105 1909 4242	160 104 1896 4185	159 104 1754 3735	160 105 1746 3795	160 105 1731 3959	159 104 1755 4070	159 104 1798 4052	159 104 1787 4064	158 104 1803 4022

¹ The respondent averages and standard deviations exclude zero reporting companies.

Table B4. Finished Motor Gasoline Product Supplied Adjustment, 1993 to 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	89	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		7,481	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	44	38	34
Motor Gas Blending	61	75	(s)	-8	43	48	103	52	21	80	60	43	48
Product Supplied		7,599	7,792	7,873	8,071	8,088	8,165	8,343	7,662	8,093	7,915	7,794	7,891
1997													
Fuel Ethanol Adj	39	50	51	46	48	38	59	37	47	69	50	61	50
Motor Gas Blending	-20	61	-27	87	73	113	89	95	115	107	165	80	78
Product Supplied		7,668	7,796	8,064	8,139	8,288	8,496	8,233	8,023	8,141	7,965	8,065	8,017
1998													
Fuel Ethanol Adj	66	55	61	55	42	50	49	58	62	71	55	75	58
Motor Gas Blending	84	39	117	140	142	246	111	88	171	89	145	205	132
Product Supplied		7,711	8,004	8,312	8,279	8,520	8,680	8,568	8,310	8,378	8,167	8,451	8,253
4000													
1999 Fuel Ethanol Adj	57	52	52	53	50	59	43	54	55	64	66	72	56
Motor Gas Blending	81	-13	20	134	46	214	192	128	102	212	156	165	120
Product Supplied		8,031	8,128	8,506	8,420	8,886	8,942	8,579	8,305	8,542	8,240	8,859	8,431
2000													
Fuel Ethanol Adj	60	47	62	62	76	52	68	73	66	74	73	76	66
Motor Gas Blending	255	208	178	158	198	125	80	73 158	155	107	73 83	319	169
Product Supplied	7,653	8,291	8,305	8,375	8,661	8,825	8,642	8,921	8,518	8,417	8,384	8,670	8,472
2001													
Fuel Ethanol Adj	80	65	61	59	64	40	96	52	71	93	63	58	67
Motor Gas Blending	264	121	289	303	196	210	213	245	196	193	175	252	222
Product Supplied		8,234	8,532	8,575	8,706	8,690	9,023	8,953	8,557	8,655	8,677	8,585	8,610
	5,000	5,204	5,002	5,070	5,700	5,000	5,020	5,555	5,007	5,000	5,011	5,000	3,010

Note: Totals may not equal sum of components due to independent rounding. Source: • Energy Information Administration, *Petroleum Supply Annual*, Volumes I and II.

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 13 published in the *PSA*.

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 High-

way Administration, Monthly Motor Fuel Reported by States, 1991.

#### 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 13 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 11. 1981 Changes in the Petroleum Supply Reporting System

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

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

#### **Motor Gasoline**

Prior to 1979, the EIA product-supplied series for motor gasoline was consistently about 2 percent lower than the Federal Highway Administration (FHWA) gasoline sales data series, which is derived from State tax receipts. The difference increased to about 3 percent in 1979 and 1980. There were two primary causes for this growing difference. First, refinery operations, particularly the flows of unfinished oils and the redesignation of some finished products, were not being accurately described on the EIA survey forms. Second, a large amount of gasoline was being produced away from refineries at "downstream blending stations" to take advantage of provisions in regulations governing the amount of lead that could be added. These blending stations were not reporting gasoline pro-

duction to the EIA until the data system was changed in January 1981.

Quantitative estimates of the magnitude of the difference in EIA's gasoline product supplied data in 1979 and 1980 have been made by the EIA and the American Petroleum Institute (API). Table B5 provides 1979 and 1980 data as published in the *Petroleum Statement*, *Annual*, as well as EIA and API estimates of "recast" motor gasoline product supplied.

Table B5. Finished Motor Gasoline Product Supplied

(Thousand Barrels per Day)

	EIA Reported	API Recast	EIA Recast	FHWA ^a
1979	,	7,302	7,183-7,347	7,258
1980		6,882	6,806-6,889	6,792

^a FHWA gasoline statistics based on data from Federal Highway Administration, *Estimate of Total Gasoline Use*, Table MF-21A published October 1980 and September 1981. Aviation gasoline (Table MF-24) has been subtracted from FHWA product supplied quantities to make data comparable.

The EIA recast estimates were based upon preliminary monthly information in the *Monthly Petroleum Statement*. The ranges displayed in the EIA column reflect uncertainty in the estimates. Also shown are the FHWA motor gasoline sales statistics for those years.

#### Distillate and Residual Fuel Oil

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

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

Beginning in January 1981, this adjustment was discontinued because there was not sufficient empirical evidence to support it. Table B6 presents distillate and residual fuel oil refinery production in 1979 and 1980 as published (adjusted) and on the same basis as 1981 statistics (unadjusted) to permit comparison.

Table B6. Distillate and Residual Fuel Oil Production and Product Supplied

(Thousand Barrels per Day)

	(Thousand B	arrois por baj	,	
	Adjusted Refinery	Unadjusted Refinery		Unadjusted Product
	Production	Production	Difference	Supplied
Distillate Fuel Oil				
1979	3,152	3,169	16	3,327
1980	2,661	2,764	103	2,969
Residual Fuel Oil				
1979	1,687	1,695	8	2,834
1980	1,580	1,634	54	2,562

Adjusted distillate and residual fuel oil product supplied volumes differ from the unadjusted volumes by the same amounts as the adjusted and unadjusted production volumes.

#### **Total Petroleum Products**

The imbalance between the supply and disposition of unfinished oils and gasoline blending components is included with other products (line 35) in Table 1. These imbalances are reported as negative product supplied in Table 2. Since these changes only involve redistribution of the volumes of finished motor gasoline, distillate and residual fuel oil, gasoline blending components, and unfinished oils, the total volume of petroleum products supplied remains unaffected by them.

#### Alaskan In Transit Stocks

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-ofyear crude oil stocks would have been 488 million barrels (Total) and 380 million barrels (Other Primary).

# Note 12. 1983 Changes in the Petroleum Supply Reporting System

January 1983 marked the implementation of recent changes in the collection, processing and availability of the Energy Information Administration's (EIA) petroleum supply data. Survey forms and definitions were made consistent; frames for bulk terminals, petroleum product pipelines and crude oil stock holders were updated, and the survey processing system was redesigned and incorporated into the new Petroleum Supply Reporting System (PSRS).

#### **Changes in Data Collection**

Changes in data collection can be grouped into five categories. Some were made to improve consistency, others to classify activity more precisely, and others to combine or eliminate information elements or to reduce the frequency of reporting in recognition of the trade-off between data value and reporting burden. The changes are itemized below.

- Motor gasoline was divided into three standard categories (finished leaded motor gasoline, finished unleaded motor gasoline and motor gasoline blending components).
- Aviation gasoline blending components were added to Form EIA-817.
- Crude oil burned as fuel on leases and by pipelines is reported as a single item on Form EIA-813. Previously it was reported as distillate or residual fuel oil consumption.
- Number 4 Fuel Oil is now included with distillate fuel oil.
- Gasohol was eliminated as a separate category and is now reported as either "finished leaded motor gasoline" or "finished unleaded motor gasoline."
- Waterborne movements of petrochemical feedstocks are now divided into naphtha-less than 401 degrees end-point and other-oils equal to or greater than 401 degrees end-point on Form EIA-817.
- Data aggregation for Petroleum Administration for Defense District (PADD) I was divided into three subdistricts on Forms EIA-812 and 817.
- Detailed categories of Gross Input to Crude Oil Distillation Units were eliminated, and only Total Gross Inputs are collected on Form EIA-810.
- Waterborne movements of crude oil and petroleum products between PADDs, on Form EIA-817, no longer reflect shipping and receiving States.
- Reporting of production and stocks of Number 4 Fuel Oil by sulfur levels were eliminated from Forms EIA-810, 811, 812, and 817.
- Crude oil stocks are collected at PADD levels rather than State levels on Form EIA-813.
- Shipments from natural gas processing plants no longer reflect destination by facility type on Form EIA-816.

- The four categories for unfinished oils were reduced to two on Form EIA-810.
- The five categories for sulfur content of residual fuel oil were reduced to three on Forms EIA-810, 811, and 817.
- Normal Butane and Other Butanes were combined into a single category on Forms EIA-810, 811, and 816.
- Three subcategories of lubricating oils (bright stock, neutral, and other) were combined into a single category on the Form EIA-810.
- Three subcategories of waxes (microcrystalline, crystalline-fully refined, and crystalline-other) were combined into a single category on the Form EIA-810.
- Asphalt and Road Oil were combined into a single category on Forms EIA-810 and 811.
- Plant fuel use and Losses were combined on Form EIA-816.
- Natural Gasoline and Isopentane were combined on Form EIA-816.

#### Change in Crude Oil Lease Stocks

The end-of-month crude oil stocks held on leases are reported on the Form 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 Energy Information Administration (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 the EIA reported data and the state government data was made and the difference added to the EIA data for 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 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.

# Note 13. 1984 Changes in the Petroleum Supply Reporting System

In January 1984, a number of changes in the reporting of natural gas liquids (NGLs) were implemented. The modified system reflects supply and disposition of NGL on a component, rather than a product, basis.

From 1979 to 1983, the Energy Information Administration (EIA) collected and reported information on the supply and disposition of nine NGL products. Beginning with January 1984, NGL supply and disposition data were reported for 5 components to be consistent with record keeping practices used by the industry. Table B7 shows the product category under the new and old basis. Four Petroleum Supply Reporting System surveys were modified beginning in January 1984. They were:

EIA-810	"Monthly Refinery Report"
EIA-811	"Monthly Bulk Terminal Report"
EIA-812	"Monthly Product Pipeline Report"
EIA-816	"Monthly Natural Gas Liquids Report"

This change affected stocks reported and stock change calculations. Under the new basis, end-of-year 1983 stocks would have been 108 million barrels (Liquefied Petroleum Gases) and 210 million barrels (Other Petroleum Products).

Table B7. Product Basis vs. Component Basis Reporting

	19		Comp Basis		nt
1979-1983 Product Basis	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus
Ethane	•				
Ethane-Propane Mixtures	•	•			
Propane		•			
Butane-Propane Mixtures		•	•		
Butane			•		
Isobutane				•	
Unfractionated Stream	•	•	•	•	•
Natural Gasoline and Isopentane					•
Plant Condensate					•

Table B8. Algorithm for Allocating NGL Imports/Exports (Percent)

		EIA Component Slate							
Product	Ethane	Propane	Normal Butane	Isobutane	Pentanes Plus				
Import Product									
Natural Gasoline and Isopentane (EIA-814)	_	_	_	_	100				
Plant Condensate (EIA-814)	_	_	_	_	100				
Ethane (IM-145)	100	_	_	_	_				
Propane (IM-145)		100	_		_				
Butane (IM-145)	_	_	65	35	_				
Butane-Propane Mixtures (IM-145)	_	40	35	20	5				
Ethane-Propane Mixtures (IM-145)	60	40	_	_	_				
Export Product									
Ethane (All PAD Districts)	100	_	_		_				
Propane (All PAD Districts)		100	_		_				
Butane (All PAD Districts)	_	_	100	_	_				
Mixed Streams									
PAD Districts I, IV, V	_	40	60	_	_				
PAD District II	30	25	15	15	15				
PAD District III	_	80	20	_	_				

A fifth survey, Form EIA-814, "Monthly Imports Report" (formerly Form ERA-60), was not modified. Therefore, in order to allocate imports and exports of mixed NGL streams to individual component parts, the EIA developed a statistical algorithm.

#### **Imports**

The imports algorithm was based on information gathered from the larger importers of NGL, who were asked to provide component analysis of the products they imported during the first 6 months of 1983. The percentages shown in Table B8 are derived from the weighted averages of the data provided by the importers.

#### **Exports**

The exports algorithm was based on information gathered from the larger exporters of NGL, who were asked to provide component analysis of the products they exported during 1983. The percentages shown in Table B8 are derived from the weighted averages of the data provided by the exporters. It was necessary to derive percentages by Petroleum Administration for Defense Districts of exportation, due to the wide variation of components included in the mixed streams.

# Note 14. 1985 Changes in the Petroleum Supply Reporting System

Beginning in January 1985, inter-Petroleum Administration for Defense (PAD) District pipeline movements of crude oil were included in the crude oil supply balance at the PAD District level but did not affect National level statistics. As a result of including these movements, *Net Receipts* of crude oil and *Unaccounted for Crude Oil* at the PAD District level changed significantly. Also affected were crude oil imports and unfinished oil imports at the PAD District level which are provided by *PAD District of Entry* (Tables 4-8) and by *PAD District of Processing* (Table 14).

The tables in the *Petroleum Supply Annual* that were changed due to the inclusion of inter-PAD District pipeline movements of crude oil are listed below:

- Tables 4 through 8, "PAD Districts I to V, Supply and Disposition of Crude Oil and Petroleum Products."
  - Effective January 1985, crude oil imports and unfinished oil imports in Tables 4 through 8 were reported at the PAD District of Entry rather than at the PAD District of Processing. Net Receipts now include movements by pipeline as well as by tanker and barge.

- Table 20, "Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts."
  - The crude oil line includes movements by pipeline as well as by tanker and barge.
- Table 21, "Movements of Crude Oil and Petroleum Products by Pipeline Between PAD Districts."
  - A line was added to report crude oil movements.
- Table 23, "Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts."
  - The crude oil line includes movements by pipeline as well as by tanker and barge.

# Note 15. 1986 Changes in the Petroleum Supply Reporting System

Beginning in January 1986, several changes to the Petroleum Supply Reporting System (PSRS) went into effect. These changes affected the frame of operators of petroleum facilities required to complete the monthly surveys in the PSRS and resulted in some changes to the tables presented in the *Petroleum Supply Monthly* and were subsequently published in the *Petroleum Supply Annual* (PSA). Refer to Explanatory Note 8 for a detailed description of frames maintenance and updates.

#### **Changes in Data Collection**

- The unit of measure used on Form EIA-814, "Monthly Imports Report," has been changed from barrels to thousands of barrels.
- Unfinished oil imports data, previously reported as one product on the Form EIA-814, are now reported separately under four classifications. These classifications are:
  - Naphthas and lighter
  - Kerosene and light gas oils
  - Heavy gas oils
  - Residuum
- The number of categories for reporting natural gas liquids and liquefied petroleum gases data on Form EIA-814 was reduced from 19 to 5 by eliminating the requirement to separately identify categories for further processing, petrochemical use, and fuel use.
- The requirements to report the type of processing facility and the applicable section of the oil import regulations were eliminated for the Form EIA-814.

- The requirement to report data for imports of crude oil, unfinished oils, and finished products on separate schedules of the Form EIA-814 was eliminated.
- The requirement to report two end-use categories, petrochemical use and other use, for still gas and liquefied refinery gases, was eliminated on Form EIA-810, "Monthly Refinery Report."
- Form EIA-815, "Monthly Shipments from Puerto Rico to the United States Report," was discontinued. The data previously reported on this form are now reported on Form-814.

#### **Changes in Publication Tables**

Several changes were also made to tables in the *PSA* either as a direct result of changes in reporting requirements or to improve the usefulness of the publication. These changes were:

- Table 11, "Refinery Input of Crude Oil and Petroleum Products by PAD District."
  - Alaskan crude oil receipts were shown separately.
- Table 12, "Refinery Production of Petroleum Products by PAD District."
  - The breakout between "petrochemical feedstock use" and "other use" were no longer shown separately for still gas or for liquefied refinery gases.
- Table 14, "Imports of Crude Oil and Petroleum Products by PAD District."
  - Imports of unfinished oils were separated into four categories: naphthas and lighter, kerosene and light gas oils, heavy gas oils, and residuum.
- Table 15, "Imports of Crude Oil and Petroleum Products by Source."
  - Countries formerly included in the categories "Other Western Hemisphere" and "Other Eastern Hemisphere" were shown individually.
- Table 18, "Stocks of Crude Oil and Petroleum Products by PAD District."
  - The breakout between "petrochemical feedstock use" and "other use" for each liquefied petroleum gas was eliminated.

# Note 16. 1987 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System went into effect at the beginning of January 1987. These changes were made as part of the Energy Information Administration's (EIA's) continuing effort to provide pertinent, timely, and consistent energy information. These changes were subsequently reflected in the *Petroleum Supply Annual* (PSA).

#### **Changes in Data Collection**

Fresh feed input to catalytic cracking units, hydrocracking units, and cokers were added to the Form EIA-810, "Monthly Refinery Report."

#### **Changes in Publication Tables**

- The "Appalachian No. 2" Refining District was combined with the "Indiana, Illinois, Kentucky," Refining District. This affected *PSA* Tables 10 through 13, 18, 24, and 25.
- Fresh feed inputs to catalytic cracking units, hydrocracking units, and cokers were added to Table 11, "Refinery Input of Crude Oil and Petroleum Products by PAD District."

#### Clarification

In 1986, several refineries and terminals in the United States applied for Foreign Trade Zone (FTZ) status and applications from three refineries were approved. Consequently, during 1986, some refineries with FTZ status were treated as if they were within the United States while the Hawaiian FTZ was considered outside.

Effective with the January 1987 data, all FTZ facilities located within the 50 United States are considered domestic entities and are included in *PSA* statistics. The principal differences in the *PSA* data series as a result of adding the Hawaiian FTZ was an approximate 1 percent increase in crude imports and a 3 percent decrease in product imports.

## Note 17. 1989 Changes in the Petroleum Supply Reporting System

Several changes to the Petroleum Supply Reporting System (PSRS) went into effect at the beginning of January 1989. These changes were made to reduce respondent burden, to fulfill user requests for additional data, and to

improve accuracy and consistency in reporting. To reflect these changes and to improve the usefulness of the *Petroleum Supply Monthly* (PSM) publication, the following changes were made in January 1989 and are subsequently reflected in the *Petroleum Supply Annual* (PSA) publication.

#### **Changes in Data Collection**

- Data on inputs and production of naphthenic and paraffinic lubricants were added to the Form EIA-810, "Monthly Refinery Report."
- Separate lines for the collection of inputs and production of olefins (ethylene, propylene, and butylene) were added to Form EIA-810, "Monthly Refinery Report."
- The collection of data on the movement of Liquefied Petroleum Gases (LPGs) and Liquefied Refinery Gases (LRGs) on a component basis were added to the Forms EIA-812, "Monthly Product Pipeline Report," and the EIA-817, "Monthly Tanker and Barge Movement Report."
- Bonded imports of jet fuel and fuel oils and imports of LPGs previously published from data provided by the U.S. Bureau of the Census were discontinued. Data are now published from the data reported on the Form EIA-814, "Monthly Imports Report."
- Exports of butane/propane and ethane/propane mixtures were split in a ratio of 60 percent for the butane and ethane portions and 40 percent for the propane portion.
- The reporting of products other than Natural Gas Liquids (NGLs) by natural gas processing plants was eliminated on the Form EIA-816, "Monthly Natural Gas Liquids Report."
- Fractionators were required to report only end-ofmonth stocks of NGLs on the Form EIA-816, "Monthly Natural Gas Liquids Report."

#### Changes in Natural Gas Liquids and Crude Oil Statistics

Beginning with the January 1989 issue of the *PSM*, adjustments were made to refinery inputs and product supplied of 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

Table B9. Conversion Table for 1989 PSA

Table Numbers									
Old	New	Old	New	Old	New	Old	New	Old	New
1	1	NA	9	12, 24	17	15	25	21	33
2	2	7	10	18, 25	18	27	26	22, 26	34
3	3	NA	11	13	19	16	27	23	35
4	4	8	12	14, 27	20	17	28		
NA	5	NA	13	15	21	NA	29		
5	6	9	14	15	22	18, 25	30		
NA	7	10	15	15	23	19	31		
6	8	11	16	15	24	20	32		

NA = Not Applicable

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 mixture. 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 was developed affecting refinery input in all Petroleum Administration for Defense (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 began in 1987 and has grown as injections of NGLs into the TAPS have increased. Data for 1988 was revised to account for the adjustment in the *PSA*.

#### **Changes in Publication Tables**

- "Stock Withdrawal" was renamed "Stock Change" and was moved from Supply to Disposition in Tables 2 through 13. A negative number indicates a decrease in stocks and a positive number indicates an increase in stocks.
- A jet fuel total line was added to Tables 2-13, 17, 18, 20, 32-35.
- PAD District Supply and Disposition tables (Tables 4 through 13) now display liquefied petroleum gases on a component basis.

- A table showing net imports by country for the current month (Table 29) was added.
- Table numbers were changed as a result of data additions and table reorganization. Table B9 is provided to show the new to old table numbers for the detailed statistics tables.
- Table 15, "Natural Gas Plant Net Production and Stocks of Petroleum Products by PAD and Refining District."
  - Stocks at natural gas processing plants by Refining District previously published on Table 10 was included with net production of petroleum products at natural gas plants.
  - The reporting of products other than natural gas liquids by natural gas processing plants was eliminated.
- Table 17, "Net Refinery Production of Finished Petroleum Products by PAD and Refining District."
  - Net production of olefins (ethylene, propylene, and butylene) was added.
  - Net production of naphthenic and paraffinic lubricants was added.
  - Net production of residual fuel oil by percent sulfur, previously published as Table 24, was added.
- Table 18, "Refinery Stocks of Crude Oil and Petroleum Products by PAD and Refining District."
  - Stocks at refineries by Refining District were added from Table 18.
  - Stocks of residual fuel oil by percent sulfur content, previously published as Table 25, were added.

- Tables 21 through 25, "Imports of Crude Oil and Petroleum Products by Country of Origin."
  - Data previously included in the "Other Products" category were displayed separately for naphthas for petrochemical feedstock use, other oils for petrochemical feedstock use, lubricants, and asphalt and road oil.
- Table 20,"Imports of Crude Oil and Petroleum Products by PAD District."
  - Sulfur content categories for residual fuel oil, previously published as Table 27, were added.
- Table 28, "Exports of Crude Oil and Petroleum Products by Destination."
  - Data for exports by destination previously included in the Other Products category were displayed separately for pentanes plus, kerosene, naphthas for petrochemical feedstock use, and other oils for petrochemical feedstock use.
- Table 30, "Stocks of Crude Oil and Petroleum Products by PAD District."
  - Refining District data were eliminated. Refinery stocks and natural gas processing plant stocks by Refining District were added to Table 18.
  - Sulfur content categories for residual fuel oil, previously published as Table 25, were added.

# Note 18. 1990 Changes in the Petroleum Supply Reporting System

Beginning with the May 1990 issue of the *Petroleum Supply Monthly* (PSM), stocks of propane/propylene were added to Table 42, "Refinery, Bulk Terminal, and Natural Gas Plant Stocks of Selected Petroleum Products by State." This change is also reflected in the corresponding table in the *Petroleum Supply Annual* (PSA).

Beginning with the 1991 March issue of the *PSM*, several changes were made to the Petroleum Supply Reporting System to provide additional data and to improve the usefulness of the publication. Although these changes were made in 1991, these changes have been incorporated into the 1990 *PSA* to provide consistent energy information.

#### **Changes in Publication Tables**

#### **Summary Statistics Tables**

- A new table (Table S7) has been added to display jet fuel supply and disposition.
- Table S8, "Other Petroleum Products Supply and Disposition" has been redesignated as Table S9. Jet fuel data are no longer included. Historical data have been revised to exclude jet fuel.
- Table S3, "Crude Oil and Petroleum Product Imports"
  has been expanded to display all Organization of Petroleum Exporting Countries (OPEC) and additional Non-OPEC countries. A separate column for crude oil imports has also been added for each country.
- Time periods have been included in table titles.

#### **Figures**

- Time periods have been included in figure titles.
- Sources have been provided for each figure.
- Bar graphs used to display end-of-month stocks have been replaced with line graphs.

#### **Sources**

The sources and explanatory notes for this section have been updated and are now located at the end of the Summary Statistics section.

#### **Detailed Statistics Tables**

- Table 1, "U.S. Petroleum Balance"
  - A line has been added to display jet fuel as a separate category for Total Products Supplied and Total Stocks (Lines 34 and 44, respectively).
- Imports of Crude Oil and Petroleum Products by PAD District
  - Residual fuel oil sulfur categories have been added.
- Imports of Crude Oil and Petroleum Products by Country of Origin
  - Residual fuel oil sulfur categories by country of origin have been eliminated. These categories are now reported on a PAD District basis.
  - Separate daily average columns have been added for crude oil and petroleum products.

# Note 19. 1993 Changes in the Petroleum Supply Reporting System

In keeping with the Department of Energy's (DOE's) mandated responsibilities, the Energy Information Administration (EIA) made several changes to the Petroleum Supply Reporting System (PSRS) effective in January 1993. These changes were designed to accommodate the revisions to the Clean Air Act of 1990, and to reflect current and upcoming changes in the petroleum industry. These changes are subsequently reflected in the 1993 *Petroleum Supply Annual*.

#### **Changes in Data Collection**

- Motor gasoline categories have been revised to reflect the change in the type of fuels produced. The new categories are: reformulated gasoline, oxygenated gasoline, and other finished gasoline. These changes were made to Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-814, "Monthly Imports Report," and EIA-817, "Monthly Tanker and Barge Movement Report."
- Distillate Fuel Oil has been split into two sulfur categories to meet Environmental Protection Agency requirements effective in October 1993. The new categories for inputs, production, end-of-month stocks and movements are: 0.05% sulfur and under, and greater than 0.05% sulfur. These changes were made to Forms EIA-810, "Monthly Refinery Report," EIA-811, "Monthly Bulk Terminal Report," EIA-812, "Monthly Product Pipeline Report," EIA-814, "Monthly Imports Report," and EIA-817, "Monthly Tanker and Barge Movement Report."
- Other hydrocarbons, hydrogen, and alcohol (Code 090) has been renamed "Other hydrocarbons, hydrogen, and oxygenates" on Form EIA-810, "Monthly Refinery Report." A new line has also been added to report Other hydrocarbons and hydrogen separately.
- Data on inputs and end-of-month stocks of oxygenates (i.e., fuel ethanol, ethyl tertiary butyl ether (ETBE), methanol, methyl tertiary butyl ether (MTBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and other oxygenates) has been added to Form EIA-810, "Monthly Refinery Report."
- Inputs and production of Isobutylene (Code 634) has been added as sub-categories to Isobutane (Code 615) on Form EIA-810, "Monthly Refinery Report."

- Data on inputs and production of military kerosenetype jet fuel and commercial kerosene-type jet fuel has been added to Form EIA-810, "Monthly Refinery Report."
- Liquefied Petroleum and Refinery Gases column headings for Ethane, Propane, Normal Butane, and Isobutane have been revised to include olefins (e.g., Ethane/Ethylene etc.) on Form EIA-811, "Monthly Bulk Terminal Report."
- Data on end-of-month stocks of oxygenates (i.e., fuel ethanol, ethyl tertiary butyl ether (ETBE), methyl tertiary butyl ether (MTBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and other oxygenates) have been added to Forms EIA-811, "Monthly Bulk Terminal Report," and EIA-812, "Monthly Product Pipeline Report." Data for methanol are not collected at this time but has been included on the form for future use.
- Imports of oxygenates (i.e., fuel ethanol, ethyl tertiary butyl ether (ETBE), methyl tertiary butyl ether (MTBE), tertiary amyl methyl ether (TAME), tertiary butyl alcohol (TBA), and other oxygenates) have been added to Form EIA-814, "Monthly Imports Report." Data for methanol are not requested at this time.
- Imports of olefins are collected separately from liquefied petroleum gases (i.e., ethylene, propylene, butylene, and isobutylene) on Form EIA-814, "Monthly Imports Report."
- Data on oxygenates blended into motor gasoline has been eliminated on the Form EIA-819M, "Monthly Oxygenate Telephone Report."
- Data on methanol is no longer required on the Form EIA-819M, "Monthly Oxygenate Telephone Report" but remains on the form for future use.

#### **Changes in Summary Statistics Tables**

- Table S1. Crude and Petroleum Products Overview
  - History data for 1973 through 1980 has been dropped. The table title has been changed to reflect the change in time series.
- Table S2. Crude Oil Supply and Disposition
  - History data for 1973 through 1980 has been dropped. The table title has been changed to reflect the change in time series.
  - The Crude Used Directly column has been eliminated. This column is no longer applicable since the

- years 1973 through 1980 have been eliminated. The data for 1981 and 1982 are provided in a footnote.
- Table S3. Crude Oil and Petroleum Product Imports
  - History data for 1973 through 1980 has been dropped. The table title has been changed to reflect the change in time series.
  - The Former USSR has been renamed Russia. The remaining states that comprised the Former USSR have been included in the Other Non-OPEC column.
- Table S4. Finished Motor Gasoline Supply and Disposition
  - History data for 1973 through 1980 has been dropped. The table title has been changed to reflect the change in time series.
  - Product supplied-unleaded and product supplied-unleaded (percent of Total) columns have been eliminated. A new column has been added to display end-of-month stocks of oxygenates. These stocks are not included in the Total Motor Gasoline end-of-month stocks.
- Table S5. Distillate Fuel Oil Supply and Disposition
  - History data for 1973 through 1980 has been dropped. The table title has been changed to reflect the change in time series.
  - Distillate fuel oil stocks have been separated into two sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur).
  - The Crude Used Directly column has been eliminated. This column is no longer applicable since the years 1973 through 1980 have been eliminated. The data for 1981 and 1982 are provided in a footnote.
- Table S6. Residual Fuel Oil Supply and Disposition
  - History data for 1973 through 1980 has been dropped. The table title has been changed to reflect the change in time series.
  - The Crude Used Directly column has been eliminated. This column is no longer applicable since the years 1973 through 1980 have been eliminated. The data for 1981 and 1982 are provided in a footnote.
- Table S7. Jet Fuel Supply and Disposition

- History data for 1973 through 1980 has been dropped. The table title has been changed to reflect the change in time series.
- Table S8. Propane/Propylene Supply and Disposition
  - A new summary table has been added to display supply and disposition data for propane/propylene.
     This information will continue to be included in the Liquefied Petroleum Gases Supply and Disposition table (renumbered as Table S9).
- Table S9. Liquefied Petroleum Gases Supply and Disposition
  - Formerly numbered as Table S8.
  - History data for 1973 through 1980 has been dropped. The table title has been changed to reflect the change in time series.
- Table S10. Other Petroleum Products Supply and Disposition
  - Formerly numbered as Table S9.
  - History data for 1973 through 1980 has been dropped. The table title has been changed to reflect the change in time series.

#### **Changes in Detailed Statistics Tables**

- Table 1. U.S. Petroleum Balance
  - Line 14 includes fuel ethanol blended into finished motor gasoline. This quantity is comparable to the sum of field production of finished motor gasoline and natural gas liquids and LRGs on Table 2.
  - Line 20 has been modified to read: Other Liquids New Supply (Field Production) to accommodate motor gasoline blending components field production.
- Tables 2 through 13. Supply and Disposition
  - Isobutane has been renamed <u>Isobutane/Isobutylene</u> under Liquefied Petroleum Gases for clarification.
  - Other Hydrocarbons/Hydrogen/Alcohol has been renamed <u>Other Hydrocarbons/Hydrogen/Oxygenates</u> for clarification.
  - Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.

 Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added.

#### • Table 16. Refinery Input

- Other Hydrocarbons/Hydrogen/Alcohol has been renamed <u>Other Hydrocarbons/Hydrogen/Oxygenates</u> for clarification. Sub-categories are displayed for <u>Other Hydrocarbons/Hydrogen</u> and for Oxygenates.
- Oxygenates are displayed separately for fuel ethanol, methanol, MTBE, and other oxygenates. Other oxygenates includes ethyl tertiary butyl ether (ETBE), tertiary amyl methyl alcohol (TAME), tertiary butyl alcohol (TBA), and other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).

#### • Table 17. Refinery Net Production

- Isobutane has been renamed <u>Isobutane/Isobutylene</u> under Liquefied Petroleum Gases for clarification.
   Isobutylene is displayed as a sub-category to be consistent with the other liquefied gases.
- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
- Military and commercial kerosene-type jet fuel has been added.
- Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added.

#### • Table 18. Refinery Stocks

- Isobutane has been renamed <u>Isobutane/Isobutylene</u> under Liquefied Petroleum Gases for clarification.
- Other Hydrocarbons/Hydrogen/Alcohol has been renamed <u>Other Hydrocarbons/Hydrogen/Oxygenates</u> for clarification. Sub-categories are displayed for Other Hydrocarbons/Hydrogen and for Oxygenates.
- Oxygenates are displayed separately for fuel ethanol, methanol, MTBE, and other oxygenates. Other oxygenates includes ethyl tertiary butyl ether (ETBE), tertiary amyl methyl alcohol (TAME), tertiary butyl alcohol (TBA), and other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).
- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.

 Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added.

#### • Table 20. Imports by PAD District

- Data on olefins are displayed separately from liquefied petroleum gases.
- Other Hydrocarbons/Hydrogen/Alcohol has been renamed <u>Other Hydrocarbons/Hydrogen/Oxygenates</u> for clarification. Sub-categories are displayed for Other Hydrocarbons/Hydrogen and for Oxygenates.
- Oxygenates are displayed separately for fuel ethanol, MTBE, and other oxygenates. Other oxygenates includes ethyl tertiary butyl ether (ETBE), tertiary amyl methyl alcohol (TAME), tertiary butyl alcohol (TBA), and other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol).
- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
- Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added to both bonded ship bunkers and other.

#### • Tables 21-25. Imports by Country of Origin

- A new line has been added to appear below the Total line to show the sum of the Persian Gulf countries.
- Former USSR has been changed to read Russia.
   States formerly included in USSR are now included in the Other countries category under Non-OPEC.

#### • Table 27. Exports

- Isobutane has been renamed <u>Isobutane/Isobutylene</u> under Liquefied Petroleum Gases for clarification.
- Other Hydrocarbons/Oxygenates and Motor Gasoline Blending Components have been added as export products under the Other Liquids category.

#### • Table 28. Exports by Destination

Miscellaneous products category has been renamed <u>Other Products</u> to accommodate exports of other hydrocarbons/ oxygenates and motor gasoline blending components.

#### • Table 29. Net Imports

 A new line has been added to appear below the Total line to show the sum of the Persian Gulf countries. Former USSR has been changed to read Russia.
 States formerly included in USSR are now included in the Other countries category under Non-OPEC.

#### • Table 30. Stocks

- Other Hydrocarbons/Hydrogen/Alcohol has been renamed Other Hydrocarbons/Hydrogen/Oxygenates for clarification. Sub-categories are displayed for Other hydrocarbons/hydrogen fuel ethanol, ETBE, methanol, MTBE, and other oxygenates.
- Other oxygenates includes tertiary amyl methyl alcohol (TAME), tertiary butyl alcohol (TBA), and other aliphatic alcohols and ethers intended for motor gasoline blending (e.g., isopropyl ether (IPE) or n-propanol.
- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
- Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added.
- Table 31. Refinery, Bulk Terminal, and Natural Gas Plant Stocks
  - Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
  - Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added.
- Table 32. Movements by Pipeline, Tanker, and Barge
  - Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
  - Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added.
- Table 33. Movements by Pipeline
  - Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
  - Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added.
- Table 34. Movements by Tanker and Barge

- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
- Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added.

#### • Table 35. Net Movements

- Isobutane has been renamed <u>Isobutane/Isobutylene</u> under Liquefied Petroleum Gases for clarification.
- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
- Distillate fuel oil sulfur categories (0.05% sulfur and under and greater than 0.05% sulfur) have been added.

#### Changes in Appendix C (PSM)

#### • Inputs

Other hydrocarbons has been renamed Other Hydrocarbons/Oxygenates for clarification.

#### Production

- Isobutane has been renamed <u>Isobutane/Isobutylene</u> under Liquefied Petroleum Gases for clarification.
- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.
- A new line has been added to display field production of motor gasoline blending components.

#### • Imports

- Isobutane has been renamed <u>Isobutane/Isobutylene</u> under Liquefied Petroleum Gases for clarification.
- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.

#### Stocks

- Other hydrocarbons has been renamed <u>Other Hydrocarbons/Oxygenates</u> for clarification.
- Isobutane has been renamed <u>Isobutane/Isobutylene</u> under Liquefied Petroleum Gases for clarification.

 Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.

#### • Product Supplied

- Isobutane has been renamed <u>Isobutane/Isobutylene</u> under Liquefied Petroleum Gases for clarification.
- Unleaded and leaded motor gasoline categories have been replaced with the new types of gasolines produced: reformulated, oxygenated, and other.

#### Changes in Appendix D

- Table D1. U.S. Summary Table
  - Data on oxygenates blended into motor gasoline has been eliminated. This information is no longer collected on the survey EIA-819M, "Monthly Oxygenate Telephone Report."
- Table D2. Monthly Fuel Ethanol Production and Ending Stocks
  - Data for the previous year as well as current year are displayed.
  - Data on oxygenates blended into motor gasoline has been eliminated. This information is no longer collected on the survey EIA-819M, "Monthly Oxygenate Telephone Report."
  - Data for fuel ethanol imports has been dropped due to small volumes reported by respondents.
- Table D3. Monthly MTBE Production and Ending Stocks
  - Data for the previous year as well as current year are displayed.
  - Data on oxygenates blended into motor gasoline has been eliminated. This information is no longer collected on the survey EIA-819M, "Monthly Oxygenate Telephone Report."
  - Data on MTBE imports has been dropped from the table due to small volumes reported by respondents.

### Note 20. 1994 Changes in the Petroleum Supply Reporting System

Effective with January 1994 data, several enhancements were made to the tables to reflect changes in the petro-

leum 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. 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 (reformulated, oxygenated, and other) and 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 as the sulfur categories of distillate fuel oil (0.05% sulfur and under, and greater than 0.05% sulfur).

## Note 21. 1995 Changes in the Petroleum Supply Reporting System

- Annual U.S. refinery capacity data collection and publication normally presented each year in Volume 1 of the PSA has been moved to a biennial schedule (every other year). Collection and publication of January 1, 1996 refinery capacity data did not occur.
- Annual U.S. oxygenate production capacity data collection and publication normally presented each year in Volume 1 of the PSA has been eliminated. This information was first collected by EIA to effectively monitor the transition of reformulated motor gasoline into the market.

# Note 22. 1997 Changes in the Petroleum Supply Reporting System

• During 1997, Zaire became the Democratic Republic of the Congo. Zaire has been changed to read Congo (Kinshasa). This change is evident in Tables 21 through 25, and Table 29.

# Note 23. 1999 Changes in the Petroleum Supply Reporting System

• U.S. refinery capacity data collection and publication presented in Volume 1 of the *PSA* has been moved back to an annual schedule, effective with January 1, 2000 data.

### Note 24. Motor Gasoline Blending Plants Operating During 2001^a

(CORPORATION / Subsidiary / Blender Location)

BLACKSTONE GROUP LP Premcor Refg. Group Inc. Blue Island, IL

**BP PLC** 

BP Prodts N Amer Inc. Forest, IL Milwaukee, WI

CHEVRON TEXACO CORP

Chevron USA Inc.
Albuquerque, NM
Las Vegas, NV
Phoenix, AZ
Portland, OR
Salt Lake City, UT
Tucson, AZ

EL PASO CORP

Coastal Refining & Marketing Inc. El Dorado, KS

**EQUILON ENTERPRISES LLC** 

Arlington Heights, IL Milwaukee, WI Phoenix, AZ St. Louis, MO Summit Argo, IL Tucson, AZ

EXXON MOBIL CORP

ExxonMobil Refg & Supply Co. Arlington Heights, IL Hammond, IN Lockport, IL

GLOBAL COMPANIES LLC

Global Petro Corp. Revere, MA

HARTFORD WOOD RIVER TERM Hartford, IL

INTERNATIONAL MATEX TANK TERM Bayonne, NJ

ITOCHU INTERNATIONAL INC Sewaren, NJ

KANEB P L PTNRS LP Shore Terminals LLC Portland, OR ST Linden Terminal LLC Linden, NJ KINDER MORGAN ENERGY PARTNERS LP

Kinder Morgan Lqds Terminals LLC

Carteret, NJ Perth Amboy, NJ SFPP LP

Brisbane, CA Chico, CA Eugene, OR Fresno, CA

Orange, CA Phoenix, AZ Reno, NV San Diego, CA San Jose, CA

Tucson, AZ

LUKOIL AMERICAS CORP Getty Petro Mktg Inc. East Providence, RI Rensselaer, NY Newark, NJ New Haven, CT

MARATHON OIL CORP

Marathon Ashland Petro LLC Covington, KY Hammond, IN Louisville, KY Milwaukee, WI

Mount Prospect, IL Willow Springs, IL

OIL TANKING HOLDING USA INC

Oil Tanking Houston Inc.

Houston, TX

PDV AMERICA INC Citgo Petro Corp.

Milwaukee, WI Mount Prospect, IL

PHILLIPS PETRO CO

Phillips 66 Co
Los Angeles, CA
Bloomington, CA
Sacramento, CA
Richmond, CA
Phoenix, AZ
Phillips PL Co
Commerce City, CO

SINCLAIR OIL CORP. Denver, CO

UNOCAL CORP Nederland, TX

WESCOURT GROUP Westfrac Inc. Grand Junction, CO

^a Only blenders reporting production in 2001 are included.

### **Appendix C**

Table C1. Revised^a Crude Oil Production by PAD District and State, 2000 (Thousand Barrels)

PAD District and State	January	February	March	April	May	June	July
PAD District I	. 590	591	683	622	689	651	648
Florida		369	395	406	434	400	411
New York	. 14	13	17	15	16	15	15
Pennsylvania	. 100	98	132	98	118	118	115
Virginia	. 1	1	1	1	2	1	1
West Virginia		110	138	102	121	117	106
PAD District II	. 14,881	14,602	15,317	14,342	15,278	14,760	14,793
Illinois	. 919	898	1,000	905	1,028	964	894
Indiana	. 179	170	187	166	185	184	174
Kansas	. 3,091	2,831	2,888	2,869	2,996	2,949	2,859
Kentucky	. 295	301	360	314	339	316	294
Michigan	. 609	679	638	356	705	744	878
Missouri	. 8	8	9	8	9	9	9
Nebraska	. 240	228	249	246	250	247	251
North Dakota	. 2,766	2,627	2,817	2,721	2,803	2,698	2,747
Ohio	. 510	507	661	500	567	537	509
Oklahoma	. 6,139	6,227	6,378	6,134	6,271	5,988	6,050
South Dakota	. 98	87	95	99	100	95	101
Tennessee	. 28	40	35	25	26	29	28
PAD District III	. 97,738	92,699	101,155	96,655	100,871	97,959	99,809
Alabama	. 935	858	919	887	905	884	866
Arkansas		601	633	626	632	624	638
Louisiana ^b	. 9,114	8,603	9,188	8,873	9,114	8,712	8,989
Mississippi		1,485	1,691	1,645	1,722	1,715	1,725
New Mexico	. 5,851	5,506	5,810	5,681	5,872	5,588	5,687
Texas ^b	. 38,275	36,106	38,332	36,893	37,655	36,270	37,163
Federal Offshore Padd III	41,364	39,540	44,581	42,048	44,971	44,166	44,741
PAD District IV	. 9,547	8,947	9,592	9,209	9,572	9,125	9,284
Colorado	. 1,663	1,549	1,687	1,597	1,702	1,473	1,532
Montana	. 1,330	1,250	1,344	1,308	1,348	1,335	1,348
Utah	. 1,366	1,274	1,347	1,289	1,317	1,312	1,320
Wyoming	. 5,188	4,873	5,214	5,014	5,206	5,005	5,083
PAD District V		54,157	57,452	55,563	56,255	53,084	54,490
Alaska ^b	. 31,751	29,906	31,395	30,241	29,934	27,758	28,288
South Alaska	. 935	885	823	893	909	868	875
North Slope	. 816	29,021	30,571	29,348	29,025	26,890	27,412
Arizona	. 5	3	3	2	5	8	7
California ^b	. 22,821	21,369	22,903	22,272	23,124	22,258	23,009
Nevada		54	55	45	53	52	53
Federal Offshore Padd V	2,977	2,825	3,095	3,003	3,138	3,008	3,134
U.S. Total ^b	. 180,366	170,996	184,199	176,391	182,665	175,580	179,024
Daily Average ^b	. 5,818	5,896	5,942	5,880	5,892	5,853	5,775

This table contains updates on 2000 crude oil production statistics published in the Petroleum Supply Annual (PSA), 2000.

Statistics on crude oil production for States and for Federal offshore areas are reported to the Energy Information Administration (EIA) by State government agencies and by the Minerals Management Service, U.S. Department of the Interior. These data are updated periodically by the reporting agencies and are received by the EIA on an ongoing basis. At the time of publication of the 2000 PSA, the EIA had not received complete and/or updated statistics on crude oil production for several States. This table is provided to inform the user of updated monthly and annual crude oil production statistics for 2000, and are not subject to further revision by the EIA.

Table C1. Revised^a Crude Oil Production by PAD District and State, 2000 (Continued) (Thousand Barrels)

PAD District and State	August	September	October	November	December	Total	Daily Averag
PAD District I	674	653	683	636	619	7,740	21
Florida	418	408	440	407	417	4,889	13
New York	18	18	16	14	11	181	(s)
Pennsylvania	124	119	120	116	100	1,358	` 4
Virginia	1	1	1	1	1	12	(s)
West Virginia		107	106	97	91	1,300	4
PAD District II	15,312	14,707	14,580	14,386	14,285	177,243	484
Illinois	903	852	915	873	700	10,851	30
Indiana	187	167	181	168	128	2,076	6
Kansas	3,291	2,760	2,766	2,641	2,759	34,698	95
Kentucky	,	242	257	232	197	3,467	9
Michigan		758	754	681	736	8,278	23
Missouri		10	10	8	8	106	(s)
Nebraska		250	256	242	248	2,955	(3)
North Dakota		2,668	2,804	2,630	2,720	32,714	89
Ohio	,	563	635	560	471	6,574	18
Oklahoma		6.317	5,867	6,225	6,191	74.007	202
South Dakota	,	90	105	99	106	1,171	202
		30	29	28	21	346	1
Tennessee	21	30	29	20	21	340	'
PAD District III	,	97,328	99,304	96,167	99,512	1,179,790	3,223
Alabama		835	849	816	841	10,460	29
Arkansas		657	680	628	510	7,465	20
Louisiana ^b	9,125	8,774	9,048	8,532	8,830	106,903	292
Mississippi		1,679	1,746	1,651	1,707	20,092	55
New Mexico		5,598	5,852	5,697	5,820	68,623	187
Texas ^b	37,235	35,947	37,175	35,850	36,447	443,349	1,211
Federal Offshore Padd III		43,837	43,954	42,993	45,356	522,898	1,429
PAD District IV	9,376	9,120	9,420	8,807	9,135	111,134	304
Colorado	1,605	1,545	1,603	1,504	1,566	19,027	52
Montana	1,354	1,313	1,370	1,165	1,287	15,753	43
Utah	1,309	1,271	1,282	1,253	1,294	15,635	43
Wyoming	5,108	4,991	5,165	4,885	4,988	60,720	166
PAD District V	54,261	51,979	56,174	54,904	57,473	663,402	1,813
Alaska ^b	28,343	26,767	29,935	29,566	31,315	355,198	970
South Alaska		820	908	884	909	10,591	29
North Slope		25,946	29,026	28,682	30,407	344,607	942
Arizona		6	5	4	5	57	(s)
California ^b	-	22.329	23,292	22,403	22.982	271,599	742
Nevada		49	51	49	52	621	2
Federal Offshore Padd V		2,829	2,890	2,882	3,120	35,927	98
U.S. Total ^b	180,217	173,786	180,160	174,900	181,024	2,139,309	5,845
Daily Average ^b	5,813	5,793	5,812	5,830	5,839	5,861	,

^a Data are based upon revisions received as of April 2002.

b Includes the following offshore production (thousand barrels): Alaska: State - 58,749; California: State - 18,324; Louisiana: State - 13,432; Texas: State - 586; U.S. Total, including Federal Offshore -649,916.

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

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

Source: Sources: State government agencies, U.S. Department of the Interior, Minerals Management Service, and EIA Reserves and Production Division estimates based on Form EIA-182, "Domestic Crude Oil First Purchase Report" data.

### Appendix D

### **Northeast Heating Oil Reserve**

On July 10, 2000, President Clinton directed the Department of Energy to establish the Northeast Heating Oil Reserve. The reserve is intended to reduce the risks presented by home heating oil shortages, such as the ones experienced in December 1996 and January-February 2000.

Maximum inventory of heating oil in the reserve is two million barrels. The Department of Energy believes that a two-million-barrel reserve will provide relief from weather-related shortages for approximately ten days, which is the time for ships to bring heating oil from the Gulf of Mexico to New York Harbor. Inventory for the reserve was acquired by exchanging crude oil from the Strategic Petroleum Reserve for heating oil to be delivered to the storage facilities.

For more information on the Northeast Heating Oil Reserve, please contact Mr. Nathan Harvey from the Office of Petroleum Reserves at (202) 586-4734.

Northeast Heating Oil Reserve inventories classified as "Distillate Fuel Oil - Greater than 0.05 percent sulfur" are not considered to be in the commercial sector and therefore are excluded from distillate fuel oil supply and disposition statistics in Energy Information Administration publications, such as the *Weekly Petroleum Status Report*, *Petroleum Supply Monthly*, and *This Week in Petroleum* (TWIP) on EIA's Home Page.

### **Northeast Heating Oil Reserve**

(Thousand Barrels)

Terminal Operator	Location	Week Ending April 5, 2002
First Reserve Terminal (Hess)	Woodbridge, NJ	1,000
Williams Energy Services (formerly Wyatt Morgan Stanley)	New Haven, CT	500
Motiva Enterprises LLC (Equiva)	New Haven, CT	350
Motiva Enterprises LLC (Equiva)	Providence, RI	150
Total		2.000

Source: Energy Information Administration.

### **Definitions of Petroleum Products and Other Terms**

(Revised)

**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; CH₃-(CH₂)n-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 ordensity of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it may be calculated in terms of the following formula:

$$Degrees API = \frac{141.5}{sp.gr.60^{\circ} F/60^{\circ} F} - 131.5$$

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; used primarily for road construction. It 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. Note: The conversion factor for asphalt is 5.5 barrels per short ton.

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

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). A complex mixture of relatively volatile hydrocarbons with or without small quantities of additives, blended to form a fuel suitable for use in aviation reciprocating engines. Fuel specifications are provided in ASTM Specification D 910 and Military Specification MIL-G-5572. Note: Data on blending components are not counted in data on 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, reformate, benzene, toluene, and xylene). Excludes oxygenates (alcohols, ethers), butane, and pentanes plus. Oxygenates are reported as other hydrocarbons, hydrogen, and oxygenates.

Barrel. A unit of volume equal to 42 U.S. gallons.

Barrels Per Calendar Day. The amount of input that a distillation facility can process under usual operating conditions. The amount is expressed in terms of capacity during a 24-hour period and reduces the maximum processing capability of all units at the facility under continuous operation (see Barrels per Stream Day) to account for the following limitations that may delay, interrupt, or slow down production:

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 due to such conditions as routine inspection, maintenance, repairs, and turnaround; and the reduction of capacity for unscheduled downtime due to such conditions as mechanical problems, repairs, and slowdowns.

**Barrels Per Stream Day.** The maximum number of barrels of input that a distillation facility can process within a 24-hour period when running at full capacity under optimal crude and product slate conditions with no allowance for downtime.

**Benzene** ( $C_6H_6$ ). 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) withrawn 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** ( $C_4H_{10}$ ). 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** ( $C4H_{10}$ ). A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of  $31.1^{\circ}$  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 readily combustible black or brownish-black rock whose composition, including inherent moisture, consists of more than 50 percent by weight and more than 70 percent by volume of carbonaceous material. It is formed from plant remains that have been compacted, hardened, chemically altered, and metamorphosed by heat and pressure over geologic time.

Commercial Kerosene-Type Jet Fuel. See Kerosene-type Jet Fuel.

Conventional Gasoline. See Other Finished Motor Gasoline.

*Crude Oil.* A mixture of hydrocarbons that exists in liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Depending upon the characteristics of the crude stream, it may also include:

Small amounts of hydrocarbons that exist in gaseous phase in natural underground reservoirs but are liquid at atmospheric pressure after being recovered from oil well (casinghead) gas in lease separators and are subsequently commingled with the crude stream without being separately measured. Lease condensate recovered as a liquid from natural gas wells in lease or field separation facilities and later mixed into the crude stream is also included;

Small amounts of nonhydrocarbons produced from oil, such as sulfur and various metals;

Drip gases, and liquid hydrocarbons produced from tar sands, gilsonite, and oil shale.

Liquids produced at natural gas processing plants are excluded. Crude oi lis refined to produce a wide array of petroleum products, including heating oils; gasoline, diesel and jet fuels; lubricants; asphalt; ethane, propane, and butane; and many other products used for their energy or chemical content.

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 includes diesel fuels and fuel oils. Products known as No. 1, No. 2, and No. 4 diesel fuel are used in on-highway diesel engines, such as those in trucks and automobiles, as well as off-highway engines, such as those in railroad locomotives and agricultural machinery.

Products known as No. 1, No. 2, and No. 4 fuel oils are used primarily for space heating and electric power generation.

No. 1 Distillate. A light petroleum distillate that can be used as either a diesel fuel (see No. 1 Diesel Fuel) or a fuel oil. See No. 1 Fuel Oil.

No. 1 Diesel Fuel. A light distillate fuel oil that has distillation temperatures of 550 degrees Fahrenheit at the 90-percent point and meets the specifications defined in ASTM Specification D 975. It is used in high-speed diesel engines generally operated under frequent speed and load changes, such as those in city buses and similar vehicles. See No. 1 Distillate.

No. 1 Fuel Oil. A light distillate fuel oil that has distillation temperatures of 400 degrees Fahrenheit at the 10-percent recovery point and 550 degrees Fahrenheit at the 90-percent point and meets the specifications defined in ASTM Specification D 396. It is used primarily as fuel for portable outdoor stoves and portable outdoor heaters. See No. 1 Distillate.

No. 2 Distillate. A petroleum distillate that can be used as either a diesel fuel (see No. 2 Diesel Fuel) or a fuel oil. See No. 2 Fuel Oil.

No. 2 Diesel Fuel. A fuel that has distillation temperatures of 500 degrees Fahrenheit at the 10-percent recovery point and 640 degrees Fahrenheit at the 90-percent recovery point and meets the specifications defined in ASTM Specification D 975. It is used in high speed diesel engines that are generally operated under uniform speed and load conditions, such as those in railroad locomotives, trucks, and automobiles. See No. 2 Distillate.

Low Sulfur No. 2 Diesel Fuel. No. 2 diesel fuel that has a sulfur level no higher than 0.05 percent by weight. It is used primarily in motor vehicle diesel engines for on-highway use.

*High Sulfur No. 2 Diesel Fuel.* No. 2 diesel fuel that has a sulfur level above 0.05 percent by weight.

No. 2 Fuel Oil (Heating Oil). A distillate fuel oil that has distillation temperatures of 400 degrees Fahrenheit at the 10-percent recovery point and 640 degrees Fahrenheit at the 90-percent recovery point and meets the specifications defined in ASTM Specification D 396. It is used in atomizing type burners for domestic heating or for moderate capacity commercial/industrial burner units. See No. 2 Distillate.

**No. 4 Fuel.** A distillate fuel oil made by blending distillate fuel oil and residual fuel oil stocks. It conforms with ASTM Specification D 396 or Federal Specification VV-F-815C and is used extensively in industrial plants and in commercial burner installations that are not equipped with preheating facilities. It also includes No. 4 diesel fuel used for low- and medium-speed diesel engines and conforms to ASTM Specification D 975.

No. 4 Diesel Fuel. See No. 4 Fuel.

No. 4 Fuel Oil. See No. 4 Fuel.

*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)₃C0C₂H₅. An oxygenate blend stock formed by the catalytic etherfication of isobutylene with ethanol.

**Ethane** ( $C_2H_6$ ). 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* ( $C_2H_4$ ). 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* ( $C_2H_5OH$ ). 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 containing alcohol (generally ethanol but sometimes methanol) at a concentration of 10 percent or less by volume. Data on gasohol that has at least 2.7 percent oxygen, by weight, and is intended for sale inside carbon monoxide nonattainment areas are included in data on oxygenated gasoline. See Oxygenates.

Gasoline Blending Components. Naphthas which will be used for blending or compounding into finished aviation

or motor gasoline (e.g., straight-run gasoline, alkylate, reformate, 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* (*C*₄*H*₈). An olefinic hydrocarbon recovered from refinery processes or petrochemical processes.

**Isohexane** ( $C_6H_{14}$ ). A saturated branch-chain hydrocarbon. It is a colorless liquid that boils at a temperature of  $156.2^{\circ}$  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  $(C_4)$ , an alkylation process feedstock, and normal pentane and hexane into isopentane  $(C_5)$  and isohexane  $(C_6)$ , high-octane gasoline components.

Isopentane. See Natural Gasoline and Isopentane.

*Kerosene.* A light petroleum distillate that is used in space heaters, cook stoves, and water heaters and is suitable for

use as a light source when burned in wick-fed lamps. Kerosene has a maximum distillation temperature of 400 degrees Fahrenheit at the 10-percent recovery point, a final boiling point of 572 degrees Fahrenheit, and a minimum flash point of 100 degrees Fahrenheit. Included are No. 1-K and No. 2-K, the two grades recognized by ASTM Specification D 3699 as well as all other grades of kerosene called range or stove oil, which have properties similar to those of No. 1 fuel oil. **See Kerosene-Type Jet Fuel.** 

Kerosene-Type Jet Fuel. A kerosene-based product having a maximum distillation temperature of 400 degrees Fahrenheit at the 10-percent recovery point and a final maximum boiling point of 572 degrees Fahrenheit and meeting ASTM Specification D 1655 and Military Specifications MIL-T-5624P and MIL-T-83133D (Grades JP-5 and JP-8). It is used for commercial and military 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 mixture consisting primarily of pentanes and heavier hydrocarbons which is recovered as a liquid from natural gas in lease separation facilities. This category excludes natural gas liquids, such as butane and propane, which are recovered at downstream natural gas processing plants or facilities. See Natural Gas Liquids.

*Light Gas Oils.* Liquid petroleum distillates heavier than naphtha, with an approximate boiling range from  $401^{\circ}$  F to  $650^{\circ}$  F.

Liquefied Petroleum Gases (LPG). A group of hydrocarbon-based gases derived from crude oil refining or nautral gas fractionation. They include: ethane, ethylene, propane, propylene, normal butane, butylene, isobutane, and isobutylene. For convenience of transportation, these gases are liquefied through pressurization.

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. Substances used to reduce friction between bearing surfaces or as process materials either incorporated into other materials used as processing aids in the manufacture of other products, or used as carriers of other materials. Petroleum lubricants may be produced either from distillates or residues. Lubricants include all grades

of lubricating oils from spindle oil to cylinder oil and those used in greases.

**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, blended to form a fuel suitable for use in spark-ignition engines. Motor gasoline, as defined in ASTM Specification D 4814 or Federal Specification VV-G-1690C, is characterized as having a boiling range of 122 to 158 degrees Fahrenheit at the 10 percent recovery point to 365 to 374 degrees Fahrenheit at the 90 percent recovery point. "Motor Gasoline" includes conventional gasoline; all types of oxygenated gasoline, including gasohol; and reformulated gasoline, but excludes aviation gasoline. Note: Volumetric data on blending components, such as oxygenates, are not counted in data on finished motor gasoline until the blending components are blended into the gasoline.

**Reformulated Gasoline.** Finished motor 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 211(k) of the Clean Air Act. *Note:* This category includes oxygenated fuels program reformulated gasoline (OPRG) but excludes reformulated gasoline blendstock for oxygenate blending (RBOB).

Oxygenated Gasoline (Including Gasohol). Finished motor gasoline, other than reformulated gasoline, having an oxygen content of 2.7 percent or higher by weight. Includes gasohol. Note: Oxygenated gasoline excludes oxygenated fuels program reformulated gasoline (OPRG) and reformulated gasoline blendstock for oxygenate blending (RBOB).

OPRG (Oxygenated Fuels Program Reformulated Gasoline). A reformulated gasoline which is intended for use in an oxygenated fuels program control period.

Other Finished or Conventional Gasoline. Finished motor gasoline not included in the oxygenated or reformulated gasoline categories. *Note:* This category excludes reformulated gasoline blendstock for oxygenate blending (RBOB) as well as other blendstock.

Motor Gasoline Blending. Mechanical mixing of motor gasoline blending components, and oxygenates when required, to produce finished motor gasoline. Finished motor gasoline may be further mixed with other motor gasoline blending components or oxygenates, resulting in increased volumes of finished motor gasoline and/or changes in the formulation of finished motor gasoline (e.g., conventional motor gasoline mixed with MTBE to produce oxygenated motor gasoline).

Motor Gasoline Blending Components. Naphthas (e.g., straight-run gasoline, alkylate, reformate, benzene, toluene, xylene) used for blending or compounding into finished motor gasoline. These components include reformulated gasoline blendstock for oxygenate blending (RBOB) but exclude oxygenates (alcohols, ethers), butane, and pentanes plus. Note: Oxygenates are reported as individual components and are 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 having an average gravity of 52.8 degrees API, 20 to 90 percent distillation temperatures of 290 degrees to 470 degrees Fahrenheit, and meeting Military Specification MIL-T-5624L (Grade JP-4). It is used primarily for military turbojet and turboprop aircraft engines because it has a lower freeze point than other aviation fuels and meets engine requirements at high altitudes and speeds.

*Natural Gas.* A gaseous mixture of hydrocarbon compounds, the primary one being **methane**.

*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 Liquids. Those hydrocarbons in natural gas that are separated from the gas as liquids through the process of absorption, condensation, adsorption, or other methods in gas processing or cycling plants. Generally such liquids consist of propane and heavier hydrocarbons and are commonly referred to as lease condensate, natural gasoline, and liquefied petroleum gases. Natural gas liquids include natural gas plant liquids (primarily ethane, propane, butane, and isobutane; see Natural Gas Plant Liquids) and lease condensate (primarily pentanes produced from natural gas at lease separators and field facilities; see Lease Condensate).

Natural Gas Plant Liquids. Those hydrocarbons in natural gas that are separated as liquids at natural gas processing plants, fractionating and cycling plants, and, in some instances, field facilities. Lease condensate is excluded. Products obtained include ethane; liquefied petroleum gases (propane, butanes, propane-butane mixtures, ethane-propane mixtures); isopentane; and other small quantities of finished products, such as motor gasoline, special naphthas, jet fuel, kerosene, and distillate fuel oil.

Natural Gas Processing Plant. Facilities designed to recover natural gas liquids from a stream of natural gas that may or may not have passed through lease separators and/or field separation facilities. These facilities 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, 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. Prior to January 1995, Gabon was a member of OPEC.

*OPRG* (Oxygenated Fuels Program Reformulated Gasoline). A 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. Substances which, when added to gasoline, increase the amount of oxygen in that gasoline blend. Ethanol, Methyl Tertiary Butyl Ether (MTBE), Ethyl Tertiary Butyl Ether (ETBE), and methanol are common oxygenates.

*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^{\circ} F** A naphtha with a boiling range of less than  $401^{\circ}$  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 high in carbon content and low in hydrogen that is the final product of thermal decomposition in the condensation process in cracking. This product is reported as marketable coke or catalyst

coke. The conversion is 5 barrels (of 42 U.S. gallons each) per short ton. Coke from petroleum has a heating value of 6.024 million Btu per barrel.

*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). 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 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. A general classification for the heavier oils, known as No. 5 and No. 6 fuel oils, that remain after the distillate fuel oils and lighter hydrocarbons are distilled away in refinery operations. It conforms to ASTM Specifications D 396 and D 975 and Federal Specification VV-F-815C. No. 5, a residual fuel oil of medium viscosity, is also known as Navy Special and is defined in Military Specification MIL-F-859E, including Amendment 2 (NATO Symbol F-770). It is used in steam-powered vessels in government service and inshore powerplants. No. 6 fuel oil includes Bunker C fuel oil and is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes.

**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 pallative 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 reporting period and stocks at the end of the reporting period. *Note:* A negative number indicates a decrease (i.e., a drawdown) in stocks and a positive number indicates an increase (i.e., a buildup) in stocks during the reporting period.

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." It is present at various levels of concentration in many fossil fuels whose combustion releases sulfur compounds that are considered harmful to the environment. Some of the most commonly used fossil fuels are categorized according to their sulfur content, with lower sulfur fuels usually selling at a higher price. Note: No. 2 Distillate fuel is currently reported as having either a 0.05 percent or lower sulfur level for on-highway vehicle use or a greater than 0.05 percent sulfur level for off-highway use, home heating oil, and commercial and industrial uses. Residual fuel, regardless of use, is classified as having either no more than 1 percent sulfur or greater than 1 percent sulfur. Coal is also classified as being low- sulfur at concentrations of 1 percent or less or high-sulfur at concentrations greater than 1 percent.

*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) (CH₃)₂(C₂H₅)COCH₃. An oxygenate blend stock formed by the catalytic etherfication 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)₃*COH*. 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** (C₆H₅CH₃). 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.* All oils requiring further processing, except those requiring only mechanical blending. Unfinished oils are produced by partial refining of crude oil and include naphthas and lighter oils, kerosene and light gas oils, heavy gas oils, and residuum.

*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 consisting of a mixture of hydrocarbons obtained or derived from petroleum fractions, or through a Fischer-Tropsch type process, in which the straight chained paraffin series predominates. This includes all marketable wax, whether crude or refined, with a congealing point (ASTM D 938) between 100 and 200° F and a maximum oil content (ASTM D 3235) of 50 weight percent.

**Working Storage Capacity.** The difference in volume between the maximum safe fill capacity and the quantity below which pump suction is ineffective (bottoms).

*Xylene C₆H₄(CH₃)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.