

---

## Windowglass Hill – a tension vein array gold prospect in southwest Newfoundland

---

MIKE BASHA, GEORGE SMITH,  
JEFF MORGAN, AND WAYNE PICKETT  
*Cornerstone Capital Resources Inc., PO Box 668,  
Clyde Avenue, Mount Pearl, NL, A1N 2X1.*

The Windowglass Gold prospect, located in southwestern Newfoundland, comprises one of a series of auriferous vein-type gold prospects along a 10 km segment of the Cape Ray Fault Zone, a major Late Silurian to Early Devonian reverse-oblique fault zone. The Cape Ray Fault extends for 100 km and is up to several hundreds of metres wide and represents a major terrane collision event in the Late Silurian of the Newfoundland Appalachians. Mineralization along the Cape Ray Fault Zone is interpreted to be the end-product of terrane collision and attendant metamorphism and magmatism. The mineralization is bracketed between 415 Ma, post-peak metamorphism, and 386 Ma, the age of the Isle Aux Mortes Granite which cuts mineralized structures.

Mineralization along the Cape Ray Fault Zone typically consists of steeply dipping, northeast trending fault-fill quartz breccia veins within meta-volcanics and sediments of the Windsor Point Group. Mineralization at the Windowglass Hill Gold prospect comprises several arrays of flat-lying to shallowly west-dipping, sulphide-rich extensional quartz veins within the Windowglass Hill Granite. Five individual vein arrays have now been outlined over a distance of 1.5 km within the Windowglass Hill Granite, including the previously documented Main Zone. The 2004 program comprised regional prospecting surveys, structural mapping, development of a 3D geological model and diamond drilling. Thirteen drillholes tested previously untested surface exposures of four of five vein arrays while three drillholes tested the Main Zone. All drillholes intersected mineralized veins, however, at the Main Zone, drill hole WGH-04-11 intersected 7.54 g/t Au and 49.1 g/t Ag over 5.15 m including 14.5 g/t Au and 60.8 g/t Ag over 2.2 m. The 2004 work indicates that these extensional west-dipping veins comprise a more-or-less coherent 200 m long southwest plunging tension vein array open down plunge to the southwest.

The Windowglass Hill vein systems interpreted to be en échelon tension vein arrays, are a vein configuration common in major fault zones but which are difficult to identify because of complex geometry. The tension vein arrays at the Windowglass Hill prospect have no obvious association with local faults or shear zones but must have a distinct relationship to the parent Cape Ray Fault Zone. The pre to syn-tectonic Windowglass Hill Granite (ca 424 Ma) probably acted as a competent island within the ductile Cape Ray Fault Zone and subsequent deformation events along the Cape Ray Fault Zone likely causing strain refraction and buffering against post-mineral strain events. The mineralization at Windowglass Hill is similar to that comprising many other Tension Vein Array gold deposits. The world-class Sunrise Dam deposit (6 million ozs), and the Cadia Deposit (2.5 million ozs) are considered tension vein array type gold deposits.