

## **BIRNESSITE**



A dark, brownish black manganese oxide mineral that usually forms in relatively low-temperature environments as a result of weathering or oxidation of manganese-rich rocks. Northern Peninsula.

**Marquette County:** Jubilee IGA store excavation, Highway 41, Ishpeming: As etched, black pseudomorphs after small rhombohedral crystals of rhodochrosite on Negaunee Iron Formation. Verified by X-ray diffraction. This represents the first reported occurrence of birnessite in Michigan.

**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.