

CHEMICAL CONTRIBUTIONS

TO THE

GEOLOGY OF CANADA.

FROM THE

LABORATORY OF THE SURVEY,

BY

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MISCELLANEOUS MINERALS.

SAMARSKITE.

This interesting mineral—not hitherto met with in Canada—was found just beyond the north-western limits of the township of Brassard, county of Berthier, P.Q.

It consisted of irregular-shaped fragments without the slightest indication of crystalline form. Lustre, sub-metallic, shining. Color, brownish-black, almost black; in parts iridescent. Opaque even on the thinnest edges. Brittle. Fracture, uneven. Streak, greyish-brown. Hardness, about 6. Fuses between 4 and 4.5. Specific gravity, 4.9478. In the closed tube decrepitates and gives off a little slightly acid water. Readily and completely decomposed by heating with concentrated sulphuric acid. Analysis gave:—

Analysis of.

Columbic acid.	55.41*
Tantallic Acid.	—
Tungstic Acid.	.10
Stannic acid.	14.34
Yttrium oxide†	4.78
Cerium oxide†	10.75
Uranium oxide (UO_3)	.51
Manganous oxide	4.83
Ferrous oxide	5.38
Lime	.11
Magnesia	.39
Potash	.23
Soda	trace.
Fluorine	2.21
Water	99.04

* Apparently in great part, if not almost entirely, columbic acid.

† The presence or absence of other members of this group was not ascertained.