

NOTICE

**CERTAIN DATA
CONTAINED IN THIS
DOCUMENT MAY BE
DIFFICULT TO READ
IN MICROFICHE
PRODUCTS.**

We thank the following for the use of their photographs and illustrations in this report.

Champlin Petroleum Co., page ix (courtesy of the American Petroleum Institute).
Texaco Inc., page 1 (courtesy of Texaco Inc.).
Cities Service Co., page 9 (courtesy of the American Petroleum Institute).
Atlantic Richfield Co., page 17 (courtesy of the American Petroleum Institute).
Chevron USA Inc., page 27 (courtesy of the American Petroleum Institute).
Amerada Hess Corp., page 45 (courtesy of Amerada Hess Corp.).
Texaco Inc., page 49 (courtesy of Texaco Inc.).
Standard Oil Co., page 53 (courtesy of the American Petroleum Institute).

Released for printing: December 20, 1990

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

Winter Fuels Report

**Week Ending:
December 14, 1990**

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

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

MASTER

DISTRIBUTION OF THIS DOCUMENT IS UNLIMITED

**Energy Information Administration
Electronic Publication System (EPUB)
User Instructions**

Selected *Weekly Petroleum Status Report (WPSR)*, *Heating Fuel Data (HFUL)*, *Petroleum Supply Monthly (PSMR)*, *Natural Gas Monthly Report (NGMR)* and *Petroleum Marketing Monthly (PMMR)* statistics and other data series are available electronically on the Energy Information Administration (EIA) Computer Facility. Public access to these machine-readable statistics is possible by dialing (202) 586-8658 for 300-1200 baud line speeds. Communications are Asynchronous and require a standard ASCII-type terminal. There is no charge for this service. Although no password is required, you will be requested to use your telephone number as a user identifier. This service is available 7 days per week (8:00 a.m.-11:00 p.m., Monday through Friday, and 10:00 a.m.-6:00 p.m., weekends and holidays).

Report Name	Contact Person	Telephone Number	Date data are available
EPUB	Dale Bodzer	(202) 586-1257	
HFUL	Kathleen Cavanaugh	(202) 586-2970	5:00 PM Thursday*
NGMR	Jim Todaro	(202) 586-5400	20th of the Month
PMMR	Kenneth Platto	(202) 586-6364	20th of the Month
PSMR	Steve Patterson	(202) 586-5994	20th of the Month
WPSR	James Kendell	(202) 586-9646	5:00 PM Wednesday**

* Friday in the event of a holiday.
** Thursday in the event of a holiday.

Access Instructions:

- 1) DIAL (202) 586-8658.
- 2) HIT RETURN (CARRIAGE RETURN) TWO OR THREE TIMES UNTIL THE EPUB BANNER APPEARS.

```

***                                     ***
***                                     ***
***      WELCOME TO THE                 ***
***      ENERGY INFORMATION ADMINISTRATION ***
***      ELECTRONIC PUBLICATION SYSTEM ***
***                                     ***

```

- 3) SELECT THE STATISTICS YOU WISH FROM THE MENU.

THE FOLLOWING REPORTS ARE AVAILABLE:

WPSR - WEEKLY PETROLEUM STATUS REPORT	CWWR - WEEKLY COAL WORK TABLE
PSMR - PETROLEUM SUPPLY MONTHLY	QMCR - QCR METRIC TABLE
STKS - PSM STATE STOCKS TABLE	QSCR - QCR SHORT TONS TABLE
WCPR - WEEKLY COAL PRODUCTION REPORT	MQWR - QCR METRIC WORK TABLE
EPMS - U.S. ELECTRIC POWER STATISTICS	SQWR - QCR SHORT TONS WORK TABLE
NGMR - NATURAL GAS MONTHLY REPORT	PMMR - PETROLEUM MARKETING MONTHLY
HFUL - HEATING FUEL DATA	SHOR - SHORT-TERM ENERGY OUTLOOK
:::: NOTE: QCR=QUARTERLY COAL RPT	

PLEASE ENTER THE DESIRED REPORT ID... **HFUL**

- 4) ENTER YOUR 10 DIGIT PHONE NUMBER.

SWP1081 LOGON IN PROGRESS AT 13:23:22 ON SEPTEMBER 6, 1990
PLEASE ENTER YOUR PHONE NUMBER...

- 5) YOU WILL THEN SEE A BANNER WHICH SHOWS THE REPORT YOU HAVE SELECTED AND PAUSES TO ALLOW AMPLE TIME TO GET READY TO RECEIVE OUTPUT.

YOU HAVE SELECTED HEATING FUEL DATA FROM THE OFFICE OF OIL AND GAS.

(PRINTING WILL BEGIN IN 20 SECONDS)

Note: Users who experience problems when first attempting to logon should check their terminal switch settings for the following:	• 7 Data Bits	• 1 Stop Bit	• Even Parity
---	---------------	--------------	---------------

Contacts

The *Winter Fuels Report* is prepared by the Office of Oil and Gas, Energy Information Administration. General information about this document may be obtained from Jimmie L. Petersen (202) 586-6401, Director of the Office of Oil and Gas. Specific questions can be directed to:

Propane /Distillate Oil Supply	Kathleen Cavanagh	(202) 586-2970
	Susan Harris	(202) 586-8384
Propane/Distillate Prices	Lamar Gowland	(202) 586-6608
	Annic Whatley	(202) 586-6612
Natural Gas	Ken Brown	(202) 586-6077

Copies of this report are available to the press through the Department of Energy's Public Inquiries, Room 1E-206, Forrestal Building, Washington, DC, (202) 586-5575 and to the public through the National Energy Information Center, Room 1F-048, Forrestal Building, Washington, DC, (202) 586-8800.

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 for all PADD's and product supplied on a U.S. level;
- propane net production, imports and stocks for Petroleum Administration for Defense Districts (PADD) I, II, and III;
- natural gas supply and disposition and underground storage for the United States and consumption for all PADD's;
- residential and wholesale pricing data for propane and heating oil 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 United States and selected cities; 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 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 will be 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." Wholesale prices for 1989 and 1990 are taken from terminal postings as published in the publication, *U.S. Oil Week*. 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 first week in October 1990 and will continue until the first week in April 1991. 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.

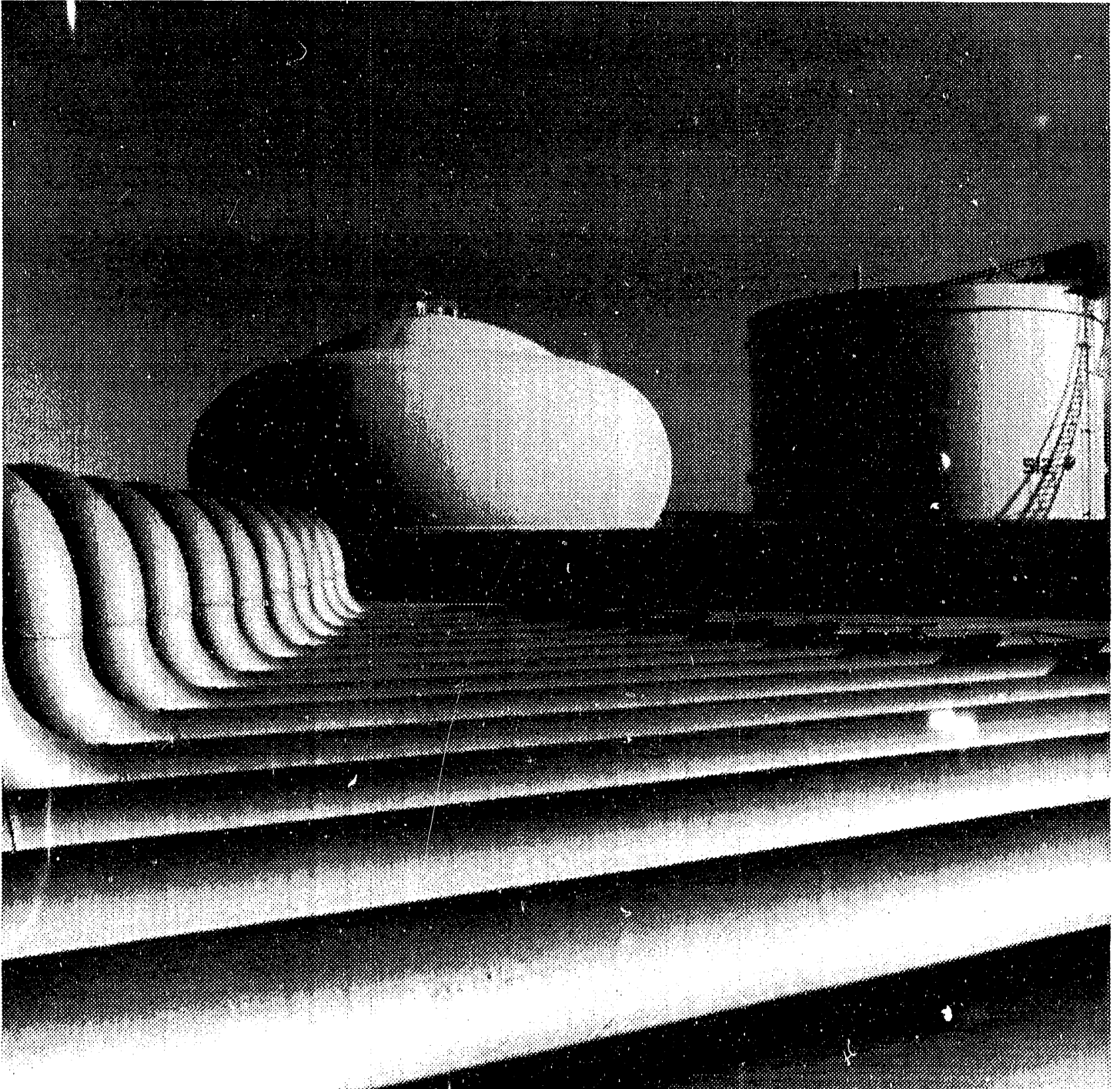
Contents

Page

Highlights	xi
Tables	
Distillate Fuel Oil	
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	3
Propane	
2. Monthly and Weekly Net Production, Imports, and Stocks of Propane by Petroleum Administration for Defense Districts (PADD) I, II, and III	13
Natural Gas	
3. Supply and Disposition of Dry Natural Gas	23
4. Underground Natural Gas Storage (All Operators)	24
5. Natural Gas Consumption by Petroleum Administration for Defense District (PADD)	26
Prices	
6. Residential Heating Oil Prices by Region and State	33
7. Residential Propane Prices by Region and State	36
8. Wholesale Heating Oil Prices by Region and State	39
9. Wholesale Propane Prices by Region and State	42
10. U.S. Crude Oil and Petroleum Product Prices	45
11. Petroleum Product Prices for Selected Cities	46
Weather Summary	
Highlights	
12. U.S. Total Heating Degree-Days by City	51
	54
Illustrations	
F1. U.S. Distillate Fuel Oil Production	6
F2. U.S. Distillate Fuel Oil Imports	6
F3. U.S. Distillate Fuel Oil Stocks	7
F4. PADD I (East Coast) Distillate Fuel Oil Stocks	7
F5. PADD II (Midwest) Distillate Fuel Oil Stocks	8
F6. PADD III (Gulf Coast) Distillate Fuel Oil Stocks	8
F7. PADD IV (Rocky Mountain) Distillate Fuel Oil Stocks	9
F8. PADD V (West Coast) Distillate Fuel Oil Stocks	9
F9. U.S. Propane Production	17
F10. U.S. Propane Imports	17
F11. U.S. Propane Stocks	18
F12. PADD I (East Coast) Propane Stocks	18
F13. PADD II (Midwest) Propane Stocks	19
F14. PADD III (Gulf Coast) Propane Stocks	19
F15. Underground Natural Gas Storage in the United States	25
F16. Natural Gas Deliveries to Consumers	30
F17. Residential Heating Oil Prices, New England	34
F18. Residential Heating Oil Prices, Central Atlantic	34
F19. Residential Heating Oil Prices, Lower Atlantic	35
F20. Residential Heating Oil Prices, Midwest	35
F21. Residential Propane Prices, New England	37
F22. Residential Propane Prices, Central Atlantic	37
F23. Residential Propane Prices, Lower Atlantic	38
F24. Residential Propane Prices, Midwest	38
F25. Wholesale Heating Oil Prices, New England	40
F26. Wholesale Heating Oil Prices, Central Atlantic	40
F27. Wholesale Heating Oil Prices, Lower Atlantic	41
F28. Wholesale Heating Oil Prices, Midwest	41
F29. Wholesale Propane Prices, Central Atlantic	43
F30. Wholesale Propane Prices, Lower Atlantic	43
F31. Wholesale Propane Prices, Midwest	44
F32. 6-10 Day Precipitation Outlook	52
F33. 6-10 Day Temperature Outlook	53
F34. 90 Day Temperature Outlook	53

	Page
Appendices	
A. District Descriptions and Maps	55
B. Explanatory Notes	59
Glossary	
Definitions of Petroleum Products and Other Terms	65

Highlights



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

Highlights

Propane stocks as of the week-ending December 14, 1990, in the East Coast, Midwest, and Gulf Coast, which are the primary propane consuming areas, fell for the third straight week to approximately 49 million barrels (see Table H1). Since these regions normally hold about 97-98 percent of the U.S. propane stocks, the estimate for U.S. propane stocks as of December 14, 1990, is 50 million barrels. Although this level reflects a decrease of about 2 million barrels from the previous week, inventories are 2 million barrels above the level for the end of November 1989.

East Coast inventories significantly dropped from the first week of December, however stocks are only about 300 thousand barrels below November 1989's ending stocks. Inventories in the Midwest increased slightly this week and continue to remain about 5 million barrels above last November's level. Stocks in the Gulf Coast, which is both the largest propane producing and consuming section of the country, declined significantly from the previous week and are currently about 3 million barrels below the November 1989 level.

Although propane inventory declined during the second week of December, it still remains within normal levels. Nonetheless, there is still cause for concern should there be significant refinery problems or a severe cold snap. The EIA will continue to monitor the propane situation closely.

Table H1. Propane Stocks by Petroleum Administration for Defense Districts (PADD) I, II, and III
(Thousand Barrels)

PAD Districts	November	December	Week Ending					
	1989	1989	11/09/90	11/16/90	11/23/90	11/30/90	12/07/90	12/14/90
East Coast (PADD I)	4,825	1,789	^E 4,634	^E 5,112	^E 5,181	^E 5,252	^E 5,046	^E 4,567
Midwest (PADD II)	14,781	9,498	^E 19,310	^E 19,361	^E 19,879	^E 19,786	^E 19,479	^E 19,488
Gulf Coast (PADD III)	27,311	19,093	^E 28,024	^E 28,487	^E 28,238	^E 27,613	^E 26,347	^E 24,757
Total (PADD I-III)	46,917	30,380	^E 51,968	^E 52,960	^E 53,298	^E 52,651	^E 50,872	^E 48,812
U.S. Total	48,224	31,528	^E 53,301	^E 54,318	^E 54,665	^E 54,001	^E 52,176	^E 50,064

E = Estimated data.

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

Starting with this issue the *Winter Fuels Report* contains graphs showing U.S. level production and imports data for distillate fuel oil and propane.

Distillate Fuel Oil



Overall view of a typical bulk terminal facility.

Table 1. Monthly and Weekly Net Production^a, 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
Total U.S.												
Production												
1988	3,008	2,666	2,705	2,865	2,935	2,891	2,783	2,847	2,777	2,826	2,908	3,067
1989	2,974	2,797	2,713	2,789	2,750	2,809	2,848	2,907	2,952	2,906	3,063	3,266
1990	3,136	2,753	2,655	2,802	2,873	2,995	3,006	3,131	2,967			
Week Ending												
1990	10/05	10/12	10/19	10/26	11/02	11/09	11/16	11/23	11/30	12/07	12/14	
	2,893	2,968	2,860	2,957	2,890	2,871	2,782	2,850	3,186	2,942	2,908	
Imports												
1988	424	383	247	210	253	222	222	279	307	336	327	409
1989	346	331	439	301	290	233	334	254	249	261	307	324
1990	501	357	280	308	207	257	229	292	226			
Week Ending												
1990	10/05	10/12	10/19	10/26	11/02	11/09	11/16	11/23	11/30	12/07	12/14	
	139	83	258	279	265	223	178	225	246	200	75	
Stocks (Million Barrels)												
1988	128.1	110.3	89.8	95.0	104.9	110.4	120.0	125.7	131.5	128.2	128.8	123.5
1989	120.6	107.6	96.7	98.5	99.6	99.6	115.0	116.3	123.2	121.7	119.8	105.7
1990	117.9	112.2	99.7	99.5	102.8	109.4	125.3	131.1	136.5			
Week Ending												
1990	10/05	10/12	10/19	10/26	11/02	11/09	11/16	11/23	11/30	12/07	12/14	
	134.0	136.6	137.0	138.5	137.9	136.2	134.6	134.6	134.4	133.2	132.3	
Product Supplied												
1988	3,558	3,557	3,539	2,864	2,795	2,854	2,640	2,873	2,821	3,218	3,183	3,560
1989	3,303	3,427	3,428	2,975	2,954	3,002	2,596	2,966	2,889	3,127	3,311	3,914
1990	3,177	3,250	3,265	3,059	2,897	2,949	2,693	3,184	2,890			
Week Ending												
1990	10/05	10/12	10/19	10/26	11/02	11/09	11/16	11/23	11/30	12/07	12/14	
	3,415	2,844	3,038	2,983	3,198	3,290	3,128	3,035	3,327	3,196	2,983	
East Coast (PADD I)												
Production												
1988	346	330	303	284	315	331	327	350	359	331	332	391
1989	401	344	321	284	309	338	368	385	370	387	389	448
1990	423	370	313	313	317	343	385	367	396			
Week Ending												
1990	10/05	10/12	10/19	10/26	11/02	11/09	11/16	11/23	11/30	12/07	12/14	
	365	382	311	348	319	342	274	281	345	364	304	
Stocks (Million Barrels)												
1988	48.1	44.4	33.0	30.0	34.9	37.4	44.7	52.3	57.0	56.7	54.6	49.2
1989	46.6	37.2	33.3	33.2	33.1	35.7	44.6	48.4	50.2	51.7	49.7	35.1
1990	44.3	39.5	30.9	30.0	33.6	40.1	51.7	57.9	63.0			
Week Ending												
1990	10/05	10/12	10/19	10/26	11/02	11/09	11/16	11/23	11/30	12/07	12/14	
	62.9	65.9	66.3	66.5	65.6	65.5	64.8	63.1	60.8	58.7	56.5	

See footnotes at end of table.

Table 1. Monthly and Weekly Net Production^a, 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
New England (PADD IX)												
Stocks (Million Barrels)												
1988	8.8	8.2	6.5	4.7	4.9	5.4	7.3	10.6	11.7	11.5	9.8	7.1
1989	8.6	5.8	5.4	4.7	4.6	4.5	8.2	8.8	9.2	9.4	7.7	4.4
1990	5.4	4.7	3.9	4.0	4.4	5.0	8.8	10.1	10.8			
Week Ending												
1990	10/05	10/12	10/19	10/26	11/02	11/09	11/16	11/23	11/30	12/07	12/14	
	10.7	10.8	10.8	10.3	10.5	11.2	10.6	10.4	10.9	9.8	10.2	
Central Atlantic (PADD IV)												
Stocks (Million Barrels)												
1988	26.5	23.6	16.7	14.6	17.0	20.1	23.8	28.9	33.5	32.6	30.7	28.2
1989	23.9	20.3	17.4	18.2	18.0	21.0	24.3	28.6	28.4	30.0	28.4	19.4
1990	20.2	22.2	16.3	15.3	17.1	22.4	30.1	35.5	39.3			
Week Ending												
1990	10/05	10/12	10/19	10/26	11/02	11/09	11/16	11/23	11/30	12/07	12/14	
	39.0	41.3	41.2	42.5	41.6	41.0	40.8	38.5	36.2	34.9	32.2	
Lower Atlantic (PADD IZ)												
Stocks (Million Barrels)												
1988	12.9	12.7	9.8	10.7	13.0	12.0	13.5	12.8	11.8	12.5	14.1	13.9
1989	14.0	11.2	10.6	10.4	10.5	10.1	12.0	11.0	12.6	12.3	13.6	11.4
1990	12.7	12.6	10.6	10.8	12.2	12.6	12.7	12.3	12.9			
Week Ending												
1990	10/05	10/12	10/19	10/26	11/02	11/09	11/16	11/23	11/30	12/07	12/14	
	13.2	13.6	14.1	13.7	13.5	13.4	13.4	14.2	13.7	14.1	14.1	
Midwest (PADD II)												
Production												
1988	672	622	617	690	698	684	638	669	665	679	685	733
1989	713	687	661	658	625	677	662	670	698	650	710	797
1990	735	659	637	701	725	751	757	729	704			
Week Ending												
1990	10/05	10/12	10/19	10/26	11/02	11/09	11/16	11/23	11/30	12/07	12/14	
	713	748	759	717	576	648	684	687	760	725	749	
Stocks (Million Barrels)												
1988	34.4	29.8	23.3	26.6	28.9	29.7	30.6	31.0	30.5	28.7	29.2	31.3
1989	32.7	31.3	27.2	27.4	27.2	27.0	28.8	29.0	31.1	28.7	28.9	30.7
1990	33.2	32.6	30.1	29.4	29.9	30.0	31.6	30.4	30.0			
Week Ending												
1990	10/05	10/12	10/19	10/26	11/02	11/09	11/16	11/23	11/30	12/07	12/14	
	30.4	30.2	30.6	30.6	30.0	29.4	29.5	30.4	31.3	31.3	32.6	

See footnotes at end of table.

Table 1. Monthly and Weekly Net Production^a, 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)

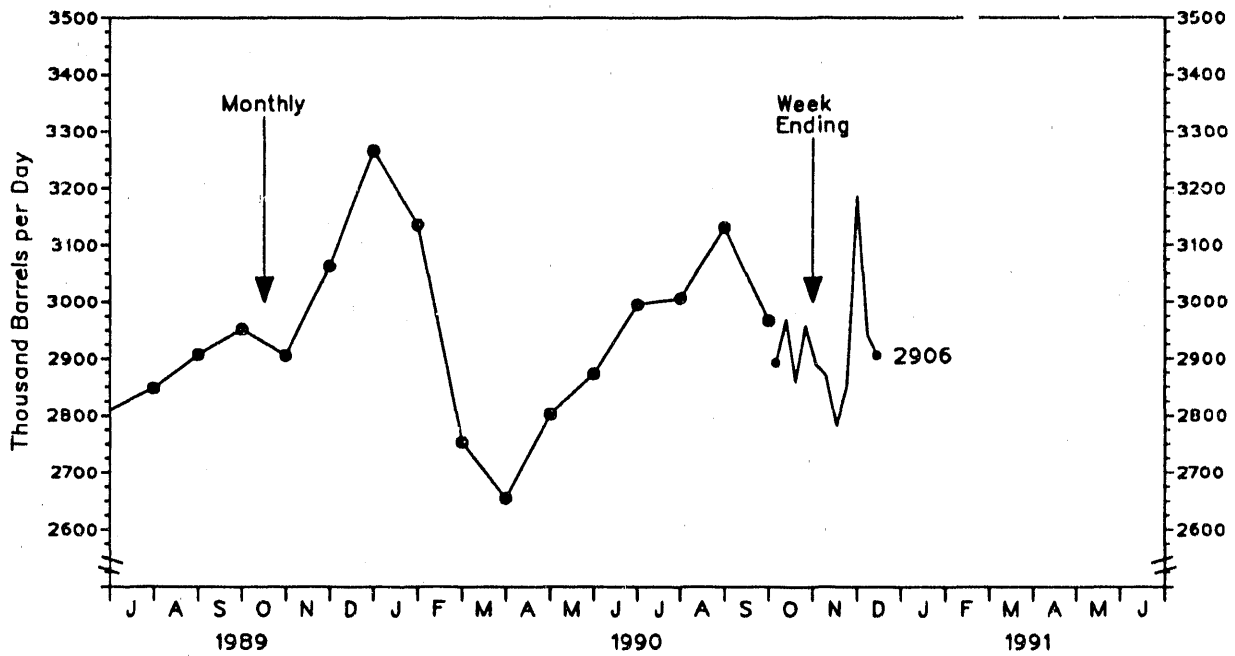
District/Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Gulf Coast (PADD III)												
Production												
1988	1,475	1,232	1,251	1,332	1,325	1,297	1,271	1,279	1,183	1,280	1,319	1,391
1989	1,324	1,257	1,240	1,291	1,268	1,227	1,227	1,278	1,309	1,305	1,401	1,444
1990	1,442	1,170	1,157	1,248	1,254	1,376	1,314	1,416	1,291			
Week Ending												
1990	10/05	10/12	10/19	10/26	11/02	11/09	11/16	11/23	11/30	12/07	12/14	
	1,229	1,261	1,214	1,325	1,396	1,297	1,181	1,302	1,406	1,277	1,298	
Stocks (Million Barrels)												
1988	31.7	23.1	21.8	24.7	25.4	27.3	29.2	28.5	28.9	28.8	29.9	28.2
1989	27.7	26.2	22.8	23.9	25.3	24.9	27.7	26.1	28.5	27.6	27.0	25.0
1990	25.8	24.8	23.6	25.5	24.0	24.9	28.5	29.1	29.4			
Week Ending												
1990	10/05	10/12	10/19	10/26	11/02	11/09	11/16	11/23	11/30	12/07	12/14	
	27.5	28.4	28.0	29.1	29.9	28.2	27.3	27.4	27.5	28.0	28.3	
Rocky Mountain (PADD IV)												
Production												
1988	108	104	114	120	130	132	120	125	124	111	121	117
1989	111	105	113	122	123	116	127	130	139	127	130	126
1990	112	124	116	122	132	129	136	137	134			
Week Ending												
1990	10/05	10/12	10/19	10/26	11/02	11/09	11/16	11/23	11/30	12/07	12/14	
	127	129	117	133	137	113	131	125	141	126	118	
Stocks (Million Barrels)												
1988	3.3	3.2	2.3	2.4	2.9	3.2	3.2	3.0	2.7	2.5	2.7	2.8
1989	2.8	2.7	2.3	2.4	2.8	2.4	2.6	2.6	2.7	2.5	2.8	3.3
1990	3.2	3.2	2.7	2.7	2.9	3.1	3.1	2.5	2.5			
Week Ending												
1990	10/05	10/12	10/19	10/26	11/02	11/09	11/16	11/23	11/30	12/07	12/14	
	2.3	2.3	2.2	2.4	2.6	2.5	2.5	2.6	2.8	2.7	2.8	
West Coast (PADD V)												
Production												
1988	407	377	419	439	466	449	427	425	446	424	451	436
1989	426	406	378	434	424	451	465	444	436	436	433	452
1990	425	431	432	419	446	396	414	483	442			
Week Ending												
1990	10/05	10/12	10/19	10/26	11/02	11/09	11/16	11/23	11/30	12/07	12/14	
	459	448	460	433	461	471	514	455	535	451	437	
Stocks (Million Barrels)												
1988	10.6	9.7	9.5	11.3	12.8	12.7	12.3	10.9	12.3	11.6	12.4	12.0
1989	10.8	10.3	11.1	11.7	11.2	10.6	11.3	10.2	10.7	11.1	11.3	11.6
1990	11.5	12.2	12.3	11.9	12.4	11.3	10.4	11.2	11.6			
Week Ending												
1990	10/05	10/12	10/19	10/26	11/02	11/09	11/16	11/23	11/30	12/07	12/14	
	10.8	9.9	9.9	9.9	9.8	10.5	10.6	11.2	12.0	12.5	12.2	

^a 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, IV, and IZ may not equal PADD I because of independent estimation.

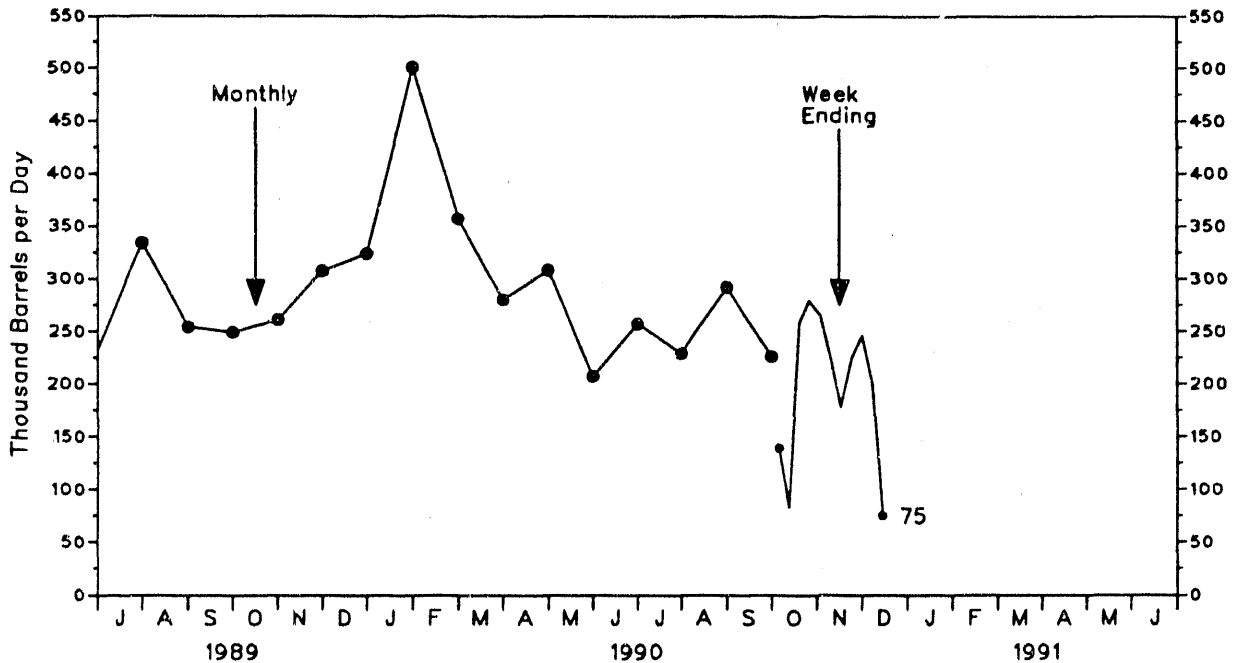
Source: Energy Information Administration, Weekly and Monthly Petroleum Supply Reporting Systems.

Figure 1. U.S. Distillate Fuel Oil Production



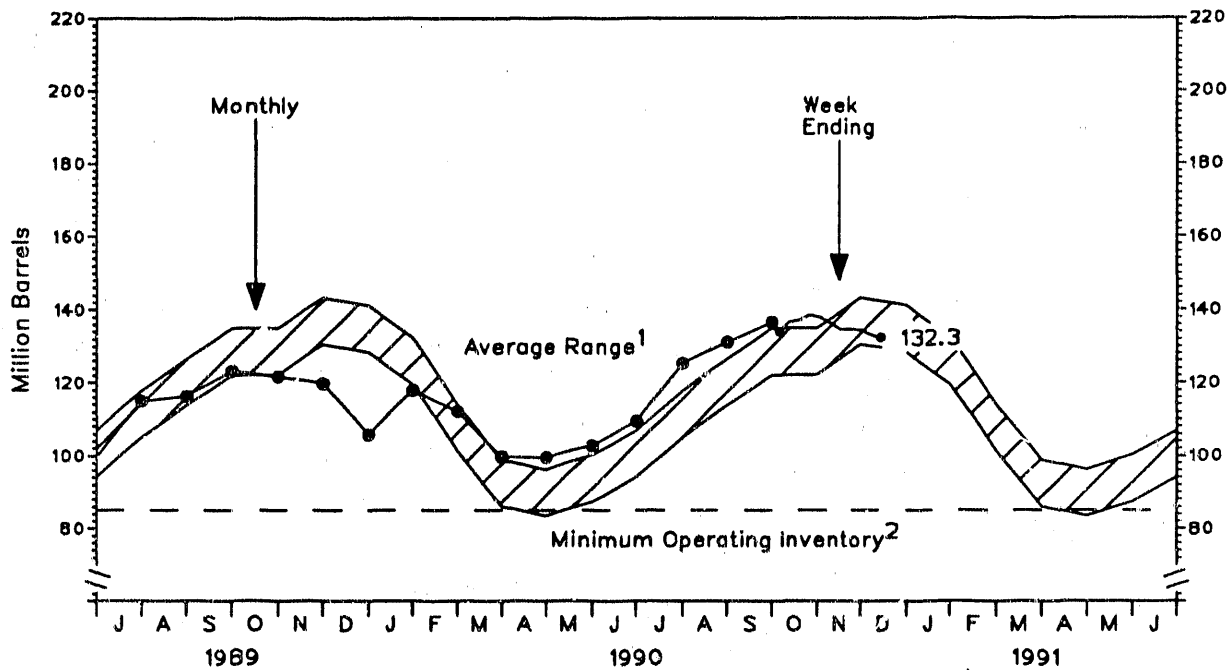
Source: • Monthly Data: 1989, EIA, *Petroleum Supply Annual*; 1990, *Petroleum Supply Monthly*. • Week-Ending Stocks: Estimates based on weekly data collected on Form EIA-800.

Figure 2. U.S. Distillate Fuel Oil Imports



Source: • Monthly Data: 1989, EIA, *Petroleum Supply Annual*; 1990, *Petroleum Supply Monthly*. • Week-Ending Stocks: Estimates based on weekly data collected on Form EIA-804.

Figure 3. U.S. Distillate Fuel Oil Stocks

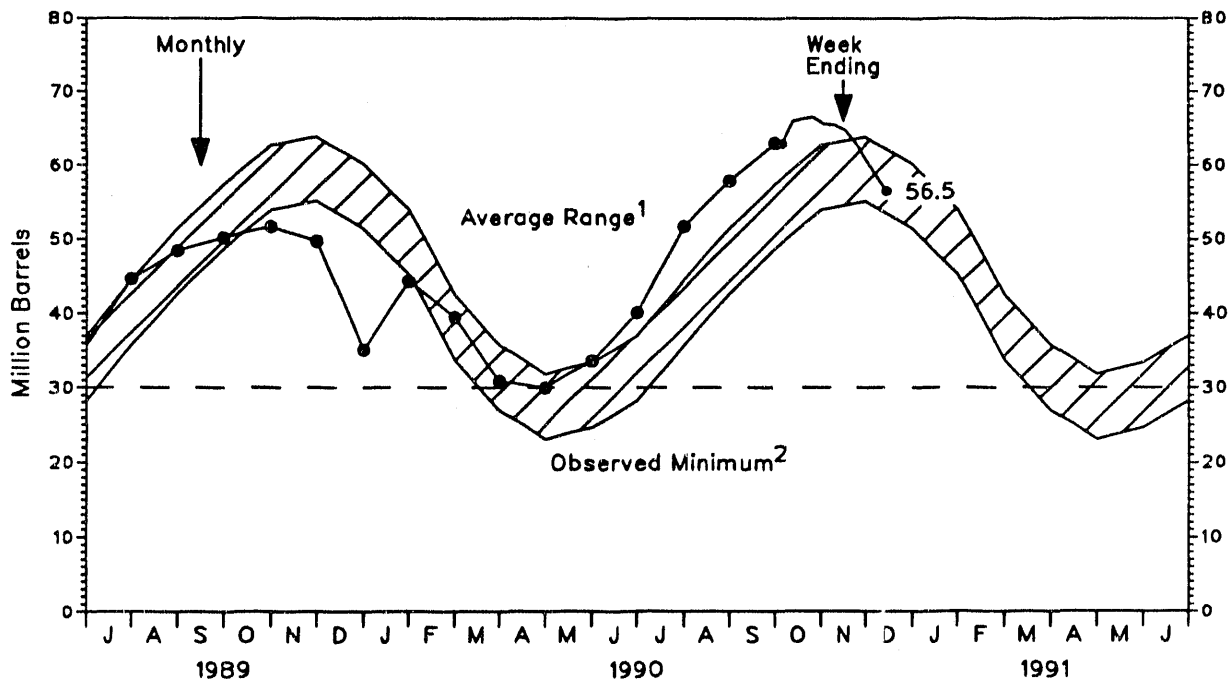


¹ Average level and width of average range are based on 3 years of monthly data: July 1987-June 1990. The seasonal pattern is based on 7 years of monthly data.

² The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the inventory level below which operating problems and shortages would begin to appear in a defined distribution system. In its 1988 study, the NPC estimated this inventory level for distillate fuel oil to be 85 million barrels.

Source: Data for Ranges and Seasonal Patterns: 1983-1989, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1990, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1989, EIA, *Petroleum Supply Annual*; 1990, *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

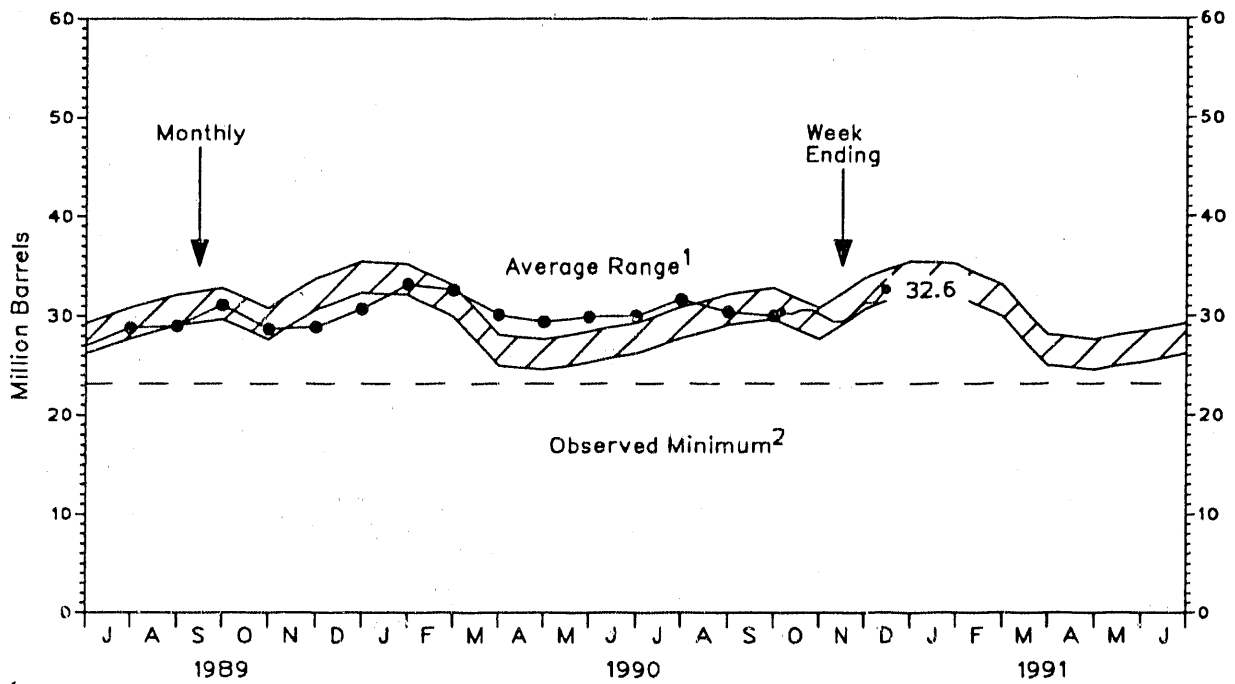


¹ Average level and width of average range are based on 3 years of monthly data: July 1987-June 1990. The seasonal pattern is based on 7 years of monthly data.

² The Observed Minimum for distillate fuel oil stocks in the last 36 month period was 30.0 million barrels, occurring in April 1988.

Source: • Data for Ranges and Seasonal Patterns: 1983-1989, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1990, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1989, EIA, *Petroleum Supply Annual*; 1990, *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

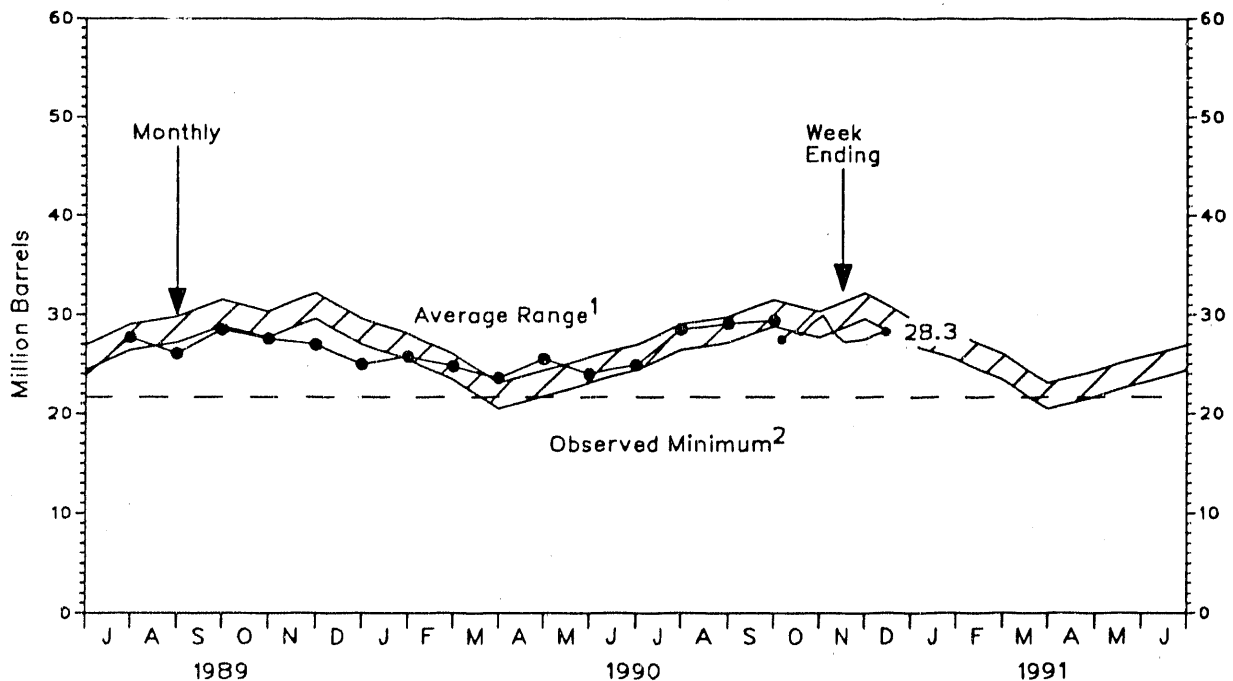


¹ Average level and width of average range are based on 3 years of monthly data: July 1987-June 1990. The seasonal pattern is based on 7 years of monthly data.

² The Observed Minimum for distillate fuel oil stocks in the last 36 month period was 23.3 million barrels, occurring in March 1988.

Source: • Data for Ranges and Seasonal Patterns: 1983-1989, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1990, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1989, EIA, *Petroleum Supply Annual*; 1990, *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

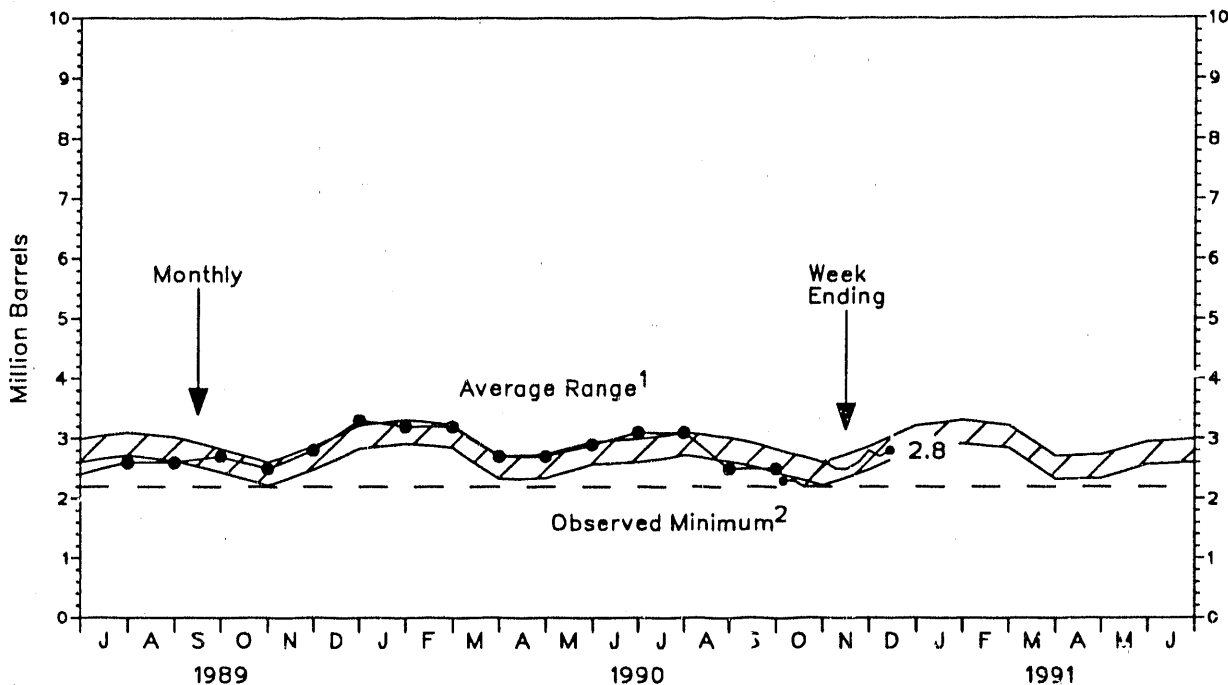


¹ Average level and width of average range are based on 3 years of monthly data: July 1987-June 1990. The seasonal pattern is based on 7 years of monthly data.

² The Observed Minimum for distillate fuel oil stocks in the last 36 month period was 21.8 million barrels, occurring in March 1988.

Source: • Data for Ranges and Seasonal Patterns: 1983-1989, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1990, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1989, EIA, *Petroleum Supply Annual*; 1990, *Petroleum Supply Monthly*. • Week-Ending Stocks: Estimates based on weekly data collected on Forms EIA-800, -801, and -802.

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

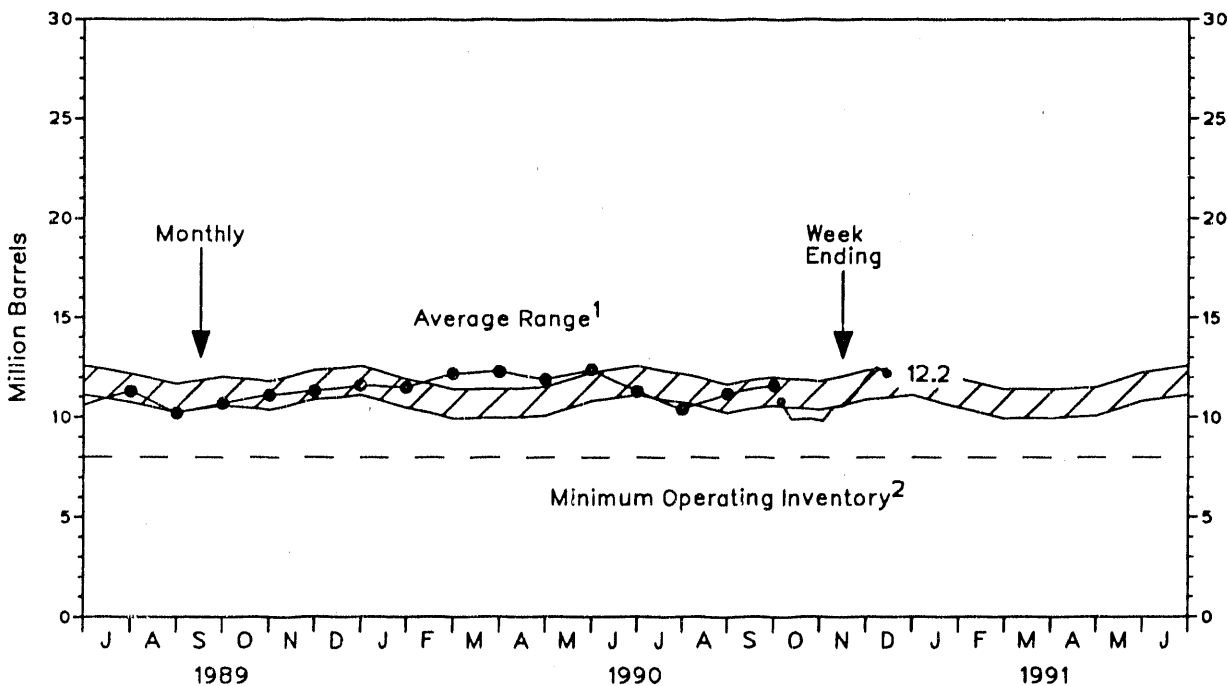


¹ Average level and width of average range are based on 3 years of monthly data: July 1987-June 1990. The seasonal pattern is based on 7 years of monthly data.

² The Observed Minimum for distillate fuel oil stocks in the last 36 month period was 2.2 million barrels, occurring in March 1989.

Source: • Data for Ranges and Seasonal Patterns: 1983-1989, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1990, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1989, EIA, *Petroleum Supply Annual*; 1990, *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

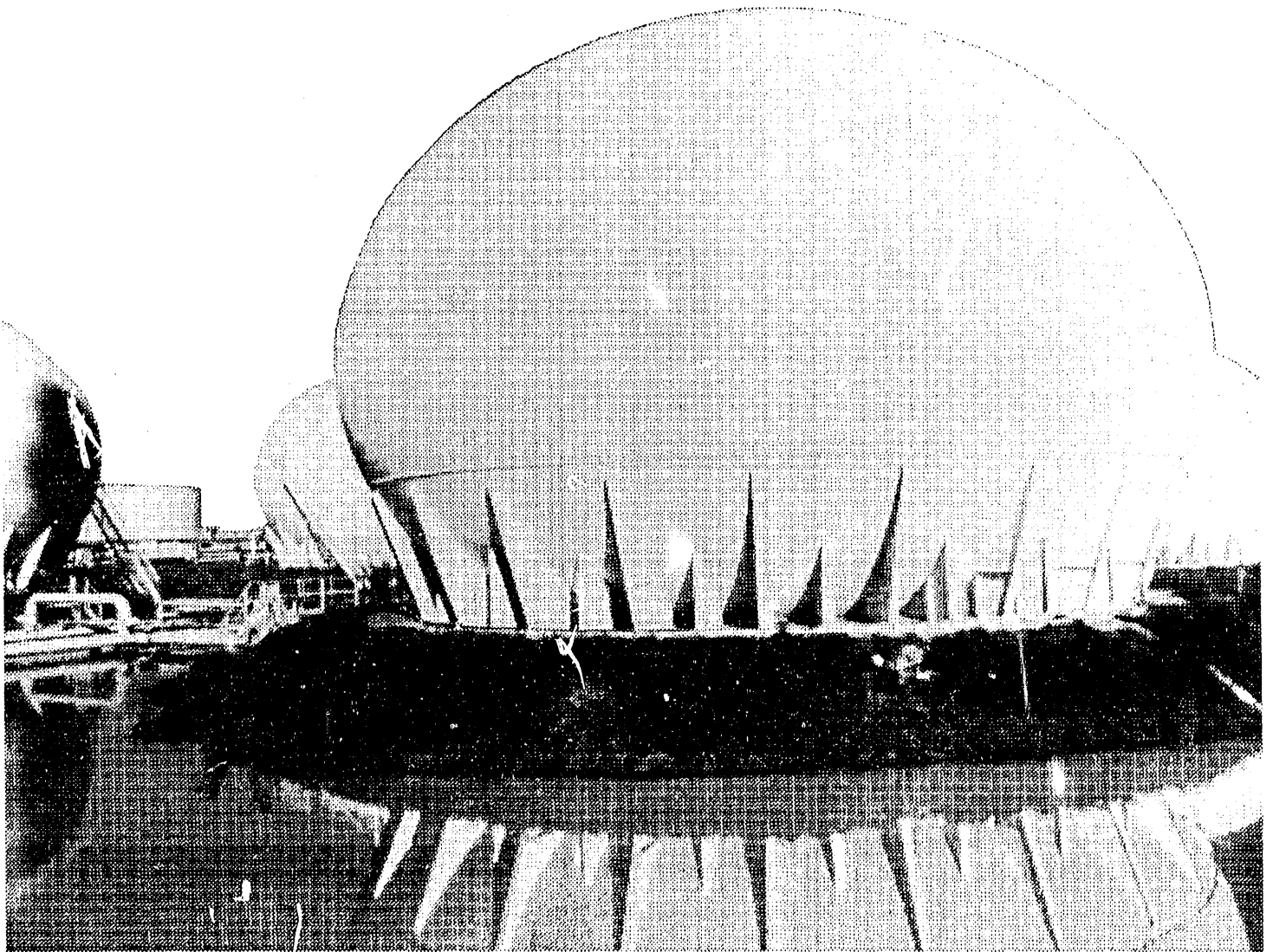


¹ Average level and width of average range are based on 3 years of monthly data: July 1987-June 1990. The seasonal pattern is based on 7 years of monthly data.

² The National Petroleum Council (NPC) defines the Minimum Operating Inventory as the inventory level below which operating problems and shortages would begin to appear in a defined distribution system. In its 1988 study, the NPC estimates this inventory level for distillate fuel oil to be 8 million barrels.

Source: • Data for Ranges and Seasonal Patterns: 1983-1989, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1990, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1989, EIA, *Petroleum Supply Annual*; 1990, *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^a, Imports, and Stocks of Propane^b 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
Total U.S. Production												
1988	858	862	857	863	860	832	859	870	861	885	878	877
1989	909	862	887	895	887	858	871	847	845	826	847	814
1990	874	914	880	862	848	835	859	880	888			
Imports												
1988	126	138	89	88	79	77	126	120	107	104	112	106
1989	154	140	101	93	80	105	106	106	107	109	108	122
1990	172	147	117	115	135	100	90	110	76			
Stocks (Million Barrels)												
1988	36.7	31.1	30.0	38.3	46.0	52.2	58.7	63.6	63.1	61.8	59.2	50.4
1989	45.1	36.4	32.3	36.7	43.9	49.6	56.5	60.4	59.0	53.9	48.2	31.5
1990	33.0	32.2	31.1	31.7	35.6	44.0	48.9	52.9	56.2			
East Coast (PADD I)												
Production												
1988	55	58	57	47	46	50	54	54	57	57	57	56
1989	60	60	55	54	46	49	52	53	56	53	53	51
1990	59	55	44	46	39	36	40	48	53			
Week Ending 1990												
	10/05 E59	10/12 E46	10/19 E40	10/26 E37	11/02 E39	11/09 E43	11/16 E43	11/23 E32	11/30 E43	12/07 E34	12/14 E39	
Imports												
1988	22	48	24	19	18	5	28	17	19	13	29	29
1989	41	37	22	19	16	19	21	4	17	9	23	12
1990	64	49	40	28	31	25	20	4	19			
Week Ending 1990												
	10/05 E3	10/12 E21	10/19 E5	10/26 E7	11/02 E6	11/09 E23	11/16 E7	11/23 E9	11/30 E27	12/07 E10	12/14 E8	
Stocks (Million Barrels)												
1988	2.6	2.5	2.1	2.5	2.9	3.0	3.7	4.7	4.9	4.8	4.9	3.8
1989	3.9	2.9	2.3	2.6	3.0	4.0	4.9	4.8	4.9	4.9	4.8	1.8
1990	2.5	2.7	2.7	3.0	3.2	3.3	3.4	3.4	3.7			
Week Ending 1990												
	10/05 E3.7	10/12 E3.9	10/19 E4.5	10/26 E4.5	11/02 E4.5	11/09 E4.6	11/16 E5.1	11/23 E5.2	11/30 E5.3	12/07 E5.0	12/14 E4.6	

See footnotes at end of table.

Table 2. Monthly and Weekly Net Production^a, Imports, and Stocks of Propane^b 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
New England (PADD 1X)												
Production												
1988	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0	0	0	0
Week Ending												
1990	10/05 E0	10/12 E0	10/19 E0	10/26 E0	11/02 E0	11/09 E0	11/16 E0	11/23 E0	11/30 E0	12/07 E0	12/14 E0	
Imports												
1988	16	30	16	15	8	2	25	9	11	8	22	25
1989	27	27	17	15	8	17	14	1	10	5	18	6
1990	42	22	35	21	20	21	1	1	12			
Week Ending												
1990	10/05 E0	10/12 E2	10/19 E1	10/26 E3	11/02 E1	11/09 E1	11/16 E2	11/23 E2	11/30 E2	12/07 E3	12/14 E3	
Stocks (Million Barrels)												
1988	0.2	0.4	0.4	0.4	0.5	0.3	0.4	0.6	0.7	0.3	0.7	0.4
1989	0.4	0.2	0.3	0.4	0.2	0.6	0.7	0.4	0.3	0.1	0.3	*
1990	0.2	0.1	0.3	0.1	0.2	0.5	0.3	0.1	0.4			
Week Ending												
1990	10/05 E0.2	10/12 E0.1	10/19 E0.5	10/26 E0.4	11/02 E0.4	11/09 E0.3	11/16 E0.6	11/23 E0.7	11/30 E0.6	12/07 E0.5	12/14 E0.6	
Central Atlantic (PADD 1Y)												
Production												
1988	45	46	45	35	34	39	43	42	44	46	47	44
1989	46	46	42	41	36	40	41	40	43	39	40	39
1990	46	42	32	34	28	29	34	38	41			
Week Ending												
1990	10/05 E53	10/12 E39	10/19 E34	10/26 E32	11/02 E34	11/09 E37	11/16 E36	11/23 E25	11/30 E37	12/07 E28	12/14 E33	
Imports												
1988	5	10	7	4	3	3	3	3	3	4	5	5
1989	9	6	5	4	3	3	3	3	3	4	5	6
1990	10	23	4	7	5	4	19	3	3			
Week Ending												
1990	10/05 E3	10/12 E4	10/19 E4	10/26 E4	11/02 E5	11/09 E7	11/16 E5	11/23 E7	11/30 E9	12/07 E8	12/14 E6	
Stocks (Million Barrels)												
1988	1.7	1.3	0.8	1.0	1.4	1.8	2.2	2.8	3.0	3.2	2.9	2.4
1989	2.2	1.7	1.1	1.3	1.6	2.2	2.6	3.0	3.2	3.1	2.6	0.9
1990	1.2	1.7	1.2	1.2	1.4	1.6	1.6	1.9	2.3			
Week Ending												
1990	10/05 E2.5	10/12 E2.6	10/19 E2.7	10/26 E2.7	11/02 E2.7	11/09 E2.6	11/16 E2.7	11/23 E2.6	11/30 E2.6	12/07 E2.6	12/14 E2.0	

See footnotes at end of table.

Table 2. Monthly and Weekly Net Production^a, Imports, and Stocks of Propane^b 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
Lower Atlantic (PADD 1Z)												
Production												
1988	10	13	14	13	13	11	12	13	14	12	14	14
1989	14	14	13	14	9	9	12	12	13	14	13	12
1990	13	13	13	12	11	7	7	10	12			
Week Ending												
1990	10/05 E6	10/12 E7	10/19 E7	10/26 E6	11/02 E6	11/09 E6	11/16 E7	11/23 E7	11/30 E6	12/07 E6	12/14 E7	
Imports												
1988	5	5	0	3	0	0	0	5	5	3	0	0
1989	4	4	0	0	5	0	4	0	4	0	0	0
1990	11	4	0	0	6	0	0	0	4			
Week Ending												
1990	10/05 E0	10/12 E15	10/19 E0	10/26 E0	11/02 E0	11/09 E15	11/16 E0	11/23 E0	11/30 E16	12/07 E0	12/14 E0	
Stocks (Million Barrels)												
1988	0.6	0.8	0.9	1.0	1.0	1.0	1.2	1.2	1.3	1.3	1.4	1.0
1989	1.2	1.1	1.0	1.0	1.2	1.3	1.5	1.4	1.5	1.7	1.9	0.9
1990	1.1	0.9	1.1	1.7	1.5	1.3	1.5	1.3	1.1			
Week Ending												
1990	10/05 E1.0	10/12 E1.1	10/19 E1.3	10/26 E1.4	11/02 E1.5	11/09 E1.7	11/16 E1.9	11/23 E1.8	11/30 E2.0	12/07 E1.9	12/14 E2.0	
Midwest (PADD II)												
Production												
1988	192	202	205	204	210	190	195	199	194	192	200	206
1989	214	205	200	204	200	203	202	194	191	179	193	197
1990	214	217	208	201	200	193	206	212	210			
Week Ending												
1990	10/05 E186	10/12 E180	10/19 E176	10/26 E171	11/02 E174	11/09 E164	11/16 E162	11/23 E166	11/30 E171	12/07 E209	12/14 E217	
Imports												
1988	80	78	52	48	42	60	37	53	68	53	76	53
1989	103	84	70	60	49	66	43	55	62	73	75	86
1990	80	76	46	54	62	39	35	44	31			
Week Ending												
1990	10/05 E29	10/12 E31	10/19 E28	10/26 E32	11/02 E44	11/09 E53	11/16 E34	11/23 E38	11/30 E21	12/07 E52	12/14 E59	
Stocks (Million Barrels)												
1988	14.1	11.4	10.9	13.3	15.8	18.0	20.4	22.9	22.9	21.4	21.1	17.4
1989	15.4	10.6	9.1	11.5	14.1	16.6	19.5	20.5	19.6	16.8	14.8	9.5
1990	11.4	10.6	10.7	11.4	13.6	16.1	18.0	18.4	20.2			
Week Ending												
1990	10/05 E21.0	10/12 E20.9	10/19 E20.4	10/26 E19.7	11/02 E19.1	11/09 E19.3	11/16 E19.4	11/23 E19.9	11/30 E19.8	12/07 E19.5	12/14 E19.5	

See footnotes at end of table.

Table 2. Monthly and Weekly Net Production^a, Imports, and Stocks of Propane^b 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
Gulf Coast (PADD III)												
Production												
1988	512	503	501	518	512	496	513	520	512	533	522	508
1989	532	503	538	545	545	518	523	509	507	600	505	468
1990	497	537	527	521	520	520	526	525	531			
Week Ending												
1990	10/05 E550	10/12 E540	10/19 E557	10/26 E535	11/02 E535	11/09 E500	11/16 E529	11/23 E505	11/30 E544	12/07 E542	12/14 E565	
Imports												
1988	10	0	5	16	13	6	57	46	15	30	0	11
1989	**	8	0	8	11	13	38	43	20	21	5	13
1990	19	17	18	29	38	32	32	58	22			
Week Ending												
1990	10/05 E3	10/12 E3	10/19 E19	10/26 E3	11/02 E3	11/09 E3	11/16 E3	11/23 E5	11/30 E38	12/07 E4	12/14 E22	
Stocks (Million Barrels)												
1988	19.2	16.4	16.3	21.8	26.5	30.4	33.5	34.8	33.8	34.0	31.8	28.0
1989	25.1	22.3	20.2	21.7	25.7	27.9	30.8	33.6	33.0	30.8	27.3	19.1
1990	18.3	18.2	17.1	16.7	18.0	23.6	23.4	29.6	30.6			
Week Ending												
1990	10/05 E29.4	10/12 E28.8	10/19 E28.9	10/26 E29.1	11/02 E28.6	11/09 E28.0	11/16 E28.5	11/23 E28.2	11/30 E27.6	12/07 E26.3	12/14 E24.8	

^a 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.

^b Includes propylene.

E=Estimated data.

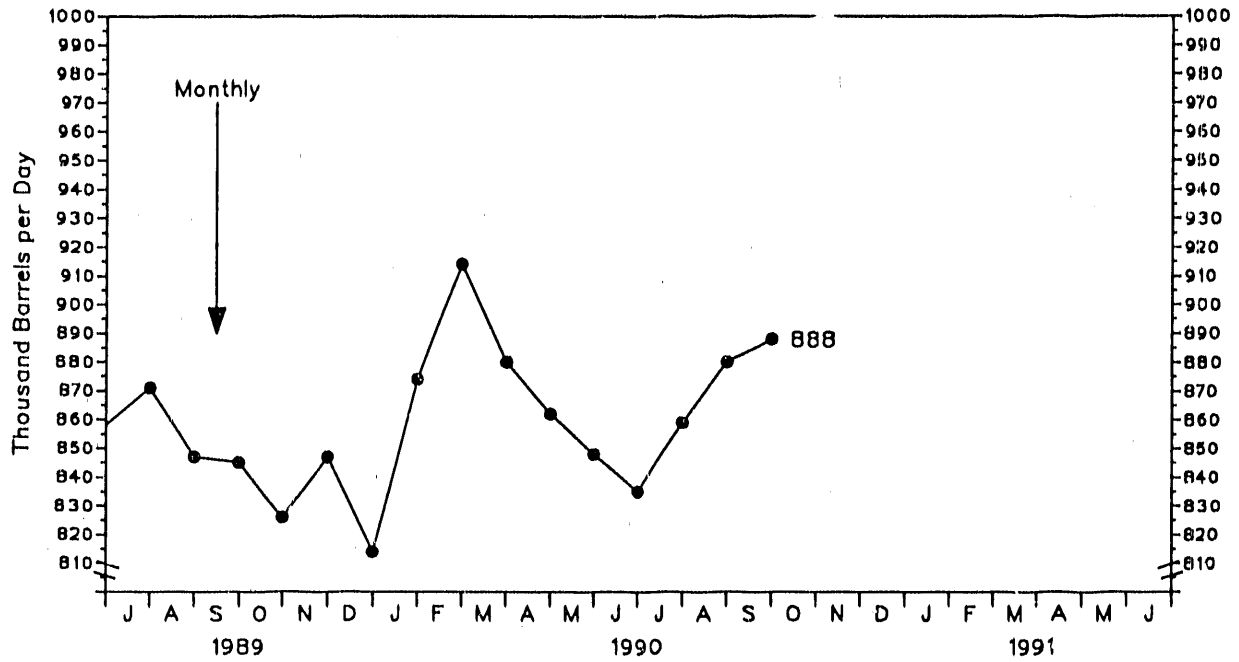
* Less than 50,000 barrels. ** Less than 500 barrels per day.

NA=Not available.

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.

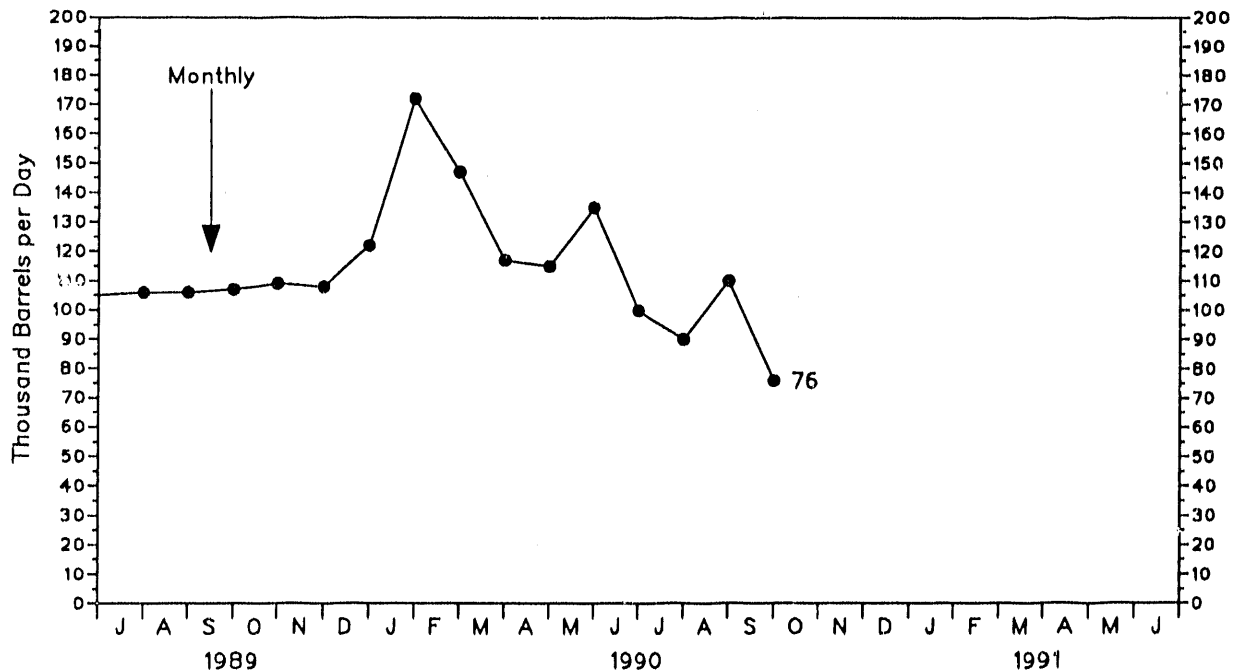
Source: Energy Information Administration (EIA), Monthly Petroleum Supply Reporting System and data collected on Form EIA-807, "Propane Telephone Survey."

Figure 9. U.S. Propane Production



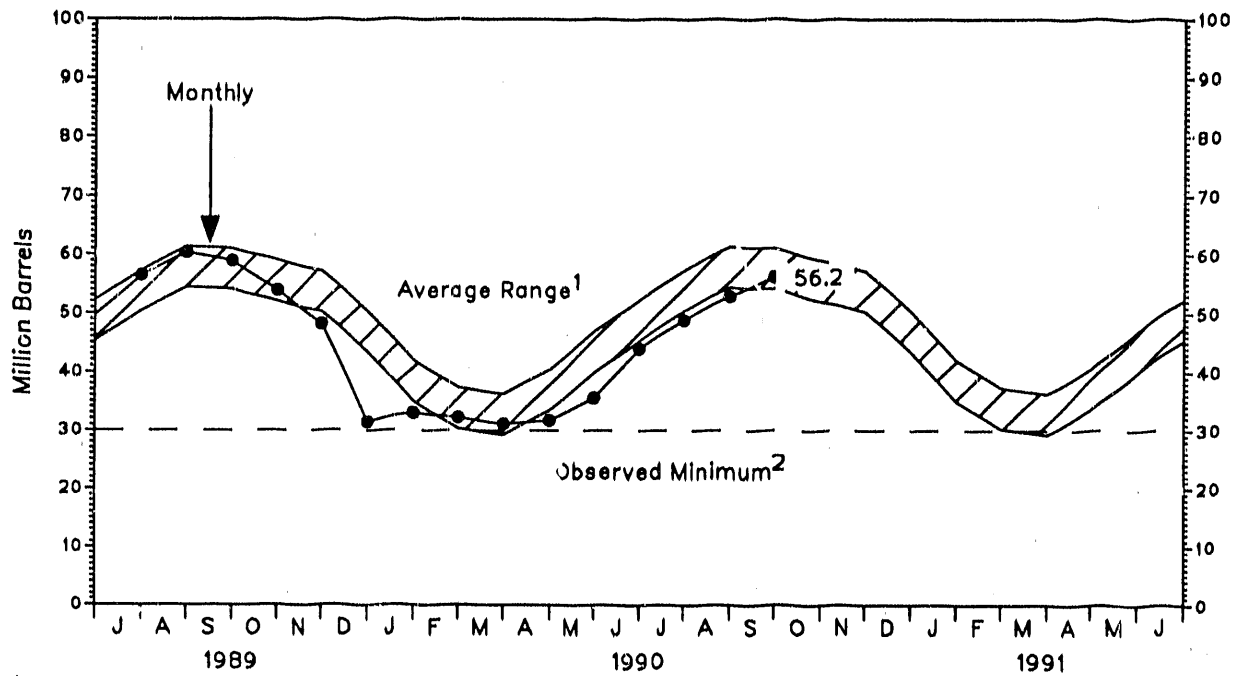
Source: 1989, EIA, *Petroleum Supply Annual*; 1990, EIA, *Petroleum Supply Monthly*.

Figure 10. U.S. Propane Imports



Source: 1989, EIA, *Petroleum Supply Annual*; 1990, EIA, *Petroleum Supply Monthly*.

Figure 11. U.S. Propane Stocks

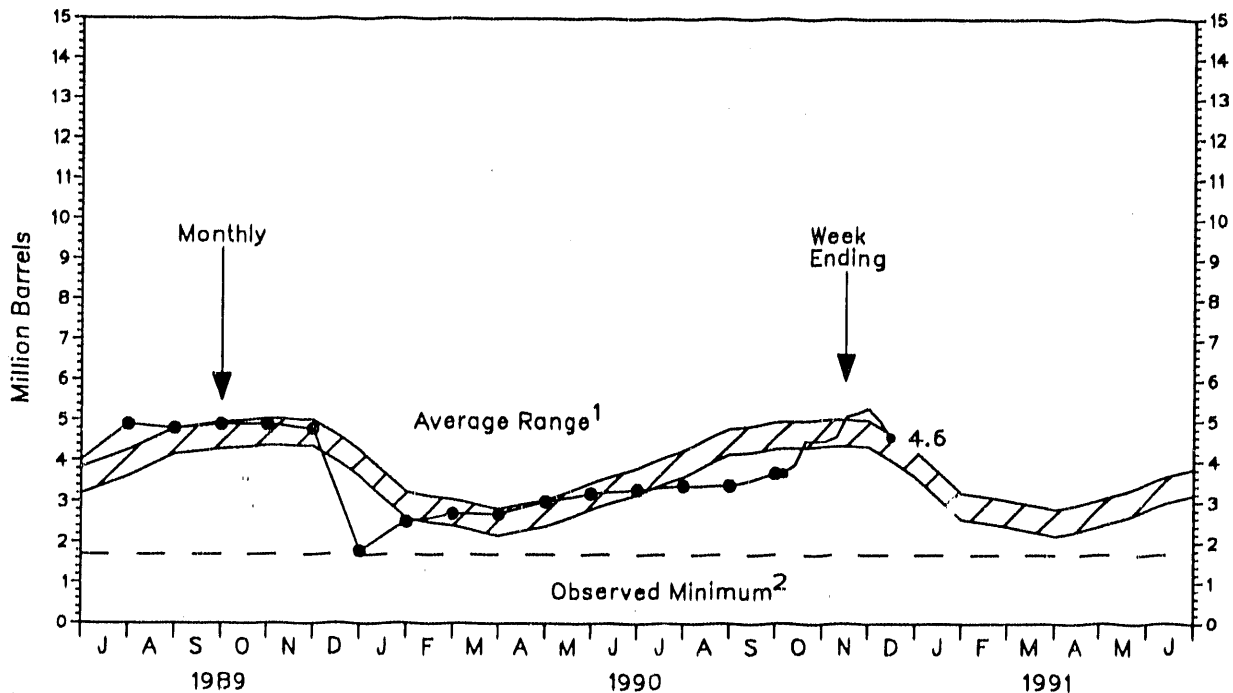


¹ Average level and width of average range are based on 3 years of monthly data: July 1987-June 1990. The seasonal pattern is based on 7 years of monthly data.

² The Observed Minimum for propane stocks in the last 36 month period was 30.0 million barrels, occurring in March 1988.

Source: • Data for Ranges and Seasonal Patterns: 1983-1989, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1990, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1989, EIA, *Petroleum Supply Annual*; 1990, EIA, *Petroleum Supply Monthly*.

Figure 12. PADD I (East Coast) Propane Stocks



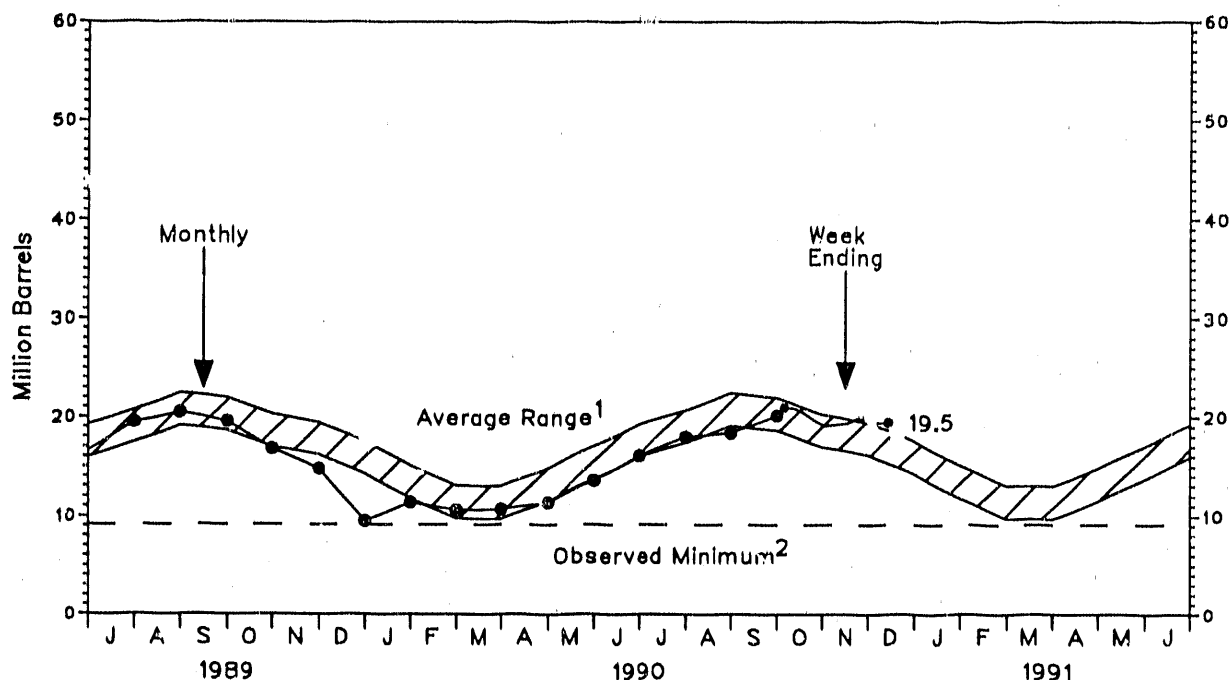
¹ Average level and width of average range are based on 3 years of monthly data: July 1987-June 1990. The seasonal pattern is based on 7 years of monthly data.

² The Observed Minimum for propane stocks in the last 36 month period was 1.8 million barrels, occurring in December 1989.

Source: • Data for Ranges and Seasonal Patterns: 1983-1989, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1990, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1989, EIA, *Petroleum Supply Annual*; 1990, EIA, *Petroleum Supply Monthly*. • Week-Ending Stocks: Estimates based on data collected on Form EIA-807, "Propane Telephone Survey."

Period Ending 12/14/90 Energy Information Administration/Winter Fuels Report

Figure 13. PADD II (Midwest) Propane Stocks

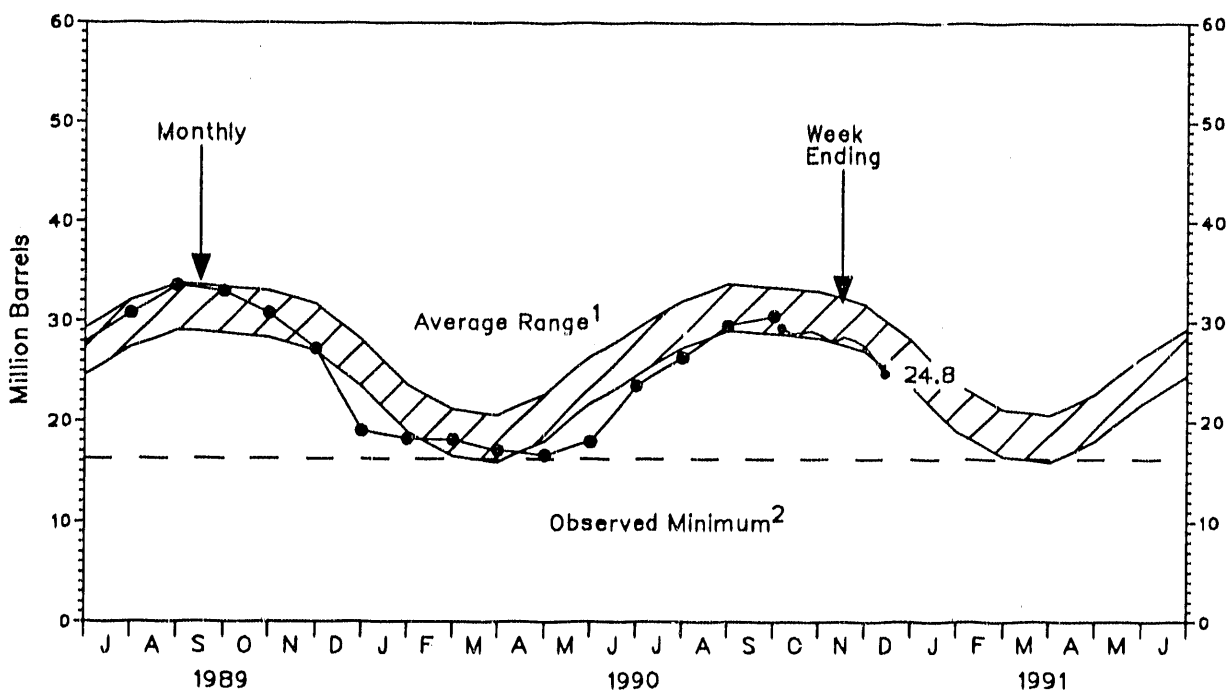


¹ Average level and width of average range are based on 3 years of monthly data: July 1987-June 1990. The seasonal pattern is based on 7 years of monthly data.

² The Observed Minimum for propane stocks in the last 36 month period was 9.1 million barrels, occurring in March 1989.

Source: • Data for Ranges and Seasonal Patterns: 1983-1989, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1990, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1989, EIA, *Petroleum Supply Annual*; 1990, 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

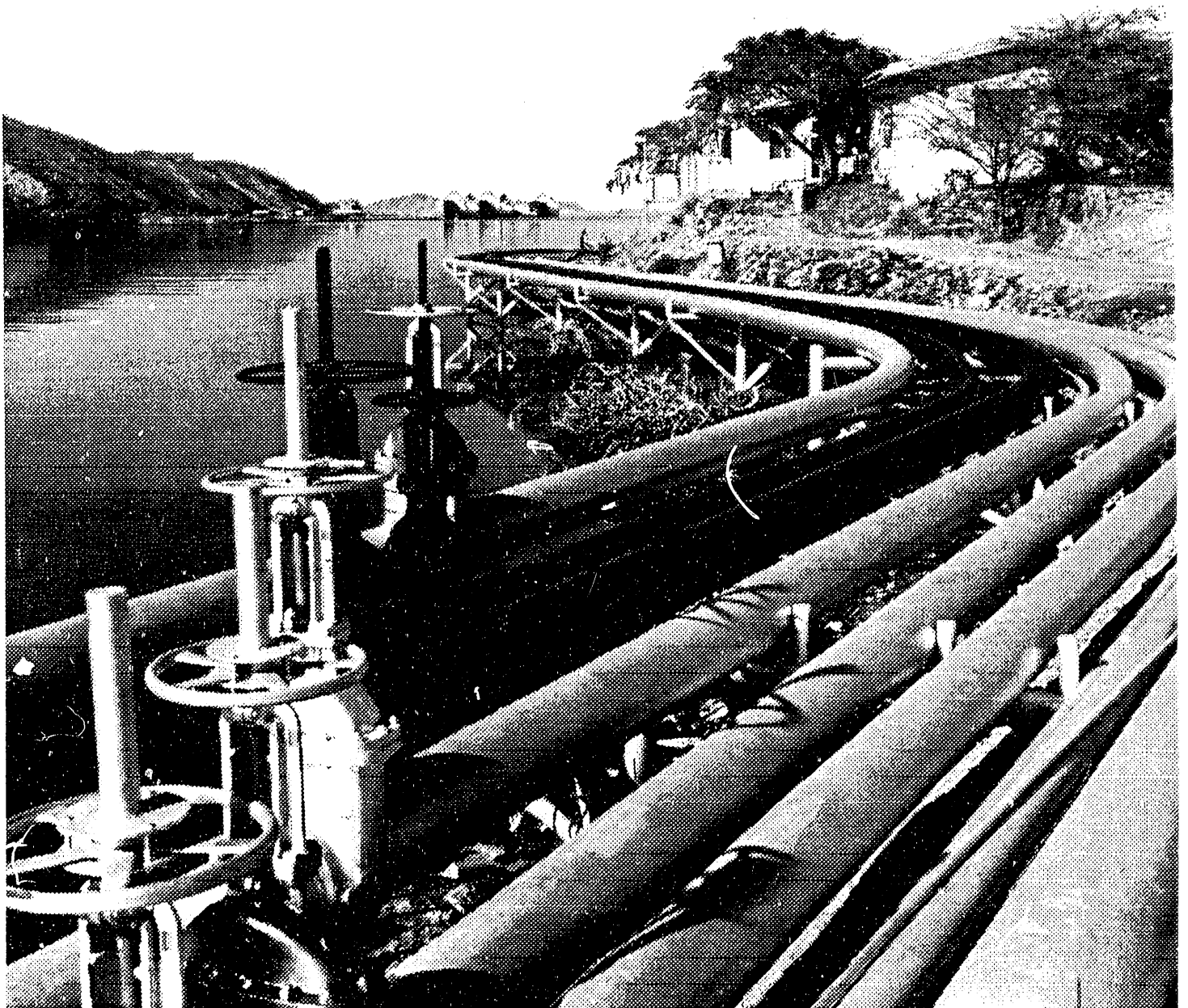


¹ Average level and width of average range are based on 3 years of monthly data: July 1987-June 1990. The seasonal pattern is based on 7 years of monthly data.

² The Observed Minimum for propane stocks in the last 36 month period was 16.3 million barrels, occurring in March 1988.

Source: • Data for Ranges and Seasonal Patterns: 1983-1989, Energy Information Administration (EIA), *Petroleum Supply Annual*; 1990, EIA, *Petroleum Supply Monthly*. • Monthly Data: 1989, EIA, *Petroleum Supply Annual*; 1990, 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
(Billion Cubic Feet)

Year and Month	Supply				Total Supply/Disposition ^b	Disposition			
	Total Dry Gas Production	Withdrawals from Storage ^a	Supplemental Gaseous Fuels	Imports		Additions to Storage ^a	Exports	Consumption ^c	Unaccounted For ^d
1984 Total	17,392	2,098	110	843	20,443	2,295	55	17,951	143
1985 Total	16,382	2,397	126	950	19,855	2,163	55	17,281	356
1986 Total	15,991	1,837	113	750	18,692	1,984	61	16,221	427
1987 Total	16,536	1,905	101	993	19,534	1,911	54	17,211	359
1988									
January	1,581	586	12	139	2,318	47	5	2,187	79
February	1,439	462	11	117	2,029	50	5	2,038	-64
March	1,501	259	10	113	1,883	99	6	1,867	-89
April	1,374	92	8	96	1,570	165	6	1,464	-65
May	1,407	46	7	94	1,554	288	4	1,302	-40
June	1,338	36	7	93	1,474	280	8	1,170	16
July	1,355	42	7	100	1,504	300	5	1,177	22
August	1,374	52	7	94	1,527	288	6	1,222	11
September	1,297	46	6	95	1,444	314	7	1,099	24
October	1,409	92	8	106	1,615	202	6	1,232	175
November	1,436	159	9	121	1,725	117	7	1,453	148
December	1,513	397	11	127	2,048	62	9	1,820	157
Total	17,026	2,270	101	1,294	20,691	2,211	74	18,030	376
1989									
January	1,532	426	11	119	2,088	53	7	2,034	-6
February	1,415	614	10	110	2,149	32	7	2,018	92
March	1,500	369	10	113	1,992	106	11	1,956	-81
April	1,428	138	8	110	1,684	184	11	1,591	-102
May	1,447	44	8	108	1,607	326	8	1,359	-86
June	1,388	20	7	104	1,519	381	9	1,210	-81
July	1,415	29	8	101	1,553	377	9	1,230	-63
August	1,404	29	8	108	1,549	362	9	1,226	-48
September	1,337	39	7	117	1,500	325	9	1,191	-25
October	1,403	96	9	123	1,631	225	10	1,347	49
November	1,461	227	9	123	1,820	105	8	1,578	129
December	1,514	821	12	145	2,492	52	8	2,164	268
Total	17,245	2,852	107	1,382	21,586	2,529	107	18,904	46
1990									
January	1,605	339	16	149	2,109	91	8	2,107	-97
February	1,426	324	14	118	1,882	70	8	1,805	-1
March	1,513	256	14	115	1,898	124	10	1,777	-13
April	1,432	140	13	122	1,707	183	8	1,584	-68
May	1,452	45	11	108	1,616	289	8	1,397	-78
June	1,396	42	11	114	1,563	327	9	1,298	-71
July	1,397	27	12	119	1,555	325	8	1,292	-70
August	1,410	37	11	118	1,576	321	8	1,322	-75
September	^E 1,337	36	11	120	1,504	284	8	1,283	-71
October	^E 1,408	61	11	120	1,600	214	8	1,463	-85
1990 YTD	14,376	1,307	124	1,203	17,010	2,228	83	15,328	-629
1989 YTD	14,269	1,804	86	1,113	17,272	2,371	90	15,162	-351
1988 YTD	14,075	1,713	83	1,047	16,918	2,033	58	14,758	69

^a Monthly and annual data for 1984 through 1989 include underground storage and liquefied natural gas storage. Data for January 1990 forward include underground storage only.

^b "Total" data for 1984 through 1989 do not equal equivalent data in Table 1 of the 1989, *Natural Gas Annual* due to the exclusion of intransit receipts and deliveries in the *Natural Gas Monthly*.

^c Consists of pipeline fuel use, lease and plant fuel use, and deliveries to consuming sectors.

^d Represents quantities lost and imbalances in data due to differences among data sources.

^E=Estimated data.

Notes: • Data for 1984 through 1989 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. • Full explanations of all survey processing, estimation procedures, and computations are provided in the publications listed under "Sources."

Sources: Energy Information Administration (EIA), *Natural Gas Annual* and *Natural Gas Monthly*.

Table 4. Underground Natural Gas Storage (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 ^b	Volume	Percent	Injections	Withdrawals	Net ^c
1984 Total*	3,830	2,976	6,706	281	10.8	2,252	2,064	188
1985 Total*	3,842	2,607	6,448	-270	-9.4	2,128	2,359	-231
1986 Total*	3,819	2,749	6,567	142	5.5	1,952	1,812	140
1987 Total*	3,792	2,756	6,548	7	3	1,887	1,881	6
1988								
January	3,792	2,228	6,020	-52	-2.3	47	578	-531
February	3,791	1,827	5,618	-161	-8.1	50	456	-406
March	3,790	1,682	5,473	-197	-10.5	99	255	-156
April	3,790	1,769	5,559	-169	-6.7	162	92	71
May	3,790	2,027	5,818	-179	-8.1	282	46	236
June	3,792	2,293	6,085	-144	-5.9	274	36	238
July	3,793	2,567	6,359	-69	-2.6	294	42	252
August	3,791	2,835	6,626	-1	--	282	52	230
September	3,791	3,120	6,911	71	2.3	308	46	262
October	3,792	3,243	7,035	137	4.4	198	92	105
November	3,803	3,171	6,974	112	3.7	117	157	-40
December	3,800	2,850	6,650	94	3.4	62	391	-329
Total	--	--	--	--	--	2,174	2,244	-69
1989								
January	3,798	2,509	6,307	281	12.6	53	418	-365
February	3,801	1,994	5,796	168	9.2	32	602	-570
March	3,801	1,776	5,578	94	5.6	106	362	-256
April	3,801	1,823	5,624	54	3.0	181	138	43
May	3,802	2,062	5,863	34	1.7	321	44	277
June	3,802	2,374	6,176	82	3.6	375	20	355
July	3,802	2,644	6,446	77	3.0	371	29	341
August	3,802	2,938	6,740	103	3.6	356	29	328
September	3,802	3,187	6,990	67	2.2	320	39	281
October	3,792	3,268	7,061	25	.8	221	96	124
November	3,809	3,199	7,008	28	.9	105	223	-118
December	3,812	2,513	6,325	-337	-11.8	52	805	-752
Total	--	--	--	--	--	2,493	2,604	-311
1990								
January	3,818	2,265	6,083	-243	-9.7	91	339	-248
February	3,814	2,013	5,827	19	.9	70	324	-253
March	3,818	1,878	5,695	101	5.7	124	256	-131
April	3,829	1,922	5,771	109	6.0	183	140	43
May	3,823	2,159	5,982	97	4.7	289	45	245
June	3,844	2,454	6,297	79	3.3	327	42	285
July	3,850	2,747	6,597	103	3.9	325	27	298
August	3,851	2,995	6,846	57	1.9	321	37	283
September	3,852	3,267	7,119	80	2.5	284	36	248
October	3,852	3,426	7,277	158	4.8	214	61	153

^a Total as of December 31.

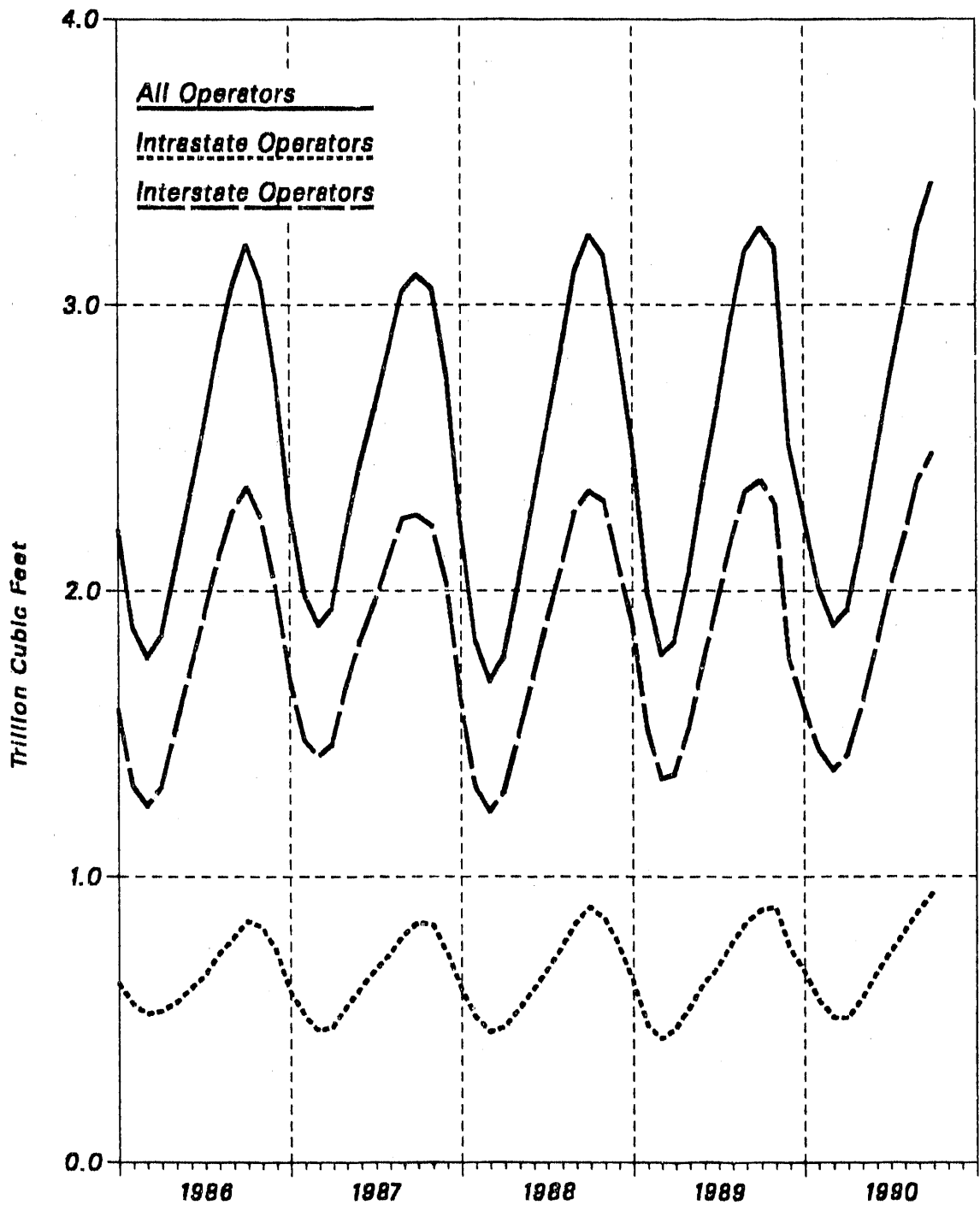
^b Total underground storage capacity at the end of each calendar year (in billion cubic feet): 1984 - 8,043; 1985 - 8,087; 1986 - 8,145; 1987 and 1988 - 8,124; and 1989 - 8,124. Current total capacity is 8,125.

^c 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 1984 through 1989 are final. All other data are preliminary unless otherwise indicated. • 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. • Full explanations of all survey processing, estimation procedures, and computations are provided in the publications listed under "Sources."

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

Figure 15. Underground Natural Gas Storage In the United States



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
1988								
January	28	13	5	0	156	72	47	7
February	27	13	5	0	145	68	46	11
March	24	12	5	0	124	59	46	13
April	18	9	5	1	84	41	40	15
May	12	7	5	2	56	29	39	23
June	7	4	5	6	30	18	35	31
July	5	4	4	4	24	16	33	36
August	4	4	5	5	22	17	34	37
September	5	4	5	1	24	16	34	17
October	8	5	6	1	46	26	38	10
November	15	9	6	1	80	42	41	7
December	22	11	5	0	117	57	42	3
Total	174	93	60	21	907	462	476	210
1989								
January	28	14	5	0	146	68	46	4
February	26	13	5	0	137	65	45	6
March	27	13	6	2	133	65	49	23
April	18	10	6	6	89	46	45	31
May	12	7	6	6	56	31	41	31
June	6	5	5	7	31	21	38	34
July	5	4	4	7	25	19	36	35
August	4	4	5	6	23	19	37	33
September	5	4	5	8	24	20	38	27
October	8	6	6	10	42	27	40	25
November	13	7	6	2	73	41	43	13
December	27	13	5	0	151	71	46	5
Total	180	100	65	54	931	493	506	268
1990								
January	31	14	5	0	152	68	44	6
February	24	12	5	1	121	58	44	9
March	23	11	6	1	112	56	45	21
April	18	9	8	6	85	44	42	22
May	11	8	6	9	48	27	37	21
June	7	4	6	5	31	22	37	27
July	5	4	6	9	24	21	35	34
August	4	4	8	11	22	21	39	43
September	5	4	7	9	25	22	40	37
1990 YTD	128	69	57	50	621	339	362	220
1989 YTD	132	74	49	42	664	354	376	225
1988 YTD	129	69	44	19	664	338	355	191

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
1988								
January	50	30	34	11	234	115	86	18
February	48	29	38	9	220	110	89	20
March	39	24	42	12	186	96	93	25
April	22	17	39	15	124	67	84	30
May	13	12	40	17	81	48	55	42
June	8	10	39	20	45	33	80	57
July	7	9	37	21	36	29	74	61
August	6	10	40	21	32	30	78	64
September	7	10	38	16	36	30	77	34
October	14	13	41	8	69	44	84	19
November	24	17	39	5	118	87	85	13
December	40	25	37	7	179	93	84	10
Total	278	208	464	161	1,359	763	1,000	392
1989								
January	43	27	42	12	218	109	93	16
February	42	26	39	11	204	104	89	17
March	35	24	44	15	195	102	99	40
April	23	18	44	17	131	74	95	54
May	13	13	43	19	81	50	90	56
June	8	10	41	21	45	36	85	62
July	7	10	39	21	37	33	79	63
August	6	9	41	20	34	32	83	60
September	7	10	39	20	37	34	82	54
October	12	12	44	17	63	45	91	52
November	24	17	43	14	111	65	92	28
December	53	29	34	10	231	113	85	15
Total	275	205	493	196	1,386	799	1,064	518
1990								
January	51	30	43	12	234	112	92	18
February	33	23	40	13	178	92	89	22
March	29	21	43	15	165	88	94	37
April	21	18	40	16	124	71	90	44
May	11	12	42	18	70	45	85	48
June	8	10	40	17	47	37	83	49
July	7	10	43	22	36	34	84	64
August	7	10	49	22	33	35	96	76
September	7	10	49	21	38	36	95	67
1990 YTD	175	143	389	156	924	551	808	426
1989 YTD	185	147	371	155	981	575	796	423
1988 YTD	200	152	346	141	993	559	746	351

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
1988								
January	377	187	177	17	84	48	245	99
February	341	174	176	15	73	43	235	86
March	266	137	170	17	54	34	251	97
April	173	88	137	16	33	25	222	97
May	94	53	128	17	19	18	225	119
June	53	36	121	25	15	16	220	137
July	43	36	114	28	14	17	225	160
August	40	36	119	32	13	17	251	179
September	45	34	119	18	13	14	229	133
October	109	61	134	16	16	16	224	98
November	182	96	149	15	27	20	235	93
December	284	143	165	18	55	36	245	76
Total	2,005	1,081	1,709	234	416	305	2,807	1,373
1989								
January	318	157	171	17	66	40	254	74
February	329	162	171	17	72	41	246	92
March	286	144	172	17	60	37	250	103
April	180	90	150	20	33	26	249	107
May	105	54	135	23	19	19	244	132
June	54	34	123	21	15	17	249	122
July	45	32	120	27	14	19	254	150
August	42	33	120	26	13	17	258	156
September	54	34	121	19	14	15	249	121
October	105	56	139	17	18	17	255	111
November	193	99	155	16	32	23	279	86
December	371	176	178	19	75	41	295	99
Total	2,083	1,072	1,756	238	431	311	3,083	1,354
1990								
January	314	170	171	16	102	51	257	73
February	264	137	155	14	63	37	234	63
March	222	120	158	17	56	36	265	89
April	165	90	146	16	40	30	286	94
May	98	53	136	20	26	24	307	131
June	55	35	123	27	20	25	286	168
July	44	37	124	29	17	25	275	160
August	43	35	126	31	17	21	288	171
September	50	35	129	29	17	18	276	145
1990 YTD	1,254	712	1,269	201	359	268	2,475	1,093
1989 YTD	1,413	742	1,284	187	307	230	2,253	1,059
1988 YTD	1,431	780	1,262	185	318	233	2,103	1,107

See footnotes at end of table.

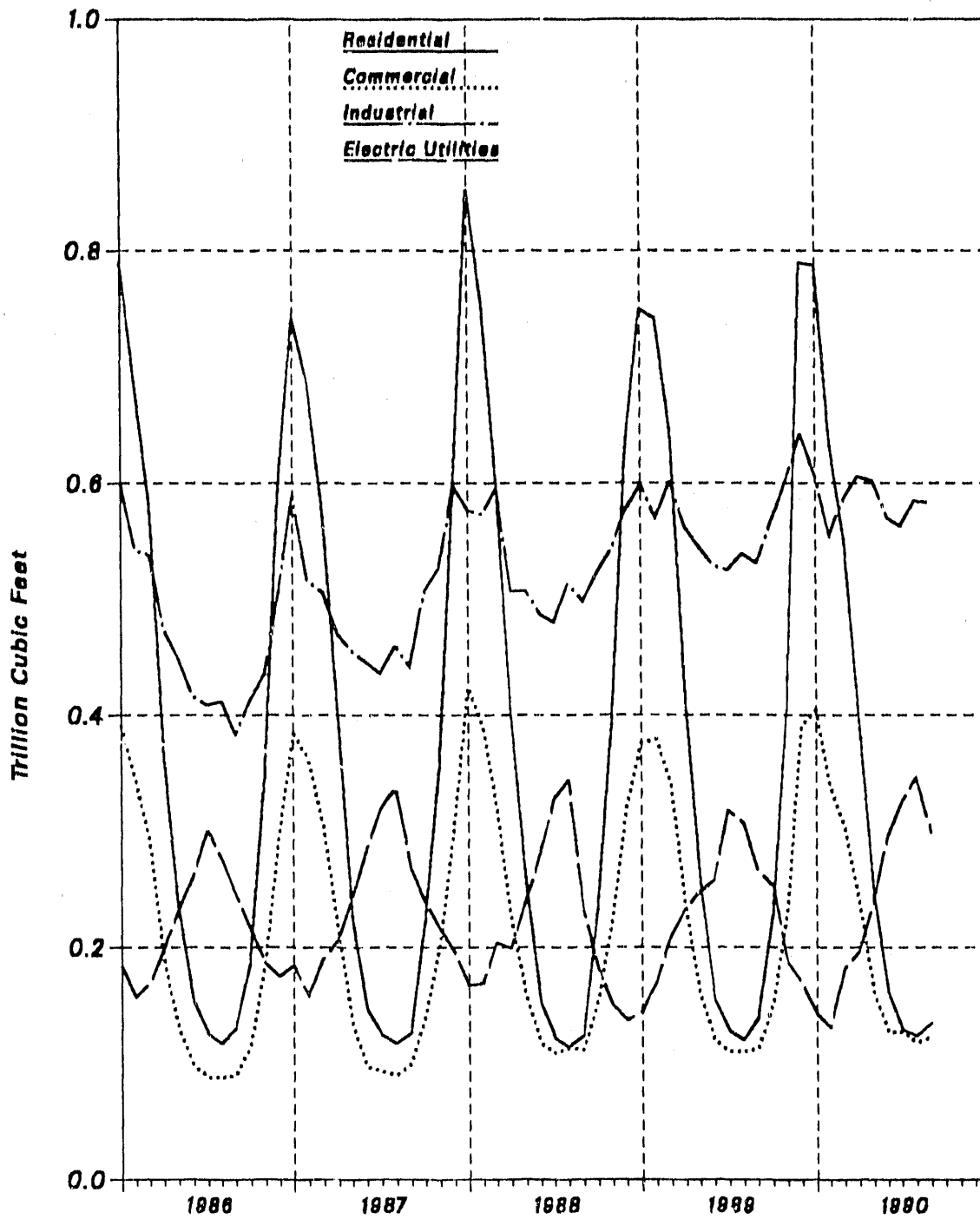
Table 5. Natural Gas Consumption by Petroleum Administration for Defense District (PADD) (Continued)
(Billion Cubic Feet)

Year and Month	PAD District IV				PAD District V			
	Residential	Commercial	Industrial	Electric Utilities	Residential	Commercial	Industrial	Electric Utilities
1988								
January	44	27	19	3	112	47	51	31
February	40	25	18	0	81	39	55	48
March	31	20	17	1	60	34	65	64
April	23	14	16	1	47	29	47	56
May	14	9	16	1	50	30	53	61
June	8	6	14	1	31	27	53	60
July	6	4	14	2	25	22	53	78
August	5	4	15	2	24	26	50	68
September	6	5	16	1	24	30	58	48
October	10	7	16	1	29	27	64	48
November	18	12	16	1	47	29	57	29
December	33	20	17	2	80	29	66	32
Total	240	152	194	15	610	370	672	622
1989								
January	41	25	20	2	109	45	60	37
February	41	25	19	1	97	47	44	42
March	36	21	19	1	69	37	61	48
April	22	14	17	1	48	30	52	50
May	14	8	15	1	37	27	59	37
June	9	6	15	0	32	29	58	54
July	7	4	13	1	26	22	59	78
August	6	4	16	1	26	23	62	66
September	7	5	15	1	28	25	65	70
October	10	7	17	1	33	27	67	72
November	19	12	17	1	50	33	60	56
December	33	20	18	1	79	40	65	36
Total	244	152	201	12	633	385	713	646
1990								
January	41	25	20	0	98	47	66	35
February	35	22	18	0	93	51	58	32
March	31	19	18	1	76	41	52	38
April	23	14	17	1	47	33	67	41
May	16	10	16	1	38	27	57	39
June	10	6	17	1	30	24	62	50
July	6	4	15	1	26	27	66	71
August	6	4	17	1	25	24	58	67
September	6	4	16	1	26	29	67	58
1990 YTD	173	109	153	8	459	305	553	433
1989 YTD	181	112	148	9	471	285	521	482
1988 YTD	179	114	145	11	454	285	485	512

Notes: • Data for 1984 through 1989 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. • Full explanations of all survey processing, estimation procedures, and computations are provided in the publications listed under "Sources."

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*.

Figure 16. Natural Gas Deliveries to Consumers



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*.

Prices



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

Table 6. Residential Heating Oil Prices by Region and State
(Cents per Gallon)

Region/State	1989/1990 Heating Season						
	October	November	December	January	February	March	
Average	86.6	90.4	92.8	134.4	102.9	97.2	
East Coast (PADD I)	88.1	92.4	94.8	142.2	106.1	100.1	
New England (PADD IX)	89.3	94.7	96.7	146.5	109.0	101.3	
Central Atlantic (PADD IY)	90.3	93.7	96.4	137.3	108.0	102.6	
Lower Atlantic (PADD IZ)	NA	NA	NA	NA	NA	NA	
Midwest (PADD II)	82.6	85.1	87.4	113.4	94.2	89.6	

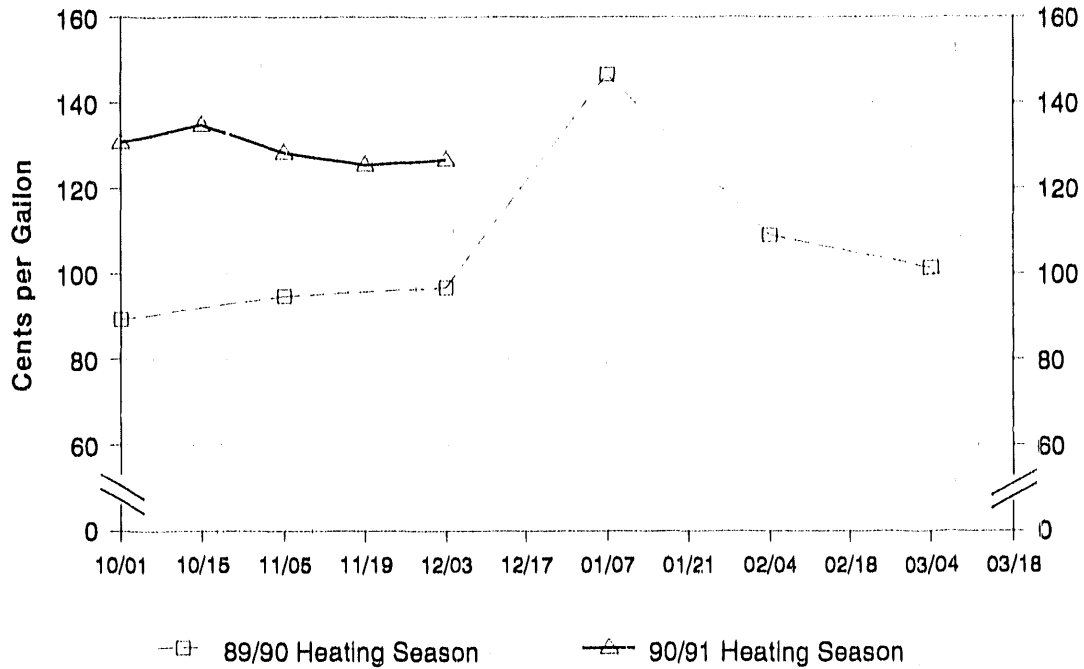
Region/State	1990/91 Heating Season											
	10/01	10/15	11/05	11/19	12/03 ^P	12/17	01/07	01/21	02/04	02/18	03/04	03/18
Average	128.0	132.1	130.2	128.7	128.5							
East Coast (PADD I)	129.6	133.6	131.8	130.1	130.4							
New England (PADD IX)	130.7	134.8	128.3	125.4	126.6							
Connecticut	128.9	135.6	135.5	132.6	133.1							
Maine	127.5	131.2	119.1	112.8	116.0							
Massachusetts	133.8	136.2	126.3	124.3	125.3							
New Hampshire	129.2	132.2	127.6	124.7	126.1							
Rhode Island	131.3	134.0	130.3	129.3	130.4							
Vermont	125.5	132.7	131.1	130.5	128.6							
Central Atlantic (PADD IY)	129.4	133.1	133.7	132.7	132.5							
Delaware	123.0	130.3	126.4	124.2	124.6							
District of Columbia	126.4	135.0	135.6	135.1	136.1							
Maryland	126.9	131.8	130.8	129.4	130.0							
New Jersey	131.7	137.7	136.0	134.1	134.6							
New York	134.1	136.5	139.0	138.4	136.7							
Pennsylvania	121.5	126.8	125.3	124.3	125.3							
Lower Atlantic (PADD IZ)	126.7	132.5	129.6	127.4	126.7							
North Carolina	125.7	130.7	127.9	126.0	124.3							
Virginia	127.7	134.6	131.7	129.1	129.3							
Midwest (PADD II)	119.9	125.9	123.2	121.9	119.8							
Illinois	121.1	126.5	120.8	118.9	116.9							
Indiana	123.2	129.5	123.0	123.0	120.2							
Iowa	116.9	120.3	118.6	117.3	113.4							
Michigan	125.9	129.6	127.8	126.1	122.4							
Minnesota	116.7	124.3	124.5	124.2	122.5							
Ohio	122.4	128.7	124.8	120.7	120.2							
Wisconsin	115.8	122.0	120.1	119.8	117.7							

P=Preliminary data.

NA=Not available.

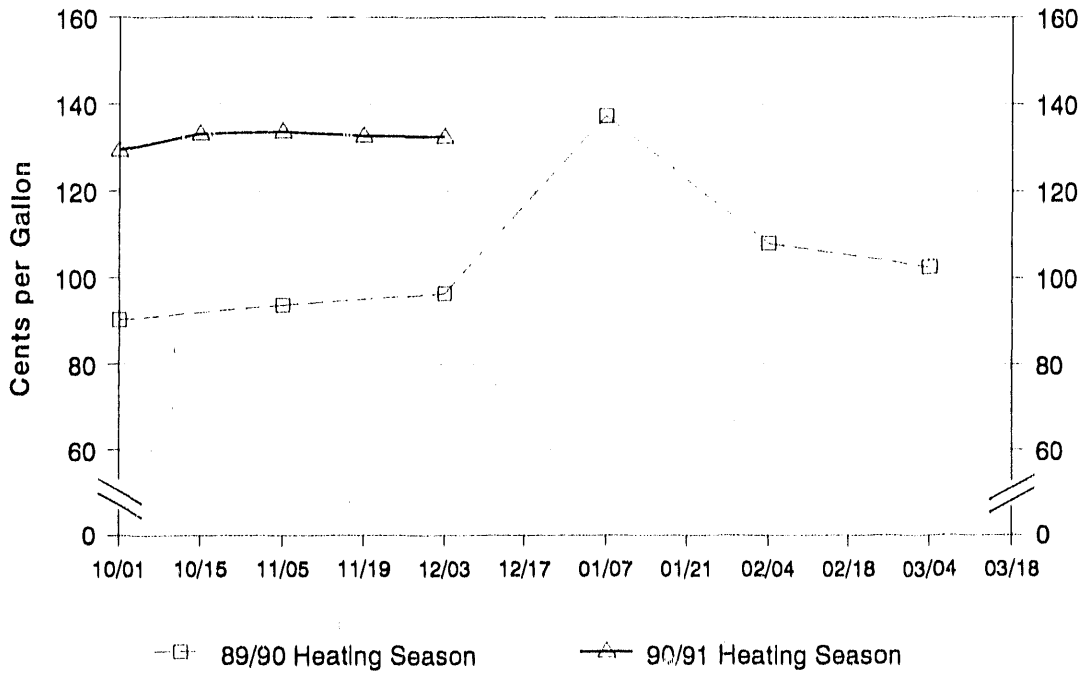
Source: Based on data collected by State Energy Offices.

Figure 17. Residential Heating Oil Prices, New England



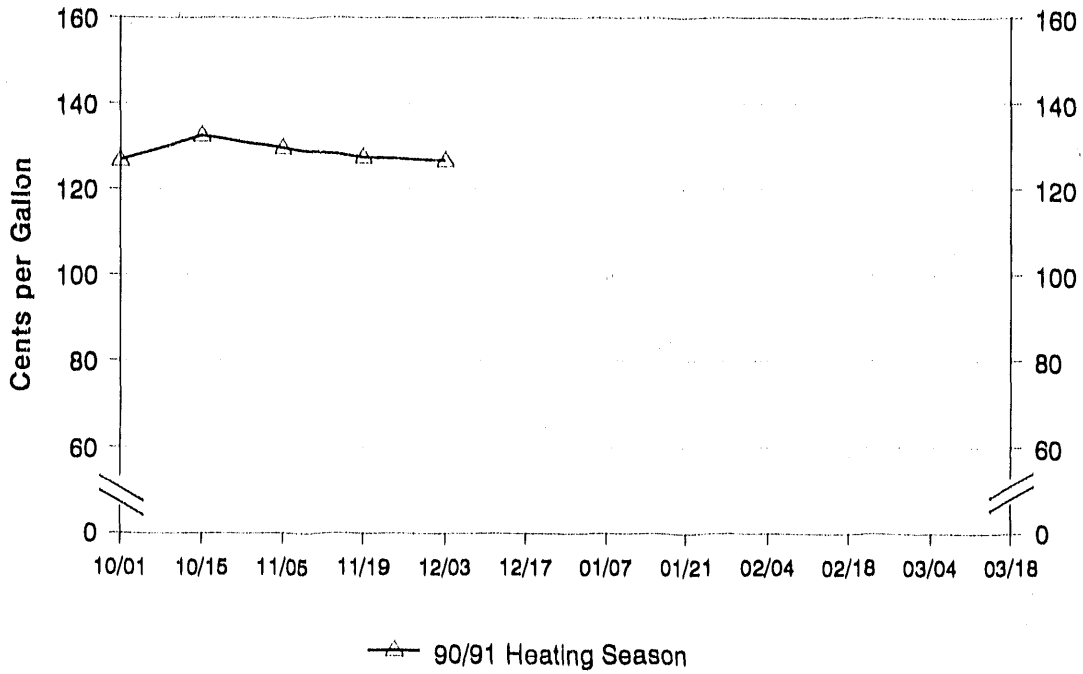
Source: Based on data collected by State Energy Offices.

Figure 18. Residential Heating Oil Prices, Central Atlantic



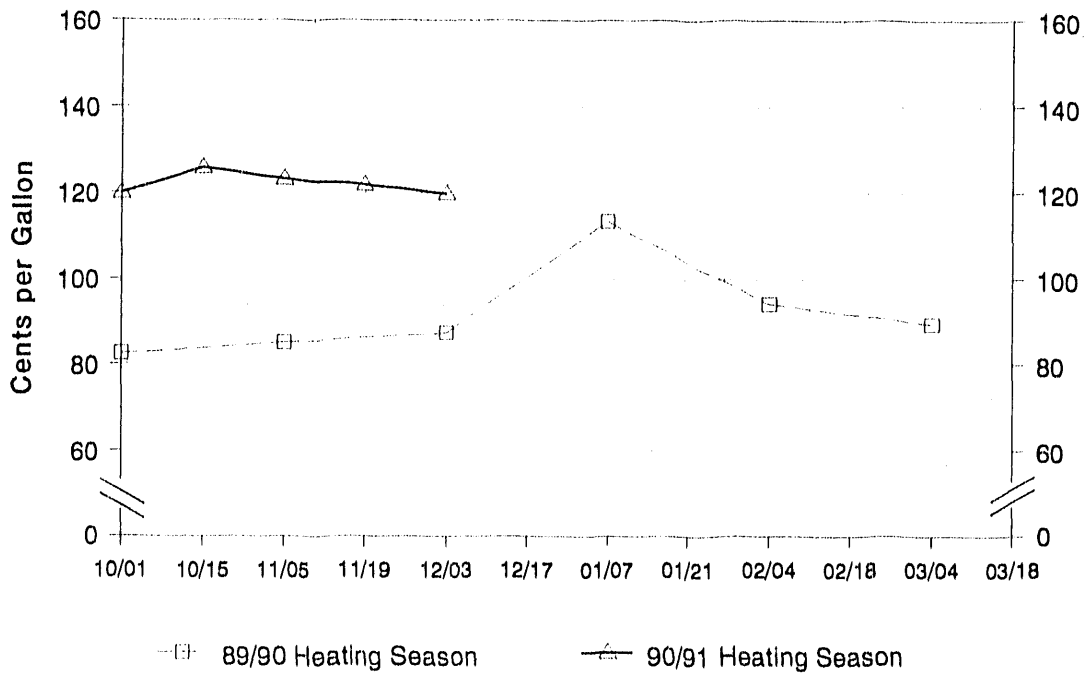
Source: Based on data collected by State Energy Offices.

Figure 19. Residential Heating Oil Prices, Lower Atlantic



Source: Based on data collected by State Energy Offices.

Figure 20. Residential Heating Oil Prices, Midwest



Source: Based on data collected by State Energy Offices.

Table 7. Residential Propane Prices by Region and State
(Cents per Gallon)

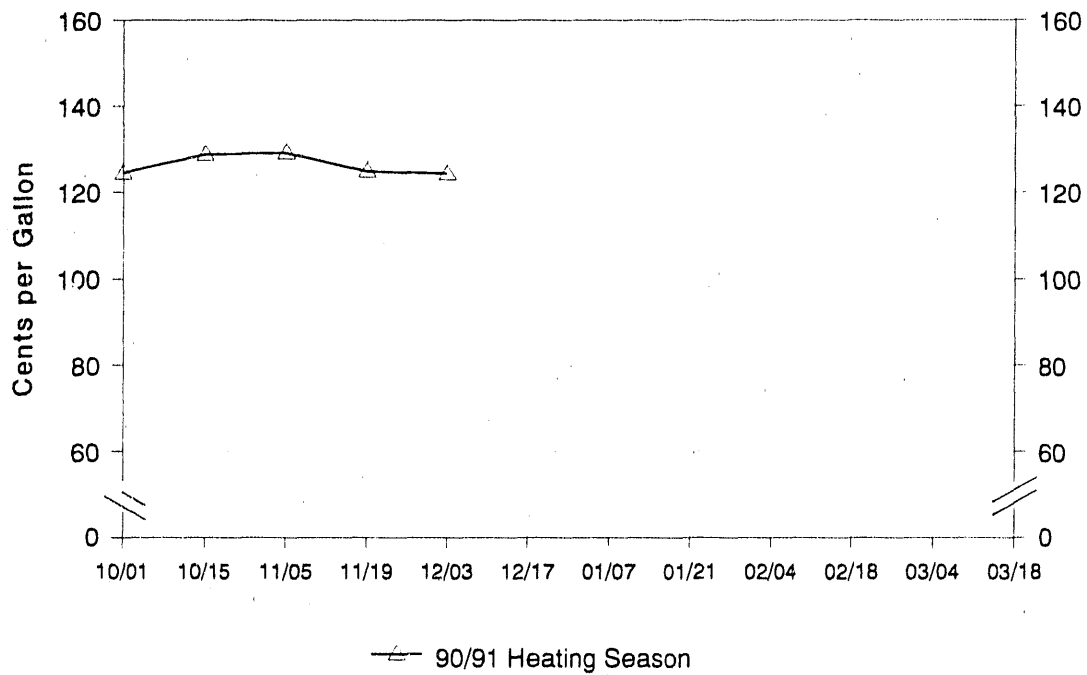
Region/State	1990/91 Heating Season											
	10/01	10/15	11/05	11/19	12/03 ^P	12/17	01/07	01/21	02/04	02/18	03/04	03/18
Average	101.2	100	103.6	102.2	101.4							
East Coast (PADD I)	127.0	130.1	128.5	127.8	127.1							
New England (PADD IX)	124.4	128.7	129.1	124.8	124.3							
Connecticut	129.5	128.8	135.1	126.8	116.7							
Maine	NA	NA	NA	NA	NA							
Massachusetts	NA	NA	NA	NA	NA							
New Hampshire	126.5	130.2	130.8	121.7	123.9							
Rhode Island	131.8	135.0	139.9	141.2	138.5							
Vermont	118.4	127.2	124.4	125.7	128.3							
Central Atlantic (PADD IY)	134.9	139.0	137.7	137.2	137.5							
Delaware	123.4	132.2	130.0	129.8	129.2							
Maryland	125.9	133.4	135.2	137.2	137.5							
New Jersey	129.8	141.0	137.4	137.8	137.8							
New York	143.8	145.1	142.3	141.5	142.0							
Pennsylvania	117.0	128.2	122.9	124.5	124.6							
Lower Atlantic (PADD IZ)	122.4	123.5	122.2	123.0	121.5							
North Carolina	121.5	122.2	121.2	121.4	119.9							
Virginia	123.8	125.7	124.5	127.1	125.7							
Midwest (PADD II)	93.1	98.0	94.5	92.4	91.6							
Illinois	92.2	95.0	89.5	89.5	86.4							
Indiana	93.7	99.5	99.3	99.4	99.1							
Iowa	80.7	84.1	78.3	75.9	73.7							
Kansas	80.0	85.6	80.9	79.4	75.3							
Michigan	99.7	106.4	104.1	105.0	104.5							
Minnesota	101.6	102.1	97.1	93.6	94.4							
Missouri	90.1	95.8	92.4	88.8	87.5							
Nebraska	73.0	80.5	76.3	75.2	72.7							
North Dakota	77.8	82.2	79.5	78.9	78.5							
Ohio	117.3	128.2	123.1	122.2	120.4							
South Dakota	73.9	78.8	76.8	75.9	75.2							
Wisconsin	97.7	101.6	100.4	97.2	98.1							

P=Preliminary data.

NA=Not available.

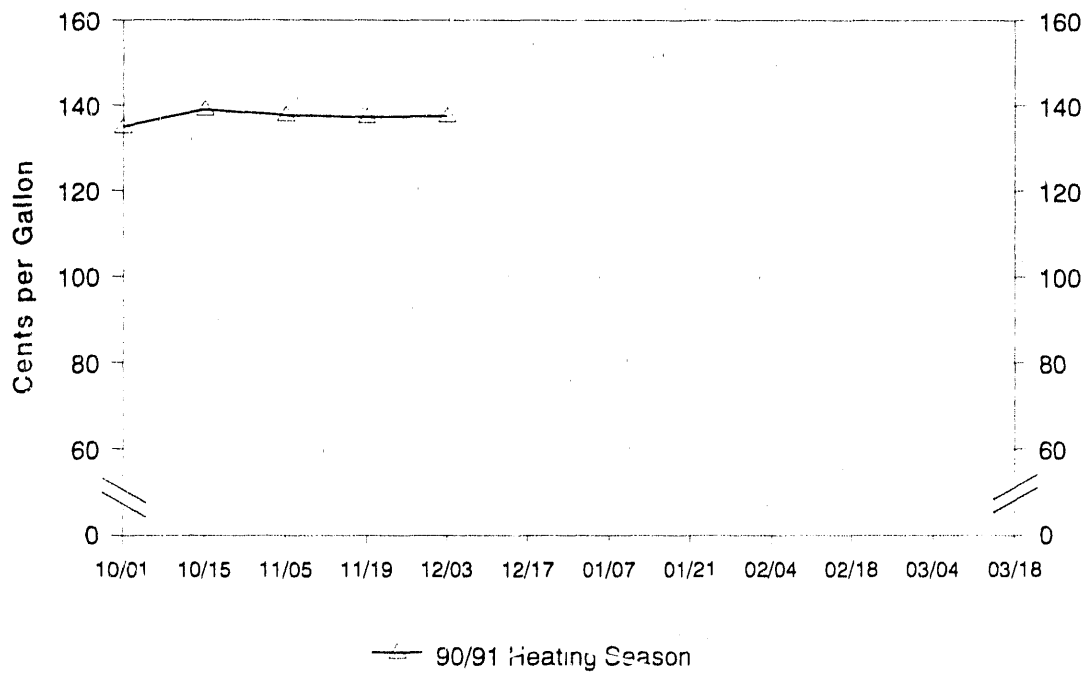
Source: Based on data collected by State Energy Offices.

Figure 21. Residential Propane Prices, New England



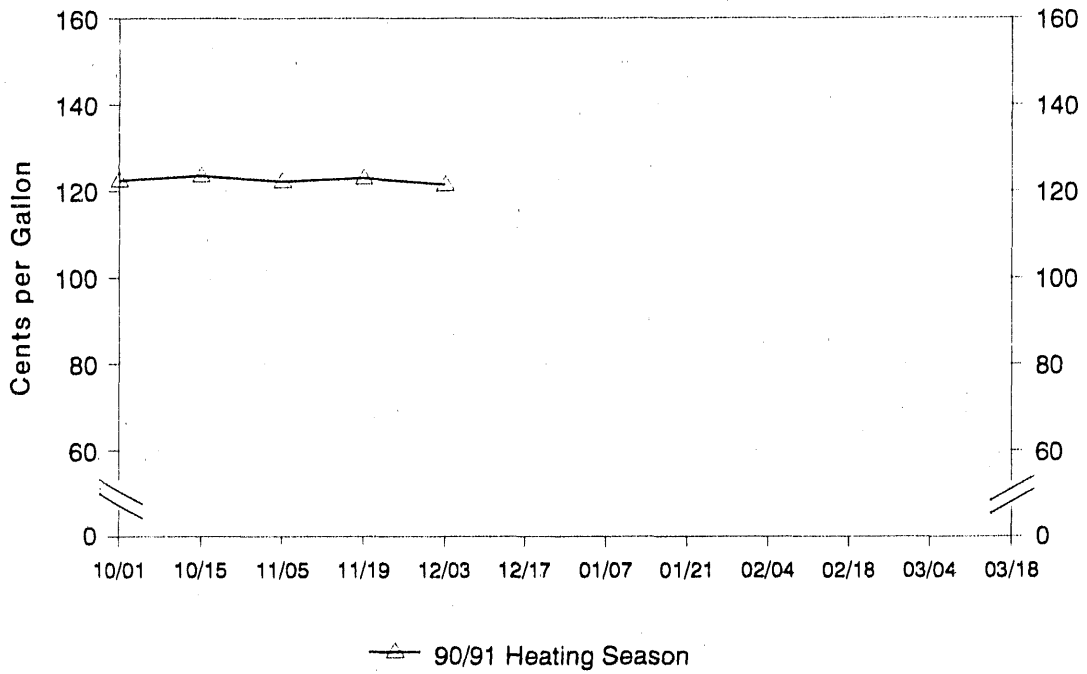
Source: Based on data collected by State Energy Offices.

Figure 22. Residential Propane Prices, Central Atlantic



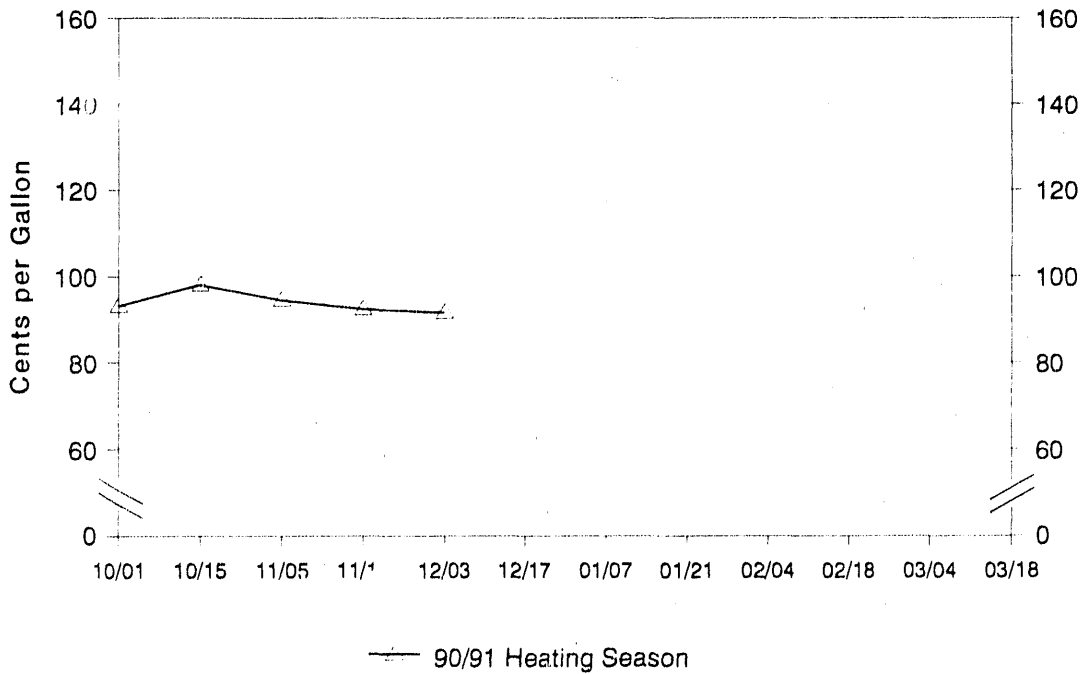
Source: Based on data collected by State Energy Offices.

Figure 23. Residential Propane Prices, Lower Atlantic



Source: Based on data collected by State Energy Offices.

Figure 24. Residential Propane Prices, Midwest



Source: Based on data collected by State Energy Offices.

Table 8. Wholesale Heating Oil Prices by Region and State
(Cents per Gallon)

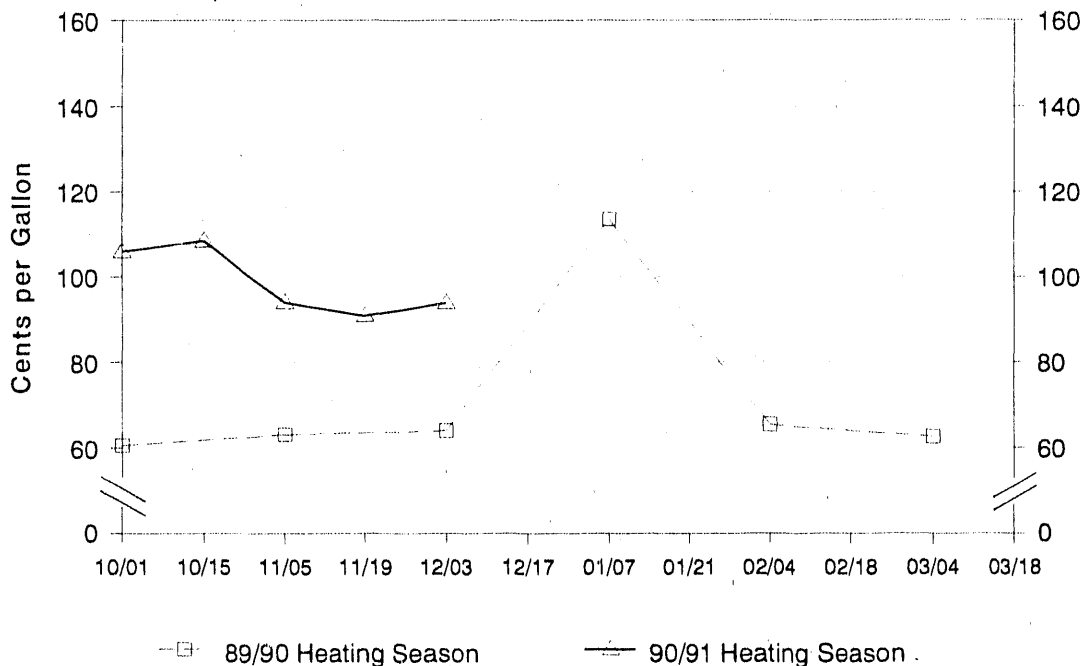
Region/State	1989/1990 Heating Season					
	October	November	December	January	February	March
Average	59.3	62.1	62.6	102.5	61.9	60.1
East Coast (PADD I)	59.0	61.9	62.4	107.2	63.7	60.5
New England (PADD IX)	60.6	63.1	64.0	113.5	65.4	62.6
Central Atlantic (PADD IY)	58.9	61.9	62.4	107.6	63.6	60.4
Lower Atlantic (PADD IZ)	58.1	60.3	60.9	96.1	61.6	58.4
Midwest (PADD II)	59.9	62.6	63.0	89.4	57.2	58.9

Region/State	1990/91 Heating Season											
	10/01	10/15	11/05	11/19	12/03 ^P	12/17	01/07	01/21	02/04	02/18	03/04	03/18
Average	103.6	106.8	93.8	89.9	91.9							
East Coast (PADD I)	104.1	106.8	93.0	89.2	92.3							
New England (PADD IX)	105.9	108.4	93.9	90.8	93.8							
Connecticut	105.6	108.2	93.3	90.3	93.4							
Maine	105.7	109.1	94.6	90.8	94.2							
Massachusetts	106.6	108.5	94.2	91.9	94.7							
New Hampshire	104.5	107.2	94.5	90.0	92.4							
Rhode Island	105.2	108.0	92.7	88.7	91.8							
Vermont	104.6	109.6	95.7	90.2	92.5							
Central Atlantic (PADD IY)	103.2	106.1	92.7	88.6	91.9							
Delaware	101.5	105.7	90.8	87.6	90.0							
District of Columbia	103.8	106.3	90.8	86.2	90.8							
Maryland	102.5	105.7	92.1	88.2	90.8							
New Jersey	102.4	105.5	91.9	88.0	91.5							
New York	104.5	106.7	93.5	89.2	92.7							
Pennsylvania	103.1	106.4	93.4	89.3	92.2							
Lower Atlantic (PADD IZ)	103.5	105.7	92.0	87.6	90.1							
North Carolina	103.4	105.4	91.9	87.4	90.2							
Virginia	103.5	105.9	92.1	87.7	90.1							
Midwest (PADD II)	102.2	107.0	96.6	92.0	90.4							
Illinois	102.1	106.1	95.9	90.4	89.7							
Indiana	103.1	106.3	94.1	89.4	89.4							
Iowa	102.7	107.2	98.3	93.5	90.3							
Kansas	103.7	106.8	96.7	92.6	90.0							
Michigan	100.1	105.8	97.1	91.9	90.6							
Minnesota	102.1	107.3	97.0	92.4	89.8							
Missouri	103.6	106.8	95.9	91.1	89.4							
Nebraska	103.7	107.3	97.4	93.7	90.3							
North Dakota	102.3	107.6	98.9	96.4	93.0							
Ohio	102.2	108.5	97.7	94.2	92.8							
South Dakota	103.9	107.7	99.8	97.0	94.1							
Wisconsin	102.0	107.5	95.7	90.6	89.1							

P=Preliminary data.

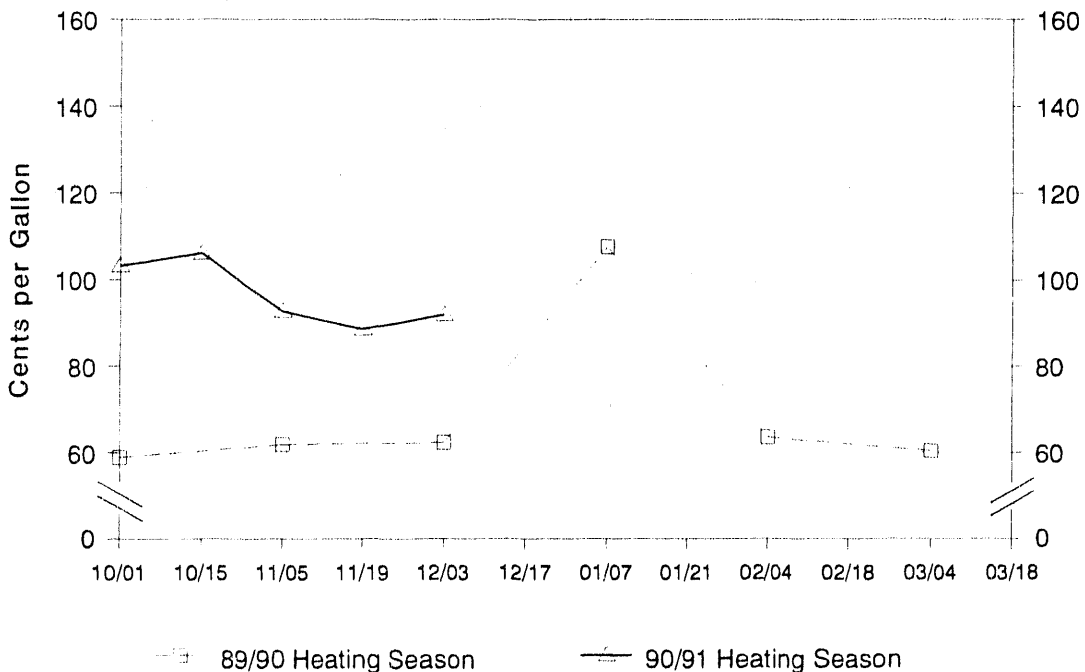
Sources: • The 1989/90 heating season data are based on quotes at representative terminal locations as published in the *U.S. Oil Week*. • The 1990/91 heating season data are based on terminal quotes collected by the Computer Petroleum Corporation, Inc.

Figure 25. Wholesale Heating Oil Prices, New England



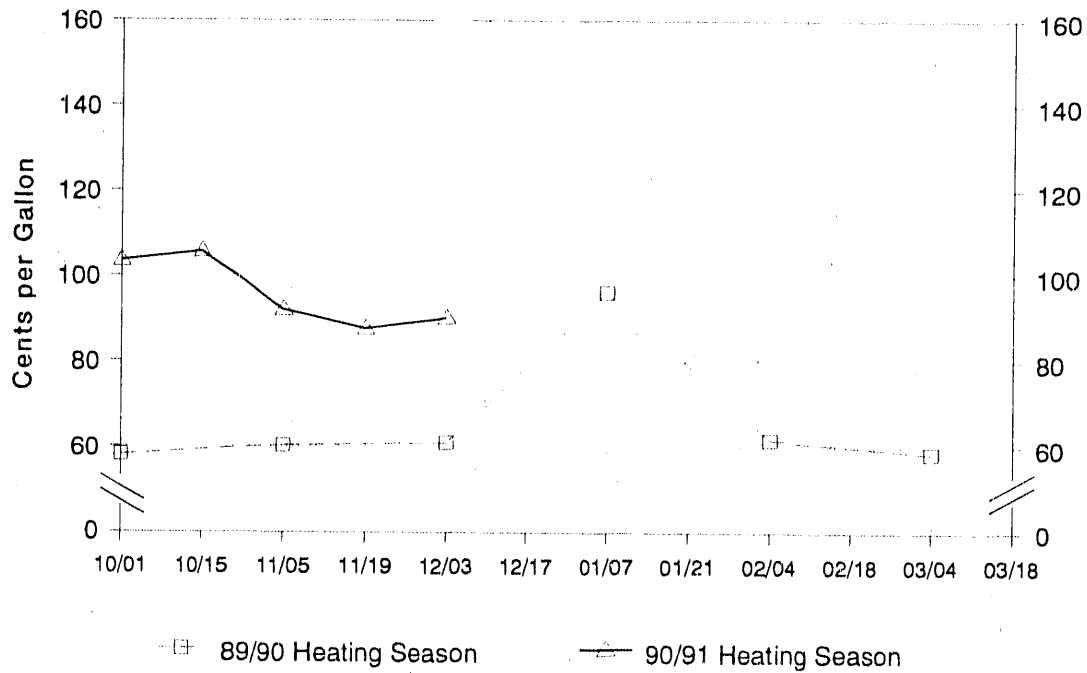
Sources: • The 1989/90 heating season data are based on quotes at representative terminal locations as published in the *U.S. Oil Week*. • The 1990/91 heating season data are based on terminal quotes collected by the Computer Petroleum Corporation, Inc.

Figure 26. Wholesale Heating Oil Prices, Central Atlantic



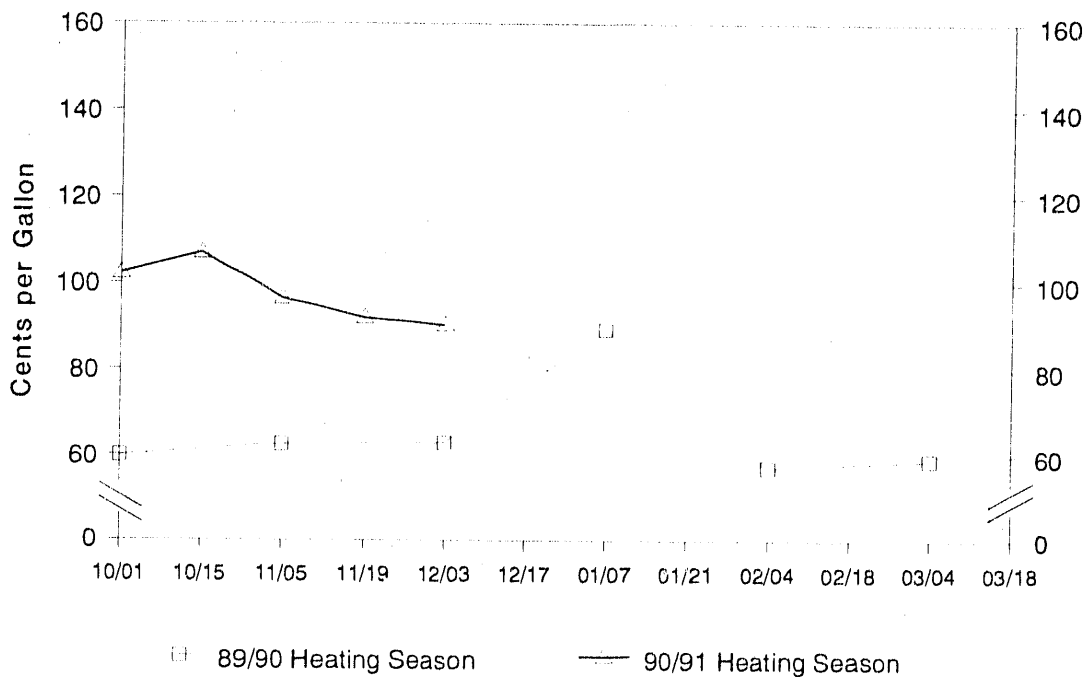
Sources: • The 1989/90 heating season data are based on quotes at representative terminal locations as published in the *U.S. Oil Week*. • The 1990/91 heating season data are based on terminal quotes collected by the Computer Petroleum Corporation, Inc.

Figure 27. Wholesale Heating Oil Prices, Lower Atlantic



Sources: • The 1989/90 heating season data are based on quotes at representative terminal locations as published in the *U.S. Oil Week*. • The 1990/91 heating season data are based on terminal quotes collected by the Computer Petroleum Corporation, Inc.

Figure 28. Wholesale Heating Oil Prices, Midwest



Sources: • The 1989/90 heating season data are based on quotes at representative terminal locations as published in the *U.S. Oil Week*. • The 1990/91 heating season data are based on terminal quotes collected by the Computer Petroleum Corporation, Inc.

Table 9. Wholesale Propane Prices by Region and State
(Cents per Gallon)

Region/State	1989/1990 Heating Season					
	October	November	December	January	February	March
Average	26.0	26.0	41.4	66.0	34.0	27.2
East Coast (PADD I)	28.9	28.9	39.3	62.7	42.0	32.8
New England (PADD IX)	NA	NA	NA	NA	NA	NA
Central Atlantic (PADD IY)	29.2	29.1	40.6	66.2	41.6	33.3
Lower Atlantic (PADD IZ)	28.7	28.6	38.0	58.2	42.3	32.4
Midwest (PADD II)	25.1	25.1	42.0	67.0	31.7	25.5

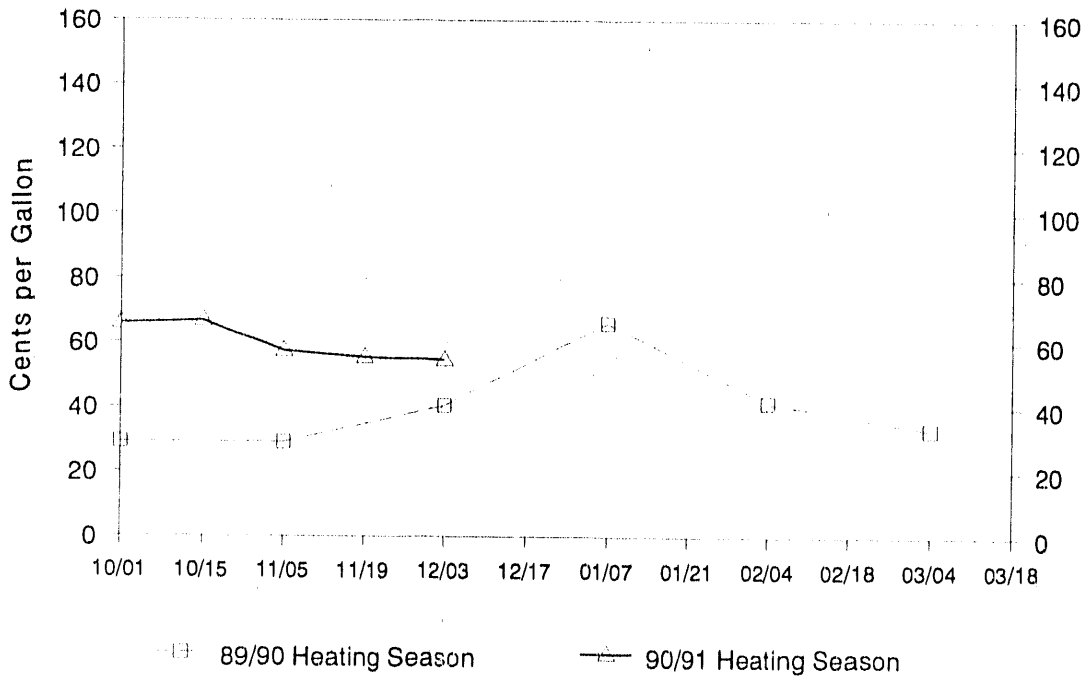
Region/State	1990/91 Heating Season											
	10/01	10/15	11/05	11/19	12/03 ^P	12/17	01/07	01/21	02/04	02/18	03/04	03/18
Average	63.4	65.0	54.8	51.0	50.3							
East Coast (PADD I)	64.8	66.5	57.0	55.3	54.2							
New England (PADD IX)	NA	NA	NA	NA	NA							
Central Atlantic (PADD IY)	65.9	66.7	57.5	55.5	54.8							
New York	66.2	67.3	57.8	56.0	55.4							
Pennsylvania	65.6	66.3	57.2	55.1	54.3							
Lower Atlantic (PADD IZ)	NA	NA	NA	NA	NA							
North Carolina	63.3	66.2	56.2	54.9	53.4							
Midwest (PADD II)	63.0	64.6	54.1	50.0	49.4							
Illinois	64.9	66.1	55.3	50.3	49.6							
Indiana	64.1	65.0	56.0	53.2	53.1							
Iowa	64.1	65.3	54.3	49.3	49.4							
Kansas	60.3	63.2	52.0	47.3	47.2							
Minnesota	62.4	62.9	53.4	49.9	46.4							
Missouri	64.5	64.7	53.0	48.7	48.8							
Nebraska	66.8	65.2	54.2	49.3	50.0							
North Dakota	56.7	60.4	53.3	52.9	49.6							
Ohio	64.3	65.5	56.4	54.3	53.3							
South Dakota	62.7	65.6	54.7	50.4	50.0							
Wisconsin	63.5	66.7	55.4	51.4	50.7							

P=Preliminary data.

NA=Not available.

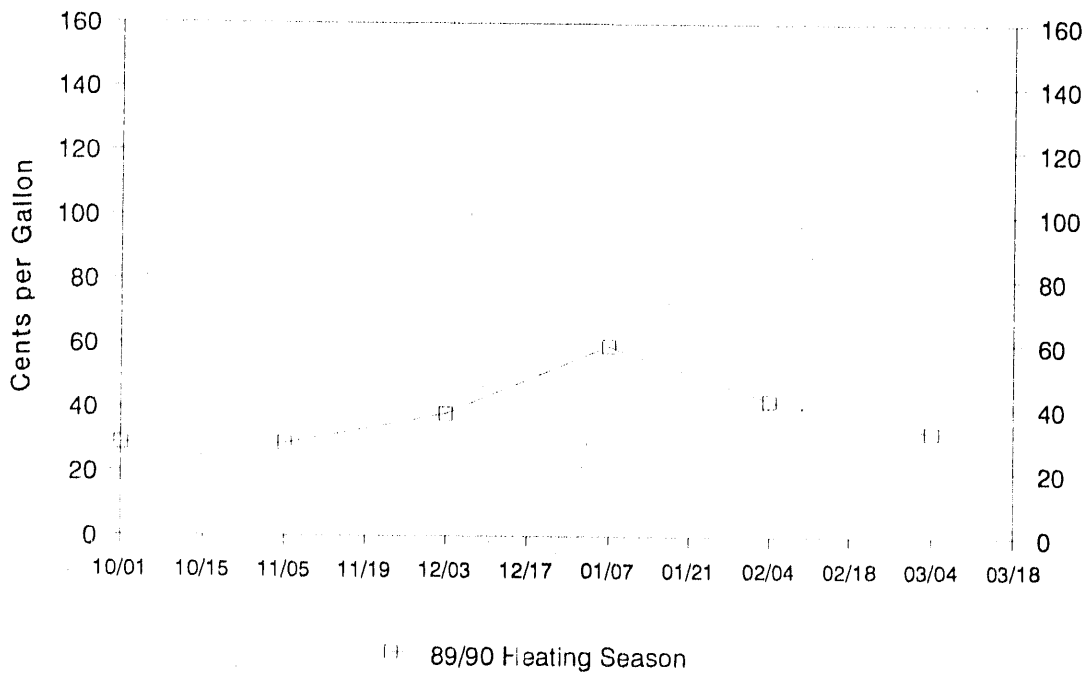
Source: These data are average prices collected by the Computer Petroleum Corporation, Inc.

Figure 29. Wholesale Propane Prices, Central Atlantic



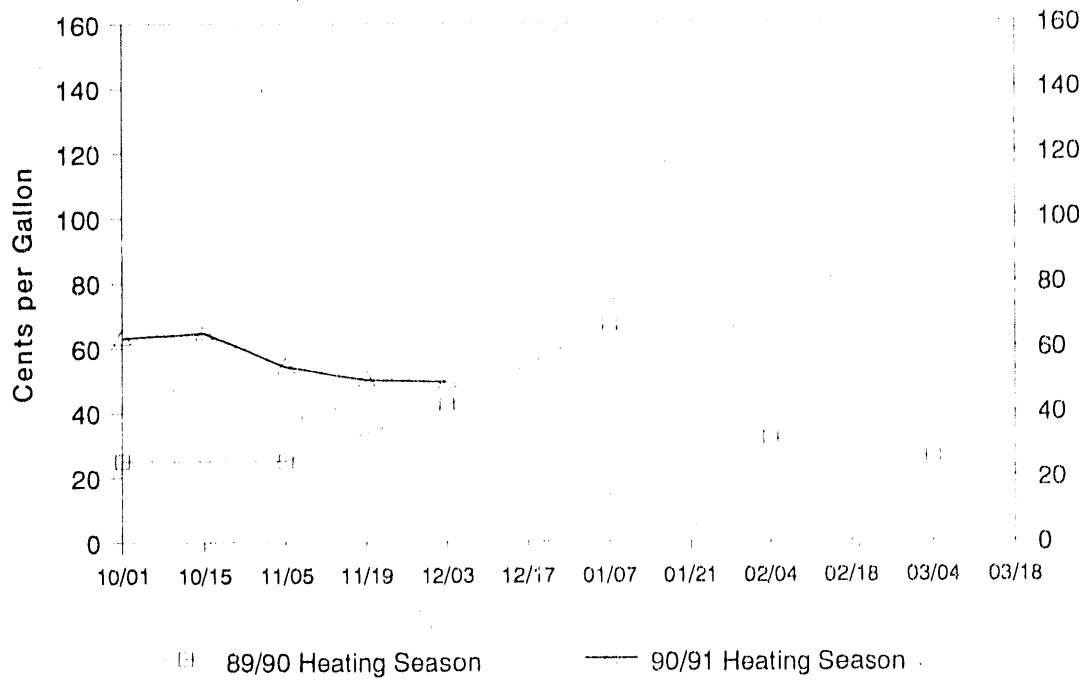
Source: These data are average prices collected by the Computer Petroleum Corporation, Inc.

Figure 30. Wholesale Propane Prices, Lower Atlantic



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

Figure 31. Wholesale Propane Prices, Midwest



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

Table 10. U.S. Crude Oil and Petroleum Product Prices
(Cents per Gallon, Except Where Noted)

Report Period	Crude WTI ^a (Dollars per Barrel)	No. 2 Distillate				Propane	
		Spot ^a	Terminal ^b	Residential ^c	Diesel Retail ^d	Spot ^e	Residential ^e
Monthly							
01/90	22.86	72.7	75.1	114.0	128.0	45.0	94.5
02/90	22.09	57.5	58.2	96.3	120.8	27.6	81.2
03/90	20.39	58.0	58.5	94.7	116.6	23.9	71.5
04/90	18.43	58.5	58.6	93.1	115.0	23.0	68.5
05/90	18.20	53.9	56.3	90.7	114.9	22.3	54.8
06/90	16.70	48.1	51.5	86.4	113.7	24.1	57.4
07/90	18.54	53.1	52.5	83.8	111.9	27.8	55.6
08/90	27.35	75.3	78.4	98.8	127.5	38.1	64.7
09/90	33.83	88.7	89.2	113.7	135.2	45.7	72.6
Week Ending							
10/05/90	36.64	97.2	100.8	127.8	145.6	55.0	101.2
10/12/90	39.88	102.7	103.5	NA	NA	58.9	NA
10/19/90	36.84	96.6	106.0	132.1	150.4	53.8	106.1
10/26/90	31.32	83.1	99.3	NA	NA	44.0	NA
11/02/90	34.95	88.7	97.4	NA	150.9	48.9	NA
11/09/90	33.90	87.7	96.5	130.2	NA	50.8	103.6
11/16/90	31.50	86.1	96.0	NA	149.3	48.1	NA
11/23/90	30.85	85.8	92.5	128.7	NA	43.2	102.2
Daily							
11/26/90	33.28	91.8	91.9	NA	NA	48.1	NA
11/27/90	33.05	90.9	94.2	NA	NA	46.1	NA
11/28/90	33.28	92.1	94.3	NA	NA	45.4	NA
11/29/90	32.93	92.9	94.1	NA	NA	46.6	NA
11/30/90	29.08	86.0	94.2	NA	NA	44.3	NA
12/03/90	29.40	85.4	91.8	128.5	NA	44.8	101.4
12/04/90	29.05	84.8	90.4	NA	NA	45.6	NA
12/05/90	27.18	83.2	89.8	NA	NA	41.8	NA
12/06/90	26.35	81.8	87.8	NA	NA	37.9	NA
12/07/90	26.61	81.0	85.5	NA	NA	38.9	NA
12/10/90	27.08	82.6	84.0	NA	NA	38.3	NA
12/11/90	26.50	79.1	83.6	NA	NA	36.3	NA
12/12/90	25.30	75.3	81.9	NA	NA	34.9	NA
12/13/90	26.45	74.8	79.8	NA	NA	36.3	NA
12/14/90	26.60	75.4	78.4	NA	NA	37.9	NA

NA=Not available.

^a Source: Spot West Texas Intermediate (WTI) at Cushing, Oklahoma; No. 2 distillate in New York Harbor from Reuters.

^b Source: Computer Petroleum Corp. rack prices.

^c Source: Residential No. 2 distillate and propane prices from Energy Information Administration (EIA), *Petroleum Marketing Monthly*, and State Heating Oil and Propane Program starting October 1, 1990.

^d Source: Diesel Retail prices from *Lundberg PS*.

^e Source: Mt. Belvieu, Texas, spot propane prices from *Platts' Oilgram Price Report*.

Table 11. Petroleum Product Prices for Selected Cities
(Cents per Gallon)

Report Period	Chicago				Houston			
	No. 2 Distillate			Propane	No. 2 Distillate			Propane
	Spot ^a	Terminal ^b	Diesel Retail ^c	Terminal ^d	Spot ^a	Terminal ^b	Diesel Retail ^c	Terminal ^d
Monthly								
01/90	60.0	69.2	140.4	72.5	61.5	78.3	130.6	54.4
02/90	52.2	54.3	128.4	31.3	54.1	56.9	124.4	32.5
03/90	54.8	56.5	123.3	25.8	52.7	55.7	115.9	25.7
04/90	54.2	56.2	122.7	26.1	52.2	54.5	113.6	25.3
05/90	59.4	54.0	121.8	26.4	48.8	51.6	112.7	24.1
06/90	55.1	48.6	120.8	29.4	45.9	47.5	111.3	24.7
07/90	53.9	51.1	119.1	32.4	53.9	51.7	109.9	27.9
08/90	75.1	77.5	135.8	43.9	73.9	77.3	124.2	38.9
09/90	87.3	86.9	139.5	51.3	87.9	87.0	133.0	44.8
Week Ending								
10/05/90	94.1	99.0	150.3	62.9	95.7	99.7	145.4	56.2
10/12/90	100.1	102.9	NA	64.5	100.6	102.5	NA	58.3
10/19/90	97.9	105.4	156.6	63.8	95.0	103.8	149.6	59.5
10/26/90	87.0	94.7	NA	52.8	81.6	91.8	NA	46.8
11/02/90	90.2	95.2	156.7	55.9	87.7	91.6	148.8	49.5
11/09/90	90.8	95.0	NA	55.8	86.8	90.8	NA	51.1
11/16/90	88.5	93.5	155.8	55.7	83.9	89.7	147.1	52.4
11/23/90	87.7	89.0	NA	49.3	81.8	86.2	NA	46.9
Daily								
11/26/90	NA	88.5	NA	48.2	90.6	86.7	NA	44.7
11/27/90	88.5	91.8	NA	53.1	89.8	89.6	NA	47.0
11/28/90	89.1	91.8	NA	51.9	89.9	90.4	NA	46.9
11/29/90	88.9	91.7	NA	51.1	89.9	90.4	NA	46.9
11/30/90	82.4	91.9	NA	50.1	85.8	91.0	NA	46.9
12/03/90	81.4	89.1	NA	49.8	82.5	87.9	NA	46.9
12/04/90	83.4	87.9	NA	49.2	84.9	86.4	NA	47.1
12/05/90	77.3	87.6	NA	49.4	78.8	86.4	NA	47.3
12/06/90	75.4	85.3	NA	48.0	78.0	85.0	NA	47.0
12/07/90	74.5	82.5	155.8	45.4	76.9	82.7	146.7	43.5
12/10/90	74.6	81.0	NA	44.0	78.7	80.9	NA	42.8
12/11/90	71.9	80.6	NA	44.0	75.3	81.0	NA	41.9
12/12/90	69.8	78.6	NA	41.3	72.1	79.3	NA	41.6
12/13/90	68.0	76.1	NA	38.5	71.6	77.6	NA	39.6
12/14/90	69.6	74.6	NA	38.5	72.3	76.4	NA	39.6

See footnotes at end of table.

Table 11. 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 ^a	Terminal ^b	Diesel Retail ^c	Terminal ^d	Spot ^a	Terminal ^b	Diesel Retail ^c	Terminal ^d
Monthly								
01/90	58.5	65.6	114.8	48.9	72.7	86.9	141.1	67.9
02/90	54.7	58.3	114.0	45.2	57.5	61.2	129.1	43.5
03/90	55.4	56.6	113.5	41.3	58.0	61.0	124.6	34.1
04/90	55.2	57.3	113.0	32.7	58.5	61.7	120.9	32.6
05/90	51.6	55.9	113.1	28.3	53.9	59.2	120.7	31.3
06/90	47.6	50.4	112.7	27.0	48.1	52.3	123.6	31.7
07/90	52.9	50.4	112.1	27.6	53.1	55.1	123.1	34.4
08/90	77.2	78.1	129.0	33.1	75.3	78.2	135.2	45.3
09/90	90.3	90.3	141.2	37.8	88.7	89.5	141.8	52.4
Week Ending								
10/05/90	98.3	103.0	152.3	45.7	97.2	103.4	153.9	65.9
10/12/90	104.7	104.1	NA	49.5	102.7	105.8	NA	66.7
10/19/90	99.0	105.8	157.4	54.3	96.6	106.1	159.7	67.5
10/26/90	86.5	103.8	NA	55.4	83.1	95.3	NA	58.3
11/02/90	96.4	103.0	157.6	55.1	88.7	95.4	161.1	58.6
11/09/90	97.2	102.8	NA	54.7	87.7	92.8	NA	59.6
11/16/90	93.0	101.2	157.1	55.0	86.1	93.1	160.7	61.1
11/23/90	87.4	99.2	NA	54.9	85.8	89.7	NA	56.5
Daily								
11/26/90	89.8	97.4	NA	55.0	91.8	90.6	NA	56.6
11/27/90	87.5	97.1	NA	55.0	90.9	94.5	NA	58.2
11/28/90	86.5	96.1	NA	55.0	92.1	94.9	NA	57.7
11/29/90	88.5	95.3	NA	55.3	92.9	95.1	NA	57.3
11/30/90	83.5	94.4	NA	55.3	86.0	96.0	NA	57.0
12/03/90	83.9	92.7	NA	55.8	85.4	93.6	NA	56.4
12/04/90	81.0	90.1	NA	55.8	84.8	91.6	NA	56.2
12/05/90	77.3	88.0	NA	55.8	83.2	91.3	NA	56.2
12/06/90	73.0	85.1	NA	55.8	81.8	89.5	NA	54.9
12/07/90	73.3	80.8	157.4	55.8	81.0	87.4	162.1	50.5
12/10/90	75.8	77.8	NA	55.8	82.6	87.0	NA	49.5
12/11/90	73.1	76.7	NA	55.8	79.1	86.8	NA	49.5
12/12/90	69.5	74.9	NA	56.3	75.3	85.5	NA	48.8
12/13/90	67.3	73.4	NA	56.3	74.8	83.3	NA	48.5
12/14/90	69.5	70.9	NA	56.8	75.4	82.6	NA	48.5

NA=Not available.

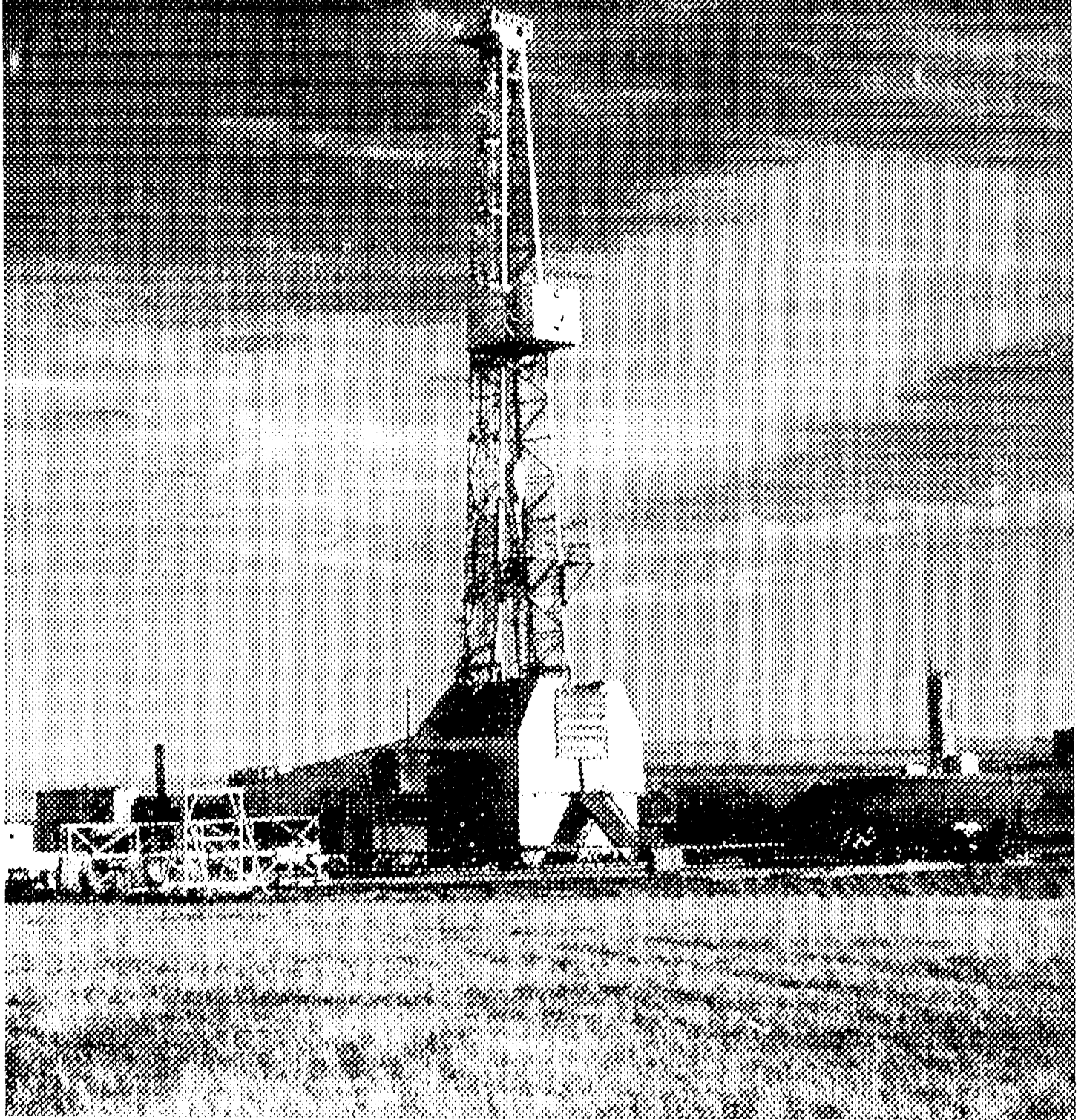
^a Source: No. 2 distillate spot prices in Chicago, Houston, and Los Angeles, are from Telerate; New York spot prices are from Reuters.

^b Source: No. 2 distillate terminal prices in Chicago, Houston, Los Angeles, and New York are from Computer Petroleum Corp.

^c Source: Diesel Retail self-serve prices in Chicago, Houston, Los Angeles, and Long Island, New York are from Lundberg PS.

^d Source: Propane terminal prices in Lemont, Illinois; Mt. Belvieu, Texas; Los Angeles, California; and Selkirk, New York are from Computer Petroleum Corp.

Weather Summary



Weather conditions continue to have a strong effect on U.S. petroleum supply and demand.

United States Weather Summary

The following excerpts are from the National Weather Service.

6 - 10 Day Outlook - December 25 through December 29, 1990

Much below normal temperatures are expected from eastern California eastward through the Central Rockies. Above normal temperatures are expected in the West Gulf Coast region, from the lower Mississippi Valley east northeastward to the East Coast, and in Florida with the exception of much above temperatures in southern Florida. Near normal temperatures are expected for the Big Bend of Texas, the southern tip of New Mexico, and from east central Texas north northeastward into the Middle Mississippi Valley and continuing east northeastward to the East Coast.

Below normal or no precipitation is expected in Florida, northern California, and from the North Pacific Coast region eastward into the Northern Rockies except for western Montana where precipitation amounts will be near normal. Elsewhere, precipitation is expected to be near and above normal.

30 Day Outlook - Mid-December 1990 to Mid-January 1991

The 30 day outlook calls for at least a 55 percent probability of below normal temperatures in California, Nevada, Oregon, and the western half of Washington.

Below median precipitation with a probability of 55 percent is expected for the region ranging from Maryland through New Jersey in addition to most parts of Pennsylvania, New York, and New England.

The next 30 Day outlook will be released December 28, 1990.

90 Day Outlook - December 1990 through February 1991

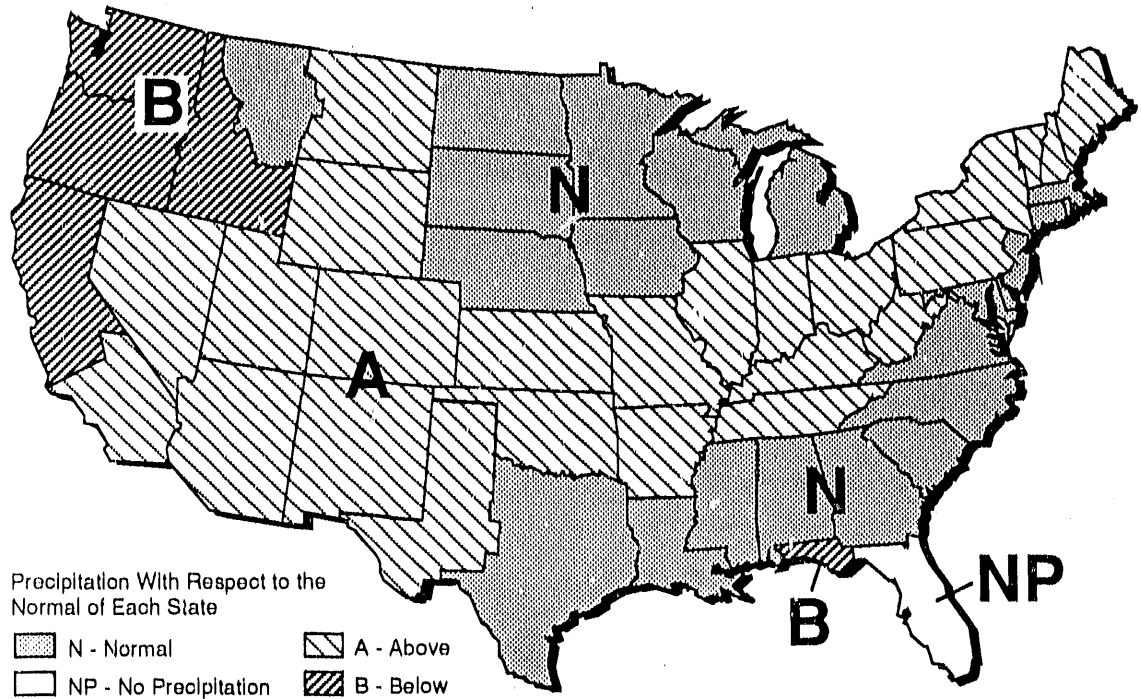
The 90 day outlook calls for at least a 55 percent probability of below normal temperatures over the West Gulf Coast region and all areas east of the Mississippi River except for the Florida Peninsula and the Georgia and South Carolina coastline. Above normal temperatures with at least a 55 percent chance are expected from the High Plains westward to the Pacific Coast. Within this region, the likelihood of warmer temperatures rises to 60 percent over western Washington and Oregon and most of the southwest. Above normal temperatures are also expected with at least a 65 percent chance over southern and central California and southwestern Arizona.

Below median precipitation is expected with at least a 55 percent chance from the interior part of southern California eastward across Arizona and New Mexico and then northeastward across most of Oklahoma and Kansas to the northern half of the Mississippi Valley. Above median precipitation is expected with at least a 55 percent chance for the Pacific Northwest and along the Gulf and Atlantic Coasts including all of Florida.

The next 90 Day Outlook will be released December 28, 1990.

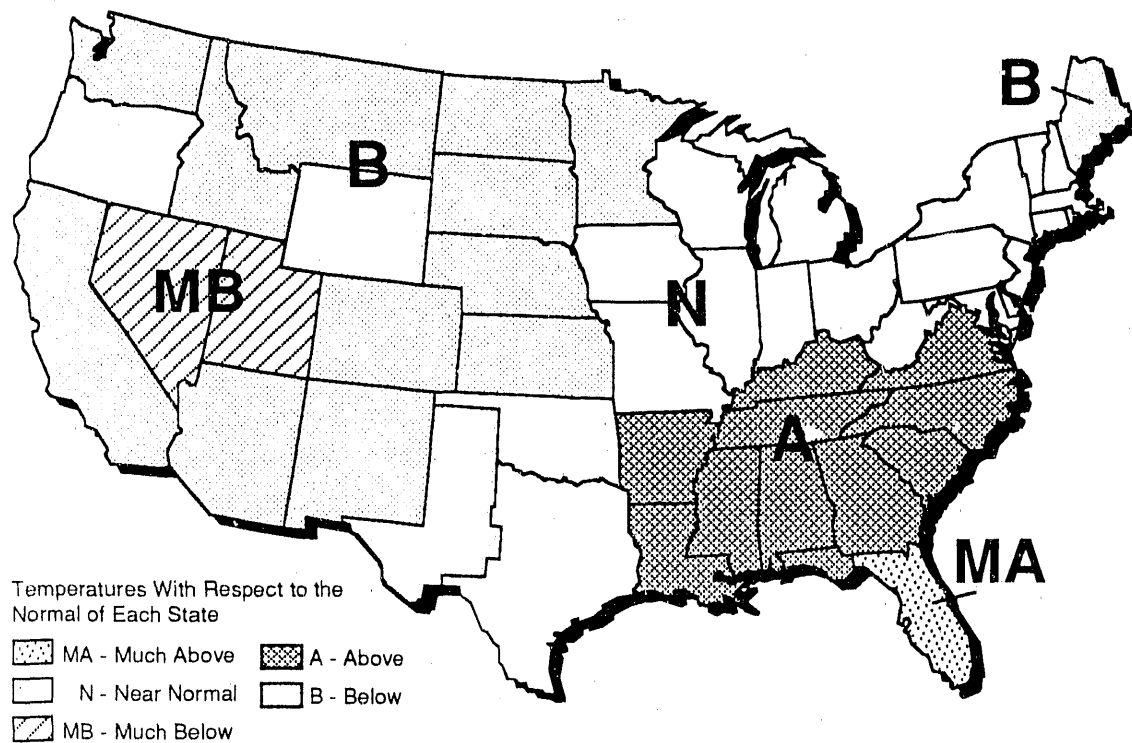
Source: National Weather Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

Figure 32. 6 - 10 Day Precipitation Outlook for December 25 through December 29, 1990



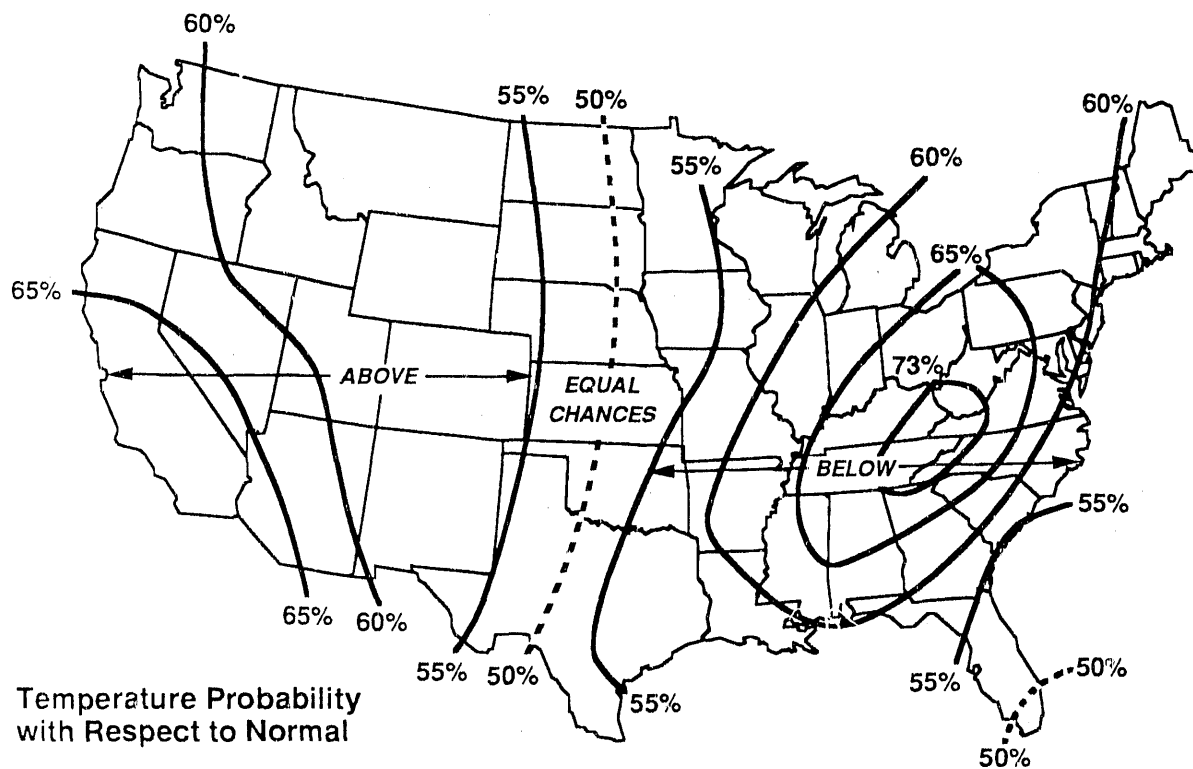
Source: National Weather Service, National Oceanic and Atmospheric Administration, U.S. Department of Commerce.

Figure 33. 6 - 10 Day Temperature Outlook for December 25 through December 29, 1990



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

Figure 34. 90 Day Temperature Outlook for December 1990 through February 1991



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

Table 12. U.S. Total Heating Degree Days by City
(Population Weighted Heating Degree-Days^a, Except Where Noted)

City	1990	1989-1990	Normal	Percent Change	
				1990 vs. 1989-1990	1990 vs. Normal
July 1 - June 30		4,582	4,689	--	--
July 1 - December 15	1,134	1,386	1,295	-18	-12
Albuquerque	1,196	1,234	1,306	-3	-8
Amarillo	1,048	1,231	1,212	-15	-14
Asheville	1,050	1,362	1,266	-23	-17
Atlanta	615	780	818	-21	-25
Billings	1,725	1,975	2,176	-13	-21
Boise	1,672	1,783	1,797	-6	-7
Boston	1,200	1,689	1,446	-29	-17
Buffalo	1,644	2,097	1,844	-22	-11
Cheyenne	2,005	2,125	2,264	-6	-11
Chicago	1,596	1,926	1,727	-17	-8
Cincinnati	1,216	1,574	1,454	-23	-16
Cleveland	1,478	1,801	1,671	-18	-12
Columbia, SC	613	713	716	-14	-14
Denver	1,472	1,686	1,806	-13	-18
Des Moines	1,590	2,021	1,775	-21	-10
Detroit	1,559	2,007	1,828	-22	-15
Fargo	2,336	2,925	2,710	-20	-14
Hartford	1,436	1,879	1,705	-24	-16
Houston	320	453	392	-29	-18
Jacksonville, FL	266	392	334	-32	-20
Kansas City	1,148	1,675	1,416	-31	-19
Las Vegas	568	541	685	5	-17
Los Angeles	115	119	367	-3	-69
Memphis	686	855	862	-20	-20
Miami	4	24	19	****	****
Milwaukee	1,632	2,109	1,992	-23	-18
Minneapolis	2,022	2,492	2,267	-19	-11
Montgomery	527	706	617	-25	-15
New York	947	1,311	1,217	-28	-22
Oklahoma City	769	1,011	995	-24	-23
Omaha	1,490	1,966	1,704	-24	-13
Philadelphia	1,039	1,403	1,293	-26	-20
Phoenix	133	152	337	-13	-61
Pittsburgh	1,421	1,824	1,680	-22	-15
Portland, ME	1,772	2,243	2,141	-21	-17
Providence	1,314	1,713	1,572	-23	-16
Raleigh	723	1,006	970	-28	-25
Richmond	832	1,135	1,078	-27	-23
St. Louis	966	1,314	1,339	-26	-28
Salem, OR	1,336	1,377	1,576	-3	-15
Salt Lake City	1,559	1,620	1,730	-4	-10
San Francisco	599	778	959	-23	-38
Seattle	1,396	1,335	1,684	5	-17
Shreveport	519	633	594	-18	-13
Washington, DC	882	1,200	1,063	-27	-17

^a See Glossary.

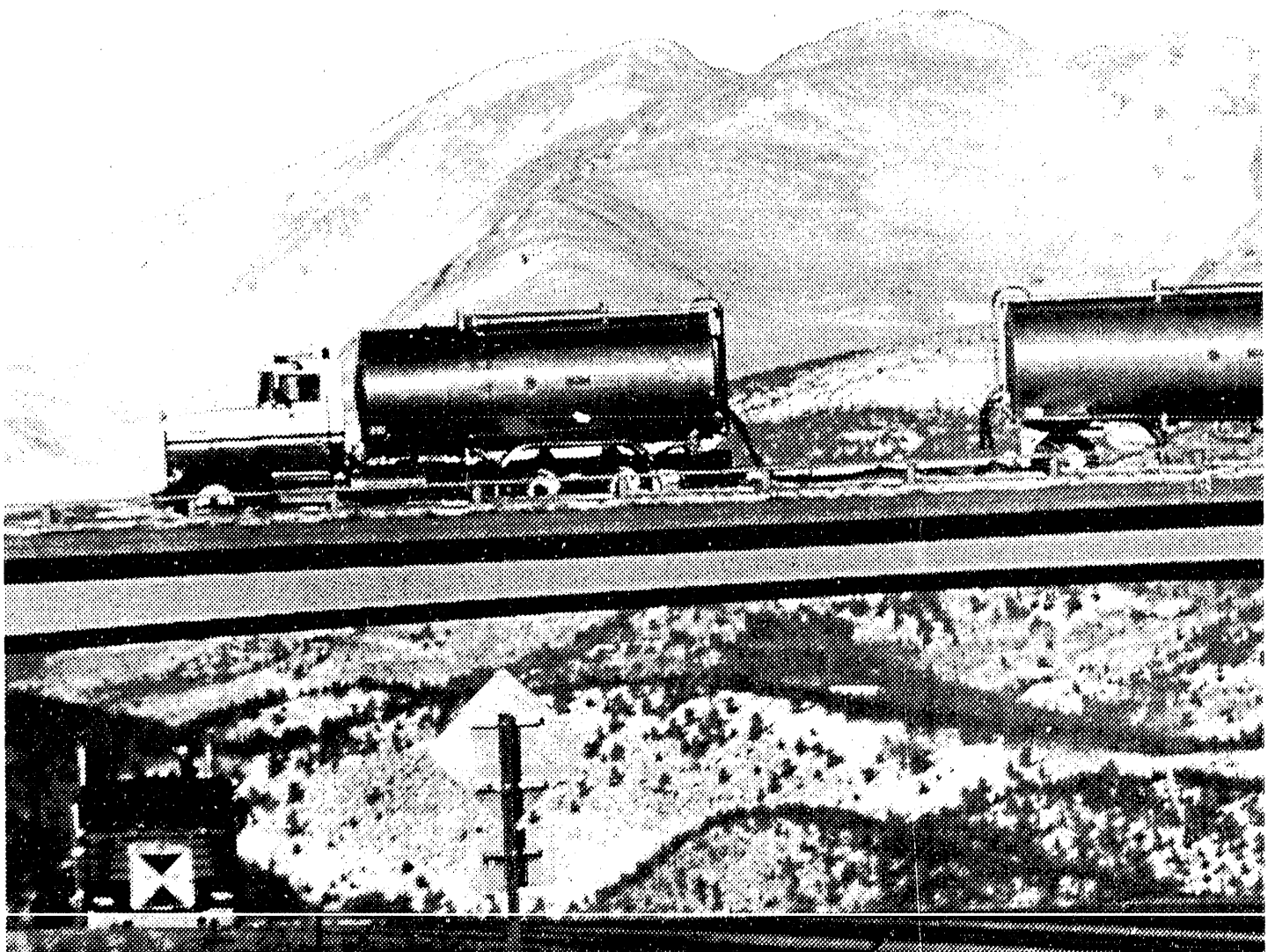
**** Normal heating degree days 100 or less or ratio incalculable.

Note: The weather for the Nation, as measured by population-weighted heating degree-days from July 1, 1990, through December 15, 1990, has been 18 percent warmer than last year and 12 percent warmer than normal.

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.

Appendix A

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 IX): The States of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

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

Lower Atlantic (PADD IZ): The States of Florida, Georgia, North Carolina, South Carolina, Virginia, and West Virginia.

PAD District II

Indiana-Illinois-Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and Ohio.

Minnesota-Wisconsin-North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma-Kansas-Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

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

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

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

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

New Mexico: The State of New Mexico.

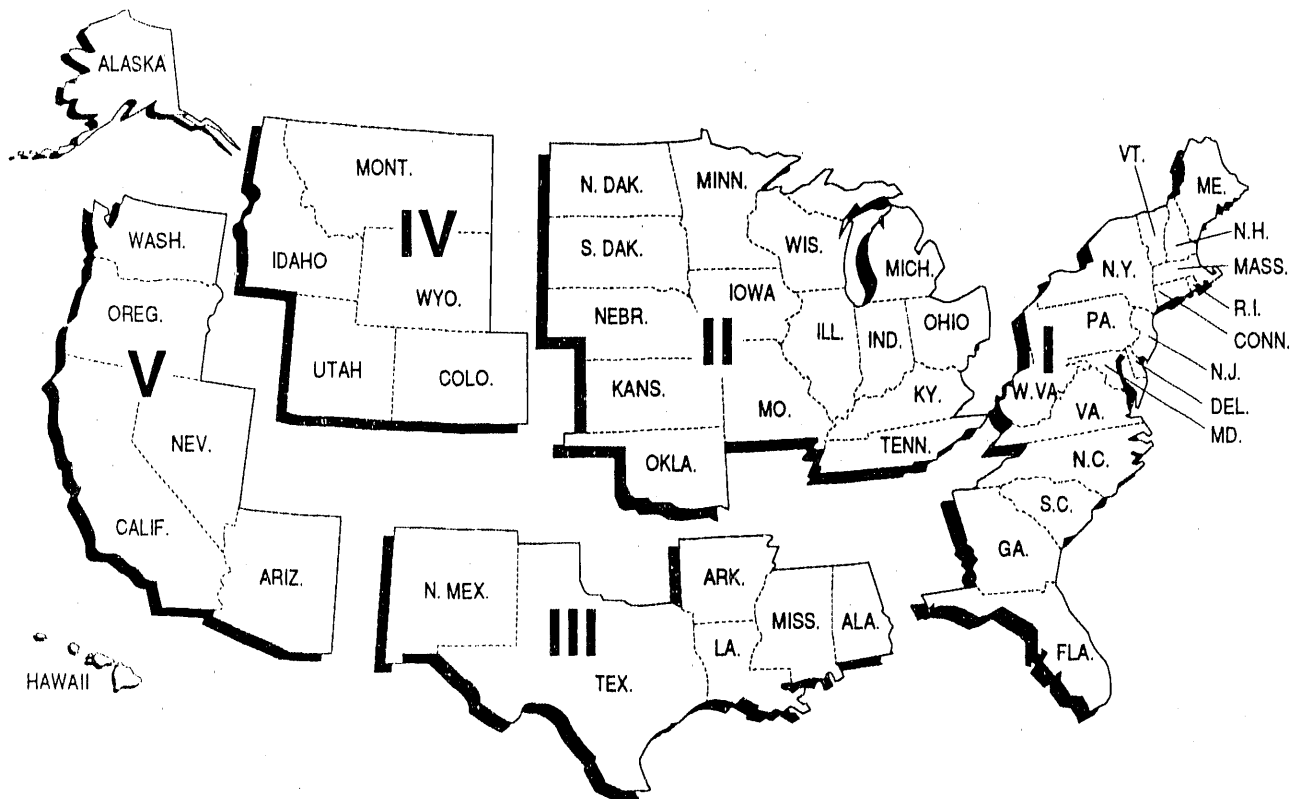
PAD District IV

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

PAD District V

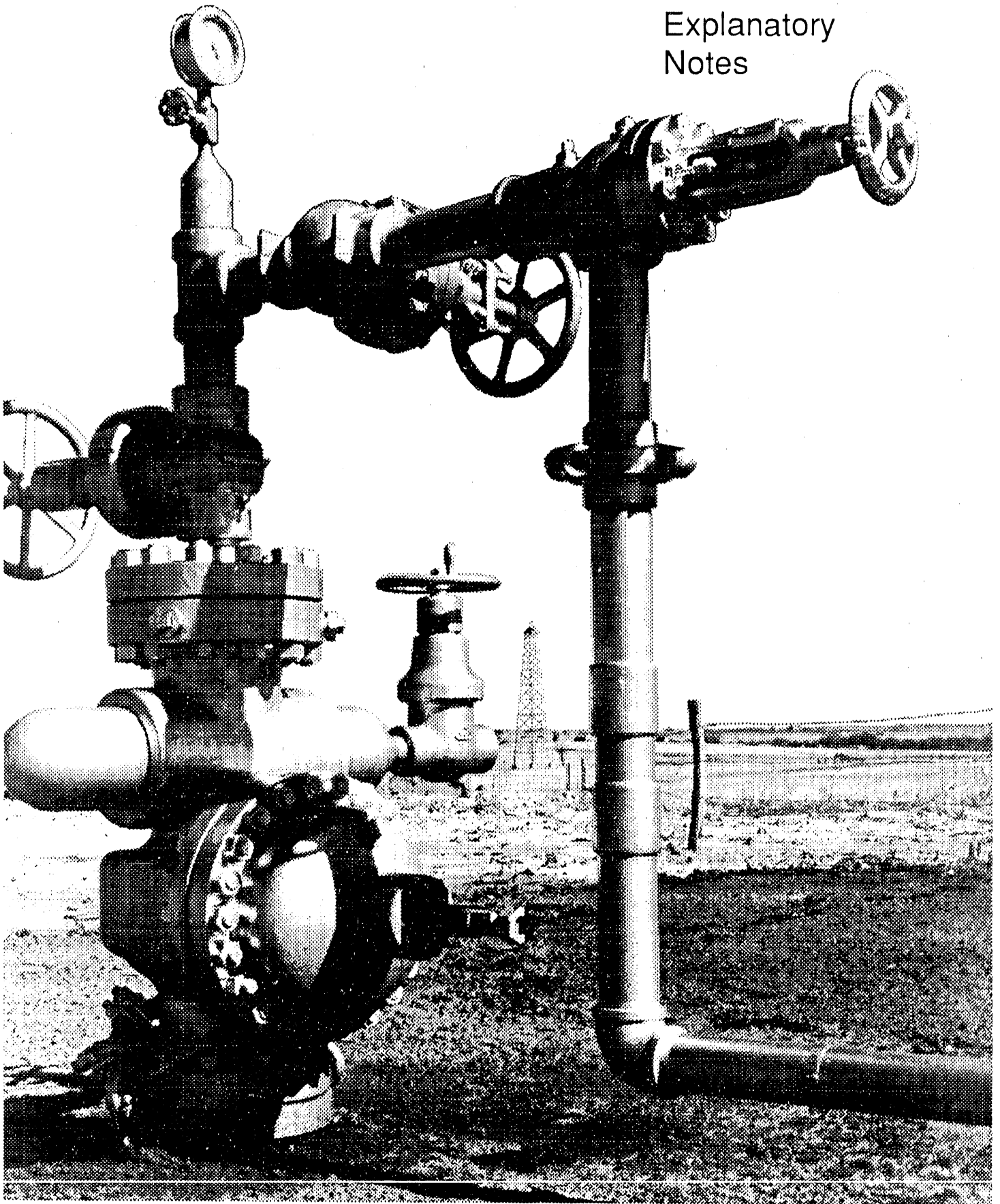
West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

Petroleum Administration for Defense (PAD) Districts



Appendix B

Explanatory Notes



The 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

Note 1. Overview

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

- Note 2. Monthly Data
- Note 3. Weekly Data
- Note 4. Price Data
- Note 5. Interpretation and Derivation of Average Inventory Levels

Note 2. Monthly Data

Data for distillate fuel oil and propane are extracted from selected surveys in the Monthly Petroleum Supply Reporting System (MPSRS). Refer to the *Petroleum Supply Monthly* for a detailed discussion of the MPSRS.

The forms that comprise the monthly data 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>

Note 3. Weekly Data

Distillate Fuel Oil

Data collected from the Weekly Petroleum Supply Reporting System (WPSRS) are used to develop estimates for distillate fuel oil.

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 *Weekly Product Pipeline Report*

EIA-803 *Weekly Crude Oil Report*

EIA-804 *Weekly Imports Report*

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

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.

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_t .) Next, the most recent month's data for the product reported by those same companies are summed. (Call this monthly sum, M_t .) Finally, let M_1 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_t , is given by:

$$W_t = \frac{M_t}{M_1} \cdot W_1$$

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.

Propane

Data collected on the Form EIA-807, "Propane Telephone Survey" are used to develop estimates for propane.

Sampling

The sampling procedure used for Form EIA-807 is the cut-off method. In the cut-off method, establishments were ranked from largest to smallest on the basis of quantities reported (propane production, propane imports, propane stocks) during October 1989. Companies were chosen for the sample beginning with the largest and adding companies until the total sample covered about 80 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.

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 1989 reported data, are then applied to each cell to generate published estimates.

Note 4. Price Data

The residential No. 2 heating oil and propane prices for a given State are based on the results of telephone surveys of a sample of marketers and refiners. Data are collected under the 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:

$$\sum_{j=1}^s \sum_{i=1}^{n_j} w_{ij} v_{ij} p_{ij} / \sum_{j=1}^s \sum_{i=1}^{n_j} w_{ij} v_{ij}, \text{ where } i =$$

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

Residential No. 2 Heating Oil

For the No. 2 heating oil price data, a sample design similar to that used for the Energy Information Administration (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 com-

panies 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.

Note 5. Interpretation and Derivation of Average Inventory Levels

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.

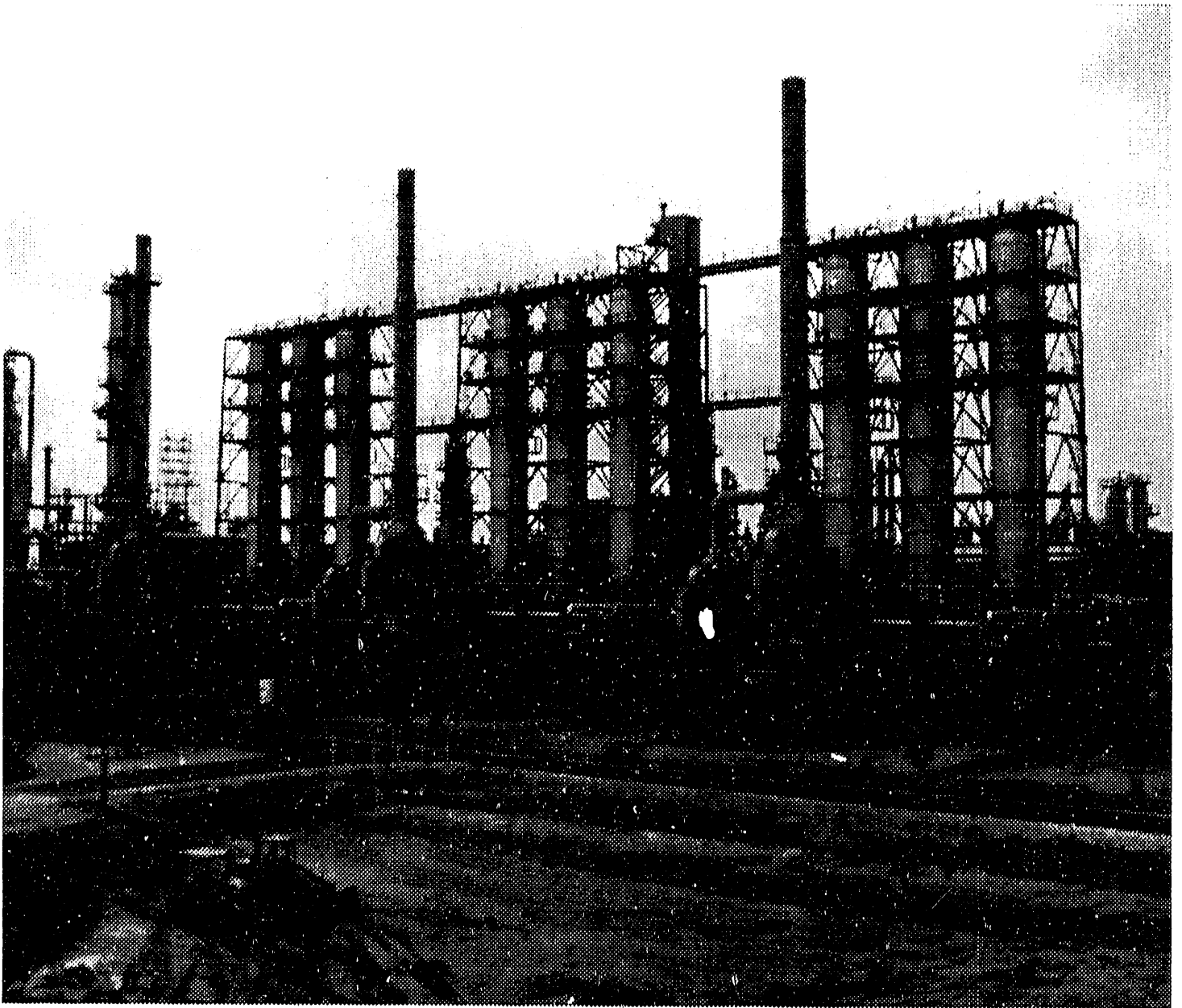
Average Inventory Levels

The charts displaying inventory levels of distillate fuel oil and propane (Figures 1 through 10) 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 year's 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.

Glossary



Downstream processing units are used to upgrade petroleum products.

Definitions of Petroleum Products and Other Terms

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.

No. 1 Fuel Oil. A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 400 degrees F at the 10-percent recovery point and 550 degrees F at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees F.

No. 2 Fuel Oil. A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM Specification D396 designates minimum and maximum distillation temperatures at the 90-percent recovery point of 540 degrees F and 640 degrees F, and kinematic viscosities between 2.0 and 3.6 centistokes at 100 degrees F.

No. 1 and No. 2 Diesel Fuel Oils. Distillate fuel oils used in compression-ignition engines, as designated in the ASTM Specification D975:

No. 1-D. A volatile distillate fuel oil with a maximum distillation temperature of 550 degrees F at the 90-percent recovery point for use in high-speed diesel engines generally operated under variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specification D975.

No. 2-D. A gas oil type distillate of lower volatility with minimum and maximum distillation temperatures at the 90-percent recovery point of 540 and 640 degrees F for use in high-speed diesel engines generally operated under uniform speed and load condi-

tions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.

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 degrees F. Also included is No. 4-D, a fuel oil for low and medium-speed diesel engines that conforms to ASTM Specification D975.

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.

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.

Propane. A normally gaseous straight-chain hydrocarbon, (C₃H₈). 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. An olefinic hydrocarbon, (C₃H₆), recovered from refinery processes or petrochemical processes.

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 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.

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.



**Six Pounds,
Fifteen Ounces.
Great American
Investor.**

When little Jonathan was born a week ago, his parents began buying him U.S. Savings Bonds, the Great American Investment. "We're already saving for the day Jonathan goes to college," his mother says. Bonds pay competitive rates, and now can be completely tax-free when used for your child's education. Call us to find out more.

U.S. SAVINGS BONDS



1-800-US-BONDS

A public service of this publication.

END

DATE FILMED

01 / 29 / 91