ILLITE

$K_{0.65}Al_{2.0}□Al_{0.65}Si_{3.35}O_{10}(OH)_2$

A clay-like mica sometimes called “hydromica” or “hydromuscovite.” Illite may be either hydrothermal or sedimentary in origin. It is found in metasomatically altered wall rocks of ore deposits, and is a common constituent of marine shales. Illite is doubtless present in some Michigan shales but not specifically identified in any. Northern and Southern Peninsulas.

Baraga County: Some 13 localities in Baraga, Houghton, and Ontonagon Counties. Illite is found in glacial moraine, outwash, and lacustrine deposits. The most recent of these deposits contain an interlayered illite-chlorite (50-50), whereas the older deposits have in addition either montmorillonite or degraded illite (Ruotsala et al., 1966).

Houghton County: Same type of occurrence as in Baraga County (q.v.).

Iron County: The clay-size mica mineral in all iron ore samples is identified as iron-rich illite by James et al. (1968).

Marquette County: Marquette District: Found in sheared unmetamorphosed Mesnard Quartzite, variety “leverrierite.” Not verified by X-ray diffraction. (Corbett, 1925).

Ontonagon County: 1. White Pine: Veinlets in the Nonesuch shale (Ensign et al., 1968). 2. Same type occurrence as in Baraga County (q.v.).