



Figure 1. Section 5358900N, Lake Newton Prospect alteration zonation

COon	Undifferentiated. - Newton Creek Sandstone	Cb	Basalt lava and breccias
COonc	Mainly pebble conglomerate with minor thinly bedded quartzitic sandstone and pebble sandstone - Newton Creek Sandstone	Cymf	Rhyolitic-dacitic massflows, commonly graded. - Yolande River Sequence
COonsh	Mainly thinly bedded siltstone, quartzitic sandstone with bands of pebble conglomerate - Newton Creek Sandstone	Cys	Units of bedded siltstone, sandstone. - Yolande River Sequence
Ctc	Mainly volcanoclastic conglomerate with minor siltstone and volcanoclastic sandstone. - Upper Tyndall Group / Zig Zag Hill Formation	Cp	Quartz-feldspar hornblende porphyry
Cts	Bedded sandstone - siltstone units	Chf	Undifferentiated Henty Fault Wedge sequence
Ctt	Mainly crystal - rich volcanic sandstone (quartz-feldspar phytic). - Comstock Tuff and correlates.	Ccarb	Exhalative carbonate horizon
Ctl	Quartz-feldspar phytic lava and intrusives	MZ	Silica - sericite - pyrite - chlorite alteration
Cttl	Crystal - rich volcanic sandstone (feldspar-pyroxene phytic), lithic-rich bases with minor ash, sandstone and limestone. - Lynchford Member and correlates.	MV	Silica - sericite alteration
Ctb	Basalt - commonly hematitic and carbonate altered. - Howards Basalt	MQ	Silica - sulphide alteration
Ca	Andestitic to basaltic intrusive bodies with lavas & clastic units. Includes feldspar-hornblende-pyroxene phytic types & small chlorite altered dykes. - Anthony Road Andesite	MA	Sericite - pyrite - carbonate alteration
Ccv	Mainly felsic pyroclastic rocks, dominantly feldspar phytic, including pumice bearing tuff & breccia, crystal vitric tuff, vitric tuff & minor shale & sandstone	AS	Intense albite - silica alteration
Ccvi	Mainly felsic feldspar phytic lava and intrusives; massive to flow banded or autobrecciated, with rare columnar jointing	fault	Fault

Legend for Figure 1.

It was concluded that the zonation reflects one of two possible mechanisms for the formation of the system:

- 1) Mixing of low $\delta^{34}\text{S}$ magmatic derived fluids with higher $\delta^{34}\text{S}$ reduced Cambrian seawater circulating through the upper volcanic pile.
- 2) Mixing of deeply circulating, seawater dominated hydrothermal fluid with low $\delta^{34}\text{S}$ (from scavenged rock sulphur) with higher $\delta^{34}\text{S}$ reduced Cambrian seawater circulating through the upper volcanic pile.