

DeMix Quarry  
Varenes, Quebec

On Sunday July 2, 1995 several members of the MMNE (including yours truly), along with some other mineral collectors, went to the DeMix Quarry at Varenes. This quarry has been in existence for a number of years, but is only recently that serious collecting, identification and documentation of species has been carried out. Mr. Horvath was present at the quarry and was quite helpful in instructions regarding collecting as well as some sight identifications. Mr. Horvath and Robert Gault of the Canadian Museum of Nature (Ottawa) presented "A Preliminary Report on the Mineralogy of the Saint-Amable Sill, Varenes, Quebec" at the 1993 Rochester Mineralogical Symposium. Part of that abstract is reproduced here. (This was subsequently published in *Rocks and Minerals* (1994) 69:116).

"The Saint-Amable sill forms a low buttelike topographical feature between the villages of Varenes and Saint-Amable just east of the Saint Lawrence River and north of Mont Bruno, near Montreal, Quebec. The sill is well exposed in the Varenes quarry, which has been operated continuously for crushed rock by DeMix, Inc. since 1974. A bulk analysis of the rock performed by the Mines Branch of the Department of Mines and Technical Surveys in 1962 indicated that it is a trachytic phonolite. Although no age dating has been performed, the sill's alkaline composition and close proximity to Mont Saint-Hilaire and Mont Bruno suggest its related to the Monteregian series of intrusions. No systematic mineralogical investigation of the sill had been performed until this study was initiated in the fall of 1991.

The sill, which at times is a composite of several injections, intrudes flat lying Ordovician shales and limestones of the Lorraine group. A hornfels chill-zone is evident at both the upper and lower contact of the sill with the sedimentary rocks. The sill, which averages about 10 metres in thickness, is on first inspection fine-grained and compact. However, on closer examination under the stereomicroscope, it is quite porous with numerous cavities 1-2 mm in diameter and some larger cavities to centimeter across, hosting a wide variety of well-crystallized rare minerals that are typically associated with alkaline igneous rocks. The crystals are generally very small, rarely exceeding 1-3 mm." And, I might add, the rock is quite tough!

Mail contact with Mr. Horvath indicated that a comprehensive article on the locality is being prepared for publication in the *Mineralogical Record* sometime in late 1996. The list of species has now grown to almost 100, including one new species. Many of these species are also found at Mont Saint-Hilaire, sometimes in the same habit, other times very different. Included below is a species list produced by Mr. Horvath in 1993.

Aegerine	Cordylite-(Ce)	Makatite	Rhodochrosite
Albite	Dawsonite	Mangan-neptunite	Sazhinite-(La?)
Amphibole group	Dolomite	Microcline	Serandite
Analcime	Donnayite-(Y)	Molybdenite	Siderite
Anatase	Elpidite	Monazite-(Ce)	Smectite group
Ancylite-(Ce)	Eudialyte	Mosandrite	Sphalerite
Aragonite	Fluorite	Nacrite	Synchesite-(Ce)
Astrophyllite	Franconite	Natrolite	Strontianite
Bastnaesite-(Ce)	Galena	Nenadkevichite	Terskite
Birnessite	Gypsum	Nepheline	Tetranatrolite
Calcite	Hematite	Pectolite	Titanite
Catapleiite	Hochelagite	Pyrite	Yofortierite
Cebaite-(Ce)	Lavenite	Pyrrhotite	Zakharovite
Celestine	Lorenzenite	Quartz	Zircon
Clinocllore	Magadiite	Rhabdophane-(Ce)	