

## MINING.

## NOTES ON MANGANESE IN CANADA.

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From The American Geologist Vol. X, August, 1892.

## (Continued.)

Assays of the concentrated ore made by A. M. Cowly, Cambridge, Mass., gave the following result :

•	Compact variety.	Porous variety.
Manganese dioxide	71.54	65.00
Insoluble silicates	8.37	6.66
Ferric oxide	2.19	1.75
Phosphorus	0.02	0.04
Calcium	trace	trace
Metallic manganese	58.29	57.15

A considerable portion of lime is generally present in the concentrates, which will not, however, interfore with their fitness for use in the manufacture of steel, for which purpose all the ore from this property will be most suitable.

A peculiar occurence of mauganese is that which is to be seen on the north and northeast side of Gowland mountain, Elgin, Kings Co., where the ore, consisting principally of psilomelans, is found filling the interstices of a very much broken and partly decomposed granite of pre-Cambrian age. A small amount of development work was done on these deposits without, however, locating any other than small hunches of a very impure pyrolueite and psilomelane. The following analysis, made in 1885 by Mr F. D. Adams, late assistant chemist to the Geological Survey, is that of a specimen of psilomelane from this property:

Manganese dioxide, available	50.21 per cent.
Ferric oxide	3.06 "
Insoluble residue	33.78 "

The specimen also contained a very appreciable percentage of baryta.

This property is peculiar in affording the only instance in New Brunswick where the crystalline ores of manganese are known to occur in appreciable quantity outside of the Carboniferous areas.

Other localities where manganese, in its crystalline forms, have been noted are, Upham, Waterford, near Petitcodiac, Springfield, Tôte-à-Gauche Falls, and many points throughout Albert county. Of one of these, Shepody mountain, Dr. R. W. Ells, in his roport of the Geological Survey for 1884, writes: "The rocks of the mountain (Shepody mountain) rest upon a small outlier of the talco-chloritic schists, which show on the road to the north, leading to Curryville, and are flanked on the east by the grey sandstones of the millstone grit. On the northwest side a large deposit of manganese was worked for some years, a tunnel being driven into the mountain along the contact with the underlying schists for nearly 1,000 feet, the ore, which consisted of pyrolusite and psilomelane, occurring at the base of the conglomerate in irregular pockets. Operations have been suspended for some years, and the workings have all fallen in."

Of the deposits of wad in New Brunswick the most important are those at Dawson Settlement, Albert Co., where many acres of ore are found, the beds varying in extent and depth, and attaining in some places a thickness of over forty feet, to which point they have been proved. The deposits are covered throughout with peat and pesty matter, having a thickness of about twelve to twenty inches, the ore beneath this being found to be practically free from impurities. The mode of working is very simple, consisting of cross trenching, by which means the deposits are drained, after this the ora is excavated and dried in pans, the result being a dry and almost impalpable powder.

A partial analysis of the ore by Mr. W. F. Best, of St. John, gave :

Manganese binoxide	47.0
Iron oxide	18.0
Vegetable matter	34.0
Loss	1.0
Copper	traco
Cobalt	traco
	100.0

Several analyses by Mr. John Burwash gave the following percentages of manganese binoxide: 73.6, 35.5, 58.3, 57.6, 70.7, 63.4, and an average opecimen collected at various points and sampled gave 47.4.

Nova Scolia.—As in New Brunswick extensive deposits of manganese are known to exist in Nova Scolia, where the ores and mode of occurrence are similar though differing in a great measure in the matter of production that of this province being much smaller than that of New Brunswick In Nova Scotia, however, there is a very large proportion of pyrolusite or high grade ore.

(To be concluded.)

EHT ROF KSA "HALIGONIAN" RAGIC

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