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DEPARTMENT OF TRADE AND COMMERCE
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MINING, METALLURGICAL AND CHEMICAL BRANCH
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Dominion Statistician: S. A. Cudmore, M.A. (Oxon.), F.S.S., F.R.S.C.
Chief - Mining, Metallurgical and Chemical Branch: W. H. Losee, B.Sc.
Mining Statistician: R. J. McDowall, B.Sc.

THE TALC AND SOAPSTONE INDUSTRY, 1941

The value of crude and refined talc and soapstone sold by Canadian producers of these minerals in 1941 totalled $360,809 compared with a corresponding value of $229,639 in 1940. Mine shipments of soapstone in 1941 valued at $155,925 came entirely from the eastern townships of the province of Quebec. Production of high grade talc is confined chiefly to the province of Ontario, and in 1941 shipments totalling 18,171 short tons valued at $204,884 were made from properties located near Madoc, Hastings county, and from a deposit situated in Clarendon township, Frontenac county.

During the year under review, there were 8 firms reported as active in the industry, 5 in Quebec and 3 in Ontario; all of these made commercial shipments. Capital employed totalled $695,581; employees numbered 148, and salaries and wages distributed amounted to $128,820. Fuel and purchased electricity used were appraised at $26,882 and the cost of explosives and other process supplies was reported at $28,324. The net value of sales in 1941 was estimated at $305,603 compared with $192,509 in 1940.

The following information has been abstracted from a report on Talc and Soapstone as prepared for 1941 by the Bureau of Mines, Ottawa:

"Active production of ground talc in Canada was begun in 1906 from deposits in the Madoc area, Ontario, and these deposits have since been the main source of supply. Canada Talc, Limited is the chief producer in the area, having taken over the holdings of G. H. Gillespie Company, the pioneer operator, in 1937. There have been various other small operations in the area. In 1941, Trent Mining Syndicate began to develop a property adjoining that of Canada Talc, Limited, where surface showings indicate an easterly extension of the same vein system, and at the end of the year was proceeding with the erection of a small mill. R. W. Bonter and associates of Trenton ground a small tonnage of slightly off-colour talc in the mill of Canadian Slate Products, a mile and a half north of Madoc; the crude was brought in by truck from a deposit operated by W. C. Spry near Ompah, Frontenac county, 65 miles distant. The talc from Ompah is finely-schistose, cream-coloured, and distinct in character from the white foliated talc of the Madoc district.

"In British Columbia, the deposits near McGillivray, on the Pacific Great Eastern railway, and at Kapoor, near Victoria, have been idle since 1935. The crude was shipped to a grinding plant at Vancouver, for local roofing use.

"Quebec has been producing soapstone in small quantities since 1922 and the industry has been supplying mainly blocks and bricks for alkali recovery furnaces of domestic kraft mills. Some cut furnace stone has been exported. In recent years the sawing of crayons has been undertaken. Broughton Soapstone and Quarry Company,

the principal operator, has developed a large quarry near Leeds station on the Quebec Central railway, in Broughton township. This company produces cut furnace stone and crayons and has a grinding mill in which quarry and sawing waste, as well as a more highly talcose rock occurring in a band cutting its main soapstone body, are pulverized. The company took over the Louis Cyr holdings at St. Pierre de Broughton in 1940. Other operators in the same area are Charles Fortin, of Robertson, and L. C. Pharo, of Thetford Mines. L. C. Pharo installed a small grinding unit on his property in Thetford township in 1938. Some of the dust from these operations is sold to domestic roofing firms, and a considerable tonnage of quarry and sawing waste is shipped to the grinding plant of Pulverized Products, Limited, 4820 Fourth Avenue, Rosemount, Montreal. Baker Mining and Milling Company, 4010 St. Catherine Street West, Montreal, the only other operator in Quebec, has a mine and mill near Highwater in Potton township, Brome county, close to the Vermont boundary.

"World production of talc, including cut soapstone, steatite, and pyrophyllite (a mineral closely resembling talc and used for many similar industrial purposes) amounts to about 500,000 tons a year. The United States produces more than 50 per cent of the total, its output in 1940 being 281,000 short tons. Prior to the war it was followed by Manchuria, with an output of about 100,000 tons a year. France and Italy each produce about 50,000 tons; Norway, 25,000 tons; and British India, 20,000 tons a year. World consumption of talc has increased more than 40 per cent in the past decade.

"Many grades of ground talc are marketed and the price range is wide. Value is dependent upon purity (governing freedom from gritty or iron-bearing substances, slip, and colour), particle shape, and fineness of grinding, the specifications for which vary in the different consuming industries. Roofing and foundry talcs are the cheapest grades, these trades being satisfied with coarser grey or off-colour material, often soapstone powder or sawing dust, which sells at about $5 to $7 a ton f.o.b. rail. Better-class grey talcs, suitable for rubber and paper use, sold in 1941 for $7 to $15 a ton f.o.b., according to grade and fineness. White, foliated Madoc talc was quoted at $18 to $30 a ton for the two best grades, and $8 to $12 for coarser mesh sizes. American talcs include high-grade, white Californian material, selling at $17 to $20; fibrous New York "Asbestine", "Tremoline", and "Loomite" grades quoted at $12 to $15; and the lower-grade, grey Georgia and Vermont products, which sell at $6 to $10: all prices f.o.b. mines. Lava steatite and crayon talc sells at from $100 to $150 a ton, whereas the coarser roofing grades, often largely talc-coated, gritty, air-separator rejects, may sell as low as $4.

"PYROPHYLLITE - Pyrophyllite (hydrous silicate of alumina) closely resembles talc in appearance and physical characteristics. It is difficult to distinguish from talc, even by microscopic means, and often requires chemical analysis for its identification. In the ground state it can be employed for many of the industrial uses of talc. Commercial deposits are relatively scarce. Most of the recorded world production comes from North Carolina, where the industry has expanded rapidly in recent years. A large part of the American output goes to the ceramic trade, the remainder being sold for fillers in various products. When fired, pyrophyllite does not flux, as does talc, and it is of value in a wide range of high grade ceramic products, including refractories. A furnace-patching product made with pyrophyllite is marketed under the name "Pyroplastic".

"In 1941, pyrophyllite was quoted at $8.00 to $13.00 a ton, f.o.b. North Carolina mills, for 200-mesh and 325-mesh material, respectively."

Note: Copies of publication No. 803, "Talc, Steatite, and Soapstone: Pyrophyllite", published by the Bureau of Mines, Ottawa, in 1940, may be obtained from The Director, Mines and Geology Branch, Department of Mines and Resources, Ottawa.

Table 1 - PRINCIPAL STATISTICS OF THE TALC AND SOAPSTONE INDUSTRY IN CANADA, 1939 - 1941

		1939	1940	1941
Number of firms		6(a)	8(b)	8(c)
Capital employed	$	239,835	319,398	695,581
Number of employees - On salary		6	7	8
On wages		59	87	140
Total		65	94	148
Salaries and wages - Salaries	$	18,130	19,563	21,564
Wages	$	42,382	61,316	107,256
Total	$	60,512	80,879	128,820
Selling value of products (Gross)	$	170,066	229,639	360,809
Cost of fuel and purchased electricity	$	15,154	15,480	26,882
Cost of explosives and other process supplies	$	7,178	21,650	28,324
Selling value of products (net)	$	147,734	192,509	305,603

(a) 5 firms in Quebec and 1 in Ontario.
(b) 6 firms in Quebec and 2 in Ontario.
(c) 5 firms in Quebec and 3 in Ontario.

Table 2 - CAPITAL EMPLOYED, BY CLASSES(x), 1939 - 1941

	1939	1940	1941
	$	$	$
Present value of lands, buildings, fixtures, machinery, tools and other equipment	195,518	284,993	590,303
Inventory value of materials on hand, stocks in process, fuel and miscellaneous supplies on hand	4,877	5,184	18,343
Inventory value of finished products on hand	11,634	6,518	8,915
Operating capital	27,806	22,703	78,020
TOTAL	239,835	319,398	695,581

(x) By active firms.

Table 3 - WAGE-EARNERS, BY MONTHS, 1940 - 1941

Month	1940	1941		
		Surface	Underground	Mill
January	51	44	28	27
February	53	43	35	30
March	50	38	34	28
April	47	41	45	35
May	72	58	38	35
June	74	79	40	31
July	83	81	38	30
August	90	91	37	33
September	110	73	39	41
October	148	82	49	42
November	147	80	50	39
December	128	76	54	37

Table 4 - WAGE-EARNERS WORKING NUMBER OF HOURS SPECIFIED DURING ONE WEEK IN MONTH OF NORMAL EMPLOYMENT, 1941

Number of hours worked	Number of wage-earners	Number of hours worked	Number of wage-earners
30 hours or less ...	9	48 - 50 hours	12
31 - 43 hours	4	51 - 54 hours	2
44 hours	7	55 hours	2
45 - 47 hours	5	56 - 64 hours	128
48 hours	...	65 hours and over ..	22
Grand total number of employees in week specified			191
Total wages paid in week specified ..... $			3,234

Table 5 - FUEL AND ELECTRICITY USED, 1940 and 1941

Item	Unit of measure	1940 Quantity	1940 Value	1941 Quantity	1941 Value
			$		$
Bituminous coal - Canadian	tons	3	27	5	45
Foreign.	tons	...	...	...	...
Anthracite coal	tons	...	...	...	...
Gasoline	Imp.gal.	7,144	1,458	14,448	3,631
Kerosene	Imp.gal.	60	11	90	17
Fuel oil and diesel oil ..	Imp.gal.	5,300	788	11,197	1,638
Wood	cord	60	150	70	210
Electricity purchased(x)..	K.W.H.	1,184,370	13,046	1,843,225	21,341
TOTAL	...	...	15,480	...	26,882

(x) In addition, 17,000 K.W.H. generated for own use in 1939, 48,000 K.W.H. in 1940 and 107,424 K.W.H. in 1941.

Table 6 - POWER EQUIPMENT INSTALLATION, 1941

	Number of units	Horse power--Manufacturers' rating
Diesel engines	2	242
Other gas engines	17	565
Electric motors operated by purchased power	37	1,176
Electric motors operated by own power	12	120

Table 7 - PRODUCTION OF TALC AND SOAPSTONE IN CANADA, 1930 - 1941

Year	Value	Year	Value
	$		$
1930	186,216	1937	163,814
1931	157,083	1938	144,848
1932	152,038	1939	170,066
1933	190,836	1940	229,639
1934	180,777	1941	360,809
1935	171,532		
1936	177,270		

Production of talc and soapstone in Canada from 1886 to the end of 1941 totalled 521,801 short tons valued at $4,817,231. The largest annual tonnage produced during these years was 34,632 in 1941, also, the greatest annual value was $360,809 in 1941.

Table 8 - PRODUCTION (SALES) IN CANADA OF TALC AND SOAPSTONE, 1939 - 1941

	1939		1940		1941	
	Quantity	Value	Quantity	Value	Quantity	Value
	Tons	$	Tons	$	Tons	$
Soapstone (Quebec)(x)	...	41,471	...	74,905	...	155,925
Talc - Ontario	15,144	128,595	15,166	154,734	18,171	204,384
British Columbia	...	...	...	...	...	...
TOTAL CANADA ...	...	170,066	...	229,639	...	360,309

(x) Shipments often include relatively small quantities of material classified as talc.

Table 9 - CONSUMPTION OF TALC IN CANADA, BY INDUSTRIES, AS REPORTED IN THE ANNUAL CENSUS OF MANUFACTURES, 1940

Industry	Short tons	Cost at works
		$
Rubber industry	355	17,587
Electrical apparatus	222	5,551
Paints	2,683	73,490
Soaps and cleansing preparations	435	10,014
Toilet preparations	455	20,024
Polishes	17	367
Products from imported clays	511	7,635
Prepared roofing	4,322	48,906
Pulp and paper	1,168	19,364

Table 10 - TALC, PYROPHYLLITE and GROUND SOAPSTONE SOLD BY PRODUCERS IN THE UNITED STATES, 1940-1941, BY USES
(United States Bureau of Mines)

	1940		1941	
Use	Short tons	Per cent of total	Short tons	Per cent of total
Paint	67,875	24	120,319	29
Ceramics	48,661	18	73,990	19
Rubber	28,501	10	58,114	14
Roofing	34,347	12	40,605	10
Paper	31,657	11	37,334	9
Toilet preparations	8,818	3	21,119	5
Insecticides	(1)	(1)	10,479	2
Foundry facings	5,532	2	6,705	2
Crayons	1,823	1	3,136	1
Other uses (2)	29,502	10	24,280	6
Use not reported	24,653	9	14,688	3
	(3)281,375	100	(3)416,369	100

(1) Data not available.
(2) 1940: bleaching, insecticides, plaster, refractory, textile, and other minor uses; 1941: bleaching, insulation, lubricants, refractory, textile and other minor uses.
(3) Includes pinite.

LIST OF FIRMS IN THE CANADIAN TALC AND SOAPSTONE INDUSTRY, 1941

Name of Firm	Head Office Address	Location of Plant
QUEBEC -		
Baker Mining and Milling Co. Ltd. (a)	Highwater	Potton Tp.
Broughton Soapstone and Quarry Co. Ltd. (a)	Broughton Station	Broughton Tp.
Fortin, Charles	Robertsonville	Thetford Tp.
Labonte, W.	77 Notre Dame, Thetford Mines	Thetford Tp.
Pharo, L. C. (a)	Thetford Mines	Leeds Tp.
ONTARIO -		
Canada Talc Ltd. (a)	Madoc	Hastings Co. Huntingdon Tp.
Spry, W. C. (Victory Talc)	Madoc	Clarendon Tp.
Trent Mining Synd. Ltd. (a)	213 Dundas St. E., Trenton	Hungerford Tp.
BRITISH COLUMBIA -		
Fairey and Co. (x)	661 Taylor St., Vancouver	Anderson Lake

(a) Operates a dressing plant.
(x) No production reported in 1941.

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