As few ultimate analyses have been made of Cape Breton coals, the following of the Block House seam made for the Admiralty (analyst unknown) is of interest:

Carbon	82.60
Hydrogen	4.79
Nitrogen	1.20
Oxygen	4.10
Sulphur	2.51
Ash	4.80
	100.00

The following is the result of a trial of the Sydney coal made by the American Government in 1844, and, so far as the writer is aware, it is the only practical test ever made of the evaporative power of any Cape Breton coal:

Moisture	3.13
Volatile combustible matter	23.81
Fixed carbon	67.57
Ash	5.49
Lbs. of steam to one of coal from 212°	7.90
Ash and clinker—per cent	6.00
*Theoretical evaporative power	9.25

The following table shows the composition of the ashes of the above coals:

	Block House.	Harbor.	Victoria.	Sydney. †
Iron peroxide	45.621	63.355	56.543	51.33
Alumina	3.250	8.280	6.456	4.84
Insoluble silicious residue	35.110	21.872	27.500	29.57
Manganese	....	.....	1.930	....
Magnesia	1.100	.....	.035	.23
Lime	5,425	4.640	2 598	3.05
Sulphate of lime	....	.....	.....	10.98
Sulphuric acid	6.750	2.126	3.790	....
Phosphoric acid	1.900	.514	.691	trace.
‡Alkalies	trace.	trace.	.150	trace.
Chlorine	....	trace.	.....	trace.
	99.156	100.787	99.693	100.00

*From Regnault's formula.
†Analyst, H. How.
‡In this and following analyses alkalies are estimated only when in quantity.