

Figure 1. Location and general geology map illustrating the regional distribution of the Onaping Formation. VC, D2 = Ventnor and Onaping; Zr-Pb-Cu; D3-D5 = Dowling and Morgan.

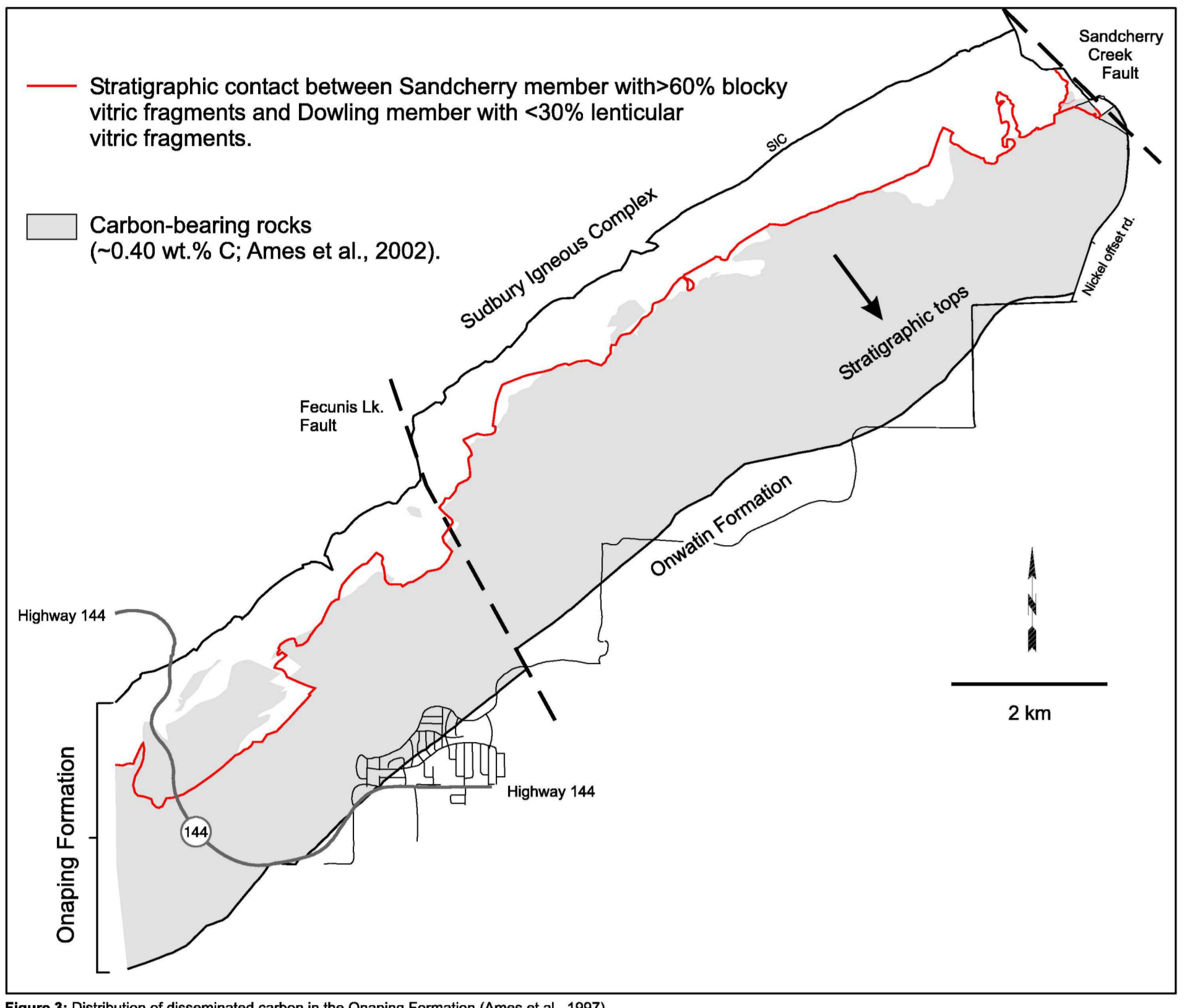


Figure 2. Distribution of disseminated carbon in the Onaping Formation (Ames et al., 1997).

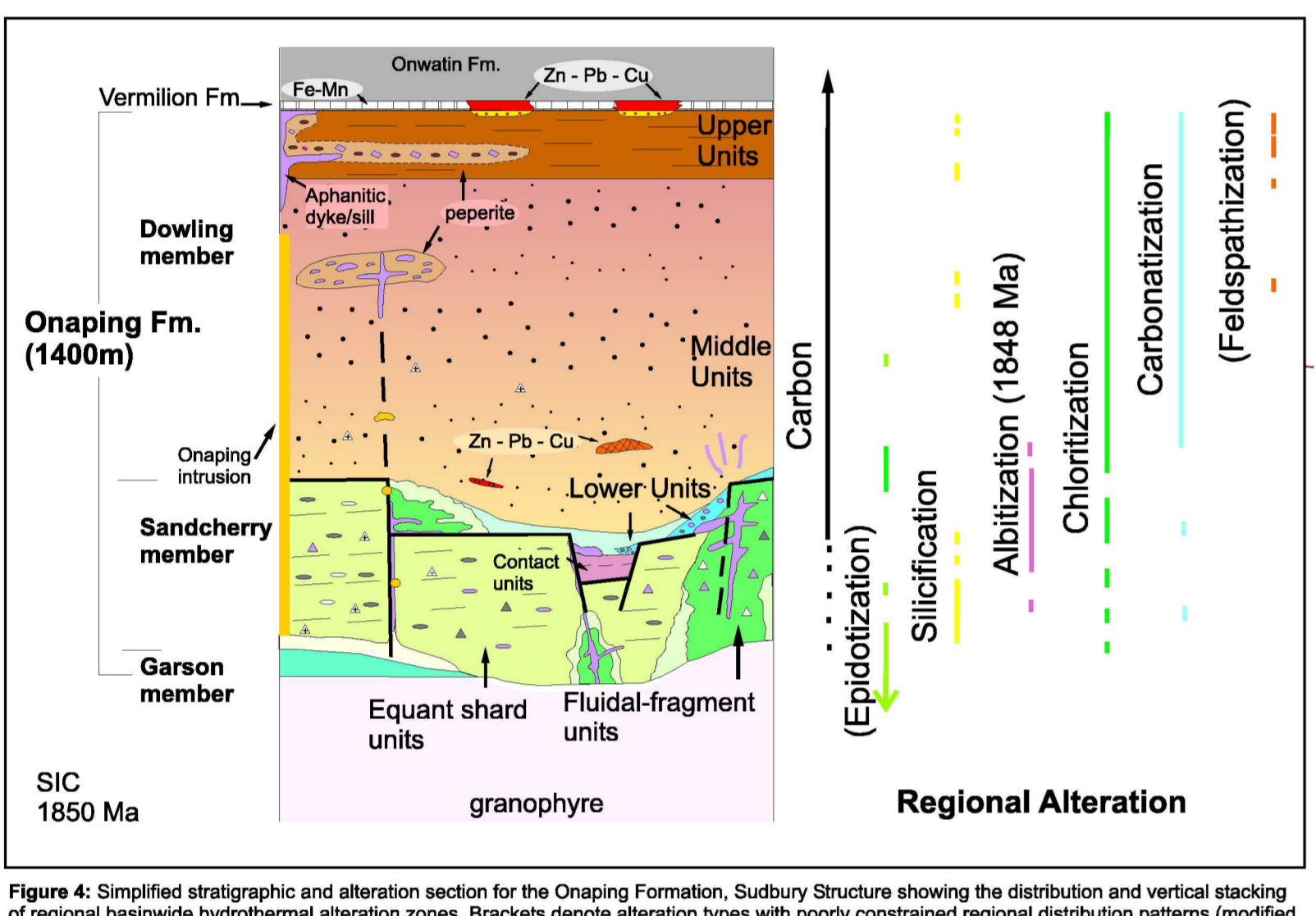


Figure 3. Simplified stratigraphic and alteration section for the Onaping Formation, Subury Structure showing the distribution and vertical zoning of Onaping hydrothermal alteration zones. Various alteration types (see legend) are associated with different alteration zones (modified from Ames et al., 1997).

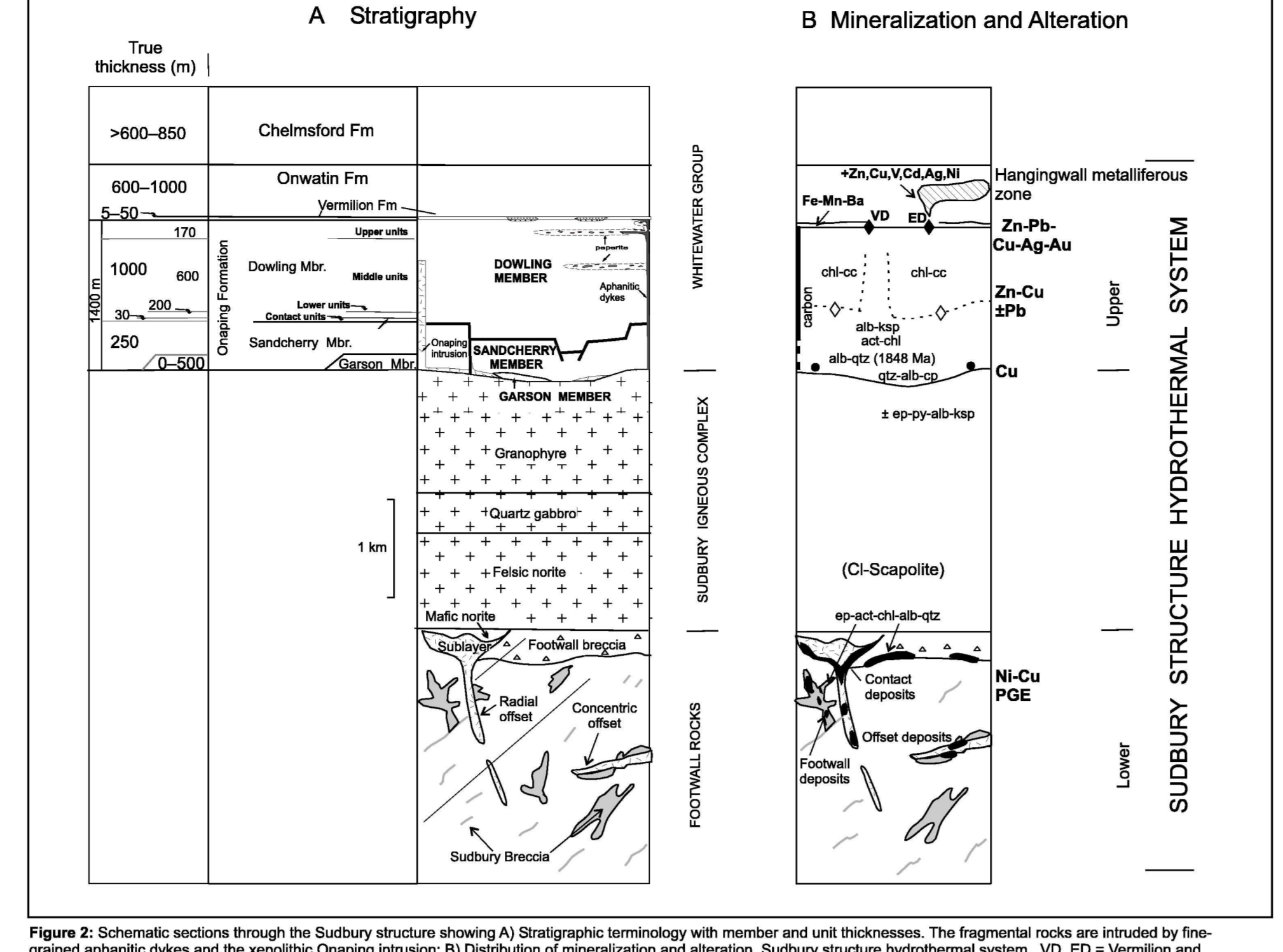


Figure 4. Stratigraphic sections through the Subury structure showing: A) Stratigraphic terminology with member and unit thicknesses. The fragment codes are situated by first ground reference zone and the secondary (Dowling) structure; B) Distribution of mineralization and alteration. Subury structure hydrothermal system. VC, D2 = Ventnor and Morgan; Zr-Pb-Cu; D3-D5 = Dowling and Morgan.

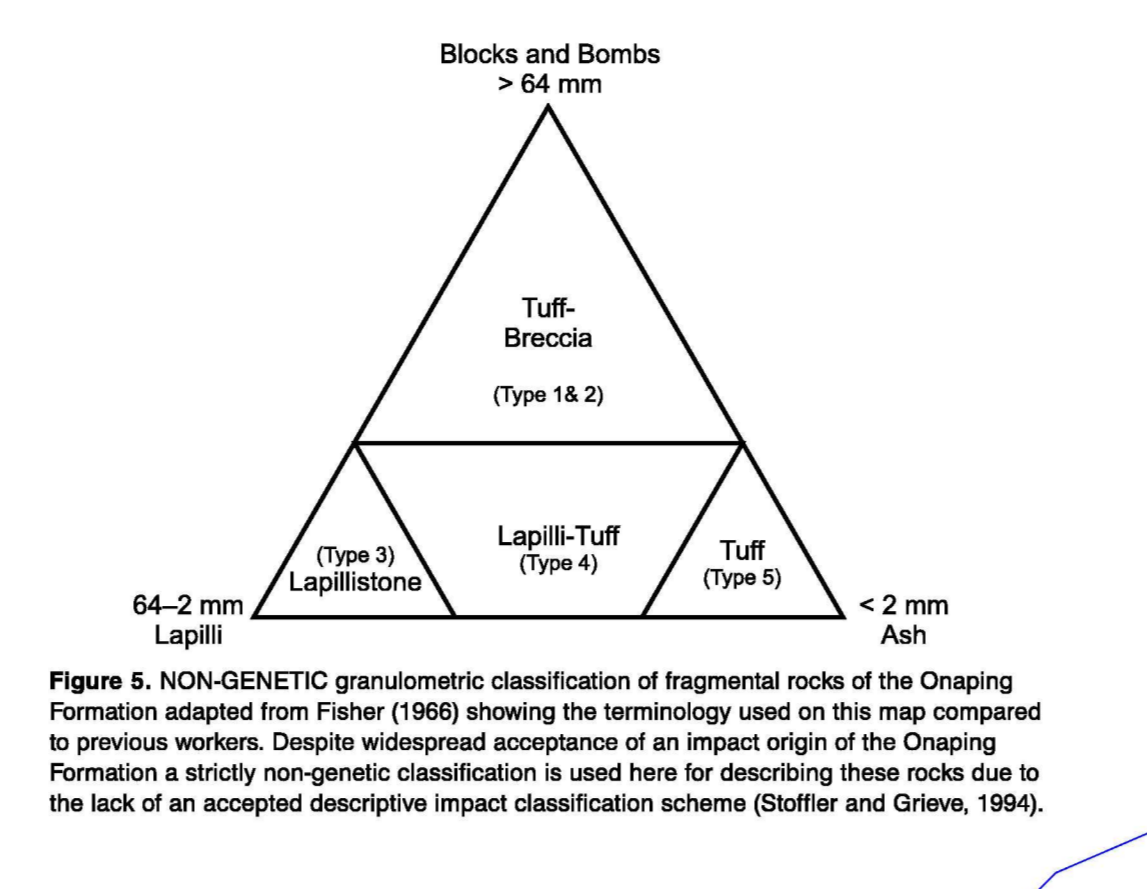


Figure 5. MINERALIZATION classification of fragment codes of the Onaping Formation (modified from Fyfe, 1986). The mineralization types (D1-D5) are compared to previous workers. Despite widespread acceptance of an impact origin of the Onaping Formation, a range of general classification labels have been describing these rocks in the lack of an accepted descriptive impact classification scheme (Dobson and Grove, 1986).

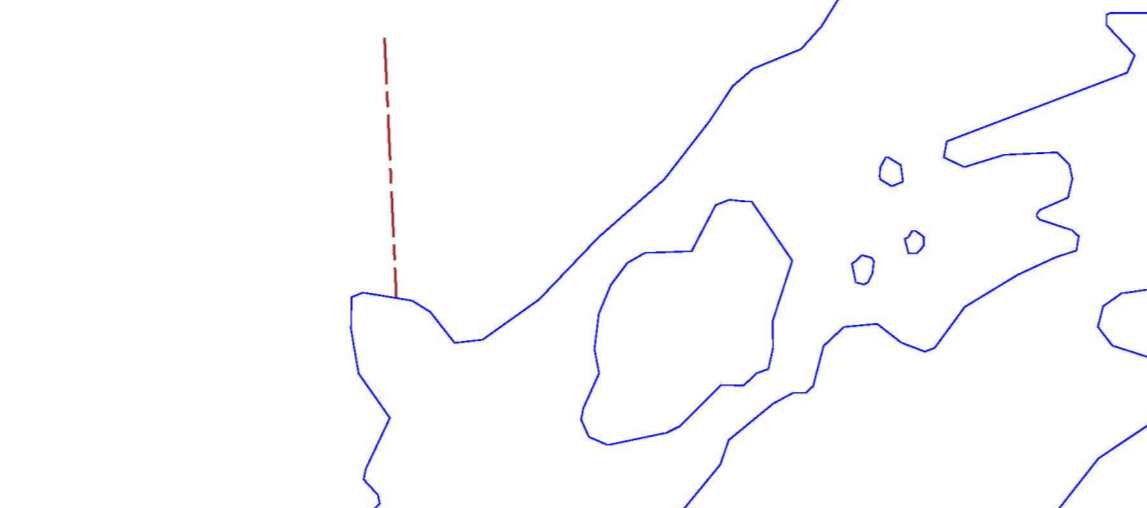


Figure 6. Blocks and Boros diagram showing the distribution of various mineralization types (Type 1, Type 2, Type 3) and their associated alteration zones.

INTRODUCTION
The Onaping Formation is a 1000-m-thick, 100-km-wide, impact-related sequence of rocks that is considered to be the youngest impact-related sequence in the Canadian Shield. It is composed of a variety of rock types, including breccias, siltstones, and sandstones, and is characterized by a variety of mineralization types, including base metal sulfides, copper, and uranium. The Onaping Formation is located in the Subury structure, which is a large-scale tectonic feature that extends for over 1000 km across the Canadian Shield.

DESCRIPTION OF THE ONAPING FORMATION
The Onaping Formation is a 1000-m-thick, 100-km-wide, impact-related sequence of rocks that is considered to be the youngest impact-related sequence in the Canadian Shield. It is composed of a variety of rock types, including breccias, siltstones, and sandstones, and is characterized by a variety of mineralization types, including base metal sulfides, copper, and uranium. The Onaping Formation is located in the Subury structure, which is a large-scale tectonic feature that extends for over 1000 km across the Canadian Shield.

LEGEND
This legend provides a key to the symbols and colors used on the geological map. It includes symbols for faults, folds, and other structural features, as well as a color key for the various geological units and alteration zones. The legend is organized into sections for Precambrian, Onaping Formation, and various alteration zones.

REFERENCES
Ames, D.P., 1997. Onaping Formation: A review of the geology, mineralization, and hydrothermal alteration. In: Geological Society of Canada Special Paper 42, p. 1-15.
Ames, D.P., 1998. The Onaping Formation: A review of the geology, mineralization, and hydrothermal alteration. In: Geological Society of Canada Special Paper 42, p. 1-15.
Ames, D.P., 1999. The Onaping Formation: A review of the geology, mineralization, and hydrothermal alteration. In: Geological Society of Canada Special Paper 42, p. 1-15.

ACKNOWLEDGMENTS
This project was funded by the Geological Survey of Canada. We thank the following individuals for their assistance and support: [List of names].

CONCLUSIONS
The Onaping Formation is a 1000-m-thick, 100-km-wide, impact-related sequence of rocks that is considered to be the youngest impact-related sequence in the Canadian Shield. It is composed of a variety of rock types, including breccias, siltstones, and sandstones, and is characterized by a variety of mineralization types, including base metal sulfides, copper, and uranium.

GEOLGY OF THE ONAPING FORMATION: DOWLING, MORGAN, LEVACK, AND BALFOUR TOWNSHIPS, SUBURY ONTARIO

Scale 1:100,000 (Equivalent 1/100,000)
Geological mapping by: J. Gibson, D.E. Ames, and H.L. Gibson, 2004.
Digital cartography by: J. Gibson, Resources Division, Geological Survey of Canada and D. Veitch, Earth Sciences Sector, Information Canada (2004).