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THE ASBESTOS MINING INDUSTRY 1953



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NOTICE

The annual reports prepared by the Industry and Merchandising Division of the Bureau of Statistics are divided into 3 volumes, as follows: **Volume I** – The Primary Industries, including mining, forestry and fisheries; **Volume II** – Manufacturing; **Volume III** – Merchandising and Services. The volumes are made up of parts, and the parts in turn are subdivided according to the industries which they comprise.

Volume I consists of the following parts:

- Part I – Mineral Statistics
- Part II – Forestry Statistics – Operations in the Woods
- Part III – Fisheries Statistics

Part I includes the following reports which constitute the complete series on Mineral Statistics of Canada. Individual reports are issued as the information becomes available; they are arranged in a form suitable for binding.

- A – General Review of the Mining Industry, 50¢
- B – The Gold Mining Industry, 50¢
- C – The Silver-Lead-Zinc Mining Industry, 25¢
- D – The Nickel-Copper Mining, Smelting and Refining Industry, 25¢
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- S – The Sand and Gravel Industry, 25¢
- T – The Stone Industry, 25¢
- U – Contract Drilling in the Mining Industry, 25¢

THE ASBESTOS MINING INDUSTRY

1953

Canadian producers of asbestos shipped 911,226 tons valued at \$86,052,895 in 1953, compared with 929,339 tons valued at \$89,254,913 in 1952. The quantity decreased by 2.0 per cent and the total value was down 3.6 per cent.

The industry distributed \$24,567,463 in salaries and wages to 6,482 employees at the mines or plants. Fuel and electricity cost \$3,783,653 which included 248,640,405 k.w.h. of purchased electricity valued at \$1,943,299. Process supplies and containers cost \$10,305,046.

The largest producing area continued to be in the Eastern Townships of Quebec in the vicinities of Thetford Mines, Black Lake, East Broughton and Danville. Ontario's production came from Munro township. In northern British Columbia the Cassiar Asbestos Corporation milled asbestos ore.

Asbestos has a variety of industrial uses. The longer-fibred spinning material is formed into textiles, packing and certain insulating and heat-resisting friction materials. Other fibres are used

in the asbestos cement industry for the production of pipe, shingle, tile, millboard, siding, roofing, etc., and for the production of asbestos paper. The short-fibred material is used in protective coatings, plastics, in the manufacture of lubricating greases, and in a number of specialized applications where it has characteristics desired as an industrial filler.

Price quotations per ton in December, 1952, were: Crude No. 1, \$960-\$1500; crude No. 2, \$595-\$900; spinning fibres, \$321-\$514; shingle fibres, \$150-\$200; paper stock, \$109-\$137; waste, \$77; shorts, \$35-\$70.

Considerable expansion is underway in the industry. The Canadian Johns-Manville Company is expanding and modernizing its Jeffrey mine, the world's largest asbestos mine, at Asbestos, Quebec. The Asbestos Corporation, Limited, is erecting a 5,000-ton-per-day mill at its newly developed Normandie mine near Vimy, Quebec, and Johnson's Limited, is erecting a new and larger mill at Black Lake, Quebec. Exploratory and development work is being carried on at a number of properties.

TABLE 1. Principal Statistics of the Asbestos Mining Industry, 1951-1953

	1951	1952	1953
Number of firms	21	19	20
Number of producing mines	14	17	16
Number of employees:			
Administrative	745	810	870
Workmen	5,178	5,508	5,612
Total	5,923	6,318	6,482
Man-hours worked:			
Administrative	1,714,314	1,774,194	1,689,747
Workmen	12,622,744	14,012,175	12,244,558
Salaries and wages:			
Salaries	\$ 2,824,100	3,570,040	3,766,891
Wages	\$ 17,200,108	20,055,391	20,800,572
Total	\$ 20,024,208	23,625,431	24,567,463
Selling value of products ¹ shipped	\$ 81,624,009	89,295,913	86,078,924
Cost of purchased fuel and electricity	\$ 2,988,149	3,092,959	3,783,653
Cost of process supplies ²	\$ 5,493,491	5,805,278	6,854,126
Cost of containers	\$ 4,592,154	4,238,988	3,450,920

1. Includes value of sand and gravel.
2. Explosives, drill steel, etc.

TABLE 2. Production and Shipments of Asbestos by Canadian Mines, 1952 and 1953

Grade	1952			1953		
	Production	Shipments		Production	Shipments	
		Quantity	Selling value, f.o.b. shipping point ¹		Quantity	Selling value, f.o.b. shipping point ¹
	tons	tons	\$	tons	tons	\$
Crude — No. 1, No. 2, and other	695	741	726,827	633	781	837,623
Milled — Group 3 (Spinning)	36,617	35,932	12,919,506	35,591	35,970	13,248,520
Group 4 (Shingle)	200,159	198,506	32,789,346	185,322	187,466	31,247,728
Group 5 (Paper)	124,423	117,206	13,113,620	107,956	102,904	11,729,835
Group 6 (Stucco)	207,555	204,091	15,265,134	181,001	175,171	13,188,314
Group 7 (Refuse)	336,270	340,721	13,815,217	380,032	379,218	15,233,828
Group 8 (Sand)	32,132	32,142	625,263	29,656	29,716	567,047
Total, all grades	937,851	929,339	89,254,913	920,191	911,226	86,052,895
Gravel and stone (waste rock only) ²	35,317	35,317	40,513	21,118	21,118	26,029

1. Includes value of containers amounting to \$4,238,988 in 1952 and \$3,450,920 in 1953.

2. This production is included in the Sand and Gravel Industry.

TABLE 3. Tonnage of Asbestos Rock Mined and Milled, 1950-1953

	1950	1951	1952	1953
Rock mined	12,210,780	12,623,529	12,989,320	13,912,839
Rock milled	8,635,036	10,219,658	10,915,938	11,189,027

TABLE 4. Shipments of Asbestos by Canadian Mines, 1944-1953

Year	Tons	Selling value at works	Year	Tons	Selling value at works
		\$			\$
1944	419,265	20,619,516	1949	574,906	39,746,072
1945	466,896	22,805,157	1950	875,344	65,854,568
1946	558,181	25,240,562	1951	973,198	81,524,345
1947	661,821	33,005,748	1952	929,339	89,254,913
1948	716,769	42,231,475	1953	911,226	86,052,895

TABLE 5. Shipments of Asbestos by Canadian Mines, by Months, 1952 and 1953

Month	1952	1953	Month	1952	1953
	tons	tons		tons	tons
January	76,287	69,820	August	76,659	72,752
February	69,036	65,337	September	85,986	77,844
March	72,059	75,233	October	89,405	80,713
April	81,301	82,540	November	81,493	84,238
May	83,358	82,474	December	65,894	64,394
June	78,250	82,805			
July	69,611	73,076	Total	929,339	911,226

TABLE 6. Number of Workmen, by Months, 1952 and 1953 (Administration and office employees not included)

Month	1952	1953						
		Total	Mine		Mill		Total	
			Surface		Underground	Male		Female
			Male	Female	Male			
January	5,132	2,209	19	1,121	1,986	2	5,337	
February	5,223	2,190	19	1,122	1,963	2	5,296	
March.....	5,283	2,322	21	1,122	1,984	2	5,451	
April	5,424	2,346	22	1,120	1,972	2	5,462	
May	5,543	2,410	23	1,154	1,967	2	5,556	
June.....	5,649	2,560	31	1,165	2,071	2	5,829	
July.....	5,613	2,507	31	1,177	2,079	2	5,796	
August.....	5,625	2,519	31	1,192	2,113	2	5,857	
September	5,594	2,503	31	1,191	2,103	2	5,830	
October	5,645	2,472	32	1,135	2,121	2	5,762	
November	5,717	2,435	32	1,131	2,029	2	5,629	
December	5,621	2,446	32	1,131	2,015	2	5,626	
Average.....	5,508	2,386	28	1,144	2,052	2	5,612	

TABLE 7. Taxes Paid by the Asbestos Mining Industry, 1952 and 1953

	1952	1953
	\$	\$
Dominion income tax, including tax on non-operating revenue	11,434,101	11,633,991
Provincial taxes:		
Mining taxes paid on net profits from production, including portion paid to municipality	2,587,751	2,607,272
Corporation income tax where levied in addition to mining tax	—	—
Taxes paid on capital and places of business	69,307	50,804
Acreage taxes	1,251	3,831
Royalties	—	250,000
Total provincial	2,658,309	2,911,907
Municipal taxes:		
Based on property evaluation	460,227	280,399
Based on non-operating revenue	—	7,792
Total municipal	460,227	288,191
Grand total taxes paid	14,552,637	14,834,089

TABLE 8. Fuel and Electricity Used in the Asbestos Mining Industry, 1953

Kind	Unit of measure	Quantity	Cost at plant
			\$
Bituminous coal (a) From Canadian mines	short ton	33,852	609,664
(b) Imported	" "	14,814	202,544
Sub-bituminous coal (from Alberta mines only)	—	—	—
Anthracite coal	short ton	23,919	365,821
Lignite coal	—	—	—
Coke (for fuel only)	—	—	—
Gasoline, (includes gasoline used in cars and trucks).....	Imp. gal.	312,253	134,062
Kerosene or coal oil.....	" "	3,319	839
Fuel oil (excludes lubricating oil).....	" "	1,961,065	511,557
Wood (cords of 128 cubic feet of piled wood).....	cord	912	12,192
Gas (a) Liquefied petroleum gases (propane, etc.)	M cu. ft.	130	2,361
(b) Other manufactured gas	" "	59,906	1,314
(c) Natural gas	—	—	—
Other fuel.....	—	—	—
Electricity purchased for power and lighting (includes service charge)	k.w.h.	248,640,405	1,943,299
Electricity purchased for other purposes (includes service charge).....	—	—	—
Total (cost only).....	—	—	3,783,653
Electricity generated (a) For own use.....	k.w.h.	1,284,800	—
(b) For sale	—	—	—

TABLE 9. Power Equipment (Including stand-by or emergency equipment), 1953

Description	Ordinarily in use		In reserve or idle	
	Number of units	Total h.p. (according to manufacturer's rating)	Number of units	Total h.p. (according to manufacturer's rating)
1. Steam engines.....	—	—	1	250
2. Steam turbines	—	—	—	—
3. Diesel engines	32	3,526	3	400
4. Gasoline, gas and oil engines, other than Diesel engines	20	1,282	2	135
5. Hydraulic turbines or water-wheels.....	—	—	—	—
6. Electric motors — (except those reported under item 10):				
(a) Operated by purchased power.....	4,182	107,436	563	14,322
7. Total (1),(2),(3),(4),(5), and (6a)	4,234	112,244	569	15,107
8. (b) Operated by power generated by (1),(2),(3),(4) and (5).....	72	660	—	—
9. Stationary boilers for power purposes only	—	—	1	160
10. Motor-generator sets	72	8,421	6	289

TABLE 10. Specified Miscellaneous Expenditures by the Asbestos Mining Industry, 1951-1953

	1951	1952	1953
	\$	\$	\$
Workmen's compensation.....	360,953	347,131	376,568
Silicosis assessment	10,030	16,379	20,732
Unemployment insurance	146,257	160,347	164,191
Aggregate cost of all supplies purchased.....	10,831,083	12,296,745	11,886,894
Aggregate cost of plant and equipment purchased.....	4,624,730	6,508,133	13,213,582
Cost of buildings, machinery and equipment, erected or installed during the year	5,754,424	9,590,263	17,529,859

TABLE 11. Imports and Exports of Asbestos and Asbestos Products, 1952 and 1953

Item	1952		1953	
	Tons	\$	Tons	\$
Imports				
Asbestos clutch facings for automobiles, motor vehicles and chassis.....	—	521,443	—	270,123
Asbestos brake linings for automobiles, motor vehicles and chassis	—	313,765	—	297,460
Asbestos brake linings and clutch facings, n.o.p.	—	109,078	—	89,263
Asbestos in any other form than crude, and all manufactures of, n.o.p.	—	2,231,536	—	2,347,874
Asbestos packing	153	222,539	147	305,455
Total.....	—	—	—	3,310,175
Exports				
Asbestos (crude).....	692	704,920	638	719,583
Asbestos milled fibres.....	339,818	56,646,930	316,588	55,182,886
Asbestos waste, refuse and shorts	561,548	29,157,698	561,304	28,069,694
Asbestos brake lining facings	—	529,969	—	251,287
Asbestos packing	—	50,774	—	5,291
Asbestos manufactures, n.o.p.	—	684,392	—	328,663
Total.....	—	87,774,683	—	84,557,404

TABLE 12. World Production of Asbestos by Countries¹, 1949-1952

(Taken from the "Minerals Year Book" by the United States Bureau of Mines)

Country ¹	1949	1950	1951	1952	1953
	metric tons ²				
Australia	1,671	1,643	2,599	4,124	5,049
Bolivia (exports)	182	166	316	465	735
Brazil	1,415	844	1,321	720	720
Canada (sales) ³	521,543	794,095	882,866	843,078	826,303
Chile	291	172	4	4	4
Cyprus	12,556	14,989	17,180	16,556	14,484
Egypt	117	260	1,247	60	4
Finland ⁵	10,486	10,949	11,850	6,100	10,929
France	1,090	6,080	6,940	6,300	9,300
French Morocco	402	511	604	576	544
Greece	9	30	34	25	---
India	148	211	526	694	4
Iran	---	---	---	---	50
Italy	15,877	21,433	22,612	23,938	20,397
Japan	5,456	5,664	6,139	3,060	4,078
Kenya	716	229	379	354	151
Madagascar	2	1	17	3	4
New Zealand	—	42	826	693	4
Portugal	101	257	312	168	4
Southern Rhodesia	72,246	64,888	70,454	76,960	79,595
Spain	40	41	41	30	4
Swaziland	30,814	29,635	31,719	31,542	27,309
Taiwan (Formosa)	410	216	35	24	---
Turkey	250	245	80	---	---
Union of South Africa	64,334	79,300	97,402	121,416	86,016
United States	39,360	38,495	46,851	48,864	49,401
U.S.S.R. (estimate)	191,000	220,000	220,000	220,000	220,000
Venezuela	192	190	260	394	40
Yugoslavia	1,138	958	1,523	2,506	3,748
Total (estimate)	975,000	1,300,000	1,425,000	1,425,000	1,375,000

1. In addition to countries listed, asbestos is produced in Argentina, China, Czechoslovakia, and Korea. Estimates are included in the total.

2. This table incorporates a number of revisions of data published in previous asbestos chapters.

3. Exclusive of sand, gravel and stone (waste rock only), production of which is reported as follows: 1949, 32,015 tons; 1950, 43,551 tons; 1951, 30,628 tons; 1952, 35,982 tons; 1953, 19,158 tons.

4. Data not available; estimate included in total.

5. Includes asbestos flour.

Canadian Chrysotile Asbestos Classification —
(List of Standard Grades set up by the Committee on Uniform Classification and Grading of Asbestos Mines Products. This committee was formed in 1931 at the instigation of the Minister of Mines of the Province of Quebec, and the list of grades has been revised from time to time.)

The asbestos mines products are divided into two classes: "Crude Asbestos" and "Milled Asbestos", respectively, defined as follows:

"Crude Asbestos" consists of the hand-selected cross-vein material essentially in its native or unfiberized form.

"Milled Asbestos" consists of all grades produced by mechanical treatment of asbestos ore.

"Crude Asbestos" and "Milled Asbestos" are sub-divided into groups designated and defined below.

Classification of the "Milled Asbestos" grades, in groups Nos. 3 to 7, inclusive, unless otherwise specified, is based on the Quebec Standard Testing Machine.

"Shipping Test" is the average for each carload or smaller shipment, of tests representative samples taken at the time of shipping.

"Guaranteed Minimum Shipping Test" is that below which the actual shipping test shall not fall.

Crudes:

Group No. 1 Crude No. 1 Consists basically of crude $\frac{3}{4}$ inch staple and longer
Group No. 2 Crude No. 2 Consists basically of crude $\frac{3}{8}$ inch staple up to $\frac{3}{4}$ inch
Crude run-of-mine Consists basically of unsorted crudes
Crudes, sundry Consists of crudes other than above specified

Fibres:

	Standard designation of grades	Guaranteed Minimum shipping test			
		$\frac{1}{2}$ -inch screen	4-mesh screen	10-mesh screen	Pan
Group No. 3	3F	7	7	1.5	0.5
	3K	4	7	4	1
	3R	2	8	4	2
	3T	1	9	4	2
	3Z	0	8	6	2
Group No. 4	4H	0	5	8	3
	4K	0	4	9	3
	4M	0	4	8	4
	4R	0	3	9	4
	4T	0	2	10	4
	4Z	0	1.5	9.5	5
Group No. 5	5D	0	0.5	10.5	5
	5K	0	0	12	4
	5M	0	0	11	5
	5R	0	0	10	6
Group No. 6	6D	0	0	7	9
Group No. 7*	7D	0	0	5	11
	7F	0	0	4	12
	7H	0	0	3	13
	7K	0	0	2	14
	7M	0	0	1	15
	7R	0	0	0	16
	7T	0	0	0	16
Group No. 8	8S	Under 75 pounds per cubic foot loose measure.			
Group No. 9	9T	Over 75 pounds per cubic foot loose measure.			

* The affix "F" designates "Floats" in all subsections of Group No. 7.

Directory of Firms in the Asbestos Mining Industry, 1953

Name of firm	Head office or general office	Location of mine
Quebec:		
Asbestos Corporation Ltd.	Thetford Mines	Thetford Mines, Black Lake, Coleraine
Bell Asbestos Mines Ltd.	Thetford Mines	Thetford Township
Canadian Johns-Manville Co. Ltd.	Sun Life Building, Montreal	Asbestos
Continental Asbestos Co. Ltd. ¹	Coleraine	Coleraine
Dominion Asbestos Mines Ltd.	660 Ste. Catherine St. W., Montreal.....	St. Adrien de Ham.
Eastern Asbestos Co. Ltd. ¹	619, rue St-Jacques, Montreal	Coleraine
Empire Asbestos Ltd. ¹	191 St-Alphonse, Thetford Mines	Thetford
Flintkote Mines Ltd.	Thetford Mines	Thetford Mines
Golden Age Mines Ltd. ¹	85 Richmond St. W., Toronto, Ontario ..	Beauceville
Johnson's Company Ltd.	Thetford Mines	Thetford Mines, Coleraine
Lake Asbestos of Quebec Ltd.	Box 88, Black Lake	Black Lake
Nicolet Asbestos Mines Ltd.	Norbestos, Warwick	Norbestos
Northern Canada Mines Ltd. ¹	44 King St. W., Toronto, Ontario	Sherbrooke
Pittsco Explorations Ltd. ¹	Box 773, Garthby, P.Q.	Thetford, Broughton
Quebec Asbestos Corp. Ltd.	East Broughton Station	East Broughton Station
Troyco Mines Ltd. ¹	60 St. James St. West, Montreal	Ham Nord
Ontario:		
Canadian Johns-Manville (Ontario) Ltd....	Matheson	Munro Township
Colonial Asbestos Corp. Ltd. ¹	144 King St. W., Kitchener	Munro Township
Van Packer Mines of Canada Ltd.	Box 1000, South Porcupine	Deloro Township
British Columbia:		
Asbestos Corporation (Explorations) Ltd. ¹	Thetford Mines, Quebec	Ainsworth, Slocan
Cassiar Asbestos Corp. Ltd.	85 Richmond St. W., Toronto, Ont.	McDame
Pacific Asbestos Corp. Ltd. ¹	525 Seymour St., Vancouver	Revelstoke

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