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# ASBESTOS MINES

1963

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## EXPLANATORY NOTES

### Establishment

The reporting unit in the Census of Mines, Quarries and Oil Wells is the **establishment**. Beginning with the 1961 Census, the establishment is defined as follows:

The smallest unit which is a separate operating entity capable of reporting all the following:

- Materials and supplies used,
- Goods purchased for resale as such,
- Fuel and power consumed,
- Number of employees and their pay,
- Inventories,
- Shipments or sales.

The establishment is to be distinguished from smaller subdivisions or departments which do not have records which permit them to report all items required of an establishment. Prior to 1961, some establishments were required to submit two or more separate reports when they were engaged in operations which were classifiable to different industries. Beginning with 1961, separate reports for such operations will be required only in cases where accounting records can provide all the elements of principal statistics enumerated above. Special reporting arrangements were made with respondents when the acceptance of combined reports would

have seriously affected the statistics for particular industries or areas. Where continuity of industry statistics was affected by this change in reporting procedures, adjustments to the data were made back to 1957 in order to maintain comparability of the series for recent years.

A mining establishment is typically a mine, mine/mill, quarry, pit or bog principally engaged in mining operations. Prior to 1961, the Census of Mines, Quarries and Oil Wells attempted to cover the mining activities of all establishments, whether or not they were principally engaged in mining operations. Beginning with the 1961 Census, establishments (accounting entities) which are not primarily engaged in mining are no longer included as mining establishments in the basic industry statistics. Again adjustments to the industry statistics were made to reflect the removal of such reporting units for the period 1957-1960. These reporting units are now listed as establishments in other Bureau industry surveys, such as Wholesale Trade, Construction, etc. In order, however, to maintain complete coverage of certain commodity items produced mainly in mining establishments, many non-mining establishments are now surveyed for commodity information only and the latter are included in the appropriate tables of industry reports.

### 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.
- p preliminary figures.
- r revised figures.

# ASBESTOS MINES

1963

Canadian producers of asbestos shipped 1,275,530 short tons of crude and milled fibres valued at \$136,956,180 during 1963. In the preceding year the shipments were 1,215,814 tons valued at \$130,281,966. Excluded from the aforementioned figures were the values of containers which amounted to \$5,008,384 in 1963 and \$4,748,791 in 1962. The quantity of asbestos increased 4.1 per cent and the total value was up 1.0 per cent.

The asbestos mining industry employed 6,823 persons at the mines and mills. Salaries and wages amounted to \$35,507,888. Fuel and electricity cost \$7,638,031. Included in this figure were 540,629,093 kwh. of purchased electricity valued at \$3,573,802. Process supplies and containers cost \$16,274,404.

Asbestos has a variety of industrial uses. The longer-fibred spinning material is formed into tex-

tiles, 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 in Engineering and Mining Journal for December 1963 were: Canadian dollars per ton: crude No. 1, \$1,400-\$1,410; crude No. 2, \$750-\$760; spinning fibres, \$370-\$565; shingle fibres, \$181; paper stock, \$142; waste, \$86; shorts, \$43.

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

**TABLE 1 A. Principal Statistics for the Asbestos Mining Industry, Significant Years, 1921-59**

Basis: Standard Industrial Classification in use prior to 1960

Year	Estab- lish- ments	Em- ployees	Salaries and wages	Cost of fuel and electricity at works	Cost of process supplies and containers at works	Gross selling value of products (f.o.b. works)	Net value of production <sup>1</sup>
	number			dollars			
1921 .....	15	2,694	2,657,425	737,689	..	4,906,230	..
1929 .....	8	3,391	4,410,535	1,335,610	..	13,179,884	..
1931 .....	8	1,675	1,836,115	849,047	..	4,818,838	..
1933 .....	8	1,629	1,279,093	771,327	..	5,211,177	..
1937 .....	11	3,842	4,232,507	1,346,434	2,729,801	14,509,092	10,432,857
1939 .....	9	3,784	4,347,064	1,376,568	2,086,945	15,862,142	12,398,629
1941 .....	10	3,760	4,996,101	1,524,450	2,721,796	21,475,645	17,229,399
1944 .....	10	4,050	6,401,185	1,635,829	2,380,230	21,836,376	17,820,317
1946 .....	12	4,547	7,771,921	1,759,462	3,216,430	25,245,579	20,269,687
1949 .....	17	4,053	10,569,071	1,499,439	4,668,869	39,784,651	33,616,343
1951 .....	24	5,923	20,024,208	2,988,149	10,085,645	81,624,009	68,550,215
1954 .....	25	6,563	24,850,100	4,130,806	9,924,166	86,441,436	72,386,464
1956 .....	23	7,065	30,411,878	5,541,309	12,335,772	103,304,309	85,427,228
1957 .....	22	7,357	32,283,287	6,008,420	14,558,214	108,014,041	87,447,407
1958 .....	22	6,997	32,025,137	5,740,515	12,798,276	95,271,323	76,732,532
1959 .....	23	6,653	31,448,638	5,951,664	13,729,736	110,996,692	91,315,292

<sup>1</sup> Gross value less cost of fuel, electricity, process supplies and containers.

**TABLE 1 B. Principal Statistics, Asbestos Mines, 1959-63**

Basis: Revised Standard Industrial Classification and New Establishment Concept

Year	Estab- lish- ments	Em- ployees	Salaries and wages	Cost of fuel and electricity at works	Cost of process supplies and containers at works	Gross selling value of products (f.o.b. works)	Net value of production <sup>1</sup>
	number			dollars			
1959 .....	21	6,653	31,448,638	5,951,664	13,729,736	110,996,692	91,315,292
1960 .....	22	6,688	33,057,847	6,133,788	14,887,770	125,236,902	104,215,344
1961 .....	23	6,875	35,093,133	6,666,383	14,645,395	133,407,157	112,095,379
1962 .....	18	6,997	36,072,604	7,184,372	16,700,356	135,065,565	111,180,837
1963 .....	17	6,823	35,507,888	7,638,031	16,274,404	141,998,121	118,085,686

<sup>1</sup> Gross value less cost of fuel, electricity, process supplies and containers.



**TABLE 2. Production and Shipments of Asbestos by Canadian Mines, 1962 and 1963**

Grade	1962			1963		
	Production	Shipments		Production	Shipments	
		Quantity	Selling value less containers <sup>1</sup>		Quantity	Selling value less containers <sup>1</sup>
	tons		\$	tons		\$
Crude—No. 1, No. 2, and other .....	165	205	172,160	206	217	177,045
Milled—Group 3 (spinning) .....	30,117	30,374	12,177,014	27,848	28,987	11,491,041
Group 4 (shingle) .....	362,767	355,121	63,795,235	381,790	380,900	68,197,436
Group 5 (paper) .....	175,288	161,952	19,704,471	163,689	169,198	20,529,812
Group 6 (stucco) .....	205,785	209,572	16,886,983	236,609	234,371	18,253,938
Group 7 (refuse) .....	444,125	451,521	17,388,098	450,306	453,821	18,089,255
Group 8 (sand) .....	7,107	7,069	158,005	8,161	8,036	217,653
<b>Totals, all grades .....</b>	<b>1,225,354</b>	<b>1,215,814</b>	<b>130,281,966</b>	<b>1,268,609</b>	<b>1,275,530</b>	<b>136,956,180</b>
Gravel and stone (waste rock only) <sup>2</sup> .....	40,733	40,733	34,808	49,530	49,530	33,557

<sup>1</sup> The value of containers amounted to \$4,748,791 in 1962 and \$5,008,384 in 1963.<sup>2</sup> This production is included in the Sand and Gravel Pits report.**TABLE 3. Tonnage of Asbestos Rock Mined and Milled, 1959-63**

	1959	1960	1961	1962	1963
Rock mined .....	23,105,241	33,228,170	38,444,213	42,212,705	45,738,901
Rock milled .....	13,975,031	15,298,282	17,055,480	18,007,575	17,710,527

**TABLE 4. Shipments of Asbestos by Canadian Mines, 1954-63**

Year	Tons	Selling value at works <sup>1</sup>	Year	Tons	Selling value at works <sup>1</sup>
		\$			\$
1954 .....	924,116	86,409,212	1959 .....	1,050,429	107,433,344
1955 .....	1,063,802	96,191,317	1960 .....	1,118,456	121,400,015
1956 .....	1,014,249	99,859,969	1961 .....	1,173,695	128,955,900
1957 .....	1,046,086	104,489,431	1962 .....	1,215,814	130,281,966
1958 .....	925,331	92,276,748	1963 .....	1,275,530	136,956,180

<sup>1</sup> Value of containers excluded in 1955-63 but included in preceding years.**TABLE 5. Shipments of Asbestos by Canadian Mines by Months, 1962 and 1963**

Month	1962	1963	Month	1962	1963
	tons			tons	
January .....	73,996	64,016	August .....	117,544	129,906
February .....	67,234	64,537	September .....	106,635	110,769
March .....	75,735	74,984	October .....	116,269	125,255
April .....	102,201	110,684	November .....	148,927	148,395
May .....	117,618	116,612	December .....	84,675	105,119
June .....	108,124	112,029			
July .....	96,856	113,224	<b>Totals .....</b>	<b>1,215,814</b>	<b>1,275,530</b>

TABLE 6. Imports and Exports of Asbestos and Asbestos Products, 1962 and 1963

Item	1962		1963	
	Tons	Value	Tons	Value
		\$		\$
<b>Imports</b>				
Asbestos clutch facings for automobiles, motor vehicles and chassis	...	249,528	...	217,471
Asbestos brake linings for automobiles, motor vehicles and chassis.....	...	910,275	...	1,069,950
Asbestos brake linings and clutch facings, n.o.p.....	...	285,963	...	334,037
Asbestos in any other form than crude, and all manufacture of n.o.p.....	...	3,050,140	...	3,182,460
Asbestos packing.....	217	443,937	267	483,070
<b>Total accounted for .....</b>	...	<b>4,939,843</b>	...	<b>5,286,988</b>
<b>Exports</b>				
Asbestos (crude) .....	182	155,164	195	165,097
Asbestos milled fibres - Group 3 .....	27,824	11,614,144	28,184	11,626,444
Asbestos milled fibres - Group 4, 5 .....	504,196	87,387,534	527,235	90,081,149
Asbestos milled fibres - Group 6, 7, 8 .....	632,468	36,480,804	650,811	37,574,754
Asbestos brake lining facings .....	...	389,436	...	361,913
Asbestos, asbestos cement building materials.....	...	364,126	...	751,231
Asbestos, asbestos cement products, n.e.s. ....	...	417,190	...	374,837
Asbestos, manufactures, n.o.p. ....	—	—	—	—
<b>Total accounted for .....</b>	...	<b>136,808,398</b>	...	<b>140,935,425</b>

TABLE 7. Taxes Paid by the Asbestos Mines, 1962 and 1963

	1962	1963
	dollars	
Dominion income tax, including tax on non-operating revenue .....	10,890,077	11,511,481
Provincial taxes:		
Mining taxes paid on net profits from production, including portion paid to municipality	2,684,088	2,313,800
Taxes paid on capital and places of business .....	155,031	174,713
Acreage taxes and royalties .....	7,239	9,320
Corporation income tax .....	2,917,531	2,515,633
<b>Total provincial.....</b>	<b>5,763,889</b>	<b>5,013,466</b>
Municipal taxes:		
Based on property evaluation .....	1,703,064	2,046,000
Based on non-operating revenue .....	17,197	27,314
<b>Total municipal.....</b>	<b>1,720,261</b>	<b>2,073,314</b>
<b>Grand total taxes paid .....</b>	<b>18,374,227</b>	<b>18,598,261</b>

TABLE 8. Specified Miscellaneous Expenditures by Asbestos Mines, 1963

	1963
	\$
(a) Workmen's compensation .....	768,408
(b) Silicosis assessment .....	
(c) Unemployment insurance .....	302,339
(d) Aggregate cost of structures, roads, machinery, equipment, etc., built by or purchased from outside contractors or suppliers and chargeable to Fixed Assets Account .....	10,291,302
(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 .....	924,990
(f) Other capital expenditures not reported in (d) and (e) (Land, etc.) .....	13,450
(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 .....	495,959
(h) Cost of all other goods, materials and supplies (including office, medical, laboratory, cafeteria and store supplies) purchased and not chargeable to Fixed Assets Account .....	29,116,191

TABLE 9. Employees and their Earnings in the Asbestos Mines, 1958 - 63

Year	Employees					Man-hours worked (all employees)	Earnings		
	Office and administrative		Workmen		Total		Office and administrative	Workmen	Total
	Male	Female	Male	Female					
	number					dollars			
1958 .....	967	136	5,868	26	6,997	14,156,108	6,304,569	25,720,568	32,025,137
1959 .....	936	145	5,545	27	6,653	14,106,243	6,385,894	25,062,744	31,448,638
1960 .....	946	151	5,557	34	6,688	14,045,314	6,370,096	26,687,751	33,057,847
1961 .....	948	150	5,742	35	6,875	14,557,092	6,690,597	28,402,536	35,093,133
1962 .....	977	156	5,831	33	6,997	15,046,076	7,034,170	29,038,434	36,072,604
1963 .....	1,000	162	5,630	31	6,823	14,384,519	7,463,642	28,044,246	35,507,888

TABLE 10. Number of Workmen, by Months, 1962 and 1963 (Administrative and Office Employees not Included)

Month	1962	1963					
	Total	Mine			Mill		Total
		Surface		Under-ground	Male	Female	
		Male	Female	Male			
January .....	5,688	2,418	17	458	2,645	13	5,551
February .....	5,779	2,399	16	449	2,633	12	5,509
March .....	5,796	2,394	18	450	2,635	13	5,510
April .....	5,807	2,383	18	433	2,635	13	5,482
May .....	5,914	2,451	18	442	2,683	13	5,607
June .....	6,110	2,521	20	435	2,796	12	5,784
July .....	6,136	2,487	18	430	2,836	16	5,787
August .....	6,108	2,407	18	379	2,838	14	5,656
September .....	5,874	2,530	19	426	2,826	13	5,814
October .....	5,861	2,511	17	421	2,802	13	5,764
November .....	5,756	2,503	18	432	2,780	13	5,746
December .....	5,640	2,493	18	426	2,776	13	5,725
Averages .....	5,864	2,458	18	431	2,741	13	5,651
Man-hours worked .....	12,889,176						12,201,040



TABLE 11. Fuel and Electricity Used in the Asbestos Mines, 1963

Kind	Quantity	Cost at plant
		\$
Bituminous coal (a) From Canadian mines ..... short ton	4,136	58,652
(b) Imported .....	—	—
Sub-bituminous coal (from Alberta mines only) .....	—	—
Anthracite coal ..... short ton	130	2,200
Lignite coal .....	—	—
Coke (for fuel only) .....	—	—
Gasoline, (includes gasoline used in cars and trucks) ..... Imp. gal.	524,214	190,254
Kerosene or coal oil ..... "	2,980	743
Fuel oil ..... "	23,091,869	3,563,066
Wood (cords of 128 cubic feet of piled wood) ..... cord	4,219	62,264
Gas (a) Liquefied petroleum gases (propane, etc.) ..... Imp. gal.	38,805	20,428
(b) Other manufactured gas .....	—	—
(c) Natural gas ..... M cu. ft.	311,660	166,100
Other fuel .....	—	522
Electricity purchased for power and lighting ..... kwh.	540,629,073	3,573,802
Electricity purchased for other purposes .....	—	—
<b>Total (cost only) .....</b>	<b>...</b>	<b>7,638,031</b>
Electricity generated (a) For own use ..... kwh.	14,363,375	...
(b) For sale .....	—	—

TABLE 12. Drilling Completed on Asbestos Deposits, 1961 - 63

	Footage drilled		
	1961	1962	1963
Diamond drilling for exploration and testing:			
By mining companies with their own personnel and equipment.....	28,018	—	—
By diamond drilling contractors .....	230,357	178,945	70,206
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 <sup>1</sup> .....	5,433,667	6,462,201	8,163,948

<sup>1</sup> Not complete as records are unobtainable at certain mines.

TABLE 13. World Production of Asbestos by Countries<sup>1,2</sup>

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

Country <sup>1</sup>	1959	1960	1961	1962	1963
	short tons <sup>2</sup>				
North America:					
Canada (sales) .....	1,050,429	1,118,456	1,173,695	1,215,814	1,272,024
United States (sold or used) .....	45,459	45,223	52,814	53,190	66,606
<b>Totals</b> .....	<b>1,095,888</b>	<b>1,163,679</b>	<b>1,226,509</b>	<b>1,269,004</b>	<b>1,338,630</b>
South America:					
Argentina .....	320	—	—	—	—
Bolivia (exports) .....	168	66	57	56	10
Brazil .....	3,700	3,900 <sup>3,4</sup>	3,400 <sup>3,4</sup>	4,900 <sup>3,4</sup>	1,440 <sup>5</sup>
Venezuela .....	5,095	4,333	650	—	—
<b>Totals<sup>5</sup></b> .....	<b>9,283</b>	<b>8,209</b>	<b>4,100<sup>3</sup></b>	<b>5,000<sup>3</sup></b>	<b>1,450</b>
Europe:					
Austria .....	—	215	564	503	638
Bulgaria .....	1,100	1,200	1,200	1,100 <sup>3</sup>	1,100 <sup>3</sup>
Finland <sup>6</sup> .....	9,579	10,534	10,339	10,869	10,201
France .....	23,360	28,662	30,746	28,000	26,455
Italy .....	52,538	60,532	62,816	61,233	63,418
Portugal .....	40	144	21	—	—
Spain .....	19	4	11	—	—
U.S.S.R. <sup>3</sup> .....	600,000	660,000	880,000	1,100,100	1,200,000
Yugoslavia .....	4,748	5,970	6,709	7,401	9,074
<b>Totals<sup>3</sup></b> .....	<b>690,000</b>	<b>770,000</b>	<b>990,000</b>	<b>1,210,000</b>	<b>1,310,000</b>
Asia:					
China <sup>3</sup> .....	90,000	90,000	100,000	100,000	110,000
Cyprus .....	14,424	23,316	16,207	22,391	220,000 <sup>3</sup>
India .....	1,464	1,886	1,618	1,705	2,989
Japan .....	13,633	17,042	18,799	15,407	18,210
Korea, Republic of .....	88	740	341	1,333	2,037
Philippines .....	56	36	83	1,037	1,100 <sup>3</sup>
Taiwan (Formosa) .....	150	485	44	525	604
Turkey .....	411	238	496	709	408
<b>Totals<sup>3</sup></b> .....	<b>120,000</b>	<b>135,000</b>	<b>138,000</b>	<b>143,000</b>	<b>157,000</b>
Africa:					
Bechuanaland .....	1,410	1,282	1,924	2,375	2,368
Kenya .....	43	117	151	212	78
Morocco: Southern zone .....	—	—	—	—	—
Mozambique .....	37	22	162	370	370 <sup>3</sup>
Rhodesia and Nyasaland, Federation of:					
Southern Rhodesia .....	119,699	133,963	161,610	142,196	142,254
South Africa, Republic of .....	182,405	175,867	194,834	221,302	205,744
Swaziland .....	24,806	32,027	30,792	32,830	33,350
United Arab Republic (Egypt) .....	502	496	254	606	192
<b>Totals</b> .....	<b>328,902</b>	<b>343,774</b>	<b>389,726</b>	<b>399,890</b>	<b>384,356</b>
Oceania:					
Australia .....	17,875	15,613	16,746	18,392	15,000 <sup>3</sup>
New Zealand .....	640	319	373	457	439
<b>Totals</b> .....	<b>18,515</b>	<b>15,932</b>	<b>17,119</b>	<b>18,849</b>	<b>15,440<sup>3</sup></b>
<b>World totals (estimate)<sup>1,2</sup></b> .....	<b>2,260,000</b>	<b>2,440,000</b>	<b>2,770,000</b>	<b>3,055,000</b>	<b>3,200,000</b>

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

<sup>2</sup> This table incorporates some revisions. Data do not add to totals shown because of rounding where estimated figures are included in the detail.

<sup>3</sup> Estimate.

<sup>4</sup> Revised data represents fiber.

<sup>5</sup> Bahia only.

<sup>6</sup> 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. Revised January, 1961.

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  $\frac{1}{2}$  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	10.5	3.9	1.3	0.3
	3K	7	7	1.5	0.5
	3R	4	7	4	1
	3T	2	8	4	2
	3Z	1	9	4	2
Group No. 4 .....	4A	0	8	6	2
	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
	5F	0	0	13	3
	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
	7W	0	0	0	16
Group No. 8 .....	8S	Under 50 pounds per cubic foot loose measure.			
	8T	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.



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## Operators of Asbestos Deposits, 1963

Name	Head office or general office	Location
<b>Newfoundland:</b>		
Advocate Mines Ltd. <sup>3</sup> .....	55 Yonge St., Toronto, Ontario .....	Baie verte
<b>Quebec:</b>		
Asbestos Corporation Ltd. <sup>3</sup> .....	Thetford Mines .....	Thetford Mines, Black Lake, Coleraine
Bell Asbestos Mines Ltd. <sup>3</sup> .....	Thetford Mines .....	Thetford Township
Canadian Johns-Manville Co. Ltd. <sup>3</sup> .....	310 Victoria St., Montreal .....	Asbestos
Canadian Refractories Ltd. ....	540 Canada Cement Bldg., Montreal ....	Kilmar
Carey Canadian Mines Ltd. <sup>3</sup> .....	Lennoxville .....	East Broughton Station
Chibougamau Asbestos Ltd. <sup>2</sup> .....	132 St. James St. W., Montreal .....	Roy Twp.
Flintkote Mines Ltd. <sup>3</sup> .....	Thetford Mines .....	Thetford Mines
Golden Age Mines Ltd. <sup>3</sup> .....	250 University Ave., Toronto 1, Ontario .....	Beauceville — Est
Johnson's Asbestos Company <sup>3</sup> .....	Thetford Mines .....	Coleraine
Johnson's Company Ltd. <sup>3</sup> .....	Thetford Mines .....	Thetford Mines
Lake Asbestos of Quebec Ltd. <sup>3</sup> .....	Box 88, Black Lake .....	Black Lake
Montreal Titanium Corp. <sup>2</sup> .....	C.P. 117, Coleraine .....	Coleraine
McAdam Mining Corp. Ltd. <sup>3</sup> .....	25 Adelaide St. E., Toronto, Ontario ....	McCorkill Twp.
National Asbestos Ltd. <sup>3</sup> .....	325 Delaware Ave., Buffalo, New York, U.S.A. ....	Thetford
Nicolet Asbestos Mines Ltd. <sup>3</sup> .....	2195 Crescent St., Montreal 25 .....	Norbestos
North American Asbestos Co. Ltd. <sup>2</sup> .....	350 Est. Blvd. Charest, Quebec .....	St. Joseph de Beauce
<b>Ontario:</b>		
Canadian Johns-Manville Co. Ltd. <sup>3</sup> .....	Matheson .....	Munro Township
Hedman Mines Ltd. <sup>3</sup> .....	Box 467, Timmins .....	Warden and Munro Townships
Lightval Mines Ltd. <sup>2</sup> .....	357 Bay St., Toronto .....	Harker Twp.
Young Davidson Mines Ltd. <sup>1,3</sup> .....	702-220 Bay St., Toronto .....	McColl Twp.
<b>British Columbia:</b>		
Asbestos Corporation (Explorations) Ltd. <sup>2</sup> .....	Thetford Mines, Quebec .....	Ainsworth, Slocan
Canadian Johns-Manville Co. Ltd. <sup>1,3</sup> .....	Asbestos, Quebec .....	Sproat Mountain
Cassiar Asbestos Corp. Ltd. <sup>3</sup> .....	85 Richmond St. W., Toronto, Ontario .....	Cassiar
<b>Yukon:</b>		
Cassiar Asbestos Corp. Ltd. <sup>2</sup> .....	85 Richmond St. W., Toronto .....	Clinton Creek

<sup>1</sup> Exploration or development work only.<sup>2</sup> Holds dormant property.<sup>3</sup> Firms which constitute the Asbestos Mines Industry, for statistical purposes.