CHAPTER III.

MAGNESITE DEPOSITS.

DISTRIBUTION AND GEOLOGICAL RELATIONSHIPS.

The deposits of magnesite so far discovered in the Grenville district are found in four principal localities; the north end of lot 15, range IX, the south end of lot 15, range XI, and the north end of lot 18, range XI, Grenville township; and lot 13, range I, Harrington township.

At all of these points, the magnesite occurs associated with serpentine, dolomite, and other minerals in lenticular outcrops protruding through the marine clay and sand which, in this district, as everywhere in the Laurentian highlands adjoining the lower Ottawa and lower St. Lawrence, occupies the bottoms of the major valleys. On lot 15, range IX, Grenville township, the magnesite deposit is adjoined on the west by Grenville quartzite, and on the east at a distance of about 400 feet, outcrops of pyroxenic syenite belonging to the Buckingham series occur. On lot 15, range XI, Grenville township, the conditions are very similar to those on lot 15, range IX, Grenville quartzite occurring on the west and pyroxenic gneiss on the east, but between the pyroxenic gneiss and the magnesite several outcrops of metamorphic pyroxenite are present. On the Shaw property, lot 18, range XI, Grenville township, garnet gneiss belonging to the Grenville series occurs to the east of the deposit, metamorphic pyroxenite to the south, and crystalline limestone to the northwest. On lot 13, range I, H[illegible]ton township, the adjoining outcrops consist of pyroxenic gneiss, c[illegible] limestone, and garnet gneiss. In general, therefore, it may be s[illegible]t the magnesite in all of its occurrences is found in association with the metamorphosed group of sediments, viz., crystalline limestone, garnet gneiss, and quartzite, composing the Grenville series, and that in three localities it is found in close proximity to outcrops of the pyroxenic rocks of the Buckingham series.

GENERAL CHARACTER.

The magnesite found in the Grenville district is a glistening cream white to milk white or grey materia[illegible]rring in extensive masses associated with bands or lenses of dark green to light yellow serpentine. Serpentine also occurs disseminated in the magnesite in places and the magnesite nearly everywhere contains more or less included dolomite. Moreover, since dolomite ($CaCO_3 MgCO_3$) contains 30 per cent of lime, the magnesite generally contains a certain amount of lime also, the