

sidered a segregation of iron oxide around minute grains of silica, giving the ore in places a sub-oolitic structure. Its color is steel-gray, with a metallic luster in some of the layers. The ore is very favorably situated for mining as it runs on the crest of a high hill.

About three miles to the north, after several small synclinal folds are passed, the Fall Brook ore is met. It has a southerly dip and resembles the Webster ore, but is of an earthy red color. It has been opened by Mr. Watson at Fall Brook, and is known to extend about five miles to the eastward, nearly to the spathic ore on McLarens Brook. Its thickness is about 15 feet, and it preserves the quality, shown by an analysis of the ore from the opening in Fall Brook, over the greater part of its course. To the south of the spathic ore deposit it becomes more siliceous, and freer from sulphur and phosphorus.

There are several other smaller areas of this class of ore in the district under consideration, but they have not yet been examined. The measures of this horizon continue with a few breaks from Springville to Arisaig, on the east line of the county, a distance of forty miles. They have been examined at several points, and have yielded indications of the presence of red hematites. At Arisaig a bed of red hematite similar in appearance and structure to that found at Webster's, and 4 feet in thickness, has been traced for some distance.

The following analyses will show the character of these ores :

COMPOSITION.	I. Webster.	II. Webster.	III. Fall Brook.	IV. Arisaig.
Iron oxides, . . . . .	75.67	65.26	63.451	74.77
Manganese oxide, . . . . .	.52	traces.	. . . . .	trace.
Alumina, . . . . .	.45	5.59	.205	. . . . .
Lime carbonate, . . . . .	2.44	1.88	3.992	} 8.76
Magnesia carbonate, . . . . .	.98	1.05	.120	
Phosphoric acid, . . . . .	.22	. . . . .	.450	. . . . .
Phosphorus, . . . . .	. . . . .	none.	. . . . .	.08
Sulphur, . . . . .	.29	none.	trace.	trace.
Titanic acid, . . . . .	trace.	. . . . .	. . . . .	. . . . .
Silica, . . . . .	19.43	23.68	27.735	16.10
Moisture, . . . . .	. . . . .	2.54	2.995	. . . . .
Metallic iron, . . . . .	54.36	43.40	44.400	52.34

I. and II. Drs. Macadam and Thorpe. III. E. G., Jr.

It may be remarked that the amount of phosphorus in these ores appears to be connected with the presence of fossils at certain places.