

IRON ORES OF CAPE BRETON.

From the transactions of the Newcastle-on-Tyne Institute of Mining Engineers.

At Loraine, near Louisburg, boulders of a compact red hematite, of excellent quality, have been found; but the writer is not aware of any attempts to prove the ore *in situ*. The following is an analysis of it by Mr. G. F. Dowing, of Workinton:—

Peroxide of iron.....	90.14
Lime and magnesia	4.20
Sulphur	.10
Phosphoric acid.....	.11
Silica	5.45
Phosphorous in 100 parts of iron.....	.054

This ore resembles some of the Cumberland (England) red hematites in appearance and quality.

Near the summit of the lower carboniferous, as exposed near Sydney, is a thick bed of red marl, with nodules of limestone. Near the top of this bed is a hard grey sandstone, containing a variable amount of peroxide of iron in places, equal to 30 per cent. of metallic iron.

At Big Pond, on the East Bay of the Bras d'Or Lake, a bed of red hematite, about eight feet thick, has been traced about 700 yards. According to Dr. Howe, of Windsor, the ore contains 61.39 per cent. of iron, 9 per cent. of silica, and mere traces of sulphur and phosphorus. On the opposite of East Bay similar ore has been found.

Several openings have been made on what appear to be separate beds, and several hundred tons of ore have been extracted for shipment to the United States. The following analysis is by the officers of the Geological Survey:—

Peroxide of iron.....	85.037
Phosphoric acid.....	.032
Sulphur	.075
Silica	5.130
	90.374
Metallic iron.....	59.526

At Whycocomagh, in rocks of upper silurian age (?) no less than nine deposits have been exposed and traced a few hundred yards; from surface indications they appear to extend much further. One bed of magnetite is nine feet thick, and another of red hematite six feet. The former, on analysis by the officers of the Geological