Update on the Eastern Shore Compilation Project, Nova Scotia

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A wealth of information resides in Nova Scotia Department of Natural Resources (NSDNR) databases, private research files, and in internal company reports on numerous gold districts located along Nova Scotia's Eastern Shore. The first documented gold discovery was in 1858. By 1861, several gold-bearing areas were officially declared gold districts and gold had been discovered in many other localities throughout the Eastern Shore. E.R. Faribault and H. Fletcher produced geological maps early in the 19th century, and W. Malcolm compiled a classic memoir on the gold districts, published in 1929. Subsequently, substantial work

has been done by mineral exploration companies, prospectors, and university and government geoscientists.

NSDNR initiated the Eastern Shore Compilation Project in 1998 to (i) compile pre-existing geoscientific information on the gold districts and surrounding areas, (ii) incorporate relevant information on digital base maps with attached databases, and (iii) write site-specific deposit reports, which include reviews of deposit geology and provide interpretive models. Some work (e.g. geochemistry) is undertaken collaboratively with the Geological Survey of Canada (GSC). Work has involved the easternmost portion of the study area (Guysborough to Country Harbour) and current work is centred on Musquodoboit Harbour. This involves numerous gold districts including Country Harbour, Wine Harbour, Forest Hills, Mooseland, and Tangier.

Work has primarily involved digitizing Faribault and Fletcher's work, and correcting and referencing this work onto digital base maps. Geological information from other available sources was also incorporated. Initial work done with AutoCAD® and Fieldlog® was consolidated in ArcView® with NSDNR information, principally the mineral occurrence and drillhole databases with corrected drillhole locations. Individual gold districts recently digitized by NSDNR's GIS section, cross-sections, mine maps, and geophysics are incorporated; some of these are 'hotlinked' to other digital files, including photographs. Database information includes geochemistry, petrography, selected metal analyses, and isotopic data. Additionally, Malcolm's memoir has been reworked digitally, complete with original photographs, and will be released by the GSC on CD-Rom.

The project area is underlain by metasedimentary rocks of the Goldenville and Halifax formations, with Goldenville rocks forming anticlines and Halifax rocks lying in syncline troughs. Folding and structures, particularly in the gold districts, are complex. The more important geological features include domed anticlines and numerous local and regional faults, generally trending northwest. Local faulting, found in all districts, is related mainly to late-stage doming of anticlines. Wine Harbour is highlighted in the talk, where gold was discovered in interbedded veins, mined from 1862–1939, and produced 42,346.5 troy ounces.