

EXCURSION TO EARL STERNDALE AREA

Leader: N. Aitkenhead.

15th September 1974.

Because an account of a similar excursion has appeared recently elsewhere (Aitkenhead *et al.* 1974), this account is summarised. The following localities were visited and geological features seen by the party:

1. Jericho Quarry (0899 6748).

Pale thick-bedded calcarenites of the Bee Low Limestones, shelf limestones of the D₁ Zone (Lower Carboniferous) showing a band containing a few *Lithostrotion* colonies and brachiopods including *Davidsonina septosa*.

2. Dowel Dale (0759 6771)

B₂ Zone algal reef of Wolfenden (1958), forming crags on either side of the dale and passing southwards into fore-reef limestones with a rich and varied fauna of brachiopods.

3. Near Dowel Farm (0754 6751)

Fore-reef limestones as above in crags forming south-facing dip slope with overlapping Namurian shales seen in a small exposure under a tree near the foot of the crags.

4. South-west of Dowel Farm (0734 6747).

Pale limestones, possibly of fore-reef facies, rich in Caninoid corals.

5. At (0720 6741)

Conglomerate of well-worn shell debris in the back-reef.

6. Fault breccia at the foot of the north face of Chrome Hill (0712 6738) with galena-fluorite-calcite mineralization; and a fault plane covered with galena crystals nearby at (0725 6732).

7. South side of Chrome Hill at (0719 6706)

Limestone containing abundant gigantoproductoids resting on fore-reef micritic limestones which nearby show discordant bedding structures suggesting penecontemporaneous brecciation.

8. Summit of Chrome Hill (07086732) with fine views of the spectacular scenery formed by the limestone of the B₂ apron reef complex and the escarpments of the Longnor Sandstones (R_{1c} Zone of the Namurian) overlooking the upper Dove valley and also forming an outlying hill on the limestones north of Chrome Hill.

9. At (0705 6750).

Dark bituminous-smelling cherty limestones of D₂ age on the rim of a sink hole at the edge of the Namurian outlier of shale overlain by Longnor Sandstones to the north of Chrome Hill.

Conservation note: All readers who may use this itinerary to visit the area are asked to conserve the exposures listed above by refraining from hammering them and collecting only from loose pieces.

References

- WOLFENDEN, E. B. 1958. Paleocology of the Carboniferous reef complex and shelf limestones in north-west Derbyshire, England. *Bull. geol. Soc. Am.*, vol. 69, pp. 871-98.
- AITKENHEAD, N., and
HOLDSWORTH, B. K. 1974. Field Meeting:- North Staffordshire - Derbyshire borders 15-17th September 1972 *Proc. Yorks. geol. Soc.*, vol. 40, pp. 58-62.

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