

the portal; the remainder of the work is in country-rock. The mineralization is a mixture of iron pyrites, magnetite, pyrrhotite, and marcasite.

Average samples assayed:—

	Per Cent.	Per Cent.
Iron	23.8	23.4
Sulphur	14.4	6.9
Phosphorus	Trace.	Trace.
Silica	48.0	60.3

Evidently work was abandoned after the grade of the ore was ascertained, and further prospecting was done along the ridge to the west, because about a quarter of a mile in that direction there is an occurrence of magnetite on the east bank of a swampy creek that crosses the same ridge, as already mentioned. An open-cut 10 feet deep by 120 feet long has been made across a part of the ridge, exposing diorite on the south side, next magnetite 62 feet wide, then crystalline limestone 12 feet wide, then magnetite 45 feet wide, to limestone wall. In this deposit the magnetite is good grade, and the impurities found associated with the ore in the bluff overlooking the river are lacking. The gangue material is garnetite.

The writer attempted to trace the deposit on the surface farther to the west, but found it impossible to do so because of fallen timber and heavy growth of bushes, or to connect it with the open-cuts seen by the writer when he made a previous examination, and described in Carmichael's report; consequently a detour was made along the north base of the ridge for about a quarter of a mile to the bluff at the base of which is the portal of the adit described and sketched in that report. To-day this might easily be passed by without notice, so dense is the growth of alder and other bushes, that even the dump containing several hundred tons of ore is hidden, and the face of the bluff of magnetite about 60 feet high, that formed such a prominent landmark after it was stripped years ago, is also hidden.

The adit is 260 feet long, including all of the crooks; it is driven in solid magnetite, along a limestone wall for 141 feet, when diorite is exposed; the adit was continued 18 feet in diorite, but where the magnetite disappeared a turn is made to the left and the adit continued through magnetite 76 feet, with diorite on the south-east side. About 40 feet from the turn diorite shows in the roof, with magnetite underlying it. Gradually the magnetite wedges out, and at 76 feet from the turn practically disappears, except in the floor. At this point the course of the adit is again changed, to the south-east, and driven 60 feet through diorite to the face.

A whize full of water, said to be 7 feet deep, and sunk in magnetite is located 28 feet from the portal of the adit. The body of magnetite in the bluff is 92 feet wide by 60 feet high above the adit level. Climbing the bluff, the elevation of the ridge increases to the east to about 150 feet above sea-level. Test-pits and trenches that were examined show magnetite in several places for about 1,000 feet eastward. The most important of these occurrences is the one on the bank of the swampy creek, already described. This is apparently the farthest east that a good grade of magnetite extends. There is a possibility that the deposits to the east from the long adit are connected and form a continuous ore-body.

A sample from the dump at the portal of the adit assayed:—

	Per Cent.
Iron	63.8
Sulphur	0.55
Phosphorus	Trace.
Silica	4.2

A sample reported by Carmichael from the same dump assayed:—

Iron	63.7
Sulphur	0.3
Phosphorus	Trace.
Silica	3.85