The Permian red beds of west Cumbria

Introduction

The Permian strata of west Cumbria reflect the offshore geology of the Irish Sea Basin (Jackson *et al.,* 1987, 1995; Jackson and Johnson, 1996; Akhurst *et al.,* 1997; Meadows *et al.,* 1997). The succession begins with the Brockram, a breccia unit, which is followed by the Cumbrian Coast Group, comprising marine sediments, the St Bees Evaporites Formation, overlain by the St Bees Shale Formation and the St Bees Sandstone Formation, which is of presumed Early Triassic age, and forms part of the Sherwood Sandstone Group (see Chapter 3). (The Barrowmouth Mudstone Formation is the offshore equivalent to the St Bees Shale Formation (Akhurst *et al.,* 1997); Jackson *et al.,* 1997, follow this scheme). The Brockram rests unconformably on Carboniferous sediments, which are often reddened; it is traceable throughout the Irish Sea basin (Jackson *et al.,* 1987). The base of the marine deposits is equated with the basal Zechstein, dated as Late Permian (Smith, 1995). Palynomorphs from a borehole in unit BS4 in the Irish Sea Basin, equivalent to the Barrowmouth Mudstone Formation, only 18 m below the St Bees Sandstone Formation, gave a Kazanian–Tatarian date (Jackson *et al.,* 1987, p. 198).

Onshore in west Cumbria, one GCR site, at Saltom Bay, has been selected to illustrate the Permian succession and its passage into the Triassic succession.

Saltom Bay, Cumbria

References