

THE ANTIMONY MINERALS OF HAM SUD, QUEBEC

The antimony-bearing minerals at the Lac Nicolet Antimony Mine at Ham Sud, (South Ham) Township, Wolfe County, Quebec are not only rare but beautiful, and seemingly made for micromounter. These brief descriptions will assist in following the speaker's presentation, and may be useful for future reference. Familiar species found at this location such as albite, aragonite, dolomite, gypsum, melanterite, and quartz are not included.

ANTIMONY, Sb. Hexagonal. G 6.6-6.7, hardness 3-3.5. Tin white, usually massive granular or lamellar and easily cleavable. Grey streak.

BERTHIERITE, FeSb_2S_4 . Orthorhombic. G 4.6-4.7, hardness 2-3.

Steel grey with metallic luster, often appears brown to black with iridescence. Fibrous massive or in needles. Dark brownish-grey streak. (Not to be confused with berthierine, a silicate).

GUDMUNDITE, FeSbS . Monoclinic. G 6.7-6.9, hardness near 6.

Silver-white to steel grey prismatic crystals with metallic luster. Ends chisel-pointed. Often twinned to form crosses or butterfly twins. No good cleavage. Antimony analog of arsenopyrite which it closely resembles.

KERMESITE, $\text{Sb}_2\text{S}_2\text{O}$. Monoclinic. G 4.7, hardness 1-1.5. Usually in cherry-red radiating needles with adamantine to submetallic luster. May be found blending into stibnite as an alteration product. Streak brownish-red.

SENARMONTITE, Sb_2O_3 . Cubic. G 5.5-5.6, hardness 2-2.5. Massive or in clusters of tiny colorless to cream-colored adamantine octahedrons. May be overlooked as it resembles drusy quartz.

STIBICONITE, $\text{SbSb}_2\text{O}_6(\text{OH})$. Cubic. G 5-6, hardness 4-5.5.

Usually as pale to bright yellow earthy crusts or powder on other antimony minerals. May completely replace stibnite.

STIBNITE, Sb_2S_3 . Orthorhombic. G 4.6, hardness 2. In shiny steel grey to nearly black needles or fans of prismatic crystals, sometimes iridescent. Also massive fibrous. Perfect cleavage parallel to prism. Flexible but not elastic. Streak lead grey.

VALENTINITE, Sb_2O_3 . G 5.8, hardness 2.5-3. Takes many forms

from prisms to tablets. Prism faces may be rounded by striations. Tabular crystals may be stacked like rows of toppled dominoes. Crystals may be transparent to translucent and colorless to creamy yellow. Luster is adamantine, but pearly on one perfect cleavage surface. Often coated with thin crust of stibiconite.

REFERENCES:

- Palache, C., H. Berman, and C. Frondel (1944) "Dana's System of Mineralogy", 7th Edition, Volume I, John Wiley & Sons, NY.
Roberts, W. L., G. R. Rapp, Jr., and J. Weber (1974) "Encyclopedia of Minerals", Van Nostrand Reinhold, NY.