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The Haulage Unconformity

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In the Copper Clays Prospect of the Mt Lyell Mining and Railway Co. Ltd a marked unconformity occurs between the Pioneer beds and the Owen Conglomerate. This haulage unconformity is well exposed at 4600'S, 950'E where the angle between the depositional planes of the upper and lower beds is 60°. Examination of the data on earlier maps indicated that the relationship given between the Owen Conglomerate and the Pioneer beds is not possible at a number of localities, e.g. 3800'S, 1000'E, and further field studies were required. Field examination from 21 to 24 November 1966 inclusive revealed that at the localities referred to above the peculiarities of the trend of the unconformity are due to folding. At 4600'S, 950'S the unconformity is folded about an axis of direction 115° and plunge 55°. At 3800'S, 1000'E the East Lyell Sheet incorrectly shows a right angular relationship between the strikes across the unconformity, for further field work has shown that the unconformity has been folded about an axis of direction 205° and plunge 40°, and that the angle between the depositional planes across the unconformity is only some 4°.

Tilting of the Owen Conglomerate prior to the deposition of the unconformity overlying Pioneer beds has been attributed to movement along the Lyell Shear. It is now evident that movement occurred after the deposition of the Pioneer beds as well as before, accounting for the folding of the unconformity.

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