

II.—*Notes on the Manganese Ores of Nova Scotia.*

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In the following sketch I have endeavoured to bring together the information relative to the manganese ores of Nova Scotia. The only previous note now accessible, beyond the references in Dr. Dawson's "Acadian Geology," is one by the late Dr. How, of King's College, Windsor, published in the Transactions of the Nova Scotia Institute of Natural Science. The exceptional purity of some of the ores makes them interesting to the mineralogist, and valuable in certain operations of the manufacturer. The attention paid in Nova Scotia to the working of these ores is by no means proportionate to their value, and to the great extent of the geological formation to which they appear to be chiefly confined. The object of these notes will be obtained, if they serve to indicate that the ores of manganese may prove in the future an important addition to the mining resources of this province.

The least valuable but certainly the most common of the Nova Scotia manganese ores is wad. This ore is found as a superficial deposit in connection with every geological formation known in the province. Among the localities yielding it may be mentioned Jeddore, Ship Harbour, St. Margaret's Bay, Shelburne, La Have, Chester, Parrsborough, Springhill, Pictou, and Antigonishe. These ores exhibit the varying composition which characterizes their class, and have in some cases been used to a limited extent as paints. On Boularderie Island, Cape Breton, a bed of wad, several feet thick, was examined some years ago. The following analyses show this want of uniformity of composition: two analyses by Mr. Hoffman, of the Canadian Geological Survey, gave:—

	I.	II.
Manganese peroxide.....	25.42	11.04
Iron sesquioxide.....	—	12.49
Insoluble matter.....	—	57.76
Water.....	33.52	—

also, in the case of analysis II, traces of copper, cobalt, and nickel.

An analysis, by the writer, of a sample from a different part of the bed, gave:—

Manganese peroxide.....	44.33
Iron sesquioxide.....	35.50
Insoluble matter.....	10.00

At the Londonderry Iron Mines, Colchester County, in the great vein of brown hematite, associated with ochre, ankerite, sideroplesite, and calcite, in strata of Lower Silurian age, secondary changes have at some points enriched the iron ore with manganese