

DORSET LOCAL GEOLOGICAL SITES SURVEY

Site number G ST71/15

Site name Whiteways Hill quarry, Marnhull

Summary description

Jurassic, Corallian Group, Todber Freestone and Clavellata Beds

A deep working quarry with a particularly good exposure of the Clavellata Beds containing many bivalves, gastropods and echinoids, with occasional ammonites. The oolitic sparite limestone of the Todber Freestone has been used for building in a wide area of North Dorset. Throughout the quarry the beds are thinly separated by brown clays.

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When first recorded by DERC in 1984 this quarry was disused, but it was re-opened in the 1990's and is now a deep working quarry. There is approximately 10 metres of vertical exposure, mainly in the Trigonina Clavellata Beds that contain abundant oyster shells, replaced with crystalline calcite, with gastropods and echinoids and occasional ammonites. The stone is oolitic and massively bedded, in 1 metre thick units with friable partings in between, often clay rich.

The lower part of the quarry has some surfaces showing terebratulid brachiopods well weathered out on the joint surfaces. Some good sections of *Aptyxiella* like gastropods where the shell has been weathered out to show the interior of the whorls. Also evidence of trace fossils with good specimens of *Skolithos*.

The strata dips from 4° to 5° to the north west. In 2010 the main working face was orientated east-west, with a remaining face running north-south. There are several faults between Whiteways Hill and Todber, and slickenside-type striations were seen on some joint surfaces.