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# THE FELDSPAR AND QUARTZ MINING INDUSTRY

1952

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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¢
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- S — The Sand and Gravel Industry, 25¢
- T — The Stone Industry, 25¢
- U — Contract Drilling in the Mining Industry, 25¢

"A"  
(For Printer's Use Only)

# THE FELDSPAR AND QUARTZ MINING INDUSTRY

## 1952

Owing to the very close physical association of feldspar and quartz in many Canadian deposits (pegmatites), it is difficult for some operators to make a separation of all data pertaining to the mining of each individual mineral; for this reason, the general statistics relating to employment, fuel and electricity, etc., have been combined in this report. Since 1936 corresponding statistics relating to the production of nepheline syenite have been included with those pertaining to the commercial production of feldspar and quartz.

Production during 1952, as measured by the sales of feldspar, nepheline syenite and quartz, but

excluding containers, was valued at \$3,696,085 compared with \$3,909,967 in the preceding year.

Feldspar production came entirely from Ontario and Quebec; nepheline syenite came from Ontario only; and quartz (silica) in various forms was produced in Nova Scotia, Quebec, Ontario, Saskatchewan, Alberta and British Columbia.

The industry employed 426 persons and distributed \$1,251,943 in salaries and wages. Fuel cost \$175,750 and 8,212,616 k.w.h. of electricity was purchased for \$90,767; process supplies, containers and freight amounted to \$261,514.

**TABLE 1. Principal Statistics of the Feldspar and Quartz Mining Industry, by Provinces, 1951 and 1952**

	Quebec		Other provinces <sup>1</sup>		Canada	
	1951	1952	1951	1952	1951	1952
Number of active firms <sup>2</sup> .....	20	21	13	13	33	34
Number of shipping mines .....	17	21	13	13	30	34
Number of employees:						
Administration .....	12	11	38	38	50	49
Workmen .....	189	149	293	228	482	377
Total .....	<b>201</b>	<b>160</b>	<b>331</b>	<b>266</b>	<b>532</b>	<b>426</b>
Earnings:						
Administration .....	\$ 32,229	\$ 35,203	\$ 150,046	\$ 166,574	\$ 182,275	\$ 201,777
Workmen .....	\$ 429,823	\$ 359,725	\$ 790,196	\$ 690,441	\$ 1,220,019	\$ 1,050,166
Total .....	<b>\$ 462,052</b>	<b>\$ 394,928</b>	<b>\$ 940,242</b>	<b>\$ 857,015</b>	<b>\$ 1,402,294</b>	<b>\$ 1,251,943</b>
Gross value of shipments, f.o.b. shipping points .....	\$ 1,061,889	\$ 884,991	\$ 2,864,634	\$ 2,819,434	\$ 3,926,523	\$ 3,704,425
Cost of fuel and purchased electricity .....	\$ 86,008	\$ 73,028	\$ 177,578	\$ 193,489	\$ 263,586	\$ 266,517
Cost of process supplies, freight and containers .....	\$ 242,126	\$ 192,988	\$ 235,859	\$ 200,839	\$ 477,985	\$ 393,827
Net value of production .....	\$ 733,755	\$ 618,975	\$ 2,451,197	\$ 2,425,106	\$ 3,184,952	\$ 3,044,081

1. Includes data relating to nepheline syenite. Includes plants in Ontario, Saskatchewan, Alberta and British Columbia.

2. Small shippers whose production is recorded from consumers' returns are sometimes not included in the total.

TABLE 2. Principal Statistics of the Feldspar and Quartz Mining Industry<sup>1</sup>, 1943-1952

Year	Number of shipping mines	Number of employees	Salaries and wages	Cost of purchased fuel and electricity at works	Cost of process supplies at works	Gross value of shipments, f.o.b. works
			\$	\$	\$	\$
1943.....	34	535	768,199	134,247	322,605	2,138,229
1944.....	41	529	772,385	166,501	241,400	2,104,030
1945.....	27	483	767,517	180,799	220,873	2,093,880
1946.....	30	517	876,034	161,208	180,207	2,168,673
1947.....	31	593	1,134,107	221,166	376,570	2,641,857
1948.....	34	562	1,184,257	214,580	340,733	3,265,065
1949.....	27	442	946,268	146,379	216,206	2,742,703
1950.....	33	476	1,056,129	179,445	173,123	3,021,555
1951.....	30	532	1,402,294	263,586	318,493	3,926,523
1952.....	34	426	1,251,943	266,517	253,174	3,704,425

1. Includes nepheline syenite.

TABLE 3. Number of Workmen, by Months, 1952

Month	1951		1952			
	Total	Surface		Underground	Mill	Total
		Male	Female	Male	Male	
January.....	406	183	—	25	96	304
February.....	401	190	—	25	94	309
March.....	423	173	—	26	95	294
April.....	464	205	—	42	105	352
May.....	511	250	—	45	121	416
June.....	521	248	—	44	125	417
July.....	524	258	—	46	118	422
August.....	542	254	—	49	116	419
September.....	549	249	—	50	110	409
October.....	530	246	—	45	102	393
November.....	465	239	—	36	106	381
December.....	443	226	—	35	101	362
Average.....	482	231	—	38	108	377

### FELDSPAR

Feldspar, crude and ground, produced in 1952 amounted to 20,267 tons valued at \$330,635 compared with 40,749 tons valued at \$551,097 in 1951. The output in Quebec declined from 28,000 tons to 16,645 tons, and in Ontario the shipments decreased from 12,749 tons in 1951 to 3,622 in 1952.

The greater part of the production of feldspar is used in the pottery, glass, enamelware and other ceramic trades, and the remainder mainly in scouring soaps and cleansers, and for bonding of fired abrasive wheels and other shapes. Some coarsely crushed spar, usually made from impure waste or

quarry fines, is sold for stucco dash, artificial stone, chicken grit, etc. Small tonnages of specially selected crude (dental spar) are used in the manufacture of artificial teeth, and such material commands a large premium.

Most of the feldspar used is of the high-potash type, though some high-soda spar is used for blending purposes and in low-fired enamels and glazes. Practically all colours are equally acceptable for ceramic uses, but for cleanser purposes the pale shades of white to buff are demanded.

TABLE 4. Production of Feldspar, Crude and Ground, by Provinces, 1943-1952

	Quebec		Ontario		Canada	
	Tons	\$	Tons	\$	Tons	\$
1943.....	17,199	176,222	6,659	61,549	23,858	237,771
1944.....	17,842	177,271	5,667	50,361	23,509	227,632
1945.....	26,389	247,242	3,857	35,414	30,246	282,656
1946.....	29,758	330,981	5,485	53,696	35,243	384,677
1947.....	29,146	320,964	6,958	60,396	36,104	381,360
1948.....	42,800	464,926	12,051	99,511	54,851	564,437
1949.....	31,848	384,892	5,100	43,610	36,948	428,502
1950.....	29,788	378,782	5,760	49,619	35,548	428,401
1951.....	28,000	425,370	12,749	125,727	40,749	551,097
1952.....	16,645	293,007	3,622	37,628	20,267	330,635

TABLE 5. Consumption of Ground Feldspar, 1948-1952

	1948	1949	1950	1951	1952
Tons					
(a) By uses					
Glass.....	2,744	2,902	4,286	3,484	4,042
Scouring powders, cleansers .....	3,817	3,164	2,831	1,701	1,807
Abrasives .....	42	15	9	32	61
Clay products (pottery, tile, insulators, etc.) .....	8,443	7,111	6,911	6,786	5,616
Enamelling .....	1,815	1,966	1,849	1,317	1,096
<b>Total.....</b>	<b>16,861</b>	<b>15,158</b>	<b>15,886</b>	<b>13,320</b>	<b>12,622</b>
(b) By provinces					
Nova Scotia .....	—	—	—	6	6
Quebec .....	6,846	7,227	8,921	7,135	6,776
Ontario .....	8,853	7,503	5,868	5,771	5,405
Alberta .....	1,162	428	1,097	408	404
British Columbia .....	—	—	—	—	31
<b>Canada.....</b>	<b>16,861</b>	<b>15,158</b>	<b>15,886</b>	<b>13,320</b>	<b>12,622</b>

TABLE 6. Imports and Exports of Feldspar, 1950-1952

	1950		1951		1952	
	Tons	\$	Tons	\$	Tons	\$
Imports:						
Crude feldspar.....	2	59	6	621	72	1,904
Ground feldspar.....	142	3,643	188	4,294	83	1,865
Exports:						
Feldspar.....	15,465	112,757	19,832	173,821	6,360	54,899

**TABLE 7. World Production of Feldspar, by Countries<sup>1</sup>, 1948-1952**  
 (Taken from the Minerals Yearbook published by the United States Bureau of Mines)

Country <sup>1</sup>	1948	1949	1950	1951	1952
Metric tons <sup>2</sup>					
North America:					
Canada (sales) .....	49,760	33,518	32,248	36,967	19,740
United States (sold or used).....	468,107	375,307	414,472	406,866	427,585
South America:					
Brazil .....	189	11,111	12,000	3	3
Chile.....	885	125	871	1,200	3
Peru .....	210	300	—	131	—
Uruguay .....	4,877	811	710	675	898
Europe:					
Austria .....	1,106	1,912	3,802	3,751	2,578
Finland.....	6,064	10,074	8,000	8,198	9,790
France .....	55,343	47,514	42,000	66,000	65,000
Germany, West.....	32,921	48,262	76,712	71,531	119,291
Italy .....	15,309	13,522	18,071	29,144	25,476
Norway.....	33,117	27,482	23,695	31,118	23,000 <sup>4</sup>
Portugal.....	1,560	1,240	—	470	3
Spain (quarry) <sup>5</sup> .....	6,600	396	1,650	1,760	3
Sweden.....	38,687	38,959	36,031	41,072	3
Asia:					
India.....	1,003	863	1,800	3,195	3
Japan <sup>6</sup> .....	25,077	20,055	13,187	26,528	24,194
Africa:					
Eritrea .....	300	200	—	—	—
Kenya.....	10	20	—	—	—
Southern Rhodesia .....	—	—	3,520	1,148	—
Union of South Africa.....	2,574	3,549	6,001	3,343	7,479
Australia <sup>7</sup> .....	9,767	10,902	13,276	14,473	13,903
<b>Total (estimate)<sup>1</sup></b> .....	<b>770,000</b>	<b>660,000</b>	<b>720,000</b>	<b>770,000</b>	<b>815,600</b>

1. In addition to countries listed, feldspar is produced in Argentina, China, Czechoslovakia, Rumania, and U.S.S.R., but data are not available; estimates are included in the total except for China and U.S.S.R.

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

3. Data not available; included in total.

4. Estimate.

5. In addition, the following quantities of feldspar are reported as ground, but there is no crude production data to support this ground figure: 1948: 7,967 tons; 1949: data not available; 1950: 8,254 tons; 1951: 11,043 tons; 1952: 10,359 tons.

6. In addition, the following quantities of aplite and other feldspathic rock were produced: 1948: 35,480 tons; 1949: 50,943 tons; 1950: 45,679 tons; 1951: 59,919 tons; 1952: data not available.

7. Includes some china stone.

#### NEPHELINE SYENITE

During 1952 the shipments of nepheline syenite were valued at \$1,111,950 compared with \$1,114,943 in 1951. Exports of crude and milled nepheline syenite were 56,323 tons valued at \$802,376 compared with 59,777 tons worth \$857,236 in the preceding year. In Canada the sole producer is the American Nepheline Corporation Limited with mine and mill near Lakefield, Ontario.

Nepheline syenite is a quartz-free rock consisting essentially of nephelite and albite and of microline feldspar. It usually contains small amounts of iron-bearing impurities, chiefly magnetite, hematite and biotite mica, as well as such minor

accessory minerals as sodalite, cancrinite, corundum, zircon, muscovite, mica, calcite, etc. In the developed Canadian deposits, iron-bearing impurities are of coarse sizes and can be readily removed from the crude rock by magnetic means. Other objectionable minerals, notably corundum and muscovite, can be extracted by flotation methods with the recovery of commercial grades of such products. Nepheline syenite is relatively high in alumina (24 per cent in average Canadian commercial rock) compared with straight feldspar (17 to 20 per cent) and for this reason it is used as a feldspar substitute in a number of ceramic industries, more especially in the glass trade.

TABLE 8. Production of Nepheline Syenite, 1943-1952

Year	Quantity	Selling value f.o.b. shipping point	Year	Quantity	Selling value f.o.b. shipping point
	Tons	\$		Tons	\$
1943 .....	49,901	292,010	1948 .....	74,386	506,462
1944 .....	47,625	217,989	1949 .....	78,783	623,002
1945 .....	61,345	275,766	1950 .....	65,638	842,886
1946 .....	61,261	229,198	1951 .....	81,108	1,114,943
1947 .....	66,995	341,635	1952 .....	82,681	1,111,950

TABLE 9. Consumption of Ground Nepheline Syenite, 1948-1952

—		1948	1949	1950	1951	1952					
		Tons									
(a) By uses											
Glass and glass wool.....		10,916	12,589	12,523	13,849	11,042					
Pottery .....		518	1,081	1,289	1,767	1,125					
<b>Total</b> .....		<b>11,434</b>	<b>13,670</b>	<b>13,812</b>	<b>15,616</b>	<b>12,167</b>					
(b) By provinces											
Quebec .....		2,031	1,925	2,137	2,918	3,031					
Ontario .....		7,734	10,150	9,914	10,889	7,132					
Other .....		1,669	1,595	1,761	1,809	2,004					
<b>Total</b> .....		<b>11,434</b>	<b>13,670</b>	<b>13,812</b>	<b>15,616</b>	<b>12,167</b>					

## QUARTZ (SILICA)

Production of quartz or siliceous material during 1952 totalled 1,783,081 tons valued at \$2,253,500 compared with 1,904,885 tons worth \$2,258,468 in 1951. Output included crude and crushed quartz, quartzite and sandstone as well as natural silica sands and gravels.

In Nova Scotia shipments of silica were made to steel plants chiefly for use in making silica brick; the quantity and value of this material are not shown in this review but are included in the

silica-brick industry. In Quebec substantial tonnages of silica rock were crushed and screened for use in the manufacture of ferrosilicon or further milled to produce sand for silicon carbide. In Ontario most of the shipments were for use in making silica brick, silicon carbide and ferrosilicon, and for the fluxing of nickel-copper ores. In Saskatchewan the output consisted of low-grade natural silica sands or gravels for use as flux at the Flin Flon smelter of the Hudson Bay Mining and Smelting Co., Ltd.

TABLE 10. Production of Quartz (Silica), 1943-1952

Year	Tons	\$	Year	Tons	\$
1943.....	1,776,749	1,608,448	1948 .....	2,017,262	2,082,573
1944.....	1,740,262	1,658,409	1949 .....	1,722,476	1,588,531
1945.....	1,513,628	1,535,458	1950 .....	1,730,695	1,740,268
1946.....	1,413,378	1,554,798	1951 .....	1,904,885	2,258,468
1947.....	1,836,428	1,796,612	1952 .....	1,783,081	2,253,500

TABLE 11. Production of Quartz, by Provinces, 1951 and 1952

	1951		1952	
	Tons	\$	Tons	\$
Production (Shipments) <sup>1</sup> :				
Quebec .....	220,698	579,633	189,856	583,644
Ontario .....	1,545,137	1,497,811	1,429,807	1,506,532
Saskatchewan and Alberta .....	120,769	67,631	143,537	57,553
British Columbia .....	18,281	113,393	19,881	105,771
Canada .....	1,904,885	2,258,468	1,783,081	2,253,500

1. Includes both crude and crushed quartz, crushed sandstone and quartzite, and natural silica sands.

TABLE 12. Production<sup>1</sup> of Natural Low-Grade Silica Sand and Silica Gravel as Non-ferrous Smelter Flux, 1950-1952

	1950		1951		1952	
	Tons	\$	Tons	\$	Tons	\$
Ontario .....	704,717	110,252	683,954	131,379	611,850	119,063
Saskatchewan .....	141,265	88,997	120,769	67,631	143,164	50,107
Canada .....	845,982	199,249	804,723	199,010	755,014	169,170

1. Included in totals shown in Tables 10 and 11.

TABLE 13. Imports and Exports of Silica, 1951 and 1952

	1951		1952	
	Tons	\$	Tons	\$
Imports:				
Ground flint stone .....	1,231	36,705	481	15,653
Ganister .....	144	2,091	261	3,512
Silica sand for manufacturing .....	692,937	1,991,033	642,880	1,772,177
Silex or crystallized quartz .....	30,398	2,869,578	26,174	1,980,064
Silica fire brick .....	—	2,054,816	—	2,098,036
Exports:				
Quartzite .....	281,379	838,227	193,955	642,351

TABLE 14. Available Statistics on the Consumption of Silica Sand and Ground Quartz,  
1949-1952

	1949	1950	1951	1952
Tons of 2,000 pounds				
By industries				
Paints, pigments and varnishes .....	1,668	1,630	1,882	1,492
Soaps and cleaning compounds.....	6,304	5,988	7,464	8,146
Clay products .....	7,630	7,505	7,911	6,916
Asbestos products .....	2,974	5,164	7,345	6,770
Miscellaneous non-metallic minerals.....	1,908	1,031	786	156
Roofing paper .....	3,020	3,221	3,372	2,835
Glass .....	156,914	181,976	192,238	196,939
Artificial abrasives .....	82,820	72,336	114,616	99,349
Iron castings .....	4,433	4,328	4,363	5,875
Cooking and heating apparatus.....	1,697	1,332	710	1,050
Boilers, tanks and plate work.....	170	222	113	1,020 <sup>1</sup>
Farm implements.....	1,065	818	396	405
Railway rolling stock .....	2,970	4,546	6,012	5,010
Primary iron and steel .....	98,477	67,358	93,000	135,439
Heavy chemicals.....	18,128	19,889	24,796	16,565
Miscellaneous chemicals .....	556	1,008	580	751
Stone products.....	314	908	1,147	1,055
Machinery.....	1,679	2,794	3,957	5,682
Electrical apparatus.....	485	681	10	—
Cement manufacturing .....	48,124	52,509	60,015	57,906
Cement products .....	939	805	—	—
Miscellaneous iron and steel .....	—	44	450	1,230
Ferro-alloys .....	—	—	3,828	4,934
Brass and copper products .....	—	—	3,538	4,031
<b>Total</b> .....	<b>442,275</b>	<b>436,093</b>	<b>538,530</b>	<b>563,556</b>
By provinces				
Nova Scotia .....	2,312	2,210	2,691	2,712
New Brunswick .....	494	112	67	126
Quebec .....	185,752	200,204	260,506	310,397
Ontario .....	199,466	174,419	217,310	198,088
Manitoba.....	26,203	29,037	27,089	19,642
Saskatchewan .....	4	4	6	7
Alberta .....	22,942	25,114	24,362	27,340
British Columbia.....	5,102	4,993	6,499	5,244
<b>Canada</b> .....	<b>442,275</b>	<b>436,093</b>	<b>538,530</b>	<b>563,556</b>

1. Includes other foundry sands.



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## List of Firms in the Feldspar and Quartz Mining Industry, 1952

Name of firm	Head office address	Location of mine or mill
<b>Nova Scotia:</b>		
Dominion Steel & Coal Corp. Ltd. <sup>1</sup> Nairn, J. <sup>1</sup>	Sydney..... 24 Whitney Ave., Sydney .....	Chegoggan Point Leitches Creek
<b>Quebec:</b>		
Assad, Adélard <sup>2</sup> Bigelow, Gordon <sup>2</sup> Bigelow, Robt. <sup>2</sup> Bigelow & McDowell .....	Box 322, Buckingham .....	Buckingham
Bon Ami Ltd. <sup>2,3</sup> Brouillet Sand & Gravel Co. Ltd. <sup>1</sup> Buckhill Minerals Ltd. <sup>1,2</sup> Buckingham Cartage Reg'd <sup>1,2</sup> Boivin, B.A. <sup>1</sup> Burke Bros <sup>2</sup> Canadian Carborundum Co. Ltd. <sup>1,3</sup> Canadian Flint & Spar Co. Ltd. <sup>1,2,3</sup> Clement, Hormidas <sup>2,1</sup> Couture and Hill <sup>1,2</sup> Dominion Silica Corp. Ltd. Goyer, E., & Son <sup>1</sup> H.C.F. Sands Ltd. <sup>1</sup> Grenier & Fortin <sup>2</sup> Lachaine, Régis <sup>2</sup> Mullen, A.W.H. <sup>2</sup> Patcher, Earl <sup>1,2</sup> McGill, Lawrence <sup>4</sup> St. Lawrence Alloys & Metals Ltd. <sup>1,3</sup> Suzorite Co. Ltd. <sup>2</sup> Valley, Percy <sup>2</sup> Wallingford, E. <sup>1,2</sup> Wallingford, Wm. & A.O. <sup>1,2</sup>	Glen Almond .....	Derry Tp.
	Buckingham .....	Portland East Tp.
	Glen Almond .....	Derry Tp.
	13719 Notre Dame St. E., Montreal .....	Montreal
	Rawdon .....	Rawdon
	7 Brule Terrace, Toronto 3, Ontario .....	Buckingham
	Glen Almond .....	Glen Almond
	Roberval .....	Dequen
	R. R. No. 1, Thurso .....	Buckingham Tp.
	Box 57, Niagara Falls, Ontario .....	St. Canut
	Room 512, Victoria Bldg., Ottawa, Ontario .....	Buckingham
	Glen Almond .....	Derry Tp.
	Glen Almond .....	Buckingham Tp.
	25 St-Joseph St., Lachine .....	Labelle Co.
	St-Bruno .....	St-Hilaire
	Noranda .....	St-Bruno de Guigues
	61 Murray St., Ottawa, Ontario .....	Portland Tp.
	St-Pierre de Wakefield .....	Wakefield
	191 Powell Ave., Ottawa, Ontario .....	Buckingham
	Glen Almond .....	Derry Tp.
	Pointe-au-Chene .....	Grenville
	Beauharnois .....	Beauharnois Co.
	907 Dominion Square Bldg., Montreal .....	Shawinigan Falls
	Buckingham .....	Buckingham Tp.
	Perkins .....	Templeton
	Gatineau Point .....	Templeton
<b>Ontario:</b>		
American Nepheline Corp. <sup>3,5</sup> Algoma Steel Corporation Ltd. <sup>1</sup> Bancroft Mica & Stone Products <sup>2,3</sup> Bathurst Feldspar Mines Ltd. <sup>2</sup> Brandt, W.E. <sup>2</sup> Canadian Flint & Spar Co. Ltd. <sup>2</sup> Canadian Silica Corp. (Ltd.) <sup>1</sup> Cameron and Aleck <sup>2</sup> Falconbridge Nickel Mines Ltd. <sup>1</sup> Freeman & Marcelio <sup>2</sup> Jessup, Wesley <sup>2</sup> Dominion Mines & Quarries Ltd. <sup>1,3</sup> International Nickel Co. of Canada Ltd. <sup>1</sup> Kingston Silica Mines Ltd. <sup>1,3</sup> Quartz Crystals Mining Corp. of Canada <sup>1</sup> Verona Rock Products .....	Lakefield .....	Methuen Tp.
	Sault Ste Marie .....	Deroche Tp.
	Bancroft .....	Faraday Tp.
	Room 508, 21 King St. E., Toronto .....	Bathurst Tp.
	R.R. No. 3, Burks Falls .....	Burks Falls
	512 Victoria Bldg., Ottawa .....	Bedford Tp.
	100 Adelaide St. W., Toronto .....	Little Current
	Box 16, Madawaska .....	Murchison
	Falconbridge .....	Falconbridge
	96 Nelson St., Kingston .....	Loughborough
	Maynooth .....	Monteagle Tp.
	Canada Life Bldg., Toronto .....	Killarney
	Copper Cliff .....	Lawson Tp.
	R.R. No. 1, Kingston .....	Pittsburg Tp.
	29 Melinda St., Toronto .....	Lynhurst
	66 King St. W., Toronto .....	Verona
<b>Saskatchewan:</b>		
Hudson Bay Mining & Smelting Co. <sup>1</sup>	Flin Flon, Manitoba .....	Flin Flon
<b>Alberta:</b>		
May, Wallace <sup>6</sup>	Elkwater Lake .....	Elkwater
<b>British Columbia:</b>		
Consolidated Mining & Smelting Co. Ltd. <sup>1</sup>	Trail .....	Fairview

1. Produces silica.
2. Produces feldspar.
3. Operates a mill.
4. Produces scapolite.
5. Produces nepheline syenite.
6. Produces grinding pebbles.