MINNESOTAITE

$(Fe^{2+},Mg)_3Si_4O_{10}(OH)_2$

The ferrous iron analog of talc. Occurs widespread as microscopic platelets and granules in silicate iron formation. It is formed by very low grade metamorphism, probably from rocks originally containing greenalite or rocks consisting of siderite and chert. Northern Peninsula.

Baraga County: NW ¼ section 35, T52N, R30W and section 28, T51N, R31W: Found in white calcite-chert-minnesotaite bands alternating with "carbonate apatite" bands (apatite) (Mancuso et al., 1975).

Gogebic County: Eastern Gogebic iron range: Found in altered siderite-chert rocks of the Ironwood Formation, in association with stilpnomelane and magnetite (Tyler, 1949; Mann, 1953).

Marquette County: **1.** Eastern Marquette iron range: Found in the Negaunee Iron Formation associated with magnetite and stilpnomelane (Tyler, 1949; James, 1955). **2.** Empire mine: Occurs with stilpnomelane in magnetite-carbonate-silicate-chert facies of the iron formation (Sliter, 1970; Nordstrom, 1999). Gair (1975) reports minnesotaite as the most abundant iron silicate in the Negaunee Formation in the Palmer quadrangle. **3.** Champion mine: Found with coarsely crystalline manganoan calcite and manganoan siderite in quartz vein cutting iron formation; called "ferrotalc" by Babcock (1966a, b).

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