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THE COMMONWEALTH OF MASSACHUSETTS
DIVISION OF ENERGY RESOURCES

FINAL REPORT

NO. 2 HEATING OIL/PROPANE PROGRAM

1994-1995

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INTRODUCTION

During the 1994-95 heating season, the Massachusetts Division of Energy Resources (DOER) participated in a joint data collection program between several state energy offices and the federal Department of Energy's (DOE) Energy Information Administration (EIA). The purpose of the program was to collect and monitor retail and wholesale heating oil and propane prices and inventories from October 1994 through March 1995.

This program augmented the existing Massachusetts data collection system and served several important functions. The information helped the federal and state governments respond to consumer, congressional and media inquiries regarding No. 2 oil and propane. The information also provided policy decision-makers with timely, accurate and consistent data to monitor current heating oil and propane markets and develop appropriate state responses when necessary. In addition, the communication network between states and the DOE was strengthened through this program.

This final report begins with an overview of the unique events that had an impact on the petroleum markets prior to and during the reporting period. Next, the report summarizes the results from residential heating oil and propane price surveys conducted by DOER over the 1994-95 heating season. The report also incorporates the wholesale heating oil and propane prices and inventories collected by EIA and distributed to the states. Finally, the report outlines DOER's use of the data.

OVERVIEW

In retrospect, the distinguishing features of the 1994-95 heating season were relatively flat crude oil prices, plentiful supplies of crude oil and petroleum products, and stable retail petroleum prices. To understand why, one must look at events that occurred prior to the 1994-95 heating season. These events set the stage for crude oil and petroleum product prices and inventories for the beginning of the 1994-95 heating season. In some cases, these events continued to affect the petroleum markets throughout the winter. In addition, one must

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INTRODUCTION

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consider other events that happened during the heating season, such as changes in winter weather, that also affected oil prices and supplies.

Some of the major events that influenced world and local oil markets before and during this past heating season were: strikes by Brazilian and Nigerian oil workers; the Iraq situation; OPEC's production accord; the Colonial pipeline disruption; reformulated gasoline production and warm winter weather.

As for propane supplies and prices, they were also stable because there were no supply or distribution problems.

International Markets

1. Strikes by Brazilian and Nigerian Oil Workers

July 1994 began with reports of strikes by oil workers in Brazil and Nigeria and a civil war in Yemen. The Yemen conflict was short-lived. The Brazilian oil workers ended their strike within a short time due to lack of support. However, the Nigerian strike lasted for about 9 weeks and, before it was over, began to seriously affect the country's crude oil exports. On news of the strike, oil traders were not too concerned because they saw indications that there was too much crude oil on the spot markets on both sides of the Atlantic. OPEC had apparently produced about 200,000 barrels per day (b/d) more in June than May. Therefore, world crude oil prices at \$16.60 per barrel increased only slightly - about 50 cents per barrel. By mid-July, the strike had delayed some tankers but did not seriously disrupt crude oil exports. At that time, industry sources estimated that about 200,000 b/d of Nigeria's 1.95 million b/d output had been shut in by the strike. Force majeure was declared on oil exports from two of the country's largest export terminals. But demand for cargoes was weak as buyers were reluctant to commit for cargoes that might be delayed by work stoppage. By August, the crisis escalated in Nigeria. The Royal Dutch/Shell Group said 40% of its oil production had been shut down by the strike. Shell accounts for about half of Nigeria's 1.95

increase was mainly due to anticipation of winter demand for oil and the outcome of the November OPEC meeting. At that meeting, OPEC agreed to a 12 month rollover of its 24.52 million b/d production ceiling. OPEC decided that this output limit, in place since September 1993, would not be revisited until the end of 1995. With very little disruptions affecting oil markets and no excess demand, world crude oil prices slide downward in December. By January, prices picked up again as winter demand kicked in. Prices in January averaged about \$16.50 per barrel and increased to about \$17.00 per barrel for February and March. (See Table II).

U.S. Markets

1. Reformulated Gasoline

In September 1994, the oil industry began production of reformulated gasoline (RFG). This "cleaner" gasoline was required in the country's nine most smog prone metropolitan areas by the Clean Air Act Amendments of 1990. Other states, either in whole or in part, "opted in" to the program. The combined areas constituted approximately 30% of U.S. gasoline consumption.

During the early part of the heating season, refiners accelerated RFG production to build up stocks before the RFG was required at terminals (December 1, 1994) and retail service stations (January 1, 1995). With the production of gasoline, refiners also built up distillate stocks. As such, distillate stocks at the U.S. and New England level in October were at historically high levels.

2. Colonial Pipeline Disruption

In mid-October, a rupture of a gasoline pipeline in Houston touched off a fire that closed two product pipelines operated by the Colonial Pipeline Co. and several other pipelines and oil facilities in the area. The rupture was caused by heavy flooding. This situation, at first, caused markets to increase petroleum product prices because of the uncertainty about supplies. The ruptured pipelines are primary routes for refined products, gasoline and

distillates, from the Gulf Coast to markets on the East Coast.

However, market fears of supply disruptions subsided quickly. The Colonial Pipeline was able to install temporary pipeline segments to bypass the breaks in the main pipelines. A few days after the mishap, the two damaged pipelines were operating at 70% capacity.

3. Winter Weather

Heating fuel demand is typically a function of supply, price and the weather. The 1994-95 heating season was warm compared to the normal and compared to the 1993-94 heating season. (See Table I). The 1993-94 heating season was extremely cold with some reports indicating that January was the coldest January in the U.S. in over 100 years. For example, the weather in Boston, Massachusetts, during January and February was 16% colder than the previous year and 14% colder than the 30-year normal average, as measured in heating degree days. This past New England heating season was about 20% warmer, on average, than last year and about 14% warmer than normal.

The combination of warm weather resulting in less demand, high distillate and propane stocks, and a stable oil market led to uniform petroleum product prices this year.

OIL SURVEY RESULTS

I. West Texas Intermediate Crude Oil Prices

U.S. crude oil prices, as measured by West Texas Intermediate oil, followed the same trends as the world crude oil prices.

Prices started out at \$16.24 per barrel in October and rose to \$17.00 per barrel by November. Prices decreased to \$15.94 per barrel by the end of December. In January, prices again started to climb and hovered around \$17.00 per barrel throughout the second half of the winter season. (See Table II).

II. U.S. Crude Oil Inventories

Averaging 339 million barrels during October 1994, U.S. crude oil inventories were higher than the October stock levels of the past two years and, therefore, deemed adequate for the start of the heating season. Instead of the typical decrease in crude oil stocks during the first two months of the heating season, this year's crude oil stocks rose in November and remained relatively high in December. There was, however, a sharp drawdown in crude oil stocks from December to January. The warmer-than-normal weather and the start of the reformulated gasoline program fueled record high demand for gasoline and thus the need for refining crude oil. The refining activity partly resulted in record high U.S. distillate inventories in January.

U.S. Crude Oil Inventories **monthly averages** **(millions of barrels)**

	<u>1991-92</u>	<u>1992-93</u>	<u>1993-94</u>	<u>1994-95</u>
October	342.2	332.5	330.4	338.7
November	343.5	324.8	337.4	341.8
December	324.6	318.0	335.4	337.0
January	341.2	326.7	334.8	328.0
February	346.3	332.3	330.2	324.9
March	338.6	337.1	337.6	327.0

IV. U.S. Crude Oil Imports

Crude oil imports were very high throughout the winter due to low crude oil prices and the drop in U.S. crude oil production. U.S. crude oil production has fallen steadily in the past 20 years from 9.2 million b/d in 1973 to 6.6 million b/d in 1994.

In October 1994, crude oil imports averaged 7.0 million b/d. Throughout the 1994-95 heating season, crude oil imports were higher than in previous winters. In fact, crude oil imports in 1994 averaged 7.0 million b/d which surpassed U.S. crude oil production of 6.6 million b/d.

U.S. Crude Oil Imports monthly averages (millions of barrels)

	<u>1991-92</u>	<u>1992-93</u>	<u>1993-94</u>	<u>1994-95</u>
October	5.7	6.6	7.2	7.0
November	5.5	6.1	6.9	6.9
December	5.6	5.9	6.8	7.2
January	5.9	6.3	6.0	6.9
February	5.0	6.2	6.3	6.6
March	5.3	6.5	6.3	6.7

V. U.S. Distillate Inventories

U.S. distillate inventories were very high at the beginning of the heating season and remained high throughout the winter. The high stocks partially resulted as a by-product of gasoline production and warm winter weather which caused a decrease in distillate demand.

U.S. Distillate Inventories monthly averages (millions of barrels)

	<u>1991-92</u>	<u>1992-93</u>	<u>1993-94</u>	<u>1994-95</u>
October	138.3	136.7	145.3	146.0
November	144.5	146.1	149.2	147.3
December	143.5	140.6	140.9	145.1
January	126.7	130.7	118.1	140.6
February	108.5	110.4	104.0	127.4
March	97.7	97.3	99.6	118.1

VI. New England Distillate Inventories

As this winter began, New England distillate inventories were at historic high levels. This remained the case during the winter. The season ended with distillate stocks 55% above last year's levels.

New England Distillate Inventories **monthly averages** **(millions of barrels)**

	<u>1991-92</u>	<u>1992-93</u>	<u>1993-94</u>	<u>1994-95</u>
October	11.0	11.9	12.9	14.3
November	11.9	11.5	11.7	13.1
December	9.9	9.9	10.6	11.7
January	7.3	10.1	7.2	12.1
February	6.6	8.1	5.9	9.9
March	4.5	5.2	5.3	8.2

VII. No. 2 Fuel Oil Demand

The warm weather during this heating season caused Massachusetts demand for No. 2 fuel to decrease as compared to past heating seasons' demand. This same trend occurred in New England and the United States. (See Table IV).

Taking a closer look at Massachusetts sectors that use No. 2 fuel shows a trend of increased consumption of No. 2 fuel in the residential sector. This may be due to the fact that residential heating oil prices have decreased over the past few years from over \$1 per gallon down to about \$.90 per gallon. The commercial, industrial and electric sectors decreased their use over the past few years. DOER will monitor this trend.

Sales of No. 2 Heating Fuel by End Use **(thousands of gallons)**

	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>
Residential	990,640	889,342	816,084	947,477	953,446
Commercial	261,552	219,182	267,306	237,253	217,008
Industrial	77,423	60,477	19,522	48,896	29,434
Farm	2,182	3,212	3,633	2,556	3,731
Electric	20,113	38,007	7,777	11,526	10,901

VIII. Massachusetts Wholesale Heating Oil Prices

Wholesale and retail heating oil prices are generally determined by the price of crude oil. During this heating season, wholesale heating oil prices followed the same trend as that of crude oil - they remained steady throughout the winter.

Looking at wholesale prices provided to the states by EIA, one can see that wholesale prices were at \$.525 per gallon on October 3rd. Just as crude oil prices increased slightly in November, so did wholesale heating oil prices. By January 3rd, prices were at \$.54 per gallon, an increase of only about 2 cents per gallon. West Texas Intermediate crude oil prices increased about \$.75 per barrel during that same period. (For every \$1 per barrel increase in crude oil prices, petroleum product wholesale prices usually increase about 2.5 cents per gallon.)

After that time, wholesale prices fell back again to about \$.50 per gallon and remained there until Spring. (See Table V).

IX. Massachusetts Retail Heating Oil Prices

Like wholesale heating oil prices, Massachusetts retail heating oil prices were stable throughout the winter. Prices started out at \$.875 per gallon and increased to \$.902 per gallon by the beginning of January. Prices started falling again in March and ended the report period at \$.888 per gallon. (See Table V).

PROPANE SURVEY RESULTS

I. U.S. Propane Inventories

Like other heating fuels, propane is used more in the winter than the summer. Consequently, inventories are built up during July through September.

This heating season, U.S. propane stocks were at average levels in October at about 55 million barrels as compared to 61 million barrels in October 1993 and 58.1 million barrels in October 1992. By December, U.S. propane stocks had dropped by 9 million barrels to 46.5 million barrels.

During the second half of the winter, propane stocks were at historic high levels, especially in January. This was due to mild weather and weak heating demand. The season ended with stocks well within the normal range. (See Table VI).

II. Midwest Propane Inventories

The declines in U.S. propane inventories during October through December usually results from the use of propane in the Midwest where huge amounts of propane are used for crop drying. Propane is also used by the petrochemical industry for feedstock. Inventory drawdown figures show that there were normal season declines and no major inventory problems or stock withdrawals. (See Table VI).

III. New England Propane Inventories

New England uses far less propane than the Midwest and the small amount is generally for space heating. New England propane inventories in October were .5 million barrels, up over the previous years' levels. (See Table VI). Interestingly, stocks were still high in January and February at .5 million barrels. This may have been due to decreased heating demand in January. (See Table VII).

IV. Propane Wholesale Prices

Propane prices are affected by crude oil prices because propane is produced at refineries along with other petroleum products in addition to being produced at natural gas processing plants. But propane prices are also influenced by markets other than heating fuel markets. For example, propane is used for crop drying in the Midwest, but other fuels can also be substituted for crop drying if the price of propane increases. This year, there were no problems with propane markets.

As a result, there were no problems with wholesale propane prices. On the East Coast, propane wholesale prices hovered around \$.40 per gallon at the beginning of the heating season. Like heating oil prices, propane wholesale prices increased about 2-3 cents per gallon the season before falling back to \$.40-.41 per gallon (See Table VIII).

VI. Massachusetts Retail Propane Prices

With adequate inventories and relatively stable wholesale prices, Massachusetts' retail propane prices did not fluctuate substantially this winter. The average price was \$1.12 per gallon at the beginning of October and finished out the heating season by increasing only about 5 cents per gallon at \$1.168 per gallon. (See Table VIII).

MASSACHUSETTS' ACTIONS

Over the years that DOER has participated in this program, more and more business people, utility companies, oil co-operatives, etc. have called DOER on a regular basis for the retail oil information. The information collected through this program has also helped DOER respond to information requests from the general public, the media and state agencies that provide fuel assistance to Massachusetts residents. This year was no different and DOER continually made the information available throughout the winter.

CONCLUSION

The Massachusetts Division of Energy Resources continues to find this joint data collection program to be an integral and important part of DOER's consumer energy awareness program and its energy emergency program. The consistent collection of data provides an "early warning" system to key decision-makers. Monitoring trends in the heating oil and propane markets also gave DOER the information to assist consumers in making purchase decisions. In conclusion, DOER advocates for the continuation of this program.

Table I.

Population Weighted Heating Degree Days

Boston
(selected dates)

				1994-95 vs 1993-94	1994-95 vs Normal
<u>July 1 -</u>	<u>1994-95</u>	<u>1993-94</u>	<u>Normal</u>		
10/08	147	155	134	-5	10
10/15	228	277	198	-18	15
10/29	287	352	277	-18	4
11/12	474	1005	837	-26	-11
12/03	897	1150	1064	-22	-16
12/17	1285	1511	1488	-15	-14
12/31	1656	2023	1963	-18	-16
01/21	2241	2935	2721	-24	-18
01/28	2491	3236	2980	-23	-16
02/11	3042	3824	3490	-20	-13
02/25	3490	4280	3967	-18	-12
03/11	3951	4760	4389	-17	-10
03/25	4279	5111	4746	-1	-10

Population Weighted Heating Degree Days

United States
(selected dates)

				1994-95 vs 1993-94	1994-95 vs Normal
<u>July 1 -</u>	<u>1994-95</u>	<u>1993-94</u>	<u>Normal</u>		
10/08	165	189	136	-13	21
10/15	226	266	189	-18	20
10/29	272	323	255	-16	7
11/12	576	664	536	-22	-4
12/03	895	1063	958	-16	-7
12/17	1224	1375	1318	-11	-7
12/31	1550	1813	1724	-15	-10
01/21	2089	2539	2368	-18	-12
01/28	2291	2726	2582	-16	-11
02/11	2709	3186	2993	-15	-9
02/25	3049	3520	3366	-13	-9
03/11	3379	3848	3688	-12	-8
03/25	3559	4085	3954	-13	-10

Table II.

Crude Oil Prices
(\$ per barrel)

<u>Week Ending</u> <u>1994-1995</u>	<u>Total World Prices</u>	<u>Total OPEC Prices</u>	<u>U.S. Prices</u>
October 7	16.27	16.14	16.24
14	15.66	15.66	15.78
21	15.73	15.41	15.75
28	16.24	15.85	16.24
November 4	16.98	16.49	17.00
11	16.87	16.59	16.98
18	16.39	16.24	16.41
25	16.61	16.32	16.50
December 2	16.65	16.41	16.69
9	15.79	15.46	15.82
16	15.64	15.57	15.63
23	15.64	15.51	15.62
30	16.07	15.94	15.96
January 6	16.22	16.05	16.14
13	16.32	16.11	16.10
20	16.78	16.39	16.78
27	16.70	16.53	16.90
February 3	16.84	16.54	16.79
10	16.97	16.83	16.95
17	17.07	16.98	17.04
24	17.26	16.97	17.22
March 3	16.84	16.76	17.25
10	17.00	16.89	17.35
17	16.66	16.47	17.02
24	17.10	16.66	17.38

Table III.

U.S. Distillate Drawdowns
(millions of barrels)

<u>Week Ending</u>	<u>1994-95</u>	<u>1993-94</u>	<u>1992-93</u>	<u>1991-92</u>
12/02	145.0	12/03 146.2	12/04 144.8	12/06 143.7
12/09	141.5	12/10 144.7	12/11 141.6	12/13 144.9
12/16	141.2	12/17 140.8	12/18 137.7	12/20 142.5
12/23	139.3	12/24 142.5	12/25 138.9	12/27 144.7
12/30	142.3	12/31 144.7	01/01 141.9	01/03 145.2
01/06	142.7	01/07 140.0	01/08 143.6	01/10 142.9
01/13	141.8	01/14 134.6	01/15 141.7	01/17 138.0
01/20	141.1	01/21 125.7	01/22 137.6	01/24 132.7
01/27	136.6	01/28 116.7	01/29 131.4	01/31 127.5
02/03	135.0	02/04 108.3	02/05 124.4	02/07 122.9
02/10	129.5	02/11 104.7	02/12 120.7	02/14 115.6
02/17	124.0	02/18 102.5	02/19 117.1	02/21 112.5
02/24	121.2	02/25 101.4	02/26 111.8	02/28 109.4

Table IV.

No. 2 Fuel Oil Demand
(thousands of gallons)

United States

	<u>1991-92</u>	<u>1992-93</u>	<u>1993-94</u>	<u>1994-95</u>
October	1,651,213	1,737,374	1,118,783	1,049,566
November	1,686,136	1,777,831	1,211,810	1,045,943
December	2,126,533	2,275,721	1,615,442	1,424,070
January	2,457,636	2,000,463	2,089,063	1,523,347
February	2,042,114	2,027,481	1,746,900	
March	2,028,773	2,108,735	1,575,207	

New England

	<u>1991-92</u>	<u>1992-93</u>	<u>1993-94</u>	<u>1994-95</u>
October	207,826	205,525	161,223	165,492
November	264,321	268,541	241,150	198,052
December	409,443	398,034	370,872	352,503
January	496,551	395,647	500,928	372,440
February	380,565	420,998	423,763	
March	408,296	391,860	358,347	

Massachusetts

	<u>1991-92</u>	<u>1992-93</u>	<u>1993-94</u>	<u>1994-95</u>
October	84,989	71,299	60,731	63,576
November	112,131	100,147	96,558	74,088
December	186,888	162,321	146,013	135,987
January	221,950	156,427	194,106	158,689
February	144,198	165,710	164,827	
March	194,709	157,672	147,952	

Table V.

Massachusetts Retail and Wholesale
Heating Oil Prices
(\$ per gallon)

<u>Date</u>	<u>High</u>	<u>Low</u>	<u>Straight</u> <u>Average</u>	<u>Weighted</u> <u>Average</u>	<u>Wholesale</u>
10/03/94	.999	.73	.875	.872	.525
10/17	.999	.73	.878	.874	.509
11/07	.999	.73	.885	.884	.542
11/21	1.019	.73	.888	.885	.520
12/05	1.019	.73	.888	.885	.508
12/19	1.019	.73	.888	.888	.529
01/03/95	1.029	.739	.895	.895	.554
01/17	1.029	.749	.902	.897	.511
02/06	1.029	.749	.902	.897	.523
02/21	1.019	.749	.902	.896	.509
03/06	1.019	.749	.899	.892	.503
03/20	1.019	.699	.888	.884	.490

Table VI.

U.S. Propane Inventories
monthly averages
(millions of barrels)

	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>
January	34.8	38.9	33.5	34.0	40.3
February	29.9	33.1	26.2	25.1	28.3
March	29.5	32.6	21.8	25.5	23.6
April	29.5	36.2	28.8	31.4	
May	35.0	43.7	36.9	41.1	
June	41.6	50.2	44.9	47.8	
July	48.0	55.7	52.1	54.8	
August	50.4	59.3	57.8	58.1	
September	51.6	60.8	61.3	60.4	
October	51.2	58.1	61.0	55.0	
November	52.0	50.8	56.9	53.8	
December	46.9	38.8	51.2	46.5	

Midwest (PADD II Propane Inventories
monthly averages
(millions of barrels)

	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>
January	12.9	14.3	10.7	12.9	15.6
February	11.1	12.9	7.7	8.7	10.4
March	11.7	13.4	7.4	9.2	8.0
April	13.8	15.3	9.9	11.6	
May	17.1	18.4	12.7	16.6	
June	20.2	20.9	15.5	19.9	
July	21.8	23.4	18.4	23.1	
August	23.3	24.5	20.9	24.9	
September	22.9	24.6	22.7	26.4	
October	22.6	21.5	21.5	23.6	
November	20.3	16.3	20.4	22.1	
December	17.7	11.6	19.0	17.8	

New England Propane Inventories
monthly averages
(millions of barrels)

	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>
January	.5	.3	.5	.3	.5
February	.3	.5	.3	.6	.5
March	.3	.4	.1	.4	.4
April	.6	.3	.4	.4	
May	.2	.3	.2	.5	
June	.4	.3	.7	.4	
July	.3	.3	.5	.6	
August	.1	.5	.2	.4	
September	.4	.5	.6	.4	
October	.4	.3	.3	.5	
November	.4	.5	.3	.6	
December	.5	.5	.5	.7	

Table VII.

Midwest Propane Demand
(thousands of gallons)

	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>
January	561,167	473,288	488,837	598,936	571,535
February	359,063	378,053	458,242	505,946	
March	297,179	319,022	401,969	339,599	
April	211,039	250,367	245,227	230,728	
May	180,524	202,797	179,567	192,640	
June	177,084	204,399	216,839	202,193	
July	243,588	252,180	238,063	218,290	
August	260,984	276,645	286,615	295,001	
September	335,080	329,229	344,697	312,366	
October	349,804	464,444	440,358	474,672	
November	377,266	580,578	488,274	409,860	
December	433,424	607,604	474,782	501,434	

New England Propane Demand
(thousands of gallons)

	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>
January	36,858	30,247	27,201	26,897	24,473
February	26,496	27,397	28,450	27,411	
March	21,522	21,959	29,442	23,507	
April	16,795	16,985	15,334	13,872	
May	13,765	14,313	11,153	11,430	
June	11,119	N/A	14,455	10,795	
July	11,610	11,778	10,724	8,704	
August	12,621	12,102	10,370	10,840	
September	13,427	12,644	10,628	12,978	
October	15,677	15,326	12,297	14,472	
November	18,739	19,095	13,673	17,100	
December	25,272	25,317	17,530	22,498	

Massachusetts Propane Demand
(thousands of gallons)

	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>
January	10,153	5,408	6,683	6,460	5,436
February	8,891	7,175	8,144	5,993	
March	6,095	6,104	8,829	5,001	
April	4,915	4,901	4,345	3,148	
May	4,318	4,433	3,577	3,009	
June	3,242	N/A	5,338	2,841	
July	3,477	3,758	3,562	2,071	
August	3,338	3,760	2,257	3,064	
September	3,746	3,559	2,688	3,014	
October	4,432	4,453	2,835	3,292	
November	5,477	4,944	2,749	3,408	
December	6,429	7,093	3,635	4,940	

Table VIII.

Massachusetts Retail Propane Prices
and
East Coast Wholesale Propane Prices
(\$ per gallon)

<u>Massachusetts Retail</u>				<u>East Coast Wholesale</u>	
<u>Date</u>	<u>High</u>	<u>Low</u>	<u>Straight Ave.</u>	<u>Weighted Ave.</u>	
10/03/94	1.379	1.019	1.05	1.123	.397
10/17	1.409	1.019	1.129	1.112	.404
11/07	1.489	1.019	1.141	1.129	.419
11/21	1.469	1.04	1.14	1.135	.422
12/05	1.469	1.05	1.168	1.151	.428
12/19	1.469	1.05	1.17	1.157	.429
01/03/95	1.469	1.05	1.17	1.157	.420
01/17	1.469	1.05	1.175	1.165	.420
02/06	1.419	1.05	1.17	1.164	.403
02/21	1.449	1.05	1.176	1.166	.406
03/06	1.489	1.05	1.179	1.168	.418
03/21	1.489	1.05	1.179	1.168	.415