

Stone

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The volume of all types of stone shipped in Canada in 2000 was approximately 112 Mt based on preliminary figures. This amount is about 3% higher than in 1999. The reported value of total shipments in 2000 was about \$822 million; this is 6% higher than the previous year. Shipments served a very wide range of uses related to dimension stone, chemical and metallurgical grades of stone, pulverized stone and crushed stone, as shown in Table 2, which follows the trade data summarized in Table 1.

Shipments of crushed stone (mainly chemical-grade limestone) for producing cement, as well as lime, are essentially accounted for in separate chapters entitled *Cement* and *Lime*. Additional detailed information on regular aggregates, including crushed stone and sand and gravel, as well as on lightweight aggregates, is included in a separate chapter entitled *Mineral Aggregates*. The lightweight aggregates included are: expanded shales/clays, perlite, vermiculite, pumice, and expanded ferrous slags or granules.

Dimension or ornamental stone relates to a variety of rock types that can be cut, shaped or simply selected for a broad range of construction/engineering, architectural or monumental requirements. The types of stone available are dependent on local geology, but mainly include granite, limestone, marble, sandstone and slate, as summarized in Tables 3 to 8 inclusive. The term "granite," as commercially applied, includes true granite, granodiorite, gneiss, and other medium- to coarse-grained igneous rocks. However, "black granite" includes anorthosite and other dark-coloured igneous rocks. Limestone and marble are often confused, marble being the metamorphosed equivalent of the former and usually including both dolomitic and calcitic varieties. As an industrial term, "marble" refers to recrystallized calcareous rock capable of taking a polish.

Detailed information on the Canadian stone industry can be found at provincial government web sites relating to natural resources (accessible through Natural Resources Canada's Internet site at <http://www.nrcan.gc.ca/mms/prov2-e.htm>). Also, the commercial names relating to many rough and finished stone products are found at the Canadian Stone Association's (CSA) web site at www.stone.ca. The names of suppliers of relevant goods and services are also listed at this site.

Recent major developments in the dimension stone industry in Canada include: 1) the acquisition of Stony Creek Granite Co., of Branford, Connecticut, by Granicor inc., of St. Augustine, Quebec; 2) the start of construction of a \$20 million granite-processing plant in Argentia, Newfoundland; 3) the re-opening of the Hardy Island granite quarry, situated about 20 km southeast of Powell River, British Columbia; and 4) the installation of a second gangsaw by West Coast Granite Manufacturing Inc. of Delta, British Columbia. This operation accounts for the only granite slabbing operation on North America's west coast.

In 2000, the value of exports of rough granite increased to \$19.4 million (Table 1), an increase of nearly 18% compared to 1999. Also, exports of value-added worked granite for building and monumental needs, mainly to the United States, increased to about \$65 million, representing a 14% increase compared to 1999. Plant modernizations by several stone producers across Canada have increased the availability of high-quality finished products at competitive prices. The value of output of all worked construction- and monument-related granite (f.o.b. manufacturing plant) serving both domestic and international markets is expected to be maintained at about \$125 million annually.

It is expected that growth in the use of dimension stone in Canada will continue in 2000/01, based mainly on the positive outlook for all construction, including new expenditures for office buildings in some cities. However, exports of rough granite and worked granite, as well as other stone products, are expected to be weaker based on a slowdown in demand in some U.S. markets. Slate is becoming more important in world markets for its natural unpolished appearance, its non-slippery and

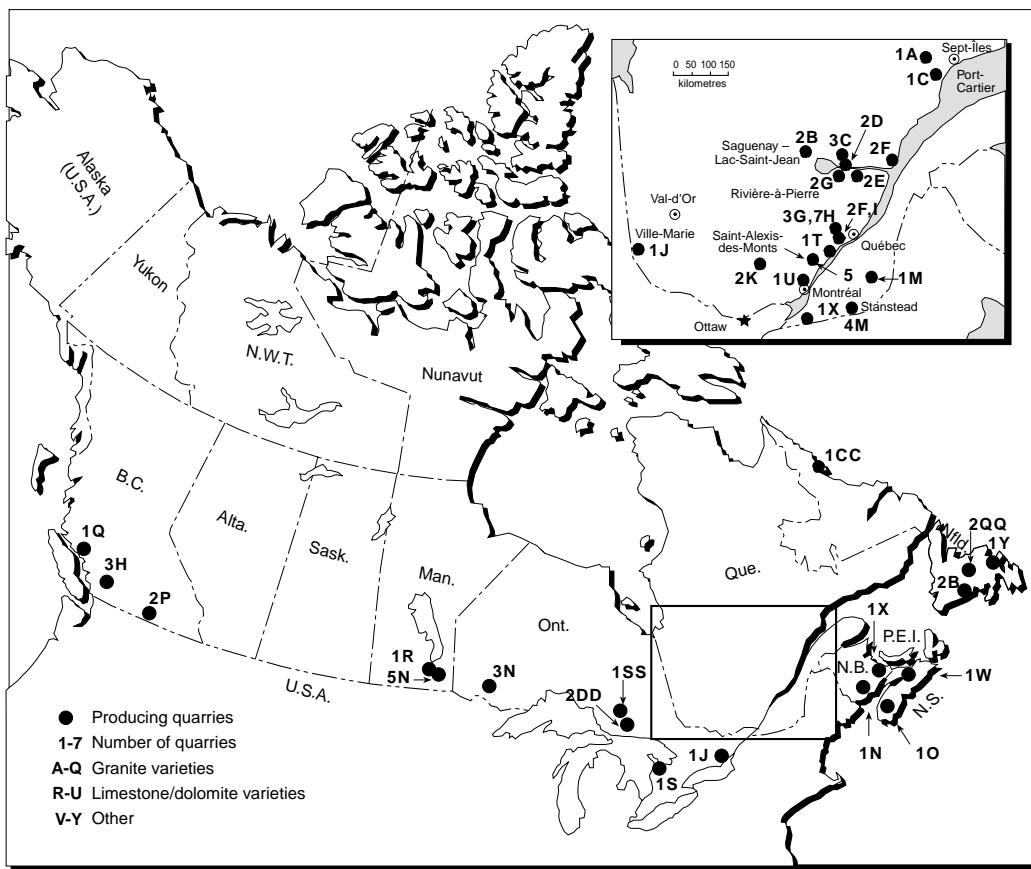
multi-coloured durable surfaces, and its relatively low price.

Notes: (1) For definitions and valuation of mineral production, shipments and trade, please refer to Chapter 65. (2) Information in this review was current as of February 1, 2001. (3) This and other reviews, including previous editions, are available on the Internet at http://www.nrcan.gc.ca/mms/cmty/index_e.html.

NOTE TO READERS

The intent of this document is to provide general information and to elicit discussion. It is not intended as a reference, guide or suggestion to be used in trading, investment, or other commercial activities. The author and Natural Resources Canada make no warranty of any kind with respect to the content and accept no liability, either incidental, consequential, financial or otherwise, arising from the use of this document.

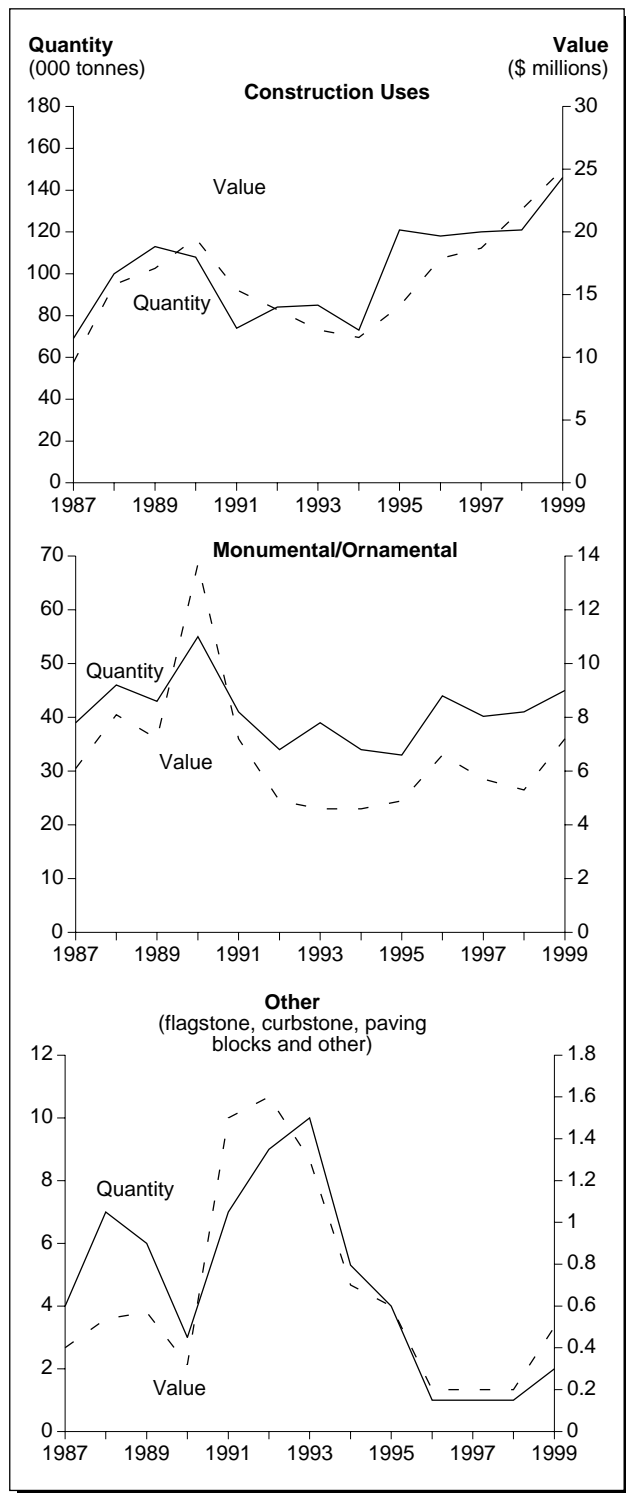
Figure 1
Canada, Architectural and Monumental/Ornamental Stone-Producing
Centres, 1999



- | | |
|--|---|
| A Fine-grained pinkish-grey banded gneiss | Q Medium-grained blue-grey granite |
| B Medium-grained pink granite | QQ Medium-grained gabbro |
| C Coarse-grained black anorthosite | R Light-coloured mottled dolomitic limestone (Tyndall) |
| CC Medium-grained "Reflect blue" anorthosite | S Fine-medium crystalline blue-grey to buff marble/dolostone (Arriscraft) |
| D Medium-grained black gabbroic anorthosite | SS Fine-grained, multicoloured pre-Cambrian marble |
| DD Blue-grey, and black and white anorthosite | T Medium-grained light brownish-grey limestone (Deschambault) |
| E Medium-grained pinkish-grey quartz monzonite | U Medium-grained blue-grey limestone (Chazy) |
| F Fine-grained pink granitic gneiss | V Medium-grained olive sandstone |
| G Coarse-grained green charnockite | W Fine-medium-grained olive-brown and blue-grey sandstone |
| H Coarse-grained pink-grey or brown-grey granite | X Fine-medium-grained white to buff sandstone (Potsdam) |
| I Medium-grained grey dioritic gneiss | Y Very fine-grained varicoloured slate |
| J Medium-grained red granite | |
| K Fine-grained pink aplite | |
| L Coarse-grained brown or red quartz monzonite | |
| M Medium-grained grey granite | |
| N Medium-grained pink, brown or gold granites | |
| O Fine-grained blue-grey granite | |
| P Coarse coral pink granite | |

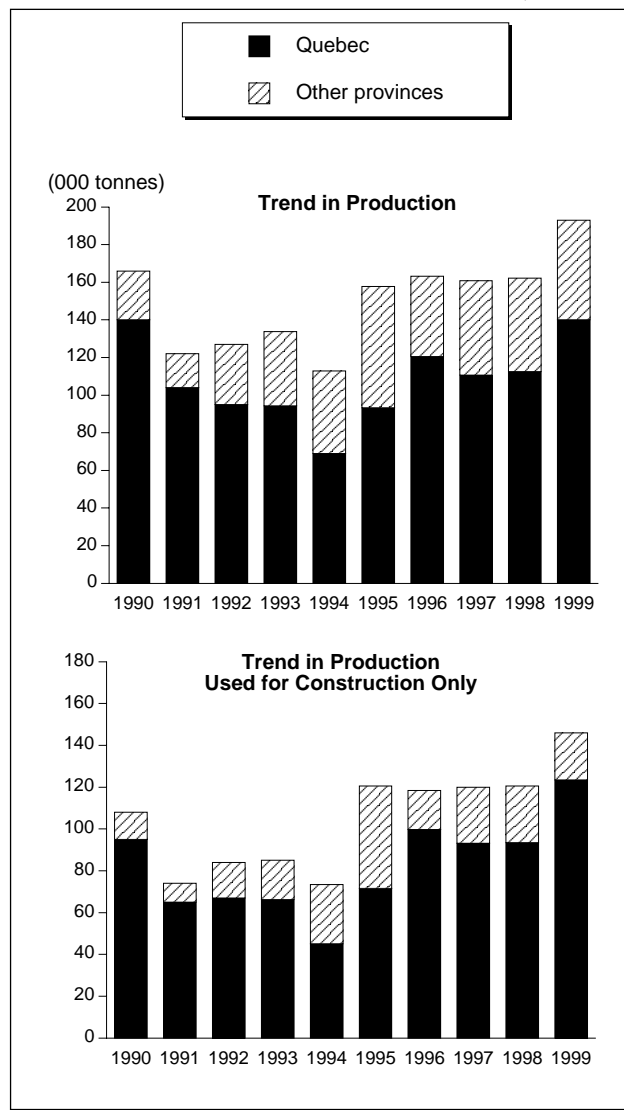
Source: Mainly provincial departments of Mines and Energy.

Figure 2
Canada, Production of Rough Granite
(Sold and Used by Producers), 1987-99



Sources: Natural Resources Canada; Statistics Canada.

Figure 3
Canada, Trends in Production of Rough
Dimensional Granite for Construction,
Monumental/Ornamental and Other Uses, 1990-99



Sources: Natural Resources Canada; Quebec Ministry of Natural Resources.

TARIFFS

Item No.	Description	Canada			United States
		MFN	GPT	USA	Canada
2514.00	Slate, whether or not roughly trimmed or merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape				
2514.00.10	Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape	3.5%	Free	Free	Free
2514.00.90	Other	Free	Free	Free	Free
25.15	Marble, travertine, ecaussine and other calcareous monumental or building stone of an apparent specific gravity of 2.5 or more, and alabaster, whether or not roughly trimmed or merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape				
2515.11.00	Marble and travertine: Crude or roughly trimmed	Free	Free	Free	Free
2515.12.00	Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape	Free	Free	Free	Free
2515.20	Ecaussine and other calcareous monumental or building stone; alabaster				
2515.20.10	Crude or roughly trimmed	Free	Free	Free	Free
2515.20.20	Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape	3.5%	Free	Free	Free
25.16	Granite, porphyry, basalt, sandstone and other monumental or building stone, whether or not roughly trimmed or merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape				
2516.11.00	Granite: Crude or roughly trimmed	Free	Free	Free	Free
2516.12	Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape	Free-3.5%	Free	Free	Free
2516.21.00	Sandstone: Crude or roughly trimmed	Free	Free	Free	Free
2516.22.00	Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape	3.5%	Free	Free	Free
2516.90	Other monumental or building stone				
2516.90.10	Crude or roughly trimmed	Free	Free	Free	Free
2516.90.20	Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape	3.5%	Free	Free	Free
25.17	Pebbles, gravel, broken or crushed stone, of a kind commonly used for concrete aggregates, for road metalling or for railway or other ballast, shingle and flint, whether or not heat-treated; macadam of slag, dross or similar industrial waste, whether or not incorporating the materials cited in the first part of the heading; tarred macadam, granules, chippings and powder, of stones of heading nos. 25.15 or 25.16, whether or not heat-treated				
2517.10.00	Pebbles, gravel, broken or crushed stone, of a kind commonly used for concrete aggregates for road metalling or for railway or other ballast, shingle and flint, whether or not heat-treated	Free	Free	Free	Free
2517.20.00	Macadam of slag, dross or similar industrial waste, whether or not incorporating the materials cited in subheading no. 2517.10	Free	Free	Free	Free

TARIFFS (cont'd)

Item No.	Description	Canada			United States
		MFN	GPT	USA	Canada
2517.30.00	Tarred macadam Granules, chippings and powder, of stones of heading nos. 25.15 or 25.16, whether or not heat-treated:	6.5%	Free	Free	Free
2517.41.00	Of marble	Free	Free	Free	Free
2517.49	Other	Free	Free	Free	Free
2517.49.10	Limestone roofing granules	Free	Free	Free	Free
2517.49.90	Other	Free	Free	Free	Free
6801.00	Setts, curbstones and flagstones of natural stone (except slate)	3.5%	Free	Free	Free
68.02	Worked monumental or building stone (except slate) and articles thereof, other than goods of heading no. 68.01; mosaic cubes and the like, of natural stone (including slate), whether or not on a backing; artificially coloured granules, chippings and powder, of natural stone (including slate)				
6802.10	Tiles, cubes and similar articles, whether or not rectangular (including square), the largest surface area of which is capable of being enclosed in a square that is less than 7 cm; artificially coloured granules, chippings and powder				
6802.10.10	Roofing granules, artificially coloured	Free	Free	Free	Free
6802.10.90	Other	8%	5%	Free	Free
	Other monumental or building stone and articles thereof, simply cut or sawn, with a flat or even surface:				
6802.21.00	Marble, travertine and alabaster	3.5%	Free	Free	Free
6802.22.00	Other calcareous stone	5%	Free	Free	Free
6802.23.00	Granite	3.5%	Free	Free	Free
6802.29.00	Other stone	5%	Free	Free	Free
	Other:				
6802.91.00	Marble, travertine and alabaster	6%	Free	Free	Free
6802.92.00	Other calcareous stone	6.5%	3%	Free	Free
6802.93.00	Granite	6.5%	6.5%	Free	Free
6802.99.00	Other stone	6.5%	6.5%	Free	Free
6803.00	Worked slate and articles of slate or of agglomerated slate				
6803.00.10	Roofing slate; slate for use in the manufacture of billard tables	Free	Free	Free	Free
6803.00.90	Other	6.5%	6.5%	Free	Free
68.04	Millstones, grindstones, grinding wheels and the like, without frameworks, for grinding, sharpening, polishing, trueing or cutting, hand sharpening or polishing stones, and parts thereof, of natural stone, of agglomerated natural or artificial abrasives, or of ceramics, with or without parts of other materials				
6804.10.00	Millstones and grindstones for milling, grinding or pulping	6.5%	Free	Free	Free
6804.23.00	Of natural stone	6.5%	Free	Free	Free

Sources: *Customs Tariff*, effective January 2001, Canada Customs and Revenue Agency; *Harmonized Tariff Schedule of the United States*, 2001.

TABLE 1. CANADA, STONE EXPORTS AND IMPORTS, 1998-2000

Item No.		1998		1999		2000P	
		(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
EXPORTS							
2514.00	Slate, whether or not roughly trimmed or merely cut, etc.	173	209	84	129	271	137
2515.11	Marble and travertine, crude or roughly trimmed	474	377	60	43	4	4
2515.12	Marble and travertine, merely cut, by sawing or otherwise, into blocks, etc.	1 798	884	403	193	633	440
		(cubic metres)		(cubic metres)		(cubic metres)	
2516.11	Granite, crude or roughly trimmed	23 755	12 910	25 763	14 056	28 260	13 163
		(tonnes)		(tonnes)		(tonnes)	
2516.12	Granite, merely cut, by sawing or otherwise, into blocks, etc.	5 798	2 100	4 126	2 431	19 379	6 248
		(cubic metres)		(cubic metres)		(cubic metres)	
2516.21	Sandstone, crude or roughly trimmed	4	20	30	4	15	13
		(tonnes)		(tonnes)		(tonnes)	
2516.22	Sandstone, merely cut, by sawing or otherwise, into blocks, etc.	208	214	96	56	118	56
2516.90	Monumental or building stone, n.e.s.	8 349	2 140	4 467	1 091	3 151	806
2517.10	Pebbles, gravel, broken or crushed stone used for aggregates, etc.	3 202 248	29 467	3 358 128	35 245	3 776 891	35 212
2517.41	Marble granules, chipping and powder of 25.15 or 25.16, heat-treated or not	244 573	27 275	267 194	37 958	347 873	56 015
2517.49	Granules, chippings and powder, n.e.s. of 25.15 or 25.16, heat-treated or not	1 732	206	41 155	1 139	100 853	6 103
6801.00	Setts, curbstones and flagstones of natural stone (except slate)	..	686	..	1 467	..	1 631
6802.10	Tiles, etc., rectangular or square not more than 7 cm, etc., artificially coloured granules, chippings and powder	..	3 667	..	5 541	..	35 739
6802.21	Monumental or building stone, cut or sawn, flat or even, marble, travertine and alabaster	..	413	..	171	..	39
6802.22	Monumental or building stone, cut or sawn, flat or even, other calcareous stone	..	191	..	102	..	73
6802.23	Monumental or building stone, cut or sawn, flat or even, granite	..	3 446	..	3 099	..	1 903
6802.29	Monumental or building stone, cut or sawn, flat or even, n.e.s.	..	1 204	..	2 089	..	901
6802.91	Worked monumental or building stone, n.e.s., marble, travertine or alabaster	..	1 437	..	2 330	..	1 403
6802.92	Worked monumental or building stone, n.e.s., calcareous stone, n.e.s.	..	2 078	..	1 649	..	4 196
6802.93.10	Worked building stone of granite	..	16 257	..	21 338	..	26 407
6802.93.90	Worked monumental or building stone, n.e.s., granite	..	33 167	..	35 672	..	38 690
6802.99	Worked monumental or building stone, n.e.s.	..	25 241	..	33 542	..	31 566
6803.00	Worked slate and articles of slate or agglomerated slate	..	4 720	..	7 840	..	11 148
6804.10	Millstones and grindstones for milling, grinding or pulping	..	5 027	..	4 927	..	4 292
6804.23	Millstones, grindstones, etc., of natural stone	..	2 159	..	1 104	..	538

TABLE 1 (cont'd)

Item No.		1998		1999		2000P	
		(tonnes)	(\$000)	(tonnes)	(\$000)	(tonnes)	(\$000)
IMPORTS							
2514.00	Slate, whether or not roughly trimmed or merely cut, etc.	3 075 ^r	1 317	2 731	1 279	4 298	2 080
2515.11	Marble and travertine, crude or roughly trimmed	1 461	760	1 760	851	1 627	810
2515.12	Marble and travertine, merely cut, by sawing or otherwise, into blocks, etc.	1 420	1 346	1 293	866	1 432	978
2516.11	Granite, crude or roughly trimmed	70 554	20 080	64 938	20 044	62 018	18 336
2516.12	Granite, merely cut, by sawing or otherwise, into blocks, etc.	4 630 ^r	2 924	3 833	3 106	3 961	3 468
2516.21	Sandstone, crude or roughly trimmed	3 484	442	7 184	803	6 002	625
2516.22	Sandstone, merely cut, by sawing or otherwise, into blocks, etc.	5 397	1 633	5 306	1 671	5 268	1 749
2516.90	Monumental or building stone, n.e.s.	5 923 ^r	1 832	5 440	1 555	9 889	3 108
2517.10	Pebbles, gravel, broken or crushed stone used for aggregates, etc.	3 209 004	18 909	3 188 098	17 887	3 125 368	17 315
2517.41	Marble granules, chipping and powder of 25.15 or 25.16, heat-treated or not	104 178	17 170	88 644	15 250	59 153	10 424
2517.49	Granules, chippings and powder, n.e.s. of 25.15 or 25.16, heat-treated or not	40 583	1 744	26 569	1 399	29 944	1 724
6801.00	Setts, curbstones and flagstones of natural stone (except slate)	..	631	..	392	..	436
6802.10	Tiles, etc., rectangular or square not more than 7 cm, etc., artificially coloured granules, chippings and powder	..	587	..	642	..	795
6802.21	Monumental or building stone, cut or sawn, flat or even, marble, travertine and alabaster	..	10 597 ^r	..	10 737	..	11 248
6802.22	Monumental or building stone, cut or sawn, flat or even, other calcareous stone	..	216	..	349	..	252
6802.23.00.10	Granite, cut or sawn flat or even, building stone	2 901	4 102	4 713	5 903	5 550	6 692
6802.23.00.20	Granite, cut or sawn flat or even, monumental	652	577	481	405	629	769
6802.23.00.90	Granite, cut or sawn flat or even, granite other	6 275 ^r	9 737	7 759	12 140	10 256	14 317
6802.29	Monumental or building stone, cut or sawn, flat or even, n.e.s.	..	786	..	2 094	..	2 381
6802.91	Worked monumental or building stone, n.e.s., marble, travertine or alabaster	..	18 201 ^r	..	19 945	..	20 367
6802.92	Worked monumental or building stone, n.e.s., calcareous stone, n.e.s.	..	1 606	..	1 493	..	2 530
6802.93.00.10	Worked building stone of granite	1 876	3 458	1 878	3 257	1 357	2 028
6802.93.00.20	Worked monumental stone of granite, monuments, bases and markets finished	1 925	2 725	2 014	2 769	2 269	3 601
6802.93.00.90	Worked monumental or building stone, n.e.s., granite	4 283	7 742	5 055	7 098	5 510	8 501
6802.99	Worked monumental or building stone, n.e.s.	..	2 404	..	2 755	..	3 223
6803.00	Worked slate and articles of slate or agglomerated slate	..	7 783	..	6 278	..	8 000
6804.10	Millstones and grindstones for milling, grinding or pulping	..	2 197	..	2 068	..	2 492
6804.23	Millstones, grindstones, etc., of natural stone	..	978	..	1 041	..	842

Source: Statistics Canada.

.. Not available or not applicable; n.e.s. Not elsewhere specified; P Preliminary; r Revised.

TABLE 2. CANADA, TOTAL PRODUCTION OF STONE, 1998-2000

	1998		1999		2000P	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
BY PROVINCE/TERRITORY¹						
Newfoundland	2 606	19 837	3 091	20 206	4 938	29 095
Nova Scotia	7 628	45 348	7 881	48 064	7 951	46 328
New Brunswick	3 500	20 796	4 388	23 141	3 436	19 212
Quebec	32 220	215 171	30 269	218 744	29 375	215 234
Ontario	50 689	344 707	51 258	385 675	55 204	434 935
Manitoba	4 992	24 971	4 314	20 089	4 357	20 342
Alberta	633	5 362	465	4 623	431	4 752
British Columbia	6 321	46 995	7 440	54 505	6 473	49 180
Northwest Territories	336	4 760	78	452	184	2 848
Total	108 924	727 947	109 184	775 499	112 348	821 926
BY USE²						
I. Stone (Dimension)						
Dimension stone						
Rough	302	34 100	315	41 031	..	..
Monumental and ornamental stone (n.f.)	68	5 691	88	7 939	..	..
Other (flagstone, curbstone, paving blocks, etc.)	66	8 668	104	13 550	..	..
Total dimension stone	436	48 459	507	62 520	..	..
II. Stone (Crushed)						
Crushed stone for						
Concrete aggregate	17 537	99 721	20 718	122 299	..	..
Asphalt aggregate	10 398	63 791	11 097	69 608	..	..
Road metal	31 135	165 001	30 663	165 040	..	..
Railroad ballast (includes traprock)	2 187	16 668	1 830	15 437	..	..
Other uses	35 318	181 157	34 873	181 907	..	..
Chemical and metallurgical						
Cement plants, Canada	14 334	46 555	14 082	50 085	..	..
Cement plants, foreign	1 632	7 973	525	1 919	..	..
Flux in iron and steel furnaces	3 406	21 830	1 295	10 476	..	..
Flux in nonferrous smelters	129	900	101	818	..	..
Glass factories	203	3 635	163	2 739	..	..
Lime plants, Canada	3 353	18 558	5 261	19 877	..	..
Lime plants, foreign	216	1 843	1 229	6 269	..	..
Pulp and paper mills	89	1 046	96	1 120	..	..
Sugar refineries	—	—	—	—	..	..
Other chemical uses	1 748	11 787	1 550	9 360	..	..
Miscellaneous stone						
Manufacture of artificial stone	10	395	3	120	..	..
Roofing granules	580	25 388	751	27 309	..	..
Poultry grit	188	2 080	176	1 775	..	..
Stucco dash	25	3 598	25	2 682	..	..
Terrazzo chips	4	153	7	303	..	..
Rock wool	14	214	26	424	..	..
Rubble and riprap	1 415	8 147	942	4 415	..	..
Other uses	944	8 350	1 090	8 506	..	..
Pulverized stone						
Whiting	48	3 631	274	9 956	..	..
Asphalt filler	175	261	178	247	..	..
Dusting coal mines	3	219	2	145	..	..
Agricultural purposes and fertilizer plants	1 169	17 914	1 049	15 377	..	..
Other uses	806	37 892	897	58 632	..	..
Total crushed stone	127 066	748 708	128 903	786 848	..	..
Total all stone	127 502	797 167	129 410	849 368	..	..

Source: Natural Resources Canada.

— Nil; . . Not available; n.f. Not finished or dressed; P Preliminary.

¹ Data exclude stone used in the Canadian cement, lime and clay industries. ² Data include stone used in the Canadian cement, lime and clay industries.

Note: Numbers may not add to totals due to rounding.

TABLE 3. CANADA, PRODUCTION OF LIMESTONE, 1998-2000

	1998		1999		2000P	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
BY PROVINCE/TERRITORY¹						
Newfoundland	1 710	12 784	1 965	12 318	3 104	18 656
Nova Scotia	211	3 789	172	x	165	x
New Brunswick	544	7 637	601	x	519	x
Quebec	22 101	122 287	21 262	121 681	21 754	128 498
Ontario	47 285	267 250	48 164	287 460	51 884	315 679
Manitoba	4 083	16 675	3 823	15 614	3 911	16 401
Alberta	586	4 102	449	2 739	415	2 452
British Columbia	2 506	22 371	2 691	27 233	3 158	28 631
Northwest Territories	32	56	39	x	51	x
Total	79 058	456 951	79 165	475 758	84 960	518 430
BY USE²						
I. Stone (Dimension)						
Dimension stone						
Rough	107	4 403	84	6 852	..	..
Monumental and ornamental stone (n.f.)	23	388	34	512	..	..
Other (flagstone, curbstone, paving blocks, etc.)	49	4 779	67	4 708	..	..
Total dimension stone	179	9 570	185	12 072	..	..
II. Stone (Crushed)						
Crushed stone for						
Concrete aggregate	13 916	77 246	16 313	97 286	..	..
Asphalt aggregate	5 825	33 294	6 268	38 211	..	..
Road metal	23 135	123 931	23 980	129 970	..	..
Railroad ballast (includes traprock)	247	1 219	136	969	..	..
Other uses	26 234	129 064	25 338	130 307	..	..
Chemical and metallurgical						
Cement plants, Canada	14 054	45 546	13 336	47 054	..	..
Cement plants, foreign	1 632	7 973	467	1 655	..	..
Flux in iron and steel furnaces	3 406	21 830	1 295	10 476	..	..
Flux in nonferrous smelters	129	900	101	818	..	..
Glass factories	158	2 435	137	1 971	..	..
Lime plants, Canada	3 353	18 558	5 261	19 877	..	..
Lime plants, foreign	216	1 843	1 229	6 269	..	..
Pulp and paper mills	89	1 046	96	1 120	..	..
Sugar refineries	-	-	-	-	..	..
Other chemical uses	857	7 680	522	4 573	..	..
Miscellaneous stone						
Manufacture of artificial stone	-	-	-	-	..	..
Roofing granules	129	974	130	764	..	..
Poultry grit	187	1 974	175	1 679	..	..
Stucco dash	24	3 540	24	2 604	..	..
Rock wool	3	28	3	19	..	..
Rubble and riprap	718	2 638	533	2 184	..	..
Other uses	701	6 834	805	6 610	..	..
Pulverized stone						
Whiting	48	3 631	271	9 878	..	..
Asphalt filler	46	155	50	185	..	..
Dusting, coal mines	3	219	2	145	..	..
Agricultural purposes and fertilizer plants	1 049	15 963	972	13 162	..	..
Other uses	126	2 966	133	2 829	..	..
Total crushed stone	96 287	511 486	97 577	530 617	..	..
Total all stone	96 466	521 056	97 762	542 689	..	..

Source: Natural Resources Canada.

- Nil; . . Not available; . . . Amount too small to be expressed; n.f. Not finished or dressed; p Preliminary; x Confidential.

¹ Data exclude stone used in the Canadian cement and lime industries. ² Data include stone used in the Canadian cement and lime industries.

Note: Numbers may not add to totals due to rounding.

TABLE 4. CANADA, PRODUCTION OF MARBLE,¹ 1998-2000

	1998		1999		2000P	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
BY PROVINCE						
Quebec	620	14 814	605	x	540	x
Ontario	548	28 890	683	x	769	x
British Columbia	-	-	-	-	...	x
Total	1 168	43 704	1 288	66 358	1 309	76 072
BY USE						
I. Stone (Dimension)						
Dimension stone						
Rough	13	699	15	543	..	..
Monumental and ornamental stone (n.f.)	-	-	-	-	..	..
Other (flagstone, curbstone, paving, blocks, etc.)	1	188	13	1 740	..	..
Total dimension stone	14	887	28	2 283	..	..
II. Stone (Crushed)						
Crushed stone for						
Concrete aggregate	166	1 752	164	1 826	..	..
Asphalt aggregate	17	112	23	137	..	..
Road metal	38	403	34	162	..	..
Other uses	220	2 017	141	1 391	..	..
Chemical process stone						
Glass factories	45	1 200	27	768	..	..
Miscellaneous stone						
Manufacture of artificial stone	3	74	2	60	..	..
Roofing granules	16	435	28	756	..	..
Poultry grit	...	3	...	3	..	..
Stucco dash	1	16	1	23	..	..
Terrazzo chips	4	153	7	303	..	..
Rock wool	1	12	-	-	..	..
Rubble and riprap	-	-	-	-	..	..
Other uses	11	703	11	717	..	..
Pulverized stone						
Agricultural purposes and fertilizer plants	121	1 950	77	2 215	..	..
Other uses	512	33 989	746	55 715	..	..
Total crushed stone	1 154	42 817	1 260	64 075	..	..
Total all stone	1 168	43 704	1 288	66 358	..	..

Source: Natural Resources Canada.

- Nil; .. Not available; n.f. Not finished or dressed; P Preliminary; x Confidential.

¹ Marble refers to a commercial definition that may also include limestone, travertine and greenstone (serpentinite or amphibole).

Note: Numbers may not add to totals due to rounding.

TABLE 5. CANADA, PRODUCTION OF GRANITE, 1998-2000

	1998		1999		2000P	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
BY PROVINCE/TERRITORY						
Newfoundland	226	4 001	326	4 516	816	6 118
Nova Scotia	6 153	34 947	6 506	38 796	5 899	35 660
New Brunswick	2 825	12 390	3 450	15 655	2 710	12 440
Quebec	6 885	57 931	5 560	55 314	5 368	52 434
Ontario	2 845	46 990	2 389	x	2 521	x
Manitoba	746	8 196	344	x	292	x
British Columbia	3 780	24 114	4 673	x	3 245	x
Northwest Territories	99	648	29	x	83	x
Total	23 558	189 216	23 276	191 334	20 934	186 500
BY USE						
I. Stone (Dimension)						
Dimension stone						
Rough	121	21 820	146	24 977	..	..
Monumental and ornamental stone (n.f.)	41	5 263	45	7 232	..	..
Other (flagstone, curbstone, paving blocks, etc.)	1	181	2	595	..	..
Total dimension stone	163	27 264	193	32 804	..	..
II. Stone (Crushed)						
Crushed stone for						
Concrete aggregate	3 130	19 110	3 813	21 159	..	..
Asphalt aggregate	4 086	27 439	4 334	27 670	..	..
Road metal	6 102	32 139	4 594	25 717	..	..
Railroad ballast (includes traprock)	1 940	15 449	1 553	13 883	..	..
Other uses	6 828	37 205	7 586	40 932	..	..
Miscellaneous stone						
Manufacture of artificial stone	4	247	1	60	..	..
Roofing granules	436	23 980	594	25 789	..	..
Poultry grit	1	104	1	93	..	..
Stucco dash	...	42	...	56	..	..
Rock wool	10	174	23	404	..	..
Rubble and riprap	648	5 402	299	1 798	..	..
Other uses	65	472	139	817	..	..
Pulverized stone						
Asphalt filler	128	106	128	62	..	..
Other uses	17	85	18	89	..	..
Total crushed stone	9 409	161 952	23 083	158 530	..	..
Total all stone	23 558	189 216	23 276	191 334	..	..

Source: Natural Resources Canada.

– Nil; .. Not available; ... Amount too small to be expressed; n.f. Not finished or dressed; P Preliminary; x Confidential.

Notes: Numbers may not add to totals due to rounding. Data include shipments by producers regardless of industrial classification. Granite includes all igneous rock.

TABLE 6. CANADA, PRODUCTION OF SANDSTONE, 1998-2000

	1998		1999		2000P	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
BY PROVINCE¹						
Newfoundland	562	1 864	794	3 349	1 010	4 284
Nova Scotia	1 239	6 500	1 179	6 338	1 865	8 148
New Brunswick	...	46	...	x	1	x
Quebec	1 862	12 934	2 171	15 606	1 489	12 921
Ontario	10	1 577	14	2 287	21	2 340
Manitoba	1	1	1	x	...	x
Total	3 673	22 923	4 160	27 591	4 386	27 924
BY USE²						
I. Stone (Dimension)						
Dimension stone						
Rough	50	5 081	47	5 880	..	..
Monumental and ornamental stone (n.f.)	4	40	8	196	..	..
Other (flagstone, curbstone, paving blocks, etc.)	9	415	10	695	..	..
Total dimension stone	63	5 536	65	6 771	..	..
II. Stone (Crushed)						
Crushed stone for						
Concrete aggregate	325	1 614	428	2 028	..	..
Asphalt aggregate	376	2 302	471	3 590	..	..
Road metal	1 218	5 366	1 441	6 614	..	..
Railroad ballast (includes traprock)	-	-	141	585	..	..
Other uses	1 464	6 999	1 298	6 414	..	..
Chemical process stone						
Cement plants, Canada	47	314	217	1 251	..	..
Other chemical uses	-	-	145	880	..	..
Miscellaneous stone						
Manufacture of artificial stone	3	74	-	-	..	..
Rubble and riprap	44	94	110	432	..	..
Other uses	30	85	58	200	..	..
Pulverized stone						
Whiting	-	-	3	78	..	..
Other uses	150	852	-	-	..	..
Total crushed stone	3 657	17 700	4 312	22 071	..	..
Total all stone	3 720	23 236	4 377	28 842	..	..

Source: Natural Resources Canada.

- Nil; .. Not available; ... Amount too small to be expressed; n.f. Not finished or dressed; P Preliminary; x Confidential.

¹ Data exclude stone used in the Canadian cement industry. ² Data include stone used in the Canadian cement industry.

Note: Numbers may not add to totals due to rounding.

TABLE 7. CANADA, PRODUCTION OF SHALE,¹ 1998-2000

	1998		1999		2000P	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
BY PROVINCE/TERRITORY²						
Newfoundland	109	1 188	6	24	8	38
Nova Scotia	25	112	24	x	23	x
New Brunswick	131	723	336	x	206	x
Quebec	753	7 205	671	x	224	x
Ontario	—	—	7	896	9	835
Manitoba	163	99	147	99	154	99
Alberta	47	1 260	16	x	16	x
British Columbia	34	510	76	464	70	441
Northwest Territories	205	4 056	10	x	49	x
Total	1 467	15 153	1 294	14 457	759	12 999
BY USE³						
I. Stone (Dimension)						
Dimension stone						
Rough	11	2 098	23	2 780	..	..
Other (flagstone, curbstone, paving blocks, etc.)	7	3 107	11	5 812	..	..
Total dimension stone	18	5 205	34	8 592	..	..
II. Stone (Crushed)						
Crushed stone for						
Concrete aggregate	—	—	—	—	..	..
Asphalt aggregate	94	645	—	—	..	..
Road metal	642	3 162	614	2 577	..	..
Other uses	571	5 872	510	2 863	..	..
Chemical and metallurgical						
Cement plants, Canada	233	695	529	1 781	..	..
Cement plants, foreign	—	—	59	264	..	..
Other chemical uses	890	4 107	883	3 907	..	..
Miscellaneous stone						
Rubble and riprap	5	13	—	—	..	..
Other uses	137	256	77	162	..	..
Total crushed stone	2 572	14 749	2 673	11 552	..	..
Total all stone	2 590	19 954	2 707	20 144	..	..

Source: Natural Resources Canada.

— Nil; . . Not available; P Preliminary; x Confidential.

¹ May include slate. ² Data exclude stone used in the Canadian cement and clay industries. ³ Data include stone used in the Canadian cement and clay industries.

Note: Numbers may not add to totals due to rounding.

TABLE 8. CANADA, PRODUCTION OF STONE BY TYPES,¹ 1985, 1990 AND 1998-2000

	1985		1990		1998		1999		2000P	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
Granite	17 219	95 424	19 524	147 048	23 558	189 216	23 276	191 334	20 934	186 500
Limestone	77 874	317 862	86 519	470 649	79 058	456 951	79 165	475 758	84 960	518 430
Marble	571	13 966	771	19 555	1 168	43 704	1 288	66 358	1 309	76 072
Sandstone	3 011	15 310	2 975	20 534	3 673	22 923	4 160	27 591	4 386	27 924
Shale ²	1 561	3 059	1 566	5 169	1 467	15 153	1 294	14 457	759	12 999
Total	100 236	445 622	111 355	663 254	108 924	727 947	109 184	775 499	112 348	821 926

Source: Natural Resources Canada.

P Preliminary.

¹ Data exclude stone used in the Canadian cement, lime and clay industries. ² May include slate.

Note: Numbers may not add to totals due to rounding.

TABLE 9. CANADA, ROUGH GRANITE, SUMMARY OF PRODUCTION AND TRADE, 1980 AND 1985-2000

	Quantity Value	Production ¹	Imports ²	Exports ²
1980	t	81 000	24 130	5 019 ^a
	\$ millions	5.6	1.9	0.7
1985	t	104 000	34 468	12 511 ^a
	\$ millions	12.8	6.2	1.7
1986	t	121 000	33 994	18 450 ^a
	\$ millions	15.7	6.6	2.7
1987	t	112 000	46 370	37 450 ^a
	\$ millions	16.1	7.9	6.0
1988	t	153 000	46 282	86 940
	\$ millions	24.4	11.2	16.2 ^r
1989	t	162 000	52 337	107 105
	\$ millions	24.8	11.7	17.3
1990	t	166 000	46 149	79 640 ^r
	\$ millions	33.6	11.2	19.8 ^r
1991	t	122 000	35 038	91 630 ^r
	\$ millions	24.0	8.5	22.6
1992	t	127 000	44 951	94 530 ^r
	\$ millions	20.3	10.5	21.4
1993	t	134 000	41 484	88 830 ^r
	\$ millions	18.1	10.8	20.3
1994	t	112 000	35 619	95 000 ^r
	\$ millions	16.9	10.1	20.0
1995	t	158 000	41 099	94 200 ^r
	\$ millions	19.6	11.4	17.9
1996	t	163 000	53 543	97 700 ^r
	\$ millions	24.6	15.4	20.9
1997	t	161 000	54 639	80 194 ^r
	\$ millions	24.5	16.0	16.4
1998	t	163 000	75 186	69 937
	\$ millions	27.3	23.0	15.1
1999	t	193 000	68 770	73 685
	\$ millions	32.8	23.2	16.5
2000	t	215 000 ^e	65 979	95 680
	\$ millions	35.0	21.8	19.4

Sources: Natural Resources Canada; Statistics Canada.

^e Estimated; ^r Assumes a factor of 2.7 for converting cubic metres to tonnes.

^a Coded as building stone, rough (90% is considered to be granite).

¹ Includes rough stone for construction, monumental/ornamental and other uses.

² Includes codes 2516.11 (roughly trimmed block) and 2516.12 (cut block by sawing or otherwise). Some re-exports to the United States may also be involved.