CORUNDUM

Al_2O_3

A metamorphic mineral in high-grade aluminous gneisses. It is also found in some contact metamorphic rocks, in albite-rich veins in altered peridotites, eclogites, and some syenites. Predominantly in the Northern Peninsula.

Iron County: The first verified occurrence of corundum in Michigan is in two specimens of eclogitic xenoliths in the Lake Ellen kimberlite (q.v.) (SW ¼ section 27, T44N, R31W) (McGee and Hearn, 1983). Corundum occurs as small grains (0.05 to 0.6 mm) near kyanite and may have been formed as a product of a reaction upon the kyanite that occurred during the ascent of the host kimberlite from mantle to crustal levels. An analysis is given by McGee and Hearn (1983).

Marquette County: **1.** Beacon iron mine: Reported by Dorr and Eschman (1970), but probably not correct. A rare blue mineral found here may be kyanite (K. Spiroff, personal communication). **2.** Champion mine: Reported as blue sapphire with muscovite in pegmatite (Zeitner, 1964). Massive dark blue corundum (originally misidentified as "kyanite") occurs with andalusite and muscovite on a single specimen (FWH 117) in the collection of the A. E. Seaman Mineral Museum (Michigan Technological University). Confirmed by energy dispersion X-ray spectroscopy.

Wayne County: Ottawa Silica Company quarry, Rockwood: The carbonaceous material (q.v.) concentrated along the base of the Sylvania Sandstone contains, in its accessory heavy-mineral suite, rare grains of corundum-a most unexpected discovery, but verified by electron microprobe (Heinrich, 1979).

FROM: Robinson, G.W., 2004 Mineralogy of Michigan by E.W. Heinrich updated and revised: published by A.E. Seaman Mineral Museum, Houghton, MI, 252p.

UPDATE

Menominee County: Near Hermansville: A few small (0.8 mm) bright red chromian corundum ("ruby") fragments were recovered from glacial sediments in 2005. The material was first mistaken for pyrope, but confirmed as corundum by wavelength dispersion X-ray spectrometry.

UPDATE FROM: Robinson, G.W., and Carlson, S.M., 2013, Mineralogy of Michigan Update: published online by A.E. Seaman Mineral Museum, Houghton, MI, 46p.