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Where the distinction between the Lewis River Volcanic Group and Mainwaring Group is drawn is debatable because of the apparent interfingering of the Sassy Creek Argillites with the Penders Tuffs. The writer's preference is to include the Penders Tuffs as a local Formation at the top of the Wart Hill Pyroclastics and for the base of the Mainwaring Group to be defined by the virtual cessation of acid volcanicity and the onset of basic volcanicity with deposition of finer grained sediments. The difference of viewpoint will be reconciled in the course of further exploration in and around this economically important 'transition zone'.

Mapping of two E-W traverses, firstly along the B.H.P. track and secondly along the Mainwaring River, confirmed the general stratigraphy which is presented on the 1:42000 regional map of the E.L. (Large 1981). The Mainwaring Group rocks strike between N and NNW and display vertical or steep dips inclined to the west. A well developed slaty cleavage is ubiquitous in the argillaceous units and is subparallel to bedding. From east to west the following sequences were recognised on the two traverses (see plans 71 and 71a).

1. Rhyolitic crystal tuffs and lavas outcrop for some 1-2km between the Tyndall unconformity and the main outcrop of phyllites. The tuffs are correlated with the Penders tuffs by Poltock (1981) due to their stratigraphic position at the top of the Wart Hill Pyroclastics. On the Cypress Creek track these acid volcanics have two interbedded units of basic lava and a 50m wide black siltstone bed (see plan 71a).