

DDH CHP 241, which was drilled west of, and beneath CHP 238, failed to intersect the limestone - black mudstone (L.B.M.) sequence, despite all the drill hole evidence indicating a west facing (refer E.Z. Report No. T173). Mapping on the surface above CHP 238 also failed to identify the L.B.M. DDH CHP 263 (refer to log in Appendix 1 and to plan A1-504-0339) may supply a solution to this apparent lack of continuity in the sequence. Measurements of cleavage and bedding within CHP 263 indicate that the cleavage (approx. 55°E dip) is flatter than the bedding (approx. 80°E dip), suggesting that the sequence is overturned. It is interpreted that DDH CHP 238, 241, 263 all lie on the western, slightly overturned limb of a recumbent anticline (refer to plans A2-504-0347 and A4-504-0348). The crest of this anticline trends NNW along Colebrook Ridge. Exposure of the underlying L.B.M. sequence is controlled by the interaction of the anticlinal closure and the topography.

DDH CHP 263 did not intersect a thick limestone as did CHP 263. It did however see a pyritic black mudstone sequence with low geochemical signature between 160m and 185m, which is equated with the L.B.M. These mudstones are the most probable source of the I.P. anomaly tested by CHP 263. This unit is faulted on its eastern side against a repetition of the C.R.W. Strongly oxidised rocks with low geochemistry between 24m and 34m occur in similar fashion above a fault zone. These also are ascribed to the L.B.M. DDH CHP 263 is therefore interpreted as passing through a series of reverse faulted slices on the overturned western limb of the recumbent anticline. The interpreted subcrop of L.B.M. east of DDH CHP 263 is based largely on a zone of lower soil geochemistry between 375,140E and 375,400E. Outcrop along the line is very sparse.

The C.R.W. intersected by DDH CHP 263 displays a variety of lithologies. Mafic and felsic volcanic wackes are interbedded with felsic lithic tuffs, siltstones mudstones and thin bedded limestones. The sequence is intruded by a dolerite dyke. In total it is most similar to that seen by DDH CHP 241 (E.Z. Report T173).

Thin section examination (refer Appendix 2) of a wacke from DDH CHP 263 describes a tuffaceous wacke of mafic to intermediate affinities and correlates the rock with Crimson Creek Fm., lithotypes.

It is tentatively proposed that the zones of mineralised calc-silicate skarn rocks on Colebrook Hill relate to the L.B.M. horizon. It is possible that these calc-silicates could relate to a zone of thin-bedded limestone within the C.R.W. It is believed, however, that these are a more likely source of the isolated small occurrences of calc-silicate metasomatism seen away from the hill, as in DDH CHP 229 (refer