

**1 of 1**

New Schedule for Release  
of Propane Inventories (See Page iii)  
Winter Fuels Data on Internet (See Page 77)

DOE/EIA-0538(93/94-6)

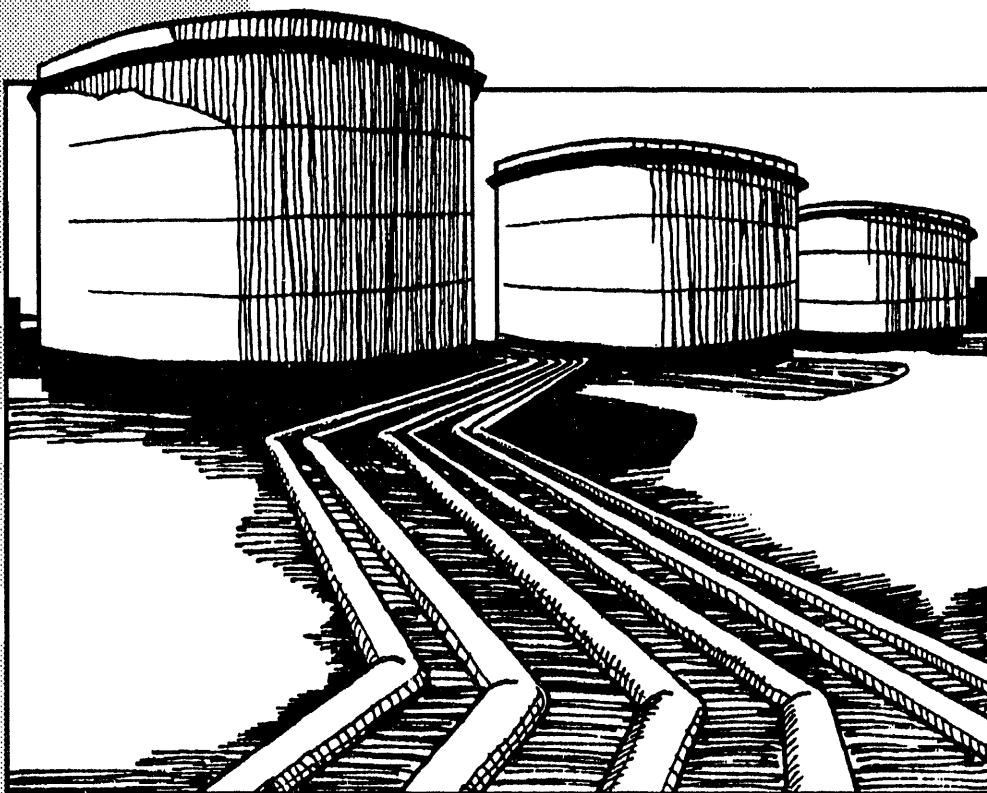
# Winter Fuels Report

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Week Ending:  
November 12, 1993



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Energy Information Administration, U.S. Department of Energy, Washington, D.C. 20585

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*Cover: An artist's rendering of bulk terminal storage tanks.*



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# Winter Fuels Report

**Week Ending:  
November 12, 1993**

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

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*Weekly Petroleum Status Report*, updated on Wednesdays (Thursday in event of a holiday) at 5:00 p.m.

*Petroleum Supply Monthly*, updated on the 20th of the month

*Petroleum Marketing Monthly*, updated on the 20th of the month

*Winter Fuels Report*, updated on Thursdays (Friday in event of a holiday) at 5:00 p.m.

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

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

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

*Electric Power Monthly*, updated on the 1st of the month

*Monthly Energy Review*, updated the last week of the month

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

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Wednesdays at 5:00 p.m., week ending propane inventory data is available through the Electronic Publishing System (EPUB) under the WFRH section.

# Preface

The *Winter Fuels Report* is intended to provide concise, timely information to the industry, the press, policymakers, consumers, analysts, and State and local governments on the following topics:

distillate fuel oil net production, imports and stocks on a U.S. level and for all Petroleum Administration for Defense Districts (PADD) and product supplied on a U.S. level;

propane net production, imports and stocks on a U.S. level and for PADD's I, II, and III;

natural gas supply and disposition and underground storage for the U.S. and consumption for all PADD's; as well as selected National average prices.

residential and wholesale pricing data for heating oil and propane for those States participating in the joint Energy Information Administration (EIA)/State Heating Oil and Propane Program;

crude oil and petroleum price comparisons for the U. S. and selected cities; and

a 6-10 Day, 30-Day, and 90-Day outlook for temperature and precipitation and U.S. total heating degree-days by city.

The distillate fuel oil and propane supply data are collected and published weekly. The data are based on company submissions for the week ending 7:00 a.m. for the preceding Friday. Weekly data for distillate fuel oil are also published in the *Weekly Petroleum Status Report*. Monthly data for distillate fuel oil and propane are published in the *Petroleum Supply Monthly*.

The residential pricing information is collected by the EIA and the State Energy Offices on a semimonthly basis for the EIA/State Heating Oil and Propane Program. The wholesale price comparison data are collected daily and are published weekly. Residential heating fuel prices are derived from price quotes for home delivery of No. 2 fuel oil and propane. As such, they reflect prices in effect on the dates shown. Wholesale heating oil and propane prices are estimates using a sample of terminal quotes to represent average State prices on the dates given. The Computer Petroleum Corporation, Inc., defines these prices to be prices f.o.b. terminal, excluding taxes, discounts, and hauling allowances. The crude oil and petroleum product prices are from various industries sources as referenced on each table.

The natural gas data are collected and published monthly in the *Natural Gas Monthly*.

This report will be published weekly by the EIA starting the second week in October 1993 and will continue until the second week in April 1994. The data will also be available electronically after 5:00 p.m. on Thursday during the heating season through the EIA Electronic Publication System (EPUB). See page ii for details.



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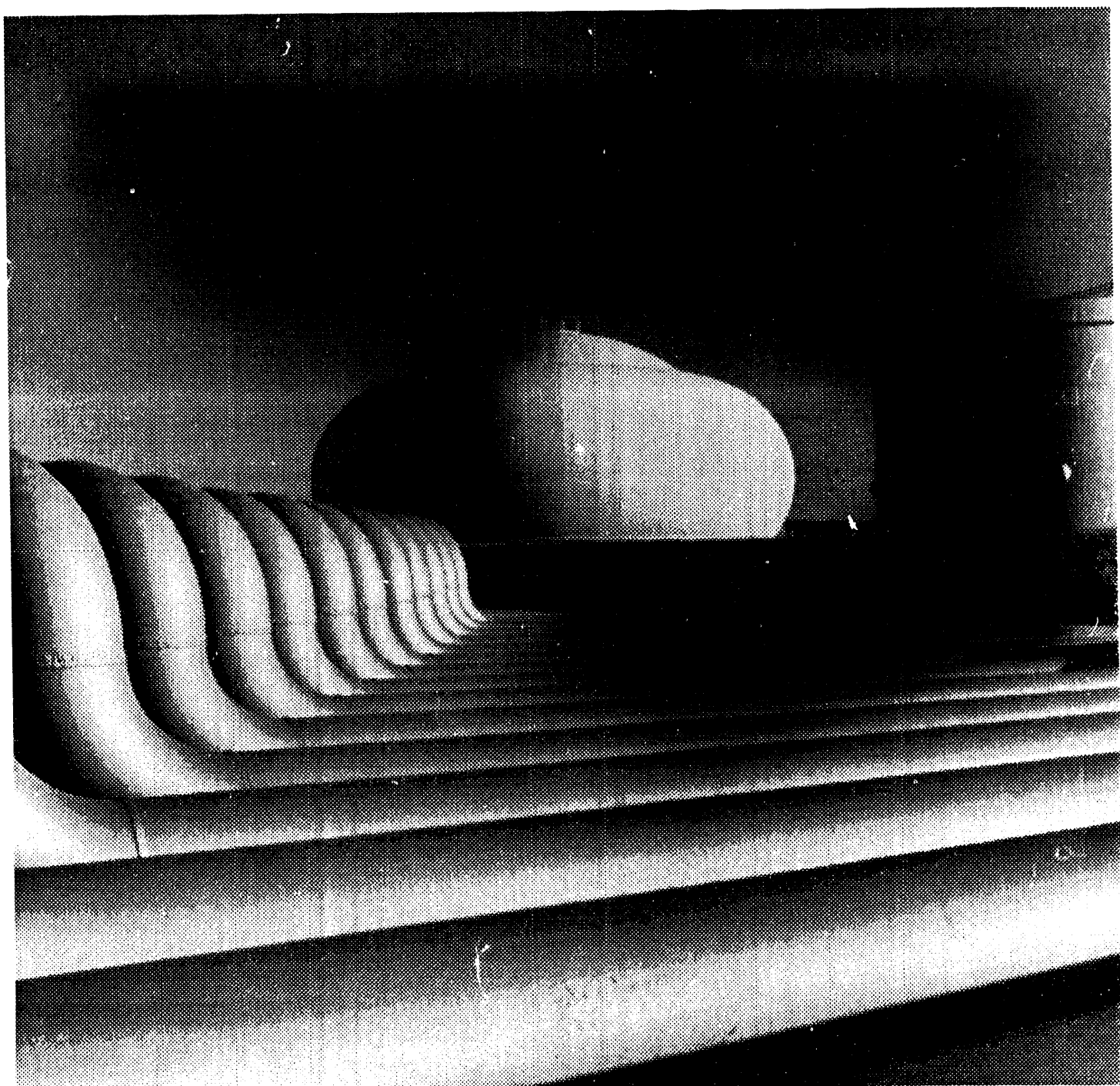
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## Highlights



*Liquefied petroleum gases are stored in pressurized tanks while other products are stored in conventional tanks.*

# Highlights

## DISTILLATE FUEL OIL

Total U.S. distillate fuel oil stocks gained 0.8 MMB over last week's inventory, and are near the upper bound of their seasonal average range. Nationally, high-sulfur product is estimated at 85.6 MMB, or 62% of the total.

PADD I stocks are now 3.4 MMB greater than a year ago, and well above normal for this time of year. In addition to the change reported last week, stocks of distillate in PADD I reflect reclassification of 0.6 MMB of low-sulfur to high-sulfur product, where heating fuels now comprise about 76% of the supply available.

**Table H1. Distillate Fuel Oil**  
(Thousand Barrels per Day, Except Where Noted)

	Week Ending		
	11/12/92	11/05/93	11/12/93
Production	3,240	3,435	3,418
Imports	236	297	161
Product Supplied	2,929	3,796	3,305
Ending Stocks (million barrels)			
East Coast (PADD I)	66.0	69.7	69.5
Midwest (PADD II)	30.1	28.8	29.0
Gulf Coast (PADD III)	32.1	26.3	27.0
<b>U.S. Total</b>	<b>140.3</b>	<b>137.6</b>	<b>138.4</b>

Source: Energy Information Administration (EIA), Weekly and Monthly Petroleum Supply Reporting Systems.

## PROPANE

U.S. stocks of propane continued to show a seasonal decline last week while inventories remain above normal levels for this time of year. As of the week ending November 12, 1993, the Nation's supply of propane was 60.1 million barrels (MMB). This level was approximately 3.3 MMB below the inventory level for the week ending November 5, 1993.

Regionally, since the week ending November 5, 1993, inventory levels decreased in PAD Districts II and III while remaining relatively unchanged in PAD District I. East Coast stocks dropped 0.3 MMB while in the Midwest inventories declined by 1.0 MMB. In the Gulf Coast, which is the largest propane producing as well as consuming section of the Nation, the inventory level decreased by 2.0 MMB.

**Table H2. Propane Stocks by Petroleum Administration for Defense Districts (PADD) I, II, and III**  
(Thousand Barrels)

PAD Districts	October 1992	November 1992	Week Ending					
			10/08/93	10/15/93	10/22/93	10/29/93	11/05/93	11/12/93
East Coast (PADD I)	4,342	4,702	E 4,602	E 4,399	E 4,485	E 4,465	E 4,627	E 4,356
Midwest (PADD II)	21,586	16,342	E 23,460	E 23,657	E 23,608	E 22,816	E 21,178	E 20,131
Gulf Coast (PADD III)	29,911	27,780	E 35,412	E 36,301	E 36,056	E 36,017	E 36,013	E 34,016
Total (PADD I-III)	55,839	48,824	E 63,474	E 64,357	E 64,149	E 63,298	E 61,818	E 58,553
U.S. Total	53,124	50,834	E 65,102	E 66,007	E 65,794	E 64,921	E 63,403	E 60,054

E = Estimated data.

Source: Energy Information Administration (EIA), Monthly Petroleum Supply Reporting System and Form EIA-807, "Propane Telephone Survey."

## NATURAL GAS

### Supply and Disposition

The Energy Information Administration (EIA) estimates that total gas supply available for disposition in August 1993 was an estimated 1,763 billion cubic feet, 6 percent greater than in August 1992. The August 1993 total includes 9 billion cubic feet of supplemental fuel supplies, 165 billion cubic feet of imported gas, and 98 billion cubic feet withdrawn from storage.

On the disposition side, in August 1993, the consumption of 1,332 billion cubic feet was 5 percent less than in August 1992. Total disposition included 419 billion cubic feet of gas injected into underground storage reservoirs and exports of 13 billion cubic feet.

### Consumption

Data for the four major end-use sectors indicate that the total amount of gas delivered to all consumers increased to 1,204 billion cubic feet in July 1993, from 1,175 billion cubic feet in July 1992. Consumption in the industrial sector increased from 597 billion cubic feet in June 1993 to 618 billion cubic feet in July 1993, an increase of 4 percent.

The electric utility sector consumed 333 billion cubic feet in July 1993, which is 31 percent greater than in June 1993 and almost identical from July 1992.

The residential sector consumed 130 billion cubic feet and the commercial sector consumed 123 billion cubic feet in July 1993.

### Natural Gas Prices

In July 1993, major interstate pipeline companies paid an average of \$2.02 per thousand cubic feet for gas purchased from domestic producers, slightly less than the June's \$2.03 total. In July 1993, these pipeline companies paid \$1.78 per thousand cubic feet for imported gas. Distributors paid an average of \$3.34 per thousand cubic feet for gas at the city gate in July 1993. Residential consumers paid \$7.83 per thousand cubic feet in July 1993, 8 percent higher than what they paid in July 1992.

## PRICES

Retail and wholesale heating oil prices for November 1 inched their way down due to abundant distillate and low-sulfur diesel supplies and warmer weather on the East Coast. The average residential heating oil price fell 0.1 cent per gallon, to 94.6, while retail prices in the Midwest fell 1.1 cents per gallon, to 88.2. Wholesale heating oil price declines were more dramatic, with the average price falling 4.2 cents a gallon, to 54.7, and the Midwest price showing a 7.6 cent-per-gallon drop, to 56.0. This was a reversal from October where retail prices increased as the impact of relatively low distillate stocks and scattered outages of low-sulfur diesel fuel in the Midwest spilled over to the residential sector.

Residential propane prices did not follow the same direction as heating oil. The average residential price increased 0.3 cent per gallon, to 87.9. Colder weather in the Midwest may have contributed to this price increase. On the other hand, wholesale propane prices fell 1.9 cents per gallon, to 36.3. Demand for crop drying has been lower compared to the same time last year. Propane stocks stand at 64.9 million barrels at the end of October 1993 compared to 58.1 millions barrels at the end of October 1992.

**Table H3. Residential Heating Oil Prices by Petroleum Administration for Defense Districts**  
(Cents per Gallon)

PAD Districts	October 1992	November 1992	Week Ending		
			10/04/93	10/18/93	11/01/93 <sup>P</sup>
Average	97.2	98.3	<sup>R</sup> 93.6	<sup>R</sup> 94.7	94.6
East Coast	98.6	99.8	<sup>R</sup> 95.0	95.6	95.8
New England	96.3	96.6	91.4	<sup>R</sup> 91.7	91.6
Central Atlantic	100.3	101.9	<sup>R</sup> 97.4	98.1	98.5
Lower Atlantic	93.1	94.6	89.0	89.6	89.3
Midwest	89.8	90.0	85.8	<sup>R</sup> 89.3	88.2

<sup>P</sup>=Preliminary data.

<sup>R</sup>=Revised data.

Source: Based on data collected by State Energy Offices.

**Table H4. Residential Propane Prices by Petroleum Administration for Defense Districts**  
(Cents per Gallon)

PAD Districts	October 1992	November 1992	Week Ending		
			10/04/93	10/18/93	11/01/93 <sup>P</sup>
Average	85.8	87.2	<sup>R</sup> 87.4	<sup>R</sup> 87.6	87.9
East Coast	115.1	115.4	<sup>R</sup> 111.3	<sup>R</sup> 111.2	111.3
New England	116.9	116.6	<sup>R</sup> 115.6	<sup>R</sup> 115.6	115.5
Central Atlantic	125.2	125.6	<sup>R</sup> 121.1	<sup>R</sup> 120.8	120.8
Lower Atlantic	100.2	100.5	<sup>R</sup> 95.2	95.3	95.6
Midwest	70.2	72.1	<sup>R</sup> 74.0	<sup>R</sup> 74.2	74.6

<sup>P</sup>=Preliminary data.

<sup>R</sup>=Revised data.

Source: Based on data collected by State Energy Offices.

## Distillate Fuel Oil



*Overall view of a typical bulk terminal facility.*

**Table 1. Monthly and Weekly Net Production, Imports, and Stocks of Distillate Fuel Oil by Petroleum Administration for Defense District (PADD) and Product Supplied for the United States**  
(Thousand Barrels per Day, Except Where Noted)

District/Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Total U.S.</b>												
<b>Net Production<sup>a</sup></b>												
1991	2,845	2,870	2,865	2,819	2,929	2,941	2,998	2,961	3,055	3,040	3,103	3,107
1992	2,818	2,661	2,749	2,930	2,933	2,995	3,067	2,865	2,983	3,251	3,240	3,179
1993	2,909	2,813	2,918	3,010	2,930	3,095	3,185	3,084				
<b>Week Ending</b>												
1993	09/03	09/10	09/17	09/24	10/01	10/08	10/15	10/22	10/29	11/05	11/12	
Total	3,374	3,293	3,205	3,347	3,287	3,456	3,528	3,626	3,479	3,435	3,418	
0.05% Sulf & Under	1,497	1,523	1,365	1,553	1,556	1,755	1,856	1,961	1,910	1,751	1,836	
Greater than 0.05%	1,877	1,770	1,840	1,794	1,731	1,701	1,672	1,665	1,569	1,684	1,582	
<b>Imports</b>												
1991	192	139	206	258	186	209	155	168	237	207	249	252
1992	232	217	238	202	179	157	172	229	237	263	236	229
1993	182	224	235	209	153	168	130	159				
<b>Week Ending</b>												
1993	09/03	09/10	09/17	09/24	10/01	10/08	10/15	10/22	10/29	11/05	11/12	
Total	121	192	129	167	141	180	123	138	397	297	161	
0.05% Sulf & Under	70	112	72	78	38	121	47	46	254	144	72	
Greater than 0.05%	51	80	57	89	103	59	76	92	143	153	89	
<b>Stocks (Million Barrels)</b>												
1991	111.7	101.6	98.2	102.9	106.9	113.7	124.7	131.4	140.1	138.3	144.5	143.5
1992	126.7	108.8	97.7	92.1	96.4	104.5	114.6	122.8	127.8	136.8	146.3	140.6
1993	130.2	109.4	97.5	98.3	101.6	109.4	120.2	127.9				
<b>Week Ending</b>												
1993	09/03	09/10	09/17	09/24	10/01	10/08	10/15	10/22	10/29	11/05	11/12	
Total	127.2	130.7	131.3	131.5	131.1	132.9	133.4	134.4	139.1	137.6	138.4	
0.05% Sulf & Under	47.6	50.6	53.4	56.6	55.4	53.6	52.0	53.4	56.4	52.3	52.8	
Greater than 0.05%	79.7	80.1	77.9	74.9	75.7	79.4	81.4	80.9	82.7	85.3	85.6	
<b>Product Supplied</b>												
1991	3,367	2,976	2,984	2,839	2,765	2,775	2,648	2,770	2,865	3,047	2,921	3,087
1992	3,231	3,219	3,207	3,039	2,753	2,679	2,710	2,705	2,908	3,056	2,929	3,316
1993	3,141	3,478	3,386	2,949	2,624	2,843	2,669	2,797				
<b>Week Ending</b>												
1993	09/03	09/10	09/17	09/24	10/01	10/08	10/15	10/22	10/29	11/05	11/12	
Total	2,979	2,855	3,122	3,360	3,325	3,227	3,432	3,485	3,056	3,796	3,305	
<b>East Coast (PADD I)</b>												
<b>Net Production<sup>a</sup></b>												
1991	344	373	344	299	339	367	368	359	376	351	383	395
1992	332	292	275	371	355	369	406	352	361	448	426	395
1993	370	335	335	359	322	426	417	375				
<b>Week Ending</b>												
1993	09/03	09/10	09/17	09/24	10/01	10/08	10/15	10/22	10/29	11/05	11/12	
Total	448	474	441	465	481	508	494	503	532	523	463	
0.05% Sulf & Under	121	161	132	215	164	171	223	249	251	261	213	
Greater than 0.05%	327	313	309	250	317	337	271	254	281	262	250	
<b>Stocks (Million Barrels)</b>												
1991	39.8	31.8	29.8	32.3	35.5	43.6	51.0	56.6	62.3	65.6	66.8	63.4
1992	53.4	43.5	31.0	28.5	30.1	37.5	45.4	53.6	58.1	64.8	68.2	65.1
1993	58.6	43.2	33.1	34.5	37.1	43.2	51.5	59.2				
<b>Week Ending</b>												
1993	09/03	09/10	09/17	09/24	10/01	10/08	10/15	10/22	10/29	11/05	11/12	
Total	59.6	63.2	63.9	65.1	66.9	67.6	68.3	68.5	70.6	69.7	69.5	
0.05% Sulf & Under	18.2	19.7	21.5	23.9	24.5	22.2	20.9	22.0	22.4	18.1	16.9	
Greater than 0.05%	41.5	43.5	42.4	41.2	42.4	45.4	47.4	46.5	48.2	51.6	52.6	

See footnotes at end of table.



**Table 1. Monthly and Weekly Net Production, Imports, and Stocks of Distillate Fuel Oil by Petroleum Administration for Defense District (PADD) and Product Supplied for the United States (Continued)**  
(Thousand Barrels per Day, Except Where Noted)

District/Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>New England (PADD IX)</b>												
<b>Stocks (Million Barrels)</b>												
1991	5.4	3.6	3.5	4.4	5.1	6.5	8.7	9.9	10.8	11.0	11.8	9.9
1992	7.4	6.7	4.4	3.3	4.7	6.8	9.5	11.0	11.2	12.1	11.6	9.9
1993	10.0	8.0	5.8	5.3	5.5	7.7	8.9	10.5				
<b>Week Ending</b>												
1993	09/03	09/10	09/17	09/24	10/01	10/08	10/15	10/22	10/29	11/05	11/12	
Total	11.1	11.8	12.6	12.4	14.6	14.6	15.1	14.2	14.7	13.7	13.4	
0.05% Sulf & Under	2.5	3.1	3.1	3.4	4.0	5.4	4.1	3.0	3.4	2.7	2.5	
Greater than 0.05%	8.6	8.7	9.5	9.0	10.6	9.2	11.0	11.2	11.3	10.9	10.9	
<b>Central Atlantic (PADD IV)</b>												
<b>Stocks (Million Barrels)</b>												
1991	22.0	18.1	14.8	17.5	20.0	25.5	30.6	35.7	39.6	42.4	41.8	39.6
1992	34.6	25.8	17.0	15.8	14.8	18.0	24.9	30.9	35.7	40.3	42.8	41.0
1993	34.8	24.0	16.9	19.6	21.0	25.0	31.1	37.5				
<b>Week Ending</b>												
1993	09/03	09/10	09/17	09/24	10/01	10/08	10/15	10/22	10/29	11/05	11/12	
Total	37.9	39.5	39.6	40.9	40.9	41.8	42.0	41.6	43.2	43.0	42.4	
0.05% Sulf & Under	11.9	11.8	13.1	15.3	15.0	11.6	11.8	13.0	12.9	9.1	8.6	
Greater than 0.05%	26.1	27.8	26.5	25.5	25.9	30.2	30.2	28.5	30.4	33.9	33.8	
<b>Lower Atlantic (PADD IZ)</b>												
<b>Stocks (Million Barrels)</b>												
1991	12.4	10.0	11.4	10.4	10.3	11.6	11.6	11.0	11.9	12.2	13.3	13.9
1992	11.3	11.0	9.5	9.4	10.6	12.7	11.1	11.7	11.3	12.4	13.7	14.1
1993	13.8	11.1	10.5	9.6	10.6	10.5	11.6	11.2				
<b>Week Ending</b>												
1993	09/03	09/10	09/17	09/24	10/01	10/08	10/15	10/22	10/29	11/05	11/12	
Total	10.6	11.8	11.6	11.8	11.5	11.2	11.2	12.7	12.7	13.1	13.6	
0.05% Sulf & Under	3.8	4.8	5.3	5.2	5.5	5.2	5.0	6.0	6.2	6.3	5.7	
Greater than 0.05%	6.8	7.0	6.3	6.6	6.0	6.0	6.2	6.8	6.6	6.7	7.9	
<b>Midwest (PADD II)</b>												
<b>Net Production<sup>a</sup></b>												
1991	665	679	677	679	724	734	769	711	742	778	746	734
1992	683	685	700	654	722	739	739	743	738	774	779	768
1993	757	692	724	747	733	753	756	700				
<b>Week Ending</b>												
1993	09/03	09/10	09/17	09/24	10/01	10/08	10/15	10/22	10/29	11/05	11/12	
Total	690	774	821	818	769	801	869	880	920	827	891	
0.05% Sulf & Under	240	341	277	327	366	390	465	453	510	407	504	
Greater than 0.05%	450	433	544	491	403	411	404	427	410	420	387	
<b>Stocks (Million Barrels)</b>												
1991	29.9	29.8	30.0	30.6	31.6	31.2	33.1	33.2	32.1	30.4	32.2	33.0
1992	31.2	29.8	30.1	27.7	27.4	29.0	29.3	31.1	30.8	29.1	31.9	31.3
1993	32.1	29.1	29.0	28.3	26.9	27.7	28.7	27.3				
<b>Week Ending</b>												
1993	09/03	09/10	09/17	09/24	10/01	10/08	10/15	10/22	10/29	11/05	11/12	
Total	26.8	27.7	27.4	27.8	27.5	27.0	25.9	27.0	29.4	28.8	29.0	
0.05% Sulf & Under	10.5	12.0	13.3	13.2	13.7	12.8	12.2	12.9	15.5	15.7	15.8	
Greater than 0.05%	16.3	15.7	14.1	14.6	13.8	14.2	13.7	14.1	14.0	13.1	13.2	

See footnotes at end of table.

**Table 1. Monthly and Weekly Net Production, Imports, and Stocks of Distillate Fuel Oil by Petroleum Administration for Defense District (PADD) and Product Supplied for the United States (Continued)**  
(Thousand Barrels per Day, Except Where Noted)

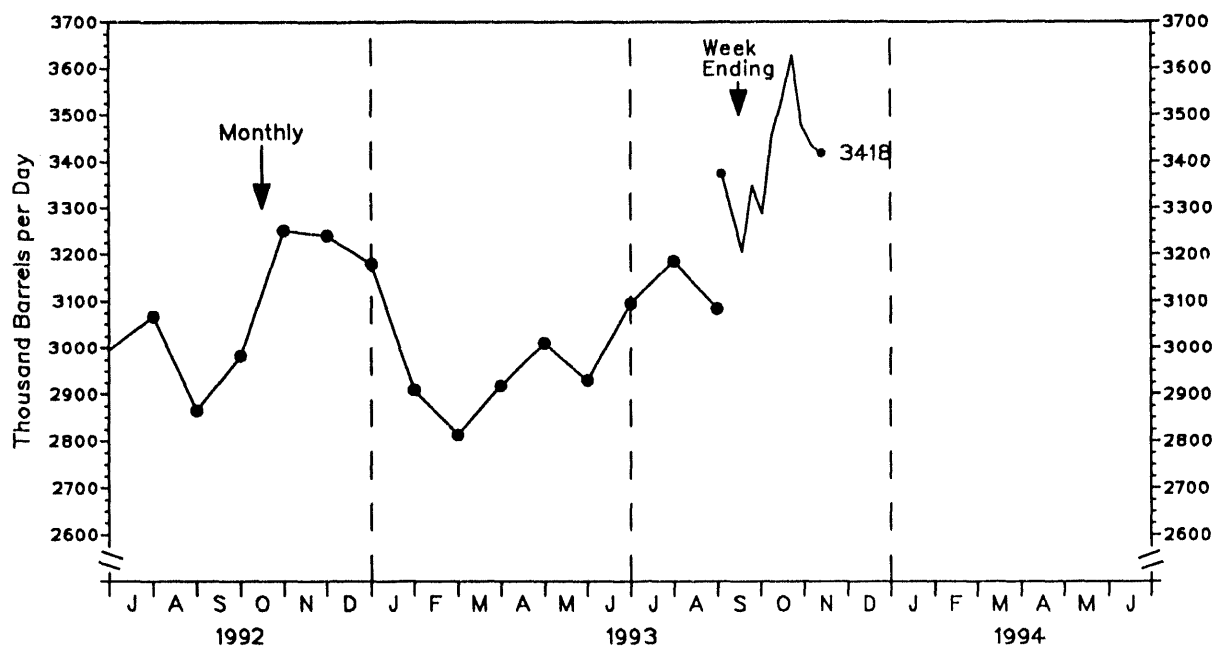
District/Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Gulf Coast (PADD III)</b>												
<b>Net Production<sup>a</sup></b>												
1991	1,286	1,293	1,328	1,295	1,292	1,264	1,297	1,329	1,344	1,332	1,410	1,422
1992	1,274	1,170	1,220	1,327	1,302	1,314	1,348	1,205	1,323	1,452	1,486	1,462
1993	1,300	1,271	1,315	1,349	1,281	1,342	1,430	1,466				
<b>Week Ending</b>												
1993	09/03	09/10	09/17	09/24	10/01	10/08	10/15	10/22	10/29	11/05	11/12	
Total	1,583	1,406	1,299	1,370	1,410	1,546	1,505	1,588	1,377	1,447	1,417	
0.05% Sulf & Under	770	661	663	664	680	789	765	833	713	660	714	
Greater than 0.05%	813	745	636	706	730	757	740	755	664	787	703	
<b>Stocks (Million Barrels)</b>												
1991	27.2	25.9	25.1	26.7	25.5	24.7	27.4	28.6	31.0	28.5	31.2	31.7
1992	28.8	22.5	23.4	24.0	25.6	24.7	27.1	26.4	27.5	31.5	33.2	30.8
1993	27.1	24.6	23.1	23.4	24.1	25.3	26.7	29.3				
<b>Week Ending</b>												
1993	09/03	09/10	09/17	09/24	10/01	10/08	10/15	10/22	10/29	11/05	11/12	
Total	28.4	27.6	27.2	26.5	26.1	27.3	27.8	27.2	27.3	26.3	27.0	
0.05% Sulf & Under	12.2	11.9	11.7	12.7	11.8	12.4	12.5	12.1	11.8	10.6	12.4	
Greater than 0.05%	16.2	15.8	15.5	13.8	14.3	14.9	15.3	15.0	15.4	15.7	14.5	
<b>Rocky Mountain (PADD IV)</b>												
<b>Net Production<sup>a</sup></b>												
1991	118	113	131	122	133	136	147	139	126	136	123	118
1992	112	116	126	117	119	125	128	120	122	131	120	116
1993	103	109	113	109	132	125	121	124				
<b>Week Ending</b>												
1993	09/03	09/10	09/17	09/24	10/01	10/08	10/15	10/22	10/29	11/05	11/12	
Total	170	192	168	187	168	141	143	128	145	144	145	
0.05% Sulf & Under	65	91	82	108	84	78	75	72	74	70	67	
Greater than 0.05%	105	101	86	79	84	63	68	56	71	74	78	
<b>Stocks (Million Barrels)</b>												
1991	3.2	3.3	3.5	3.1	3.3	3.3	3.2	3.0	2.8	2.6	2.8	3.2
1992	2.7	2.5	2.8	2.3	2.2	2.4	2.5	2.1	2.0	2.3	2.7	2.6
1993	2.5	2.4	2.4	2.0	2.4	2.3	2.4	2.1				
<b>Week Ending</b>												
1993	09/03	09/10	09/17	09/24	10/01	10/08	10/15	10/22	10/29	11/05	11/12	
Total	2.1	2.5	2.6	2.5	2.3	2.3	2.1	2.0	2.1	2.0	2.1	
0.05% Sulf & Under	0.6	1.1	1.2	1.2	1.0	1.1	1.1	1.1	1.1	1.0	1.2	
Greater than 0.05%	1.5	1.4	1.4	1.3	1.3	1.2	1.0	0.9	1.0	1.0	1.0	
<b>West Coast (PADD V)</b>												
<b>Net Production<sup>a</sup></b>												
1991	432	411	385	424	441	440	418	423	467	442	442	438
1992	418	398	427	462	436	448	446	446	441	447	428	438
1993	379	406	432	446	462	450	461	419				
<b>Week Ending</b>												
1993	09/03	09/10	09/17	09/24	10/01	10/08	10/15	10/22	10/29	11/05	11/12	
Total	483	447	476	507	459	460	517	527	505	494	502	
0.05% Sulf & Under	301	269	211	239	262	327	328	354	362	353	338	
Greater than 0.05%	182	178	265	268	197	133	189	173	143	141	164	
<b>Stocks (Million Barrels)</b>												
1991	11.5	10.9	9.9	10.2	11.1	10.9	10.0	10.0	11.9	11.3	11.5	12.1
1992	10.7	10.4	10.4	9.6	11.1	10.8	10.4	9.6	9.5	9.1	10.3	10.8
1993	9.9	10.1	9.9	10.2	11.0	10.9	10.9	10.0				
<b>Week Ending</b>												
1993	09/03	09/10	09/17	09/24	10/01	10/08	10/15	10/22	10/29	11/05	11/12	
Total	10.4	9.8	10.2	9.6	8.2	8.7	9.4	9.8	9.7	10.8	10.8	
0.05% Sulf & Under	6.2	6.0	5.7	5.5	4.4	5.0	5.4	5.4	5.7	6.9	6.5	
Greater than 0.05%	4.2	3.7	4.5	4.1	3.8	3.7	4.0	4.4	4.1	3.9	4.3	

<sup>a</sup> Net production equals gross production minus input. Negative production will occur when the amount of product produced during the month is less than the amount of that same product reprocessed (input) or reclassified to become another product during the same month.

Notes: • Totals may not equal sum of components due to independent rounding. • Sum of PADD's IX, IY, and IZ may not equal PADD I because of independent estimation.

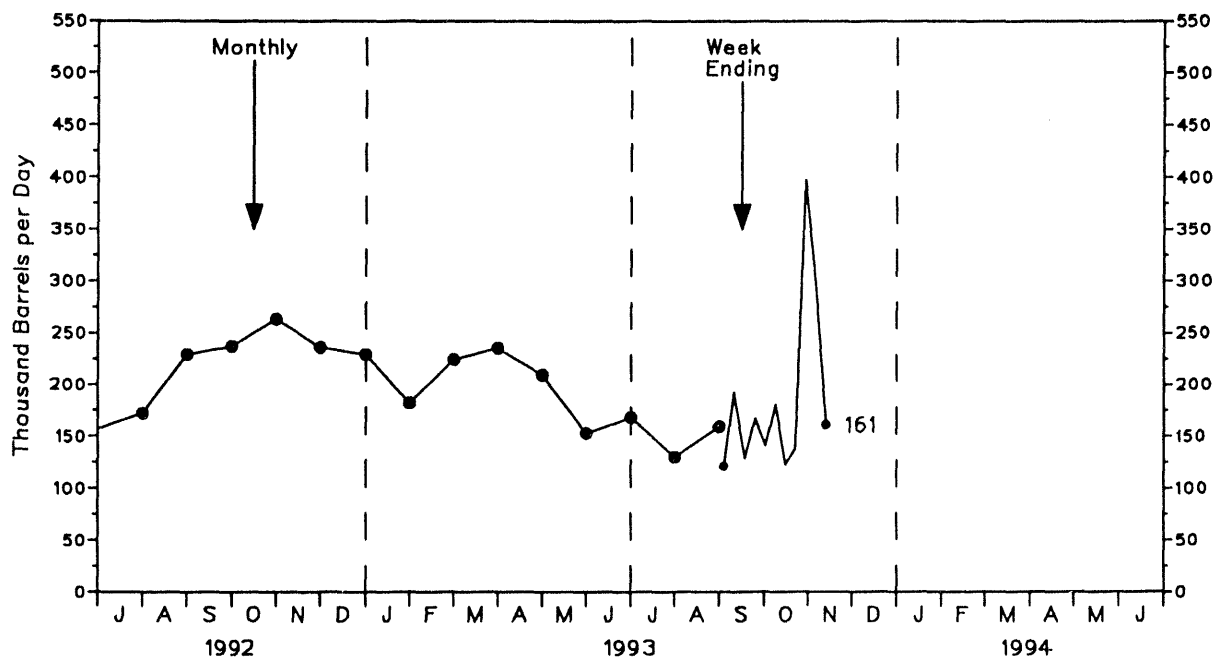
Source: Energy Information Administration, Weekly and Monthly Petroleum Supply Reporting Systems. Magnitudes of revisions to monthly data are published in Appendix C of the *Petroleum Supply Monthly*.

Figure 1. U.S. Distillate Fuel Oil Production



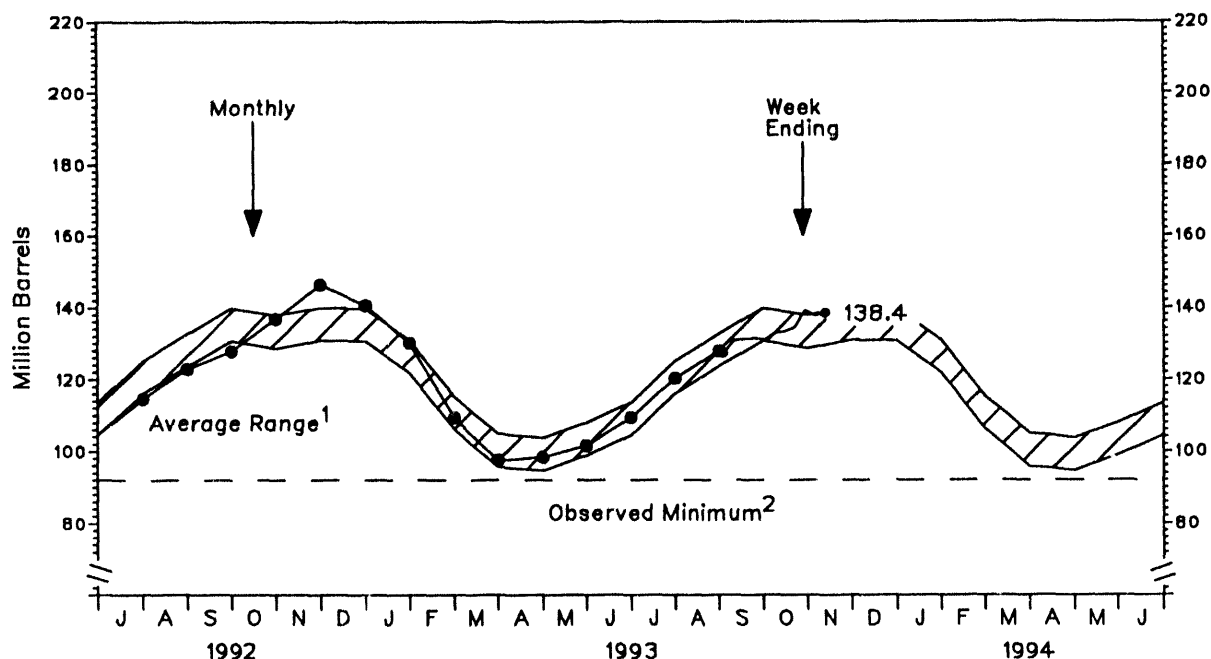
Source: • Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, *Petroleum Supply Monthly*. • Week-Ending Production: Estimates based on weekly data collected on Form EIA-800.

Figure 2. U.S. Distillate Fuel Oil Imports



Source: • Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, *Petroleum Supply Monthly*. • Week-Ending Imports: Estimates based on weekly data collected on Form EIA-804.

**Figure 3. U.S. Distillate Fuel Oil Stocks**

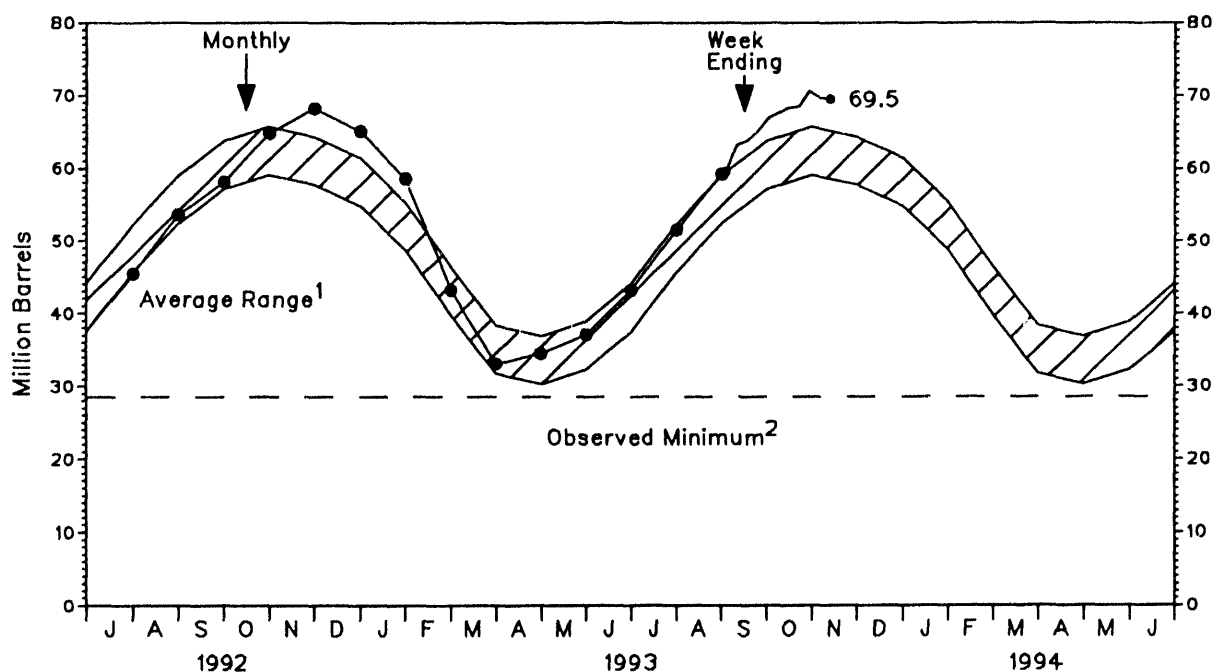


<sup>1</sup> Average level and width of average range are based on 3 years of monthly data: July 1990-June 1993. The seasonal pattern is based on 7 years of monthly data.

<sup>2</sup> The Observed Minimum for distillate fuel oil stocks in the last 36 month period was 92.1 million barrels, occurring in April 1992.

Source: • Data for Ranges and Seasonal Patterns: 1985-1992, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, *Petroleum Supply Monthly*. • Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, and -802.

**Figure 4. PADD I (East Coast) Distillate Fuel Oil Stocks**

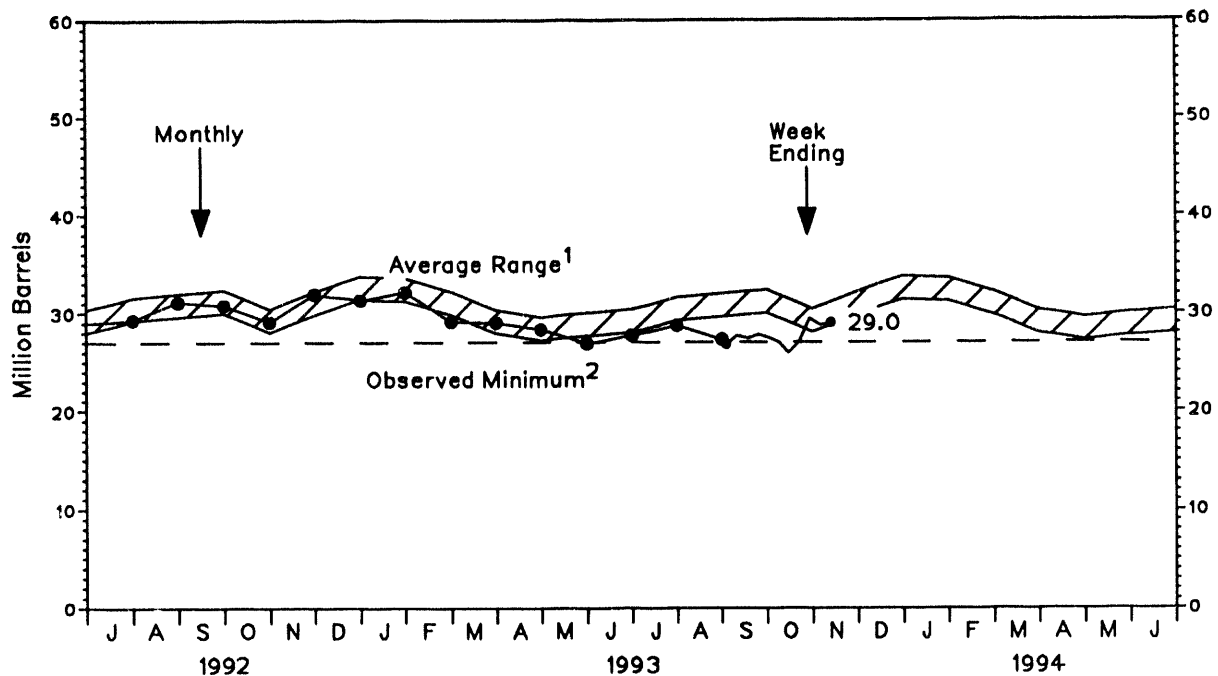


<sup>1</sup> Average level and width of average range are based on 3 years of monthly data: July 1990-June 1993. The seasonal pattern is based on 7 years of monthly data.

<sup>2</sup> The Observed Minimum for distillate fuel oil stocks in the last 36 month period was 28.5 million barrels, occurring in April 1992.

Source: • Data for Ranges and Seasonal Patterns: 1985-1992, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, *Petroleum Supply Monthly*. • Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, and -802.

**Figure 5. PADD II (Midwest) Distillate Fuel Oil Stocks**

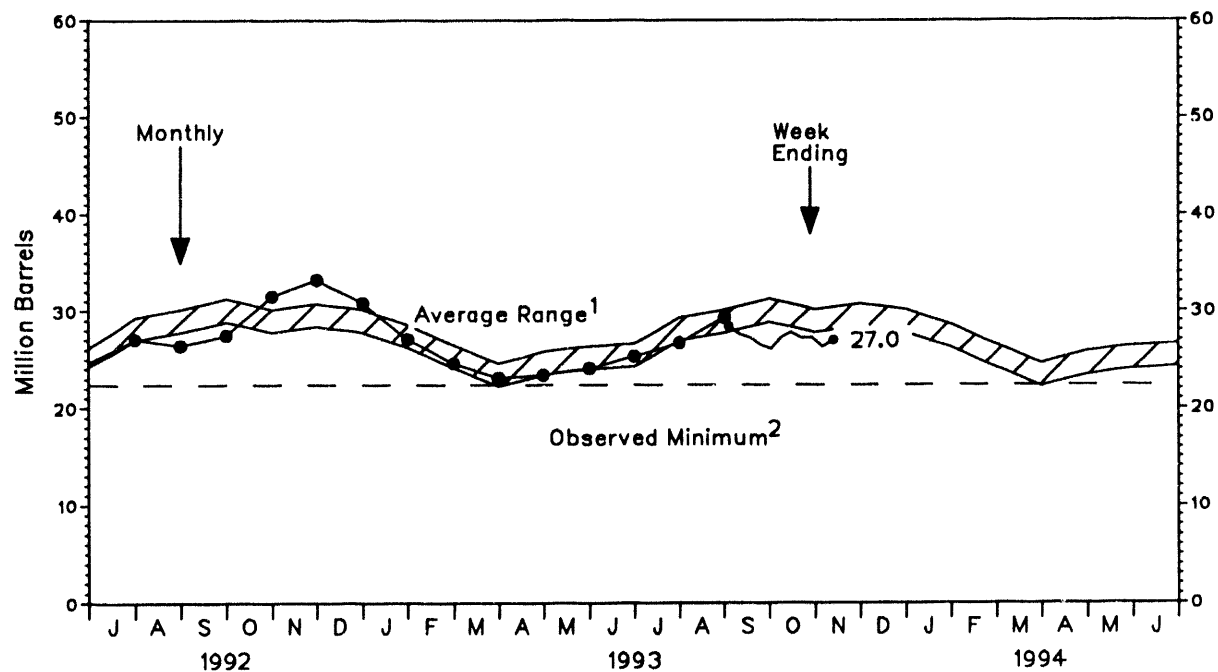


<sup>1</sup> Average level and width of average range are based on 3 years of monthly data: July 1990-June 1993. <sup>3</sup> The seasonal pattern is based on 7 years of monthly data.

<sup>2</sup> The Observed Minimum for distillate fuel oil stocks in the last 36 month period was 26.9 million barrels, occurring in May 1993.

Source: • Data for Ranges and Seasonal Patterns: 1985-1992, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, *Petroleum Supply Monthly*. • Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, and -802.

**Figure 6. PADD III (Gulf Coast) Distillate Fuel Oil Stocks**



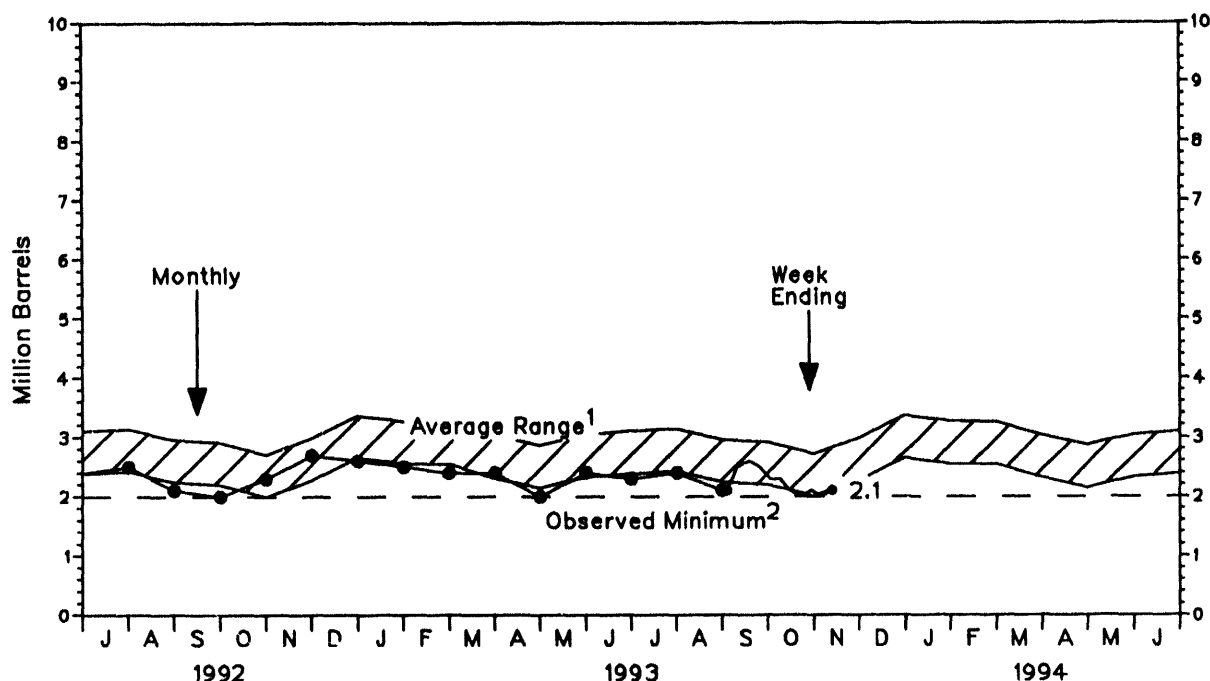
<sup>1</sup> Average level and width of average range are based on 3 years of monthly data: July 1990-June 1993. The seasonal pattern is based on 7 years of monthly data.

<sup>2</sup> The Observed Minimum for distillate fuel oil stocks in the last 36 month period was 22.5 million barrels, occurring in February 1992.

Source: • Data for Ranges and Seasonal Patterns: 1985-1992, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, *Petroleum Supply Monthly*. • Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, and -802.

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**Figure 7. PADD IV (Rocky Mountain) Distillate Fuel Oil Stocks**

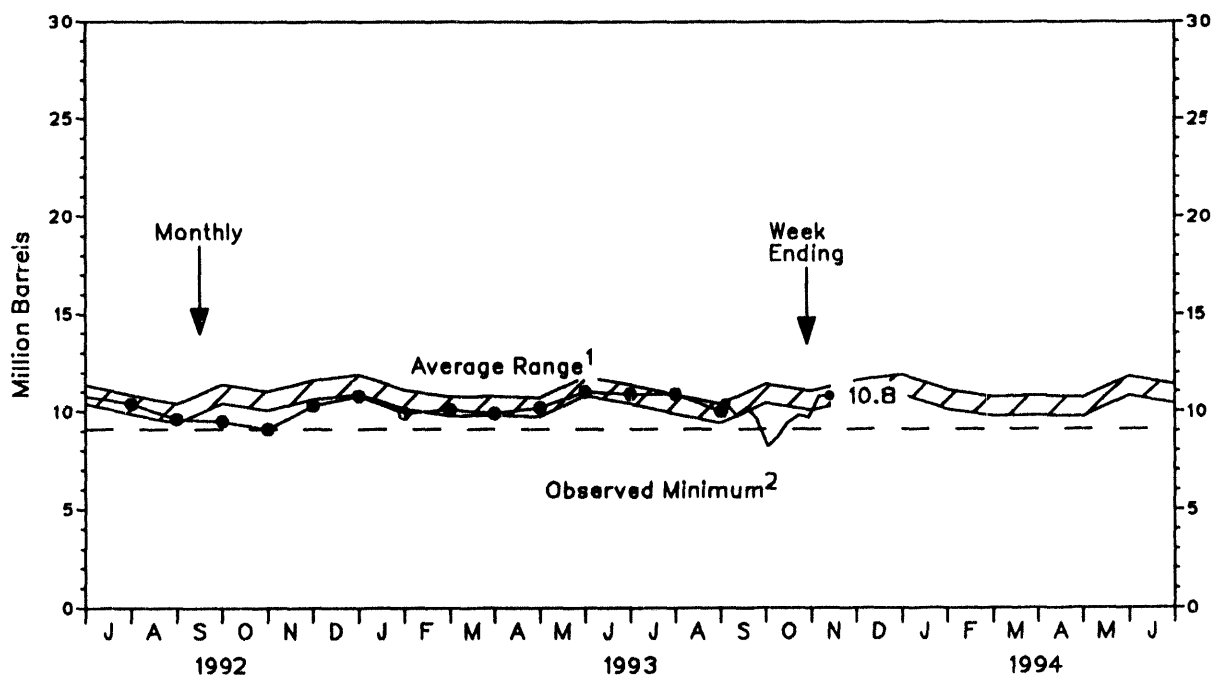


<sup>1</sup> Average level and width of average range are based on 3 years of monthly data: July 1990-June 1993. The seasonal pattern is based on 7 years of monthly data.

<sup>2</sup> The Observed Minimum for distillate fuel oil stocks in the last 36 month period was 2.0 million barrels, occurring in September 1992.

Source: • Data for Ranges and Seasonal Patterns: 1985-1992, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, *Petroleum Supply Monthly*. • Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, and -802.

**Figure 8. PADD V (West Coast) Distillate Fuel Oil Stocks**

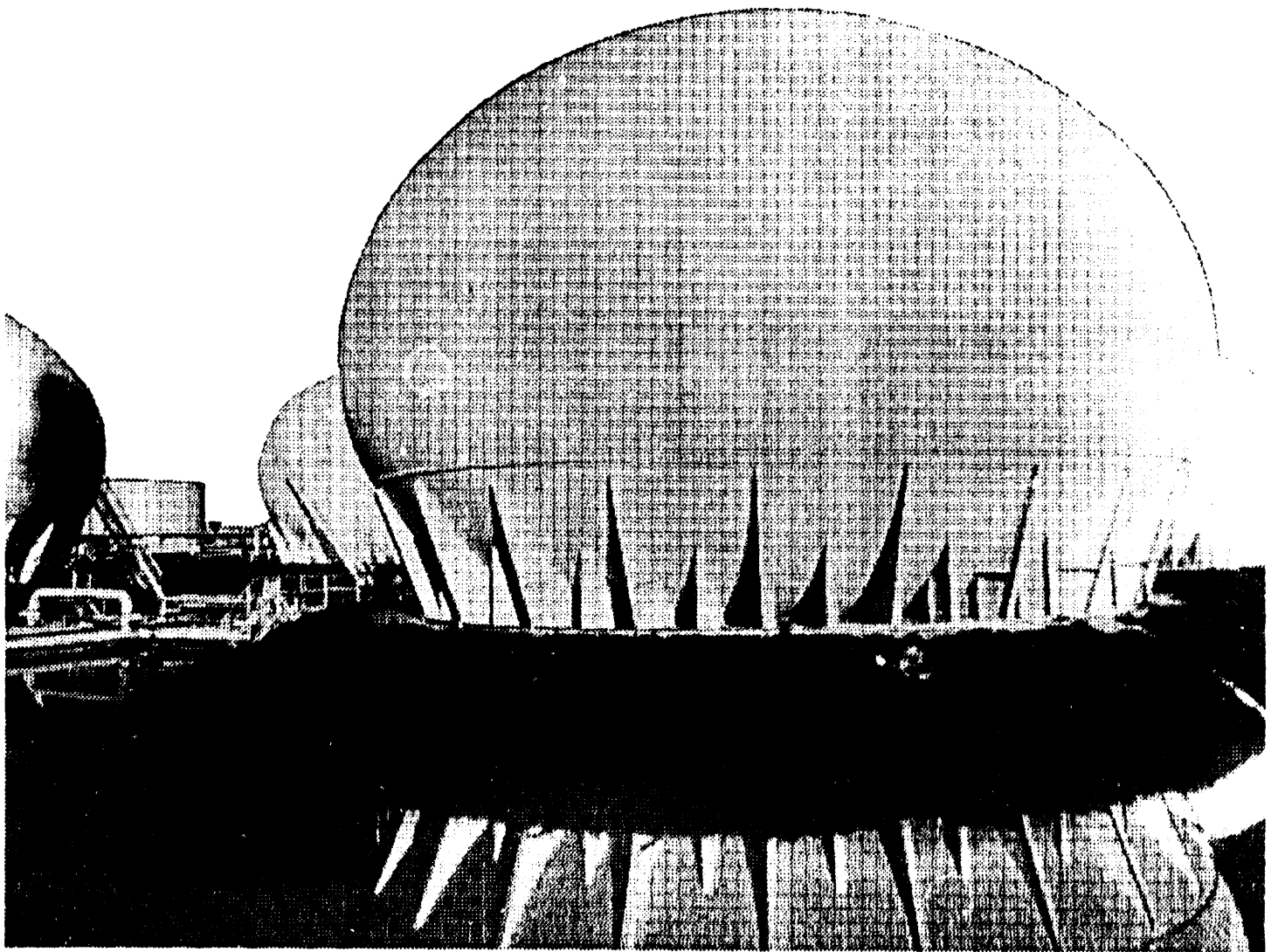


<sup>1</sup> Average level and width of average range are based on 3 years of monthly data: July 1990-June 1993. The seasonal pattern is based on 7 years of monthly data.

<sup>2</sup> The Observed Minimum for distillate fuel oil stocks in the last 36 month period was 9.1 million barrels, occurring in October 1992.

Source: • Data for Ranges and Seasonal Patterns: 1985-1992, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, *Petroleum Supply Monthly*. • Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, and -802.

# Propane



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

**Table 2. Monthly and Weekly Net Production, Imports, and Stocks of Propane/Propylene by Petroleum Administration for Defense Districts (PADD) I, II, and III**  
(Thousand Barrels per Day, Except Where Noted)

District/Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Total U.S.</b>												
<b>Net Production *</b>												
1991	920	923	912	900	922	906	901	891	905	902	930	964
1992	949	955	940	961	977	978	964	946	931	933	964	977
1993	965	959	971	973	942	958	956	945				
<b>Imports</b>												
1991	105	90	56	101	90	81	91	73	92	146	82	86
1992	90	86	68	80	72	66	68	85	71	104	99	131
1993	72	78	85	112	96	75	105	116				
<b>Stocks (Million Barrels)</b>												
1991	35.0	30.1	29.8	35.2	41.8	48.5	51.0	52.3	51.6	52.7	51.6	47.6
1992	38.9	33.1	32.6	36.2	44.1	50.3	55.7	59.3	60.8	58.1	50.8	38.9
1993	33.5	26.2	21.8	28.8	36.9	44.9	52.1	57.8	E 64.7			
<b>Week Ending</b>												
1993	10/08 E 65.1	10/15 E 66.0	10/22 E 65.8	10/29 E 64.9	11/05 E 63.4	11/12 E 60.1						
<b>East Coast (PADD I)</b>												
<b>Net Production *</b>												
1991	55	54	56	47	54	52	50	47	49	48	50	58
1992	60	60	60	56	52	60	56	54	54	63	63	65
1993	57	55	53	53	52	59	56	54				
<b>Week Ending</b>												
1993	10/08 E 56	10/15 E 60	10/22 E 67	10/29 E 59	11/05 E 54	11/12 E 67						
<b>Imports</b>												
1991	24	17	18	16	7	15	3	4	22	13	18	26
1992	23	27	19	14	13	16	8	11	15	12	27	22
1993	21	23	16	23	4	17	8	4				
<b>Week Ending</b>												
1993	10/08 E 37	10/15 E 8	10/22 E 11	10/29 E 9	11/05 E 74	11/12 E 10						
<b>Stocks (Million Barrels)</b>												
1991	4.1	3.5	3.8	4.2	4.1	4.2	3.9	3.3	3.6	4.1	4.2	4.1
1992	2.9	2.6	2.4	2.4	2.7	3.1	3.5	4.0	4.3	4.3	4.7	3.7
1993	3.2	2.0	1.6	2.1	2.5	3.8	4.3	4.2	E 4.5			
<b>Week Ending</b>												
1993	10/08 E 4.6	10/15 E 4.4	10/22 E 4.5	10/29 E 4.5	11/05 E 4.6	11/12 E 4.4						

See footnotes at end of table.



**Table 2. Monthly and Weekly Net Production, Imports, and Stocks of Propane/Propylene by Petroleum Administration for Defense Districts (PADD) I, II, and III (Continued)**  
(Thousand Barrels per Day Except Where Noted)

District/Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>New England (PADD 1X)</b>												
Net Production <sup>a</sup>												
1991	0	0	0	0	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0	0	0	0	0
1993	0	0	0	0	0	0	0	0				
Week Ending												
1993	10/08 E 0	10/15 E 0	10/22 E 0	10/29 E 0	11/05 E 0	11/12 E 0						
<b>Imports</b>												
1991	16	11	13	13	1	13	1	1	13	8	8	14
1992	12	18	7	7	7	7	5	8	8	1	13	9
1993	10	11	5	14	2	15	2	2				
Week Ending												
1993	10/08 E 1	10/15 E 2	10/22 E 2	10/29 E 2	11/05 E 65	11/12 E 2						
<b>Stocks (Million Barrels)</b>												
1991	0.5	0.3	0.3	0.6	0.2	0.4	0.3	0.1	0.4	0.4	0.4	0.5
1992	0.3	0.5	0.4	0.3	0.3	0.3	0.3	0.5	0.5	0.3	0.5	0.5
1993	0.5	0.3	0.1	0.4	0.2	0.7	0.5	0.2	E 0.6			
Week Ending												
1993	10/08 E 0.7	10/15 E 0.6	10/22 E 0.5	10/29 E 0.4	11/05 E 0.7	11/12 E 0.6						
<b>Central Atlantic (PADD 1Y)</b>												
Net Production <sup>a</sup>												
1991	42	42	43	36	43	45	42	38	39	39	40	47
1992	48	49	49	45	45	49	45	42	43	51	51	52
1993	46	42	40	41	42	47	45	42				
Week Ending												
1993	10/08 E 48	10/15 E 53	10/22 E 60	10/29 E 52	11/05 E 48	11/12 E 60						
<b>Imports</b>												
1991	5	6	5	3	2	1	2	3	2	5	7	7
1992	8	9	8	7	6	3	3	3	4	10	10	9
1993	11	12	11	4	3	2	2	2				
Week Ending												
1993	10/08 E 4	10/15 E 7	10/22 E 9	10/29 E 7	11/05 E 9	11/12 E 8						
<b>Stocks (Million Barrels)</b>												
1991	1.7	1.4	1.2	1.3	1.6	1.9	1.8	1.8	2.0	2.0	1.8	1.6
1992	1.1	0.9	0.9	0.8	1.2	1.5	1.9	2.0	2.1	2.2	2.1	1.5
1993	1.2	0.6	0.6	0.6	1.1	1.8	2.2	2.2	E 2.2			
Week Ending												
1993	10/08 E 2.1	10/15 E 2.0	10/22 E 2.2	10/29 E 2.2	11/05 E 2.2	11/12 E 2.1						

See footnotes at end of table.

**Table 2. Monthly and Weekly Net Production, Imports, and Stocks of Propane/Propylene by Petroleum Administration for Defense Districts (PADD) I, II, and III (Continued)**  
(Thousand Barrels per Day Except Where Noted)

District/Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Lower Atlantic (PADD 12)</b>												
<b>Net Production <sup>a</sup></b>												
1991	12	11	13	12	12	7	8	10	10	10	10	11
1992	12	11	11	11	7	11	11	11	11	12	13	13
1993	12	13	14	12	9	12	11	12				
<b>Week Ending</b>												
1993	10/08 E 8	10/15 E 7	10/22 E 7	10/29 E 7	11/05 E 7	11/12 E 7						
<b>Imports</b>												
1991	3	0	0	0	4	0	0	0	7	0	4	5
1992	3	0	3	0	0	6	0	0	3	0	4	3
1993	0	0	0	5	0	0	5	0				
<b>Week Ending</b>												
1993	10/08 E 32	10/15 E 0	10/22 E 0	10/29 E 0	11/05 E 0	11/12 E 0						
<b>Stocks (Million Barrels)</b>												
1991	1.9	1.8	2.3	2.3	2.3	1.9	1.8	1.4	1.2	1.7	2.0	2.0
1992	1.4	1.1	1.2	1.2	1.1	1.3	1.2	1.5	1.7	1.9	2.1	1.6
1993	1.5	1.0	0.9	1.1	1.3	1.4	1.6	1.7	E 1.7			
<b>Week Ending</b>												
1993	10/08 E 1.8	10/15 E 1.8	10/22 E 1.8	10/29 E 1.8	11/05 E 1.7	11/12 E 1.7						
<b>Midwest (PADD II)</b>												
<b>Net Production <sup>a</sup></b>												
1991	217	229	219	214	215	208	214	211	210	213	217	231
1992	231	234	216	210	214	223	214	223	216	212	227	222
1993	228	212	222	225	209	217	207	212				
<b>Week Ending</b>												
1993	10/08 E 215	10/15 E 212	10/22 E 208	10/29 E 207	11/05 E 211	11/12 E 219						
<b>Imports</b>												
1991	63	59	33	40	44	41	34	47	49	52	45	53
1992	59	55	47	43	42	40	32	45	43	60	61	74
1993	44	43	47	41	41	29	45	48				
<b>Week Ending</b>												
1993	10/08 E 28	10/15 E 40	10/22 E 47	10/29 E 82	11/05 E 65	11/12 E 46						
<b>Stocks (Million Barrels)</b>												
1991	12.9	11.1	11.7	13.8	17.1	20.2	21.8	23.3	22.9	22.6	20.3	17.7
1992	14.3	12.9	13.4	15.4	18.4	20.9	23.4	24.5	24.6	21.6	16.3	11.6
1993	10.7	7.7	7.4	9.9	12.7	15.5	18.4	20.9	E 23.4			
<b>Week Ending</b>												
1993	10/08 E 23.5	10/15 E 23.7	10/22 E 23.6	10/29 E 22.8	11/05 E 21.2	11/12 E 20.2						

See footnotes at end of table.

**Table 2. Monthly and Weekly Net Production, Imports, and Stocks of Propane/Propylene by Petroleum Administration for Defense Districts (PADD) I, II, and III (Continued)**  
(Thousand Barrels per Day Except Where Noted)

District/Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Gulf Coast (PADD III)</b>												
<b>Net Production *</b>												
1991	545	544	535	539	549	543	539	533	553	540	562	575
1992	560	559	563	584	602	590	587	569	559	558	569	586
1993	577	590	590	593	583	585	595	581				
<b>Week Ending</b>												
1993	10/08 E 539	10/15 E 565	10/22 E 602	10/29 E 625	11/05 E 540	11/12 E 561						
<b>Imports</b>												
1991	7	7	0	41	36	22	51	16	15	73	8	0
1992	0	0	0	20	14	7	26	28	10	29	7	29
1993	0	7	19	45	48	27	50	61				
<b>Week Ending</b>												
1993	10/08 E 44	10/15 E 83	10/22 E 5	10/29 E 5	11/05 E 81	11/12 E 64						
<b>Stocks (Million Barrels)</b>												
1991	17.2	14.8	13.6	16.5	19.7	22.9	23.9	23.9	22.9	23.6	24.7	23.9
1992	20.5	16.5	15.7	17.4	21.6	24.7	27.0	28.7	29.8	29.9	27.8	22.1
1993	18.8	15.9	12.2	16.2	20.7	24.3	28.0	31.0	E 35.2			
<b>Week Ending</b>												
1993	10/08 E 35.4	10/15 E 36.3	10/22 E 36.1	10/29 E 36.0	11/05 E 36.0	11/12 E 34.0						

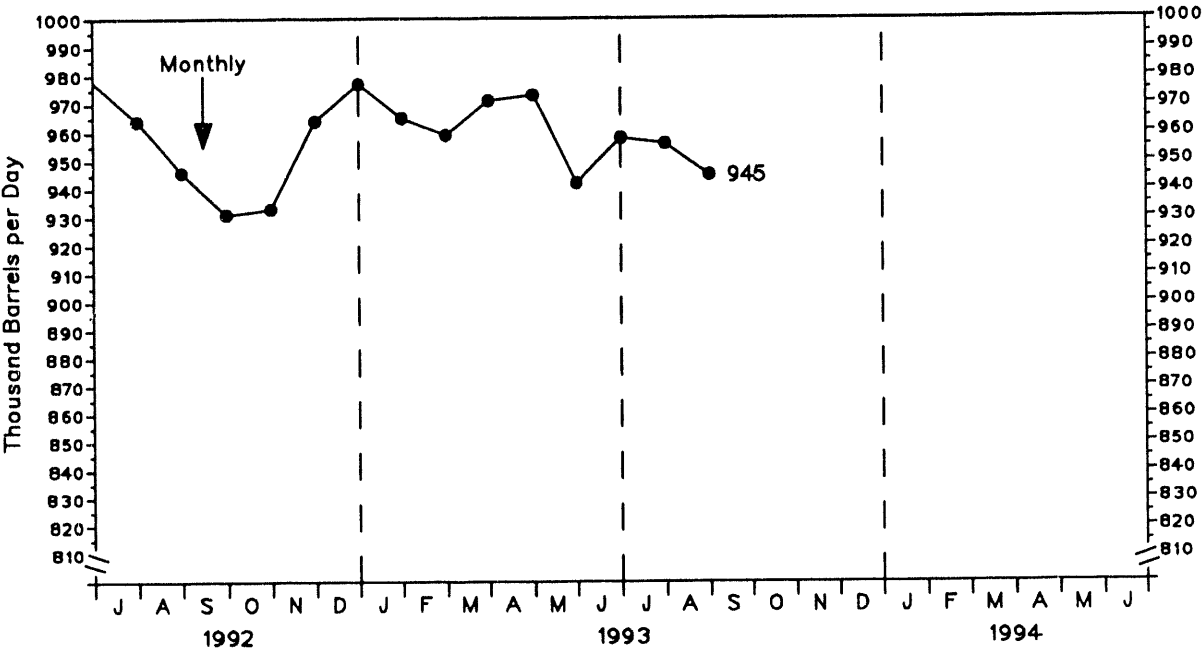
\* Net production equals gross production minus input. Negative production will occur when the amount of product produced during the month is less than the amount of that same product reprocessed (input) or reclassified to become another product during the same month.

E - Estimated data.

Note: • This table presents weekly data, derived from a cut-off sample of refineries and fractionators that produce propane and from companies that import or store propane, which have been extrapolated to the universe of companies reporting in PADD's I, II, and III. • Totals may not equal sum of components due to independent rounding.

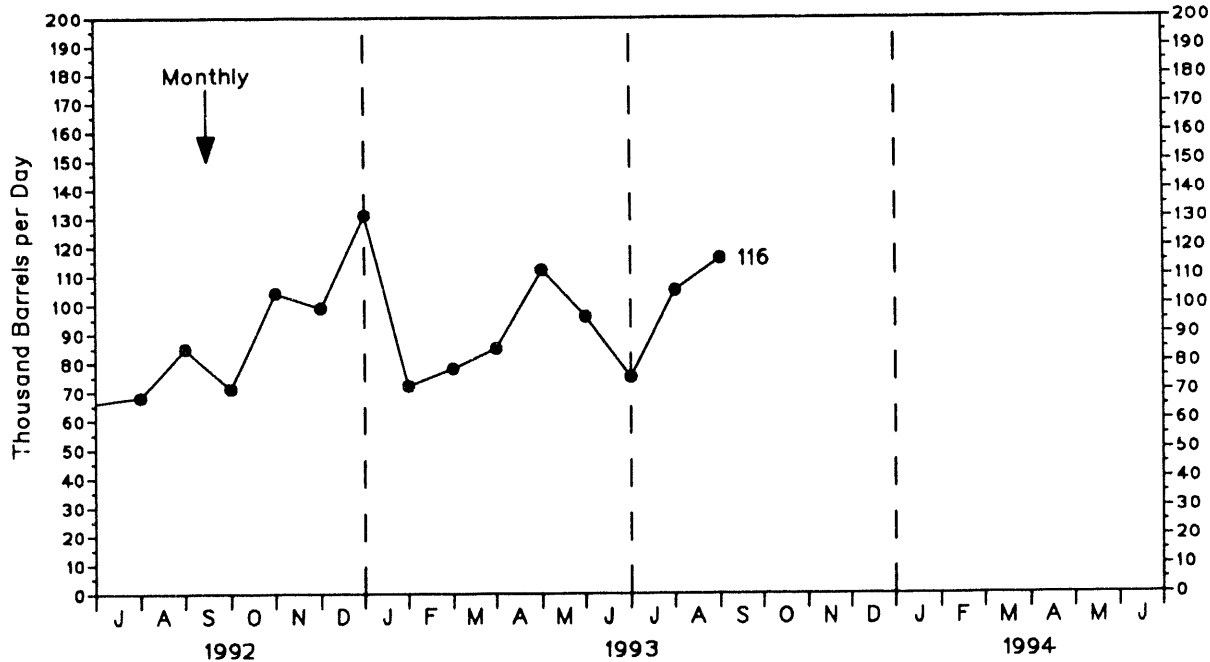
Source: Energy Information Administration (EIA), Monthly Petroleum Supply Reporting System and data collected on Form EIA-807, "Propane Telephone Survey." Magnitudes of revisions to monthly data are published in Appendix C of the *Petroleum Supply Monthly*.

Figure 9. U.S. Propane Production



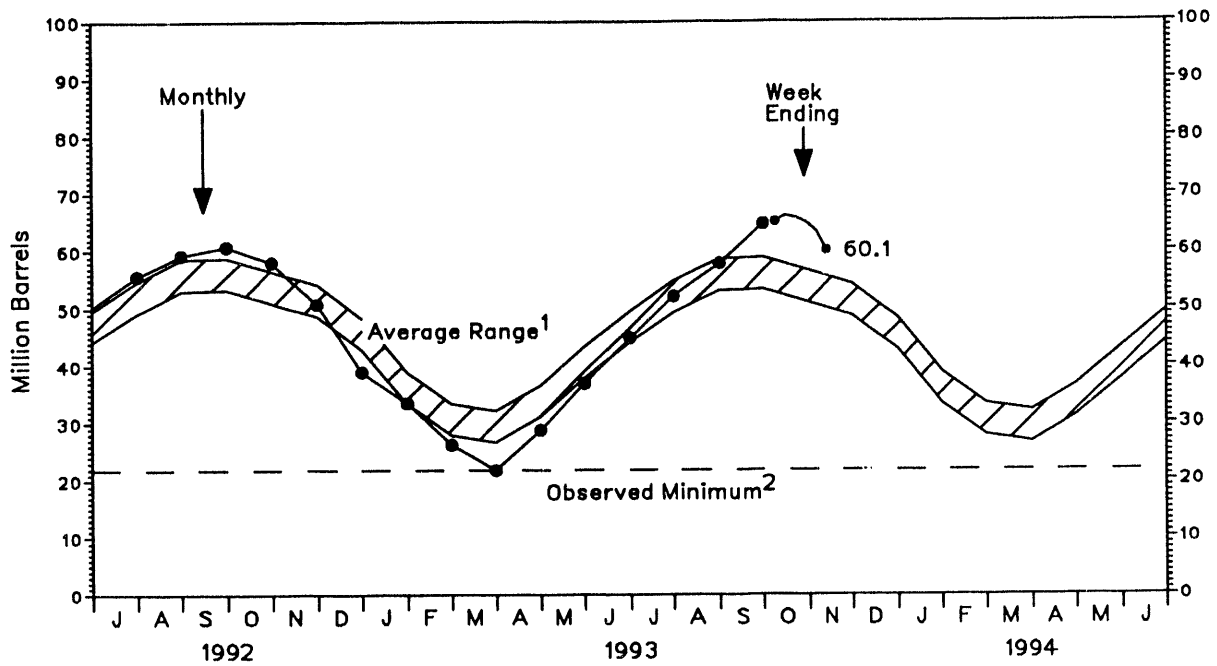
Source: 1992, EIA, *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*.

Figure 10. U.S. Propane Imports



Source: 1992, EIA, *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*.

**Figure 11. U.S. Propane Stocks**

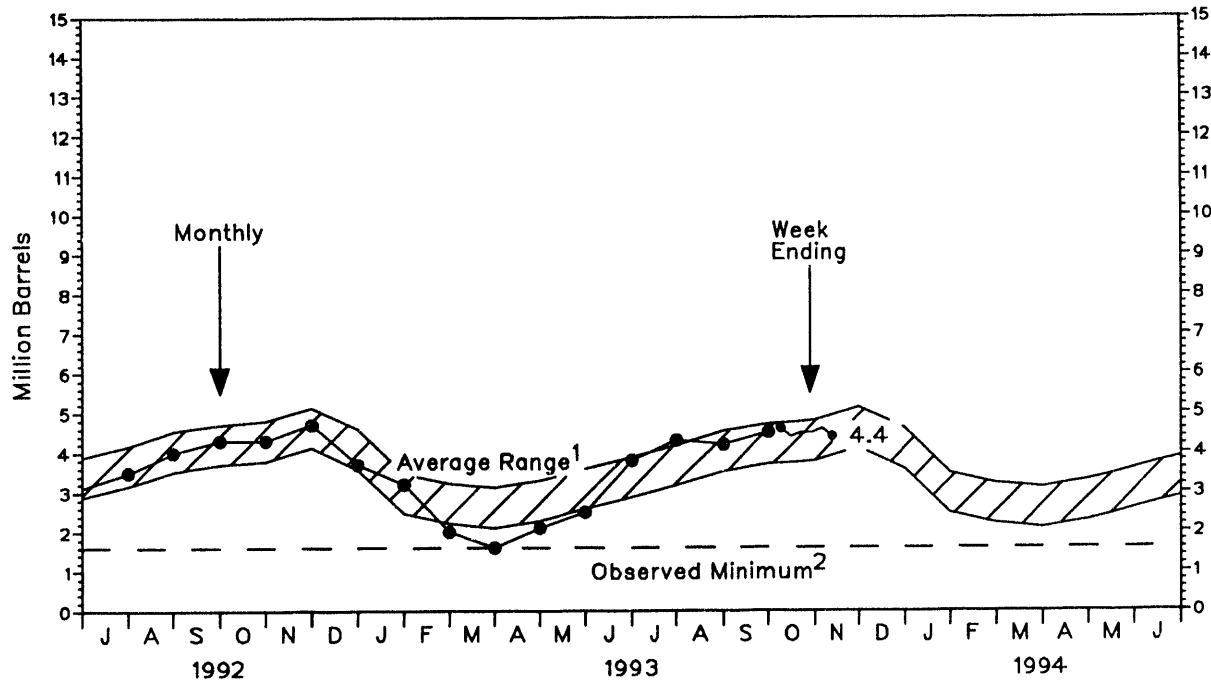


<sup>1</sup> Average level and width of average range are based on 3 years of monthly data: July 1990-June 1993. The seasonal pattern is based on 7 years of monthly data.

<sup>2</sup> The Observed Minimum for propane stocks in the last 36 month period was 21.8 million barrels, occurring in March 1993.

Source: • Data for Ranges and Seasonal Patterns: 1985-1992, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*. • Week-Ending Stocks: Estimates based on data from Table H1.

**Figure 12. PADD I (East Coast) Propane Stocks**



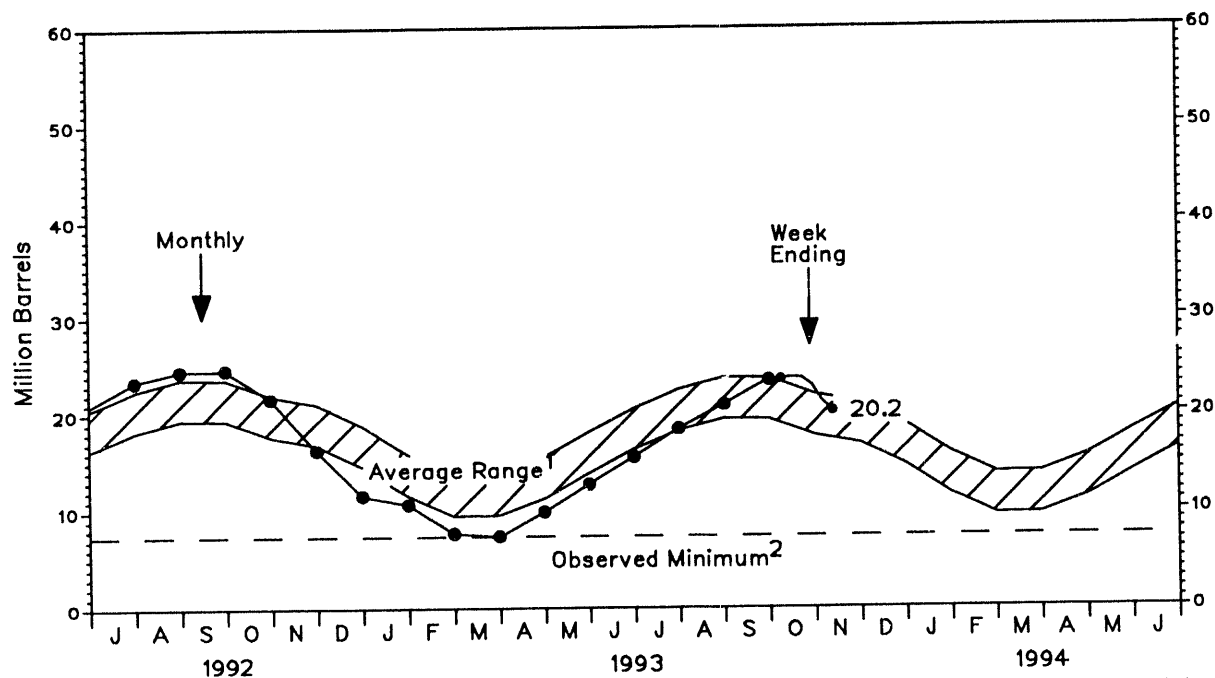
<sup>1</sup> Average level and width of average range are based on 3 years of monthly data: July 1990-June 1993. The seasonal pattern is based on 7 years of monthly data.

<sup>2</sup> The Observed Minimum for propane stocks in the last 36 month period was 1.6 million barrels, occurring in March 1993.

Source: • Data for Ranges and Seasonal Patterns: 1985-1992, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*. • Week-Ending Stocks: Estimates based on data collected on Form EIA-807, "Propane Telephone Survey."

Period Ending 11/12/93 Energy Information Administration/Winter Fuels Report

Figure 13. PADD II (Midwest) Propane Stocks

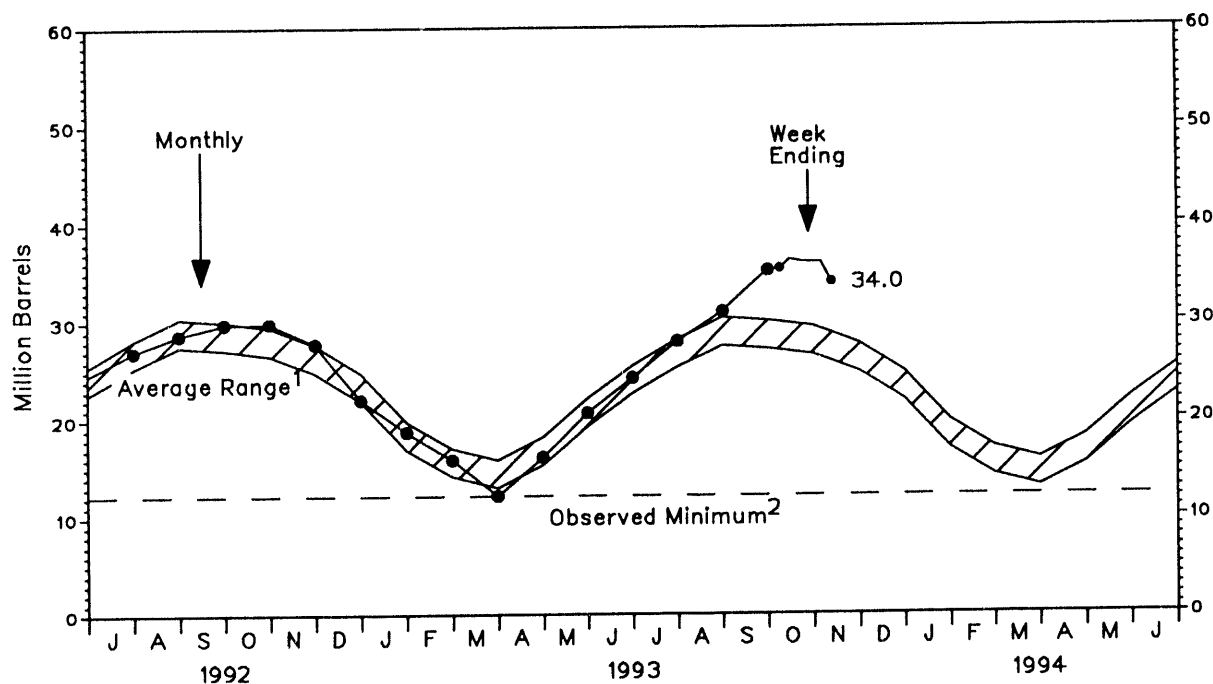


<sup>1</sup> Average level and width of average range are based on 3 years of monthly data: July 1990-June 1993. The seasonal pattern is based on 7 years of monthly data.

<sup>2</sup> The Observed Minimum for propane stocks in the last 36 month period was 7.4 million barrels, occurring in March 1993.

Source: • Data for Ranges and Seasonal Patterns: 1985-1992, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*. • Week-Ending Stocks: Estimates based on data collected on Form EIA-807, "Propane Telephone Survey."

Figure 14. PADD III (Gulf Coast) Propane Stocks

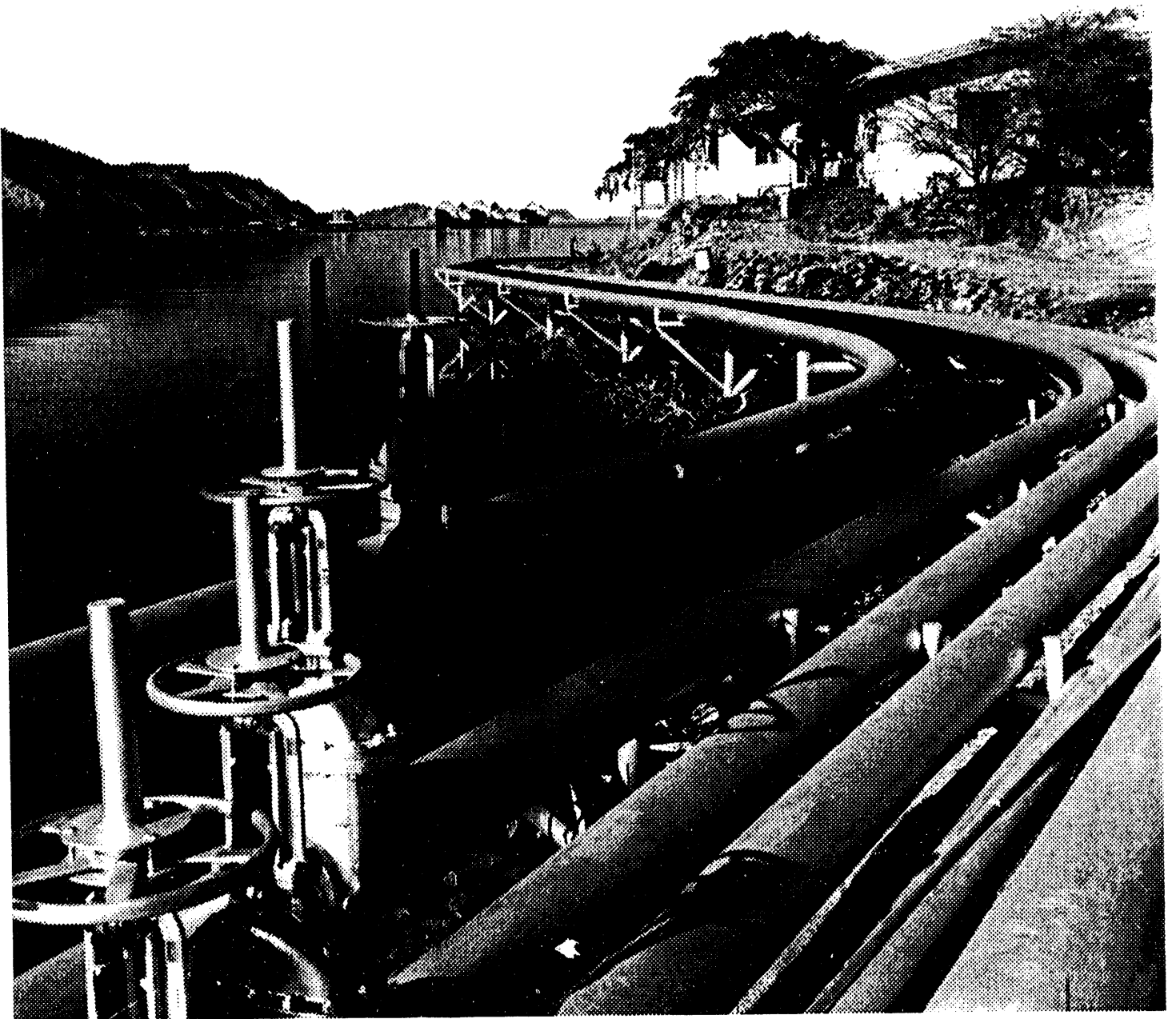


<sup>1</sup> Average level and width of average range are based on 3 years of monthly data: July 1990-June 1993. The seasonal pattern is based on 7 years of monthly data.

<sup>2</sup> The Observed Minimum for propane stocks in the last 36 month period was 12.2 million barrels, occurring in March 1993.

Source: • Data for Ranges and Seasonal Patterns: 1985-1992, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1992, EIA, *Petroleum Supply Annual*; 1993, EIA, *Petroleum Supply Monthly*. • Week-Ending Stocks: Estimates based on data collected on Form EIA-807, "Propane Telephone Survey."

# Natural Gas



*Pipelines carry natural gas across geographic regions.*

**Table 3. Supply and Disposition of Dry Natural Gas In the United States**  
(Billion Cubic Feet)

Year and Month	Supply					Total Supply/Disposition <sup>c</sup>	Disposition		
	Total Dry Gas Production	Withdrawals from Storage <sup>a</sup>	Supplemental Gaseous Fuels	Imports	Balancing Item <sup>b</sup>		Additions to Storage <sup>a</sup>	Exports	Consumption <sup>d</sup>
1987 Total	16,621	1,905	101	993	-444	19,176	1,911	54	17,211
1988 Total	17,103	2,270	101	1,294	-453	20,315	2,211	74	18,030
1989 Total	17,311	2,854	107	1,382	-218	21,435	2,528	107	18,801
1990 Total	17,810	1,986	123	1,532	-149	21,302	2,499	86	18,716
<b>1991</b>									
January	1,610	717	12	163	-90	2,412	104	10	2,299
February	1,417	422	10	138	38	2,024	102	11	1,912
March	1,535	300	11	151	-29	1,968	118	10	1,840
April	1,462	94	9	144	76	1,786	234	9	1,542
May	1,453	48	9	141	36	1,688	343	8	1,337
June	1,385	31	7	133	-13	1,545	339	7	1,199
July	1,339	65	9	135	-9	1,599	307	8	1,283
August	1,405	71	9	127	-31	1,591	298	10	1,274
September	1,398	67	8	134	-53	1,554	312	11	1,231
October	1,509	93	9	157	-75	1,693	260	14	1,419
November	1,528	366	9	169	-226	1,846	140	15	1,691
December	1,597	477	11	181	-125	2,141	114	18	2,009
<b>Total</b>	<b>17,698</b>	<b>2,752</b>	<b>113</b>	<b>1,773</b>	<b>-500</b>	<b>21,836</b>	<b>2,672</b>	<b>129</b>	<b>19,035</b>
<b>1992</b>									
January	1,586	624	12	165	-71	2,315	60	16	2,239
February	1,398	463	11	175	42	2,089	45	14	2,031
March	1,475	397	11	180	-42	2,022	74	23	1,926
April	1,447	142	10	176	89	1,864	161	18	1,685
May	1,485	44	9	174	68	1,780	344	19	1,418
June	1,444	35	8	162	16	1,666	394	18	1,264
July	1,491	42	8	167	-8	1,700	373	16	1,311
August	1,451	46	8	175	-19	1,662	380	18	1,264
September	1,437	40	8	166	-24	1,629	362	18	1,249
October	1,533	70	10	176	-130	1,659	271	19	1,368
November	1,514	282	11	210	-239	1,778	88	19	1,672
December	1,579	587	12	209	-191	2,195	58	19	2,119
<b>Total</b>	<b>17,840</b>	<b>2,772</b>	<b>118</b>	<b>2,138</b>	<b>-508</b>	<b>22,360</b>	<b>2,599</b>	<b>216</b>	<b>19,544</b>
<b>1993</b>									
January	1,609	605	13	198	-64	2,361	50	18	2,293
February	1,424	578	12	183	13	2,211	27	13	2,171
March	1,563	381	12	199	75	2,230	78	17	2,136
April	1,518	111	10	185	76	1,901	219	12	1,670
May	1,530	25	8	160	26	1,749	447	12	1,289
June	1,479	43	10	178	-6	1,704	416	11	1,278
July	£ 1,490	48	£ 9	£ 178	30	1,755	398	£ 15	1,342
August	£ 1,454	98	£ 9	£ 165	38	1,763	419	£ 13	£ 1,332
1993 YTD	10,613	1,792	75	1,282	150	13,911	1,633	97	12,180
1992 YTD	10,326	1,747	68	1,200	95	13,437	1,441	123	11,873
1991 YTD	10,261	1,677	67	1,006	11	13,021	1,548	61	11,412

<sup>a</sup> Monthly and annual data for 1987 through 1992 include underground storage and liquefied natural gas storage. Data for January 1993 forward include underground storage only. See Appendix A, Explanatory Note 7 of the *Natural Gas Monthly* (NGM) for discussion of computation procedures.

<sup>b</sup> Represents quantities lost and imbalances in data due to differences among data sources. See Appendix A, Explanatory Note 10 of the NGM for full discussion.

<sup>c</sup> Total data for 1987 through 1992 do not equal equivalent data in Table 1 of the *Natural Gas Annual* (NGA) 1992 due to the exclusion of intransit receipts and deliveries in the NGM.

<sup>d</sup> Consists of pipeline fuel use, lease and plant fuel use, and deliveries to consuming sectors as shown in Table 3 of the NGM.

£ = Estimated data.

Notes: • Data for 1987 through 1992 are final. All other data are preliminary unless otherwise indicated. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Sources: • Total Dry Gas Production: EIA, NGA 1992, 1987 through 1992; IOGCC, MMS reporting, and EIA estimates, January 1993 through current month. See Appendix A, Explanatory Note 3 of the NGM for estimation procedures and revision policy. • Withdrawals from and Additions to Storage: EIA, NGA 1992, 1987 through 1992; for EIA-191, January 1993 through current month. • Supplemental Gaseous Fuels: EIA, NGA 1992, 1987 through 1992; and EIA computations, January 1993 through current month. See Appendix A, Explanatory Note 2 of the NGM for discussion of procedures and revision policy. • Imports and Exports: Form FPC-14, 1987 through 1992; and estimates, January 1993 through the current month. See Appendix A, Explanatory Note 4 of the NGM for discussion of procedures and revision policy. • Consumption and Balancing Item: EIA, NGA 1992, 1987 through 1992; and EIA computations, January 1993 through current month. See Appendix A, Explanatory Notes 5 and 10 of the NGM for discussion of computation procedures and revision policy.



**Table 4. Underground Natural Gas Storage in the United States (All Operators)**  
(Billion Cubic Feet)

Year and Month	Natural Gas in Underground Storage at End of Period			Change in Working Gas from Same Period Previous Year		Storage Activity		
	Base Gas	Working Gas	Total <sup>b</sup>	Volume	Percent	Injections	Withdrawals	Net <sup>c</sup>
1987 Total <sup>a</sup>	3 792	2 756	6 548	7	0.3	1 887	1 881	6
1988 Total <sup>a</sup>	3 800	2 850	6 650	94	3.4	2 174	2 244	-69
1989 Total <sup>a</sup>	3 812	2 513	6 325	-337	-11.8	2 491	2 804	-313
1990 Total <sup>a</sup>	3 868	3 068	6 936	555	22.1	2 433	1 934	499
<b>1991</b>								
January	3 911	2 362	6 273	92	4.1	115	659	-545
February	3 909	2 063	5 972	59	2.9	112	397	-295
March	3 895	1 912	5 806	37	2.0	129	291	-162
April	3 898	2 037	5 935	91	4.7	228	104	124
May	3 931	2 273	6 204	93	4.3	319	58	261
June	3 939	2 553	6 492	68	2.7	314	42	272
July	3 942	2 771	6 713	-20	-7	289	75	214
August	3 949	2 978	6 927	-93	-3.0	282	82	200
September	3 950	3 201	7 151	-120	-3.6	294	78	216
October	3 961	3 369	7 330	-98	-2.8	251	103	148
November	3 952	3 148	7 100	-324	-9.3	150	352	-202
December	3 954	2 824	6 778	-244	-8.0	125	418	-323
Total	3 954	2 824	6 778	-244	-8.0	2 608	2 689	-80
<b>1992</b>								
January	4 061	2 216	6 277	-146	-6.2	68	591	-524
February	4 057	1 837	5 894	-228	-10.9	52	441	-389
March	4 046	1 545	5 591	-367	-19.2	81	381	-301
April	4 038	1 573	5 611	-463	-22.8	167	150	19
May	4 044	1 848	5 892	-425	-19.7	330	53	277
June	4 050	2 153	6 203	-400	-15.7	366	43	323
July	4 064	2 480	6 524	-311	-11.2	357	50	307
August	4 062	2 761	6 823	-217	-7.3	364	54	309
September	4 061	3 044	7 105	-157	-4.9	346	48	298
October	4 065	3 223	7 288	-146	-4.3	264	73	186
November	4 061	3 054	7 115	-94	-3.0	95	276	-181
December	4 044	2 597	6 641	-227	-8.0	65	557	-491
Total	48 653	28 311	76 964	-3 180	-10.1	2 555	2 724	-168
<b>1993</b>								
January	4 040	2 045	6 096	-170	-7.7	50	605	-556
February	4 014	1 519	5 532	-319	-17.3	27	578	-552
March	3 993	1 237	5 230	-308	-19.9	78	381	-304
April	3 999	1 335	5 334	-238	-15.1	219	111	108
May	4 017	1 738	5 755	-111	-6.0	447	25	423
June	4 029	2 100	6 129	-53	-2.5	416	43	372
July	4 030	2 465	6 495	5	2	398	48	350
August	4 254	2 566	6 820	-195	-7.1	419	98	321

<sup>a</sup> Total as of December 31.

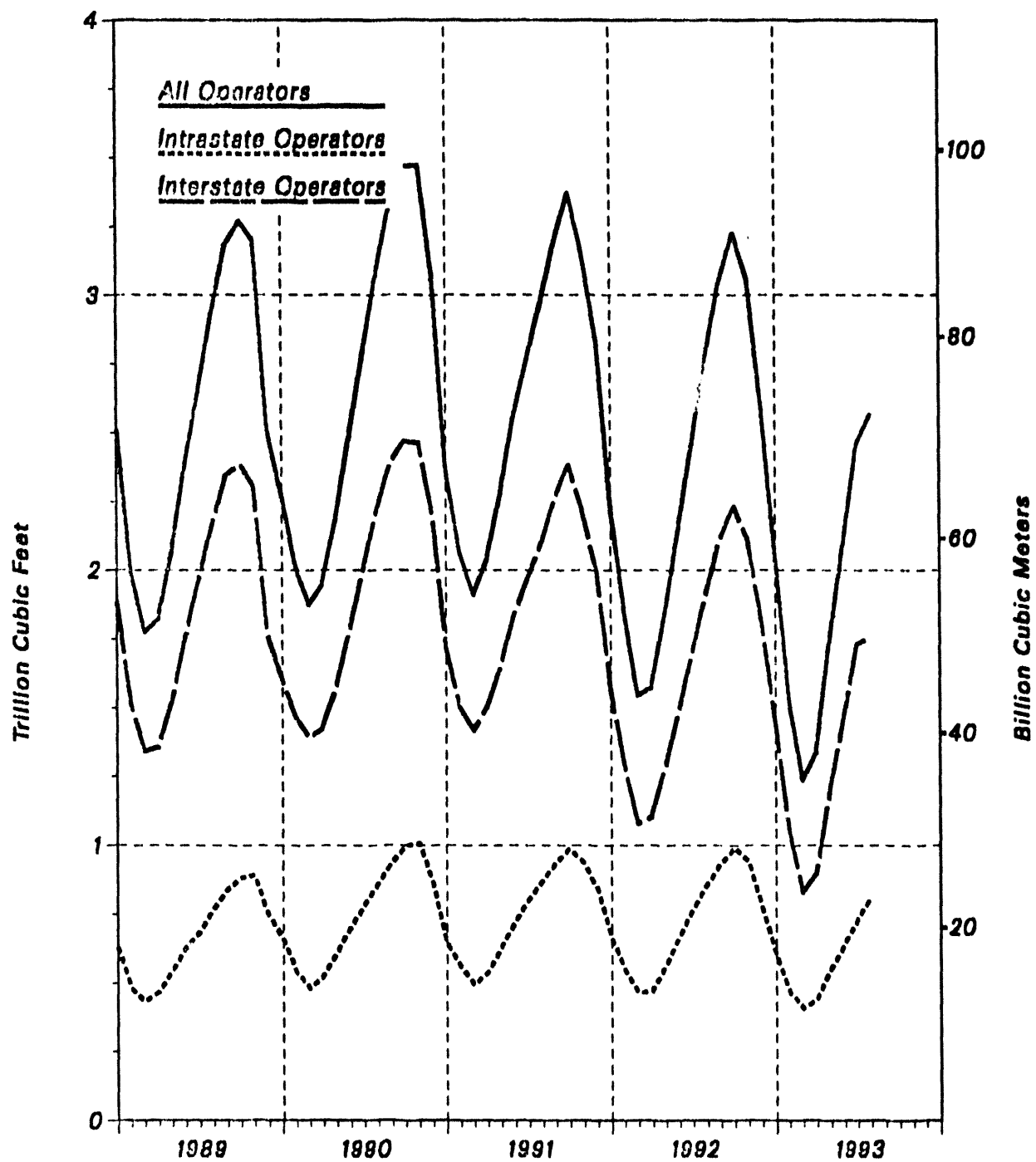
<sup>b</sup> Total underground storage capacity at the end of each calendar year (in billion cubic feet): 1987, 1988, and 1989 - 8,124; 1990 - 8,125; 1991 - 7,993; and 1992 - 7,932.

<sup>c</sup> Positive numbers indicate the volume of injections in excess of withdrawals. Negative numbers indicate the volume of withdrawals in excess of injections.

Notes: • Data for 1987 through 1992 are final. All other data are preliminary unless otherwise noted. See Appendix A, Explanatory Note 7 of the *Natural Gas Monthly* for discussion of revision policy. • Gas in storage at the end of a reporting period may not equal the quantity derived by adding or subtracting net injections or withdrawals during the period to the quantity of gas in storage at the beginning of the period. This is due to changes in the quantities of native gas included in base gas and/or losses in base gas due to migration from storage reservoirs. • Totals may not equal sum of components due to independent rounding. • Geographic coverage is the 50 States and the District of Columbia.

Sources: Form EIA-191, Form FERC-8, and Form EIA-176.

Figure 15. Underground Natural Gas Storage In the United States, 1989 - 1993



Source: Energy Information Administration (EIA), Form EIA-191/FERC-8, "Underground Natural Gas Storage Report," and Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition," *Natural Gas Annual*, and *Natural Gas Monthly*.

**Table 5. Natural Gas Consumption by Petroleum Administration for Defense District (PADD)  
(Billion Cubic Feet)**

Year and Month	New England				Central Atlantic			
	Residential	Commercial	Industrial	Electric Utilities	Residential	Commercial	Industrial	Electric Utilities
<b>1991</b>								
January	27	14	9	2	145	70	52	15
February	26	14	9	0	131	69	45	12
March	23	13	10	2	117	61	46	17
April	17	9	11	4	80	46	45	23
May	10	6	12	4	44	28	40	33
June	6	4	11	5	26	22	37	35
July	5	4	8	8	23	22	38	44
August	4	4	9	9	21	20	37	44
September	5	4	9	5	24	21	38	27
October	8	5	11	5	43	29	44	22
November	14	8	11	2	78	44	46	19
December	21	12	11	0	118	66	49	16
<b>Total</b>	<b>166</b>	<b>97</b>	<b>122</b>	<b>47</b>	<b>850</b>	<b>504</b>	<b>514</b>	<b>306</b>
<b>1992</b>								
January	29	15	12	0	150	77	56	11
February	30	16	14	0	148	77	57	15
March	27	15	13	1	129	70	57	22
April	21	12	16	4	98	55	53	24
May	13	8	14	4	55	32	48	24
June	7	5	13	6	31	22	46	30
July	5	5	12	8	25	21	47	42
August	5	5	13	5	23	21	47	31
September	5	5	13	5	25	22	48	28
October	9	7	13	4	50	32	52	16
November	16	10	14	4	82	46	58	14
December	24	13	14	0	128	69	59	13
<b>Total</b>	<b>192</b>	<b>114</b>	<b>163</b>	<b>42</b>	<b>944</b>	<b>546</b>	<b>627</b>	<b>271</b>
<b>1993</b>								
January	30	16	14	0	148	75	62	12
February	32	17	14	0	159	80	61	13
March	29	16	14	3	151	77	64	16
April	20	11	13	4	93	51	56	16
May	11	6	13	3	45	28	50	14
June	7	5	13	3	32	24	50	26
July	5	4	12	5	23	22	47	42

See footnotes at end of table.

**Table 5. Natural Gas Consumption by Petroleum Administration for Defense District (PADD) (Continued)**  
(Billion Cubic Feet)

Year and Month	Lower Atlantic				PAD District I			
	Residential	Commercial	Industrial	Electric Utilities	Residential	Commercial	Industrial	Electric Utilities
<b>1991</b>								
January	46	28	47	15	218	118	108	32
February	40	26	42	14	197	109	96	26
March	33	23	45	16	173	97	101	35
April	18	16	43	17	115	71	99	44
May	10	12	43	20	64	46	95	57
June	8	11	41	21	40	37	89	61
July	7	10	41	26	35	36	85	78
August	7	11	43	26	32	35	89	79
September	7	11	43	21	36	36	90	53
October	12	13	45	19	63	47	100	46
November	28	19	44	15	120	71	101	36
December	39	25	44	14	178	103	103	30
<b>Total</b>	<b>254</b>	<b>206</b>	<b>522</b>	<b>225</b>	<b>1,270</b>	<b>807</b>	<b>1,158</b>	<b>578</b>
<b>1992</b>								
January	50	31	47	14	229	123	115	25
February	45	29	46	15	223	122	117	30
March	34	24	51	19	190	109	121	42
April	25	20	47	20	144	87	116	48
May	14	14	46	21	82	54	108	49
June	9	12	44	23	47	39	103	59
July	7	11	46	26	37	37	105	76
August	7	11	45	22	35	37	105	58
September	7	11	45	22	37	38	106	55
October	14	14	44	13	73	53	109	33
November	28	19	47	13	126	75	119	31
December	44	29	47	11	196	111	120	24
<b>Total</b>	<b>285</b>	<b>224</b>	<b>555</b>	<b>220</b>	<b>1,421</b>	<b>884</b>	<b>1,345</b>	<b>533</b>
<b>1993</b>								
January	48	30	51	13	226	121	127	25
February	50	31	50	14	241	128	125	27
March	46	30	52	14	226	123	130	33
April	28	20	49	14	141	82	118	34
May	12	13	45	17	68	47	108	34
June	8	11	49	21	47	40	112	50
July	7	11	51	25	35	37	110	72

See footnotes at end of table.

**Table 5. Natural Gas Consumption by Petroleum Administration for Defense District (PADD) (Continued)**  
(Billion Cubic Feet)

Year and Month	PAD District II				PAD District III			
	Residential	Commercial	Industrial	Electric Utilities	Residential	Commercial	Industrial	Electric Utilities
<b>1991</b>								
January	385	189	203	16	84	45	262	87
February	292	152	178	13	64	36	230	68
March	245	125	173	16	48	30	241	95
April	147	76	152	20	29	24	244	112
May	87	49	142	27	18	18	252	132
June	49	32	134	29	15	17	241	140
July	43	37	136	39	14	18	265	168
August	40	35	140	36	13	16	269	159
September	55	37	142	26	14	14	257	118
October	102	57	156	22	18	17	273	127
November	224	110	172	19	41	28	268	95
December	295	147	185	16	60	36	280	81
<b>Total</b>	<b>1,964</b>	<b>1,047</b>	<b>1,913</b>	<b>279</b>	<b>419</b>	<b>299</b>	<b>3,081</b>	<b>1,382</b>
<b>1992</b>								
January	339	165	196	16	76	42	279	81
February	289	147	187	16	68	37	240	77
March	251	123	186	20	44	28	275	96
April	184	97	172	20	33	25	267	109
May	102	53	153	20	20	20	260	116
June	61	35	142	20	16	17	245	139
July	47	34	139	25	15	20	259	168
August	46	34	139	22	14	19	249	138
September	53	35	144	21	14	17	245	130
October	111	61	164	13	16	18	248	103
November	206	108	181	13	34	27	244	89
December	316	160	195	15	67	39	263	84
<b>Total</b>	<b>2,003</b>	<b>1,052</b>	<b>1,998</b>	<b>220</b>	<b>417</b>	<b>310</b>	<b>3,074</b>	<b>1,330</b>
<b>1993</b>								
January	368	180	203	14	77	44	273	77
February	334	166	200	14	67	39	248	73
March	311	155	200	15	59	35	270	95
April	196	100	171	14	39	29	258	87
May	92	49	154	14	22	22	237	94
June	62	35	147	20	16	22	250	146
July	45	33	138	34	14	22	271	188

See footnotes at end of table

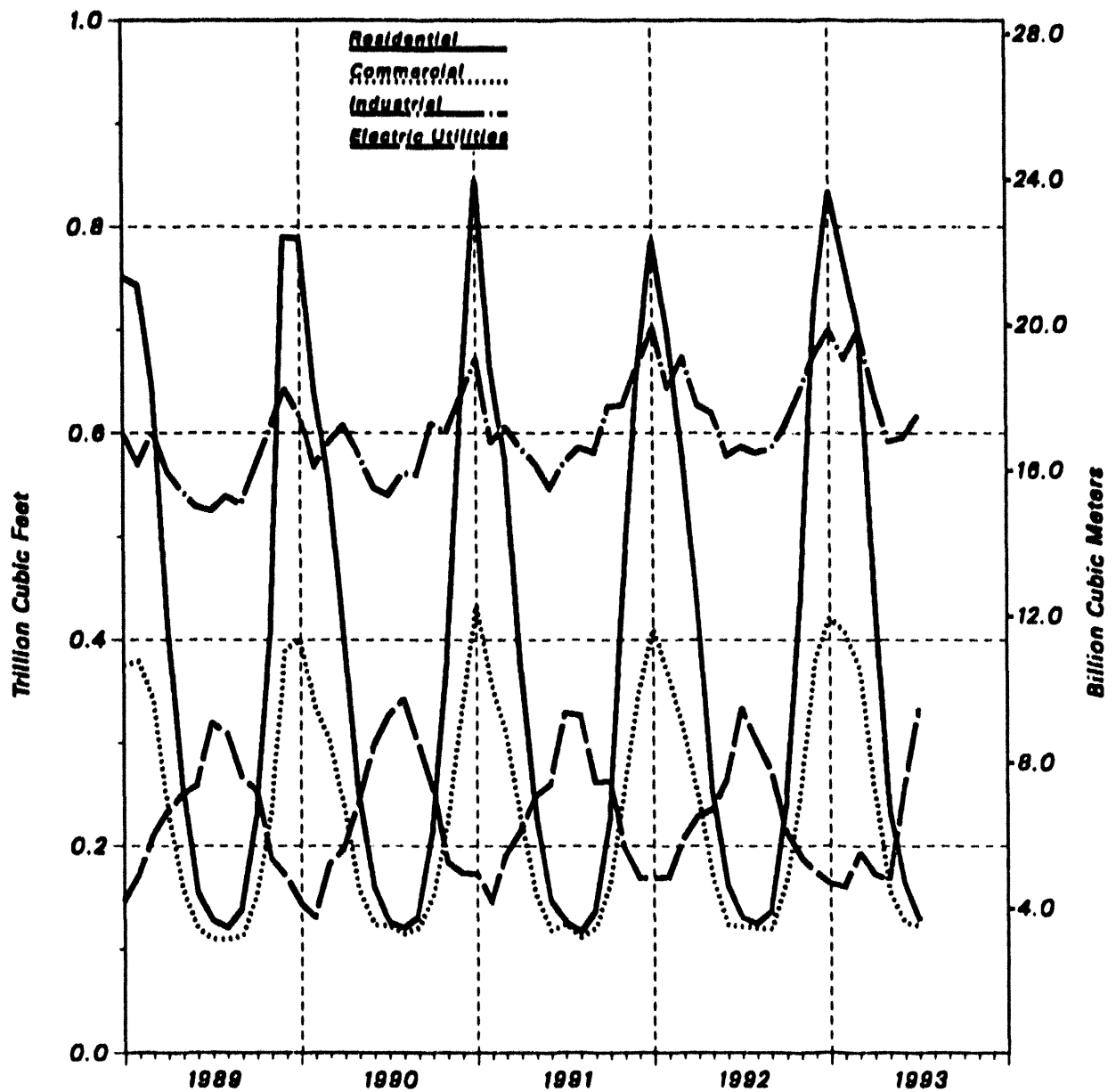
**Table 5. Natural Gas Consumption by Petroleum Administration for Defense District (PADD) (Continued)**  
(Billion Cubic Feet)

Year and Month	PAD District IV				PAD District V			
	Residential	Commercial	Industrial	Electric Utilities	Residential	Commercial	Industrial	Electric Utilities
<b>1991</b>								
January	49	29	23	1	108	51	76	38
February	38	23	20	1	72	39	66	38
March	30	18	21	1	77	40	71	46
April	22	13	19	1	60	41	73	38
May	16	10	18	1	44	31	65	32
June	9	6	17	1	35	28	65	29
July	6	4	17	2	29	29	69	44
August	6	4	17	2	26	23	71	53
September	6	5	19	1	27	29	74	64
October	11	7	21	2	31	34	75	68
November	25	15	23	2	50	31	64	47
December	39	22	25	2	86	43	71	42
<b>Total</b>	<b>257</b>	<b>157</b>	<b>240</b>	<b>15</b>	<b>646</b>	<b>419</b>	<b>839</b>	<b>536</b>
<b>1992</b>								
January	41	24	25	1	100	56	87	46
February	37	22	23	1	80	39	77	46
March	28	16	23	1	82	37	70	48
April	21	13	21	1	48	29	52	51
May	12	7	20	1	35	35	80	50
June	9	6	20	1	29	29	67	46
July	7	5	21	1	26	27	64	62
August	6	4	20	1	25	27	69	82
September	7	5	21	1	26	26	71	68
October	11	8	23	1	31	27	63	62
November	23	15	26	1	48	31	72	56
December	41	25	27	1	98	46	71	52
<b>Total</b>	<b>242</b>	<b>149</b>	<b>267</b>	<b>14</b>	<b>607</b>	<b>409</b>	<b>643</b>	<b>668</b>
<b>1993</b>								
January	48	28	29	1	115	49	67	47
February	41	24	27	1	88	51	72	48
March	37	22	25	1	70	39	73	49
April	25	14	24	1	49	31	68	38
May	15	9	24	1	38	29	69	24
June	9	6	23	1	31	24	65	37
July	7	5	22	2	28	26	76	38

Notes: • Data for 1991 through 1992 are final. All other data are preliminary unless otherwise indicated. • Geographic coverage is the 50 States and the District of Columbia. • Totals may not equal sum of components due to independent rounding.

Sources: All data except electric utility: EIA, *Natural Gas Annual* 1992, 1991 through 1992; and Form EIA-857 and computations January 1993 through current month. See Appendix A, Explanatory Note 5 of the *Natural Gas Monthly* for computation procedures and revision policy. Electric utility data: Form EIA-759, "Monthly Power Plant Report" (formerly Form FPC-4).

Figure 16. Natural Gas Deliveries to Consumers in the United States, 1989 - 1993



Sources: Energy Information Administration (EIA), Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," Form EIA-759, "Monthly Power Plant Report," *Natural Gas Annual* and *Natural Gas Monthly*.

**Table 6. Selected National Average Natural Gas Prices in the United States**  
(Dollars per Thousand Cubic Feet)

Year and Month	Wellhead Price <sup>a</sup>	Major Interstate Pipeline Companies		City Gate	Delivered to Consumers			
		Imports <sup>b</sup>	Purchased from Producers <sup>b</sup>		Residential	Commercial	Industrial	Electric Utilities <sup>c</sup>
1987 Annual Average	1 67	2 17	2 10	2 87	5 54	4 77	2 94	2 32
1988 Annual Average	1 69	2 00	2 13	2 92	5 47	4 63	2 95	2 33
1989 Annual Average	1 69	2 04	2 18	3 01	5 64	4 74	2 96	2 43
1990 Annual Average	1 71	2 03	2 19	3 03	5 80	4 83	2 93	2 39
<b>1991</b>								
January	1 96	2 20	2 19	3 08	5 54	4 94	3 25	2 70
February	1 62	2 10	1 93	2 94	5 56	4 94	2 97	2 35
March	1 49	1 92	2 02	2 78	5 60	4 89	2 75	2 21
April	1 50	2 03	1 87	2 74	5 90	4 87	2 68	2 10
May	1 48	1 99	1 96	2 76	6 28	4 65	2 40	2 01
June	1 43	2 03	1 75	2 86	6 97	4 80	2 34	1 94
July	1 34	2 11	1 79	2 74	7 23	4 50	2 23	1 88
August	1 43	1 71	1 71	2 78	7 36	4 73	2 29	1 96
September	1 59	1 84	1 76	2 91	6 92	4 57	2 40	2 19
October	1 82	2 00	1 94	2 92	6 20	4 58	2 69	2 35
November	1 89	2 20	2 02	2 92	5 51	4 71	2 84	2 43
December	2 00	2 09	2 11	3 05	5 51	4 84	3 09	2 64
Annual Average	1 64	2 02	1 92	2 90	5 82	4 81	2 69	2 18
<b>1992</b>								
January	1 73	2 20	2 10	2 90	5 53	4 85	3 04	2 49
February	1 31	1 98	1 70	2 70	5 54	5 03	2 78	2 03
March	1 40	1 45	1 90	2 61	5 50	4 77	2 58	1 99
April	1 47	2 01	1 73	2 74	5 62	4 77	2 54	2 06
May	1 57	1 79	1 99	2 90	6 15	4 59	2 44	2 11
June	1 68	2 03	2 16	3 00	6 84	4 72	2 53	2 18
July	1 61	1 89	1 86	3 01	7 27	4 64	2 54	2 13
August	1 91	1 82	2 14	3 18	7 45	4 73	2 71	2 42
September	1 99	2 05	2 13	3 23	7 15	4 69	2 82	2 51
October	2 46	2 13	2 69	3 50	6 52	4 90	3 21	3 04
November	2 20	2 32	2 37	3 33	6 02	5 12	3 26	2 87
December	2 14	1 92	2 40	3 17	5 74	5 11	3 38	2 81
Annual Average	1 80	1 97	2 10	3 01	5 89	4 88	2 84	2 36
<b>1993</b>								
January	2 05	2 02	2 17	3 11	5 71	5 18	3 26	2 70
February	1 79	1 91	1 94	2 94	5 71	5 08	3 12	2 55
March	1 97	1 78	2 20	3 06	5 86	5 08	3 08	2 61
April	2 11	2 15	2 34	3 24	5 99	5 13	3 13	2 75
May	2 40	2 13	2 81	3 58	6 72	5 21	3 24	2 90
June	1 96	1 95	2 03	3 45	7 32	5 31	2 95	2 47
July	1 99	1 78	2 02	3 34	7 83	5 03	2 71	NA
1993 YTD	2 04	1 96	2 21	3 18	5 97	5 13	3 08	2 65
1992 YTD	1 54	1 91	1 92	2 81	5 74	4 82	2 65	2 14
1991 YTD	1 55	2 06	1 93	2 88	5 80	4 86	2 70	2 12

<sup>a</sup> See Appendix A, Explanatory Note 8 of the *Natural Gas Monthly* (NGM) for discussion of wellhead price.

<sup>b</sup> See Appendix A, Explanatory Note 9 of the NGM for discussion of major interstate pipeline company data.

<sup>c</sup> Includes all steam electric utility generating plants with a combined capacity of 50 megawatts or greater.

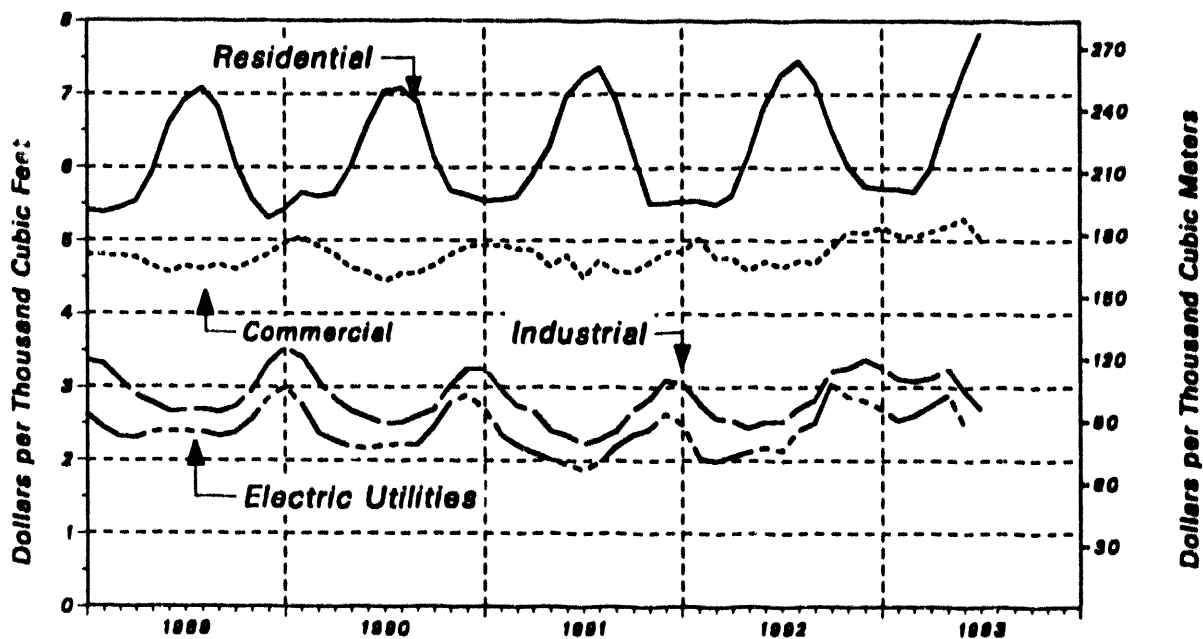
NA = Not Available.

Notes: • Data for 1987 through 1992 are final. All other data are preliminary unless otherwise indicated. • Geographic coverage is the 50 States and the District of Columbia. • Prices for gas delivered to industrial consumers for 1987 and 1988 imputed averages for volumes of gas delivered for the account of others. From 1988 on, prices reflect on-system sales prices only. The change in the series in 1988 affects the commercial, and industrial sector prices.

Sources: • Average wellhead price: EIA, *Natural Gas Annual* 1992, 1987 through current month. See Appendix A, Explanatory Note 8 of the NGM for estimation procedures and revision policy. • Imports and Interstate Pipeline Company Purchases: Form FERC-11. • Average City Gate, Residential, Commercial and Industrial average prices for 1987 through current month from Form EIA-857. See Appendix A, Explanatory 5 of the NGM for discussion of revision policy. • Electric Utilities averages from Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants."

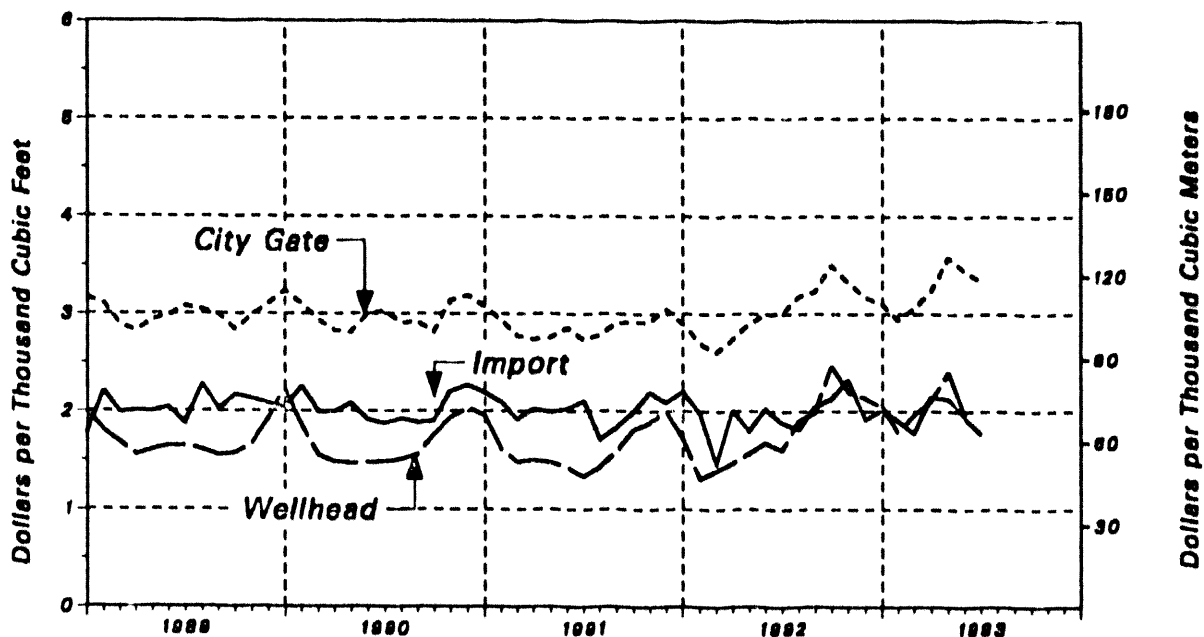


**Figure 17. Average Price of Natural Gas Delivered to Consumers in the United States, 1989 - 1993**



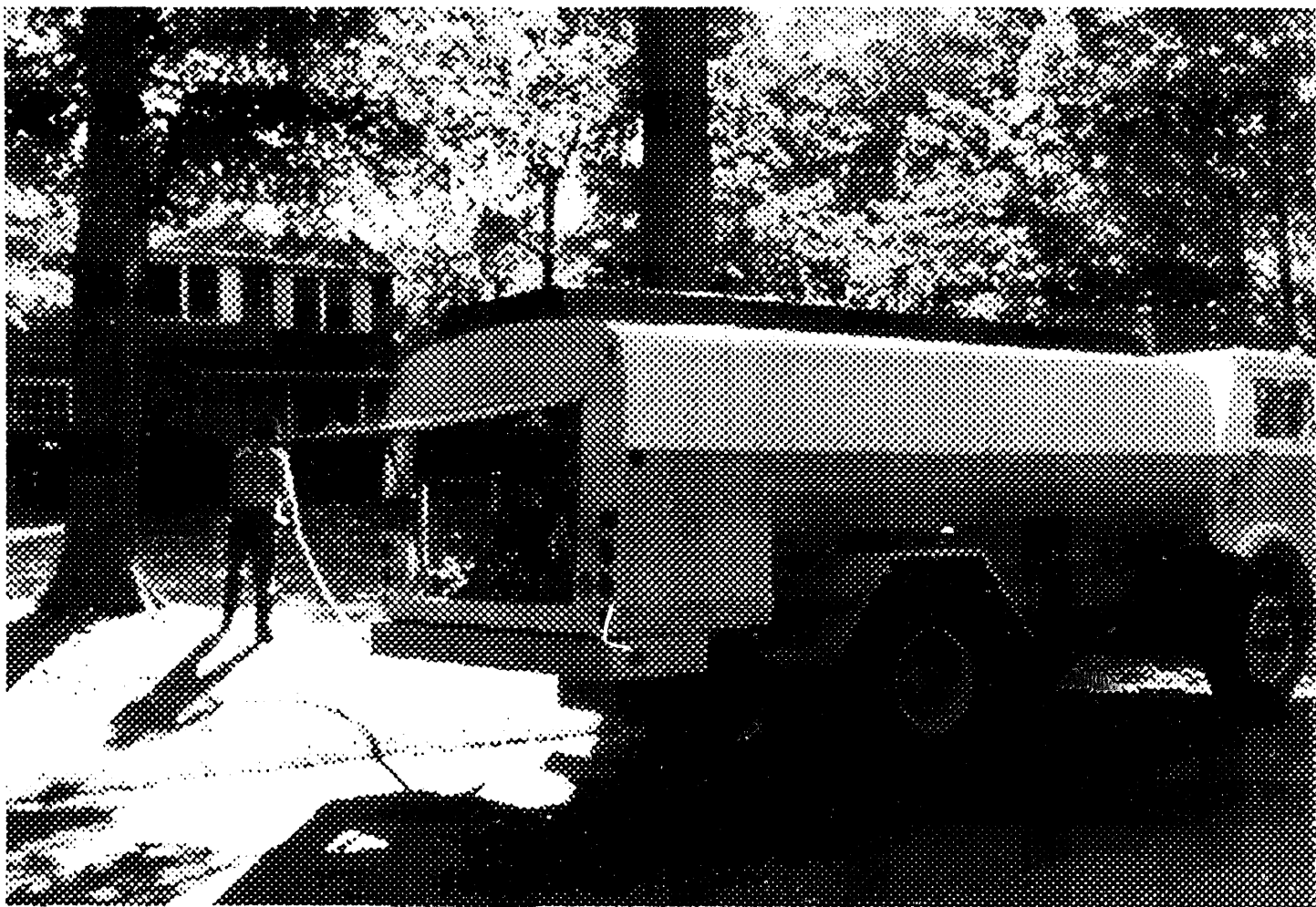
Sources: Energy Information Administration (EIA), Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," Form FERC-423, "Monthly Report of Cost and Quality of Fuels for Electric Plants," *Natural Gas Annual*.

**Figure 18. Average Price of Natural Gas in the United States, 1989 - 1993**



Sources: Energy Information Administration (EIA), Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," Form FERC-11, "Natural Gas Pipeline Company Monthly Statement," *Natural Gas Annual*.

## Prices



*Distillate fuel oil and propane are two sources of residential heating in the United States.*

**Table 7. Residential Heating Oil Prices by Region and State**  
(Cents per Gallon)

Region/State	1992/93 Heating Season					
	October	November	December	January	February	March
Average	97.2	98.3	97.3	97.5	97.6	98.1
East Coast (PADD I)	98.6	99.8	99.1	99.3	99.5	99.9
New England (PADD IX)	96.3	96.6	95.7	96.3	96.6	96.8
Central Atlantic (PADD IY)	100.3	101.9	101.3	101.5	101.7	102.2
Lower Atlantic (PADD IZ)	93.1	94.6	93.8	93.4	93.3	93.4
Midwest (PADD II)	89.8	90.0	87.7	87.1	87.0	88.0

Region/State	1993/94 Heating Season											
	10/04	10/18	11/01 <sup>P</sup>	11/15	12/06	12/20	01/03	01/17	02/07	02/21	03/07	03/21
Average	<sup>R</sup> 93.6	<sup>R</sup> 94.7	94.6									
East Coast (PADD I)	<sup>R</sup> 95.0	95.6	95.8									
New England (PADD IX)	91.4	<sup>R</sup> 91.7	91.6									
Connecticut	94.9	<sup>R</sup> 95.8	96.0									
Maine	83.2	82.7	81.0									
Massachusetts	91.6	<sup>R</sup> 91.6	91.6									
New Hampshire	86.5	87.4	88.0									
Rhode Island	95.5	95.2	95.0									
Vermont	91.3	92.0	91.9									
Central Atlantic (PADD IY)	<sup>R</sup> 97.4	98.1	98.5									
Delaware	<sup>R</sup> 91.6	<sup>R</sup> 92.4	92.6									
District of Columbia	105.4	105.5	105.5									
Maryland	97.9	98.1	98.4									
New Jersey	<sup>R</sup> 98.1	<sup>R</sup> 99.6	99.8									
New York	103.4	103.8	104.4									
Pennsylvania	86.4	87.3	87.6									
Lower Atlantic (PADD IZ)	89.0	89.6	89.3									
North Carolina	89.5	89.8	89.1									
Virginia	<sup>R</sup> 88.4	89.4	89.5									
Midwest (PADD II)	85.8	<sup>R</sup> 89.3	88.2									
Indiana	85.4	88.3	86.9									
Iowa	<sup>R</sup> 79.1	NA	82.6									
Michigan	86.6	89.6	90.0									
Minnesota	88.9	<sup>R</sup> 92.5	91.9									
Ohio	84.2	86.5	86.2									
Wisconsin	85.4	88.8	87.1									

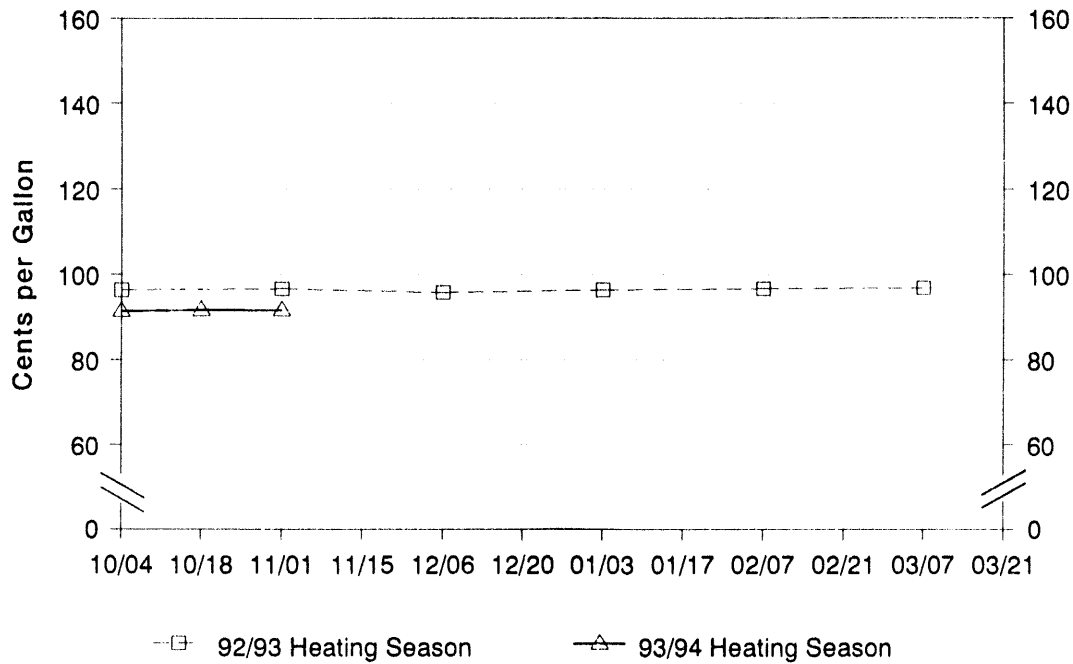
NA=Not available.

P=Preliminary data.

R=Revised data.

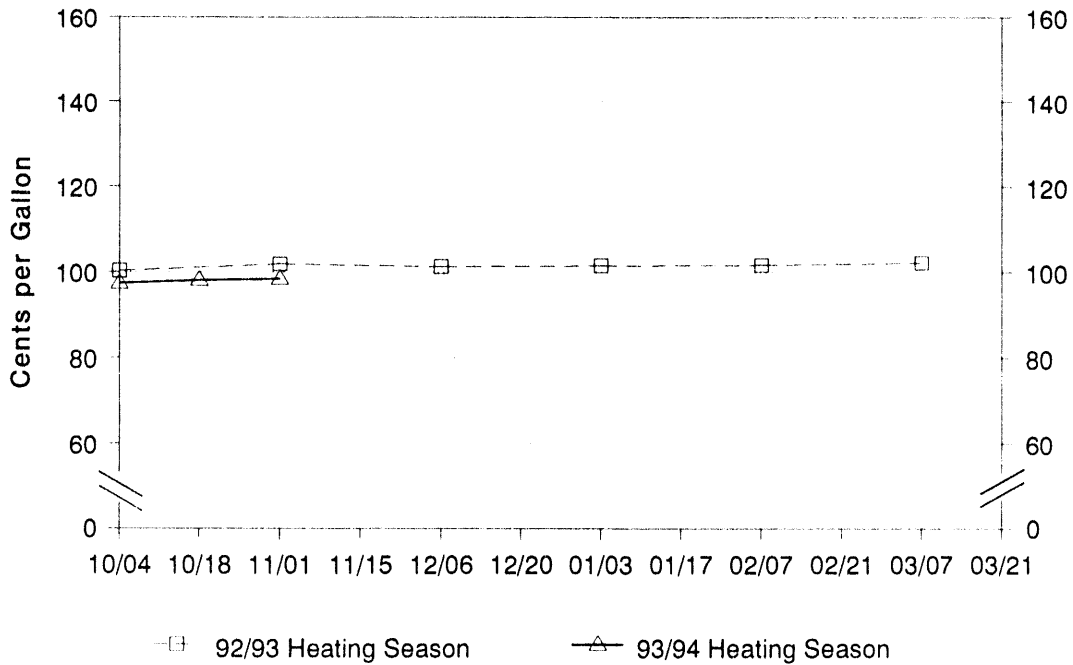
Source: Based on data collected by State Energy Offices.

Figure 19. Residential Heating Oil Prices, New England



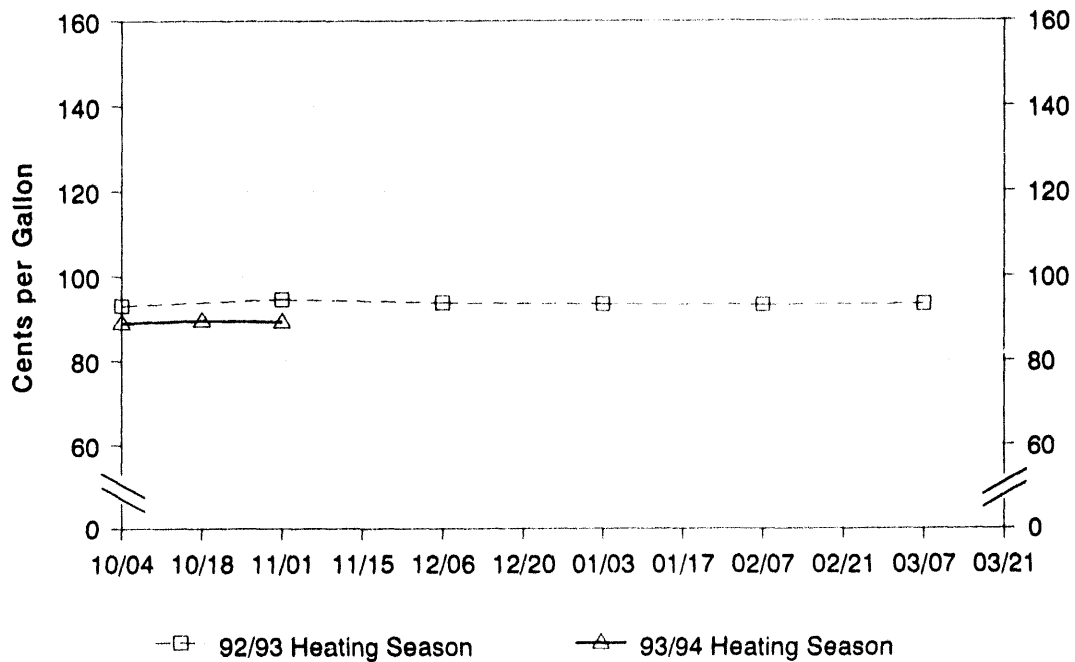
Source: Based on data collected by State Energy Offices.

Figure 20. Residential Heating Oil Prices, Central Atlantic



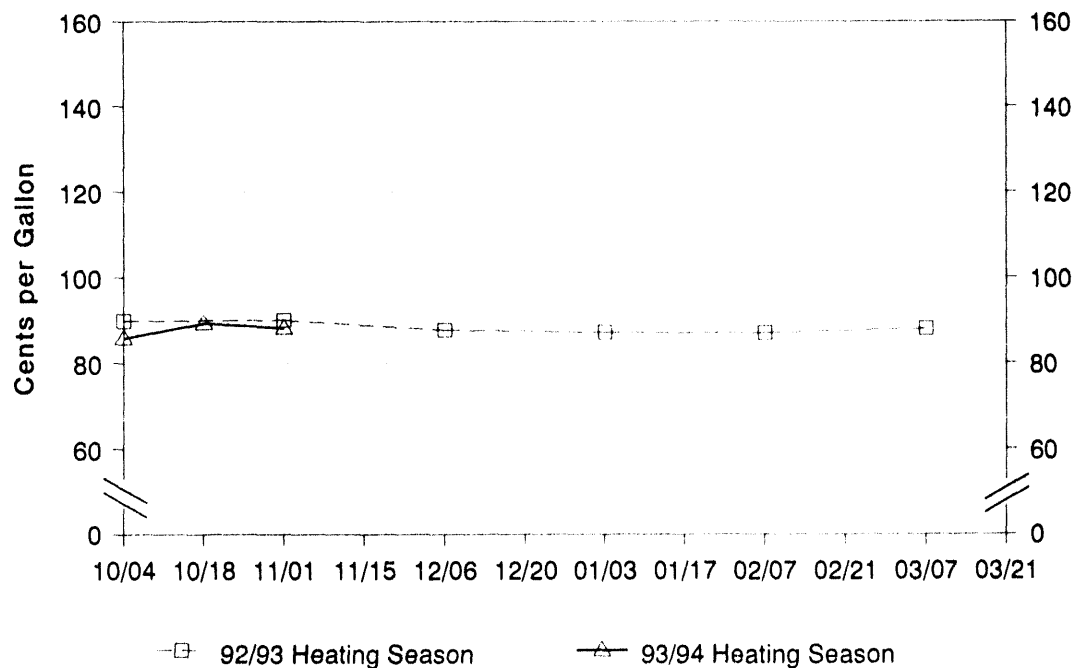
Source: Based on data collected by State Energy Offices.

Figure 21. Residential Heating Oil Prices, Lower Atlantic



Source: Based on data collected by State Energy Offices.

Figure 22. Residential Heating Oil Prices, Midwest



Source: Based on data collected by State Energy Offices.

**Table 8. Residential Propane Prices by Region and State**  
(Cents per Gallon)

Region/State	1992/93 Heating Season					
	October	November	December	January	February	March
Average	85.8	87.2	89.5	87.9	94.6	95.6
East Coast (PADD I)	115.1	115.4	115.7	116.7	116.9	118.1
New England (PADD IX)	116.9	116.6	116.4	117.4	118.3	119.3
Central Atlantic (PADD IY)	125.2	125.6	126.4	127.3	127.0	129.8
Lower Atlantic (PADD IZ)	100.2	100.5	100.8	102.2	102.0	101.3
Midwest (PADD II)	70.2	72.1	75.3	87.7	82.3	83.3

Region/State	1993/94 Heating Season											
	10/04	10/18	11/01 <sup>P</sup>	11/15	12/06	12/20	01/03	01/17	02/07	02/21	03/07	03/21
Average	R87.4	R87.8	87.9									
East Coast (PADD I)	R111.3	R111.2	111.3									
New England (PADD IX)	R115.6	R115.6	115.5									
Connecticut	R112.2	R112.9	111.9									
Maine	R125.8	R125.5	126.0									
Massachusetts	R113.8	R114.4	114.8									
New Hampshire	R110.2	R108.9	108.2									
Rhode Island	R131.2	R132.5	132.5									
Vermont	114.7	R114.5	114.6									
Central Atlantic (PADD IY)	R121.1	R120.8	120.8									
Delaware	R110.3	R111.3	111.3									
Maryland	118.7	119.1	119.1									
New Jersey	118.6	118.6	118.9									
New York	R133.1	131.8	131.8									
Pennsylvania	R113.8	113.8	113.8									
Lower Atlantic (PADD IZ)	R95.2	95.3	95.6									
North Carolina	R92.7	92.7	93.1									
Virginia	R104.8	104.9	104.9									
Midwest (PADD II)	R74.0	R74.2	74.6									
Indiana	R79.8	R81.5	82.5									
Iowa	R60.4	NA	60.2									
Kansas	R62.0	R62.1	62.2									
Michigan	R84.0	R84.4	84.5									
Minnesota	R75.6	76.7	76.8									
Missouri	R70.7	70.6	72.5									
North Dakota	61.4	R62.2	62.4									
Ohio	R87.4	87.7	87.8									
South Dakota	R62.1	R63.7	63.7									
Wisconsin	77.3	76.8	76.5									

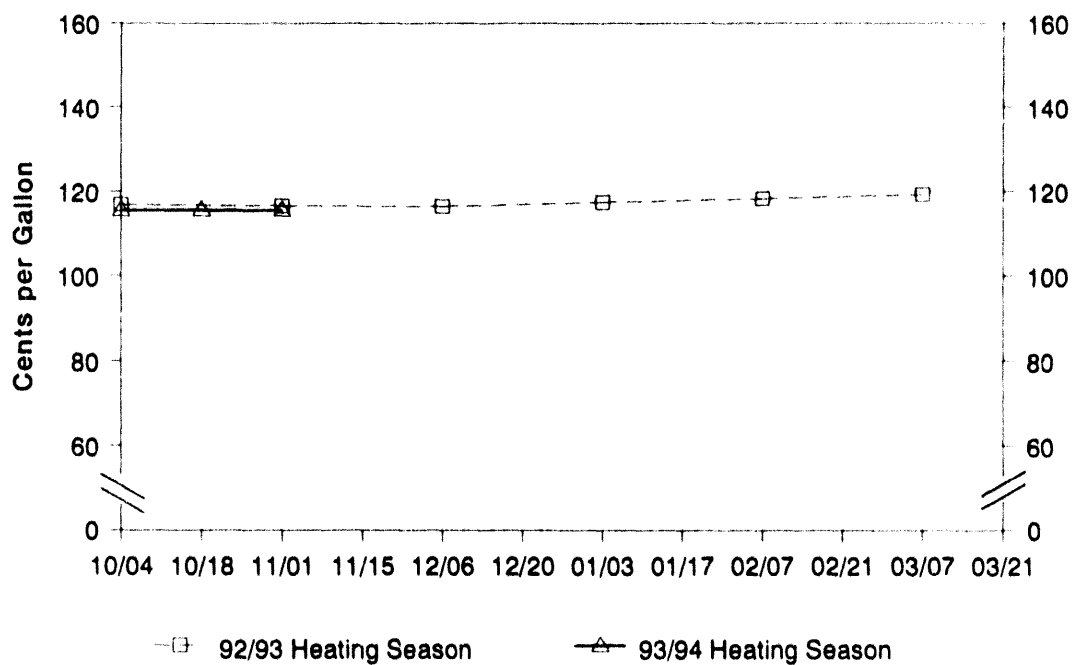
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P=Preliminary data.

R = Revised data.

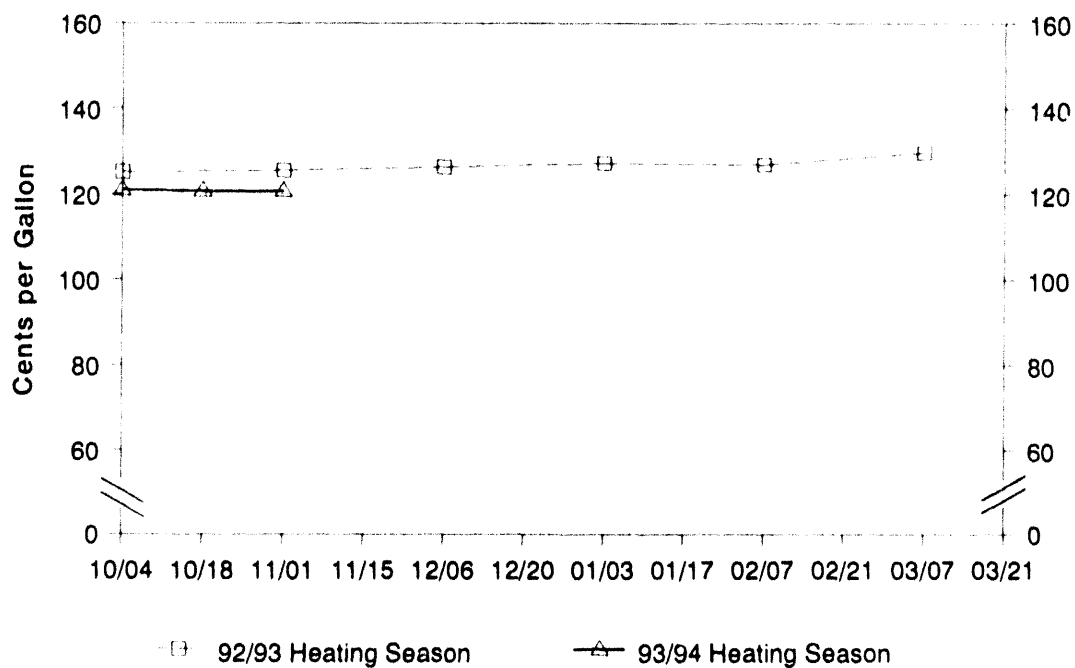
Source: Based on data collected by State Energy Offices.

**Figure 23. Residential Propane Prices, New England**



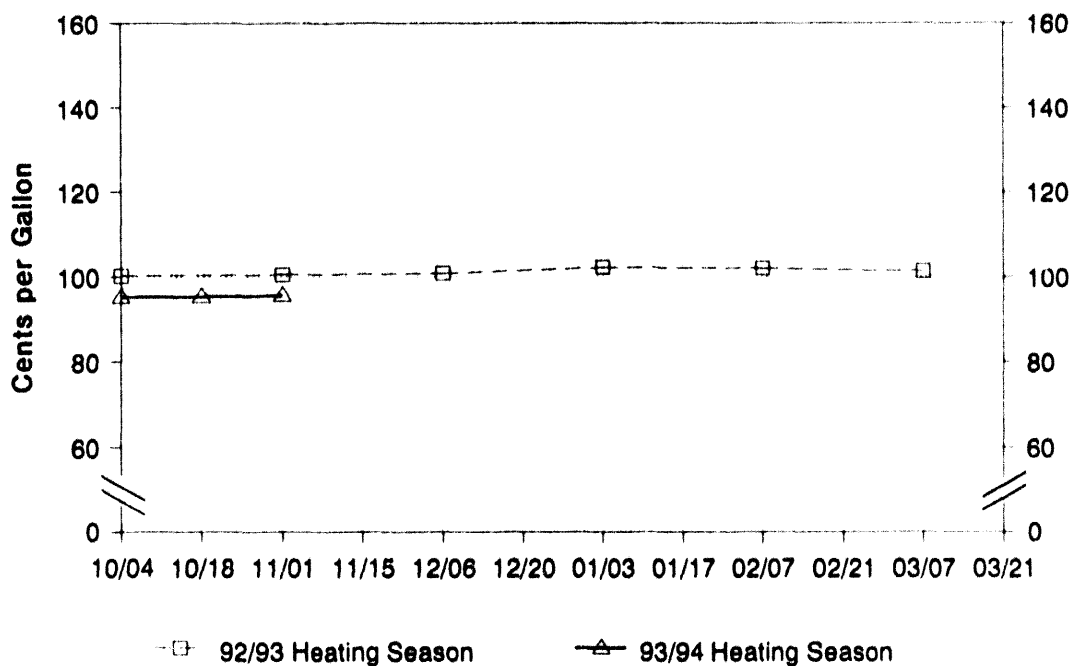
Source: Based on data collected by State Energy Offices.

**Figure 24. Residential Propane Prices, Central Atlantic**



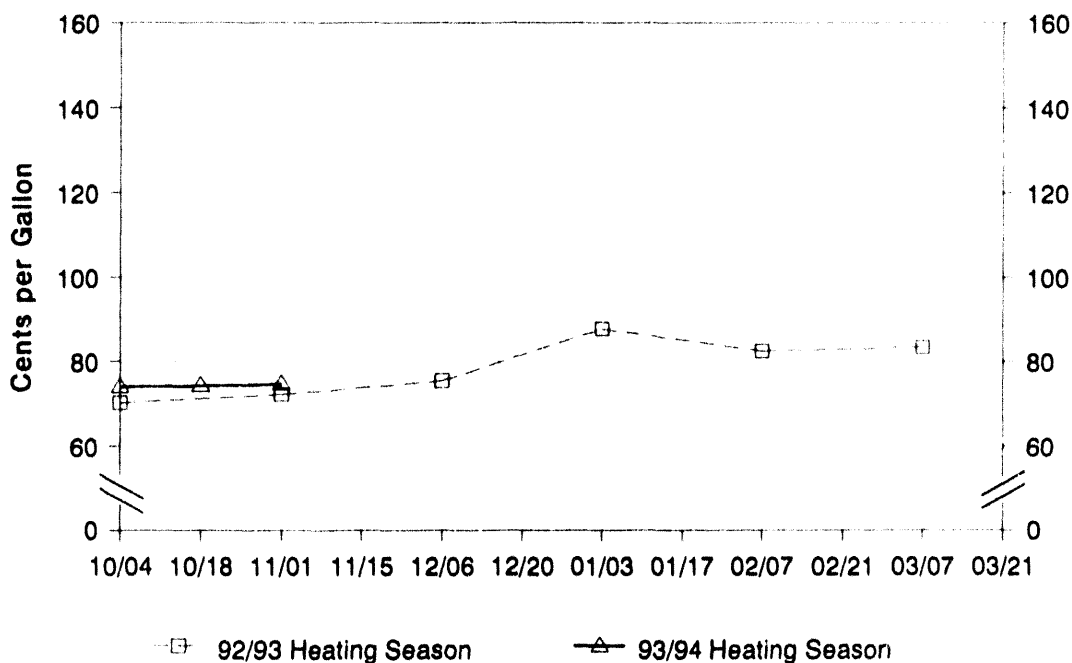
Source: Based on data collected by State Energy Offices.

**Figure 25. Residential Propane Prices, Lower Atlantic**



Source: Based on data collected by State Energy Offices.

**Figure 26. Residential Propane Prices, Midwest**



Source: Based on data collected by State Energy Offices.



**Table 9. Wholesale Heating Oil Prices by Region and State**  
(Cents per Gallon)

Region/State	1992/93 Heating Season					
	October	November	December	January	February	March
Average	66.7	61.6	57.3	56.3	58.3	61.0
East Coast (PADD I)	66.8	61.9	58.1	56.9	58.7	61.1
New England (PADD IX)	68.2	64.2	60.4	59.4	60.0	62.3
Central Atlantic (PADD IY)	66.2	60.9	57.1	55.8	58.3	60.7
Lower Atlantic (PADD IZ)	65.9	60.0	55.8	54.8	57.1	59.4
Midwest (PADD II)	66.6	60.7	54.8	54.4	57.3	60.4

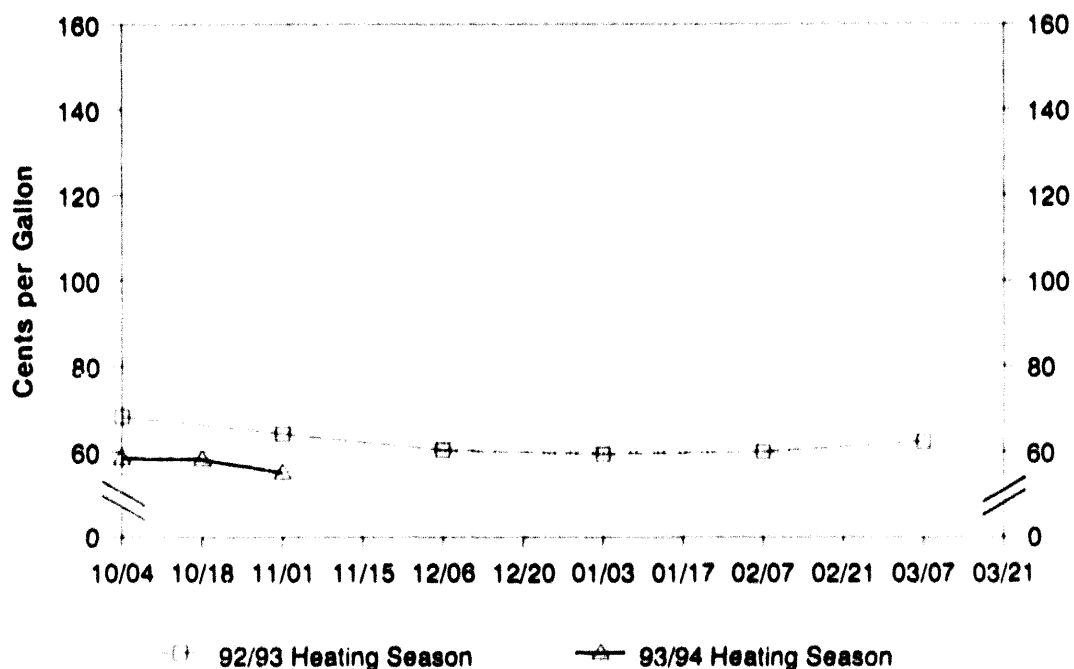
Region/State	1993/94 Heating Season											
	10/04	10/18	11/01 <sup>P</sup>	11/15	12/06	12/20	01/03	01/17	02/07	02/21	03/07	03/21
Average	58.8	58.9	54.7									
East Coast (PADD I)	58.1	57.5	54.3									
New England (PADD IX)	58.5	58.2	55.1									
Connecticut	58.9	57.8	54.4									
Maine	59.3	59.6	56.5									
Massachusetts	58.4	58.3	54.9									
New Hampshire	57.8	57.0	55.5									
Rhode Island	58.3	57.9	54.8									
Vermont	NA	61.1	57.6									
Central Atlantic (PADD IY)	58.1	57.3	54.1									
Delaware	57.0	56.2	53.5									
District of Columbia	56.9	56.8	53.1									
Maryland	56.9	56.3	52.9									
New Jersey	57.6	55.9	52.7									
New York	58.7	58.6	55.9									
Pennsylvania	58.8	58.5	54.7									
Lower Atlantic (PADD IZ)	57.1	56.5	53.2									
North Carolina	57.6	57.1	53.8									
Virginia	56.7	56.0	52.8									
Midwest (PADD II)	61.1	63.6	56.0									
Illinois	61.1	62.1	54.8									
Indiana	58.9	59.3	53.0									
Iowa	64.1	67.1	57.6									
Kansas	64.7	68.9	57.4									
Michigan	57.2	58.9	52.2									
Minnesota	63.4	68.5	60.1									
Missouri	61.9	66.3	56.6									
North Dakota	65.8	73.8	68.6									
Ohio	60.9	61.9	55.8									
South Dakota	67.7	76.2	69.7									
Wisconsin	61.5	64.8	58.3									

NA = Not available.

P = Preliminary data.

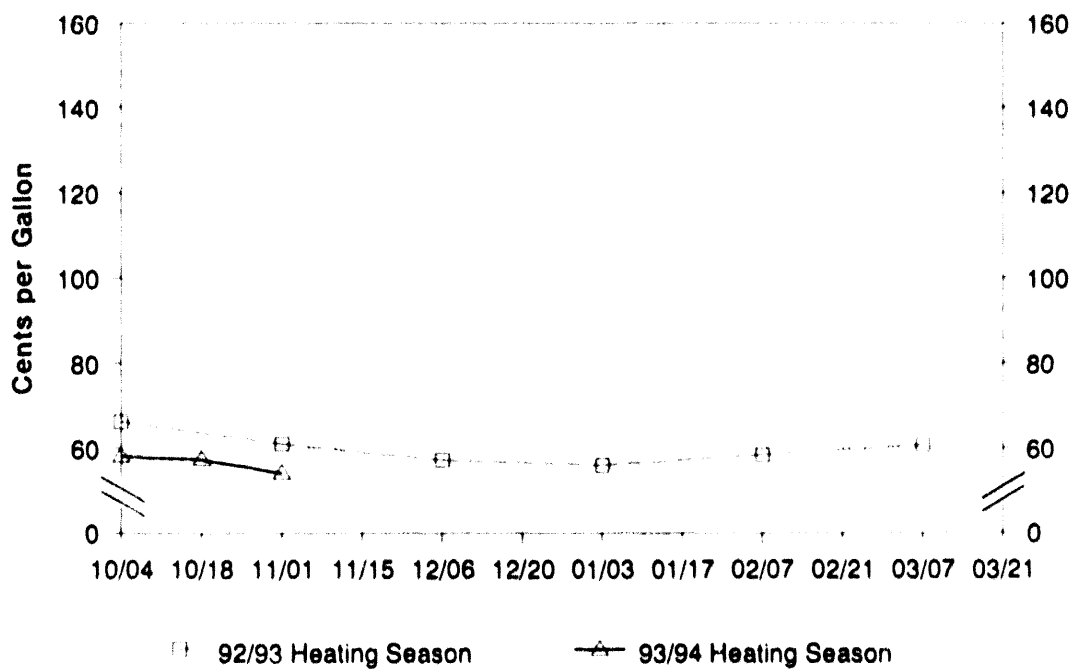
Source: Based on terminal quotes collected by the Computer Petroleum Corporation, Inc.

**Figure 27. Wholesale Heating Oil Prices, New England**



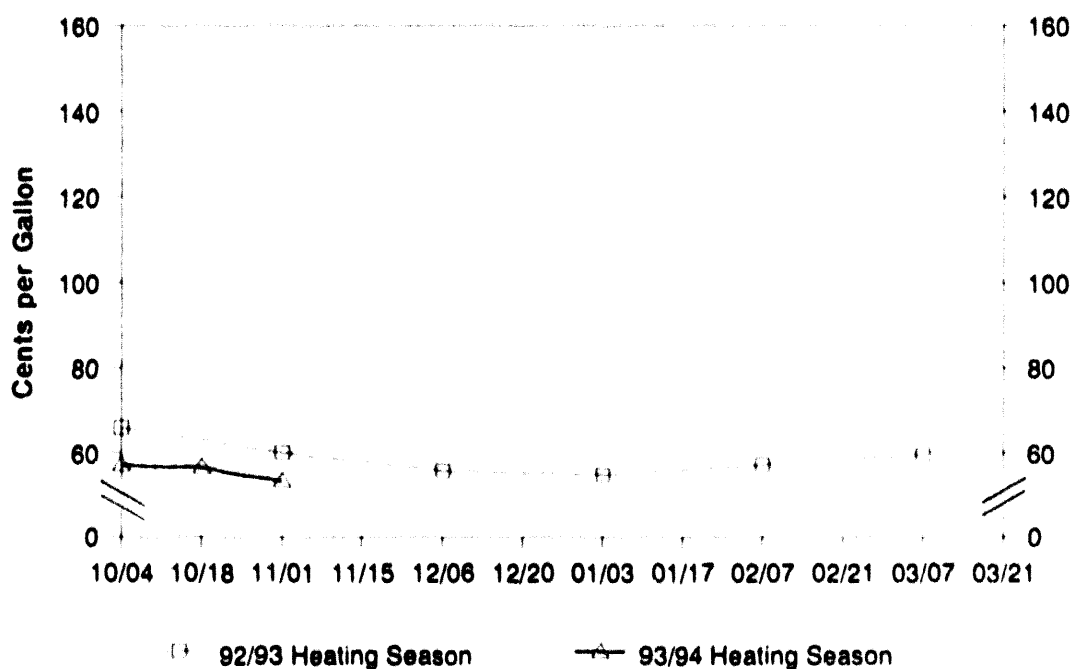
Source: Based on terminal quotes collected by the Computer Petroleum Corporation, Inc.

**Figure 28. Wholesale Heating Oil Prices, Central Atlantic**



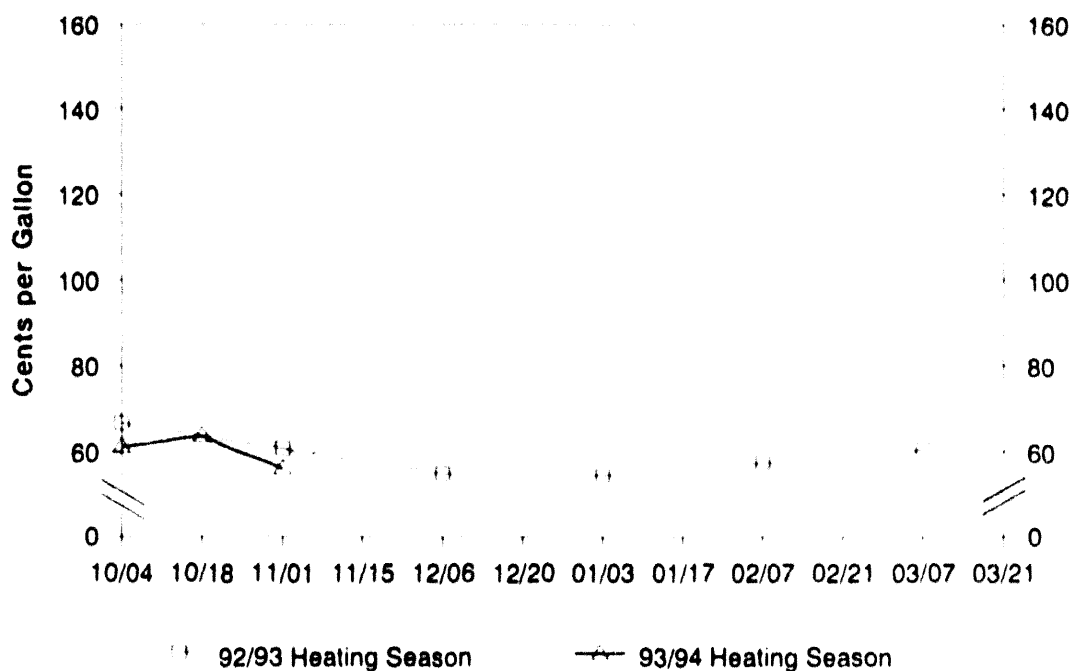
Source: Based on terminal quotes collected by the Computer Petroleum Corporation, Inc.

**Figure 29. Wholesale Heating Oil Prices, Lower Atlantic**



Source: Based on terminal quotes collected by the Computer Petroleum Corporation, Inc.

**Figure 30. Wholesale Heating Oil Prices, Midwest**



Source: Based on terminal quotes collected by the Computer Petroleum Corporation, Inc.

**Table 10. Wholesale Propane Prices by Region and State**  
(Cents per Gallon)

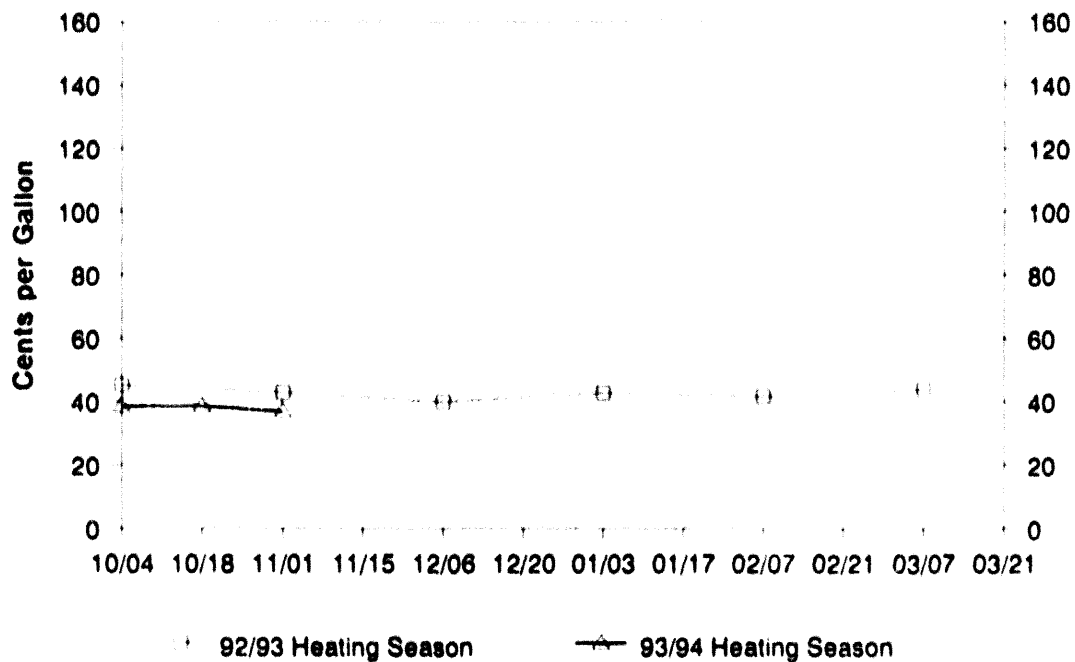
Region/State	1992/93 Heating Season					
	October	November	December	January	February	March
<b>Average</b>	<b>38.9</b>	<b>38.8</b>	<b>39.7</b>	<b>40.5</b>	<b>39.2</b>	<b>47.1</b>
<b>East Coast (PADD I)</b>	<b>45.1</b>	<b>42.6</b>	<b>39.7</b>	<b>42.1</b>	<b>40.8</b>	<b>42.8</b>
Central Atlantic (PADD IY)	45.3	42.9	40.0	42.8	41.6	43.9
Lower Atlantic (PADD IZ)	45.0	42.2	39.1	41.2	39.4	41.2
<b>Midwest (PADD II)</b>	<b>37.5</b>	<b>37.8</b>	<b>39.8</b>	<b>50.0</b>	<b>38.8</b>	<b>48.1</b>

Region/State	1993/94 Heating Season											
	10/04	10/18	11/01 <sup>P</sup>	11/15	12/06	12/20	01/03	01/17	02/07	02/21	03/07	03/21
<b>Average</b>	<b>38.2</b>	<b>38.2</b>	<b>36.3</b>									
<b>East Coast (PADD I)</b>	<b>37.9</b>	<b>38.1</b>	<b>36.5</b>									
Central Atlantic (PADD IY)	38.6	38.7	36.9									
New York	38.9	38.9	37.1									
Pennsylvania	38.3	38.5	36.8									
Lower Atlantic (PADD IZ)	36.9	37.2	35.8									
North Carolina	36.9	37.2	35.8									
<b>Midwest (PADD II)</b>	<b>38.3</b>	<b>38.3</b>	<b>36.3</b>									
Illinois	39.9	39.8	37.9									
Indiana	38.8	38.8	35.3									
Iowa	39.0	39.1	37.0									
Kansas	38.3	38.2	33.9									
Minnesota	39.2	39.4	37.3									
Missouri	38.6	38.5	36.4									
North Dakota	38.4	38.5	35.6									
Ohio	37.0	36.9	35.3									
South Dakota	39.6	39.7	37.1									
Wisconsin	41.3	41.7	40.0									

P=Preliminary data.

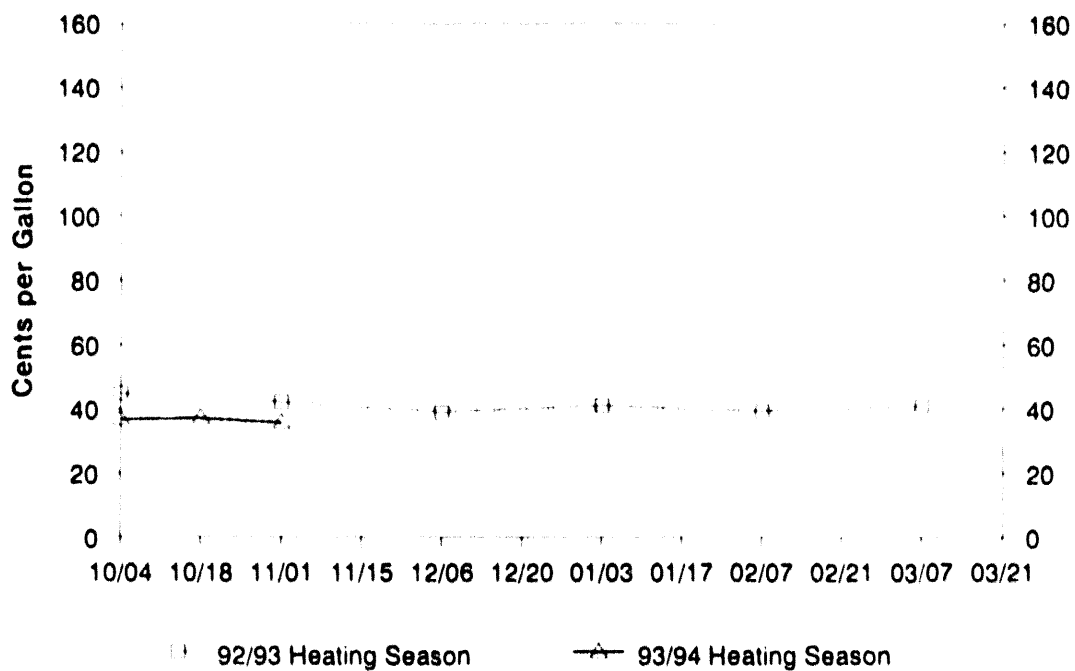
Source: These data are average prices collected by the Computer Petroleum Corporation, Inc.

**Figure 31. Wholesale Propane Prices, Central Atlantic**



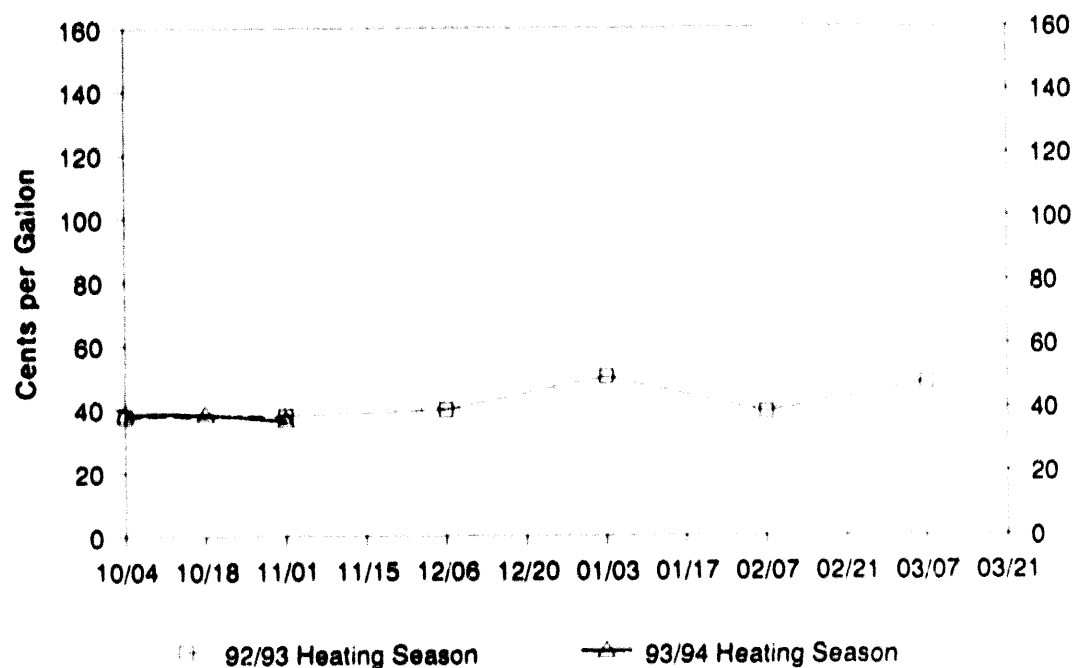
Source: Based on data collected by the Computer Petroleum Corporation, Inc.

**Figure 32. Wholesale Propane Prices, Lower Atlantic**



Source: Based on data collected by the Computer Petroleum Corporation, Inc.

**Figure 33. Wholesale Propane Prices, Midwest**



Source: Based on data collected by the Computer Petroleum Corporation, Inc.

**Table 11. U.S. Crude Oil and Petroleum Product Prices**  
(Cents per Gallon, Except Where Noted)

Report Period	Crude WTI (Dollars per Barrel)	No. 2 Distillate				Propane		
		Spot	Terminal	Residential	Diesel Retail	Spot	Terminal	Residential
Monthly								
11/92	20.33	55.0	60.3	97.8	123.7	31.1	38.1	88.3
12/92	19.39	54.2	59.2	97.4	122.6	32.4	43.3	94.8
01/93	19.04	54.6	58.0	97.5	122.1	32.9	44.7	97.5
02/93	20.08	57.0	60.6	97.8	121.9	33.4	41.0	95.3
03/93	20.31	57.4	62.0	95.9	122.2	34.2	40.5	94.0
04/93	20.25	55.2	59.4	NA	122.9	NA	37.4	92.1
05/93	19.95	53.9	58.1	NA	122.7	NA	37.9	NA
06/93	19.09	51.7	56.1	NA	122.3	NA	37.2	NA
07/93	17.90	49.6	53.8	NA	119.6	NA	35.9	NA
08/93	18.02	51.4	55.8	NA	118.4	NA	36.7	NA
09/93	17.48	52.3	56.4	NA	118.6	NA	37.6	NA
10/93	18.10	53.7	58.4	94.2	NA	NA	37.6	87.5
Week Ending								
09/24/93	17.67	52.7	56.8	NA	NA	NA	37.3	NA
10/01/93	18.30	55.5	NA	NA	NA	NA	NA	NA
10/08/93	18.35	55.1	59.3	93.6	NA	NA	38.2	87.4
10/15/93	18.52	54.8	59.4	NA	NA	NA	38.4	NA
10/22/93	18.12	53.6	58.4	94.7	NA	NA	37.9	87.6
10/29/93	17.36	51.6	56.9	NA	NA	NA	36.4	NA
11/05/93	17.29	51.4	55.9	94.6	NA	NA	36.4	87.9
11/12/93	16.71	50.2	54.5	NA	NA	NA	36.6	NA
Daily								
10/27/93	17.66	52.1	56.8	NA	NA	NA	36.3	NA
10/28/93	17.30	51.7	56.5	NA	NA	NA	36.2	NA
10/29/93	16.97	50.9	56.6	NA	NA	NA	36.3	NA
11/01/93	17.50	52.6	55.6	94.6	NA	NA	36.3	87.9
11/02/93	17.03	51.2	56.2	NA	NA	NA	36.3	NA
11/03/93	17.47	51.6	56.1	NA	NA	NA	36.4	NA
11/04/93	17.38	51.3	55.9	NA	NA	NA	36.5	NA
11/05/93	17.09	50.5	55.7	NA	NA	NA	36.5	NA
11/08/93	16.69	49.8	55.0	NA	NA	NA	36.7	NA
11/09/93	16.71	49.7	54.4	NA	NA	NA	36.8	NA
11/10/93	16.54	49.8	54.1	NA	NA	NA	36.6	NA
11/11/93	16.91	50.9	54.2	NA	NA	NA	36.5	NA
11/12/93	16.72	50.7	54.9	NA	NA	NA	36.3	NA
11/15/93	16.78	50.4	54.7	NA	NA	NA	36.0	NA
11/16/93	16.69	50.0	54.6	NA	NA	NA	35.9	NA

NA=Not available

R=Revised data

Source • Spot West Texas Intermediate (WTI) at Cushing, Oklahoma; No. 2 distillate in New York Harbor from Reuters. • Computer Petroleum Corp rack (terminal) prices. • Residential No. 2 distillate and propane prices from State Heating Oil and Propane Program. • Diesel Retail prices from Lundberg PS. • Mt. Belvieu, Texas, spot propane prices from *Platts' Oilgram Price Report*.

**Table 12. Petroleum Product Prices for Selected Cities**  
(Cents per Gallon)

Report Period	Chicago			Houston		
	No. 2 Distillate		Propane	No. 2 Distillate		Propane
	Spot	Terminal	Terminal	Spot	Terminal	Terminal
<b>Monthly</b>						
11/92	53.4	55.9	39.1	54.0	55.8	32.2
12/92	51.3	53.3	46.7	52.7	54.8	32.9
01/93	52.2	53.9	47.2	52.0	53.5	35.4
02/93	55.4	57.8	44.1	53.9	56.0	35.7
03/93	56.3	59.1	42.0	55.2	56.9	36.9
04/93	55.6	57.2	37.6	53.6	55.5	36.5
05/93	55.2	56.9	37.2	52.8	55.4	34.8
06/93	52.2	54.3	39.1	50.2	52.8	34.5
07/93	45.7	48.3	37.5	47.9	49.8	33.7
08/93	47.2	48.4	38.9	50.9	52.1	33.1
09/93	50.9	52.2	39.7	49.9	51.8	32.7
10/93	51.4	59.0	39.7	51.6	55.6	32.0
<b>Week Ending</b>						
09/24/93	53.2	54.3	39.2	51.3	52.9	32.5
10/01/93	NA	NA	NA	NA	NA	NA
10/08/93	54.8	60.5	40.4	54.1	56.6	32.8
10/15/93	53.4	63.1	40.4	53.1	56.7	32.6
10/22/93	51.2	59.2	39.9	51.6	56.3	32.3
10/29/93	49.2	54.5	38.6	50.1	53.6	30.8
11/05/93	42.2	51.6	38.6	49.6	53.1	30.7
11/12/93	47.6	50.4	38.5	47.4	51.9	30.9
<b>Daily</b>						
10/27/93	49.9	55.3	38.4	50.8	53.0	30.5
10/28/93	48.8	53.9	38.3	50.0	53.7	30.6
10/29/93	47.7	51.0	39.2	49.1	52.7	30.6
11/01/93	49.0	51.6	38.5	50.6	52.7	30.6
11/02/93	17.7	52.0	38.6	49.8	53.3	30.6
11/03/93	47.8	51.7	38.7	49.9	53.2	30.7
11/04/93	48.7	51.5	38.7	49.4	53.2	30.7
11/05/93	47.6	51.1	38.7	48.4	53.0	30.8
11/08/93	47.1	50.8	38.8	47.8	52.8	31.2
11/09/93	47.2	50.1	38.7	45.8	52.2	31.2
11/10/93	47.3	49.7	38.5	44.9	51.2	31.0
11/11/93	48.2	50.1	38.4	49.3	51.5	31.0
11/12/93	48.0	51.5	38.2	49.2	NA	30.3
11/15/93	48.0	50.9	37.6	48.7	52.4	30.4
11/16/93	48.0	50.7	37.6	48.4	52.5	30.4

See footnotes at end of table.



**Table 12. Petroleum Product Prices for Selected Cities (Continued)**  
(Cents per Gallon)

Report Period	Los Angeles			New York		
	No. 2 Distillate		Propane	No. 2 Distillate		Propane
	Spot	Terminal	Terminal	Spot	Terminal	Terminal
<b>Monthly</b>						
11/92	57.5	62.4	40.2	55.0	60.3	42.0
12/92	55.1	61.7	42.1	54.2	59.2	42.3
01/93	53.7	59.4	47.2	54.6	58.0	43.8
02/93	56.3	60.9	42.6	57.0	60.6	43.7
03/93	59.5	63.0	41.0	57.4	62.0	45.5
04/93	59.4	63.5	37.2	55.2	59.4	44.1
05/93	58.2	63.1	35.2	53.9	58.1	42.0
06/93	56.5	59.6	33.0	51.7	56.1	41.6
07/93	54.3	57.7	33.7	49.6	53.8	40.5
08/93	56.2	57.6	36.2	51.4	55.8	39.9
09/93	59.9	64.1	41.5	52.3	56.4	39.5
10/93	73.6	66.6	45.4	53.7	58.4	39.5
<b>Week Ending</b>						
09/24/93	61.3	66.2	42.0	52.7	56.8	39.1
10/01/93	NA	NA	NA	55.5	NA	NA
10/08/93	83.0	66.6	44.3	55.1	59.3	40.0
10/15/93	78.4	66.6	45.0	54.8	59.4	40.1
10/22/93	73.6	66.6	46.0	53.6	58.4	39.7
10/29/93	68.0	NA	46.0	51.6	56.9	38.5
11/05/93	66.4	NA	46.0	51.4	55.9	38.0
11/12/93	62.1	NA	46.0	50.2	54.5	38.6
<b>Daily</b>						
10/27/93	59.5	NA	46.0	52.1	56.8	38.4
10/28/93	69.5	NA	46.0	51.7	56.5	38.2
10/29/93	68.5	NA	NA	50.9	56.6	NA
11/01/93	68.0	NA	46.0	52.6	55.6	38.0
11/02/93	67.0	NA	46.0	51.2	56.2	38.0
11/03/93	67.5	NA	46.0	51.6	56.1	38.0
11/04/93	64.0	NA	46.0	51.3	55.9	38.1
11/05/93	65.5	NA	46.0	50.5	55.7	38.1
11/08/93	63.0	NA	46.0	49.8	55.0	38.6
11/09/93	62.5	NA	46.0	49.7	54.4	38.6
11/10/93	62.0	NA	46.0	49.8	54.1	38.6
11/11/93	62.0	NA	46.0	50.9	54.2	38.6
11/12/93	61.0	NA	NA	50.7	54.9	NA
11/15/93	59.5	NA	46.0	50.4	54.7	38.1
11/16/93	58.8	NA	46.0	50.0	54.6	37.7

NA=Not available.

Source: • No. 2 distillate spot prices in Chicago, Houston, and Los Angeles, are from Telerate; New York spot prices are from Reuters. • No. 2 distillate terminal prices in Chicago, Houston, Los Angeles, and New York are from Computer Petroleum Corp. • Propane terminal prices in Lemont, Illinois; Mt. Belvieu, Texas; Los Angeles, California; and Selkirk, New York are from Computer Petroleum Corp.



# United States Weather Summary

## 6-10 Day Outlook- November 23 Through November 27, 1993

Above normal temperatures are expected across most of the eastern third of the Nation eastward to the Atlantic Coast from a line oriented southwest to northeast from central Texas to the northern portions of the lower peninsula of Michigan. Excluded from this area are New England and northeastern New York state. Within this area of above normal temperatures, much above normal is predicted across south Texas and southern Florida. Above normal is also forecast for the San Francisco Bay area. Below normal temperatures are expected for most area west of the Continental Divide, with the exception of extreme southwestern New Mexico and much of California as well as for western portions of Nevada where near normal temperatures are predicted. East of the Divide, below normal is also anticipated across most of Wyoming, all of Colorado and Nebraska, most of Kansas, and for regions of northern New Mexico and the Oklahoma panhandle. In unspecified areas near normal temperatures are expected.

Little or no precipitation is indicated for Oregon and Washington, the chimney of Idaho and parts of central Idaho, the extreme western portions of Montana, extreme Southern California, the extreme southwestern corner of Arizona, and from the eastern regions of the Carolinas southwestward to portions of northern Florida. Above normal amounts are indicated for much of California, most of the central and southern Intermountain region, most of the Rockies and eastward from there across nearly all of the Plains and the Mississippi River Valley continuing eastward to the western slopes of the Appalachians, and in extreme southeastern Florida. Unspecified areas are expected to have near normal amounts of precipitation.

(Refer to Figures 34 and 35).

## 30 Day Outlook - November 1993

Calls for at least a 55 percent chance for above normal temperatures over the far West to the Southeast. There is at least a 55 percent chance for below normal temperatures over the midsection of the country all the way from the Mexican border of New Mexico and west Texas to the Canadian border from Montana to the Great Lakes. In unspecified areas the average temperatures probabilities are not expected to depart significantly from climatological values.

(Refer to Figure 36).

## 90 Day Outlook - November 1993 Through January 1994

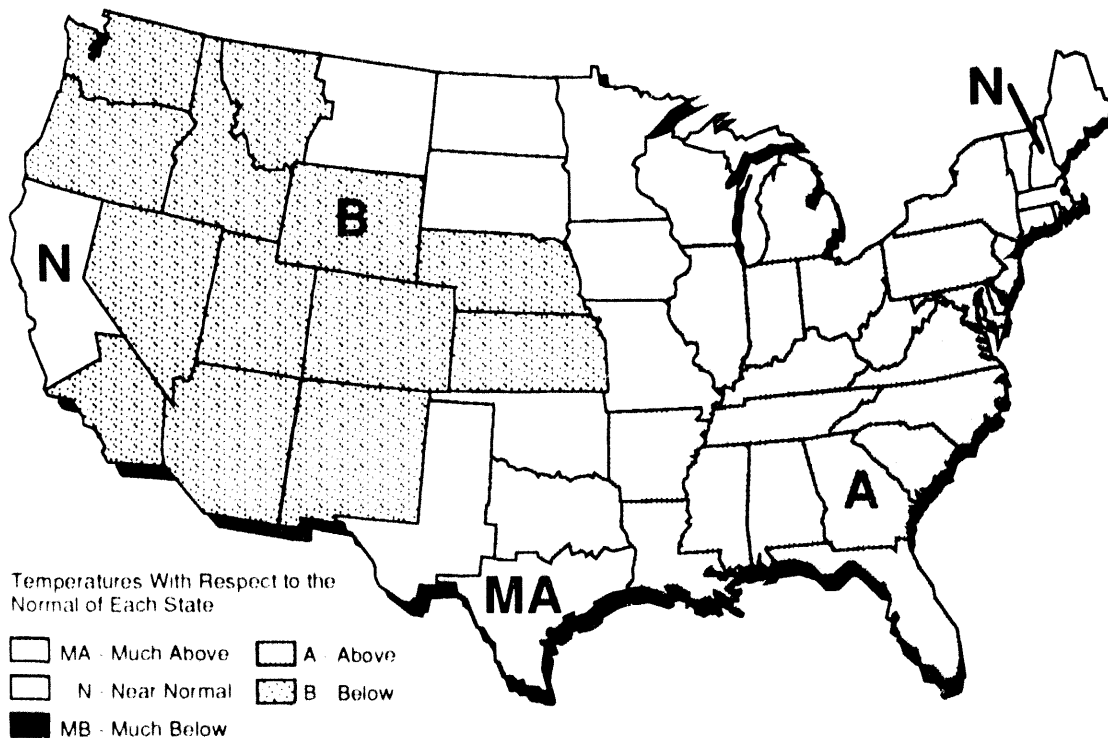
Specifies above normal temperatures with at least a 55 percent chance in much of the far West and also in the northern Plains, Great Lakes, Midwest, middle Atlantic and southeastern states. The latter area is bounded by a line from central Montana through southern Illinois to the Florida panhandle and excludes New England. Within this area probabilities exceed 65 percent in a band from northern North Dakota to lower Michigan and northern Ohio. In the far West probabilities rise to 65 percent or higher in the San Francisco Bay area. There is at least a 55 percent chance of below normal temperatures in the south central portion of the Nation including New Mexico, southeastern Colorado, Oklahoma, Kansas, northern Utah, and southeastern Idaho. Probabilities rise as high as 60 percent in the Texas and Oklahoma panhandle. In unspecified areas the average temperatures probabilities are not expected to depart significantly from climatological values.

(Refer to Figure 37).

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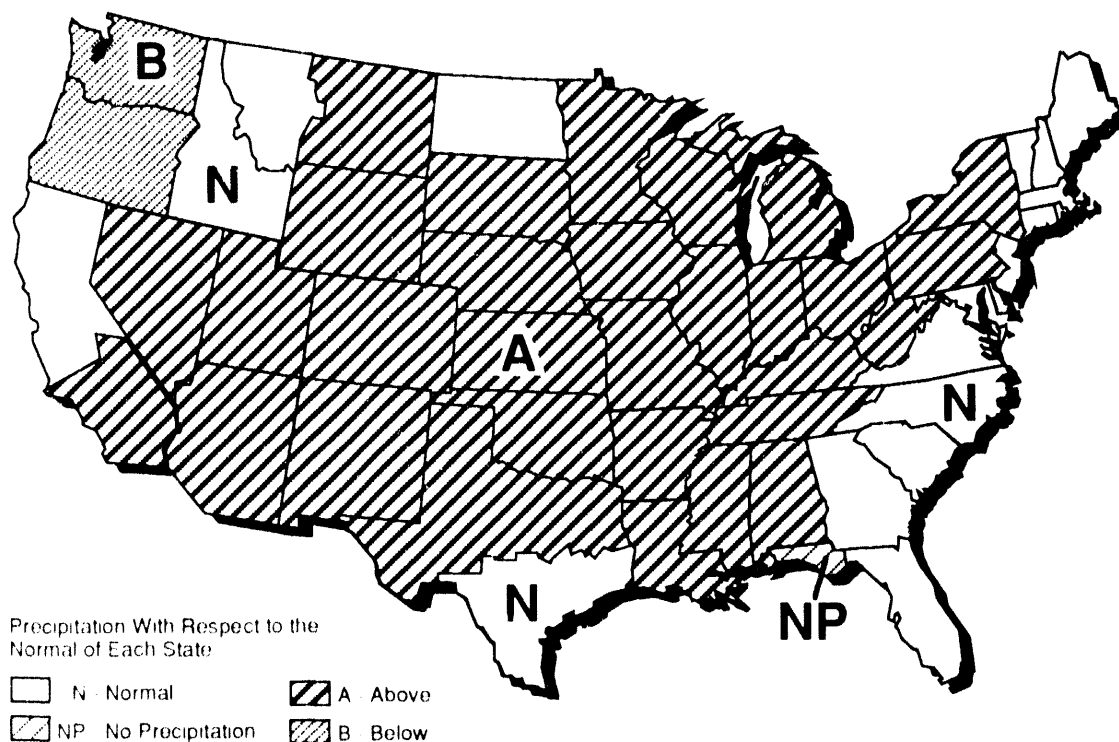
Source: National Weather Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

Figure 34. 6 - 10 Day Temperature Outlook for November 23 Through November 27, 1993



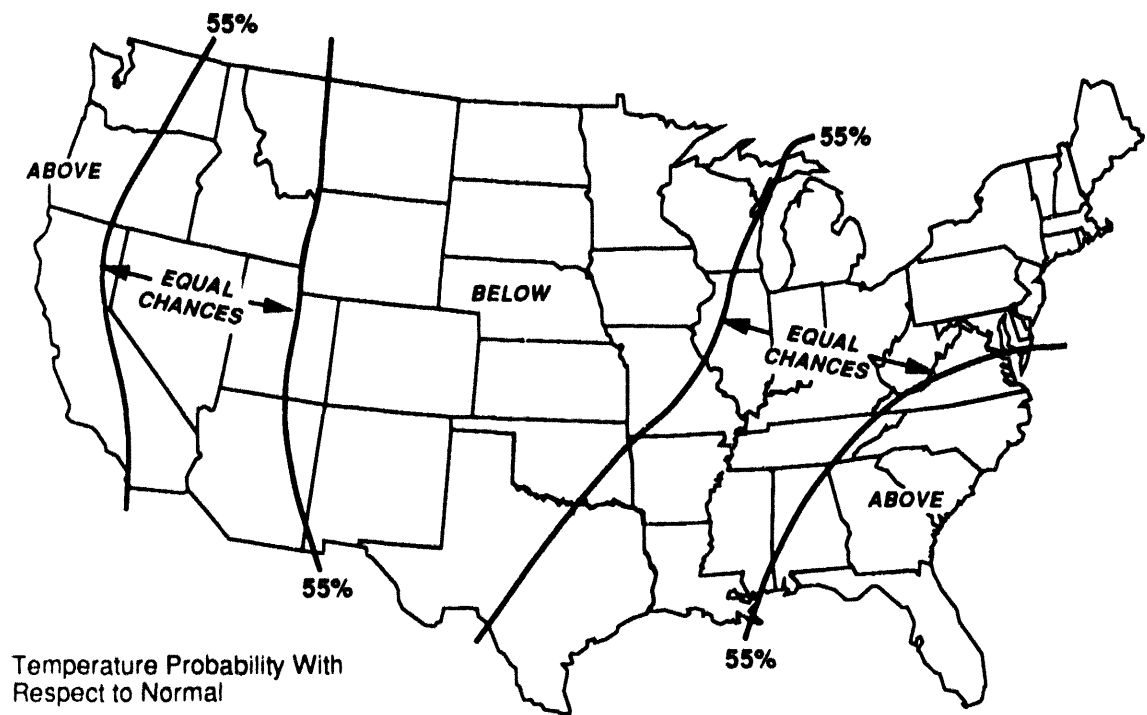
Source: National Weather Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce

Figure 35. 6 - 10 Day Precipitation Outlook for November 23 Through November 27, 1993



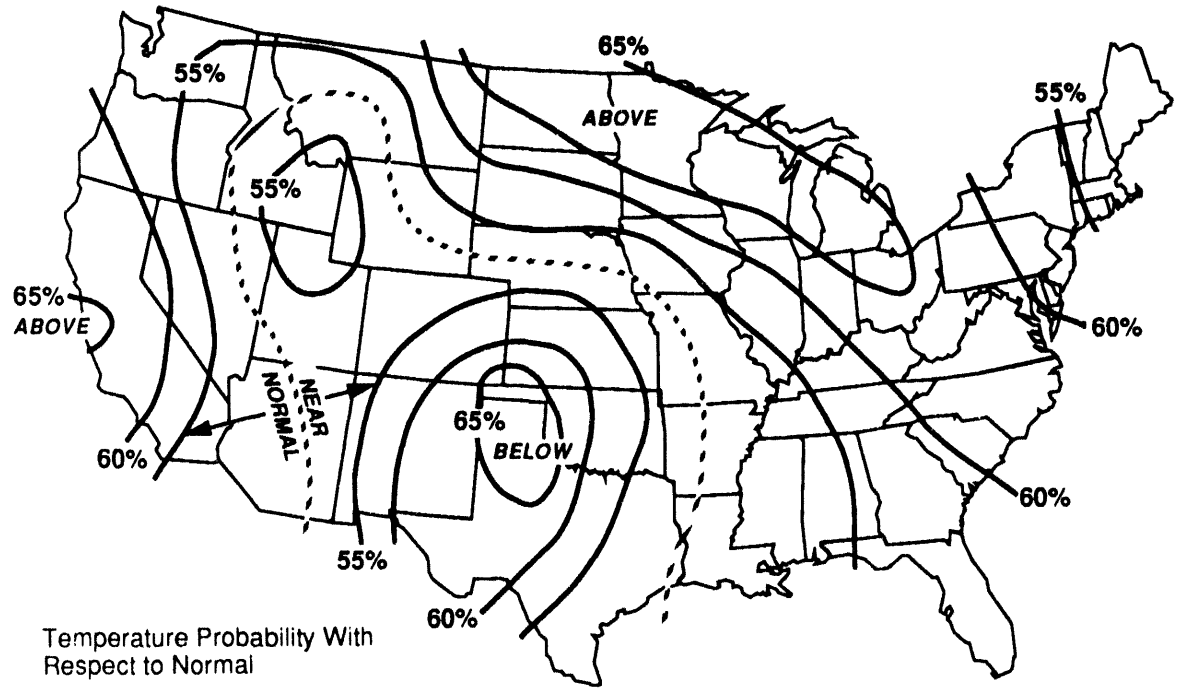
Source: National Weather Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce

Figure 36. 30 Day Temperature Outlook for November 1993



Source: National Weather Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

Figure 37. 90 Day Temperature Outlook for November 1993 Through January 1994



Source: National Weather Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

**Table 13. U.S. Total Heating Degree Days by City**  
(Population Weighted Heating Degree-Days, Except Where Noted)

City	1993	1992-1993	Normal	Percent Change	
				1993 vs. 1992-1993	1993 vs. Normal
July 1 - June 30		4,663	4,689	--	--
July 1 - November 13	643	634	537	1	20
Albuquerque	532	414	503	29	6
Amarillo	644	474	456	36	41
Asheville	627	584	561	7	12
Atlanta	307	270	280	14	10
Billings	1,284	1,114	1,135	15	13
Boise	927	832	883	11	5
Boston	746	833	614	-10	21
Buffalo	1,023	1,044	860	-2	19
Cheyenne	1,469	1,208	1,232	22	19
Chicago	983	956	769	3	28
Cincinnati	771	716	608	8	27
Cleveland	859	890	748	-3	15
Columbia, SC	306	259	259	18	18
Denver	991	796	871	24	14
Des Moines	962	881	735	9	31
Detroit	861	968	833	-11	3
Fargo	1,487	1,485	1,315	0	13
Hartford	942	966	757	-2	24
Houston	172	87	85	****	****
Jacksonville, FL	109	61	76	****	****
Kansas City	753	674	574	12	31
Las Vegas	148	130	152	14	-3
Los Angeles	28	5	95	****	****
Memphis	370	266	271	39	37
Miami	4	0	0	****	****
Milwaukee	881	1,018	925	-13	-5
Minneapolis	1,292	1,225	1,054	5	23
Montgomery	264	182	184	45	43
New York	529	578	471	-8	12
Oklahoma City	521	333	308	56	69
Omaha	932	858	747	9	25
Philadelphia	484	565	520	-14	-7
Phoenix	21	20	54	****	****
Pittsburgh	836	863	771	-3	8
Portland, ME	1,131	1,163	1,052	-4	8
Providence	807	807	691	0	17
Raleigh	445	406	346	10	29
Richmond	461	494	423	-7	9
St. Louis	582	510	456	14	28
Salem, OR	697	633	841	10	-17
Salt Lake City	813	684	749	19	9
San Francisco	242	208	483	16	-50
Seattle	818	738	889	11	-8
Shreveport	290	164	148	77	96
Washington, DC	488	523	370	-7	32

\*\*\*\*-Normal heating degree-days 100 or less, or ratio incalculable.

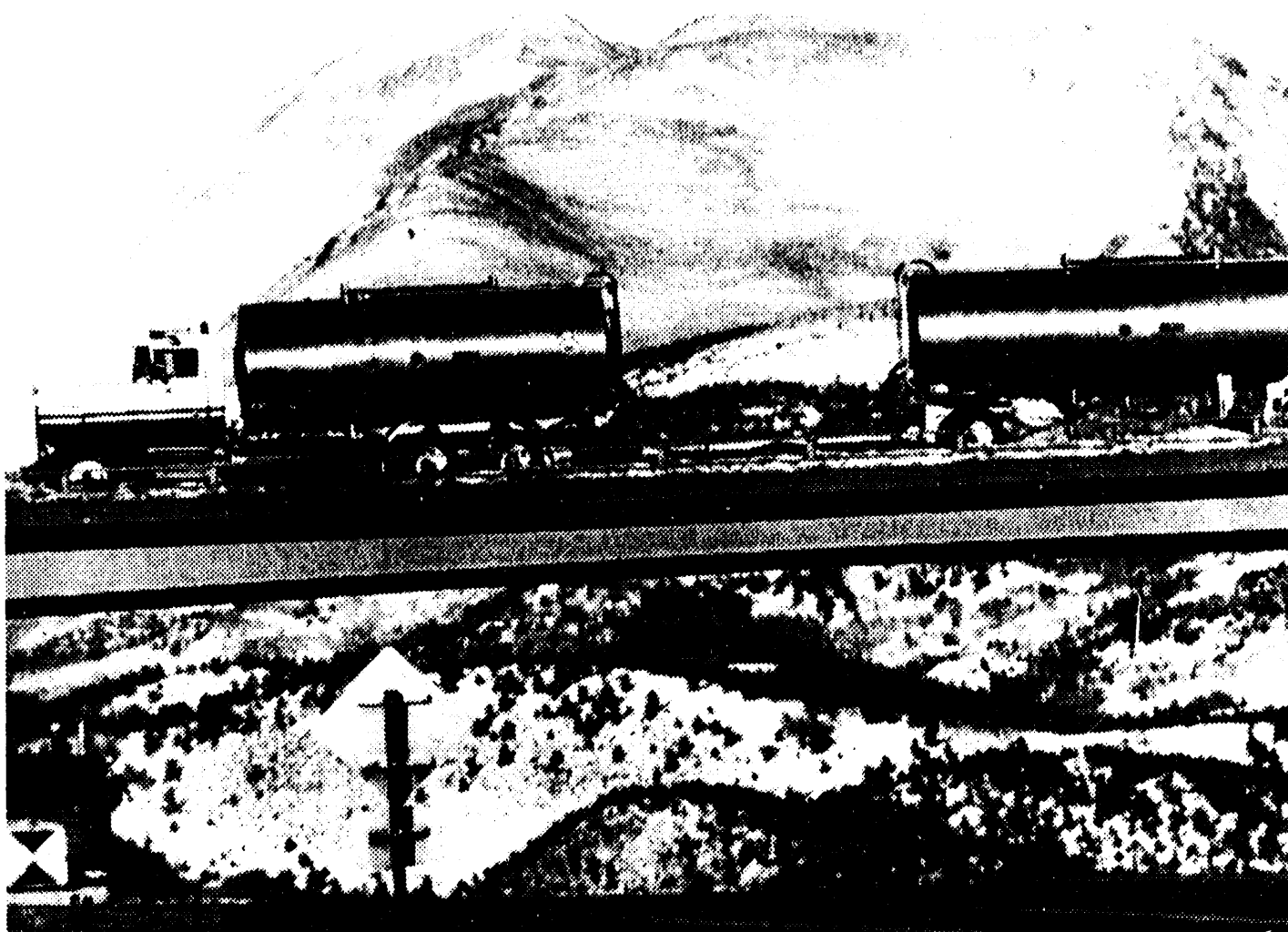
Note: • The weather for the Nation, as measured by population-weighted heating degree-days from July 1, 1993, through November 13, 1993, has been 1 percent cooler than last year and 20 percent cooler than normal.

• Heating degree-days is defined as the number of degrees per day the daily average temperature is below 65 degrees Fahrenheit. The daily average temperature is the mean of the maximum and minimum temperature for a 24-hour period.

Source: Weather data reported in the *Winter Fuels Report* are taken directly from a computerized system implemented by the National Oceanic and Atmospheric Administration, Department of Commerce. The National Oceanic and Atmospheric Administration (NOAA)/NWS, as a U.S. Government Agency, does not endorse any consumer information services.

## Appendix A

### District Descriptions and Maps



*Tank trucks are used to distribute heating oil to remote areas.*

## District Descriptions and Maps

The following are the 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 (PADD 1X):** The States of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

**Central Atlantic (PADD 1Y):** The District of Columbia and the States of Delaware, Maryland, New Jersey, New York, and Pennsylvania.

**Lower Atlantic (PADD 1Z):** 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.

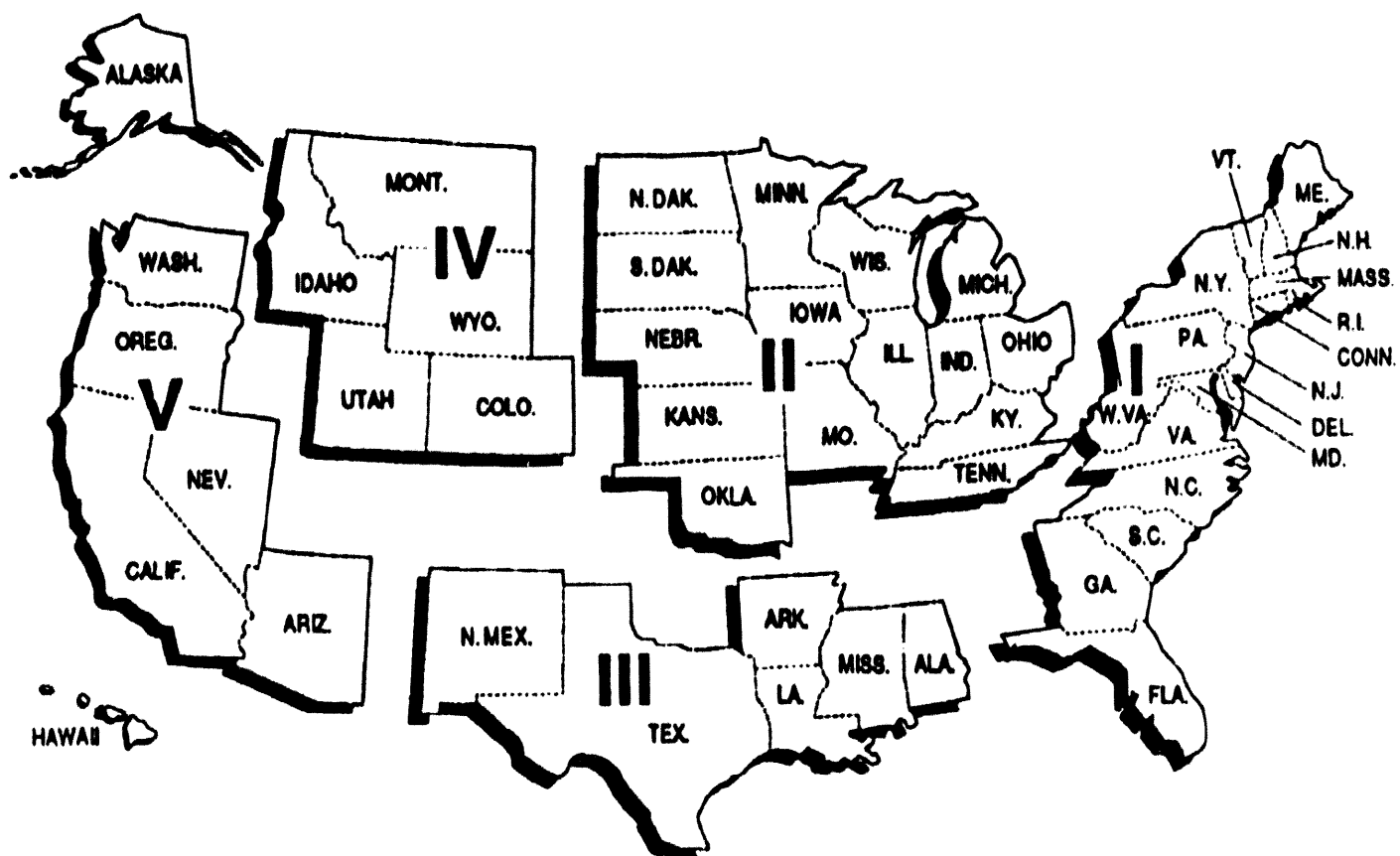
### PAD District V

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



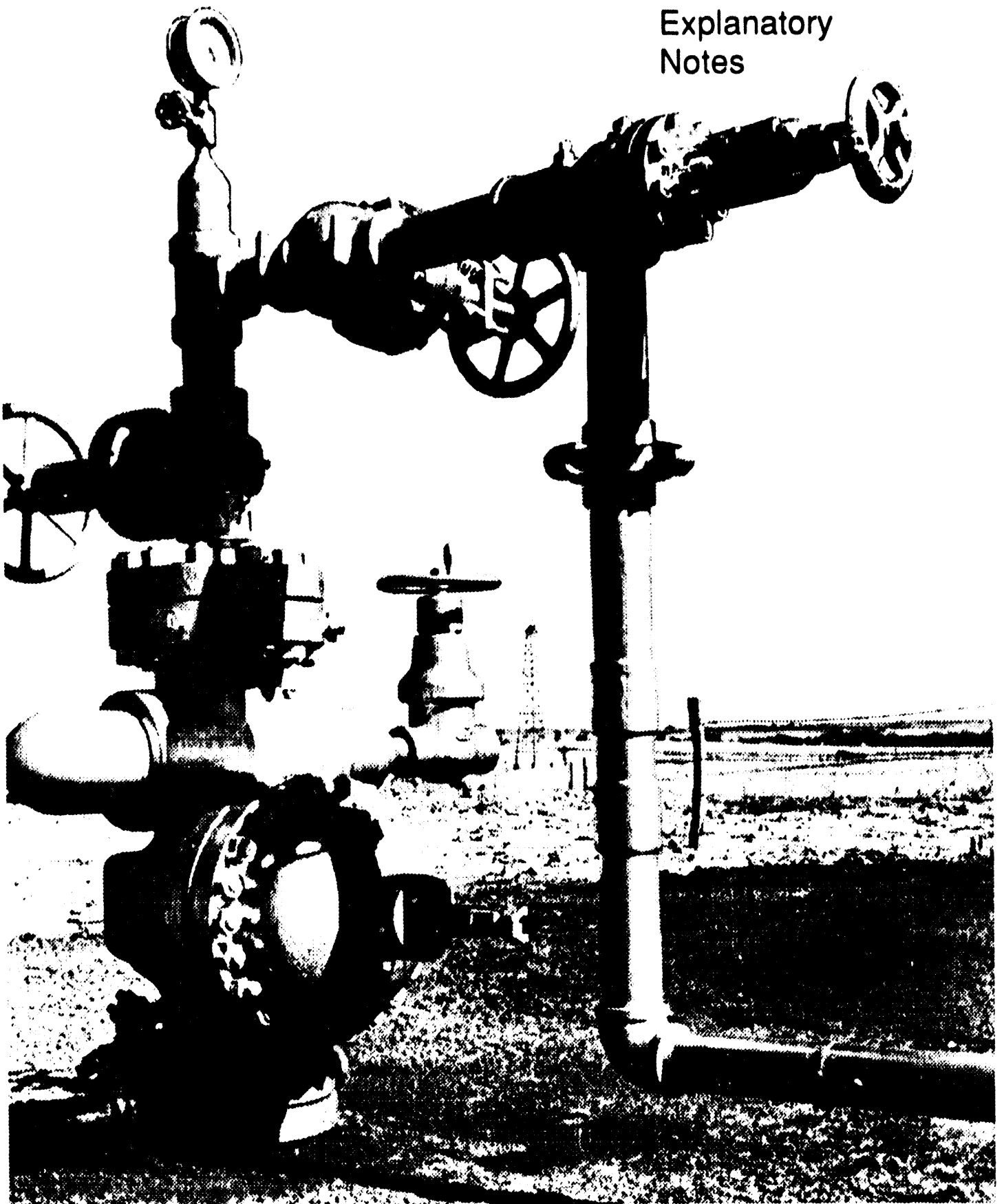
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## Petroleum Administration for Defense (PAD) Districts



## Appendix B

### Explanatory Notes



*The cluster of pipes and valves that control the flow of oil at the mouth of an oil well is what oilmen call a "Christmas Tree."*

## Explanatory Notes

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

- Note 1. Distillate Fuel Oil
- Note 2. Propane
- Note 3. Figures
- Note 4. Natural Gas
- Note 5. Prices
- Note 6. Provisions Regarding Confidentiality of Information

### Note 1. Distillate Fuel Oil

Data on distillate fuel oil are collected within two time frames: weekly and monthly. Data from the Weekly Petroleum Supply Reporting System (WPSRS) are used to develop estimates for distillate fuel oil on a weekly basis. The forms that comprise the WPSRS are:

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

Monthly data are extracted from selected surveys in the Monthly Petroleum Supply Reporting System (MPSRS). The forms that comprise the MPSRS are:

Form Number	Name
EIA-810	<i>Monthly Refinery Report</i>
EIA-811	<i>Monthly Bulk Terminal Report</i>
EIA-812	<i>Monthly Product Pipeline Report</i>
EIA-814	<i>Monthly Imports Report</i>
EIA-816	<i>Monthly Natural Gas Liquids Report</i>

Refer to Explanatory Note 2 in the *Petroleum Supply Monthly* for a detailed discussion of the MPSRS.

### Sample Frame

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.

### Sampling

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

### Collection Methods

Data are collected by mail, mailgram, telephone, Telex, Telefax, and electronic transmission on a weekly basis. All canvassed firms must file by 5 p.m. on the Monday following the close of the report week, 7 a.m. Friday.

### Resubmissions

During the processing week, company corrections of the prior week's data are also entered. This revised data is used to edit the current processing week's data.

### Estimation and Imputation

After the company reports have been checked and entered into the weekly data base, explicit imputation is done for companies which have not yet responded. The imputed values are exponentially smoothed means of recent weekly reported values for this specific company. The imputed values are treated like reported values in the estimation procedure, which calculates ratio estimates of the weekly totals. First, the current week's data for a given product reported by companies in a geographic region are summed. (Call this weekly sum,  $W_i$ .) Next, the most recent month's data for the product reported by those same companies are summed. (Call this monthly sum,  $M_i$ .) Finally, let  $M_i$  be the sum of most recent month's data for the product as reported by all companies. Then, the current week's ratio estimate for that product for all companies,  $W_i$ , is given by:

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

This procedure is used directly to estimate total weekly inputs to refineries and production. To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of total weekly imports is the product of the smoothed ratio and the sum of the weekly reported values and imputed values.

### Response Rates

The response rate as of the day after the filing deadline is about 80 percent for the EIA-800, 75 percent for the EIA-801, 95 percent for the EIA-802, 80 percent for the EIA-803, and greater than 95 percent for the EIA-804. However, more forms are received the next day, bringing the final response rates up. Late respondents are contacted by telephone. Nearly all of the major companies report on time. The nonresponse rate for the published estimate is usually between 1 percent and 2 percent.

## Note 2. Propane

The Form EIA-807, "Propane Telephone Survey," was implemented in April 1990 as the result of the 1989 propane supply disruption. The hardships experienced by propane users during the December 1989 cold-snap in the Northeast and Mid-Continent areas made the need for timely supply information imperative. During 1990, propane data was collected and provided to Congress and others upon request. Because of the overwhelming demand for continuous monitoring of propane supply, the *Winter Fuels Report* was implemented in September 1990. This report publishes weekly data on propane as well as other heating fuels.

### Respondent Frame

The Form EIA-807, "Propane Telephone Survey," collects data on production, stocks, and imports of propane. The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. These surveys are:

Form Number	Name
EIA-810	<i>Monthly Refinery Report</i>
EIA-811	<i>Monthly Bulk Terminal Report</i>
EIA-812	<i>Monthly Product Pipeline Report</i>
EIA-814	<i>Monthly Imports Report</i>
EIA-816	<i>Monthly Natural Gas Liquids Report</i>

### Sampling

The sampling procedure used for the EIA-807 is the cut-off method. In the cut-off method, facilities are ranked from largest to smallest on the basis of quantities reported for propane production, imports, and stocks. Companies are chosen for the sample beginning with the largest and adding companies until the total sample covers about 90 percent of the total for each item and each geographic region (Petroleum Administration for

Defense Districts I (IX, IY, IZ), II and III) for which data are published. A bench mark factor is used to capture the remaining 10 percent of the propane industry.

The sample frame for the EIA-807 is re-evaluated on an annual basis to assure 90 percent coverage of the total for each item collected and each geographic region. However, when necessary the sample frame is updated more frequently.

### Collection Methods

Data are collected by telephone or facsimile. No written confirmation of the data submission is necessary. For weekly data collections, telephone calls to the respondents start on the Monday following the end of the report period. For monthly data collections, telephone calls to respondents start on the third working day following the end of the report period.

### Resubmissions

Resubmissions are any changes to originally submitted 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.

### Revision Error

Summary information on the revision error between preliminary weekly data and final monthly data will be incorporated in the feature article in the *Petroleum Supply Monthly* entitled, "Timeliness and Accuracy of Petroleum Supply Data." The last article was published in the August 1993 issue and evaluated the accuracy of the data for 1992 compared with previous years.

From October 1992 through March 1993, the difference between preliminary and final data for propane stocks remained within six percent. No difference in preliminary and final data was found for imports and production of propane.

### Estimation and Imputation

After the company reports have been checked and entered into the EIA-807 data base, imputation is done for companies which have not yet responded. The imputed values are equal to the latest reported data for a particular reporting unit. Response rates are over 90 percent so very little imputation is done.

After the data files have been edited and corrected, aggregation is done for net production, imports, and stocks by each geographic region. Estimation factors, which were derived from 1992 reported data, are then applied to each cell to generate published estimates.

### Response Rate

The response rate is generally 95 to 100 percent. Chronic nonrespondents and late filing respondents are contacted by telephone and reminded of their requirement to report. Nearly

all of the major companies report on time. The nonresponse rate for the published estimate is usually between 1 percent and 2 percent.

### Note 3. Figures

The national inventory (stocks) graphs for distillate fuel oil and propane include features to assist in comparing current inventory levels with past inventory levels and with judgments of critical levels. Methods used in developing the average inventory levels and minimum operating levels are described below.

#### Average Inventory Levels

The charts displaying inventory levels of distillate fuel oil and propane (Figures 1 through 14) provide the reader with actual inventory data compared to an "average range" for the most recent 3-year period running from January through December or from July through June. The ranges also reflect seasonal variation for the past 7 years.

The seasonal factors, which determine the shape of the upper and lower curves, are estimated with a seasonal adjustment technique developed at the Bureau of Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive (i.e., the series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported inventory levels.) The intent of deseasonalization is to remove only annual variation from the data. Thus, deseasonalized series would contain the same trends, cyclical components, and irregularities as the original data. The seasonal factors are updated annually in October, using the 7 most recent years' final monthly data.

The seasonal factors are used to deseasonalize data from the most recent 3-year period (January-December or July-June). The average of the deseasonalized 36-month series determines the midpoint of the "average range." The standard deviation of the deseasonalized 36 months is then calculated after adjusting for extreme data points. The upper curve of the "average range" is defined as average plus the seasonal factors plus the standard deviation. The lower curve is defined as the average plus the seasonal factors minus the standard deviation. Thus, the width of the "average range" is twice the standard deviation. The ranges are updated every 6 months in April and October.

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

### Note 4. Natural Gas

Data contained in tables in the Natural Gas Section are from tables published in the *Natural Gas Monthly*. Data are collected from the following surveys:

#### Form EIA-191

The Form EIA-191, "Underground Natural Gas Storage Report," collects storage data by State, field, and reservoir. There are approximately 400 operating reservoirs in the United States, owned by 97 companies. It is a multipart form that reports the quantities of gas in storage, injections and withdrawals, and the location (State and county) and capacity of underground storage reservoirs along with peak day sendout during the reporting period.

The response rate as of the filing deadline is approximately 20 percent. Data from the remaining 80 percent of respondents are received in writing and/or by telephone within 3 to 4 days after the filing deadline. All data supplied by telephone are subsequently filed in writing, generally within 15 days of the filing deadline. The final response rate is 100 percent.

#### Form FERC-11

The Form FERC-11, "Natural Gas Pipeline Company Monthly Statement," is a monthly regulatory reporting form. Form FERC-11 is filed by major interstate natural gas pipeline companies whose combined sales for resale and gas transported interstate or stored for a fee exceeded 50 billion cubic feet in the previous calendar year. Approximately 50 pipeline companies report data on Form FERC-11. Information is collected monthly by mail. Historically, the response rate has been 100 percent.

#### Form FPC-14

The Form FPC-14, "Annual Report for Importers and Exporters of Natural Gas," is filed annually by each organization or individual having authorization to import and export natural gas regardless of whether any imports or exports took place during the reporting year. In 1992, 375 companies met the reporting criteria, only 143 reported imports or exports of natural gas.

#### Form EIA-857

The Form EIA-857, "Monthly Report of Natural Gas Purchases and Deliveries to Consumers," is a mandatory report. Data collected on the Form EIA-857 include both price and volume data and are considered proprietary. A sample of 391 natural gas companies including interstate pipelines, intrastate pipelines, and local distribution companies report on the Form EIA-857. The sample is selected independently for each of the 50 States and the District of Columbia.

#### Form EIA-176

The Form EIA-176, "Annual Report of Natural and Supplemental Gas Supply and Disposition," survey universe includes approximately 1,800 companies and 2,096 responses. These companies are interstate and intrastate natural gas pipeline companies, investor and municipally owned natural gas distributors, synthetic natural gas plant operators, and field, well,

or processing plant operators that deliver natural gas directly to consumers (including their own industrial facilities) and/or that transport gas to, across, or from a State border through field or gathering facilities.

## Note 5. Prices

The residential No. 2 heating oil and propane prices (excluding taxes) for a given State are based on the results of telephone surveys of a sample of marketers and refiners. Data are collected under the Energy Information Administration (EIA) State Heating Oil and Propane Program.

### Sampling Methodology and Estimation Procedures

To estimate aggregate propane and No. 2 heating oil price data for a State, the sample weight and volume sales data were applied to the reported price, summed and divided by the sum of the weighted volume:

$$\frac{\sum_{j=1}^s \sum_{i=1}^{n_j} w_{ij} v_{ij} p_{ij}}{\sum_{j=1}^s \sum_{i=1}^{n_j} w_{ij} v_{ij}} \quad \text{where } w =$$

sample weight,  $v$  = volume,  $p$  = price,  $i$  = respondent,  $n_j$  = sample size of stratum  $j$ , and  $s$  = number of strata, to obtain a volume weighted price.

The volume used for No. 2 heating oil is the company's residential sales volume for 1988 as reported on the EIA-863 "Petroleum Product Sales Identification Survey." The volume used for propane is the company's residential propane sales volume for the previous year obtained by Form EIA-877, "Winter Heating Fuels Telephone Survey," during the first pricing period.

These fixed volume weights indicate the relative importance of the individual companies according to the size of their sales. Therefore, changes in the average price across time reflect only the change in the price being offered by the company, and not changes in the amounts sold. Price indexes constructed using fixed volumes, such as these annual sales, are known as Laspeyres Indexes. The alternative method of weighting, current weights, would require each company to report the number of gallons sold at the reported price each pricing period. This method is more burdensome on the companies and reflects prices over a period of time as compared to a point in time. Therefore, the calculation of average prices tends to lag behind the reference period. Indexes constructed from current period weights are known as Paasch Indexes.

Both methods of weighting are correct; they do, however, vary when current weights are changing. It has been argued that during periods of change, the Laspeyres method has a tendency to overestimate price changes, while the Paasche method tends to underestimate price changes.

In this survey, it is expected that the relative change in volumes monthly is small. Residential sales are not bulk in nature and do not tend to reflect discounts on price for large volume purchases. Absolute changes in volume within a year's time would more likely reflect demand and be consistent across companies within a geographical area.

## Reliability of the Data

Two types of errors are associated with data produced from a sample survey---sampling errors and nonsampling errors. Sampling errors occur because the estimates are based on a sample rather than on a census. The particular sample used for the EIA-877 survey is one of a large number of samples of equal size which could have been selected from the sampling frame using the same sample design. Each of these samples would produce a different estimate. If the estimates were averaged over all possible samples, the result would be the same as the estimate derived from a census of the sampling frame. The sampling error is a measure of variability among the estimates from all possible samples and, thus, is a measure of the precision with which an estimate from a particular sample approximates the results of a census.

Nonsampling errors can be attributed to many sources: (1) inability to obtain complete information about all cases in the sample (i.e., nonresponse), (2) response errors, (3) definitional difficulties, (4) differences in the interpretation of questions, (5) mistakes in recording or coding the data obtained, and (6) other errors of collection, response, coverage, and estimation for missing data. These nonsampling errors also occur in complete censuses.

Although no direct measurement of the biases due to nonsampling errors can be obtained, precautionary steps were taken in all phases of the frame development and data collection, processing, and tabulation processes, in an effort to minimize their influence.

Data in Tables B1 and B2 are based on survey data which are subject to sampling errors. Coefficients of variation, which are estimates of sampling errors, are presented for the propane and No. 2 heating oil prices in the following tables for the 1993/94 survey. The coefficients of variation (CV) were estimated by:

$$CV(\hat{P}) = \frac{\sqrt{VAR(\hat{P})}}{\hat{P}}$$

where:

$$VAR(\hat{P}) = \frac{1}{\bar{V}^2} \sum_k N_k^2 \left( \frac{1-f_k}{n_k} \right) S_k^2$$

$$S_k^2 = S_{kq}^2 + \hat{P}^2 S_{kv}^2 - 2\hat{P} S_{kqv}$$

for heating oil:

$$S_{kq}^2 = \frac{\sum_{i=1}^{n_k} (P_{ik} V_{ik} - \bar{P}_k \bar{V}_k)^2}{n_k - 1}$$

$$S_{kv}^2 = \frac{\sum_{i=1}^{n_k} (V_{ik} - \bar{V}_k)^2}{n_k - 1}$$

$$S_{kqv}^2 = \frac{\sum_{i=1}^{n_k} (P_{ik}V_{ik} - \bar{P}_k\bar{V}_k)(V_{ik} - \bar{V}_k)}{n_k - 1}$$

but for propane:

$$S_{kq}^2 = \frac{\sum_{i=1}^{n_k-1} (P_{ik}V_{ik} - P_{i+1,k}V_{i+1,k})^2}{2(n_k-1)}$$

$$S_{kv}^2 = \frac{\sum_{i=1}^{n_k-1} (V_{ik} - V_{i+1,k})^2}{2(n_k-1)}$$

$$S_{kqv}^2 = \frac{\sum_{i=1}^{n_k-1} (P_{ik}V_{ik} - P_{i+1,k}V_{i+1,k})(V_{ik} - V_{i+1,k})}{2(n_k-1)}$$

$n_k$  = number of respondents in stratum k

$N_k$  = number of population units in stratum k

$V_{ik}$  = reported volume for unit i in stratum k

$\bar{V}_k$  = average volume for sample units in stratum k

$P_{ik}V_{ik}$  = reported revenue for unit i in stratum k

$\bar{P}_k\bar{V}_k$  = average revenue for sample units in stratum k

$\hat{P}$  = weighted average price for each State

## Residential No. 2 Heating Oil

For the No. 2 heating oil price data, a sample design similar to that used for the EIA Form EIA-782B, "Resellers'/Retailers' Monthly Petroleum Product Sales Report," sample design was used. The sampling frame was an extract of approximately 11,000 companies from the Form EIA-863, "Petroleum Product Sales Survey," conducted in 1989 and containing 1988 sales volume information. A one-way stratified sample design using No. 2 residential distillate frame sales volumes by State, for each of the 27 States to be sampled, was used. Stratum boundaries were determined by the Dalenius-Hodges procedure. Sample weights were calculated as the inverse of the probability (N/n). Certainty strata were established based on sales volumes and the number of States in which the company has sales. The expected price coefficient of variation is one to two percent.

## Residential Propane

Since no volume sales information existed to predetermine the volume sales of propane dealers, two strata for propane dealers was used. A certainty stratum of the known, large, multi-State dealers was created. These companies were identified using establishment lists obtained in deriving the frame. All other dealers were in a second stratum and a random sample from this stratum was selected. Sample weights were calculated as the inverse of the probability (N/n). The name and address list sampling frame was constructed by first extracting from the Form EIA-863, "Petroleum Product Sales Identification Survey," companies who marked the box on the survey indicating they sell propane. This was augmented by companies on the Office of Oil and Gas Master File who have the words propane or liquefied petroleum gas (LPG) in their name. In addition, companies who file the Form EIA-782A, "Refiners'/Gas Plant Operators' Monthly Petroleum Product Sales Report," and report retail propane or the Form EIA-782C, "Monthly Report of Petroleum Products Sold into States for Consumption," and report propane, as well as companies that were active on the Form EIA-174, "Liquefied Petroleum Gas Survey," prior to its discontinuance, were included.

After unduplicating these companies, the initial frame file contained approximately 5,100 companies. Additional companies were obtained from an extract of a current Dun and Bradstreet file of SIC code 5984(9903), primary and secondary retail propane dealers, containing 3,283 names and addresses. Removal of duplicates within this file and between it and the initial frame file was performed using tailored automated match programs with manual review, and resulted in approximately 1,000 potential adds to the initial file. Similarly, additional names and addresses were furnished by industry associations and journals and by State Energy Offices, yielding another 7,429 names. Again, removal of duplicates through the match programs yielded an approximate potential add of 900 companies. Another 800 companies were identified as residing on the Master File but not previously selected as potential propane sellers. Further matching, merging and unduplicating reduced the final total frame count to approximately 6,000 companies. Reseller/retailer propane price data were unavailable to calculate a target coefficient of variation. However, it was expected that residential propane price variances were similar to heating oil. Increases in variances were expected as a result of lack of detailed stratification, but were only expected to reach three to four percent.

## Revision Error

The numbers in Tables B3 and B4 display revision errors for heating oil and propane prices collected during the 1992/93 survey season. Numbers may be revised in the publication based on data received late or receipt of revised data. Numbers are published as preliminary and final. The difference between preliminary and final data is called the revision error.

## Response Rate

Response rates are generally 95 to 100 percent.

**Table B1. Coefficients of Variation for Residential Heating Oil Prices by Region and State**  
(Cents per Gallon)

Region/State	1993/94 Heating Season											
	10/04	10/18	11/01	11/15	12/06	12/20	01/03	01/17	02/07	02/21	03/07	03/21
Average	0.00	0.01										
East Coast (PADD I)	0.00	0.01										
New England (PADD IX)	0.00	0.01										
Connecticut	0.00	0.01										
Maine	0.00	0.00										
Massachusetts	0.00	0.01										
New Hampshire	0.00	0.01										
Rhode Island	0.00	0.01										
Vermont	0.00	0.02										
Central Atlantic (PADD IY)	0.00	0.02										
Delaware	0.00	0.01										
District of Columbia	0.00	0.00										
Maryland	0.00	0.01										
New Jersey	0.00	0.02										
New York	0.00	0.03										
Pennsylvania	0.00	0.02										
Lower Atlantic (PADD IZ)	0.00	0.01										
North Carolina	0.00	0.01										
Virginia	0.00	0.01										
Midwest (PADD II)	0.00	0.01										
Indiana	0.00	0.01										
Iowa	0.00	0.00										
Michigan	0.00	0.01										
Minnesota	0.00	0.02										
Ohio	0.00	0.01										
Wisconsin	0.00	0.01										

Source: Based on data collected by State Energy Offices.



**Table B2. Coefficients of Variation for Residential Propane Prices by Region and State**  
(Cents per Gallon)

	1993/94 Heating Season											
Region/State	10/04	10/18	11/01	11/15	12/06	12/20	01/03	01/17	02/07	02/21	03/07	03/21
Average	0.00	0.01										
East Coast (PADD I)	0.00	0.01										
New England (PADD IX)	0.00	0.01										
Connecticut	0.00	0.03										
Maine	0.00	0.05										
Massachusetts	0.00	0.03										
New Hampshire	0.00	0.03										
Rhode Island	0.00	0.01										
Vermont	0.00	0.03										
Central Atlantic (PADD IY)	0.00	0.02										
Delaware	0.00	0.01										
Maryland	0.00	0.01										
New Jersey	0.00	0.01										
New York	0.00	0.03										
Pennsylvania	0.00	0.05										
Lower Atlantic (PADD IZ)	0.00	0.02										
North Carolina	0.00	0.02										
Virginia	0.00	0.03										
Midwest (PADD II)	0.00	0.01										
Indiana	0.00	0.02										
Iowa	0.00	0.02										
Kansas	0.00	0.03										
Michigan	0.00	0.02										
Minnesota	0.00	0.02										
Missouri	0.00	0.02										
North Dakota	0.00	0.02										
Ohio	0.00	0.04										
South Dakota	0.00	0.01										
Wisconsin	0.00	0.01										

Source: Based on data collected by State Energy Offices.

**Table B3. Revision Rates for Residential Heating Oil Prices by Region and State**  
(Cents per Gallon)

Region/State	1992/93 Heating Season											
	10/05	10/19	11/02	11/16	12/07	12/21	01/04	01/18	02/01	02/15	03/01	03/15
Average	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
East Coast (PADD I)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New England (PADD IX)	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Connecticut	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maine	0.0	0.1	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Massachusetts	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
New Hampshire	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.3	0.0	0.0	0.0
Rhode Island	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vermont	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Central Atlantic (PADD IV)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delaware	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
District of Columbia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maryland	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Jersey	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New York	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pennsylvania	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Lower Atlantic (PADD IZ)	0.0	1.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
North Carolina	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Virginia	0.0	2.6	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Midwest (PADD II)	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indiana	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Iowa	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Michigan	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minnesota	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Ohio	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wisconsin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Based on data collected by State Energy Offices.

**Table B4. Revision Rates for Residential Propane Prices by Region and State**  
(Cents per Gallon)

Region/State	1992/93 Heating Season							
	10/05	10/19	11/02	11/16	12/07	12/21	01/04	01/11
Average	0.0	0.2	0.2	0.0	0.1	0.0	0.0	0.0
East Coast (PADD I)	0.0	0.4	0.1	0.1	0.0	0.0	0.0	0.0
New England (PADD IX)	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
Connecticut	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maine	0.0	0.1	0.4	0.1	0.0	0.0	0.0	0.0
Massachusetts	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
New Hampshire	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Rhode Island	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0
Vermont	0.0	0.0	0.0	1.9	0.0	0.0	0.0	0.0
Central Atlantic (PADD IY)	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Delaware	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maryland	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
New Jersey	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0
New York	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0
Pennsylvania	0.0	4.8	0.6	0.0	0.0	0.0	0.0	0.0
Lower Atlantic (PADD IZ)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
North Carolina	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Virginia	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0
Midwest (PADD II)	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Indiana	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Iowa	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kansas	0.0	1.0	1.1	0.0	0.0	0.0	0.0	0.0
Michigan	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Minnesota	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Missouri	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
North Dakota	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ohio	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0
South Dakota	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0
Wisconsin	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0

Region/State	1992/93 Heating Season							
	01/18	01/25	02/01	02/15	03/01	03/15	04/05	04/19
Average	0.1	0.0	0.0	0.1	0.2	0.0	0.1	0.0
East Coast (PADD I)	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0
New England (PADD IX)	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
Connecticut	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Maine	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0
Massachusetts	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Hampshire	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Rhode Island	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0
Vermont	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Central Atlantic (PADD IY)	0.1	0.0	0.0	0.0	1.4	0.0	0.0	0.0
Delaware	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maryland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Jersey	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
New York	0.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0
Pennsylvania	0.2	0.0	0.1	0.3	0.0	0.0	0.0	0.0
Lower Atlantic (PADD IZ)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
North Carolina	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Virginia	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0
Midwest (PADD II)	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Indiana	1.4	0.0	0.0	0.0	0.0	0.0	2.6	0.0
Iowa	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kansas	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Michigan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minnesota	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Missouri	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
North Dakota	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ohio	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0
South Dakota	0.0	0.0	0.0	0.0	0.1	0.0	2.5	0.0
Wisconsin	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0

Note: • Due to significant wholesale prices increases between January 4 and January 11, 1993, stemming from low propane stocks in the Midwest, EIA initiated weekly collection of State propane prices to monitor prices at the retail level. • Data in table appear in absolute values.  
Source: Based on data collected by State Energy Offices.

## **Note 6. Provisions Regarding Confidentiality of Information**

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 this form will be 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. section 552, the DOE regulations, 10 C.F.R.

section 1004.11, implementing the FOIA, and the Trade Secrets ACT, 18 U.S.C. section 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.

## Glossary



*Downstream processing units are used to upgrade petroleum products.*

# Definitions of Petroleum Products and Other Terms

**Balancing Item.** Represents differences between the sum of the components of natural gas supply and the sum of the components of natural gas disposition. These differences may be due to quantities lost or to the effects of data reporting problems. Reporting problems include differences due to the net result of conversions of flow data metered at varying temperatures and pressure bases and converting to a standard temperature and pressure base; the effect of variations in company accounting and billing practices; differences between billing cycle and calendar period time frames; and imbalances resulting from the merger of data reporting systems that vary in scope, format, definitions, and type of respondents.

**Barrel.** A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports.

**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.

**Commercial Consumption.** Gas used by nonmanufacturing establishments or agencies primarily engaged in the sale of goods or services. Included are such establishments as hotels, restaurants, wholesale and retail stores and other service enterprises; gas used by establishments engaged in agriculture, forestry, and fisheries; and gas used by local, State, and Federal agencies engaged in nonmanufacturing activities.

**Degree-Day Normals.** Simple arithmetic averages of monthly or annual degree-days over a long period of time (usually the 30-year period 1951-1980). These may be simple degree-day normals or population-weighted degree-day normals.

**Distillate Fuel Oil.** A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Included are products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuels. Distillate fuel oil is reported in the following sulfur categories: 0.05% sulfur and under and Greater than 0.05% sulfur.

**No. 1 Distillate.** A petroleum distillate which meets the specifications for No. 1 heating or fuel oil as defined in ASTM D 396 and/or the specifications for No. 1 diesel fuel as defined in ASTM Specification D 975 with distillation temperatures of 420° F at the 10-percent recovery point and 550° F at the 90-percent recovery point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100° F.

**No. 2 Distillate.** A petroleum distillate which meets the specifications for No. 2 heating or fuel oil as defined in ASTM D 396 and/or the specifications for No. 2 diesel fuel as

defined in ASTM Specification D 975 with distillation temperatures of 540° and 640° F at the 90-percent recovery point, and kinematic viscosities between 2.0 and 4.3 centistokes at 100° F.

**No. 4 Fuel Oil.** A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV-F-815C; with minimum and maximum kinematic viscosities between 5.8 and 26.4 centistokes at 100° F. Also included is No. 4-D, a fuel oil for low and medium-speed diesel engines that conforms to ASTM Specification D975.

**Dry Natural Gas Production.** Marketed production less extraction loss.

**Electric Utility Consumption.** Gas used as fuel in electric utility plants.

**Ending Stocks.** Primary stocks of crude oil and petroleum products held in storage as of the end of a specific report period. For the monthly report period this is as of 12 midnight on the last day of the month. For the weekly report period, 7 a.m. each Friday. 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.

**Exports.** Shipments of goods from the 50 States and the District of Columbia to foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

**Heating Degree-Days.** The number of degrees per day the daily average temperature is below 65 degrees F. The daily average temperature is the mean of the maximum and minimum temperature for a 24-hour period.

**Imports.** Receipts of goods into the 50 States and the District of Columbia from foreign countries, Puerto Rico, the Virgin Islands, and other U.S. possessions and territories.

**Industrial Consumption.** Natural gas used by manufacturing and mining establishments for heat, power, and chemical feedstock.

**Liquefied Natural Gas (LNG).** Natural gas (primarily methane) that has been liquefied by reducing its temperature to minus 260 degrees Fahrenheit at atmospheric pressure.

**Natural Gas.** A mixture of hydrocarbon compounds and small quantities of various nonhydrocarbons existing in the gaseous

phase or in solution with crude oil in natural underground reservoirs at reservoir conditions.

**Natural Gas Processing Plant.** A gas processing plant is a facility designed (1) to achieve the recovery of natural gas liquids from the stream of natural gas which may or may not have been processed through lease separators and field facilities, and (2) to control the quality of the natural gas to be marketed. Cycling plants are classified as gas processing plants.

**Net Production.** Petroleum products produced at a refinery, natural gas processing plant, or blending plant. Published production of these products equals production minus 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.

**Pipeline.** 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.

**Population-Weighted Degree-Days.** Heating or cooling degree-days weighted by the population of the area in which the degree-days are recorded. To compute national population-weighted degree-days, the Nation is divided into nine Census regions comprised of from three to eight States which are assigned weights based on the ratio of the population of the region to the total population of the Nation. Degree-day readings for each region are multiplied by the corresponding population weight for each region and these products are then summed to arrive at the national population weighted degree-day figure.

**Product 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 (C<sub>3</sub>H<sub>8</sub>).** A normally gaseous straight-chain hydrocarbon. It is a colorless paraffinic gas that boils at a temperature of -43.67 degrees 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 (C<sub>3</sub>H<sub>6</sub>).** An olefinic hydrocarbon recovered from refinery processes or petrochemical processes.

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

**Report Dates.** The official report dates for the residential and wholesale price surveys are the first and third Mondays. The official day for the primary stock survey is 7 a.m. on the Friday preceding the report date.

**Residential Consumption.** Gas used in private dwelling, including apartments, for heating, air conditioning, cooking, water heating, and other household uses.

**Residential Heating Oil Price.** The price charged for home delivery of No. 2 heating oil, exclusive of any discounts such as those for prompt cash payment. Prices do not include taxes paid by the consumer.

**Residential Propane Price.** The "bulk keep full" price for home delivery of consumer grade propane intended for use in space heating, cooking, or hot water heaters in residences.

**Storage Additions.** Volumes of gas injected or otherwise added to underground natural gas reservoirs or liquefied natural gas storage.

**Storage Withdrawals.** Volumes of gas withdrawn from underground storage or liquefied natural gas storage.

**Supplemental Gaseous Fuels Supplies.** Synthetic natural gas, propane-air, coke oven gas, refinery gas, biomass gas, air injected for Btu stabilization, and manufactured gas commingled and distributed with natural gas.

**Underground Storage.** The storage of natural gas in underground reservoirs at a different location from which it was produced.

**Underground Storage Injections.** Gas from extraneous sources put into underground storage reservoirs.

**Underground Storage Withdrawals.** Gas removed from underground storage reservoirs.

**United States.** For the purpose of this report, the 50 States and the District of Columbia. Data for the Virgin Islands, Puerto Rico, and other U.S. territories are not included in the U.S. Totals.

**Wholesale Price.** The rack price charged for No. 2 heating oil; that is, the price charged customers who purchase No. 2 heating oil free-on-board at a supplier's terminal and provide their own transportation for the product.

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