## NOTES BY CHRISTIAN HOFFMANN.

Carbon	99.815
Ash	0.076
Volatile matter	0.109

100.000

Colour of the ash, light reddish-brown.

## COMPOSITION OF ASH PER CENT.

Silica	55.080
Alumina	8.500
Sesquioxide of iron	18.310
Sesquioxide of manganese	0.309
Lime	7.700
Magnesia	2.018
Potash	4.779
Soda	2.969
Protoxide of copper	1.160
Oxides of nickel and cobalt	0.120

100-945

With regard to the presence of copper, nickel and cobalt in the ash of this graphite, see in this connection remarks made under analysis 15.

## 18. Vein Graphite, var. Columnar.

From lot one of the sixth range of the Augmentation of Grenville. Structure massive, dense, made up of stout, narrow laminæ, interlocking each other at such an angle as to present an almost columnar appearance. In parts, viz., those in closest proximity to the vein rock, this structure was so fine as to appear coarsely fibrous. Colour, dark steel-grey. Lustre metallic. Specific gravity 2.2659 (containing 0.135 per cent. ash.) Heated in the closed tube this graphite gave off a little water, but only sufficient to form a filmy deposition.

This was a very pure specimen of graphite and contained no readily perceptible foreign matter. An analysis showed it to contain:-

Carbon	99.757
Ash	
Volatile matter	0.108
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100.000

Colour of the ash, light reddish-brown.

Analyses of vein graphite from Grenville.