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ANALYSES OF SOME CANADIAN MINERALS.

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1. *Graphite* : from the township of Buckingham, on the Ottawa, (lot 19, range 5).

The sample employed in this analysis was apparently very pure : soft, black, sub-foliated, and highly lustrous. Sp. gr. = 2.265. The moisture was determined by desiccation in an air-bath at a temperature of 212°. The carbon was then burnt off by prolonged ignition in the muffle of an assay-furnace ; and the resulting ash was fused with carbonate of soda in a platinum vessel, and decomposed in the usual way by chlorhydric acid. 6.314 grammes lost 82 milligrammes by complete desiccation, and left 1.1731 gramme of very faintly coloured ash after exposure to long continued ignition. The analysis thus yielded :

Carbon 80.12

Ash 18.58	{	Silica	12.86
		Alumina	4.33
		Fe O (from Fe ² O ³)...	1.07
		Lime	0.14
		Magnesia	trace
		Loss	0.18

Moisture 1.30

Another sample (sp. gr. = 2.272) yielded : moisture 1.14, ash 22.06, carbon (by difference, as before) 76.80. The composition of the ash was not determined. .