

and 3 marks the division between the trap and the unaltered limestone, the part covered by the latter being shown by the space below the line, the Theralite by the perpendicular lines, the altered limestone by the dotted shading, and the crosses indicating Nepheline Syenite.

On the map, Fig. 4, the shaded portion enclosed by the heavy black line shows the position and general appearance of the part occupied by the trap and altered limestone, as referred to above.

This part of the mountain as shown on the map is also an irregular oval, with a length of about 9,000 feet from East to West, by 5,700 in width, and having an approximate area of from 1,000 to 1,200 acres. This is somewhat larger than that estimated by Logan, *Geology of Canada*, p. 172, which he placed at about 700 acres.

On the map, Fig. 4, it will be noted that the margin of the dark portion is dotted, while the central part, with a slight exception, is shaded in black. The former is principally altered crystalline limestone, with several heavy bands of Nepheline Syenite, marked by crosses, while the black represents the Theralite, which forms the great mass of the mountain.

From the map, Fig. 4, it will be seen that the crystalline limestone is found at the margin, almost completely encircling the area occupied by the trap. Besides this, there are a few small, isolated patches near the Park Ranger's house, and it is also found extending across the lowest part of Mount Royal Cemetery, in the direction of the Westmount outcrop, but it can only be traced where excavations have been made, owing to a heavy covering of drift.

At the northern end of the mountain, the altered limestone passes in several places under the road near the Incline Railway, where it is 410 feet above the river. Further south, the Syenite appears at one point beyond the look-out, while on Westmount almost the whole of