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recognized by Campana and King (1957), and, based on photogeological evidence, this author agrees with their interpretation. The eastern margin of the rift is defined by the faulted western margin of the pre-Cambrian Tyennan Meta-quartzite (Tyennan Fault - see Fig.4). The western margin, although partially obscured by overlying sediments, especially north of Burns Peak, is represented by the Marionoak Fault. This fault is visible from Marionoak Creek south through Moore's Pimple to the south-west corner of the study area (CR 7/12). North of Burns Peak the Marionoak Fault is obscured by younger cover rocks. Its approximate position is marked by the contact between the Crimson Creek Formation with the Bulgobac Group and Intrusive Porphyries (see Fig.4), and also by the Que River before it swings to the east (between CR 2/157 and CR 2/158).

The boundaries of sub-rift valleys are defined by the Henty and Great Lyell Faults. Only the northern limit of the latter is present in the southern part of the area, and is visible along the western side of the Tyndall Range. (CR 8/207).

The Henty Fault extends from south of Mt. Dundas, through Tullah and then NNE along the Mackintosh River Valley. Two other large northerly-trending faults are those passing through Lake Dora and Mt. Murchison, and through Mt. Black. Numerous other northerly-trending faults were recognized on the aerial photographs, many being splinter faults related to the larger fractures.

The north-trending faults are offset by many, generally WNW trending cross faults. Movement on all faults appears to be mainly vertical with little or no horizontal movement. The Henty and Mt. Black Faults have components of "west-block-up"; vertical throw on the latter being approximately 150 metres.

It is felt by this author that some northerly-trending faults are not readily apparent, either on the aerial photographs or in the field, as movement is taken up along cleavage planes of interbedded shale lenses. It is suggested that the "schist" on the hanging wall contact at Rosebery may represent an example of this. A pervasive northerly-trending cleavage is recognized throughout the study-area.

Folding is open in style with only local overturning, the limbs having moderate dips. The folding appears to be linked with post-depositional