

Investigations of ancient and modern placer gold in the Meguma Terrane, onshore and offshore southern Nova Scotia

R.F. Mills and R.R. Stea

Nova Scotia Department of Natural Resources, P.O. Box 698, Halifax, Nova Scotia B3J 2T9, Canada

Terrestrial placer environments in Nova Scotia are diverse, but most are intimately affiliated with glacial dispersion in one form or another. One of the best areas to research ancient (paleo) placers in Nova Scotia is the eastern Meguma Terrane because it has a history of successful gold production in several districts. Although a great deal of research and investigation has been done on the genesis and distribution of lode gold in host rocks, surprisingly little has been done to scientifically compile, document and evaluate the placer

potential. Placer mining and development in Nova Scotia has historically been small scale, but relatively profitable. Most of these placers were never scientifically evaluated as they were exploited, and the possibility still exists that there are placer deposits in the province that may be economically viable as small operations. The 1992 field season saw the investigation of Nova Scotian placer concentrations and potential in a Horton Group basal conglomerate at Coldstream, in a Pleistocene buried meltwater channel and related

glaciolacustrine delta at Beaver Dam, and in the specialized lagoon environments at Wine Harbour. The Wine Harbour lagoon is of particular interest, as it also presents a unique opportunity to develop an exploration model for the investigation of glaciated (ocean interface) placer concentrations.

This modelling has implications for placer potential in submarine environments on the inner shelf that developed as estuarine and marine shorelines changed during Pleistocene sea level rise.