Surface and Subsurface Geologic Maps of the Soudan Underground Mine State Park, St. Louis County, Northeastern Minnesota

by

Alessandra V. Vallowe1, Ernest J. Thalhammer2, Donna L. Rhodes3, and Dean M. Peterson4

University of Minnesota Duluth, Precambrian Research Center

August 2010

1Virginia Polytechnic Institute and State University; 2Stony Brook University; 3University of Central Missouri; 4University of Minnesota Duluth

EXPLANATORY NOTES

These maps are in color commonly used in geologic mapping. The geological symbols can be found on the front of this guide. Geologic contacts are shown as dashed lines. The symbols are defined on the sheet and include the names of the rocks. The paleocurrent arrows on this sheet show the direction of flow at the time of deposition of the rock unit. The arrows on this figure indicate the orientation of massive hematite ore zones within the Mine. The authors would like to thank Soudan Underground Mine State Park for being so accommodating throughout this map-making project, and we would like to extend special thanks to the interpreters who were with us nightly in the drift. The authors would like to thank Dean Peterson for his time, patience, and invaluable advice.

REFERENCES


ACKNOWLEDGEMENTS

The authors would like to thank the Soudan Underground Mine State Park for making this project possible. They would also like to thank the many geology students who have worked on and contributed the project. Special thanks go to the interpreters who were with us nightly, and to the Soudan Underground Mine State Park staff for their assistance.

DESCRIPTION OF MAP UNITS

GRANITE - Pink, medium-grained, biotitic-granite. A single outcrop of this unit was found between chlorite and sericite schists. The unit is typically blocky-fractured, and contains quartz veining and pyrite.

VERMILION GRANITIC COMPLEX - The Vermilion Granitic Complex is a medium-grained granite that is common in the Soudan Mine area. The complex is typically blocky-fractured and contains quartz veining and pyrite.

Subsidiary Structures

Regional Scale Structures

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