

THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

**Proposed extension to the Cae Rhys
sand and gravel quarry, Pen-y-cefn,
near Caerwys, Denbighshire**

ARCHAEOLOGICAL EVALUATION

CPAT Report No 484

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sand and gravel quarry, Pen-y-cefn,
near Caerwys, Denbighshire**

ARCHAEOLOGICAL EVALUATION

R Hankinson
July 2002

Report for Cae Rhys Sand and Gravel Ltd

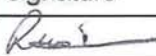
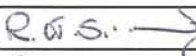
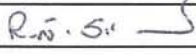
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CPAT Report Record

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1 INTRODUCTION

- 1.1 In June 2002 the Contracts Section of the Clwyd-Powys Archaeological Trust (CPAT) was invited by Cae Rhys Sand and Gravel Ltd to prepare a specification and quotation for undertaking an archaeological evaluation on land adjacent to the Cae Rhys sand and gravel quarry at Pen-y-cefn, near Caerwys, Denbighshire. The evaluation was the subject of a brief drawn up by Mrs F Gale, Denbighshire County Archaeologist, acting as the archaeological curator, in relation to a planning application (No 47/2002/0495/MA) to extend the quarry.
- 1.2 The specification was approved by Mrs Gale, and the accompanying quotation was accepted by Cae Rhys Sand and Gravel Ltd. The archaeological evaluation was carried out in July 2002 and this report compiled immediately thereafter.

2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 2.1 The area of the evaluation was centred at SJ 10777557, to the south of the main A55 dual carriageway at Pen-y-cefn, near Caerwys, Denbighshire (see Fig. 1). The proposal relates to the expansion of quarrying into part of a pasture field to the west of the existing Cae Rhys quarry.
- 2.2 Cae Rhys quarry lies near the northern end of the Clwydian range of hills, which form a barrier between the Vale of Clwyd to the west and the Dee Estuary to the east. The local topography consists of an undulating plateau varying in height from approximately 160m OD to 230m OD.
- 2.3 The solid geology of the area consists of undivided Dinantian limestones, generally known as Carboniferous Limestone (1994 British Geological Survey map), although these are locally overlain by glacial sands and gravels of the Pleistocene period. The soils of the immediate area consist of both fine loamy and silty soils belonging to the Denbigh 1 Association, and fine loamy soils belonging to the Brickfield 2 Association (1983 Soil Survey of England and Wales map).

3 ARCHAEOLOGICAL BACKGROUND

- 3.1 The application area is crossed by the line of a Roman road running from Deva (Chester) to Varis (location uncertain) and termed Iter XI (also known as RR 67a) in the standard terminology. This runs on an approximately east to west alignment, and continued as an extant and visible section of *agger* in the field to the east of Cae Rhys. The main purpose of the evaluation was to determine the nature and condition of any surviving features relating to the Roman road within the application area.
- 3.2 Two trenches had been excavated across the Roman road at Waen Gate, Rhualt (SJ 066748) about 4km to the west in 1989 (Brassil, 1989), prior to road improvements. In one trench, the road survived as a low causeway, preserving the remains of a 6m-wide *agger*, with flanking ditches, 0.7m wide by 0.4m deep. This section of the road surface consisted of a mix of cobbled and gravel-clay metalling, 0.15m thick. In the second trench, only a 1.5m width of road surface and the flanking ditch on its north side appeared to have survived erosion.

4 EVALUATION (Figs 2-4)

- 4.1 The evaluation at Cae Rhys consisted of two trenches (Fig. 2), each of which was excavated to a sufficient depth to determine whether deposits associated with the Roman road were present. None of the identified features which were encountered were completely excavated. A drawn, written and photographic record was maintained throughout (see Appendix 1).

Trench A (19.3m x 1.6m; Fig. 3)

- 4.2 Trench A was located near the western boundary of the application area, and was sited across a section of what appeared to be a faintly visible *agger*, running approximately east-north-east/west-south-west. A layer of topsoil and ploughsoil consisting of pale grey-brown sandy silt (1), between 0.3m and 0.6m thick, was removed by machine, and the subsequent excavation was then carried out

entirely by hand. The removal of layer 1 demonstrated that the underlying subsoil (layers 4, 10 and 11) had previously formed a more pronounced east-north-east/west-south-west ridge than is now visible.

- 4.3 In a central position, corresponding with the visible *agger*, a layer of small rounded stones (2) set in a yellow-grey gritty clay matrix was encountered. This appeared to be the surface of the Roman road and was left in-situ. An irregular feature (7) with radiating projections, visible in the surface of the road, was interpreted as a disturbance caused by tree roots.
- 4.4 On the north-north-west side of the road surface, the orangey brown clay silt fill (5) of a ditch (6), 1.1m wide by 0.2m deep, was sectioned, revealing a shallow U-shaped profile of the ditch. No finds were recovered from its fill. A layer of yellowish-grey silty clay (3), up to 0.2m thick, was sectioned on the south-south-east side of the road surface. This revealed a second ditch (12), 0.8m wide by 0.2m deep. The silty clay was similar in colour to the matrix of the road surface and extended 2.7m to the south-south-east of the ditch, perhaps suggesting that it represents a deposit resulting from the erosion of the road surface. A single small fragment of lead smelting slag was found in layer 3. The overall width of the road in this trench, including its flanking ditches, was approximately 7m.

Trench B (21.0m x 1.6m; Fig. 4)

- 4.5 Trench B was located near the eastern boundary of the application area, adjacent to the existing quarry, and was sited across what appeared to be the east-north-east continuation of the visible *agger* examined in Trench A. A layer of topsoil and ploughsoil consisting of pale grey-brown sandy silt (1), between 0.2m and 0.8m thick, was removed by machine, with subsequent excavation being carried out entirely by hand.
- 4.6 No in-situ road surface material was encountered, although a lens of disturbed yellow silty clay (23), similar to layer 3 in Trench A and up to 0.35m thick, rested on the south side of a natural bank of orange stony silt (24). This bank appeared to form a pronounced east/west ridge corresponding with that recognised in Trench A. To the north of layer 23, a gully or ploughmark, 0.15m wide by 0.05m deep, was cut into the upper surface of layer 24.
- 4.7 At the north-north-west end of the trench, a shallow scoop (13), 0.1m deep, was cut into layer 24 and filled by a deposit of grey-brown silt (14), although the nature of the feature was unclear. On the south-south-east side of the scoop, a curving gully (15), up to 0.9m wide by 0.2m deep, was also cut into layer 24. The gully crossed the trench in an east/west direction and was filled by a deposit of orangey-brown clay silt (16).
- 4.8 An irregular feature (18), filled with brown clay silt (17) was encountered in an approximately central position within the trench. The appearance of this feature suggested it represented tree root disturbance, probably similar to that recorded in Trench A. Feature 18 appeared to cut a curving ditch (19), 0.7m wide by 0.3m deep, which cut layer 24 and was filled by a deposit of orangey-brown clay silt (20).

5 CONCLUSIONS

- 5.1 The excavations demonstrated the presence of the Roman road, crossing the application area in an east-north-east/west-south-west direction. The evidence from Trench A suggests that the road had a metalled gravel surface with shallow flanking ditches, giving an overall width of approximately 7m. The appearance of the natural subsoil in both trenches suggests that the road utilised an existing ridge of natural gravelly subsoil, giving the appearance of a raised *agger*.
- 5.2 Neither of the two larger gullies present in Trench B were believed to represent roadside ditches, owing to their curvilinear appearance. However, possible evidence of the line of the road is suggested by the lens of silty clay (23) which appears to have been placed against the natural bank referred to above. Perhaps material intended to form the matrix of the road surface was used to cover the soft sandy subsoil at this point, in order to maintain the alignment of the road.
- 5.3 A probable ploughmark (21) demonstrates that the road surface may have been lost to subsequent agricultural activity and this is further supported by the variable depth of ploughsoil in both trenches which shows that the micro-topography has been significantly altered by ploughing. The remaining

features present in the evaluation trenches appear to result from a combination of later activity and disturbance by tree roots. It is possible that the surface of the road was colonised by trees following its abandonment.

8 ACKNOWLEDGEMENTS

- 8.1 The writer would like to thank the following people for their assistance during the project: Ian Grant and Bob Silvester, CPAT; and John and Elizabeth Roberts of Cae Rhys Sand and Gravel Ltd for facilitating the excavation.

9 REFERENCES

Brassil, K, 1989, 'Waen Gate, Rhualt, St Asaph', *Archaeology in Wales*, 29, 52.

Smith, B, & George, T N. *British Regional Geology - North Wales*. London: HMSO.

Cartographic sources

1983 Soil Survey of England and Wales map (Sheet 2 - Wales) and Legend (1:250,000 scale)

1994 British Geological Survey map of Wales (Solid edition at 1:250,000 scale)

APPENDIX 1

CAE RHYS ROMAN ROAD RR67a SPECIFICATION FOR AN ARCHAEOLOGICAL EVALUATION BY THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

1 Introduction

- 1.1 The proposed development involves the extension of Cae Rhys Sand and Gravel works (Denbighshire CC Planning Application No 47/2002/0495/MA). Denbighshire Archaeology Service, acting as archaeological advisors to the local authority, have determined that an archaeological evaluation should be undertaken to assess the potential impact of the proposals on the archaeological resource. Accordingly, a Brief has been prepared which details the works required.
- 1.2 The development site lies adjacent to the A55 in an area currently used as pasture. Information held by the Regional Sites and Monuments Record indicates the present of a Roman road crossing the development area. In the field to the east of the area the Roman road is visible as a slight earthwork. The Roman road is part of that which runs from Chester to Caernarfon and excavations during the 1980s near Rhualt located a low causeway preserving the remains of a 6m wide *agger* with flanking ditches.

2 Objectives

- 2.1 The objectives of the assessment are:
 - 2.1.1 to reveal by means of field evaluation, the nature, condition, significance and, where possible, the chronology of the archaeology within the area of the proposed development in so far as these aims are possible;
 - 2.1.2 to record any archaeological sites identified during the field evaluation;
 - 2.1.3 to prepare a report outlining the results of the evaluation, incorporating sufficient information on the archaeological resource for a reasonable planning decision to be taken regarding the future management of the archaeology.

3 Methods

- 3.1 The field evaluation will consist of two trenches, each measuring 20 x 1.5m. The programme of works will be agreed with the client, and the position of the trenches approved by the curator, in advance of site work commencing. Any alterations to this scheme will only be undertaken following full consultation with the curator and client.
- 3.2 The excavations will be undertaken using a machine excavator with a toothless bucket to remove modern overburden down to the level of the first recognisable archaeological horizon. Thereafter, all excavation will be conducted by hand unless otherwise agreed with the curator in advance. All archaeological contexts identified will be adequately sampled to define their function, date and relationship to other features, in so far as these aims are possible. If appropriate, samples will be taken for possible environmental or technical evidence.
- 3.3 Contexts will be recorded on individual record forms and be drawn and photographed as appropriate. All photography will be in 35mm format black and white and colour print and colour slide. All features will be located as accurately as possible with respect to buildings and boundaries identified on modern Ordnance Survey maps and levels will be related to Ordnance Datum where possible.
- 3.4 All artefacts will be treated in a manner appropriate to their composition and will be processed by trained CPAT staff.

- 3.5 Following the on-site work an illustrated and bound report will be prepared according to the principles laid out in the Curatorial Brief. This will be in A4 format and contain conventional sections on: Site location, Topography and Geology; Historic Background; Evaluation; Conclusions and Recommendations and References, together with appropriate appendices on archives and finds.
- 3.6 The site archive will be prepared to specifications laid out in Appendix 3 in the Management of Archaeological Projects (English Heritage, 1991).

4 Resources and Programming

- 4.1 The evaluation will be undertaken by a small team of skilled archaeologists under the overall supervision of Mr RJ Silvester, a senior member of CPAT's staff who is also a member of the Institute of Field Archaeologists.
- 4.2 All report preparation will be completed by or with the assistance of the same field archaeologist who conducted the evaluation.
- 4.3 It is anticipated that the evaluation will be completed within 5 days. The report will be completed within 2 weeks of the completion of on-site works. A copy of the report will be deposited with the Regional SMR and Cadw: Welsh Historic Monuments. The curator will be informed of the timetable in order to arrange for monitoring if required.
- 4.4 Requirements relating to Health and Safety regulations will be adhered to by CPAT and its staff.
- 4.5 CPAT is covered by appropriate Public and Employer's Liability insurance.

N.W. Jones
1st July 2002

APPENDIX 2
PROJECT ARCHIVE

Site archive

25 Context record forms
1 black and white negative film
1 colour slide film
1 colour print film
Photographic catalogue
2 A1 site drawings

Finds

Context 3
1 piece of lead smelting slag (16g)

Digital archive

Overall site plan (Penmap): Caerhys.pts

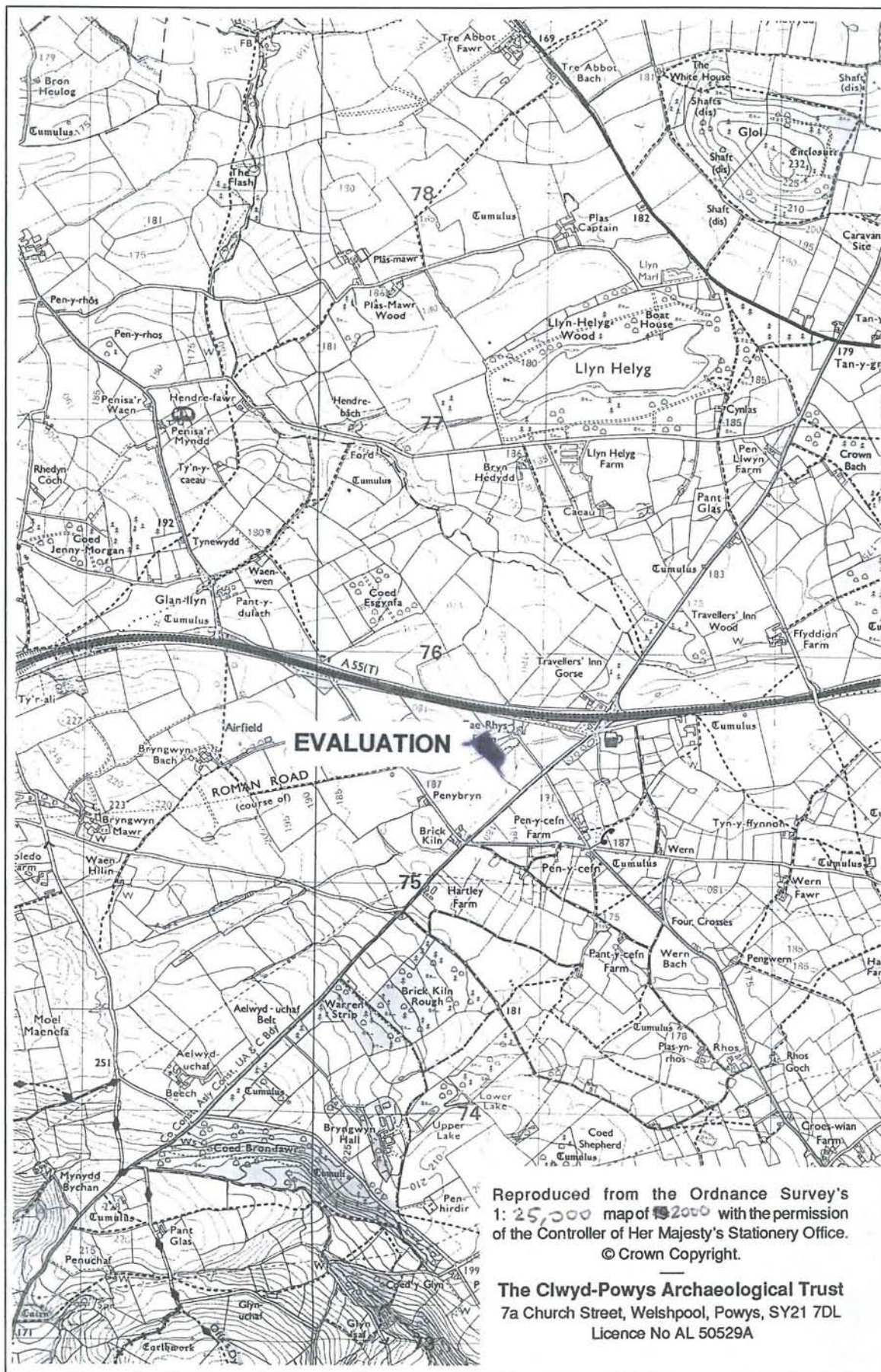


Fig. 1 Site Location (Scale 1:25,000)



Fig. 2 Location of evaluation trenches (Scale 1:2,500)

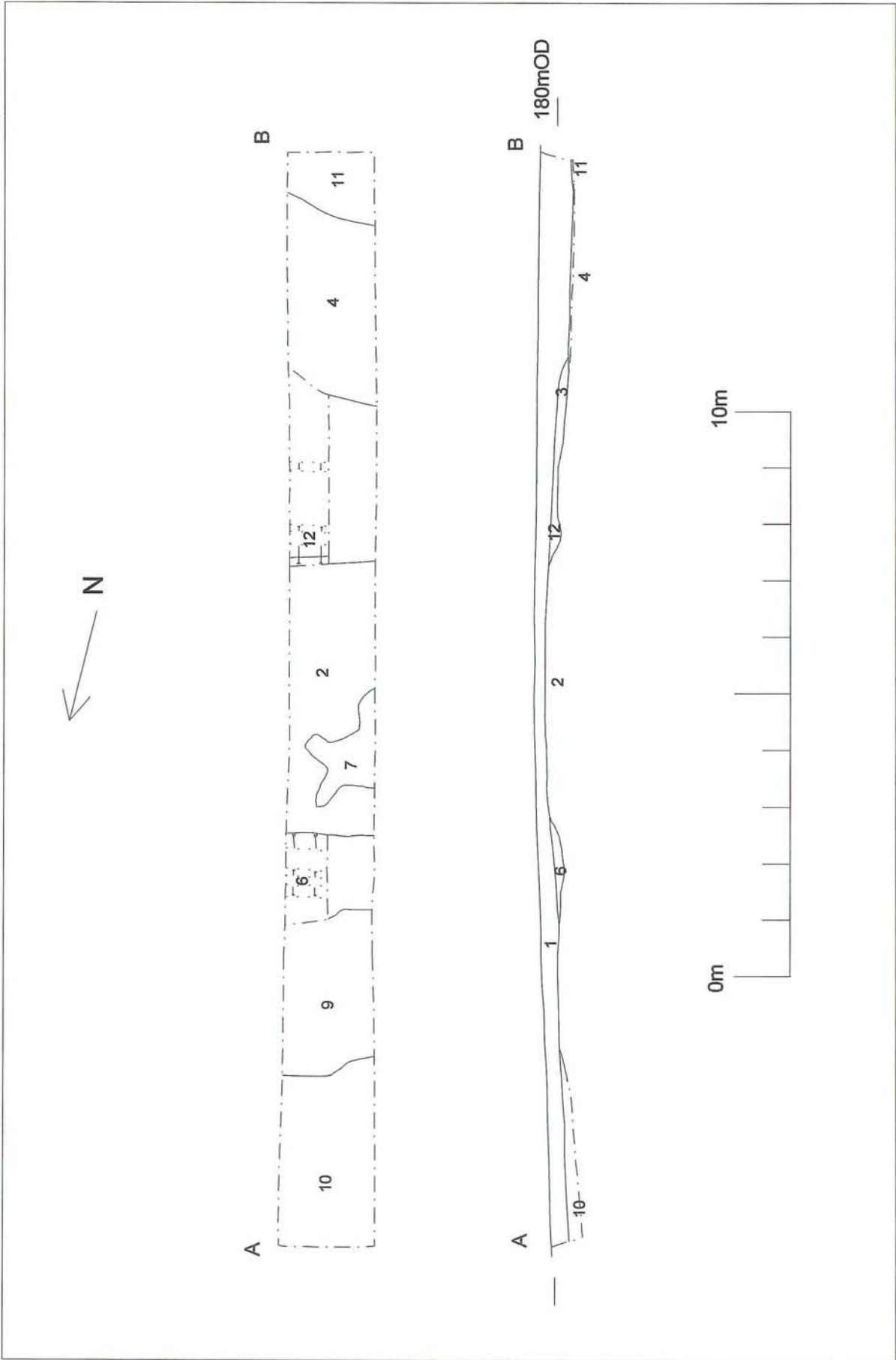


Fig. 3 Trench A plan and section (Scale 1:100)

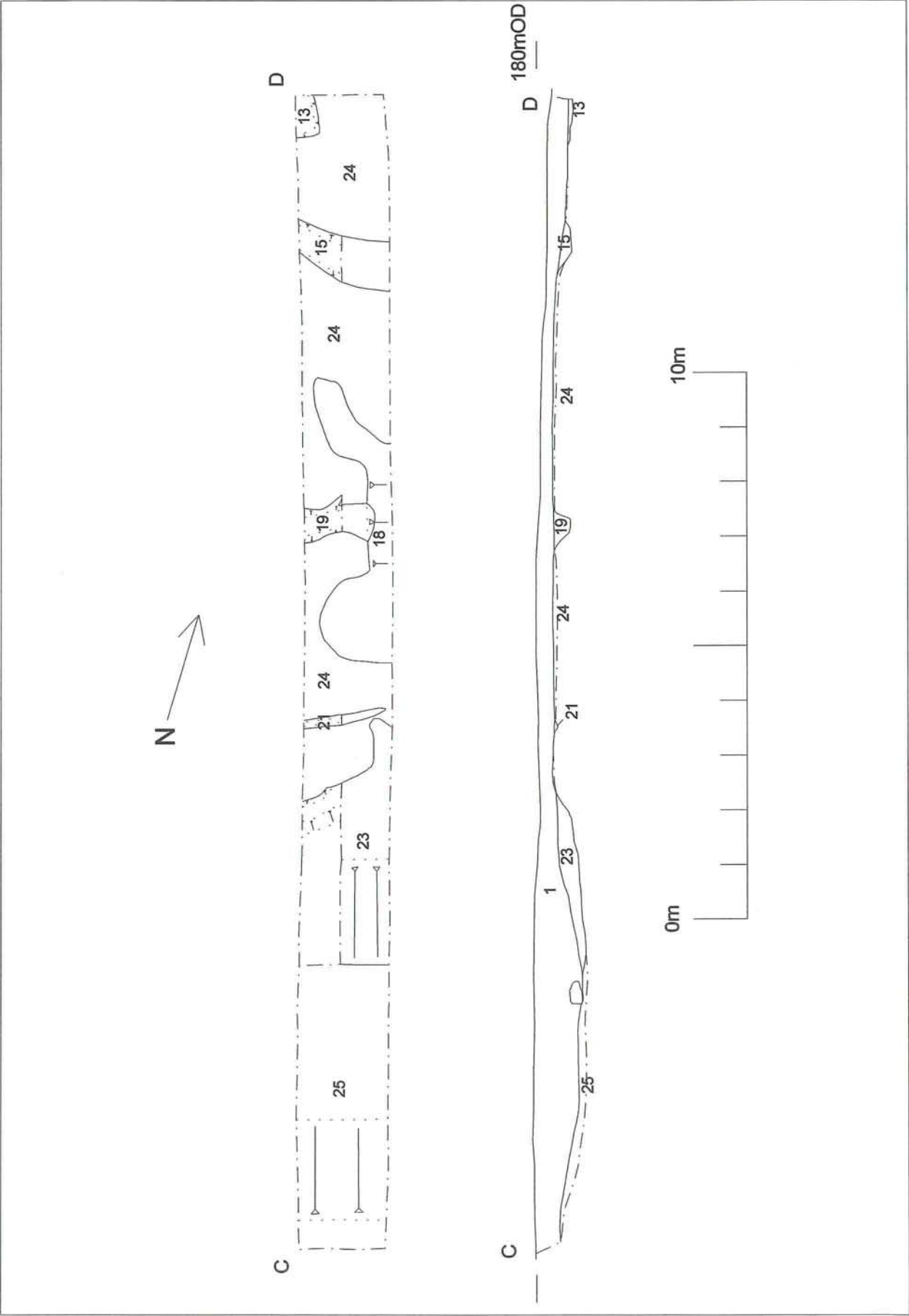


Fig. 4 Trench B plan and section (Scale 1:100)



Plate 1 Trench A, from south-south-east. Photo CPAT 1207.02



Plate 2 Surface (2) of Roman road in Trench A, from south-south-east. Photo CPAT 1207.03



Plate 3 Trench A: Ditch (12) on SSE side of road surface (2) from west-south-west. Photo CPAT 1207.08



Plate 4 Trench B from south-south-east. Photo CPAT 1207.06



Plate 5 Trench B: Gully/ploughmark (21) and clay dump (23), from north-east. Photo CPAT 1207.12



Plate 6 Relationship between trenches and line of Roman road, from west. Photo CPAT 1202.13