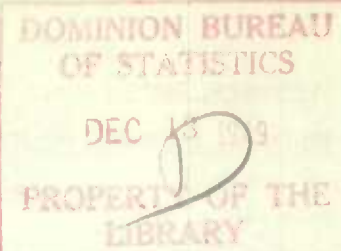


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Annual Industry Report

Chemicals and Allied Products Group

THE COMPRESSED GASES INDUSTRY, 1948

Manufacturing plants in Canada engaged chiefly in making industrial gases reported production in 1948 at \$11,314,387 compared with \$9,607,229 in 1947, an increase of 17.8 per cent.

There were 45 factories in operation during 1948, of which 18 were located in Ontario; 10 in Quebec; 4 in Alberta; 4 in British Columbia; 3 in Nova Scotia; 3 in Manitoba; 2 in Saskatchewan and 1 in New Brunswick. The average number of employees in the industry in 1948 was 1,156, including 498 salaried workers and 658 wage-earners. Salaries for the year amounted to \$1,098,414 and wages totalled \$1,514,869.

The chief products were oxygen, acetylene and carbon dioxide. The output of oxygen decreased 2 per cent to 566 million cubic feet; acetylene increased 11 per cent to 123 million cubic feet, and carbon dioxide increased 15 per cent to 27 million pounds. Aqua ammonia, anhydrous ammonia, nitrogen, hydrogen and nitrous oxide were other products of this industry.

No mention is made in this report of liquid chlorine, liquid sulphur dioxide, synthetic ammonia, nor of hydrogen and nitrogen for the manufacture of synthetic ammonia. These items were produced in works that also made other kinds of chemicals and the statistics concerning the output of same have been included in the heavy chemical industry which is reviewed in a separate bulletin. Liquefied petroleum gases are not included as they are produced in the petroleum refining industry.

Table 1 - PRINCIPAL STATISTICS FOR THE COMPRESSED GASES INDUSTRY, 1944-1948

Year	Number of plants	Average number of em- ployees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross sell- ing value of products at works
			\$	\$	\$	\$
1944	40	1,025	1,854,511	350,668	1,193,038	8,933,207
1945	41	1,097	1,933,727	347,840	1,269,309	8,429,524
1946	42	1,064	1,961,493	314,524	1,258,423	8,308,028
1947	44	1,089	2,262,527	365,903	1,475,523	9,607,229
1948	45	1,156	2,613,283	404,455	2,180,518	11,314,387
% change, 1948 from 1947	..	+ 6.1	+15.5	+10.5	+47.8	+17.8

Note: Profits or losses cannot be calculated from above figures as data are not available for general expense items, such as interest, rent, depreciation, taxes, insurance, advertising, etc.

Table 2 - PRINCIPAL STATISTICS FOR THE COMPRESSED GASES INDUSTRY, BY PROVINCES, 1947 and 1948

Province	Number of plants	Average number of em- ployees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross sell- ing value of products at works
			\$	\$	\$	\$
1947						
Nova Scotia	3	94	183,133	29,748	101,451	625,891
Quebec	11	289	624,410	84,497	358,078	2,711,566
Ontario	18	375	810,687	175,197	644,327	3,860,608
Manitoba	3	89	179,509	17,071	121,574	707,125
New Brunswick....	1)					
Saskatchewan	1)	129	238,102	28,570	122,549	849,071
Alberta	3)					
British Columbia	4	113	226,686	30,820	127,544	852,968
CANADA	44	1,089	2,262,527	365,903	1,475,523	9,607,229

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Table 2 - PRINCIPAL STATISTICS FOR THE COMPRESSED GASES INDUSTRY, BY PROVINCES, 1947 and 1948 (Concluded)

Province	Number of plants	Average number of employees	Salaries and wages	Cost of fuel and electricity at works	Cost of materials at works	Gross selling value of products at works
			\$	\$	\$	\$
1948						
Nova Scotia	3)					
New Brunswick	1)	401	920,045	126,427	744,038	3,976,344
Quebec	10)					
Ontario	18	417	986,079	203,889	835,416	4,597,036
Manitoba	3)					
Saskatchewan	2)	223	460,812	39,475	394,483	1,738,308
Alberta	4)					
British Columbia ..	4	115	246,347	34,664	206,581	1,002,699
CANADA	45	1,156	2,613,283	404,455	2,180,518	11,314,387

Table 3 - PRODUCTS OF THE COMPRESSED GASES INDUSTRY, 1947 and 1948

Product	Unit of measure	1947		1948	
		Quantity	Selling value at works	Quantity	Selling value at works
			\$		\$
Acetylene (a)	cu.ft.	111,370,838	2,748,114	123,185,685	3,301,822
Carbon dioxide (in cylinders and solid)	pound	23,481,700	1,408,002	26,964,525	1,701,627
Hydrogen	cu.ft.	72,740,878	240,871	86,503,832	300,962
Oxygen (a)	cu.ft.	577,806,032	4,603,919	565,869,719	5,297,530
Other products (b) ..	...	...	606,323	...	712,446
TOTAL .....	...	...	9,607,229	...	11,314,387

(a) In cylinders or delivered by pipe line.

(b) Includes nitrous oxide, nitrogen, and ammonia made from gas liquor.

Table 4 - MATERIALS USED IN THE COMPRESSED GASES INDUSTRY, 1947 and 1948

Material	Unit of measure	1947		1948	
		Quantity	Cost at works	Quantity	Cost at works
			\$		\$
Acetone	pound	386,569	51,604	388,008	57,325
Calcium carbide	ton	11,752	862,837	12,815	1,059,825
Coke	ton	4,701	78,808	4,397	87,824
Oil (for making carbon dioxide and hydrogen).	Imp.gal.	954,173	80,190	1,122,420	125,245
Potassium hydroxide ...	lb.	198,783	10,208	56,746	5,892
Sodium hydroxide	lb.	133,675	4,379	297,957	12,479
Other materials (*) ...	...	...	281,238	...	243,946
Cylinders purchased during the year	number	4,763	106,259	20,280	587,982
TOTAL .....	...	...	1,475,523	...	2,180,518

(*) Includes ammonia liquor, ammonium nitrate, potassium carbonate, unpurified brewery gas, lime, soda ash, condensing water, etc.

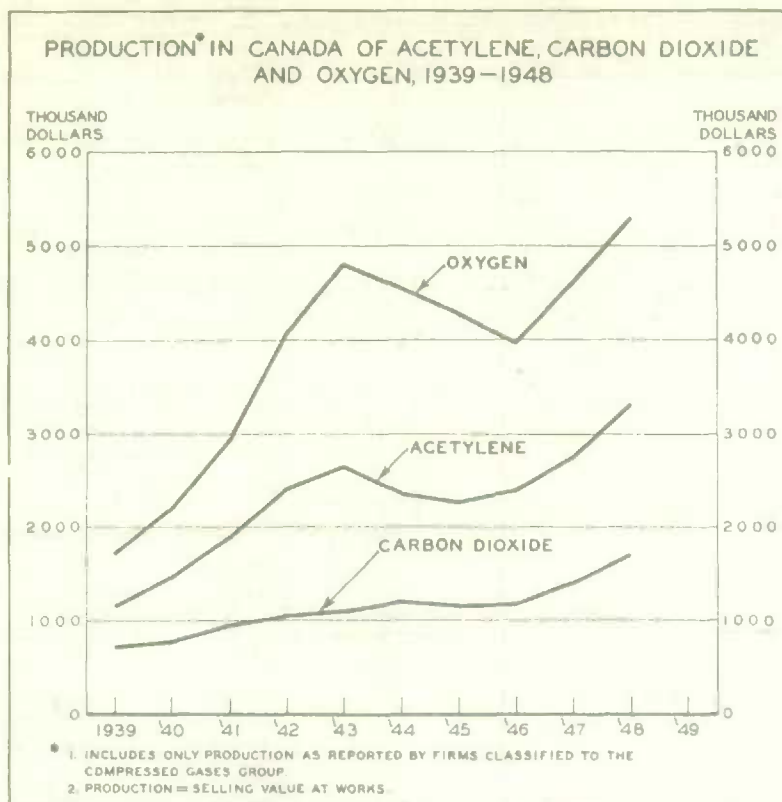


Table 5 - PRODUCTION * OF ACETYLENE, CARBON DIOXIDE AND OXYGEN, 1939-1948

Year	Acetylene		Carbon Dioxide, solid and in cylinders		Oxygen	
	Quantity	Selling value	Quantity	Selling value	Quantity	Selling value
	cu.ft.	at works \$	(lb)	at works \$	cu.ft.	at works \$
1939	48,616,265	1,155,449	12,645,575	715,975	189,030,687	1,724,844
1940	62,075,617	1,462,201	14,156,284	787,722	257,519,584	2,212,337
1941	81,791,386	1,898,679	16,805,039	954,535	356,633,855	2,945,542
1942	105,751,660	2,429,493	18,442,416	1,045,992	541,184,707	4,098,034
1943	114,111,166	2,657,631	19,939,470	1,108,169	636,281,176	4,811,834
1944	101,981,116	2,377,919	21,856,183	1,208,477	614,110,740	4,568,371
1945	95,889,965	2,273,945	20,895,441	1,165,188	565,601,348	4,297,791
1946	100,276,367	2,403,386	20,233,138	1,184,719	476,822,719	3,973,866
1947	111,370,838	2,748,114	23,481,700	1,408,002	577,806,032	4,603,919
1948	123,185,685	3,301,822	26,964,525	1,701,627	565,869,719	5,297,530

* - Includes only production as reported by firms classified to the Compressed Gases group.

Table 6 - CONSUMPTION OF CARBON DIOXIDE IN THE MANUFACTURE OF CARBONATED BEVERAGES (SOFT DRINKS) 1939-1947

Year	Quantity		Cost at Works	Year	Quantity		Cost at Works
	Pounds	\$			Pounds	\$	
1939 - In cylinders ..	4,957,744	403,068		1944 - In cylinders ..	7,068,762	586,483	
Solid	768,793	44,813		Solid	449,739	32,656	
1940 - In cylinders ..	5,769,675	632,961		1945 - In cylinders ..	6,133,176	481,088	
Solid	1,361,055	95,787		Solid	352,258	23,591	
1941 - In cylinders ..	6,705,658	678,299		1946 - In cylinders ..	6,426,615	489,080	
Solid	789,676	67,783		Solid	394,430	27,081	
1942 - In cylinders ..	6,341,040	504,246		1947 - In cylinders ..	8,066,953	606,033	
Solid	650,511	44,805		Solid	468,821	33,184	
1943 - In cylinders ..	6,719,137	556,954					
Solid	825,441	57,472					

Compressed Gases

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Table 7 - EMPLOYEES, SALARIES AND WAGES IN THE COMPRESSED GASES INDUSTRY, 1947 and 1948

	Average Number of Employees					Salaries	Wages	TOTAL SALARIES and WAGES
	On Salaries		On Wages		Total			
	Male	Female	Male	Female				
1947						\$	\$	\$
Nova Scotia	24	23	47	...	94	89,964	93,169	183,133
Quebec	78	49	162	...	289	256,922	367,488	624,410
Ontario	88	64	222	1	375	327,386	483,301	810,687
Manitoba	26	17	46	...	89	87,681	91,828	179,509
British Columbia	22	30	57	4	113	98,935	127,751	226,686
Other provinces.	38	32	59	...	129	129,764	108,338	238,102
CANADA	276	215	593	5	1,089	990,652	1,271,875	2,262,527
1948								
Quebec	79	49	169	...	297	298,433	400,527	698,960
Ontario	94	62	260	1	417	364,269	621,810	986,079
Alberta	20	21	42	...	83	87,330	95,055	182,385
British Columbia	20	31	60	4	115	107,792	138,555	246,347
Other provinces.	72	50	122	...	244	240,590	258,922	499,512
CANADA	285	213	653	5	1,156	1,098,414	1,514,869	2,613,283

LIST OF FIRMS IN THE COMPRESSED GASES INDUSTRY, 1948

Name of Firm	Location of Plant
Liquid Carbonic Canadian Corporation Limited, H. O. 2120 Cabot St., Montreal, Quebec	Dartmouth, Nova Scotia; Montreal, Quebec; Toronto, Ontario; St. Boniface, Manitoba; Edmonton, Alberta; Vancouver, British Col- umbia.
L'Air Liquide Society & Canadian Liquid Air Co. Limited H. O. 1111 Beaver Hall Hill, Montreal, Quebec.	Halifax, Nova Scotia; Sydney, Nova Scotia; Moncton, New Brunswick; Montreal, Quebec; Sorel, Quebec; Toronto, Ontario; London, Ontario; Hamilton, Ontario; Winnipeg, Mani- toba; Regina, Saskatchewan; Calgary, Alberta; Edmonton, Alberta; Vancouver, British Col- umbia.
Dominion Oxygen Company, Limited H. O. Canada Life Building, 340 University Ave., Toronto, Ontario.	Quebec, Quebec; Montreal, Quebec (2); Shaw- inigan Falls, Quebec; Sault Ste. Marie, Ontario; Toronto, Ontario; Welland, Ontario; Merritton, Ontario; St. Boniface, Manitoba; Saskatoon, Saskatchewan; Vancouver, British Columbia.
Wall Chemicals Canadian Corporation, Limited H. O. 8400 Decarie Blvd., Montreal, Quebec.	Montreal, Quebec (2); Toronto, Ontario; Windsor, Ontario.
Ohio Chemical Canada Limited, 2535 St. James St. W., Montreal, Quebec	Montreal, Quebec; Toronto, Ontario
Alberta Oxygen & Acetylene Co. Ltd., 142nd Street at 108th Avenue, Edmonton, Alberta.	Edmonton, Alberta.
Canadian Industries, Limited, H. O. 1135 Beaver Hall Hill, Montreal, Quebec.	Toronto, Ontario.
Canada Packers Limited	2200 St. Clair Ave. W., Toronto, Ontario.
Lever Brothers, Limited	299 Eastern Ave., Toronto, Ontario.
Peoples Gas Supply Co., Ltd.	2-10 Mill St., Ottawa, Ontario.
Procter & Gamble Co. of Canada, Ltd.	Burlington St. E., Hamilton, Ontario
Swift Canadian Co., Limited	1960 St. Clair Ave., Toronto, Ontario.
A. C. Wickman (Canada) Limited	Etobicoke, Ontario.
Western Oxygen Company Limited	Armstrong, British Columbia.

This report was prepared in the Mining, Metallurgical and Chemical Section.