

The maximum thickness of the limestone in this region is about 1000 m at Gunns Plains. Generally, it consists of thick, massive beds of fairly pure blue-grey fine-grained limestone. Occasionally it is highly sheared and somewhat schistose and ranges in composition from 60 - 95% CaCO_3 , with common impurities of Al_2O_3 , SiO_2 , MgO and iron oxides. Deep weathering in limestone areas is common and outcrop is rare.

Metasomatic and contact metamorphic alteration of the Gordon Limestone and the transition zone beds at its base has resulted in the formation of variable skarn assemblages in the Stormont, Ti-Tree Creek, Moina and Tin Spur Creek areas. (Refer plan D/MZ 01/148).

At several localities in the vicinity of Mole Creek and Gunns Plains, the Gordon Limestone is succeeded, apparently conformably, by a sequence of sandstone and quartzite. These rocks are considered to be of Silurian age and probably equivalent to the Crotty Sandstone of the Eldon Group. These rocks appear similar to some members of the Moina Sandstone and contain tubicolar organisms characteristic of that formation.

Cambrian?
The Devonian Dove Granite outcrops in three places along or near the Pre-Cambrian - Lower Palaeozoic unconformity.

In the Mersey Valley the granite is mostly weathered to depths exceeding 20 m. Near the contact with the Moina Sandstone the Dove Granite is a medium to coarse grained pinkish weathered rock containing pink feldspar, glassy quartz and a green micaceous mineral.

Aplite and basic dykes up to 2 feet wide occur and usually stand out well as fresher material against the completely weathered enclosing granite.

Dove Granite outcrops fairly widely around the junction of the Dove and Forth Rivers but it is deeply weathered and variable, in composition. Hematite and sulphide mineralization is associated with this granite.