

Sedimentation at the Appalachian Thrust Front, Port Au Port Peninsula, western Newfoundland

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Sediments of the Port Au Port Peninsula, located on the west coast of Newfoundland, record the evolution and destruction of a Cambrian-Ordovician, passive continental margin. The Goose Tickle Group clastics have been interpreted as being deposited in advance of the Humber Arm Allochthon. Outcrops exposed in Victors Brook have been interpreted to represent blocks of Goose Tickle Group material incorporated by the advancing allochthon.

Based on fieldwork in the Victors Brook area, a succession upward from the carbonate platform through shales to the clastics of the Goose Tickle Group has been mapped. The Goose Tickle Group sediments, in Victors Brook, contain conglomerates that have been divided into three types. The first type of conglomerate

is composed of sub-rounded limestone clasts, the second of black and green sub-angular shale chips, and the third is polymictic, and poorly sorted. A large raft of material from the Humber Arm Allochthon is incorporated into the conglomerates. Measured sections in the sandstones and shales show partial Bouma sequences and indicate deposition by turbidites.

Observations indicate that the sediments in this area were deposited in a sedimentary basin formed in front of the advancing allochthon. This basin was then structurally inverted during the Acadian Orogeny. Sediments in the Victors Brook area mark the present day, western boundary of the Humber Arm Allochthon on Port Au Port Peninsula.