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DOMINION BUREAU OF STATISTICS - CANADA
Dominion Statistician: R. H. Coats, B.A., F.S.S. (Hon.), F.R.S.C.

Mining, Metallurgical and Chemical Branch
Chief: W. H. Losee, B.Sc.

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FELDSPAR AND QUARTZ, 1931.

Feldspar production in Canada during 1931 amounted to 18,343 short tons valued at $186,961 as compared with 26,796 short tons worth $268,469 in 1930; output of quartz in 1931 totalled 195,724 short tons valued at $302,899 as against 226,200 tons worth $418,127 during the previous year, according to finally revised statistics just issued by the Mining, Metallurgical and Chemical Branch of the Dominion Bureau of Statistics at Ottawa. Owing to the very close physical association of these minerals in many Canadian deposits, it has been found very difficult for the operator to make a separate division of data pertaining to the mining of each individual mineral and for this reason the general statistics relating to capital, employment, fuel and electricity, etc., have been combined in this bulletin.

Production of feldspar during 1931 was confined to the provinces of Quebec and Ontario. Several producers in both provinces shipped the crude material to either Canadian or foreign grinding plants. Two Canadian companies, the Canadian Flint and Spar Company, Buckingham, Quebec, and the Frontenac Floor and Wall Tile Company, Kingston, Ontario, operate grinding mills and market a high grade ground feldspar, the latter company also utilize considerable quantities of feldspar in the manufacture of floor and wall tile. In June 1931 the United States Tariff Commission commenced an investigation into the tariff rate on feldspar imported from Canada; as a result of this it was announced in December that the duty on crude feldspar was reduced from $1.00 a ton to 50 cents a ton; there was no change in the rate for ground feldspar which is subject to a 30 per cent duty.

In Nova Scotia silica rock was crushed and ground for the manufacture of silica brick by the Dominion Steel and Coal Company; in Quebec considerable quantities of quartz were mined and shipped by various producers to the Electric Reduction Company in Buckingham; quartz and feldspar were ground in this province by the Canadian Flint and Spar Company Ltd. while the Ottawa Silica and Sandstone Co. Ltd. produced silica sand for moulding, etc., at a crushing plant located near Templeton. Rock from quarries at St. Canute was employed by the Canadian Carborundum Company Ltd. for the production of various grades of silica sand. Canadian Kaolin Silica Products crushed and classified silica rock in Papineau county.

Dominion Mines & Quarries exported a crushed and screened quartz from the Killarney quarry situated on the north shore of Lake Huron. From a quarry on the Algoma Central Railway, Wright and Company shipped crude quartz to Sault Ste. Marie for the manufacture of silica brick; in the Sudbury area silicious gravels were employed in the fluxing of nickel-copper ores. Quartz was mined in both Manitoba and British Columbia for use in metallurgical plants.

The principal requirement for feldspar for use in glass or other ceramic industries is that it should fuse to a uniform white color entirely free from specks or spots. All iron-bearing minerals are detrimental and care should be taken

to keep the content of biotite, garnet and black tourmaline at a minimum. The quartz content of commercial spar varies considerably. For high grade pottery it is limited to about 5 per cent, but for ordinary grades it may be 15 or 20 per cent or even higher. A high alumina content is desirable in glass making.

Recorded uses for which quartz was employed in the United States during 1930 include: tile and other ceramic products, flux in steel foundries, roofing, as a base in paints, cleansers, sandpaper, refractories and abrasives, packing acid towers and filters, pulp burrs, matches, and fused quartz lenses. Natural silica sand in a very pure form is largely used in the manufacture of glass.

Recent laboratory experiments conducted in the engineering experiment station, University of Utah, are reported to show that a practically complete separation of quartz and feldspar by flotation is possible. Flotation follows proper grinding and uses oleates as collecting reageants. It is stated that if results on a commercial scale are satisfactory, they would make possible the opening up of new deposits of quartz, feldspar and mica which hitherto have been practically valueless.

PRODUCTION IN CANADA, IMPORTS AND EXPORTS OF FELDSPAR, 1931.

	Quantity Tons	Value $
PRODUCTION -		
Quebec	10,381	86,842
Ontario	7,962	100,119
TOTAL	18,343	186,961
IMPORTS - Crude and ground	1,877	37,297
EXPORTS	10,975	88,913

PRINCIPAL STATISTICS OF THE FELDSPAR AND QUARTZ INDUSTRY IN CANADA, 1930 and 1931.

		1930	1931
Number of firms		50	31
Capital employed	$	870,488	1,342,668
Number of employees:-	On salary	26	25
	On wages	403	138
	Total	429	163
Salaries and wages:-	Salaries $	45,501	31,462
	Wages $	211,887	103,770
	Total $	257,388	135,232
Cost of fuel and electricity	$	35,645	20,996
Selling value of products	$	686,596	489,860

WORLD PRODUCTION OF FELDSPAR, 1929 and 1930.
(Supplied by Imperial Institute)
(Long tons)

Country	1929	1930
British Empire		
United Kingdom (China stone)	64,558	62,920
Canada	33,506	23,925
Australia	78	69
Union of South Africa	...	...
Total	98,142	86,914
Foreign Countries		
Czechoslovakia (estimated)	30,000	30,000
Finland	(a)	(a)
France	(a)	(a)
Germany (Bavaria)	7,575	5,069
Italy	6,700	5,659
Norway (exports)	26,104	19,608
Rumania	2,440	1,932
Russia (fiscal years Sept. 30th)	(a)	(a)
Sweden	38,475	32,739
United States (sales)	197,699	171,788
Argentine	420	193
Manchuria	344	(a)
Total	309,757	266,988
GRAND TOTAL	407,899	353,902

(a) Data not available.
Complete world data for 1931 not yet available.

PRODUCTION IN CANADA AND IMPORTS OF QUARTZ AND SILICA PRODUCTS, 1931.

	Tons	Value $
PRODUCTION -		
Nova Scotia	3,116	6,836
Quebec	26,987	69,759
Ontario	97,888	148,642
Manitoba	67,214	76,624
British Columbia	519	1,038
CANADA	195,724	302,899
IMPORTS -		
Flint and ground flint stones	2,616	23,653
Silex or crystallized quartz, ground or unground	6,359	141,818
Silica sand for glass, carborundum and steel plants	107,712	235,191
Silica fire brick, 90% silica	...	234,909

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