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# DEPARTMENT OF MINES AND RESOURCES

HON. T. A. CRERAR, MINISTER; CHARLES CAMSELL, DEPUTY MINISTER

### MINES AND GEOLOGY BRANCH

JOHN McLEISH, DIRECTOR

BUREAU OF MINES

W. B. TIMM, CHIEF

# PETROLEUM FUELS IN CANADA

Deliveries for Consumption

Calendar Year

1936

Prepared by John M. Casey

(Issued by the Bureau of Mines, Department of Mines and Resources, in Co-operation with the Dominion Fuel Board)



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# PETROLEUM FUELS

For some years the Mines Branch, now known as the Bureau of Mines, has been collecting information respecting the deliveries of fuel oil, kerosene, and petroleum coke in Canada, in order to ascertain what amounts of these commodities were being delivered to be used as fuel for steamraising, for heating, and for power, as distinguished from the amounts delivered for other miscellaneous uses.

During the calendar year 1936, deliveries of petroleum products for fuel amounted to 1,157, or, including the 56 consumed in refineries, to 1,213 million Imperial gallons, consisting of 555 of fuel oil, 34 of kerosene, and 624 of gasoline. Over 45 thousand short tons of petroleum coke were

also delivered (and consumed in refineries) for fuel.

The weight of these various volumes of fuel can only be estimated in the absence of precise information regarding the specific gravity of the numerous grades of oil under each class. Assuming specific gravity ratings of 0.933 for fuel oil, 0.810 for kerosene, and 0.738 for gasoline, there were about 2.59 million short tons of fuel oil, 0.13 million tons of kerosene, and 2.30 million tons of gasoline delivered for fuel during 1936.

Disregarding the question whether or not these be replaceable by coal, on the basis of the relative calorific values of petroleum products and of coal, it is estimated that the total heat value of each class of products is equivalent to the latter in the following amounts: fuel oil, to 3.79; kerosene, to 0.20; gasoline to 3.54; and coke to 0.06 million short tons, or an

aggregate exceeding  $7\frac{1}{2}$  million tons of coal.

The following comparative summaries show: (1) the gallonages of petroleum fuels marketed in Canada during the calendar years 1936 and 1935, together with their estimated weights and coal equivalents; and (2) the amounts distributed in each of the provinces.

TABLE I Petroleum Fuels Marketed in Canada, by Classes (Units: Millions of gallons and of short tons)

	Cal	endar Year	1936	Cal	endar Year 1	1935
Class	Imperial gallons	Rated weight, *tons	Rated heat values (in coal), **tons	Imperial gallons	Rated weight, *tons	Rated heat values (in coal), **tons
Fuel oil	† 555 34 624	2.59 0.13 2.30 0.05	3·79 0•20 3·54 0·06	† 499 35 574	2·33 0·14 2·12 0·08	3·41 0·22 3·26 0·09
Total	† 1,213	5.07	7.59	† 1,108	4.67	6.98

†Includes refinery consumptions: of 56 in 1936, and 52 in 1935.

\*Rates of conversion—
Specific Degree Weight

Gravity range of each class

\*\*Rates of conversion—
Specific Specific Specific Specific Specific gravity A.P.I.

Fuel oil at 0.933 or 20.0° or 9.33 lb./gal.

Kerosene at 0.810 or 43.2° or 8.10 ' Kerosene 0.816 to 0.703 or 42° to 47°

Gasoline at 0.738 or 60.0° or 7.38 '' Gasoline 0.760 to 0.680 or 55° to 77°

The degree A.P.I. refers to the reading on the Baumé specific gravity scale adopted as standard by the American Petroleum Institute, and widely used in the oil trade.

\*\*Rates of conversion—Calorific values, in B.T.U.'s per pound, are rated as follows: fuel oil at 19,000, kerosene and gasoline at 20,000, coal at 13,000, and petroleum coke at 15,000.

TABLE II

# Petroleum Fuels Marketed in Canada, by Provinces

(Calendar years—Million Imperial gallons—Thousand short tons of Coke)

Province	Fuel oil†	Kerosene	Gasoline‡ (motor fuel)	Total†	Per cent	Petro- leum coke
1936 N.B. and P.E.I. Nova Scotia. Quebec. Ontario. Manitoba. Saskatchewan. Alberta and N.W.T. B.C. and Yukon.	11 30 139 105 13 19 16	2 3 5 8 4 7 4 1	20 25 110 283 31 46 60 49	33 58 254 396 48 72 80 216	3 5 22 34 4 6 7 19	0·4 2·0 36·7 5·1 1·5
TotalPer cent	<b>499</b> 43	34 S	<b>624</b> <i>54</i>	1,157	100	45.7
N.B. and P.E.I. Nova Scotia Quebec Ontario Manitoba Saskatchewan Alberta and N.W.T B.C. and Yukon	10 28 135 74 12 21 18 149	2 2 2 5 8 8 5 2	18 22 102 273 29 39 48 43	30 52 242 355 44 68 71	3 5 23 34 4 6 7 18	0.6 2.4 67.3 6.0 3.6
<b>Total</b> Per cent	447 42	35 8	574 55	1,056	100	79.9
N.B. and P.E.I.  Nova Scotia. Quebec Ontario. Manitoba Saskatohewan Alberta and N.W.T B.C. and Yukon.	11 33 123 85 9 11 17 136	2 2 5 9 4 6 6	17 20 93 253 28 37 45	30 55 221 347 41 54 68 180	\$ 6 22 35 4 5 7 18	Nil 0·3 1·3 36·2 Nil 13·7 2·5 2·4
TotalPer cent	425 42	36 4	535 54	996	100	56-4
<b>Total, 1933</b> Per cent	<b>368</b> 42	42 4	484 54	894	100	82.2
<b>Total, 1932</b> Per cent	389 41	45 5	501 54	935	100	<b>9</b> 3·8
Total, 1931	<b>399</b> 40	52 5	556 55	1,007	100	80.2

<sup>†</sup>Data exclude 56 million gallons of fuel oil consumed in oil refinerics during 1936, 52 in 1935, 54 in 1934, 56 in 1933, 53 in 1932, and 55 in 1931. ‡Gasoline data are quoted from the Dominion Bureau of Statistics annual reports on The Highway and Motor Vehicle in Canada.

#### FUEL OIL

#### DELIVERIES

The data on petroleum fuels under the headings of fuel oil, kerosene, and coke were prepared from reports submitted by firms engaged in the oil trade, namely: refiners' marketing departments, oil brokers and jobbers, and also from information received from known importers and consumers of similar products from abroad. Care was taken to avoid possible gallonage duplication, and also, when necessary, to apportion the total amounts reported to their separate usages.

For the generation of heat or power, all grades of hydrocarbons from gaseous to solid are burnt as fuel, but in the trade the term "fuel oil" is restricted to the heavier liquids so used, which although safe as regards fire or explosion, are sufficiently fluid for flow under conditions of use. Tentative standard specifications of the various grades of fuel oil in commercial use are not based on specific gravity, but for the purpose of this report, it is desirable to group under the generic term "fuel oil" all grades of petroleum or its products used as fuel that are heavier than 42° A.P.I. Oils under this heading are described in the trade as "heavy", "medium", or "light" oils, and are delivered largely for steam-raising, for power, and for heating. Residual, bunker, and Diesel grades are included with the heavy oils; medium oils consist mostly of furnace and semi-Diesel grades; while light oils also include gas-oil, distillate, stove and range grades. In so far as they have been reported, these last three were not always sharply defined from kerosene. Discard and waste oils heavier than 42° A.P.I., whether re-refined or not, are excluded from the data.

Kerosene or "refined oil of petroleum" consists of the white or amber grades ranging between 42° and 47° A.P.I., and generally sold for small heating and lighting, or for use in the heavier type of automotive or other internal combustion engine. For the purpose of this report, this term includes distillate oils falling within this range.

Gasoline, or otherwise-named light gravity fuel, comprises all grades having 55° A.P.I. or lighter as their gravity limit, and is sold extensively for light automotive and aerial work.

A summary statement follows in Table III showing deliveries of fuel oil in the provinces during each of the past three years as reported by distributors and importers. Over 89 per cent of the 1936 total was processed in Canadian refineries, the remainder consisting of imported fuel oil. This table is amplified in Table IV, which records the portions delivered to a category of consumers for specific uses. In 1936 domestic heating contributed over 22 per cent of the total; industrial heating and power about 28 per cent; tractor fuel, 6 per cent; and fuel for rail and water transportations, 44 per cent.

TABLE III

## Comparative Summary of Fuel Oil Deliveries, by Provinces

(Prepared from distributors' and importers' reports—Imperial gallons—Calendar years)

		<del>,</del>					
Area	Product of Canadian refineries	Product of foreign refineries (importa- tions)	Total fuel oil delivered †	Respective percentages of total		ges	*Inventory December 31
1936							
N.B. and P.E.I Nova Scotia Quebec Ontario Manitoba Saskatohewan Alta. (and N.W.T.) B.C. (and Yukon)	11,345,388 30,071,253 129,664,238 104,480,621 12,977,087 18,501,025 14,332,464 126,100,537	Nil 48,006 9,391,792 656,132 392,608 93,182 1,327,414 39,744,945	11,345,388 30,119,349 139,056,039 105,136,753 13,369,695 18,664,207 15,659,878 165,845,482	2·3 6·0 26·0 20·9 2·6 3·7 2·8 25·3	Nil 	2·3 6·0 27·9 21·1 2·7 3·7 3·1 33·2	4,532,049 5,894,780 45,836,788 51,978,551 2,412,654 9,108,689 3,105,610 25,035,001
Total	447,562,613	51,654,169	499,216,782	89.6	10.4	100.0	147,904,122
1935 .							‡
N.B. and P.E.I. Nova Scotia Quebec Ontario Manitoba. Saskatohowan Alta. (and N.W.T.) B.C. (and Yukon).	9,478,594 28,524,267 119,932,749 73,854,736 12,427,920 20,643,799 16,624,594 99,567,910	108,343 1,037 14,612,482 463,274 113,953 357,048 947,137 49,368,884	9,586,937 28,525,304 134,545,231 74,318,610 12,541,873 21,600,847 17,571,731 148,936,791	2·1 6·4 26·8 16·5 2·8 4·6 3·7 22·3	0·1 3·8 0·1 0·1 0·2 11·0	2·2 6·4 30·1 16·6 2·8 4·7 3·9 33·3	3,592,981 7,511,345 55,056,283 54,461,776 2,137,010 9,373,644 3,250,308 20,827,416
Total	381,054,569	65,972,158	447,026,727	85.2	14.8	100.0	156,210,763
1934							
N.B. and P.E.I. Nova Scotia Quebec Ontario Manitoba Saskatohewan Alta. (and N.W.T.). B.C. (and Yukon).	10,841,573 32,993,611 114,026,526 83,669,761 8,544,927 10,314,479 15,608,174 91,444,403	340,360 Nil 9,293,682 1,454,105 131,308 328,060 919,128 44,970,549	11,181,933 32,993,611 123,320,298 85,123,866 8,676,235 10,642,539 16,527,392 136,414,952	2.6 7.8 26.8 19.7 2.0 2.4 3.7 21.5	0·1 Nil 2·2 0·3  0·1 0·2 10·6	2.7 7.8 29.0 20.0 2.0 2.5 32.1	1,627,752 9,427,811 46,623,275 63,525,973 1,842,370 4,901,071 1,271,794 20,929,234
Total	367,443,454	57,437,192	424,889,646	86.5	13.5	100.0	150,149,280
Total, 1933.	301,231,406	67,395,737	368,627,143	81.7	18.3	100.0	111,547,323
Total, 1932.	310,850,610	78,555,838	389,406,448	79.8	20.2	100.0	83,213,613
Total, 1931.	329,532,490	69,881,184	399,413,674	82.5	17.5	100.0	91,433,877

Fuel oil of all grades heavier than 42° A.P.I., processed from petroleum.

\*Inventory at refineries, warehouses, jobbers' and large consumers' storages.
†Data exclude 55,000,000 gallons in 1936; 52,128,000 gallons in 1935; 54,374,000 gallons in 1934; 56,343,000 gallons in 1933; 53,459,000 gallons in 1932; and 54,552,000 gallons in 1931, which were produced and used in Canadian refineries for fuel.
‡Revised.

### Fuel Oil Deliveries: Specific Uses, by Provinces

(As reported by distributors and importers—Imperial gallons—Calendar years)

		STIC and NG heating	Industrial (manufac-	Tractor	Railways,	Bunkering;	Total deliveries	Per cent
Area	Number domestic customers	Quantity	turers') heating and for power	fuel oil, not lubricant	principally locomotive fuel	includes distributors' tankers	Imperial gallons	of yearly total
1936								
N.B. and P.E.I. Nova Scotia Quebec. Ontario. Manitoba Saskatchewan. Alberta and N.W.T. British Columbia and Yukon	3,498 9,491 24,770 892 217 42	3,714,481 4,671,124 36,357,059 40,570,639 2,290,239 986,163 316,098 23,003,252	3,565,508 6,550,959 31,505,891 48,961,917 1,795,372 6,284,072 2,389,123 37,118,594	8,519 Nil 580,001 5,011,336 8,194,149 11,262,441 4,737,375 275,555	976 80,805 1,819,352 1,793,230 1,089,935 151,531 8,178,392 38,832,580	4,055,904 18,816,461 68,793,727 8,799,631 Nil Nil 38,890 66,615,501	11,345,388 30,119,349 139,056,030 105,136,753 13,369,695 18,684,207 15,659,878 165,845,482	2.8 6.0 27.9 21.1 2.7 3.7 3.1 53.2
Total, 1936	48,846	111,909,055	138,171,436	30,069,376	51,946,801	167,120,114	499,216,782	100.0
Total, 1935	45,444	109,152,778	119,595,016	34,292,063	46,901,493	137,085,377	447,026,727	100.0
Total, 1934	55,290	109,743,672	95,099,427	22,395,115	50,737,946	146,994,486	424,880,646	100 · 0
Total, 1933	53,221	99,796,758	83,657,518	12,670,942	43,489,378	129,012,547	368,627,143	100.0
Total, 1932	36,978	77,557,558	82,235,631	12,590,275	56,991,888	160,031,096	389,406,448	100.0
Total, 1931	32,435	73,250,256	108,819,912	3,593,256	57,745,933	156,004,317	399,413,674	100-0

Fuel oil includes all oils heavier than 42° A.P.I. processed from petroleum. Amounts recorded respectively for domestic, industrial, and tractor purposes were for actual CONSUMPTION within the areas indicated; those recorded under railways and bunkering were taken from, or accepted at delivery points within these areas, but were consumed by carriers where required.

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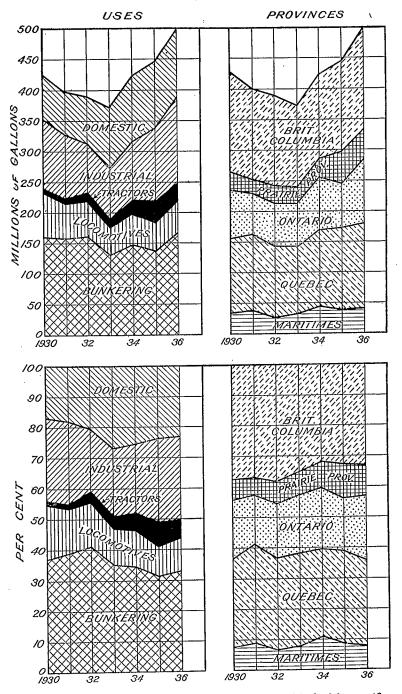


Figure 1. Chart showing actual and relative deliveries of fuel oil for specific uses, and by provinces, calendar years 1930 to 1936.

#### DOMESTIC HEATING

The number of Domestic Heating customers in the principal cities of Canada and the gallonages supplied to them exclusively for household uses in ranges and stoves, or for heating their homes, residences, apartments, institutions, offices, or other public buildings are shown in Table V below. Also with the data are the portions reported by: railways, for heating stations, hotels, and cars; several industrial firms, for this class of heating; and distributors, for heating their own buildings. The number of domestic customers, reported for 1936 as 48,846, may be considered as an index of the minimum number of oil furnaces in use for this category of heating which accounted for over 22 per cent of the 1936 aggregate of all fuel oil delivered.

TABLE V
Fuel Oil Delivered for Domestic Heating

	1	1936			
Area Numb of domes custom		Imperial gallons	1935	1934	1933
N.B. and P.E.I.  Nova Scotia.  Quebec. Ontario.  Manitoba. Saskatchewan. Alberta. British Columbia.	3,498 9,491 24,770 892 217	3,714,481 4,671,124 36,357,059 40,570,639 2,290,239 986,163 316,098 23,003,252	3,589,537 4,366,412 39,900,315 36,495,447 2,348,475 1,195,242 261,696 20,995,654	2,804,467 3,512,199 44,480,371 39,421,371 2,235,340 471,553 263,114 16,555,267	1,979,990 1,899,192 44,252,995 31,972,187 2,101,609 773,844 281,511 16,535,430
Total Domestic Heating	48,846	111,909,055	109,152,778	109,743,672	99,796,758
Per cent of total Fuel Oil Deliveries		22.4	22.4	<b>25</b> ·8	27 - 1

### TABLE V-Con.

## Fuel Oil Delivered for Domestic Heating-Con.

# (a) In Principal Cities

Principal cities	Number domestic cus- tomers* (in- cludes con- tracts)		Imperial	gallons	Per cent of province total for domestic heating	
	1935	1936	1935	1936	1935	1936
Charlottetown and Saint John	1,906 3,650	2,012 3,491	3,372,036 4,307,954	3,509,735 4,491,987	93·9 98·6	94·5 96·2
MontrealQuebecSherbrookeThree Rivers	6,696 1,331 175 365	6,594 732 162 163	31,946,596 3,624,938 458,118 410,059	25,702,186 3,410,012 408,967 315,732	80 · 1 9 · 1 1 · 1 1 · 0	70.7 9.4 1.1 0.9
Hamilton LondonOttawa. Toronto Windsor district.	1,102 1,341 1,995 9,971 158	969 938 1,745 10,154 79	2,649,487 2,180,836 4,297,607 16,897,036 372,476	2,592,278 1,880,034 4,794,345 17,332,671 265,922	7·3 6·0 11·8 46·3 1·0	6·4 4·6 11·8 42·7 0·7
Winnipeg Regina and Saskatoon Vancouver and New Westminster Victoria.	167 5,017	881 111 6,269 1,087	1,783,597 781,786 15,168,051 2,138,502	2,082,667 643,222 16,955,264 1,902,025	76·0 65·4 72·2 10·2	90·9 65· <b>2</b> 7 <b>3</b> ·7 8· <b>3</b>
Total, above cities	35,997	35,387	89,389,029	86,287,047	81.9	77.1

<sup>\*</sup>Largely the number of furnace oil-burners, including oil contracts for domestic heating; number of oil stoves and ranges omitted.

# (b) Additional Gallonage Used for Domestic Heating

	By Railway ing hotels, st	s, for heat- ations, cars	By Industr for domest	ial Users, ic heating	By Distributors for heating own buildings	
Area	1935	1936	1935	1936	1935	1936
In Maritimes In Quebec In Ontario In Prairies In British Columbia	351,140 180,005	22,400 886,732 450,411 250,810 1,592,631	31,000 291,646 190,064 194,873 298,533	25,883 462,498 216,501 207,766 400,971	89, 232 507, 856 228, 430 1, 350 160, 113	142,890 498,144 308,837 Nil 8,139
Total	2,987,966	3,202,984	1,006,116	1,313,619	986,981	958,010

#### INDUSTRIAL HEATING

The amounts of fuel oil delivered for industrial and manufacturing consumption for fuel and for the generation of power are shown in Table VI. Important users are the west coast pulp and paper mills; mills and plants for the production and tempering of steels, structural steel forms and steel goods; ore-reduction works, smelters, and refineries for the recovery of base and precious metals; the heavy chemical, sugar-refining, liquor-distilling, and canning industries; electric power plants; and in lesser degree to mining companies and factories of all kinds. Deliveries of gas-oil for reduction to gas-fuels are also included, as also all fuel oil used by oil companies importing into but not refining fuel oil in Canada. The volume of deliveries in each area is determined largely by the number of the specified industries located within that area. The large amount reported for British Columbia is due to the low-cost requirements of this province's large offshore and metallurgical industries.

It may be observed that the amounts of fuel oil consumed during 1936 by important industrial and manufacturing concerns for purposes other than for industrial heating, were reported as follows: for domestic heating 1,313,619; for tractors 492,638; for locomotives 1,174,250; for bunkering 604,548; and for use as raw material 3,895,925 gallons. Oil jobbers likewise reported deliveries during the same year for accounts other than for domestic heating in the following amounts: for tractors 3,537,430; for industrial heating 342,367; and for bunkering 242,250 gallons. Consumption under boilers in Canadian railway shops was slightly in excess of 55 million gallons, while distributors used on own accounts about one mil-

lion gallons for industrial heating.

Details of deliveries during the past few years for industrial and

manufacturers' heating, and for power, are shown in the following table.

TABLE VI
Fuel Oil Delivered for Industrial and Manufacturers' Heating, and for Power Purposes

(Imperial gallons—Calendar years)

Area	1936	1935	1934	1933	1932
N.B. and P.E.I.  Nova Scotia.  Quebec Ontario.  Manitoba. Saskatchewan Alberta. British Columbia.	3,565,508	3,751,200	4, 243, 495	714, 277	791, 489
	6,550,959	6,023,697	4, 439, 325	4, 683, 571	4, 734, 042
	31,505,891	30,980,828	14, 992, 237	16, 045, 348	26, 040, 790
	48,961,917	28,205,006	35, 491, 443	28, 385, 558	25, 786, 791
	1,795,372	1,771,149	2, 056, 429	1, 499, 010	1, 468, 395
	6,284,072	5,488,030	2, 888, 686	3, 504, 342	4, 311, 297
	2,389,123	1,953,026	584, 903	580, 459	515, 205
	37,118,594	41,422,080	30, 422, 909	27, 902, 953	18, 587, 622
Total  Per cent of total Fuel Oil Deliveries	138,171,436	119,595,016	95,099,427	83,657,518	82 <b>,235,631</b>
	27·7	26·7	22·5	22·7	21·1

Data for 1932 include amounts for other than industrial heating.

#### USE IN TRACTORS

The amount of fuel oil or distillate delivered during 1936 for fuelling tractor-engines was 30,069,000 gallons, a decrease of  $4\frac{1}{4}$  million gallons or 12½ per cent from the previous year's gallonage, as shown in Table VII below. This total includes only petroleum oil heavier than about 42° A.P.I., and excludes: lubricating oils; distillates ranging between 42° and 47° A.P.I., which are classified under kerosene; and Turner Valley light crude and natural naphtha.

Deliveries in the Prairie Provinces showed a marked decrease exceeding  $5\frac{1}{4}$  million gallons, and accounted for 24,194,000 gallons, or 80 per cent of

the 1936 total, as compared with 29,469,000 gallons, or 80 per cent of the 1936 total, as compared with 29,469,000 gallons, or 86 per cent in 1935.

Deliveries of tractor fuel ranging between 42° approximately and 47°
A.P.I. are shown, by provinces, in Table XIV, and amounted to 10,100,000 gallons in 1936, as against 9,383,000 gallons in 1935, an increase of about 2 million gallons. These data are summarized in the two following tables.

TABLE VII **Deliveries of Fuel Oil for Tractors** 

(Processed oil heavier than 42° A.P.I. only Imperial gallons—Calendar years)

Area	1936	1935	1934	1933	1932
N.B. and P.E.I.  Nova Scotia. Quebcc. Ontario. Manitoba. Saskatohewan. Alberta British Columbia.	8,519 Nil 580,001 5,011,336 8,194,149 11,262,441 4,737,375 275,555	Nii 46,908 581,216 4,136,613 7,424,516 14,173,130 7,871,013 58,667	Nil Nil 1,358,438 2,070,223 3,417,396 7,192,323 8,158,710 108,025	25, 932 228, 961 22, 242 1, 644, 991 2, 066, 888 5, 485, 569 2, 873, 784 322, 575	4,608 14,508 31,504 3,837,542 641,588 4,156,600 3,752,233 151,610
Total	30,069,376	34,292,063	22,305,115	12,670,942	12,590,27
Per cent of total Fuel Oil Deliveries	6.0	7.7	5.2	8.4	<i>3</i> .

## TABLE VIII

## Tractor Fuel Delivered in the Prairies

(Processed oil heavier than 47° A.P.I. Imperial gallons—Calendar years)

Area	Oils, heavier	Oils, between	Total Oils,
	than 42° AP.I.	42° and 47°	heavier
	(from	A.P.I. (from	than
	Table VII)	Table XIV)	47° A.P.I.
1936			
ManitobaSaskatchewanAlberta.	8, 194, 149	2,284,981	10,479,130
	11, 262, 441	4,729,863	15,992,304
	4, 737, 375	2,517,748	7,255,123
Total, Prariries (1). Total, Canada (2). Per cent (1) of (2).	24,193,965	9,532,592	33,726,557
	30,069,376	10,099,611	40,168,987
	80·5	94·4	84.0
1935			
Manitoba	7,424,516	1,382,314	8,806,830
Saskatehewan	14,173,130	4,020,214	18,193,344
Alberta	7,871,013	3,675,682	11,546,695
Total, Prairies (1). Total, Canada (2). Per cent (1) of (2).	29,468,659	9,078,210	38,546,869
	34,292,063	9,383,094	43,675,157
	55.9	96·8	88.3
1934			
Manitoba	3,417,396	2,133,278	5,550,674
Saskatchewan.	7,192,323	2,760,988	9,953,311
Alberta	8,158,710	3,233,926	11,392,636
Total, Prairies (1)	18,768,429	8,128,192	26,896,621
	22,305,115	8,864,482	31,179,597
	84·1	91·7	86·3

There are no data available which show the amount of gasoline used annually for tractor purposes, though the amounts used for all purposes other than for motoring, are reported in Table XV.

#### RAILWAYS

The net amount of fuel oil delivered by Canadian oil companies to railways operating lines in Canada, for use other than for bunkering, was approximately 52 million gallons. The figures recorded for all years excepting 1932 exclude oil fuel actually consumed by the railways for hotel and station heating, for shops' boilers, and for other special uses such as weed-burning and dredging, which quantities have been assigned to other The data for these years, therefore, represent fuel oil delivered categories. largely for locomotive and rail motor-car account, whilst those shown for 1932 were not similarly apportioned.

The bulk of railway requirements was obtained from Canadian oil supply depots, as only 1,765,000 gallons were moved by the railways directly from United States bases during 1936.

TABLE IX Deliveries\* of Fuel Oil to Railways

(Data exclude fuel oil supplied to steamships operated by railways Imperial gallons—Calendar years)

Area	1936†	1935†	1934†	1933†	1932
N.B. and P.E.I. Nova Scotia. Quebec. Ontario. Manitoba. Saskatchewan. Alberta. British Columbia and Yukon.	80,805 1,819,352 1,793,230 1,089,935	834,426 86,021 1,926,803 1,038,094 909,545 144,445 7,448,898 34,453,261	$\begin{array}{c} 1,606,542\\ 94,573\\ 1,157,892\\ 2,069,239\\ 965,952\\ 109,977\\ 7,423,412\\ 37,310,359\\ \end{array}$	1,872,148 91,898 528,076 1,536,686 663,621 127,575 7,026,814 31,642,560	252,987 107,611 3,823,062 2,132,088 921,481 119,403 8,960,905 40,674,351
Total	51,946,891	46,991,493	59,737,946	43,489,378	56,991,888
Per cent of total Fuel Oil Deliveries	10.4	10.5	11.9	11.8	14.7

In the previous table are recorded the amounts of fuel oil accepted by railways from Canadian oil companies at delivery points within each of the provinces. As noted, the figures do not include the amounts of bunker oil delivered directly for the operation of vessels owned by the railways, such amounts being reported separately by the oil companies under the category of bunker oil regardless of the ownership of the vessels.

<sup>\*</sup> Oils delivered for fuelling vessels—ownership of which may be vested, or not, in railways—are recorded in Table XI. † Data for 1936, 1935, 1934, and 1933 are adjusted to exclude gallonage not used for locomotive fuel, such as fuel for hotel heating, shop fuel, etc.; figures for 1932 were not similarly adjusted.

Railways operating in Canada reported a total consumption of 129 million gallons during 1936, and 120 million in 1935, amounts equivalent respectively to 26 per cent and 27 per cent of the total fuel oil marketed by Canadian oil companies during these years. Steam and motor-ships operated by these railways, largely on international and coastal routes, consumed about 72·3 million gallons in 1936, locomotives 46·9, shops' boilers 5·6, hotel and station heating 3·2, and the remainder for a variety of special uses. Details are summarized below in Table X.

 $\begin{tabular}{ll} TABLE X \\ \hline \end{tabular} Table X \\ \hline \end{tabular} Fuel Oil Consumption by Canadian Railways \\ \hline \end{tabular}$ 

(As reported by railways—Imperial gallons—Calendar years)

					<del> </del>		
Area	For heat- ing hotels, cars and stations	As fuel, under shops' boilers	Other miscel- laneous uses	Fuel, for locomo- tives, rail motors and for hostling	For opera- tion of steamships and motor- ships (Bunkering)	Total Fuel Oil	Per cent of total
1936							
MaritimesQuebecOntarioPrairiesBritish Colum-	22,400 886,732 450,411 250,810	382,031 847,315 604,526	1,530 1,540 1,320 32,760	6,790 256,096 2,609,037	12,434,543 28,984,760 610,982	12,840,504 30,727,137 1,923,335 2,892,607	10·0 23·9 1·5 2·8
bia	1,592,631	3,802,907	365,606	44,057,660	30,264,224	80,083,028	62.3
Total Per cent	3,202,984 2·5	5,636,779 4·4	402,756 0·3	46,929,583 36·5	72,294,509 56·3	128,466,611	100.0
1935 Maritimes Quebec Ontario Prairies British Columbia	23,765 882,477 351,140 180,005 1,550,579	409,255 394,730 257,653	35 2,135 27,422 32,884 455,410	26,740 239,551 2,792,080 40,507,925	12,336,143 25,528,580 678,994 29,941,235	12,769,198 26,834,662 1,554,760 3,004,969 76,079,161	10·6 22·3 1·3 2·5 63·3
Total Per cent	2,987,966 2·5	4,685,650 3.9	517,886 0·4	43,566,296 36 · 2	68,484,952 57.0	120,242,750	100.0
1934							
MaritimesQuebecOntarioPrairiesBritish Columbia.	23,835 928,980 359,387 218,400	356,017 506,240 322,411 18,270 4,016,977	175 1,260 1,766 Nil 759,052	Nil 6,475 230,201 2,719,752	12, 124, 665 18, 501, 525 548, 068 Nil 34, 750, 767	12,504,692 19,944,480 1,461,833 2,956,422 79,758,043	10.7 17.1 1.3 2.5
Total Per cent	2,902,690 2.5	5,201,645 4·4	780,523 0.7	41,815,587 35.9	65,925,025 56 · 5	116,625,470	100.0
Total, 1933 Per cent	2,479,915 2·1	5,505,099 4·7	1,869,483 1·6	41,077,201 35.2	65,801,680 56·4	116,733,378	100.0

#### BUNKERING

During 1936, the amount of fuel oil supplied for Bunkering from Canadian oil-fuelling stations was 167 million gallons, or about 33½ per cent of the total Canadian deliveries for all purposes. Although this amount of fuel oil was largely consumed outside of Canadian waters in vessels operating on ocean and international passenger and freight routes, Quebec stations, however, supplied 69, British Columbia 67, and those in Nova Scotia 19 million gallons, these three provinces accounting for over 92 per cent of the aggregate.

The data include the gallonage used in oil distributors' tankers, and amounts definitely reported sold by jobbers for bunkering, as well as those specifically used by industrial consumers as boat fuel. Consumption in steam and motor ships of the Canadian railway systems, amounted to over 72 million gallons, equivalent to 43 per cent of the bunker total.

The greater portion of the fuel oil delivered by oil companies for bunkering is of a heavy quality, ranging between 11° A.P.I. and 18° A.P.I. or specific gravities of 0.993 and 0.947. Taking 15° A.P.I. (0.966) as an average, the 167 million gallons reported for this use would weigh 809.9 thousand short tons, and would be the equivalent of  $1\frac{1}{5}$  million tons of coal.

TABLE XI

Fuel Oil Delivered and Used for Bunkering Purposes

(Imperial gallons—Calendar years)

Area	1936	1935	1934	1933	1932
N.B. and P.E.I. Nova Scotia. Quebec. Ontario. Manitoba. Saskatohewan. Alta. and N.W.T. British Columbia.	18,816,461 68,793,727 8,799,631	1,411,774 18,002,266 61,156,069 4,442,850 28,188 37,098 52,007,132	2,527,429 24,947,514 61,331,280 6,071,590 1,118 Nil 97,163 52,018,392	1,551,992 16,429,504 49,827,940 6,268,713 Nil Nil Nil Nil 54,934,898	1, 634, 124 15, 427, 378 59, 597, 856 5, 286, 172 ‡Nil Nil Nil 78, 085, 566
Total	167,120,114	137,085,377	146,991,486	129,012,547	160,031,096
Per cent of total Fuel Oil Deliveries	35.5	30·7	34.6	35∙0	41 · 1

‡Delivered for consumption in Ontario.

#### RAIL AND WATER TRANSPORTATIONS

Fuel oil for the above transportation needs amounted to 219 million gallons in 1936 or 44 per cent of the total deliveries for all purposes. This was an increase of 35 million, or 19 per cent of the 1935 gallonage. Of the total, British Columbia contributed 48 per cent, Quebec about 32 per cent, and Nova Scotia about 9 per cent. Details are shown in the following table.

TABLE XII

Fuel Oil Delivered for Rail and Water Transportations

(Tables IX and XI combined—Imperial gallons—Calendar years)

Area	1936	1935	1934	1933	1932
N.B. and P.E.I.  Nova Scotia.  Quebec. Ontario.  Manitoba. Saskatchewan. Alberta and N.W.T. British Columbia and Yukon	10,592,861 1,089,935 151,531 8,217,282	2,246,200 18,088,287 63,082,872 5,480,944 997,733 144,445 7,485,996 86,460,393	4,133,971 25,042,087 62,489,172 8,140,829 967,070 109,977 7,520,575 89,328,751	3,424,140 16,521,402 50,356,016 7,805,399 663,621 127,575 7,026,814 86,576,958	1,887,111 15,534,989 63,420,918 7,418,260 921,481 119,403 8,960,905 118,759,917
Total (1)	219,066,915	183,986,870	197,732,432	172,501,925	217,022,984
Total deliveries, all purposes (2)	499, 216, 782	437,026,727	424,880,646	368,627,143	389,406,448
Per cent (1) of (2)	43.9	41.2	46.5	46.8	<i>55</i> · 8

Data for 1932 include amounts for domestic and industrial heating reported by Railways; amounts for these categories are excluded from figures given for other years.

#### KEROSENE

The refined fractions of petroleum having specific gravities between 0.816 and 0.793, or between their 42° and 47° Baumé A.P.I. equivalents, are grouped under kerosene. Included with the figures are all amounts of distillate oil within these limits, as determined from replies received.

Deliveries during 1936 and previous years are shown in Table XIII, and in amount, were less than one-fourteenth of the volume of fuel oil, or but one thirty-third of the aggregate of all petroleum fuels. In other words, of every 100 gallons of fuel oil, kerosene, and gasoline delivered during 1936, there were but 3 of kerosene as compared with 43 of fuel oil and 54 of gasoline.

Kerosene is an important and widely used substitute for gas and electricity where these are not available; a common domestic and camp fuel for cooking, heating, and lighting; a signal oil in lighthouses and along steel right-of-ways; a fuel for light water-craft on inland and coastal waters; a material for cleaning large industrial machinery and other objects; a compounding ingredient; while a major field of usage and consumption is as tractor fuel in power-farming.

Yearly returns submitted by individual distributors reveal gradual displacements of distillate and kerosene, observable particularly in Quebec and in the Prairies. The change from kerosene to distillate in the eastern provinces is probably due to the much improved type of small domestic burner, stove, or range now obtaining, the later models being designed for burning the cheaper oil distillate as against refined kerosene, the common fuel of the older models.

In the Prairies, on the other hand, owing to consumer's choice between kerosene and distillate for tractor fuel, and his purchasing power, the volume of refined kerosene delivered is being generally maintained, although amounts of the lighter distillates of similar gravity have been decreasing during the past few years. During 1936, oils of the kerosene range, delivered for tractors, were reported as 10,099,611, an increase of about 700 thousand gallons over 1935, while oils of the fuel oil range delivered for tractors decreased about  $4\frac{1}{5}$  million gallons.

The distillate marketed in eastern Canada is rarely lighter than 0.8180 or 42° Baumé A.P.I., whether used for heating or in tractors. The blended distillate used commonly in the west in tractors has, however, a gravity corresponding to that of gasoline, though some of the lighter kerosenes are also suitably used. In the Prairies, the demand for oil fuels for heating is negligible, in marked contrast to the requirements for this purpose prevailing in the east. In the matter of oil fuels for tractors, the positions are reversed.

The combined deliveries of kerosene and gasoline in the Prairies amounted to 152 million gallons in 1936, 132 million gallons in 1935, 126 in 1934, 118 in 1933, 126 in 1932, and 151 in 1931. Of these, kerosene contributed respectively 15, 16, 16, 21, 26, and 28 million gallons.

Deliveries of kerosene in 1936 for all uses in Canada were 34 million, a falling-off of more than  $1\frac{1}{4}$  million gallons from 1935. Some 23 million,

or 67 per cent, was estimated as used for domestic heating, cooking, and lighting,  $10\cdot 1$  million gallons, or 30 per cent, for tractor fuel, and the remaining  $1\frac{1}{5}$  million, or 3 per cent, for other general uses. Details by provinces and by uses are shown in the two tables following.

TABLE XIII

Comparative Summary of Kerosene Deliveries by Provinces

(Prepared from distributors' and importers' reports—Imperial gallons—Calendar years)

Area	Product of Canadian refineries	Product of foreign refineries (importa- tions)	Total kerosene delivered	percentag		kerosene percentages		ges	Inventory December 31
1936				%	%	%			
N.B. and P.E.I.  Nova Scotia. Quebec. Ontario Manitoba. Saskatchewan Alberta. British Columbia.	2,244,810 3,170,901 4,411,203 7,123,934 3,515,167 7,473,967 3,608,094 842,817	27,059 148,245 695,482 71,705 68,181 174,927 451,753	2,271,869 3,170,901 4,559,448 7,819,416 3,586,872 7,542,098 3,783,021 1,294,570	6.6 9.3 13.0 20.9 10.3 22.0 10.6 2.5	0·1 0 0·4 2·1 0·2 0·2 0·5 1·3	6.7 9.3 13.4 23.0 10.5 22.2 11.1 3.8	613,308 598,510 3,889,300 6,740,195 929,509 3,763,431 1,169,474 406,457		
Total, 1936	32,390,893	1,637,302	34,028,195	95.2	4.8	100.0	18,110,184		
1935									
N.B. and P.E.I.  Nova Scotia. Quebec. Ontario. Manitoba. Saskatchewan. Alberta. British Columbia.	1,922,067 2,506,958 4,773,712 7,615,103 3,137,841 7,713,401 4,958,547 1,189,093	19,085 183 49,384 632,827 12,532 32,255 119,136 635,502	1,941,152 2,507,141 4,823,096 8,247,930 3,150,373 7,745,656 5,077,683 1,824,595	5·4 7·1 13·6 21·6 8·9 21·8 14·0 3·4	0·1 1·7 0·1 1·7 0·1 0·4 1·8	5.5 7.1 13.7 23.3 8.9 21.9 14.4 5.2	1,179,038 1,628,095 3,885,152 6,684,230 897,144 3,239,528 3,420,200 498,233		
Total, 1935	33,816,722	1,590,904	35,317,626	95.8	4.2	100.0	21,431,620		
1934									
N.B. and P.E.I. Nova Scotia. Quebec. Ontario. Manitoba Saskatchewan. Alberta. British Columbia.	2,241,234 2,170,990 4,851,223 7,724,829 4,302,126 5,622,625 5,645,919 1,153,254	93,751 30,149 188,148 1,118,944 157,563 60,063 396,148 419,417	2,334,985 2,201,139 5,039,371 8,843,773 4,459,689 5,682,688 6,042,067 1,572,671	6.2 6.0 13.4 21.4 11.9 15.5 15.6 3.2	0·3 0·1 0·5 3·1 0·4 0·2 1·1 1·1	6.5 6.1 13.9 24.5 12.3 15.7 16.7 4.3	896, 994 1, 309, 201 3, 429, 201 9, 146, 492 1, 134, 873 2, 690, 995 2, 318, 331 712, 233		
Total, 1934	33,712,200	2,464,183	36,176,383	93.2	6.8	100.0	21,638,320		
Total, 1933	40,708,555	1,040,353	41,748,908	97.5	2.5	100.0	19,774,223		
Total, 1932	42,801,072	1,807,143	44,608,215	95.9	4.1	100 · 0	15,785,179		
Total, 1931	48,225,962	3,489,415	51,715,377	93.3	6.7	100.0			

<sup>†</sup>Revised.

TABLE XIV

## Kerosene Deliveries: Specific Uses, by Provinces

(Data include all oils ranging approximately between 42° and 47° A.P.I. Imperial gallons—Calendar years)

Province	For domestic heating, cooking and lighting purposes	For fuel in tractors	For other general usage	Total deliveries	Per cent of total	Used by Railways ††	Inventory December 31
1936							
N.B. and P.E.I. Nova Scotia. Quebec. Ontario. Manitoba. Saskatchewan Alberta. B. Columbia.	2,271,804 3,167,042 4,492,646 6,735,732 1,239,683 2,800,103 1,241,372 738,046	3,859 548,326 2,284,981 4,729,863 2,517,748 14,834	65,802 535,358 62,208 12,132 23,901 541,690	2,271,869 3,170,901 4,559,448 7,819,416 3,586,872 7,542,098 3,783,021 1,294,570	6.7 9.3 13.4 23.0 10.5 22.2 11.1 3.8	} 141,031 61,832 140,863 119,527 152,871 125,773 112,234	{ 613,308 598,510 3,889,300 6,740,195 929,505 3,763,431 1,169,474 406,457
Total, 1936 Per cent	22,686,428 66·7	10,099,611 29.7	1,242,156 8.6	34,028,195	100.0	854,131 (2·5)	18,110,184
1935 N.B. and							†
P.E.I Nova Scotia. Quebec Ontario Manitoba Saskatchewan Alberta B. Columbia.	1,933,913 2,504,883 4,581,657 6,707,795 1,151,237 3,441,473 1,402,001 1,241,890	Nil Nil Nil 304,203 1,382,314 4,020,214 †3,675,682 681	7,239 2,258 241,439 1,235,932 616,822 283,969 †Nil 582,024	1,941,152 2,507,141 4,823,096 8,247,930 3,150,373 7,745,656 5,077,683 1,824,595	5.5 7.1 13.7 23.3 8.9 21.9 14.4 5.2	} 140,223 60,013 101,546 118,729 150,768 113,872 82,309	{ 1,179,038 1,268,095 3,885,152 6,684,230 897,144 3,239,528 3,420,200 498,233
Total, 1935	22,964,849	9,383,094	2,969,683	35,317,626		767,460	21,431,620
Per cent	65.0	26.6	8.4		100.0	(2.2)	
Total, 1934	23,891,483	8,864,482	3,420,418	36,176,383		796,956	21,638,320
Per cent	66.0	24.5	9.5		100.0	(2.2)	

<sup>†</sup>Revised. ††Coal oil and long-time burning oil used principally by the railways for signals, lanterns, lamps, and other small lighting; the amounts shown are included in first column.

TABLE XV

Sales of GASOLINE (and Motor Fuel), Canada, by Provinces\*
(Gasoline or other named light-gravity motor fuel—generally of, or from petroleum)

Area	Thousands of Imperial gallons— Calendar years				3	Percentages of total sales, Canada				
Area	†1936	1935	1934	1933	1932	1936	1935	1934	1933	1932
N.B. and P.E.I Nova Scotia Maritimes	20,566 25,248 45,814	18,017 22,274 40,291	Tota 16,280 20,016 36,296	15,093 15,093 18,635 33,728	r ALL 1 16,365 19,021 35,386	3·3 4·0		3·0 3·8 6·8	3·1 3·8 6·9	3·3 3·8 7·1
Quebec Ontario	109,835 282,828	102, 178 272, 681	93, 512 252, 976	87,077 228,416	$91,128 \\ 233,945$				18·0 47·2	$18 \cdot 2 \\ 46 \cdot 7$
Manitoba	30,582 45,966 60,388 136,936	28,483 39,166 47,443 115,092	27,694 36,785 45,194 109,673	24,896 31,837 40,324 97,057	26, 185 33, 636 41, 300 101, 121	7.4	5·0 6·8 8·3 20·1	5·2 6·9 8·4 20·5	5·0 6·6 8·3 19·9	5·2 6·7 8·2 20·1
British Columbia	48,732	43,410	42,338	38,689	39,458	7.8	7.6	7.9	8.0	7.9
Canada	624,145	573,652	534,795	484,967	501,038	100.0	100 •0	100.0	100.0	100.0
Po	rtions S	old for N	IOTOR	ING Pu	rposes (	by diff	erence	e)		
N.B. and P.E.I Nova Scotia Maritimes	17,526 22,323 39,849	15,159 19,527 34,686	13,943 17,190 31,133	13,164 15,844 29,008		3.6	3.4	3.6		
Quebec Ontario	103,662 260,721	94,252 255,632	88,224 239,500	80,511 214,397	84,652 217,593				16·6 44·3	16·9 43·4
Manitoba Saskatchewan Alberta Prairies	28,598 29,309 32,862 90,769	26,531 25,211 30,261 82,003	25,999 27,016 32,525 85,540	19,241		4·7 5·2	4.4	4·9 5·0 6·1 16·0	4·4 4·0 5·6 14·0	4.4
British Columbia	37,883	33,865	32,529	29,463	31,286	6.1	5.9	6.1	6.1	6.3
Canada	532,884	500,438	476,926	421,723	438,756	85.4	87.2	89 · 6	87.4	88.0

### Portions Sold for ALL OTHER Purposes (Amounts upon which Tax or part of the Tax was Refunded) For tractors, stationary engines for light or power, rail motor cars, air and water-craft, industrial uses, etc.

				,						
N.B. and P.E.I Nova Scotia Maritimes	3,040 2,925 5,965	2,858 2,747 5,605	2,337 2,826 5,163	1,929 2,791 4,720	1,242 2,655 3,897	0·5 0·4 0·9	0·5 0·5 1·0	0·4 0·2 0·6		0·3 0·1 0·4
Quebec Ontario	6,173 22,107	7,926 17,049	5,288 13,476	6,566 14,019	6,476 $16,352$	1·0 3·5	1·4 2·9	$1 \cdot 0$ $2 \cdot 5$	$1 \cdot 4 \\ 2 \cdot 9$	$^{1\cdot 3}_{3\cdot 3}$
ManitobaSaskatchewanAlberta  Prairies	1,984 16,657 27,526 46,167	1,952 13,955 17,182 33,089	1,695 9,769 12,669 24,133	3,071 12,596 13,046 28,713	4,668 11,638 11,080 27,386	0·3 2·7 4·5 7·5	0·4 2·4 3·0 5·8	0·3 1·9 2·3 4·5	0·6 2·6 2·7 5·9	0·9 2·3 2·2 5·4
British Columbia	10,849	9,545	9,809	9,226	8,173	1.7	1.7	1.8	1.9	1.6
Canada	91,261	73,214	57,869	63,244	62,282	14 · 6	12.8	10.4	12.6	12.0

<sup>\*</sup>These data are quoted from the Dominion Bureau of Statistics' annual reports on The Highway and the Motor Vehicle in Canada. The amounts recorded for each province were reported directly by the several provincial Tax departments to the Bureau, and are to be interpreted subject to the provisions effective each year in each province, particularly as to amounts sold, but subject to refund. For this reason the yearly gallonages under each purpose-use are not comparable, and are more or less estimates. Moreover, they do not include motor fuel evading the Tax levy, †Provisional.

#### PETROLEUM COKE

This hard, dull residue of petroleum distillation, apart from being an excellent fuel, for which it is considerably used in domestic and industrial heating, is also a valued component of electric batteries, carbon lamps, crucibles, and other articles of manufacture. Coke known to have been used in Canadian plants for this last purpose, and reported as about 91,000 tons in 1936, has been omitted from the tonnages shown in the following table, which records only the amounts sold or used for fuel. In addition, a fair tonnage is exported annually for use as a raw material.

The tonnage sold and used in Canada for fuel amounted to about 46,000 short tons during 1936, of which over 38,000 were sold for domestic heating, and the balance for industrial heating largely as fuel in producers' refineries.

and the balance for industrial heating largely as fuel in producers' refineries.

The Ontario total shown under Domestic Heating includes an important amount of a patent fuel manufactured at Toronto, and marketed as No Ash Blox and No Ash Briquets. These are dry, machine-pressed shapes compounded from crushed petroleum coke screenings (between 90 and 95 per cent), binder, and water, and are usually sold in packages, or by the ton.

Coke reported under Industrial Heating was largely consumed as fuel in refineries.

TABLE XVI

Sales of Petroleum Coke, Calendar Years, Short Tons
(As fuel only, not as material)

Area	Fuel for Domestic heating*	Fuel for Industrial heating‡	Total short tons	Inventory December 31*
1936  Maritimes Quebec Ontario Western provinces  Canadian Imported	404 258 36,030 1,681 36,687 1,686	7,263 60	410 1,966 36,623 6,697 43,950 1,746	38 28,914 58,412 1,298 27,481 61,181
Total, 1936	38,373	7,323	45,696	88,662
MaritimesQuebecOntarioWestern provinces	554 688 58,937 3,234	8 1,719 8,368 6,381	562 2,407 67,305 9,615	Nil 24,087 58,861 2,196
CanadianImported	57,649 5,764	16,476 Nil	74,125 5,764	18,751 66,393
Total, 1935	63,413	16,476	79,889	†85,144
Total, 1934	39,200	17,555	56,755	48,169
Total, 1933	54,632	27,571	82,203	33,876
Total, 1932	57,634	36,189	93,823	42,023

<sup>\*</sup>As reported by coal dealers, distributors, and importers; inventory also includes stocks at refineries. ‡Industrial tonnage consists mostly of amounts used in refineries as fuel. †Rovised.

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