

019

(iii) Chintah-Hummocky Hills (Section M) (Fig. No. 14)

Thick clay sequences occur here, with a depth greater than present sea level in the centre of the section. The clay is dark greyish brown with unbleached fine carbonaceous matter with bands of grey brown siderite in places. Only minor drab grey sand-silt sequences occur.

Information from holes W23, M/4 and W67 indicate that there is no continuous high dolerite "horst" structure between the Tamar and Cressy Troughs and that these were possibly connected throughout the Tertiary.

A narrow band of anomalous radiation was detected in M/4 at 283 ft. - 43 cps (background x 2½) in silty carbonaceous clay.

(iv) Panshanger (Section O) (Fig. No. 15)

This section was sited close to a high dolerite ridge, as it turned out, and not to a small "monadnock" as originally thought, therefore littoral conditions related to this possibly prevailed.

The outstanding feature is a deep valley at about O/1, apparently filled with fine sand to present sea level. A high dolerite bar as indicated at O/2 and a high bar of Triassic felspathic sandstone with coal seams at O/7. The latter is somewhat weathered due to decomposition of feldspar during resubmergence in the Tertiary.

An ironstone cemented gravel is present on the surface between O/4 and O/6, representing a pre-Pleistocene lateritised surface and not a Pleistocene terrace as originally mapped (Blake, 1959).

Significant carbonaceous sand-silt sequences are present in O/4 to O/6, with some iron oxide staining persistent to basement in O/4. Deep weathering of the dolerite is indicated in O/4 and O/6.

(v) Cressy-Bishopsbourne (Sections P, Q, R, S/1-S/14, T) (Fig. Nos. 16, 22, 17, 18, 19, 20, 21)

It is convenient to treat these as one entity, covering the central part of the Cressy Trough, in which fairly uniform conditions of sedimentation have prevailed.

The trough is possibly very deep in parts. A petroleum-gas exploratory hole, ½ mile west of S/5, drilled by C. Sulzberger to 2256 ft. was stopped in dolerite. Clays and sands were encountered throughout (pers. comm. C. Sulzberger).

On the average, the upper 300 ft. down to 200-300 ft. above sea level, is clay. This has been leached and oxidised down to an average of 50-60 ft. roughly reflecting the surface profile. The surface clays are mottled grey-buff-orange with hard limonite bands. Below the 50-60 ft. level uniform dark greyish brown with non-bleached carbonaceous material occur with occasional thin bands of brownish grey siderite (W.L. Matthews, pers. comm.) mistakenly logged as silcrete.

From about 250 ft. above sea level down to 0 ft. above sea level (being the lower limit of penetration over most of the area) there is considerable variation in mainly drab grey sands, silts and clays with fairly rapid facies changes evident, indicating periods of fluvial and deltaic