

Figure 3. Simplified alteration map showing the distribution of regional semi-conformable alteration zones in the Onaping Formation, Sudbury Structure. Alteration zones are inferred (light shaded) between defined mapped areas (dark shaded). S = Sandcherry member; D = Dowling member. Note the transgressive nature of the carbon contact across the Sandcherry/Dowling member contact on inset map. Data compiled from the study, unpublished Factoprints by Lita, Gibbins, 1994, and Gray, 1995.

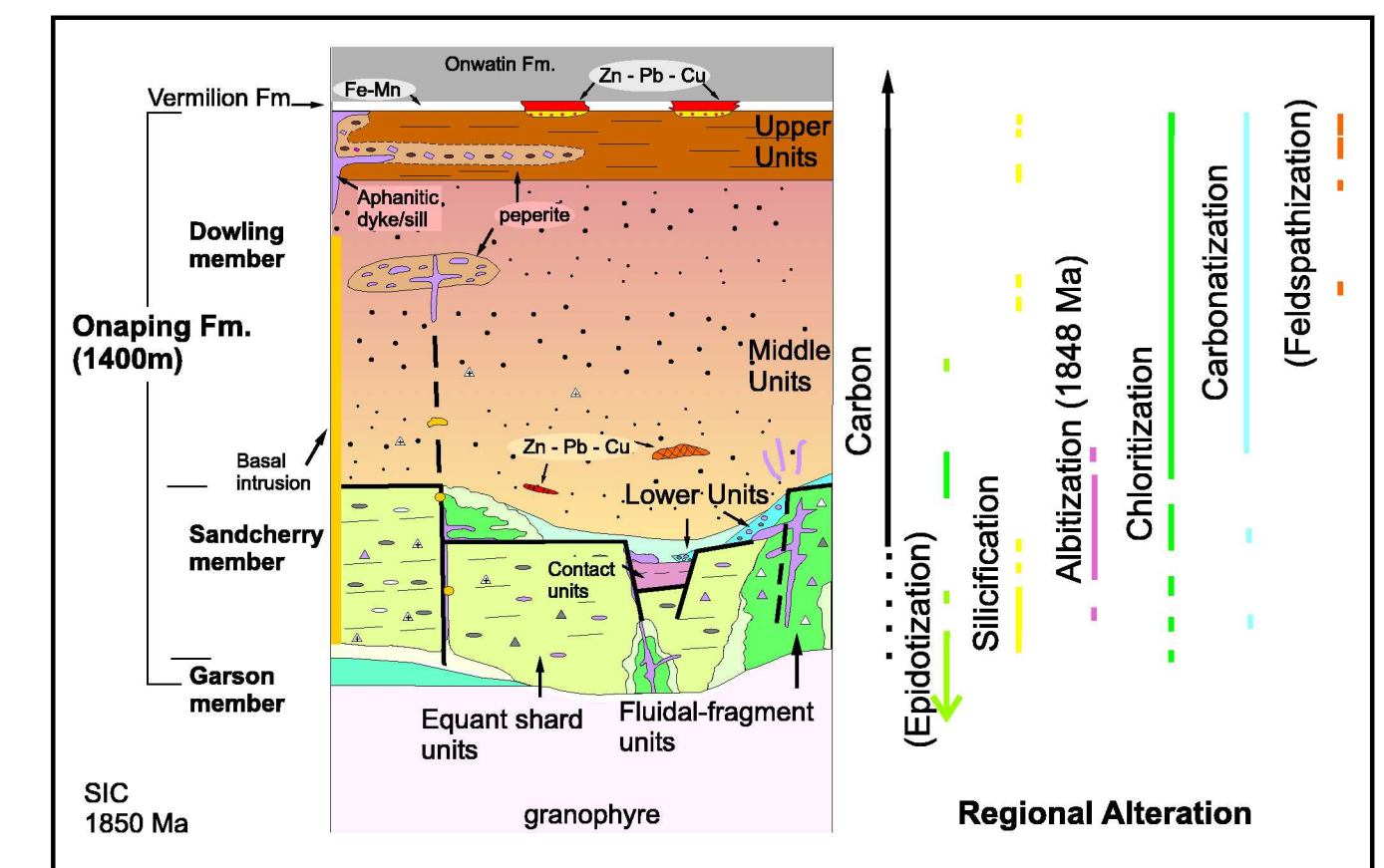


Figure 4. Stratigraphic and alteration section for the Onaping Formation, Sudbury Structure showing the distribution and vertical stacking of regional basaltic hydrothermal alteration zones. Brackets denote alteration types with poorly constrained regional distribution patterns (modified from Ames et al., 1998).

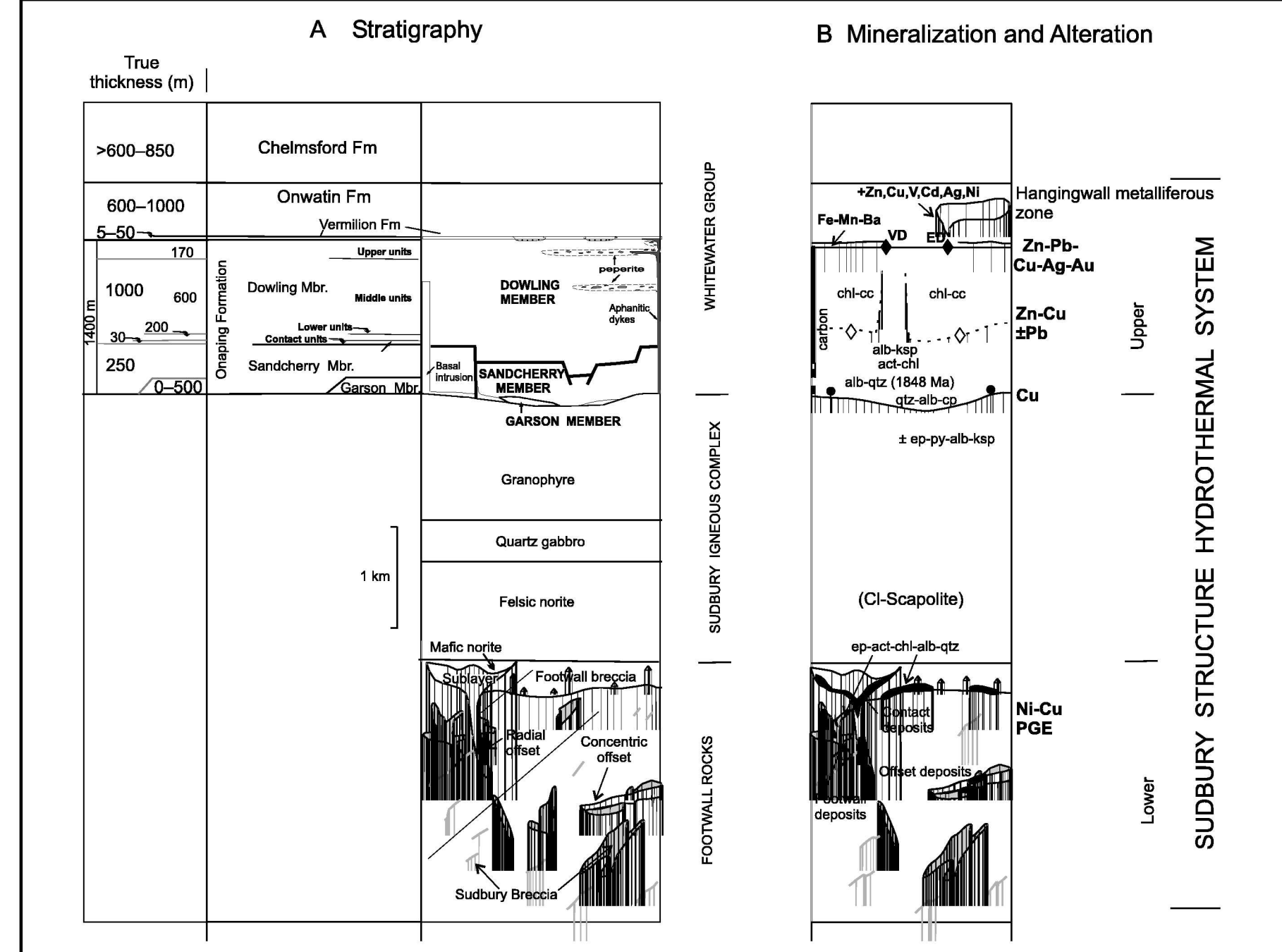


Figure 2. Schematic sections through the Sudbury structure showing: A) Stratigraphic terminology with member and unit thicknesses. The fragmental rocks are overlain by fine grained aphanitic dykes and the anorthitic basal intrusion. B) Distribution of mineralization and alteration, Sudbury structure hydrothermal system. VD, ED = Vermilion and Errington Zn-Pb-Cu-Ag deposits. BRSZ = South Range shear zone. Modified after Ames et al., 2002.

AREA	SIGNIFICANCE	MAP SCALE	REFERENCE
Morgan Township North Range	Complete stratigraphic section through north range Onaping Fm. Type area. Stratigraphic significance of basal breccia in 800 m-thick carbonaceous host control of units black halting. Unconformable base of basal breccia in 800 m-thick carbonaceous host control of units black halting. Unconformable base of basal breccia in 800 m-thick carbonaceous host control of units black halting. Unconformable base of basal breccia in 800 m-thick carbonaceous host control of units black halting.	1:5000	GSC OF 9377 (Ames and Gibbins, 2004)
Cow Lake North Range	Stratigraphic section through Dowling member lower units and middle units. Carbonaceous host control of units black halting. Unconformable base of basal breccia in 800 m-thick carbonaceous host control of units black halting. Unconformable base of basal breccia in 800 m-thick carbonaceous host control of units black halting.	1:5000	GSC OF 9438 (Ames and Gibbins, 2004)
Norman Township North Range	Stratigraphic section through DMC and DMLU ES NS regression thick fly ash abundant intrusion (BRSZ). Stratigraphic significance of basal breccia in 800 m-thick carbonaceous host control of units black halting. Unconformable base of basal breccia in 800 m-thick carbonaceous host control of units black halting.	1:5000	GSC OF 9567 (Ames and Gibbins, 2004)
Joe Lake North Range	Stratigraphic section from granophyre SIC to DMLU ES NS regression thick fly ash abundant intrusion (BRSZ). Stratigraphic significance of basal breccia in 800 m-thick carbonaceous host control of units black halting. Unconformable base of basal breccia in 800 m-thick carbonaceous host control of units black halting.	1:5000	GSC OF 9456 (Ames and Gibbins, 2004)
Hammer Township North Range	Stratigraphic section through DMC and DMLU ES NS regression thick fly ash abundant intrusion (BRSZ). Stratigraphic significance of basal breccia in 800 m-thick carbonaceous host control of units black halting. Unconformable base of basal breccia in 800 m-thick carbonaceous host control of units black halting.	1:5000	Ames et al., 1995 (Ames, 1999)
Nelson Lake North Range	Stratigraphic section through DMC and DMLU ES NS regression thick fly ash abundant intrusion (BRSZ). Stratigraphic significance of basal breccia in 800 m-thick carbonaceous host control of units black halting. Unconformable base of basal breccia in 800 m-thick carbonaceous host control of units black halting.	1:5000	Ames, 1995 (Ames, 1999)
Nelson East North Range	Stratigraphic section through DMC and DMLU ES NS regression thick fly ash abundant intrusion (BRSZ). Stratigraphic significance of basal breccia in 800 m-thick carbonaceous host control of units black halting. Unconformable base of basal breccia in 800 m-thick carbonaceous host control of units black halting.	1:5000	Ames, 1995 (Ames, 1999)
Rocky North Range	Stratigraphic section through DMC and DMLU ES NS regression thick fly ash abundant intrusion (BRSZ). Stratigraphic significance of basal breccia in 800 m-thick carbonaceous host control of units black halting. Unconformable base of basal breccia in 800 m-thick carbonaceous host control of units black halting.	1:5000	GSC OF 9455 (Ames and Gibbins, 2004)
Gordon Lake North Range	Stratigraphic section through DMC and DMLU ES NS regression thick fly ash abundant intrusion (BRSZ). Stratigraphic significance of basal breccia in 800 m-thick carbonaceous host control of units black halting. Unconformable base of basal breccia in 800 m-thick carbonaceous host control of units black halting.	1:5000	Figure 2-12 (Ames, 1999)
Gordon Lake South Range	Stratigraphic section through DMC and DMLU ES NS regression thick fly ash abundant intrusion (BRSZ). Stratigraphic significance of basal breccia in 800 m-thick carbonaceous host control of units black halting. Unconformable base of basal breccia in 800 m-thick carbonaceous host control of units black halting.	1:5000	Figure 2-12, A2-1 (Ames, 1999)
JAMM North Range	Stratigraphic section through DMC and DMLU ES NS regression thick fly ash abundant intrusion (BRSZ). Stratigraphic significance of basal breccia in 800 m-thick carbonaceous host control of units black halting. Unconformable base of basal breccia in 800 m-thick carbonaceous host control of units black halting.	1:5000	Figure 2-12, A2-2 and 3 (Ames, 1999)
Julia North Range	Stratigraphic section through DMC and DMLU ES NS regression thick fly ash abundant intrusion (BRSZ). Stratigraphic significance of basal breccia in 800 m-thick carbonaceous host control of units black halting. Unconformable base of basal breccia in 800 m-thick carbonaceous host control of units black halting.	1:5000	Figure 2-12, A2-4 (Ames, 1999)
Julia South Range	Stratigraphic section through DMC and DMLU ES NS regression thick fly ash abundant intrusion (BRSZ). Stratigraphic significance of basal breccia in 800 m-thick carbonaceous host control of units black halting. Unconformable base of basal breccia in 800 m-thick carbonaceous host control of units black halting.	1:5000	Figure 2-12, A2-5 (Ames, 1999)
Detailed map	Cow Lake area metal showing. Stratigraphic section through DMC and DMLU ES NS regression thick fly ash abundant intrusion (BRSZ). Stratigraphic significance of basal breccia in 800 m-thick carbonaceous host control of units black halting. Unconformable base of basal breccia in 800 m-thick carbonaceous host control of units black halting.	1:5000	GSC OF 9454 (Ames and Gibbins, 2004)
Dowling Member	Stratigraphic section through DMC and DMLU ES NS regression thick fly ash abundant intrusion (BRSZ). Stratigraphic significance of basal breccia in 800 m-thick carbonaceous host control of units black halting. Unconformable base of basal breccia in 800 m-thick carbonaceous host control of units black halting.	1:5000	GSC OF 9453 (Ames and Gibbins, 2004)

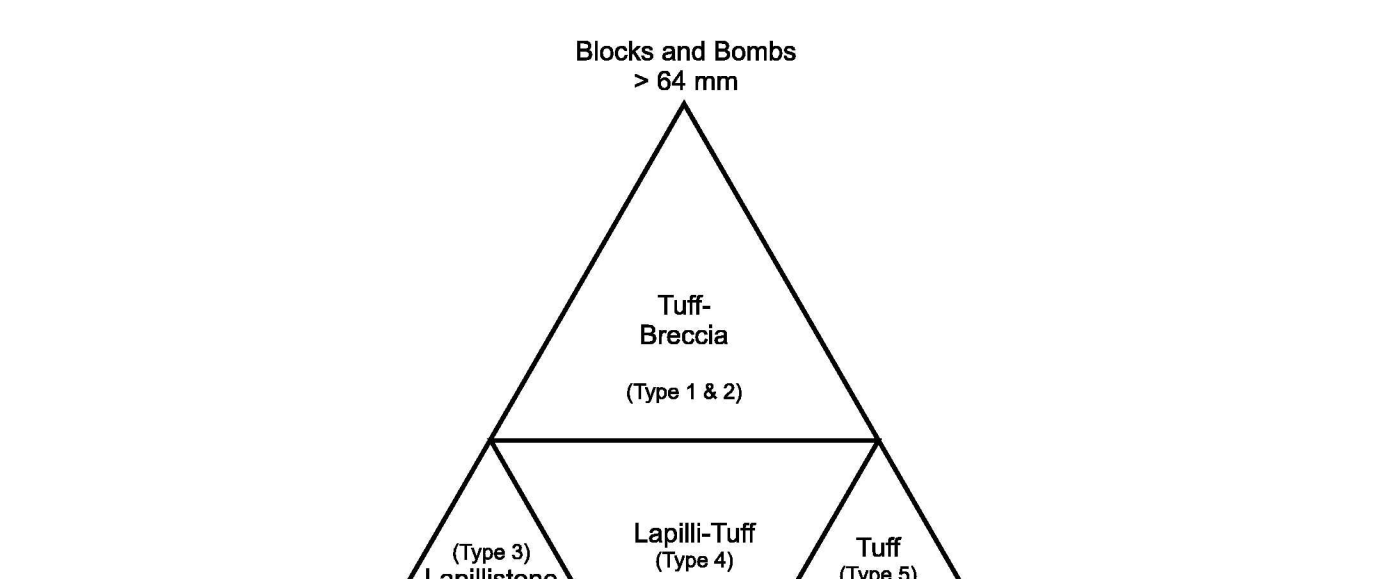
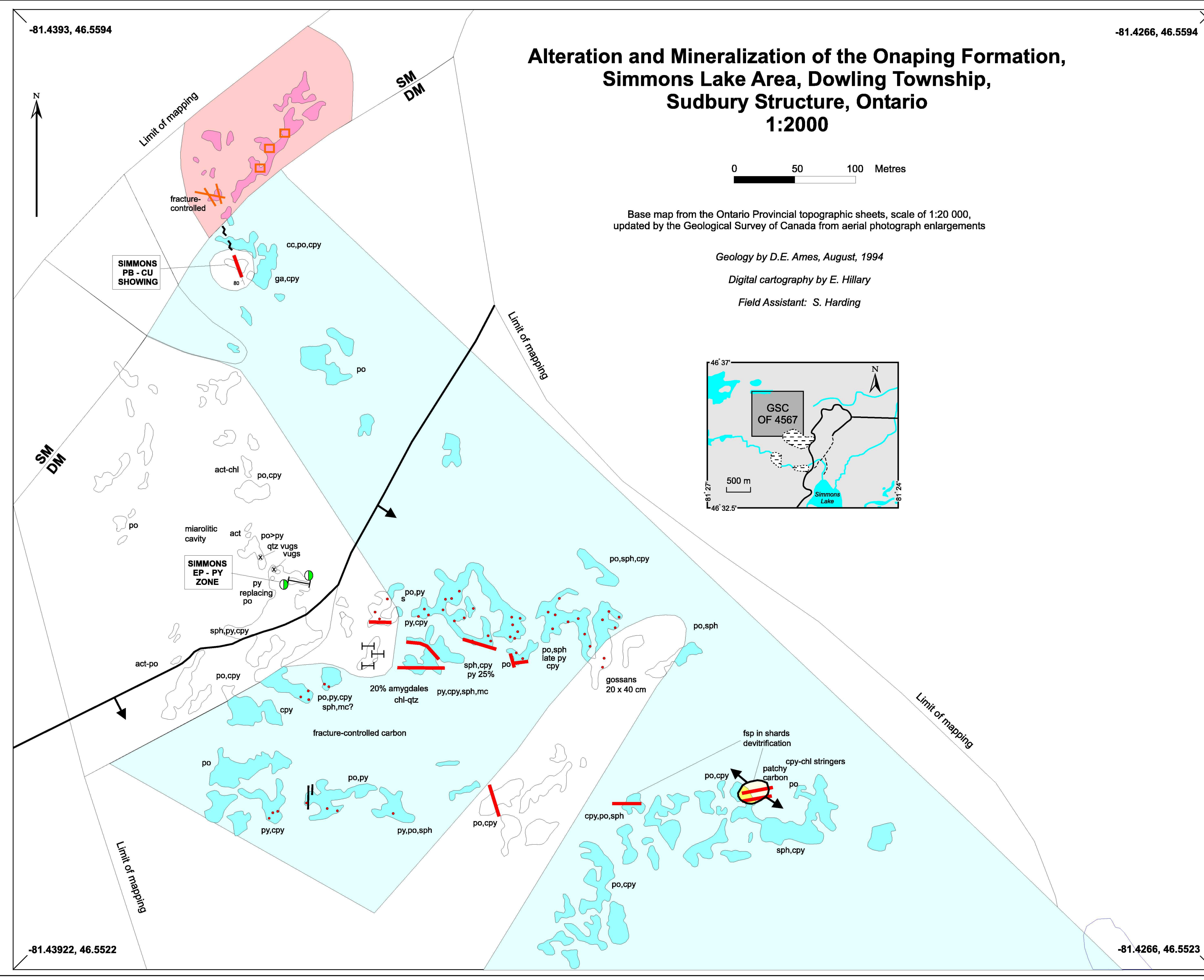
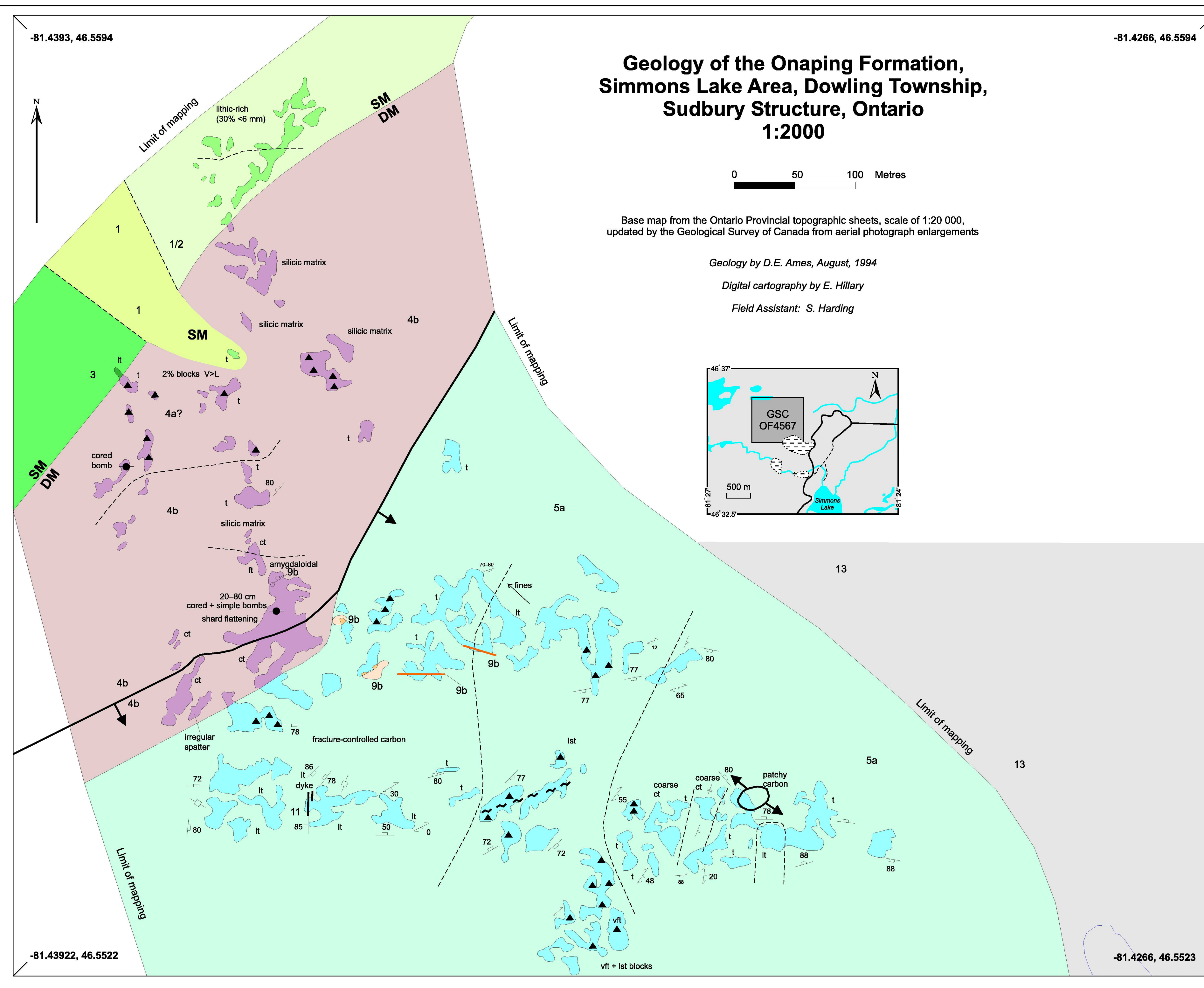


Figure 5. NON-GENETIC granulometric classification of fragmental rocks of the Onaping Formation adapted from Fisher (1966). Type 1-5 after Muir and Peredery (1984).



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