

14. Marmora, range IX., lot 7.—Shaft at Berry's mill, sixty feet deep, on a vein four feet wide; gangue, quartz with mispickel, pyrites and free gold. Yielded me, by fire assay, 4 dwt. 3 gr. per ton. A specimen, in which gold was visible, yielded as high as 9 dwt. to the 2,000 lbs.
15. Belmont, " II., " 18.—Specimen from shore of Belmont Lake; a reddish-weathering mica slate, with ferruginous quartz seams. No trace of gold.
16. Lake, " III., " 12.—Shaft; vein of quartz. A trace of gold.
17. " " III., " 12.—East vein; concentrated sulphurets, roasted, yielded a little over \$7 per ton.
18. " " III., " 13.—Dolomite, and Deer River. A trace of gold.
19. Elzevir, " IV., lots 2, 3.—Antimonial gray copper ore, in a calcareous gangue. A trace of gold.

In the assays 16, 18, 19, the amount of gold in no case exceeded one dwt. to the ton.

Bismuth.—The occurrence of carbonate of bismuth in the township of Bismuth: Tudor has been alluded to by Dr. Hunt in his Report on the gold region of Hastings, in 1867, (page 6). It was found on lot thirty-four of the third range of Tudor, in a vein cutting the hornblendic rocks of division B, and an overlying magnesian limestone, the dip of which was about forty-five degrees to the north of west. The vein, which is very irregular in size, sometimes attains a breadth of two feet or more, and runs north-west, dipping at a high angle to the south-westward. The veinstone was chiefly vitreous quartz, carrying near the surface small masses of carbonate of bismuth, which, lower down, were replaced by the sulphuret, with traces of metallic bismuth. Fine crystalline specimens of the sulphuret of bismuth, several ounces in weight, were sometimes met with; but this valuable ore was sparsely and irregularly disseminated in the quartzose gangue, which also enclosed irregular layers of impure graphite, and masses of radiated black tourmaline, which were sometimes found to penetrate the bismuth ore. In sinking, the quartz veinstone was in parts replaced by an aggregate of pink crystalline calcspar enclosing small crystals of yellow mica, which were also met with in the adjacent quartz. Iron pyrites in imperfect crystals and small masses was also observed in the calcareous portion of the vein. Dr. Hunt, to whom I am indebted for these notices of the minerals of this curious vein, assayed the bismuth ore for gold and silver, but found neither. After considerable working this vein was abandoned in 1868.

I have the honor to be, .

Sir,

Your obedient servant,

HENRY G. VENNOR.