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THE TALC AND SOAPSTONE INDUSTRY, 1937.

The value of crude and refined talc and soapstone sold by Canadian producers of these minerals in 1937 totalled \$163,814 compared with a corresponding value of \$177,270 in 1936 and \$171,532 in 1935. Production of soapstone during 1937 came entirely from the Eastern Townships of the province of Quebec while the output of talc represented shipments of the mineral made from deposits occurring near Madoc, Hastings county, Ontario. During recent years a relatively small tonnage of talc was shipped from a property operated at Anderson Lake in the Lillooet mining district of British Columbia, however, no talc mining operations were reported in this province during the year under review.

Shipments of talc and soapstone ranging from 50 tons to 1,420 tons were made from Canadian deposits during the period 1886 to 1906. Prior to 1900 the production consisted mainly of impure talc and soapstone shipped from Quebec.

It was not until 1900 that mining operations were commenced on the high grade talc deposits of the Madoc district. Ground talc was shipped from this district in 1906. Production advanced in value during the ensuing years until in 1927 the all-time high record output of \$236,105 was attained for these minerals.

Although it is known that early settlers made use of soapstone from deposits in Quebec for lining fireplaces and ovens and for footwarmers, the first official records of the mining of soapstone are for 1871 when 300 tons valued at \$1,000 were shipped from a deposit in Bolton township, Brome county.

The talc of the Madoc area is of foliated type, has a good white colour, and occurs as a series of vertical veins or bands in white crystalline dolomite. Near Broughton, in Quebec, crude lump talc, from a band cutting the soapstone body, and soapstone waste are shipped to a Montreal grinding plant. In addition to its use as a furnace material, Quebec soapstone is utilized in the manufacture of stoves, mantels, interior trim, ornaments, crayons, etc.. The Bureau of Mines, Ottawa, reports that a recent development which may seriously affect the demand for soapstone for pulp-mill use is the introduction of a new type of water cooled alkali-recovery furnace; this is of steel construction, only the base being built of soapstone blocks; the Bureau of Mines also announced that in 1937 further work was reported on a talc deposit in Potten township, Broome county, Quebec, and in Ontario that surface prospecting was stated to have disclosed a large talc body in Cashel township, Hastings county. A deposit of soapstone, consisting of veins of pyralloite (altered pyroxene) in crystalline limestone, was worked during the year in Pakenham township, Lanark county, Ontario, the material being considered suitable for the production of turned or carved ornamental shapes.

During the latter part of 1937 the properties of Geo. H. Gillespie & Co. Ltd., and Henderson Mines Ltd., both located in the Madoc area, Hastings county, Ontario, were sold to the Canada Talc Ltd.

Little of importance in connection with new or improved industrial outlets for talc was recorded during the year. The paint, rubber, roofing and paper trades continue to take the bulk of the output: a considerable tonnage of Canadian talc is stated to be used also as a textile filler. Interest continues to develop in ceramic uses for talc, and research has shown it to have value in whiteware bodies, electrical porcelain, saggers, etc..

According to the Bureau of Mines, Ottawa, pyrophyllite, a hydrous silicate of alumina closely resembling talc in appearance and certain physical properties, but of less common occurrence, is becoming industrially important for many of the same uses as talc: it does not flux when fired, however, as does talc, and has been shown to have value for the manufacture of high-grade, refractory ceramic products and cements. The only recorded occurrence of the mineral in Canada appears to be at Kyuquot Sound on the west coast of Vancouver Island; some work was done on the deposit around 1910.

Canadian talc prices remained unchanged from the previous year, at \$17.50 per ton for superfine grade, \$11.50 for No. 1 grade, and \$9.00 for No. 2 grade, all f.o.b. Madoc mills. Superfine, imported Italian talc, cosmetic grade, sold at \$80 to \$100 per ton, eastern points. American talcs were quoted at the end of the year as follows: Georgia white, \$8 per ton; grey, \$6; New York tremolite, fibrous, \$12 to \$15; Vermont grey, \$9 to \$9.50, all f.o.b. mills.

Canadian imports of talc or soapstone, ground or unground, in 1937 totalled 3,183 short tons valued at \$48,079 compared with 2,936 short tons at \$43,185 in 1936; of the 1937 imports, 2,812 short tons came from the United States. Exports of Canadian talc during 1937 totalled 8,698 short tons valued at \$85,953 against 10,222 tons at \$102,071 in the preceding year; the greater part of these exports went to the United States.

The annual statistical survey of the industry, as conducted by the Bureau of Statistics, determined 7 firms as active in 1937 and of these, 4 were located in Quebec and 3 in Ontario. Capital employed in the entire industry during the year amounted to \$625,497; employees totalled 83 and salaries and wages distributed aggregated \$72,020. The cost of fuel and purchased electricity used in 1937 totalled \$19,318 while the value of explosives and other process supplies consumed was reported at \$6,076. The net value of sales was estimated at \$138,420 compared with \$143,878 in 1936 and \$134,121 in 1935.

Trade agreements between Canada and the United States and between the United Kingdom and the United States were signed at Washington on Thursday, November 17, 1938. The following statement, prepared by the United States Tariff Commission, shows the former and new rates of duty on talc in schedule II (United States concessions to Canada), and the total imports of talc into the United States and the imports from Canada, according to preliminary United States statistics for the year 1937: Talc, steatite, or soapstone, ground, etc., (except toilet preparations), valued at not more than \$14 per ton (1966 agreement covered talc valued at not more than \$12.50 per ton): rate of duty under Tariff Act of 1930, 35 per cent, under 1935 agreement, 25 per cent, under new agreement, 17½ per cent. Total value of all 1937 talc imports, \$102,015(a); value of 1937 talc imported from Canada, only, \$52,484(a).

(a) Includes only talc, etc., valued at not more than \$12.50 per ton.

Table 1 - PRINCIPAL STATISTICS OF THE TALC AND SOAPSTONE INDUSTRY IN CANADA,
1935, 1936 and 1937.

	1 9 3 5	1 9 3 6	1 9 3 7
Number of firms	8	7	7
Capital employed \$	639,501	647,929	625,497
Number of employees - On salary	12	15	11
On wages	82	70	72
Total	94	85	83
Salaries and Wages - Salaries	25,662	26,526	20,474
Wages	44,141	44,409	51,546
Total	69,803	70,935	72,020
Selling value of products (Gross)	171,532	177,270	163,814
Cost of fuel and purchased electricity ..	23,774	21,669	19,318
Cost of explosives and other process supplies	13,637	11,723	6,076
Selling value of products (net)	134,121	143,878	138,420

Table 2 - CAPITAL EMPLOYED, BY CLASSES, 1935, 1936 and 1937.

	1 9 3 5	1 9 3 6	1 9 3 7
	\$	\$	\$
Present value of lands, building, fixtures, machinery, tools and other equipment	566,429	561,643	510,896
Inventory value of materials on hand, stocks in process, fuel and miscellaneous supplies on hand	4,470	7,042	3,514
Inventory value of finished products on hand	5,997	7,741	12,737
Operating capital	62,605	71,503	98,350
TOTAL	639,501	647,929	625,497

Table 3 - WAGE-EARNERS, BY MONTHS, 1932 - 1937.

Month	1932	1933	1934	1935	1936	1937
January	66	66	88	102	53	58
February	67	75	93	100	61	57
March	68	78	97	71	54	56
April	67	47	87	89	72	73
May	80	86	96	88	77	58
June	79	87	105	84	63	60
July	79	82	95	87	79	78
August	80	94	111	70	83	77
September	85	97	97	71	84	94
October	82	89	121	62	79	92
November	82	93	106	77	70	78
December	75	85	110	82	61	66

Table 4 - NUMBER OF WAGE-EARNERS IN MONTH OF HIGHEST EMPLOYMENT WHOSE REGULAR HOURS PER WEEK WERE -

Hours	1935	1936	1927	Hours	1935	1936	1937
	No.	No.	No.		No.	No.	No.
40 hours or less ...	7	1	3	55 hours .....	...	...	2
41 - 43 hours .....	...	...	1	56 - 59 hours	10	...	...
48 hours	36	...	10	60 hours	30	29	69
51 - 53 hours	1	2	...	Over 60 hours	12	...	5
54 hours	4	49	21				

Table 5 - FUEL AND ELECTRICITY USED, 1936 and 1937.

Item	Unit of measure	1936				1937			
		Quantity		Value		Quantity		Value	
				\$				\$	
Bituminous coal - Canadian ..	tons		192	1,217		145		1,016	
Foreign ...	tons		...	...		...		...
Anthracite coal	tons		34	221		...		...
Gasoline	Imp.gal.	1,600		304		2,387		481	
Kerosene	Imp.gal.	20		4		25		6	
Fuel oil and diesel oil.....	Imp.gal.	1,560		179		3,774		470	
Wood	cord	10		30		22		44	
Electricity purchased	K.W.H.	1,249,914		19,714		1,594,310		17,301	
TOTAL .....	\$		...	21,669		...		19,318	

Table 6 - POWER EQUIPMENT INSTALLATION, 1937.

	Number of units	Horse power - manufacturers' rating
Diesel engines	1	25
Other gas engines	9	51
Electric motors	25	738

Table 7 - PRODUCTION OF TALC AND SOAPSTONE IN CANADA, 1928 - 1937.

Year	Value	Year	Value
	\$		\$
1928	219,358	1933	190,836
1929	229,198	1934	180,777
1930	186,216	1935	171,532
1931	157,083	1936	177,270
1932	159,038	1937	163,814

Table 8 - PRODUCTION (SALES) IN CANADA, IMPORTS and EXPORTS OF TALC AND SOAPSTONE, 1935, 1936 and 1937.

	1935		1936		1937	
	Quantity	Value	Quantity	Value	Quantity	Value
		\$		\$		\$
<u>PRODUCTION -</u>						
Soapstone (Quebec) .....	...	32,053	...	32,770	...	40,513
Talc - Ontario	13,710	138,161	14,461	143,701	12,457	123,301
British Columbia	93	1,318	47	799	...	...
TOTAL CANADA .....	...	171,532	...	177,270	...	163,814
<u>IMPORTS -</u>						
Talc or soapstone, ground or unground -						
From - United Kingdom	0.25	18	0.50	40	...	...
United States	2,214	29,431	2,548	32,063	2,812	38,660
Italy and Other Countries	480	15,054	387	11,082	371	9,419
TOTAL IMPORTS ...	2,694	44,503	2,936	43,185	3,183	48,079
<u>EXPORTS -</u>						
Talc -						
To - United Kingdom	930	9,660	1,368	12,957	1,200	10,858
United States	7,947	80,504	8,742	87,907	7,453	74,686
Other Countries ...	50	659	112	1,207	45	409
TOTAL EXPORTS ...	8,927	90,823	10,222	102,071	8,698	85,953

Table 9 - PRODUCTION OF TALC AND SOAPSTONE, JANUARY 1 to JUNE 30, 1937 and 1938.

	1937		1938	
	Quantity	Value	Quantity	Value
	Tons	\$	Tons	\$
Soapstone (Quebec) .....	...	11,516	...	7,835
Talc - Ontario	6,241	60,485	4,687	46,711
British Columbia .....	...	...	...	...
TOTAL .....	...	72,001	...	54,546

Table 10 - CONSUMPTION OF TALC IN CANADA, BY INDUSTRIES, as REPORTED IN THE ANNUAL CENSUS OF MANUFACTURES, 1935, 1936 and 1937.

Industry	1935		1936		1937	
	Short tons	Cost at works	Short tons	Cost at works	Short tons	Cost at works
		\$		\$		\$
Rubber Industry	(b)		(b)		(a)	(a)
Electrical Apparatus	166	4,297	191	4,926	(a)	(a)
Paints	1,811	45,654	1,948	47,378	2,063	50,394
Soaps and Cleaning Preparations ...	139	2,583	128	2,680	151	3,123
Toilet Preparations	504	29,250	397	22,393	(a)	(a)
Polishes	1	32	10	222	(a)	(a)
Products from Imported Clays	(b)		(b)		110	1,460
Prepared Roofing	1,363	16,034	1,839	21,500	2,696	25,194
Pulp and Paper	1,361	24,652	1,124	22,497	865	16,385

(a) Not yet complete.

(b) Not recorded.

Table 11 - WORLD'S PRODUCTION OF TALC, 1934 - 1936. (Taken from the Imperial Institute's Publication - The Mineral Industry of the British Empire and Foreign Countries)
(Long tons)

Producing Country	1 9 3 4	1 9 3 5	1 9 3 6
<u>BRITISH EMPIRE</u>			
Union of South Africa	215	299	406
Canada (sales) (c)	12,463	12,324	12,954
India	9,375	12,596	9,968
Australia	1,739	1,442	1,502
<u>FOREIGN COUNTRIES</u>			
Austria	30,188	30,254	30,000
Bulgaria	15	15	...
Finland	1,561	2,150	(a)
France	67,800	58,600	(a)
Germany (Bavaria)	6,824	3,900	5,009
Greece	116	543	850
Italy	37,042	41,014	43,226
Norway	27,285	27,343	25,827
Roumania	1,902	1,967	2,489
Spain (b)	10,750	(a)	(a)
Sweden	6,398	5,967	7,033
Egypt	2,562	360	345
Morocco (French) (exports)	776	709	1,346
United States (sales)	123,665	154,211	193,028
Argentina	42	173	174
Uruguay (exports)	2,595	1,181	704
China	3,000	(a)	(a)
French Indo-China .....	...	...	670
"Manchoukuo"	64,000	70,000	(a)

Talc is also produced in U.S.S.R. (Russia)

(a) Information not available.

(b) In addition, 2,590 cubic yards were quarried during 1934.

(c) Excluding soapstone, which is only recorded by value and was as follows:-

1934 £ 8,900

1935 £ 6,500

1936 £ 6,600

Table 12 - WORLD'S IMPORTS OF TALC, 1934 - 1936. (Less Re-exports). (Taken from the Imperial Institute's Publication - The Mineral Industry of the British Empire and Foreign Countries)
(Long tons)

Importing Country	1 9 3 4	1 9 3 5	1 9 3 6
<u>BRITISH EMPIRE</u>			
United Kingdom	18,828	23,025	24,542
Seychelles	3	7	12
Canada	2,586	2,405	2,622

Table 12 - WORLD'S IMPORTS OF TALC, 1934 - 1936. (Less Re-exports). (Taken from the Imperial Institute's Publication - The Mineral Industry of the British Empire and Foreign Countries) (concluded)
(Long tons)

Importing Country	1934	1935	1936
<u>BRITISH EMPIRE (concluded)</u>			
British India	24	26	42
Cyprus	166	177	31
Australia	405	551	557
<u>FOREIGN COUNTRIES</u>			
Albania	91	26	46
Austria	113	462	830
Belgium-Luxemburg E.U.	3,058	3,852	4,275
Czechoslovakia	3,586	3,793	4,354
Denmark	1,985	2,514	2,162
Estonia	134	60	58
Finland (total imports)	1,976	773	693
France	3,477	3,469	2,650
Germany	31,332	24,523	24,144
Latvia	124	183	84
Lithuania	49	21	32
Poland	2,936	3,211	3,403
Roumania	181	141	(a)
Yugoslavia	587	446	263
Algeria	353	459	(a)
Egypt	1,542	908	989
Morocco	20	23	33
Tunis	441	471	638
Guatemala	10	7	3
Mexico	343	264	266
United States	18,169	21,337	21,893
Argentina	1,691	1,479	1,229
Chile	17	37	26
Colombia	20	152	132
Peru	107	128	81
Venezuela	13	50	(a)
Formosa	19	15	(a)
French Indo-China	68	92	123
Japan (total imports)	52,779	64,219	64,674
Syria and Lebanon	53	57	60
Turkey	52	20	2

(a) Information not available.

It is interesting to note that the United States Bureau of Mines reported that - "Tiled bathrooms were largely responsible for the large increase in 1937 in the sales of talc, pyrophyllite, and ground soapstone, which were greater than ever before. Leading uses for many years were in paint, paper, rubber, and roll roofing, in about the order named, but notwithstanding the competition from many other kinds of wall-covering materials, the demand for more bathrooms, far greater than the demand for more homes, due to the vogue of two or more bathrooms per housing unit, coupled with the redesigning of ceramic mixtures so as to include talc, replacing flint and to some extent feldspar, has boosted ceramic uses already into third place".



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LIST OF FIRMS IN THE CANADIAN TALC AND SOAPSTONE INDUSTRY, 1937.

<u>Name of Firm</u>	<u>Head Office Address</u>	<u>Location of Plant</u>
<u>QUEBEC -</u>		
Broughton Soapstone and Quarry Co. Ltd.	Broughton Station	Broughton Tp.
Cyr, L. R.	Lemesurier	Leeds Tp.
Fortin, Charles	Robertsonville	Thetford Tp.
Pharo, L. C.	Thetford Mines	Thetford, Tp.
<u>ONTARIO -</u>		
Canada Talc Ltd.	Madoc	Hastings Co.
Gillespie, Geo. H., & Co. Ltd. (a)	Box 232, Madoc	Madoc
Henderson Mines, Ltd. (a)	Madoc	Madoc
Madoc Talc & Milling Co. Ltd. (x)	Trenton	Cashel Tp.
<u>BRITISH COLUMBIA -</u>		
Fairey and Cundiff (x)	661 Taylor St., Vancouver	Anderson Lake
Richmond, Geo. W. (b)	2635 W. 15th Ave., Vancouver	

- (x) No production reported in 1937.
(a) Absorbed by Canada Talc Ltd.
(b) Milled only talc imported from United States.