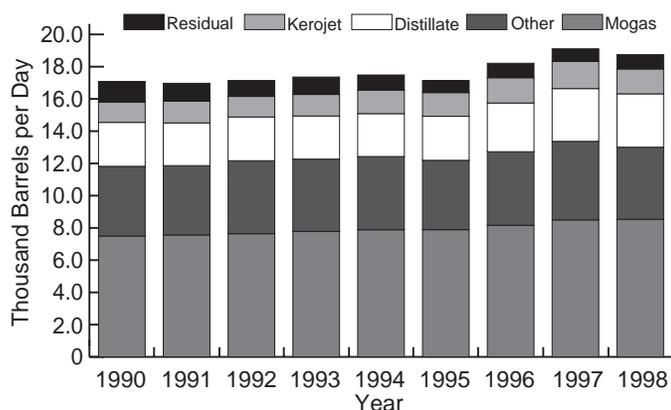


# Highlights

July was a hot month, not only for the U.S. but across the globe. Data collected by the National Oceanic and Atmospheric Administration reveals that July was the hottest month on record around the world.<sup>1</sup> In the U.S. temperatures averaged 6.3 percent warmer than normal and 9.8 percent warmer than this time last year.<sup>2</sup> Temperatures weren't the only factor increasing the demand for refined petroleum products. July's retail sales increased over this time last year as consumer spending--a major driving force in the U.S. economy--was strongest for durable goods.<sup>3</sup> The total demand for refined petroleum products in July 1998<sup>4</sup> (measured as products supplied) reached the second highest level ever for the month, averaging 18.7 million barrels per day (Table & Figure H1), less than 0.4 million barrels per day below the record for the month.

**Figure H1. Total Demand, 1990-Current, Comparison in July for Products**



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

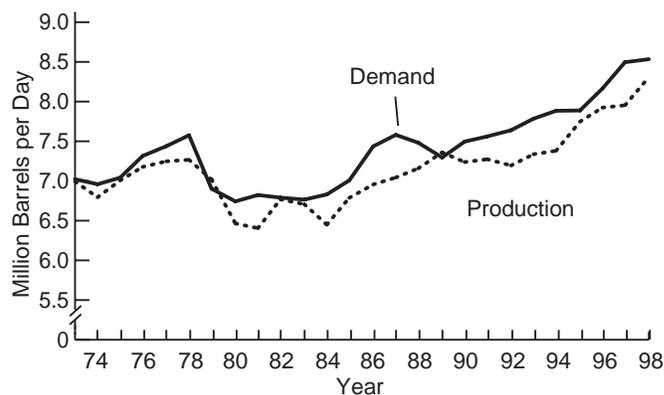
July 1998 highlights include:

- Finished motor gasoline **production** set a **July record high** at an average of 8.3 million barrels per day. **Demand** for finished motor gasoline reached **an all-time record high** at 8.5 million barrels per day. **Stocks** of finished motor gasoline ended the month **18 million barrels higher than last July**, totaling 169 million barrels. The price of motor gasoline remained below levels seen over the last several years, **nearly 13 cents per gallon less than this time last year**.
- Distillate fuel oil **production** averaged 3.6 million barrels per day, **one of the highest levels ever** and a record for the month. **Demand** for distillate fuel oil set a record high for July, averaging 3.3 million barrels per day. Distillate fuel oil **stocks** were 21 million barrels above the end-of-month level

for July 1997 and the highest level for the month since 1982 at 144 million barrels.

- **Production** of residual fuel oil averaged 740 thousand barrels per day, the highest level for the month since 1995. **Demand** for residual fuel oil also increased, averaging 886 thousand barrels per day. End-of-month residual fuel oil **stocks** totaled 39.7 million barrels, the highest level for the month since 1994.
- Production of kerosene-type jet fuel reached the second highest level for July ever, averaging 1.5 million barrels per day. Stocks dropped during July to a total of 41.2 million barrels by the end of the month.
- Propane inventories stood at the **highest level for July in 17 years**, totaling 69.2 million barrels.
- Crude oil **production** averaged 6.3 million barrels per day and continued what is now a five-year trend of domestic production comparable to the levels of the mid-1950's. **Imports** of crude oil averaged 9.2 million barrels per day, **the highest level ever**. Crude oil **stocks**, excluding the Strategic Petroleum Reserve (SPR), ended the month totaling 343.9 million barrels, the highest July level since 1993.

**Figure H2. Finished Motor Gasoline, Year-to-Year July Comparisons, 1973-1998**



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

## Motor Gasoline

During July, **demand** for finished motor gasoline reached **an all-time record high**, averaging 8.5 million barrels per day (Figure H2). With demand for finished motor gasoline at

<sup>1</sup> "Gore: July hottest month in modern history", *Reuters*, August 11, 1998, accessible via the Internet at <http://dailynews.yahoo.com/headlines>.

<sup>2</sup> "Cooling Degree Day Data Monthly Summary, Monthly Data for July 1998", *National Oceanic Atmospheric Administration*, accessible via the Internet at <http://nic.fb4.noaa.gov>.

<sup>3</sup> "Advance Monthly Retail Sales July 1998", *Department of Commerce, Census Bureau*, August 13, 1998, accessible via the Internet at <http://www.census.gov/>.

<sup>4</sup> July 1998 data are monthly-from-weekly estimates based on the Energy Information Administration's Weekly Petroleum Supply Reporting System.

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

Category	1998			1997	January - July	
	Estimated July	June	Difference <sup>a</sup>	July	1998	1997
<b>Products Supplied</b> .....	18.7	18.8	-0.1	19.1	18.4	18.5
Finished Motor Gasoline.....	8.5	8.4	0.1	8.5	8.1	8.0
Distillate Fuel Oil.....	3.3	3.5	-0.2	3.3	3.5	3.4
Residual Fuel Oil .....	0.9	0.8	0.1	0.8	0.8	0.8
Jet Fuel.....	1.5	1.6	(s)	1.7	1.5	1.6
Other Petroleum Products <sup>b</sup> .....	4.5	4.6	-0.1	4.9	4.5	4.7
<b>Crude Oil Inputs</b> .....	15.6	15.4	0.2	15.0	14.9	14.4
<b>Operating Utilization Rate (%)</b> .....	100.1	99.8	0.3	98.2	96.8	94.9
<b>Imports</b> .....	10.9	10.7	0.2	10.0	10.3	10.1
<b>Crude Oil</b> .....	9.2	8.7	0.4	8.2	8.5	8.0
Strategic Petroleum Reserve .....	0.0	0.0	0.0	0.0	0.0	0.0
Other.....	9.2	8.7	0.4	8.2	8.5	8.0
<b>Products</b> .....	1.7	2.0	-0.3	1.8	1.8	2.1
Finished Motor Gasoline.....	0.2	0.3	-0.1	0.3	0.3	0.3
Distillate Fuel Oil.....	0.2	0.2	(s)	0.2	0.2	0.2
Residual Fuel Oil .....	0.3	0.2	(s)	0.2	0.2	0.2
Jet Fuel.....	(s)	0.1	(s)	0.1	0.1	0.1
Other Petroleum Products <sup>c</sup> .....	0.9	1.2	-0.3	1.1	1.1	1.2
<b>Exports</b> .....	1.0	1.0	(s)	1.0	1.0	1.0
Crude Oil .....	0.1	0.1	(s)	0.1	0.1	0.1
Products .....	0.9	0.9	-0.1	0.9	0.9	0.9
<b>Total Net Imports</b> .....	9.9	9.7	0.2	9.0	9.3	9.2
<b>Stock Change<sup>d</sup></b> .....	0.9	(s)	0.9	-0.5	0.6	0.2
Crude Oil .....	0.1	-0.7	0.7	-0.3	0.1	0.1
Products .....	0.8	0.6	0.1	-0.2	0.4	0.1
<b>Total Stocks</b> .....	1,664	1,654	10	1,559	--	--
<b>(million barrels)</b>						
<b>Crude Oil</b> .....	907	896	11	873	--	--
Strategic Petroleum Reserve.....	563	563	0	563	--	--
Other.....	344	333	11	310	--	--
<b>Products</b> .....	757	757	-1	686	--	--
Finished Motor Gasoline.....	169	178	-9	151	--	--
Distillate Fuel Oil.....	144	139	5	123	--	--
Residual Fuel Oil .....	40	40	(s)	35	--	--
Jet Fuel.....	41	44	-3	43	--	--
Other Petroleum Products <sup>c</sup> .....	363	356	6	333	--	--

<sup>a</sup> Difference is equal to volume for current month minus volume for previous month.

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

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

<sup>d</sup> A negative number indicates a decrease in stocks and a positive number indicates an increase.

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

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

Source: Energy Information Administration (EIA), 1996, *Petroleum Supply Annual*, Volume II; appropriate issues of the *Petroleum Supply Monthly* and the *Weekly Petroleum Status Report*.

Data for the current month are preliminary estimates, based on weekly submissions. For an explanation of estimation methodology and accuracy, see Appendix A of *Weekly Petroleum Status Report* and the article, "Accuracy of Petroleum Supply Data", published in the December 1997, *Petroleum Supply Monthly*.

**Table H2. U.S. Refinery Inputs, Capacities and Utilization Rates: 1997-1998**  
(Thousand Barrels per Day, Except Where Noted)

Item	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
<b>1997</b>												
Gross Refinery Inputs .....	13,771	13,601	14,156	14,465	15,232	15,300	15,190	15,465	15,533	15,127	14,939	15,188
Operating Refinery Capacity <sup>2</sup> .....	15,168	15,205	15,233	15,229	15,449	15,461	15,462	15,452	15,464	15,464	15,452	15,424
Idle Capacity <sup>3</sup>	284	247	399	387	167	177	177	189	139	139	150	204
Idle Three Months or Less .....	197	160	220	180	0	10	10	22	12	12	12	66
Idle More than Three Months .....	87	87	179	207	167	167	167	167	127	127	139	139
Operable Refinery Capacity .....	15,452	15,452	15,632	15,616	15,616	15,638	15,639	15,641	15,602	15,602	15,602	15,628
Utilization Rate (percent)												
Operating Capacity .....	90.8	89.5	92.9	95.0	98.6	99.0	98.2	100.1	100.4	97.8	96.7	98.5
Operable Capacity .....	89.1	88.0	90.6	92.6	97.5	97.8	97.1	98.9	99.6	97.0	95.7	97.2
<b>1998</b>												
Gross Refinery Inputs .....	14,655	14,340	14,851	15,170	15,305	15,651						
Operating Refinery Capacity <sup>2</sup> .....	15,538	15,555	15,547	15,587	15,617	15,687						
Idle Capacity <sup>3</sup>	167	158	184	144	144	135						
Idle Three Months or Less .....	41	20	46	0	0	0						
Idle More than Three Months .....	127	138	138	144	144	135						
Operable Refinery Capacity .....	15,705	15,713	15,732	15,732	15,761	15,822						
Utilization Rate (percent)												
Operating Capacity .....	94.3	92.2	95.5	97.3	98.0	99.8						
Operable Capacity .....	93.3	91.3	94.4	96.4	97.1	98.9						

<sup>1</sup>Capacities are on a calendar day basis.

<sup>2</sup>Operating capacity equals the operable capacity less the total idle capacity.

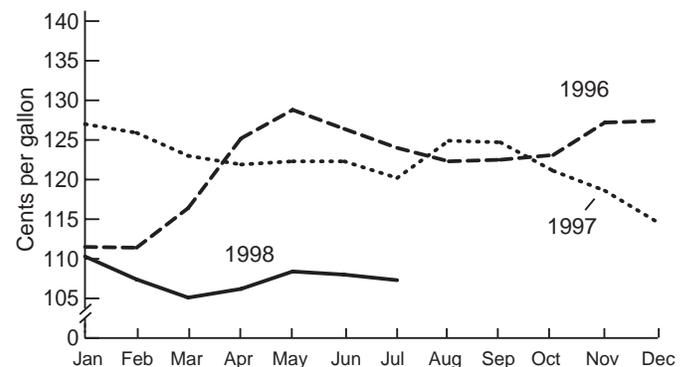
<sup>3</sup>Idle capacity is the component of operable capacity that is not in operation and not under active repair, but is capable of being placed in operation within 30 days; and capacity not in operation but is under active repair that can be completed within 90 days.

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

Sources: Energy Information Administration (EIA), 1997, *Petroleum Supply Annual*, Volume 2, Table 16; EIA, *Petroleum Supply Monthly*, 1998 data issue, Table 28.

unprecedented levels, production wasn't far behind. **Production** of finished motor gasoline established a **July record high** at an average of 8.3 million barrels per day. Although refining margins have been moving closer to normal, they have remained favorable and refineries have continued churning out gasoline at record rates for the last several months. U.S. consumers continued to benefit from the low prices for gasoline as the national average for conventional motor gasoline was \$1.073 (including taxes), a decline from last July of close to 13 cents per gallon (Figure H3).<sup>6</sup> Finished motor gasoline **imports** averaged 244 thousand barrels per day which were below normal for the month. Imports of finished motor gasoline have diminished somewhat as the arbitrage between Europe and the U.S. has deteriorated.<sup>7</sup> Total stocks of motor gasoline ended the month at the highest level for July since 1992, totaling 215.3 million barrels. Of those **stocks**, finished motor gasoline accounted for 169 million barrels, **an increase of nearly 12 percent compared to this time last year.**

**Figure H3. Prices for Conventional Motor Gasoline (including taxes), 1996-current**



Source: Energy Information Administration, *Weekly Petroleum Status Report*, DOE/EIA-0208 (various issues).

<sup>5</sup> "Strong Gasoline, Resid Boost Refining Margins", *The Oil Daily*, July 13, 1998, p. 5.

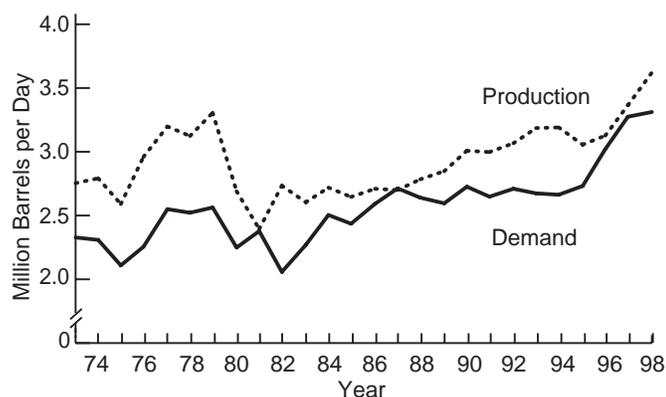
<sup>6</sup> "Table 16. U.S. Retail Motor Gasoline and On-Highway Diesel Fuel Prices, 1997 to Present", *Weekly Petroleum Status Report*, August 7, 1998, p. 27.

<sup>7</sup> "Gasoline Supply Barometer", *Oil Express*, July 20, 1998, p. 2.

## Distillate Fuel Oil

**Demand** for distillate fuel oil set a new **record for the month** at an average of 3.3 million barrels per day (Figure H4). Distillate fuel demand has benefitted from the healthy economy as transportation demand from both the trucking industry and railroads have had a positive effect. Hand-in-hand with production of motor gasoline, distillate fuel oil production was also up for the month. Distillate fuel oil **production** averaged 3.6 million barrels per day in July, **not only a record for the month but one of the highest levels ever**. Imports of distillate fuel oil were normal for July at an average of 220 thousand barrels per day. Total **stocks** of distillate fuel oil ended the month at 144 million barrels, an increase of **20.96 million barrels compared to last July**. Of the distillate stocks, low-sulfur distillates totaled 72.1 million barrels.

**Figure H4. Distillate, Year-to-Year July Comparisons, 1973-1998**

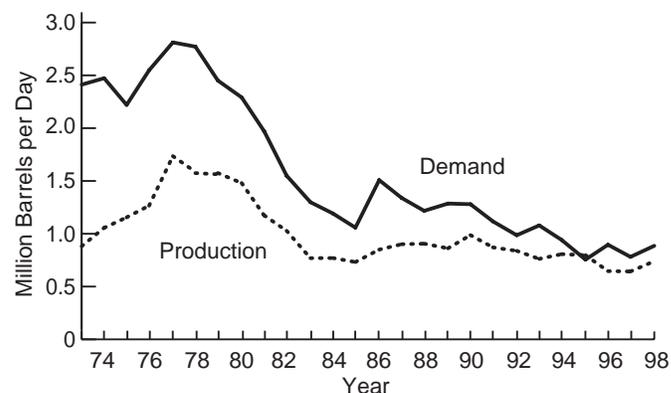


Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

## Residual Fuel Oil

Both **production** of and **demand** for residual fuel oil **increased by roughly 100 thousand barrels per day compared to last July**. Production of residual fuel oil averaged 740 thousand barrels per day while demand averaged 886 thousand barrels per day (Figure H5). Utilities in the South with the ability to burn residual fuel oil found it more economical than other fuels to meet the needs for the additional air-conditioning demand due to the high temperatures.<sup>8</sup> Imports of residual fuel oil were also within the normal seasonal range at an average of 257 thousand barrels per day. End-of-month residual fuel oil **stocks** totaled 39.7 million barrels, the highest level for the month since 1994.

**Figure H5. Residual, Year-to-Year July Comparisons, 1973-1998**

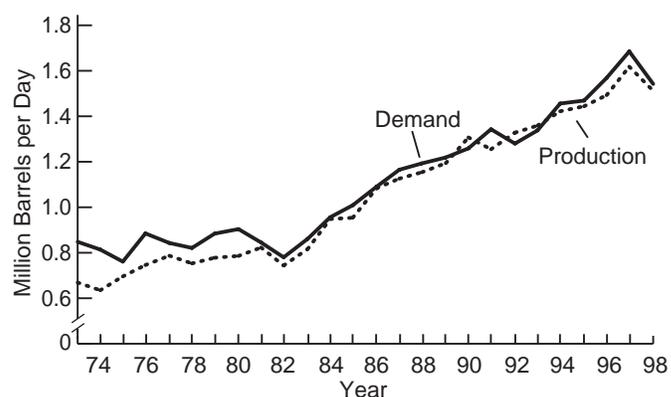


Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

## Kerosene-Type Jet Fuel

**Production** of kerosene-type jet fuel averaged 1.5 million barrels per day, 100 thousand barrels less per day from the July record high set last year (Figure H6). Kerosene-type jet fuel **demand** was within 150 thousand barrels per day from the record high for the month at an average of 1.5 million barrels per day. **Total** imports of jet fuel, kerosene and naphtha-type, averaged only 45 thousand barrels per day. This represented the lowest level of jet fuel imports for July since 1984. **Total** jet fuel **stocks** ended the month at 41.2 million barrels, a decline from June's month-end level. Of that total, naphtha-type jet fuel accounted for approximately 40 thousand barrels, or less than one tenth of one percent.

**Figure H6. Kerojet, Year-to-Year July Comparisons, 1973-1998**



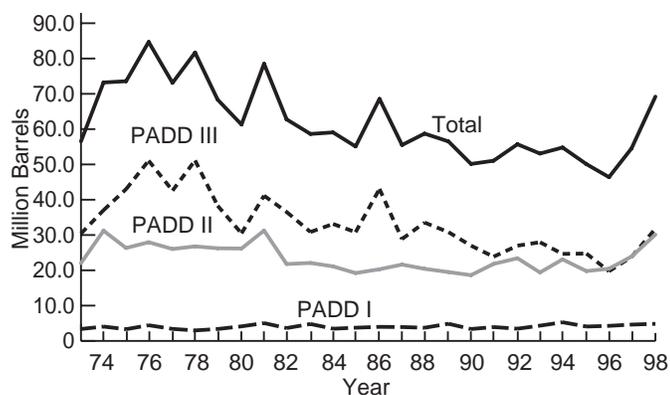
Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

<sup>8</sup> "Gas Producers Face Dismal End of Summer As Weak Demand, High Storage Plague Prices", *The Oil Daily*, August 3, 1998, p. 3.

## Propane

July's propane stock build was 9.0 million barrels, leaving month-end inventories at 69.2 million barrels, **the highest level for July since 1981** (Figure H7). July's inventories were 14.7 million barrels above the level for last July, with regional inventories all above their normal ranges for the month. In the Midwest, propane inventories posted a 4.9 million barrel build to end the month at 30.1 million barrels. Stocks along the Gulf Coast ended the month at 31.8 million barrels representing a gain of 3.3 million barrels during the month. Propane inventories along the East Coast rose 0.5 million barrels to end the month at 4.8 million barrels. The buildup of propane inventories through July represents the largest ever for the build season, 39.4 million barrels since the beginning of April. For the last five years the typical stock build between April and September has measured 33.8 million barrels. This current buildup suggests that inventories could surpass 75 million barrels by the start of the winter heating season if the average build rates are maintained through September.

**Figure H7. Propane Stocks, Year-to-Year July Comparisons, 1973-1998**



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

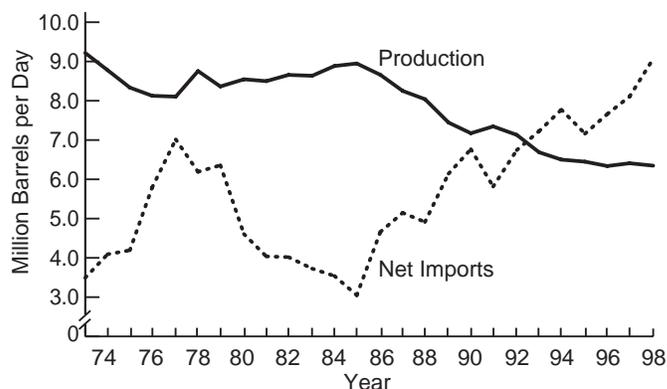
## Crude Oil

With crude oil prices continuing at recent historical lows, many marginal crude oil stripper wells are facing a dilemma--continue to operate at a loss or shut-in the well and cut their losses.<sup>9</sup> Domestic **production** of crude oil averaged 6.3 million barrels, a slight decline from this time last year but continuing in the trend of

production levels similar to that of the mid-1950's. Crude oil field production in Alaska averaged 1.1 million barrels per day, the lowest level for July since 1977. Continued over-production from OPEC has the market awash in foreign barrels. **Imports** of crude oil in July averaged a staggering 9.2 million barrels per day, **an all-time record high**. Crude oil **exports** were normal for this time of year averaging 105 thousand barrels per day. Thus, **for the first time ever**, net imports of crude oil averaged more than 9 million barrels per day. **Net imports** of crude oil in July averaged 9.1 million barrels per day (Figure H8), **an increase of nearly 3 percent from the prior all-time high**.

**Stocks** of crude oil, excluding the SPR, ended the month at a total of 344 million barrels, the highest level to end the month since 1993. This represents an increase in July's crude oil stocks of **34.2 million barrels from this time last year**. This increase can be attributed to the futures markets remaining in contango, creating an incentive to store crude oil for use at a later date.<sup>10</sup> Total **stocks** of crude oil, including the SPR, ended the month at the highest level for this time of year since 1994 at 907.4 million barrels.

**Figure H8. Crude Oil, Year-to-Year July Comparisons, 1973-1998, Production and Net Imports**



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

## Refinery Operations

July's crude oil **inputs** averaged **an all-time record high** 15.6 million barrels per day. Despite the risk of increasing already ample product inventories, refiners kept their crude units running at near capacity to take advantage of low crude oil prices.<sup>11</sup> The estimated refinery **operable utilization rate** averaged 99.2 percent versus 97.1 percent a year ago.

<sup>9</sup> "Low Prices Take Rising Toll on Stripper Wells", *The Oil Daily*, August 3, 1998, p. 1 & 6.

<sup>10</sup> "U.S. Crude Grades Experience Volatile Week Ahead of Nominations; LLS Discount Plunges", *The Oil Daily*, July 27, 1998, p. 4.

<sup>11</sup> "Pitfalls Litter Path To Crude Oil Price Recovery", *Petroleum Intelligence Weekly*, July 20, 1998, p. 1 & 4.