

Basal conglomerates are a prominent feature in Clinton county wherever the proper horizon is exposed. For the most part these are not extra coarse, the larger pebbles seldom exceeding an inch in diameter. The pebbles are prevailingly or exclusively of quartz, derived from the quartz veins of the Precambrian rocks, and are embedded in a coarse sand matrix in which there is a large feldspar, and considerable magnetite content. Along most of the northern border the general lack of pebbles of the underlying rocks, which are mostly Saranac gneisses, is indicative of quite prolonged wear of the material, so that only the extrarésistant pebbles of vein quartz origin were sufficiently durable to persist as pebbles. The undecayed character of the feldspar grains of the sands in these conglomerates indicates that all soil and largely weathered rock had already been removed and carried offshore to be deposited, and that the waves were working on tolerably fresh rock, whose grinding to sand had to be performed by water action alone, unaided by any special weakness due to previous weathering.

In some few localities conglomerates indicative of much less vigorous wave action are found. These contain numerous pebbles of the underlying gneisses, often of large size and showing great variation in size, and quartz pebbles are much less conspicuous or lacking. These seem to be purely local deposits laid down in sheltered hollows in the Precambrian floor, whose presence is likely due to uneven depth of weathering of the floor rocks. It is in rocks such as these that the pebbles of diabase and syenite porphyry which demonstrate the Prepotdam age of these dikes, are found. Such conglomerates are much less resistant rocks than the commoner quartz pebble conglomerates, and present exposures usually show them in much disintegrated condition.

These heavy basal conglomerates are mainly confined to the northern border of the region, extending as far west as eastern St Lawrence county. South of Clinton county, along Lake Champlain, their existence is rather problematic, owing to dearth of exposures of the proper horizon, mainly due to faulting.

An interesting outcrop of basal conglomerate occurs not far west of Keeseville in Clinton county, nestling in an indentation in the eastern edge of the anorthosite gabbro, the actual contact