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ASBESTOS MINES

1965

This report includes statistics for industry 071 - Asbestos Mines of Standard Industrial Classification Manual (Catalogue No. 12-501). For statistical purposes, the industry Asbestos Mines is defined as including establishments primarily engaged in mining and milling asbestos fibre.

Canadian producers of asbestos shipped 1,388,212 short tons of crude and milled fibres valued at \$146,188,472 during 1965. In the preceding year the shipments were 1,419,851 tons valued at \$145,193,443. Excluded from the aforementioned figures were the values of containers which amounted to \$5,469,708 in 1964 and \$5,056,871 in 1964. The quantity of asbestos decreased 2.2 per cent but the total value was up 0.6 per cent.

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.

Technical information is shown in an annual review "Asbestos" published by the Department of Energy, Mines and Resources, Ottawa.

Data presented in this report under the heading of Asbestos Mines (Tables 1-6) reflect the full implementation of the revised Standard Industrial Classification (S.I.C.) and the New Establishment Concept including an extension of the latter to cover total activities of mining establishments (see Explanatory Notes, 1964 issue of this report). Commodity statistics reflecting total production from all sources, world figures on production, trade data, etc. are presented along the same general lines as in the earlier issues of this report.

SYMBOLS

The following standard symbols are used in Dominion Bureau of Statistics publications:

- .. figures not available.
- ... figures not appropriate or not applicable.
- nil or zero.
- amount too small to be expressed.
- ▯ preliminary figures.
- * revised figures.
- x confidential to meet secrecy requirements of the Statistics Act.

TABLE 1. Principal Statistics, Asbestos Mines, 1961-65

Basis: Revised Standard Industrial Classification and New Establishment Concept

Year	Estab- lish- ments	Mining activity								Total activity				
		Production and related workers			Cost of fuel and elec- tricity	Cost of materials and supplies	Value of pro- duc- tion	Value added	Working owners and partners		Employees		Value added	
		Number	Man- hours paid	Wages					Number	With- drawals	Number	Salaries and wages		
	No.		'000		\$'000					\$'000		\$'000		
1961	12	5,680	12,240	27,969	6,518	19,279	132,827	107,031	—	—	6,773	34,686	108,727	
1962	12	5,798	12,738	28,745	7,140	20,579	135,019	107,300	—	—	6,936	35,850	109,271	
1963	13	5,656	12,115	28,012	7,709	22,337	142,134	112,088	—	—	6,828	35,570	114,139	
1964	11	5,629	11,914	29,132	7,749	22,683	151,414	120,982	—	—	6,544	37,852	123,539	
1965	10	5,355	13,282	38,681	8,320	24,934	152,150	118,896	—	—	6,536	38,681	121,699	

Note: Refer to Explanatory Notes, 1964 issue, for description of concepts and definitions.

TABLE 2. Employment and Payroll, Asbestos Mines, 1961-65

Basis: Revised Standard Industrial Classification and New Establishment Concept

Year	Employees										Salaries and wages				
	Production and related workers				Adminis- trative and office		Sales and distribution		Total		Production and related workers		Adminis- trative and office	Sales and distrib- ution	Total
	Mining		Other												
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Mining	Other			
	number										\$'000				
1961	5,646	34	—	—	944	149	—	—	6,590	183	27,969	—	6,717	—	34,686
1962	5,766	32	—	—	982	156	—	—	6,748	188	28,745	—	7,104	—	35,850
1963	5,625	31	—	—	1,010	162	—	—	6,635	193	28,012	—	7,557	—	35,570
1964	5,235	34	—	—	1,104	171	—	—	6,339	205	29,132	—	8,720	—	37,852
1965	5,320	35	—	—	1,006	175	—	—	6,326	210	29,903	—	8,778	—	38,681

See Note Table 1.

TABLE 3. Production and Related Workers, Asbestos Mines, 1964 and 1965

	Mine			Mill	
	Surface		Underground	Male	Female
	Male	Female	Male		
number					
1964					
January	2,201	—	377	2,613	32
February	2,249	1	371	2,598	32
March	2,127	1	362	2,599	32
April	2,141	1	415	2,768	33
May	2,165	1	401	2,932	32
June	2,222	1	340	2,816	32
July	2,205	1	358	2,828	31
August	2,203	1	338	2,773	32
September	2,172	1	294	2,670	34
October	2,133	1	291	2,647	33
November	2,135	1	290	2,674	32
December	2,133	1	290	2,677	34
Averages.....	2,174	1	344	2,716	32
1965					
January	1,994	—	258	2,947	37
February	2,001	—	258	2,917	32
March	2,042	—	259	2,911	33
April	2,056	—	254	2,958	34
May	2,087	—	261	2,980	32
June	2,173	—	258	3,078	36
July	2,170	—	250	3,047	38
August	2,068	—	253	3,024	35
September	2,139	—	259	2,982	38
October	2,103	—	256	2,956	38
November	2,093	—	256	2,952	34
December	2,089	—	264	2,980	34
Averages	2,085	—	257	2,978	35

TABLE 4. Purchased Fuel and Electricity Used, Asbestos Mines, 1964 and 1965

		1964		1965	
		Quantity	Cost	Quantity	Cost
			\$'000		\$'000
Bituminous coal:					
(a) From Canadian mines	ton	4,183	59	3,566	55
(b) Imported	"	48	--	--	--
Sub-bituminous coal (from Alberta mines only)	"	--	--	--	--
Anthracite coal	"	146	2	62	1
Lignite coal	"	--	--	--	--
Coke	"	--	--	--	--
Gasoline (including gasoline used in cars and trucks)	Imp. gal.	498,804	186	705,245	254
Fuel oil including kerosene or coal oil	"	24,196,402	3,701	26,870,194	4,230
Wood	cord	4,769	70	4,102	62
Gas:					
(a) Liquefied petroleum gases	Imp. gal.	72,452	24	84,169	28
(b) Other manufactured gas	M cu. ft.	--	--	--	--
(c) Natural gas	"	225,000	113	--	--
Other fuel .....		...	--	...	--
Electricity purchased	kwh.	455,729,577	3,592	492,941,110	3,690
Steam purchased .....		...	--	...	--
Total fuel and electricity used .....		...	7,749	...	8,320
Electricity generated:					
(a) For own use	kwh.	14,513,000	...	18,042,800	...
(b) For sale	"	--	--	--	--

TABLE 5. Materials and Supplies¹, Asbestos Mines, 1964 and 1965

Basis: Revised Standard Industrial Classification and New Establishment Concept

Description	Cost	
	1964	1965
	\$'000	
Ore or other semi-processed materials purchased and used in mine/mill operations	567	377
Containers, shipping materials and supplies used	6,182	6,979
Operating, maintenance and repair supplies used (excluding fuel)	15,821	17,321
Amount paid out to others for work done on materials owned by establishments	113	257
Totals	22,683	24,934

TABLE 6. Value of Production, Asbestos Mines, 1964 and 1965

Description	Value	
	1964	1965
	\$'000	
1. Products:		
Crude and milled asbestos fibres, gravel, stone, etc.	151,414	152,150
2. Amount received in payment for work done on materials and products owned by others	--	--
Less adjustment for value of sales taxes, excise duties and outward transportation charges which could not be deducted from individual commodity items described above	--	--
Total value of production and work done	151,414	152,150

TABLE 7. Drilling Completed on Asbestos Deposits of Producing Mines, 1964 and 1965

	Footage drilled	
	1964	1965
Diamond drilling for exploration and testing:		
By mining companies with their own personnel and equipment	—	—
By diamond drilling contractors	61,939	125,749
Other diamond drilling:		
Blast hole diamond drilling:		
By mining companies with their own personnel and equipment	—	—
By diamond drill contractors	—	—
Drilling by percussion or other machines ¹	6,498,654	6,777,153

¹ Not complete as records are unobtainable at certain mines.

TABLE 8. Specified Taxes Paid by Companies Engaged in Asbestos Mines Operations¹, 1965

Nature of taxes	Amount
	\$'000
Dominion income tax, including tax on non-operating revenue	13,731
Provincial taxes	6,591
Municipal taxes	2,149
Total taxes paid	22,471

¹ Includes related corporate activities associated with operations of Asbestos Mines.

TABLE 9. Miscellaneous Expenditures Made by Companies Engaged in Asbestos Mines Operations¹, 1965

	Amount
	\$'000
(a) Workmen's compensation	768
(b) Silicosis assessment	—
(c) Unemployment insurance	280
(d) Aggregate cost of structures, roads, machinery, equipment, etc., built by or purchased from outside contractors or suppliers and chargeable to Fixed Assets Account	12,355
(e) Book value of fixed assets (new structures, roads, machinery, equipment, etc., including major repairs and alterations) produced by own employees and chargeable to Fixed Assets Account	1,473
(f) Other capital expenditures not reported in (d) and (e) (Land, etc.)	294
(g) Cost of materials and supplies used in the construction or production of above Fixed Assets (e). Does not include the value of work done by outside contractors nor purchases of machinery and equipment	737
(h) Cost of office supplies used during the year, not chargeable to Fixed Assets Account. Excludes cost of stamps and meter expense.	218

¹ Includes related corporate activities associated with Canadian Operations of Asbestos Mines not allocable elsewhere.

TABLE 10. Production and Shipments of Asbestos by Canadian Mines, 1964 and 1965

Grade	1964			1965		
	Production	Shipments		Production	Shipments	
		Quantity	Selling value less containers ¹		Quantity	Selling value less containers ¹
	tons		\$'000	tons		\$'000
Crude - No. 1, No.2, and other	145	236	200	107	163	140
Milled - Group 3 (spinning)	30,429	37,145	12,364	26,910	26,494	10,190
Group 4 (shingle)	404,823	416,145	69,432	444,908	428,532	72,931
Group 5 (paper)	189,296	210,994	25,680	207,147	204,572	26,111
Group 6 (stucco)	232,444	241,039	17,790	211,112	213,982	15,421
Group 7 (refuse)	502,763	508,686	19,617	514,407	508,125	21,264
Group 8 (sand)	5,432	5,606	111	6,387	6,344	130
Totals, all grades	1,365,332	1,419,851	145,193	1,410,978	1,388,212	146,188
Gravel and stone (waste rock only) ²	34,264	34,264	29	42,262	42,262	36

¹ The value of containers amounted to \$5,056,871 in 1964 and \$5,489,708 in 1965.

² This production is included in the Sand and Gravel Pits report.

Note: The above and subsequent tables contain data on commodities produced by operators which are classified to other industries. As an example: asbestos is produced by a firm classified to Other Non-metal Mines.

TABLE 11. Tonnage of Asbestos Rock Mined and Milled, 1961-65

	1961	1962	1963	1964	1965
Rock mined	38,444,213	42,212,705	45,738,901	50,032,245	46,027,864
Rock milled	17,055,480	18,007,575	17,710,527	19,585,242	17,786,966

TABLE 12. Shipments of Asbestos by Canadian Mines, 1956-65

Year	Tons	Selling value less containers	Year	Tons	Selling value less containers
		\$'000			\$'000
1956	1,014,249	99,860	1961	1,173,695	128,956
1957	1,046,086	104,489	1962	1,215,814	130,282
1958	925,331	92,277	1963	1,275,530	136,956
1959	1,050,429	107,433	1964	1,419,851	145,193
1960	1,118,456	121,400	1965	1,388,212	146,188

TABLE 13. Shipments of Asbestos by Canadian Mines by Months, 1964 and 1965

Month	1964	1965	Month	1964	1965
	tons			tons	
January	77,887	58,570	August	120,797	130,784
February	70,554	72,385	September	136,064	136,352
March	82,153	84,303	October	123,760	127,192
April	121,247	114,254	November	173,342	170,663
May	124,656	113,588	December	149,180	146,680
June	121,191	121,988			
July	119,020	109,453	Totals	1,419,851	1,388,212

TABLE 14. Imports and Exports of Asbestos and Specified Asbestos Products, 1964 and 1965

Item	1964		1965	
	Tons	Value \$'000	Tons	Value \$'000
Imports				
Asbestos clutch facings for automobiles, motor vehicles and chassis .....	..	265	..	203
Asbestos brake linings for automobiles, motor vehicles and chassis .....	..	1,204	..	995
Asbestos brake linings and clutch facings, n.e.s. ....	..	407	..	545
Asbestos in any other form than crude, and all manufacture of n.o.p. ....	..	..	..	..
Asbestos packing	364	597	383	645
Asbestos cloth, dryer felts and sheets .....	..	592	..	878
Asbestos-cement shingles and siding .....	..	220	..	226
Asbestos-cement board and sheets .....	..	748	..	861
Asbestos building materials n.e.s. ....	..	686	..	715
Asbestos basic products n.e.s. ....	..	1,374	..	1,370
Asbestos, unmanufactured .....	..	1,648	..	1,286
Total accounted for .....	..	7,741	..	7,724
Exports				
Asbestos (crude)	214	184	123	116
Asbestos milled fibres—Group 3	34,407	13,861	26,181	10,397
Asbestos milled fibres—Group 4, 5	596,108	100,664	604,596	105,490
Asbestos milled fibres—Group 6, 7, 8, 9	702,747	40,997	688,504	42,655
Asbestos brake lining facings .....	...	374	...	560
Asbestos, asbestos cement building materials .....	...	1,268	...	1,088
Asbestos, asbestos cement products, n.e.s. ....	...	330	...	..
Asbestos, basic products, n.e.s. ....	..	..	..	375
Total accounted for .....	...	157,678	...	160,678

Note: Source: Trade of Canada, "Imports by Commodities", Catalogue No. 65-007, and "Exports by Commodities", Catalogue No. 65-004.

TABLE 15. World Production of Asbestos by Countries¹

Source: "Minerals Year Book" published by the United States Bureau of Mines

Country ¹	1961	1962	1963	1964	1965
	short tons				
North America:					
Canada (sales)	1,173,695	1,215,814	1,275,530	1,420,769	1,387,555
United States (sold or used)	52,814	53,190	66,396	101,092	118,275
South America:					
Argentina	—	203	365	542	550 ²
Bolivia (exports)	57	56	10	7	3
Brazil	3,400 ^{2,3}	4,900 ^{2,3}	1,440 ⁴	..	1,204 ⁴
Venezuela	650	—	—	—	—
Europe:					
Austria	564	503	638	—	—
Bulgaria	1,213	1,100 ²	1,100 ²	1,100 ²	1,100 ²
Finland ⁵	10,340	10,869	10,108	11,611	13,307 ⁵
France	30,746	28,364	26,645	24,250	7,716
Italy	62,804	60,860	63,016	75,573	79,214
Portugal	21	—	29	—	33
Spain	11	—	—	—	—
U.S.S.R. ²	880,000	1,100,000	1,200,000	1,300,000	1,300,000
Yugoslavia	6,709	7,401	9,074	9,280	10,585
Africa:					
Bechuanaland	1,924	2,375	2,368	2,161	888
Kenya	151	212	78	204	136
Mozambique	162	370	—	—	—
Rhodesia, Southern	161,610	142,196	142,255	153,450	172,400 ²
South Africa, Republic of	194,834	221,302	205,744	215,592	240,752
Swaziland	30,792	32,830	33,350	39,862	40,884
United Arab Republic (Egypt)	254	606	192	1,739	3,225
Asia:					
China ²	100,000	100,000	110,000	130,000	140,000
Cyprus	16,207	22,391	19,962	13,755	15,733
India	1,624	1,865	2,989	3,271	4,989
Japan	18,799	15,407	18,210	17,979	18,000 ²
Korea, South	341	1,333	2,120	1,402	2,000 ²
Philippines	83	1,037	421	586	600 ²
Taiwan	44	525	604	526	883
Turkey	496	709	408	1,291	1,376
Oceania:					
Australia	16,746	18,416	13,374	13,545	11,647
New Zealand	373	457	439	—	—
World totals (estimate)¹	2,770,000	3,050,000	3,210,000	3,540,000	3,570,000

¹ In addition to the countries listed, asbestos is produced in Czechoslovakia, Eritrea, Greece, North Korea and Rumania. No estimates are included as production is believed to be negligible.

² Estimate.

³ Revised data represents fibre.

⁴ Bahia only.

⁵ Includes asbestos flour.

List of Establishments classified to this Industry, 1965

(Does not include establishments classified to other industries which recovered asbestos as a secondary activity.)

Name	Head office or general office	Location
Newfoundland:		
Advocate Mines Ltd.	55 Yonge St., Toronto, Ontario	Baie Verte
Quebec:		
Asbestos Corporation Ltd.	Thetford Mines	Thetford Mines, Black Lake, Coleraine
Bell Asbestos Mines Ltd.	Thetford Mines	Thetford Township
Canadian Johns-Manville Co. Ltd.	310 Victoria St., Montreal	Asbestos
Carey Canadian Mines Ltd.	Lennoxville	East Broughton Station
Flintkote Mines Ltd.	Thetford Mines	Thetford Mines
Lake Asbestos of Quebec Ltd.	Box 88, Black Lake	Black Lake
National Asbestos Ltd.	325 Delaware Ave., Buffalo, New York, U.S.A.	Thetford
Nicolet Asbestos Mines Ltd.	2195 Crescent St., Montreal 25	Norbestos
British Columbia:		
Cassiar Asbestos Corp. Ltd.	85 Richmond St. W., Toronto, Ontario	Cassiar

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