

Investigation of Nova Scotia Paleoplacer Sites

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Ancient water courses in the basal sections of the Horton Group are represented by evidence of wide, braided stream environments on the side of a large, tectonically active basin (Messervey, 1929). Carboniferous placers are thereby identified as paleoplacers in very well consolidated sediment. Many of the quartz-pebble conglomerates exposed at these sites are mature, well-rounded and -sorted, pervasively silicified and contain very small amounts of carbonaceous material. These features are virtually identical to those of the ore mined in the South African Witwatersrand gold deposits with the very notable exception of age (Witwatersrand deposits are Precambrian). Despite the age difference, considering that the Horton Group overlies and is composed, to a large degree, of quartz derived from the gold-bearing Meguma Group, carries a certain level of credibility as a possible large scale producer of auriferous ore.

Messervey reported in 1929 on development up to the turn of the 20th Century at the Gays River (Coldstream paleoplacer) gold district and wrote: "That the conglomerate bed at this place contains a large proportion of gold is beyond all question." Gold at this site was found in economic quantities in Horton Group sediments where they make contact with the underlying Meguma Group. Messervey (1929) described development in declines as deep as 137 m (450 feet) (at 10° dip) on both sides of the stream as well as the road. Several other large developments took place in the area by 1872. Messervey (1929) described a northwest-trending "depression" on the lands of Mr. George Gay, hosting a lead from which "a large amount of gold was obtained which, like the leads found in Australia and California, was supposed to be the bed of an old watercourse." This and other important sites, considering the possibility of Nova Scotia as a host for a Witwatersrand-type gold deposit, have had very little attention paid to them within the last half century as production sites or even as research projects.

Crevice in the Meguma Group were filled with clay and often an abundance of fine gold. In 1874 2.5 oz. were obtained from one small crack alone, though the gold is described as being, "equally disseminated" (Messervey, 1929) within the Horton Group ore. Development was substantial at the Gays River gold district and included a 50 stamp mill (O'Reilly, 1998). Prior to 1929, 1,878 oz. of gold had been obtained from 11,877 tons of ore, for a grade of approximately 4.5 grams/ton from what is described as a persistent, well disseminated, consistent ore.

In 1965 a drag line was brought in to strip overburden down to bedrock, and a mill was built with a rotating trommel. Some gold must have been produced, as then property owner Tim Scott is seen in one photo holding a small, candy bar-sized bar of gold (Densmore, 1965). Grades returned from the area, while low prior to 1965, are considered very good by today's standards. It is possible that the Gays River gold district may hold the key to the future development of the Horton Group as a Witwatersrand-type gold development target.

References

- Densmore, H. 1965: There's Still Gold in Old Gay's River Mine, New Company Finds Gold in Old Strike; Halifax Chronicle Herald, September 15, 1965, 1 MR-D-147 p. with photos.
- Messervey, J. P. 1929: Gay's River Gold District; Nova Scotia Department of Public Works and Mines, 7 p.
- O'Reilly, G. A. 1998: Gays River Placer Au Deposit; Nova Scotia Department of Natural Resources, Mineral Occurrence Card E03-006, 3 p.