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Northern Archaeological Associates

A1 DISHFORTH TO BARTON, BAINESSE, CATTERICK, NORTH YORKSHIRE

ARCHAEOLOGICAL EVALUATION TRENCHING POST-EXCAVATION ASSESSMENT REPORT



Greyscale geophysics results (after ASUD) north of Bainesse

for
A1 D2B JOINT VENTURE

NAA 06/02

April 2006

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Summary

This report summarises the results of archaeological excavation of thirteen trial trenches within and adjacent to the Scheduled Ancient Monument (SM 34734) area at Bainsesse Farm, Catterick, in advance of proposed upgrading of the A1 dual carriageway to motorway grade between Dishforth and Barton, North Yorkshire. Due to the presence of known extensive remains of a Romano-British roadside settlement, a marching camp, a possible villa and Anglian burials of national importance within the area of the farm, the proposed route of the new motorway in this area will deviate from the line of the existing dual-carriageway, passing through fields lying mostly to the west of the Scheduled area. The trenches were distributed within seven fields along a corridor stretching for 2.2km. The work was carried out by Northern Archaeological Associates for A1 D2B JV and was undertaken between September and November 2005.

The evaluation was carried out with the main objectives of determining whether previous geophysical survey had provided an accurate indication of the presence or absence of below-ground features, to determine whether specific anomalies were of archaeological origin, and to determine their date, function and state of preservation. This information will be used to inform the mitigation strategy for the proposed road scheme.

The evaluation confirmed that, within most parts of the site, the geophysical survey programme and previous evaluations had given a good indication of the presence or absence of significant archaeological features.

A trench excavated adjacent to Leases Lane at the southern end of the area identified features, possibly of modern origin, which did not correspond to a targeted geophysical anomaly. The position of a second trench located at the southern edge of a field to the north was constrained by an unharvested crop, meaning that it probably lay beyond the southern end of a targeted geophysical anomaly, and no archaeological features were found. Another trench located near the north-western corner of the field determined that a discrete rectilinear anomaly recorded by the geophysical survey had been caused by undated episodes of turf or heather burning associated with an undetermined industrial process.

Evidence for the presence of a previously unidentified earlier prehistoric funerary or 'ritual' monument was identified within a field to the south of Catterick Lane. This was dated by pottery to the middle or later Neolithic period.

Trenches were excavated within several fields to the west of Bainesse in order to investigate a series of ditched enclosures identified by the geophysical survey. A trench excavated at the southern end of this group did not identify features relating to a discrete possible Romano-British enclosure suggested by the survey, and is likely that the 'enclosure' was the product of the coincidental positioning of several unrelated post-medieval or modern features.

To the north, the geophysical survey suggested the presence of a more continuous enclosed landscape of probable Roman date consisting of larger 'field' enclosures containing smaller possible settlement enclosures and extending northwards from Catterick Lane and to the north of Tunstall Road. Trenches excavated to the north of Catterick Lane confirmed that enclosures there were of Romano-British date. Several phases of re-definition and modification of the boundaries were recorded. The relatively small quantities of pottery recovered suggested that the enclosures did not have a domestic function. Large assemblages of ironworking slag and other wastes recovered from two different phases of enclosure ditches at the northern edge of the field suggested the presence nearby of a Roman smithy, probably located within an uninvestigated field immediately to the north. The material from the different phases of enclosure ditch was distinguishable as being derived from the activities of two different smiths, suggesting that the smithy operated over a prolonged period of time.

Trenches excavated within a field to the south of Tunstall Road, the only part of the Scheduled area evaluated, identified a Roman ditch running parallel to the southern edge of the Tunstall Beck. This probably formed part of the more widespread enclosure system with a second ditch running at right angles recorded by the geophysical survey. A trench positioned to target this second feature did not identify it, probably as it lay within an entrance, but found a Roman inhumation burial which may have been located in association with the boundary. The presence of the inhumation, some 150m to the north-west of burials previously recorded in the area of the existing A1 junction, reflects the pattern of isolated burials observed elsewhere within the Catterick area.

Geophysical survey indicated that a field to the north of Tunstall Road at the northern end of the area of investigation contained large enclosures forming part of the former field system but including a smaller enclosure possibly representing settlement. A trench excavated across a ditch associated with the smaller enclosure produced a rich assemblage of pottery confirming its probable domestic character and also indicated an early (pre-Hadrianic), date for the activity. By contrast, investigation of one of the ditches of the larger 'field system' enclosures produced no artefacts at all. This may suggest that the apparently aceramic field system pre-dates the pottery-rich settlement enclosure. In view of the early date of the settlement, the field system may therefore date from the pre-Roman Iron Age.

Several of the evaluation trenches produced additional evidence of medieval agricultural activity across the area in the form of pottery derived from manuring and the furrow-bases from ridge and furrow cultivation.

The results from several of the trenches highlighted the need for development of a strategy for permitting a period of weathering of exposed subsoils and hand-cleaning of machined surfaces where archaeology is considered likely to be present during the proposed development. In many areas archaeological features were overlain by layers of relict

ploughsoils or colluvium These would need to be removed in a separate, controlled, exercise as part of any archaeological works in advance of motorway construction

Due to their small and scattered nature, the assemblages of Romano-British artefactual and biological remains recovered during the excavations were in themselves only of limited value However, as a group they contribute to the larger cumulative assemblage for the Roman site at Bainesse, and the hinterland of Cataractonium as a whole, and increase the volume of material available for any future analysis The post-excavation analysis has established that there is some limited potential for further analysis of parts of the artefactual and biological assemblages from Bainesse Given the nationally important nature of the site, further analysis of some aspects of the artefactual and biological assemblages would be justified at this stage

1.0 INTRODUCTION

- 1.1 This report presents the results of a programme of archaeological trial trenching undertaken within and adjacent to the Scheduled Ancient Monument (SM 34734) area at Bainesse Farm, Catterick, in advance of proposed upgrading of the A1 dual carriageway to motorway grade between Dishforth and Barton, North Yorkshire (Figure 1). Due to the presence of known extensive remains of a Romano-British roadside settlement, a marching camp, a possible villa and Anglian burials of national importance within the area of the farm, the proposed route of the new motorway in this area will deviate from the line of the existing dual-carriageway, passing through fields lying mostly to the west of the Scheduled area. The thirteen trial trenches at Bainesse were distributed within seven fields along a corridor stretching for 2.2km between SE249960 and SE236975, all lying within Catterick civil parish (Figure 2)
- 1.2 This report includes initial assessments of the stratigraphic, artefactual and environmental archives from the trenching programme and recommends a further programme of analysis in order to prepare a final, ordered research archive and contribution to the final publication report for the overall motorway project. Specialist finds assessment reports are to be found in a series of appendices at the end of the report.
- 1.3 The excavation and post-excavation assessment work was carried out by Northern Archaeological Associates (NAA) for the A1 D2B Joint Venture. The trial trenching was carried out (as part of a wider evaluation project) intermittently between September and November 2005.

2.0 LOCATION, TOPOGRAPHY AND GEOLOGY

- 2.1 The line of the modern A1 (and its Roman precursor) in the area of Bainesse runs along the south-western edge of the valley of the River Swale at a typical level of 56-58m AOD. To the north-east the area is largely occupied by the former Catterick Aerodrome (now Mame Barracks) and by Catterick Village. To the south-west the land rises abruptly to higher ground beyond the valley, reaching 97m AOD at **Prospect Hill**. Towards the southern end of this area the proposed route of the new motorway will cross fields forming the foot of this escarpment, whilst to the north it will cross fields lying within the valley floor. Several streams drain from the higher ground towards the Swale to the north-east, including the Tunstall Beck which crosses the area to the north of Bainesse. The lower-lying ground is primarily under arable cultivation, with a predominance of pasture on the higher ground to the south-west.

- 2.2 The underlying solid geology in the area of Bainesse is complex, the escarpment to the west formed by interleaved beds of Permian mudstones and Magnesian limestone, with Permian and Triassic sandstones below the lower-lying land to the east (Institute of Geological Sciences 1979). These rocks are overlain by sands and gravels (Institute of Geological Sciences 1977) The soils within this part of the proposed development corridor are generally mapped as being of the Brickfield 2 Association, fine loamy soils prone to seasonal waterlogging and best suited to pasture, except in Field 154 where the soil is mapped as being of the Wick 1 Association, deep well-drained coarse, loamy typical brown earths well suited to cultivation (Jarvis *et al* 1984, 121-3 and 302-5)

3.0 ARCHAEOLOGICAL BACKGROUND

- 3.1 The prehistory of the Catterick area has previously been summarised by Wilson (2002 vol 1, 8-10) and more comprehensively discussed by Speed (NAA 2002, Speed, forthcoming). The Mesolithic period is primarily represented adjacent to the Swale in this area by occasional finds of flint artefacts, mainly found residually within later contexts. Nearby assemblages include those from St Giles by Brompton Bridge (SE209996), Hollow Banks Farm (SE228998) and Bridge Road, Brompton (SE22459943) (Cardwell and Speed 1996, Speed, forthcoming; NAA 2004). An *in situ* Mesolithic flint-knapping floor has recently been excavated at Catterick Aerodrome (Andrew Platell, pers comm). The Middle Neolithic period is represented locally by the Scorton Cursus. Evidence for middle Neolithic activity, probably including settlement, has recently been discovered at Hollow Banks Farm to the north-east of Catterick Bridge (Speed, forthcoming).
- 3.2 Until recently, later Neolithic and Early Bronze Age activity in the area was thought to have been focussed upon the Cursus. However, identification of henges and associated features at Catterick Racecourse, Hollow Banks Farm and also possibly to the west at Colburn, together with large timber circles within Catterick aerodrome, have demonstrated the presence of widespread 'ritual' features centred on the Swale. This rivals in extent and range of monuments the better known complexes of the Ure valley and around Rudston on the Yorkshire Wolds (Moloney *et al* 2003; Speed, forthcoming, MacLoed 2002, Andrew Platell, pers comm.).
- 3.3 No earlier prehistoric features have previously been recorded on or immediately adjacent to the proposed development in the area of Bainesse. Intensive fieldwalking of Field 156 in 1998-9 recorded extremely low levels (c 3 flints/hectare) of worked flints of all periods (NAA 1999). Results from fieldwalking in the Boroughbridge and Marton-le-Moor area, subsequently tested by extensive corridor excavation across areas interpreted for the Neolithic period as 'ritual', 'occupation' and 'unoccupied', would suggest that such low flint levels at Bainesse would be consistent with an 'unoccupied' area (Speed *et al*, in prep). However, a similarly low result was obtained further to the north in 1999 in Field 174 containing part of

- the Racecourse henge (i.e. within a 'ritual' area) (NAA 1999) and only relatively small numbers of flints have been recovered from excavated Neolithic features of either 'ritual' or 'occupation' categories in the Catterick area (e.g. Speed, forthcoming) compared to similar contexts at Boroughbridge and Marton-le-Moor. Nevertheless, the geophysical survey evidence from Bainesse has not suggested the presence of intensive activity of this period within the immediate vicinity.
- 3.4 Excavated Early Bronze Age evidence from the Catterick area has been almost exclusively funerary in nature, including a cremation burial associated with Collared Urns associated with the Hollow Banks Farm henge and a Beaker barrow burial nearby (Speed, forthcoming, Greenhalf, 1980). A trial excavation in the Brompton-on-Swale playing field (Field 178) in 1993 recovered an almost complete early Bronze Age pottery vessel (Wilson 2002 vol 1, 8-10). This conceivably was associated with barrows mentioned by Horsley (1732, 400) as having lam on the north bank of the river between Catterick Bridge and Brompton-on-Swale, but which are now lost. Other barrows recorded by aerial photography around the southern terminal of the Scorton Cursus (now lost to quarrying) and another possible example to the north-west of Brompton-on-Swale (MacLoed 2002) are also likely to be of earlier Bronze Age date. It is notable that all of these sites lie to the north of the River Swale.
- 3.5 Later Bronze Age activity in the Catterick area is indicated by the discovery of a sword near Brompton-on-Swale in 1963, and a bronze rapier probably dating from the 10th century BC recovered from the gravel terrace on the northern bank of the river in 1992 (NAA 1993, Burgess 1995). A third Bronze Age sword in the National Museum of Scotland from 'Brompton, Yorkshire' could also be from this area (Elgee 1930, 171; plate XXV). At Pallet Hill Quarry between Catterick Bridge and Catterick, an oval enclosure with structures was probably succeeded by a square one dated to the later Bronze Age or early Iron Age (Brewster and Finney, forthcoming). A larger rectilinear enclosure and hut circles of Iron Age date was excavated nearby in 1995 (Maloney *et al* 2003).
- 3.6 The first recorded reference (Longstaffe 1852, 46) makes it clear that discoveries of Roman remains were being made at Bainesse by the 18th century (Wilson 2002 vol.1, 3 *ff.*). Further discoveries were made in the early 20th century. A Roman building was found within RAF Catterick in 1939, but its location is now uncertain (Wilson *loc cit*). At least three Anglian burials were also recorded. During construction of the A1 in 1959 further Anglian burials were recorded to the south of the Tunstall Road bridge, together with walls and Roman pottery (Wilmott 1959; Wilson *et al* 1996, 4, 32). Discovery of an Anglian burial within RAF Catterick in 1964 led to an excavation in 1966 which revealed part of a Roman building (Wilson *et al* 1996, 29-32).
- 3.7 Larger scale excavations were undertaken in 1981-2 in advance of construction of the flyover for the existing Catterick South A1 junction (CFA Site 46) (Wilson 2002 vol.1, 139-185). These recorded parts of Dere Street and adjacent settlement

- beginning in the later 1st century and continuing into the 4th. The settlement was clearly distinct from that at Cataractonum 2km to the north and “probably supported itself largely on a mixture of agriculture and craft activity (black-smithing, copper-alloy working and potting)” (Wilson 2002 vol 1, 184). Romano-British burials lay behind the street frontage to either side of Dere Street. Again, Anglian burials were found cutting into the Roman remains (Wilson *et al* 1996, 32-45)
- 3.8 Further excavation in the form of trial trenching was undertaken at a number of locations adjacent to the western side of the A1 south of Bainesse Farm in 1993-4 (CFA Site 506) (Wilson 1994). The trenches showed that well-preserved remains of the Roman settlement extend for up to 650m, and possibly as much as 740m, to the south of the farm. Further trenches within the aerodrome at the eastern side of the A1 (CFA Site 524) revealed ditches, possibly property plot divisions, and a later Roman pottery kiln, extending over a similar distance southwards. Several subsequent smaller archaeological investigations have served to define the apparent limits of the Romano-British settlement (Wilson 2002 vol 1, 32). Taken together, the excavated evidence showed that the Romano-British settlement at Bainesse extended at its maximum for perhaps 1.25km along the Dere Street frontage (Wilson 2002 vol.1, 183). The extensive metal-detecting and fieldwalking project undertaken within the fields adjacent to Bainesse Farm in 1998-9 did not include any of the fields included within the current project. It did, however, indicate that surface finds derived from Romano-British activity were concentrated within the area adjacent to Dere Street, with a rapid diminution in recovery rates further from the road to the west (Wilson 1998; NAA 1999; Brickstock *et al* in prep). The geophysical survey undertaken as part of the present project has confirmed the nature and extent of the roadside settlement much more accurately than the earlier work.
- 3.9 The recent geophysical survey (ASUD 2005) has indicated that Dere Street and the Bainesse settlement overly one or perhaps two probable Roman temporary camps which must therefore date from the 1st century. The Bainesse settlement seems to have developed an early prosperity, and in the later 1st or 2nd century boasted a hypocausted building equal to any contemporary structure recorded within *Cataractonum*. Wilson (2002 vol 2, 471) suggests that the early prosperity of the Bainesse site stemmed from a desire to invest at some remove from the restrictions imposed by the military presence adjacent to the Swale. He concedes that the presence of a quantity of military equipment recovered from the site raises the possibility of it having been in origin either a supply depot or a manufacturing site closely linked to the army (2002 vol 1, 185). However, Bishop (pers comm) does not consider the number of finds of a military nature to be unusual on a purely civilian site. By the later 3rd or 4th century the settlement was in decline, either as a result of the changing status of the nearby town or due to development of the probable nearby villa within Catterick Aerodrome (Wilson 2002 vol 2, 471t).
- 3.10 The 1st Edition Ordnance Survey map of 1857 records that skeletons and a spearhead, considered to be Anglian in date, but conceivably Viking, had been found

on the line of Dere Street at SE 2501 9593 adjacent to Field 154 at the southern end of the area (MNY 13491)

4.0 AIMS AND OBJECTIVES

4.1 The aims and objectives of the evaluation were:

- to determine whether the geophysical survey provided an accurate indication of the presence or absence of below-ground features
- to determine whether specific anomalies identified during the geophysical survey were of archaeological origin
- to determine the date and function of any archaeological anomalies
- to determine the state of preservation of any archaeological deposits
- to confirm the proposed model and interpretation of the archaeology
- to inform the mitigation strategy for the development

5.0 METHODOLOGY

5.1 A total of thirteen archaeological trenches (Trenches B1-B13) were excavated at Bamesse. All of the excavated trenches measured 20m by 3m. Nine of the trenches identified certain or possible archaeological features. The trenches are described in Sections 6-12 below in order running from south to north.

5.2 The location of each trench position was surveyed using a Leica TC 500 total station linked to a Fujitsu Stylistic 1200 pen computer using PenMap software. Information was transferred to AutoCAD 2004 software and related to the National Grid.

5.3 The area of each trench was scanned for metal objects using a metal detector, operated by an experienced metal detector user, prior to and following stripping (including the spoil heaps). Only pre-modern metal finds were retained for specialist assessment.

5.4 All trenches were excavated mechanically with a back-acting excavator equipped with a wide blade toothless ditching bucket and operating under the direct supervision of a monitoring archaeologist. Excavation in this manner ceased when either archaeological deposits considered to be significant by the monitoring

- archaeologist or natural geological deposits were encountered Topsoil was removed to the edge of each trench and kept separate from subsoil where this needed to be removed. The trenches were reinstated upon the conclusion of the work
- 5.5 Trench surfaces were cleaned by hand in order to determine the presence or absence of archaeological features Hand excavation of selected archaeological features was undertaken to evaluate depth, dimension and preservation of archaeology, and to ensure recovery of sufficient artefactual and environmental evidence to enable dating and assessment of the archaeology to be achieved In particular, excavation concentrated on intersections of features to enable phasing and on achieving a sample of different types of features encountered during the evaluation The site code was A1DB
- 5.6 All archaeological features were photographed and recorded at an appropriate scale Sections were normally drawn at a scale of 1:10. Archaeological plans were normally drawn at a scale of 1:20 although trenches largely devoid of archaeological features were recorded at a scale of 1:50 A representative section of all trenches containing no archaeological features was drawn Levels were tied in to Ordnance Datum
- 5.7 A written description of features was recorded on *pro forma* sheets using the NAA context recording system. A photographic record of the trenches was taken using monochrome prints and colour slide at a format of 35mm
- 5.8 Human remains encountered during the trial trenching were investigated, planned, recorded and removed A 'Licence For The Removal Of Human Remains' was obtained from the Department for Constitutional Affairs Recovery and processing of human remains was undertaken in accordance with nationally published guidelines (McKinley and Roberts 1993, English Heritage 2002a).
- 5.9 Forty-litre bulk palaeoenvironmental samples were taken from appropriate deposits (such as ditch and pit fills) and submitted for assessment Recovery and sampling of environmental remains was in accordance with guidelines prepared by the English Heritage (2002b)
- 5.10 Secure contexts were sampled for radiocarbon dating purposes as appropriate (whether on site or as sub-samples of processed bulk samples) Samples will be processed subsequent to this initial post-excavation assessment
- 5.11 Pottery and animal bone were collected as bulk samples whilst significant artefacts were three-dimensionally recorded prior to processing Upon completion of the fieldwork, all finds were cleaned, identified, marked (where appropriate) and recorded All finds recovered were appropriately packaged and stored under optimum conditions Finds recovery and storage strategies were in accordance with the NAA finds recording system and with published guidelines (English Heritage 1995, Watkinson and Neal 1998) The finds were submitted for post-excavation

assessment in accordance with *The Management of Archaeological Projects 2* (English Heritage 1991), subsequently referred to as MAP2.

6.0 FIELD 154 EXCAVATION RESULTS

- 6.1 This field was located at the western side of the A1, opposite Oran and immediately to the north of Leases Lane, centred at SE248960. The field sloped gradually but unevenly up to the west, and had recently been ploughed.
- 6.2 Fieldwalking by Lancaster University Archaeology Unit in 1993 within the Field 153 immediately to the south of Leases Lane produced 3 worked flints, a sherd of Roman pottery and up to seven medieval sherds, and further Roman or medieval sherds were recorded within the field on the opposite side of the A1 (Buxton and Quartermaine 1994). An additional three worked flints were recovered from field 153 by English Heritage Central Archaeology Service during an overlapping fieldwalking survey the same year (Wilson 1994). Field 154 was not fieldwalked, and a metal detector survey did not produce any significant finds. Three trial trenches were subsequently excavated towards the south-eastern corner of Field 154 but did not identify any archaeological features.
- 6.3 The geophysical survey undertaken along the eastern edge of the field showed linear trends running from east to west and possibly representing former ridge and furrow cultivation, although their narrow and faint nature suggested that they were more likely to be the result of modern agriculture. Several indistinct linear anomalies were of uncertain origin. The only distinct anomaly was a 'zig-zag' feature of uncertain nature (Figure 3).

Trench B1 (Figures 3 and 4)

- 6.4 This trench was located so as to intersect the 'zig-zag' geophysical anomaly and was orientated from east to west. It lay on gently sloping ground (Plate 1) with the modern surface at a level of some 55.2-55.4m AOD. The area of the trench was covered by mid brown silty sand topsoil [311] between 0.26m and 0.56m thick, increasing downslope to the east. This overlies some 0.2m of an orange brown silty sand subsoil [312] which produced a sherd of medieval pottery, which generally overlies natural mid brown sand and gravel [313].
- 6.5 Two linear features were recorded cutting the natural but sealed by the subsoil. Feature [316] crossed the trench from north to south. It was 1.7m wide and up to 0.36m deep with a shallow 'U'-shaped profile. At the northern edge of the trench, a second linear feature [314] ran away from it to the east. Since this feature lay below the northern trench edge only its southern side was seen. It was more than 5.2m long, continuing to the east, more than 0.6m wide and 0.15m deep where

investigated The fills of both features (respectively [317] and [315]) were both mid brown silty sand. No differentiation between the fills could be determined at the feature intersection. Within this intersection, a fragment of modern glass was recovered from the top of the fill and a flint arrowhead near its base (both attributed to context [317])

Discussion

- 6.6 Trench B1 established that within Field 154 there are areas of thin colluvial deposits overlying the natural gravel which may mask (but also protect) archaeological features This material is possibly the result of medieval agricultural activity, indicated both by the presence of linear trends representing former ridge and furrow cultivation on the geophysical survey and also by the presence of medieval pottery within the topsoil.
- 6.7 The excavated features within this trench did not conform well to the anomalies recorded by the geophysical survey The excavated features were aligned from east to west and from north to south, at almost 45° to those on the survey The presence of the modern glass suggested that the excavated features themselves were relatively modern and the flint arrowhead residual The original purpose of these features was not determined.

7.0 FIELD 155 EXCAVATION RESULTS

- 7.1 Field 155 was located at the western side of the A1 opposite Catterick Aerodrome, centred at SE245963. It sloped generally but unevenly down to the north-east towards the A1, although there was a distinct shallow hollow in the hillslope towards the north-eastern corner of the field The majority of the field was under stubble at the time of excavation, except for a block of un-harvested potatoes near the eastern side.
- 7.2 Previous fieldwalking within a strip along the eastern edge of the field produced a small assemblage of Romano-British pottery, dating from the Hadrianic period to the mid-3rd century, and a small quantity of medieval and post-medieval ceramics (Wilson 1994) Metal-detecting did not produce significant finds. A single trial trench excavated near the south-eastern corner of the field did not identify any archaeological features
- 7.3 As part of the current scheme, geophysical survey was undertaken along the eastern edge of the field and mning diagonally across the field in a strip from south-east to north-west The survey did not identify any major archaeological anomalies Linear trends mning from east to west and probably representing former ridge and furrow cultivation were recorded in relatively level areas within the south-eastern corner and on an area of gentler slope within the northern central part of the field In other,

steeper-sloping areas this evidence has probably either been lost due to erosion caused by modern cultivation or become obscured by resulting colluviation. A linear anomaly running from north to south was recorded near the southern edge of the field. A distinct small rectilinear area of high response was recorded near the north-western corner of the field.

Trench B2 (not illustrated)

- 7.4 The trench was positioned near the southern edge of the field (Plate 1) adjacent to the southern limit of the linear geophysical anomaly. The trench was orientated from east to west and lay within an area of stubble, its position having been constrained by an un-harvested potato crop immediately to the north. The field in the area of the trench sloped gently down to the east, the modern ground surface being at a level of 56.44mAOD at the western end and 55.16mAOD to the east. The trench was machine-excavated to a maximum depth of 0.60m.
- 7.5 The area of the trench was covered by 0.30m of relatively stone-free mid greyish brown ploughsoil [301] which produced four residual sherds of Roman pottery. Below this was a subsoil [302] consisting of mixed gravel and sand up to 0.4m thick to the west, thinning slightly to the east. That this layer was thicker towards the base of the steeper slope west of the trench indicated its colluvial origin. The base of the trench was formed of clean, undisturbed mid brown or yellow sand [303]. No archaeological features were identified within the trench.

Trench B3 (Figures 5 and 6)

- 7.6 This trench was located within the base of the slight hollow or terrace in the hillslope at the north-western corner of the field, and was positioned so as to examine the small rectilinear anomaly recorded by the geophysical survey. The trench was aligned from north-east to south-west. The modern ground surface in this area was at a level of some 64.30m AOD.
- 7.7 The trench was covered by 0.3m of greyish brown silty sand topsoil [322] which produced a small assemblage of undatable pottery and modern ironwork. The topsoil sealed a layer of mid brown silty sand subsoil [327], probably of colluvial origin since it was at least 0.55m thick against the base of the slope to the south-west, but rapidly thinned to only 0.1m thick towards the north-eastern end of the trench.
- 7.8 At the western end of the trench, layer [327] was not fully removed since a burnt horizon [329] was observed within it, consisting of soil burnt red and black. A second area of burning [321] was observed towards the centre of the trench immediately below the subsoil, and was partially excavated (Plate 2). It consisted of a 0.1m thick sequence of lenses of red, black and mid brown burnt soil and included

some lenses of what appeared to be burnt twigs and grass, and fragments of clinker, coal and fired clay. Assessment of a sample of this material suggested that it was composed of burnt heather or turf. The deposit sat in a slight hollow in the top of the underlying natural boulder clay [328], and conceivably represented a hearth. Together, the two burnt areas appeared to account for the anomalies recorded by the geophysical survey. No dating evidence was recovered from either feature, but they were clearly not modern, being sealed by the colluvial subsoil and cut by all observed phases of land-drains.

- 7.9 The area of the trench contained ample evidence for several phases of stone-filled and ceramic pipe post-medieval land-drains (contexts [323-6], [330]), and the trench partially flooded after rain, indicating that this location is naturally poorly drained and an unlikely location for past occupation.

Discussion

- 7.10 Trench B2 on the east-facing slope at the southern side of the field again demonstrated the presence of a colluvial layer below the modern topsoil. As in Field 154 to the south, the evidence from the geophysical survey and previous fieldwalking suggests that this is largely the result of medieval ridge and furrow cultivation.
- 7.11 No archaeological features were identified within Trench B2. As a result of the constraint on its placing due to the presence of an unharvested potato crop, the position of the trench may have lain beyond the southern limit of the targeted geophysical anomaly, and hence the results from the trench were inconclusive in terms of determining the nature of this anomaly. Given the position of the geophysical anomaly against the base of the steeper part of the east-facing hillslope, it is possible that it was the result of a thicker band of colluvium in this location.
- 7.12 The presence of Romano-British pottery sherds within the area of Trench B2 indicated some form of contemporary activity in the area, although the small quantities did not suggest settlement activity.
- 7.13 Trench B3 established that a discrete rectilinear anomaly recorded by the geophysical survey had been caused by past burning episodes. No direct dating evidence for this activity was recovered although it was clearly not recent, the burnt areas being cut by several phases of land drains and sealed by a thin layer of colluvium. The area of the trench was poorly drained as evidenced by repeated attempts at post-medieval drainage, and was an unlikely location for past occupation. Evidence from analysis of a sample of the burnt material suggested that it was composed of burnt heather or turf. The concentration and scale of the burnt areas additionally suggested that they resulted from an unidentified industrial process.

8.0 FIELD 157 EXCAVATION RESULTS

8.1 This field was located 500m to the south of Bainesse Farm and immediately to the west of the Scheduled area withm Field 156, and was centred at SE240966 The field sloped generally up to the west, although the eastern edge of the field lay on the broadly level area extending eastwards across Field 156 towards Catterick Aerodrome. The field was under improved pasture

8.2 Geophysical survey undertaken along the eastern edge of the field recorded a linear trend aligned from east-northeast to west-southwest and consistent with former ridge and furrow cultivation Near the south-eastern corner, a more distinct anomaly on a similar alignment corresponded in position with the northern extent of an anomaly mning to the south-southeast within the western edge of Field 156 It was considered possible that the features represented the northern and eastern sides of a ditched enclosure. However, it should be noted that the feature in Field 156 mns parallel to the boundary between the two fields which is of later 19th or 20th century origin

Trench B11 (not illustrated)

8.3 The trench was located withm the south-eastern corner of the field on the level ground at the foot of the east-facing slope It was aligned from north to south m order intersect a linear geophysical anomaly forming the northern side of a possible enclosure extending below the field boundary into Field 156 to the east The trench was hand-deturfed prior to machine-stripping, at the request of the farmer

8.4 The area of the trench was covered by 0.25m of mid greyish brown sandy topsoil [443], containing 19th century pottery and a residual flake of samian, above 0.20m of mid brown sandy subsoil [444] which did not produce any finds This sealed very firm, light yellowish brown natural sandy clay [445] containing patches of stones No archaeological features were identified, and it was not apparent what has caused the geophysical anomaly

Discussion

8.5 Trench B11 was located to test a possible ditched enclosure identified by the geophysical survey m Fields 156 and 157 Linear trends suggesting the presence of former ridge and furrow cultivation were also apparent within the survey No archaeological features were identified within Trench B11 and it did not prove possible to excavate a second planned trench m Field 156 across the eastern arm of the putative enclosure In B11 a thin layer of subsoil possibly represented the ploughed-down remnants of the ridge and furrow was recorded although no furrow-bases were identified The element of the 'enclosure' within Field 157 ran parallel to the recorded ridge and furrow and could conceivably have been caused by magnetised material within one of the former furrows There was also an almost complete absence of pre-modern artefacts within the topsoil (only a single flake of

samian), in contrast to the quantities of Roman material previously recovered during fieldwalking within Field 156 immediately to the east. The anomaly within Field 156 ran parallel to (and hence might be related to) the boundary between the two fields which was only created in the later 19th or 20th century

9.0 FIELD 158 EXCAVATION RESULTS

9.1 Located some 300m south-west of Baines Farm, this field was centred at SE239968. The northern part of the field was relatively level. To the south-west the ground rose steeply forming part of the general escarpment on the southern side of the Swale valley. Within the central part of the field, a glacial gravel mound (a 'drumlin') stood forward of the general escarpment. At the time of excavation the field was under a seeded grass crop recently harvested for silage. On the southern slope of the mound and extending to the southern field boundary there were extant earthworks of ridge-and-furrow aligned approximately from east to west. Distinct terracing on the escarpment within the south-western part of the field may have been part of this earthwork complex. At the south-western corner were the remains of a brick searchlight battery presumably dating from the Second World War.

9.2 The geophysical survey recorded linear trends within the southern half of the field running from east to west and equating to the earthwork ridge and furrow. Further evidence of ridge and furrow was recorded as faint linear trends in the northern half of the field. Several other linear anomalies within this area aligned from east to west and from south-west to north-east were uncertainly considered to be of natural origin. A curving geophysical anomaly, possibly part of a ring-ditch, was recorded crossing the extreme corner of one of the survey blocks in a position equating to the summit of the gravel mound (Figure 7). The geophysical survey suggested the presence of internal features within the possible enclosure, notably a faint ring concentric to the outer ditch.

Trench B12 (Figures 7 and 8)

9.3 This was orientated from south-west to north-east and was located to examine the curving ditch-like geophysical anomaly apparently encircling the summit of the gravel mound. The position of the trench was constrained to the east by the limit of the proposed land-take for the development, so that only the outer ditch could be examined, crossing the extreme eastern end of the trench. The ground surface in the area of the trench sloped down from 64.24m AOD at its eastern end down to 63.77m AOD at its western end.

9.4 The area of the trench was covered by stony dark brown sandy silt topsoil [499] which was 0.20m thick towards the top of the mound, increasing to 0.35m thick downslope to the south-west. Quantities of modern pottery and glass were recovered.

- from the topsoil. The topsoil generally overlay a 0.10m thick layer of stony, reddish brown silty sand subsoil [502] which did not produce finds, above natural gravel [503] in a reddish brown clayey sand matrix
- 9.5 A probable furrow base [501] crossed the south-western corner of the trench, cutting subsoil [502] and mning from east to west parallel to the earthwork ridge and furrow visible immediately to the south. The furrow was 0.06m deep and filled with reddish brown silty sand which produced a residual sherd of Roman pottery
- 9.6 An infilled ditch [500] crossed the north-eastern end of the trench, running from south-east to north-west and curving slightly to the east, consistent with the geophysical survey, and cutting the subsoil layer [502] (Plates 3 and 4). The full 3m length available within the trench was hand-excavated in order to obtain sufficient dating evidence in order to fulfil the aims of the evaluation. Ditch [500] where excavated was up to 2.55m wide and had a surviving depth of up to 0.77m, but had clearly been truncated by later agricultural activity. It had fairly gently-sloping, slightly irregular sides and a narrow, concave base. The base of the cut was filled with a layer of stones presumably eroded from the sides of the cut, overlain by a compacted layer of very dark grey or black fine sandy silt [507], possibly representing initial turf formation with the base of the ditch. This in turn was overlain by a more substantial deposit of mid brown sandy clay [506] containing numerous stones and small boulders measuring up to 0.5m across, and possibly representing deliberate partial in-filling of the ditch. At the south-western side, this in turn was overlain by a lens [509] of clean clay apparently slumped from the adjacent ditch side (not shown on section). The upper part of the ditch was mainly filled with mid to dark brown sandy silty clay [505] containing occasional rounded stones, charcoal flecks and burnt or heat-shattered stones. An assemblage of 31 sherds of Neolithic Peterborough Ware pottery and a worked flint were recovered from this deposit. A soil sample produced a small quantity of unidentifiable wood charcoal and unidentifiable charred gram fragments. Towards the south-eastern side of the trench this was overlain by a small lens of dark grey sandy silt [508] containing a number of burnt or heat-shattered stones. This deposit produced an additional sherd of Peterborough Ware pottery. A soil sample produced only a few small fragments of unidentifiable wood charcoal. The upper central part of the ditch was filled with mid reddish brown sandy silt [504] which did not produce finds
- 9.7 It was noted that the 'subsoil' to the north-east ('inside') the ditch was thicker and of a slightly differing character to that to the south-west ('outside'), and it is conceivable that this material in fact represented make-up of an internal bank or mound, although too little of the deposit was observed to resolve this.

Trench B13 (not illustrated)

- 9.8 Trench B13 was located on level ground near the north-western corner of the field and was positioned in order to test a 'blank' area on the geophysical survey. The

ground surface was at a level of 61.35m AOD. Up to 0.25m of mid brown clayey silt topsoil [490], containing post-medieval pottery, a fragment of clinker, part of a joiner's dog or staple and two other iron fragments, overlay a 0.45m thick layer of yellowish brown clayey sand subsoil [491], possibly a relict ploughsoil horizon. This produced a small finds assemblage including pottery of Roman or medieval date and a fragment of copper alloy sheet. It directly overlays natural gravel [492]. No archaeological features were identified.

Discussion

- 9.9 Trench B12 confirmed that the short length of curvilinear feature recorded by the geophysical survey was a curving ditch, probably part of a ring-ditch, encircling the higher, eastern end of the summit of the dmmlin. The pottery recovered from the feature has provisionally been identified as Peterborough Ware of middle or later Neolithic date, c.3400-2500 BC (Manby *et al* 2003, 51). The only other Peterborough Ware assemblage from the Catterick area, associated with pits and a possible house at Hollow Banks Quarry to the north-east of Catterick Bridge (Speed, forthcoming), produced an early calibrated radiocarbon date (2σ) of 3500-3090BC (Wk-14315). The relatively small size of the monument at Bainesse (perhaps 15m in diameter) suggests that it was not a barrow. The relatively small number of Neolithic barrows so far identified within Northern England are typically much larger.
- 9.10 Trench B13 confirmed that the geophysical survey in this location had accurately indicated an absence of any archaeological features. The considerable depth of subsoil at this location was notable in comparison to Field 160 immediately to the north where the trenches encountered little or no subsoil overlying the gravel. This suggested that the northern end of Field 158 had been the subject of intensive ridge-and-furrow cultivation similar to that evidenced by upstanding earthworks within the south-eastern part of the field. This interpretation was supported by the presence within the subsoil horizon of medieval and Romano-British pottery, the latter perhaps indicating truncation of any underlying Roman features in this part of the field.

10.0 FIELD 160 EXCAVATION RESULTS

- 10.1 Located 200m west of Bainesse Farm, centred at SE23759700, the eastern part of this field would be transected by the proposed development corridor. This area was relatively level (59.7-60.7m AOD) and was under stubble at the time of excavation.
- 10.2 The geophysical survey (ASUD 2005) showed a group of anomalies within the north-eastern corner of the field (Figure 9). The main features consisted of two parallel linear anomalies running from north-west to south-east. The western feature possibly returned to the north-east at its northern end. A group of fainter linear anomalies apparently sub-divided the intervening area into two separate enclosures.

To the south-east, beyond a former field boundary shown on the First Edition Ordnance Survey map of 1857, the linear anomalies were obscured by trends consistent with former ridge and furrow cultivation. Previous metal-detecting within this field has shown that Romano-British metal artefacts within the topsoil have been concentrated within the eastern half of the field, in the area of the enclosures, with almost nothing found to the west (Graham Harman pers comm). Magnetic susceptibility survey within this field produced relatively high readings within the area of the enclosures visible on the geophysical survey, with only low readings to the south-east within the area obscured by ridge and furrow (Wilson 1994ii, figure 21).

Trench B4 (Figure 10, Plate 5)

- 10.3 Trench B4 was located over the intersection between the north-eastern 'main' enclosure ditch and the possible subdivision (Figure 9). The modern ground surface lay at a typical level of 60.00m AOD. Up to 0.35m of modern ploughsoil [341] containing Roman, 19th century and undated pottery directly overlay the surface of natural gravel [342] which was cut by a number of archaeological features.
- 10.4 The earliest feature within the trench was a fragment of a possible pit [416] which had been extensively truncated to the east and north by later features. It was 0.28m deep with a steep side and flat base, and was filled with dark grey silty sand [415] which produced two sherds of Roman amphora. This feature had been largely cut away by a ditch crossing the eastern end of the trench and corresponding to the geophysical anomaly forming the north-eastern side of the main enclosure. Two sections (segment [344] to the south-east and segment [354] to the north-west) were excavated across this feature. It was up to 2.18m wide and up to 0.75m deep with a convex-sided 'U'-shaped profile. It had a primary fill [356/357] of light brown silty sand and gravel containing rare charcoal flecks. This deposit produced six sherds of Roman pottery including a mortarium rim sherd of possibly later 3rd or 4th century date. The upper fill [343/355] consisted of mid brown silty sand and gravel also containing rare charcoal flecks. It produced an assemblage of 125 sherds of pottery of 3rd or possibly early 4th century date, a small assemblage of animal bone and a fragment of clinker.
- 10.5 One of the linear anomalies forming the enclosure subdivision proved to be a smaller ditch which crossed the trench from south-west to north-east at right angles to the main ditch. Where it met the main ditch it either terminated or turned to the north-west (beyond the trench) to follow the line of the earlier ditch, cutting through the top of its fill. This was investigated in two areas. In segment [346] to the south-west, the ditch had been more than 1.1m wide, 0.38m deep and had a shallow 'U'-shaped profile. It had a primary fill of yellowish brown silty sand and gravel [345] below a main fill of mid brown sandy silt [349]. This segment did not produce any finds. At the point where the ditch cut the fill of the main enclosure ditch it was

excavated as segment [414] and was 0.52m deep. The single fill of the ditch at this point was dark grey silty sand [413] which produced three sherds of Roman pottery.

- 10.6 A second element of the apparent enclosure sub-division proved to be a furrow base probably forming part of former ridge and furrow cultivation. Furrow [351] was 1.45m wide, up to 0.10m deep and was filled with mid orange brown silty sand [350]. The furrow cut across both phases of enclosure ditch and continued beyond the trench to the north-east. Similar parallel features were investigated crossing the north-western and south-eastern corners of the trench (respectively furrows [348] and [352]). Fill [347] of furrow [348] produced a sherd of medieval pottery of probable mid 13th to mid 14th century date.

Trench B5 (Figure 11)

- 10.7 Trench B5 was orientated from west-southwest to east-northeast and was located over the possible return of the western ditch at the north-western corner of the enclosure (Figure 9). The modern ground surface was at a level of 60.60-60.75m AOD. The area of the trench was covered by 0.30m of modern ploughsoil [361] which generally directly overlies natural sand and gravel [370]. The topsoil produced a small finds assemblage including Roman and 19th century pottery, ironworking slag and iron fragments including a possible knife blade.
- 10.8 Finds recovered during initial cleaning within the western part of the trench were recorded as context [367] and included three sherds of 19th century pottery and also ironworking slag probably mainly derived from the upper fill of ditch [366] (see below). Similarly, finds from initial cleaning of the central part of the trench, including sherds of Roman pottery, one dateable to the mid 2nd to mid 3rd century, clay tobacco pipe, slag and an iron fragment were recorded as context [362] and were probably to some extent derived from the upper fill of ditch [380].
- 10.9 A number of features were recorded cutting the gravel. The earliest was a small ditch [395] which entered the trench from the south-east and then turned to the north-east before being obscured by an unexcavated later furrow. Two segments of the ditch were excavated (contexts [393] and [397]), showing it to be 1.4m wide and up to 0.55m deep with a shallow 'U'-shaped profile. Both segments were filled with mid brown gritty sandy gravel (respectively contexts [394] and [398]) similar but of slightly differing colour to the adjacent natural gravel. The gravel fill of the ditch suggested deliberate backfilling. No finds were recovered from this feature. At the corner of ditch [395], the upper centre of its fill was 'cut' by a shallow 'gully' [387], 0.50m wide and 0.17m deep with a 'U'-shaped profile and filled with fairly stone-free orange brown sandy silt [388]. It was not clear whether this represented a separate feature or was merely an upper fill within ditch [395].
- 10.10 The 'main' enclosure ditch recorded by the geophysical survey was represented by a later ditch ([380/390]) which entered the trench from the south-east slightly to the

west of ditch [395] and turned to the north-east along the line of the earlier ditch for 6m before terminating. This suggested the position of an entranceway into the second phase of enclosure. Where investigated the ditch was up to 2.4m wide and 0.9m deep with a flat-based 'V'-shaped profile. It had a primary fill of mid orange brown sandy silt [381] containing numerous small stones and pea-grit, occasional larger cobbles and lenses of darker brown clay with charcoal flecks perhaps representing part of the contemporary ground surface which had eroded from the ditch edges. Fill [381] produced two sherds of Roman pottery and fragments of animal bone. It was overlain by a secondary fill of greyish brown sandy silt and gravel [382] which produced an assemblage of 12 sherds of Roman pottery and iron fragments. This in turn was overlain by mid to dark brown sandy silt [383] which produced five sherds of pottery and more iron fragments. During initial definition of the ditch, the upper part of fill [383] was removed as a separate spit [386] which produced a further ten sherds of pottery and more ironworking slag. All four deposits produced significant quantities of ironworking slag. The pottery assemblage from ditch [380/390] was of limited value in dating the feature, although sherds of Black Burnished ware in the upper fills [383] and [386] implied a Hadrianic (early 2nd century) *terminus post quem* for the later part of the infilling of the feature.

- 10.11 After ditch [380/390] had become infilled, the north-western corner was cut by a third ditch [366] approaching from the south-west (Plate 6) and either terminating in line with it or returning to the north-west. Where investigated this ditch was 1.4m wide and 0.8m deep with a rather irregular convex-sided profile. At the western end of the trench, the ditch had a primary fill [369/389] consisting of gravel in a grey silty sand matrix which produced sherds from a Black Burnished ware jar dateable to the later 2nd or early 3rd century. A soil sample from this deposit produced only a small quantity of unidentifiable charcoal. Fill [369/389] was overlain by relatively stone-free orange brown silty sand [368] which produced 13 pottery sherds including Black Burnished ware of probable mid 2nd century date, iron nails, part of a possible billet and other iron fragments. A soil sample produced a small number of poorly preserved charred grain fragments. The upper part of the ditch was filled with very dark greyish brown (almost black) silty sand [365] which produced 8 sherds of pottery including material of early to mid 2nd century date. A soil sample from this deposit contained only fine, unidentifiable charcoal and cinder. All three fills again produced significant quantities of ironworking slag. There was possible evidence of a smaller re-cut munning along the south-eastern side of the ditch. Overall, the pottery assemblage suggested a date between the mid 2nd and mid 3rd century for the ditch.
- 10.12 The eastern end of the trench was crossed from south-west to north-east by a broad, shallow feature [364], 2.0m wide and 0.18m deep and filled with mid brown silty sand [363] which did not produce finds. This feature was interpreted as a furrow base from former ridge and furrow cultivation, and was parallel to the three similar features recorded in Trench B4 (see above).

Discussion

- 10.13 The trenches in Field 160 confirmed the presence of one or more enclosures of Romano-British date. As is common on such enclosure sites, several phases of re-definition and modification of the boundaries were recorded. The relatively small quantities of pottery recovered did not suggest a domestic function for the enclosures, and the presence of quantities of iron-working debris in Trench B5 may reflect industrial activity in the immediate vicinity.
- 10.14 The large assemblages of ironworking slag and other wastes recovered from the second and third phases of enclosure ditches in Trench B5 are of some interest. The material was distinguishable as being derived from the activities of two different smiths (see Appendix H) operating at different times (based on the stratigraphy) and in the immediate vicinity (based on the condition of the material recovered). Previous magnetic susceptibility survey across this area (Wilson 1994, Figure 21) showed a sharp rise in readings across the hedgerow from Field 60 to Field 162 to the north-west in the immediate vicinity of Trench B5, suggesting that this part of Field 162 is the likely location for the smithy.
- 10.15 The smithing activity is notable in several respects. It was occurring 300m away from the main focus of contemporary Roman activity adjacent to Dere Street. Despite the relatively poorly defined dating from pottery evidence, it seems to have continued for much of the 2nd and possibly part of the early 3rd century, encompassing the lengthy period of in-filling of two successive phases of enclosure ditch. Considering the demonstrable re-organisation of the enclosure ditches over time, the smithy appears to have remained relatively static within the landscape. Both smiths seem to have exclusively employed coal as fuel. This is not available within the immediate Catterick area, but must have been obtained elsewhere, probably from Swaledale some 10km to the west or perhaps more conveniently along Dere Street which passes through the coal-rich area around Bishop Auckland some 30km to the north.
- 10.16 The fact that the waste-products of the successive smiths are distinguishable (given sufficiently large assemblages) may have future value as an additional phasing or even dating tool should further excavation be undertaken within this immediate area.

11.0 FIELD 163 EXCAVATION RESULTS

- 11.1 This field was located at the south-western side of the A1 to the west of Catterick village, between Tunstall Road and Catterick Lane and centred at SE23759730. The northern edge of the field sloped down to Tunstall Beck which crossed the northern part of the field from west to east. The southern part of the field was relatively level and under fairly rough pasture (although the field has apparently been ploughed within the last 10-20 years). The field was formerly bisected by an additional field

boundary running from south-west to north-east, and also by a mill-race running to the south of the beck. The boundary was removed and the mill-race in-filled with living memory

- 11.2 A previous small excavation in 2000 in advance of construction of the mobile phone mast at the southern end of the field identified a burial of probably 2nd century date with a possible boundary ditch. The burial, together with one of two other possible graves, was truncated by a later Roman ditch perhaps forming a plot division at the western side of Dere Street. Another ditch was of either late Roman or Anglian date (Taylor-Wilson 2001)

Trench B8 (Figures 12 and 13)

- 11.3 Trench B8 was located to examine the intersection between linear geophysical anomalies running from north-west to south-east and from south-west to north-east (Figure 12). The latter could be equated with a former field boundary shown on the 1st edition OS 6" map of 1857. The modern ground surface was at a level of 59.50-59.61m AOD.
- 11.4 Removal of up to 0.30m of very stony topsoil [420] (containing a mixture of Roman and post-medieval pottery, a residual worked flint, modern glass, rubble, two fragments of glass, a modern copper alloy button and modern iron fragments) revealed areas of dark brown sandy silt subsoil ([422] to the north-west and [421] to the south-east), containing a similar mixture of residual artefacts and perhaps deriving from 20th century ploughing. Towards the centre of the trench, this deposit overlies the fill [423] of a shallow ditch [429] crossing the trench from south-west to north-east cutting into the natural gravel [427]. The ditch corresponded to one of the two linear geophysical anomalies. The ditch contained modern brick and had clearly been in-filled with living memory, as confirmed by the farmer. Along the north-western side of the ditch was a line of roots indicating the former position of a hedge. The ditch was divided from the hedge by a single line of large cobbles [425], apparently a not uncommon arrangement in the past in this area.
- 11.5 To the south-west of this boundary, the subsoil sealed a second layer [426] of mid brown silty sand up to 0.20m thick, overlying the natural gravel [427]. Removal of this deposit along the north-eastern edge of the trench revealed that it sealed a stone-packed cut feature, and the remainder of the layer was removed by machine down to the top of the natural gravel.
- 11.6 The stones proved to be the capping over a Romano-British inhumation burial. The sub-rectangular grave cut [431] was orientated approximately from north to south. It was 2.10m long, up to 0.58m wide and had a surviving depth of up to 0.30m. An unworked stone slab lined the northern end of the cut and a vertical slab had been placed across the southern end. Smaller rounded cobbles lined the eastern side of the cut but none existed at the western side. A poorly-preserved extended skeleton [430]

lay supine on the base of the cut (Plate 7) The legs were extended with the knees together and the feet turned to the right (west) Little of the upper body survived but the left arm had been extended with the hand in the pelvic area The right arm was slightly flexed with the lower arm crossing the left. The body had been decapitated, with the skull deposited between the feet and the 'footstone' at the southern end of the cut The skull was crushed but appeared to have been deposited facing west with its crown against the 'footstone'

- 11.7 The body had been buried wearing hobnailed boots An area of purplish-brown staining [441] suggested that the left boot had extended above the ankle No hobnail pattern could be recovered from the jumbled mass of foot-bones and hobnails representing both feet A total of 67 hobnails were recovered Five other iron nails were recovered from other parts of the grave. The nails 428AA-AF lay respectively adjacent to the skull in south-east corner, against the lining stones at the east side of the cut by the left ankle, at the west side of the cut by the right ankle, towards the eastern side of the cut near the left knee and at the western side of the cut by the right upper arm. A heavily abraded sherd of Roman pottery was found during analysis of the skeletal remains but has yet to be assessed, this has the potential to provide a *terminus post quem* for the burial.
- 11.8 The grave was in-filled with mid brown silty clayey sand [428] It was capped with a series of unshaped stone slabs, mainly sandstone A larger unshaped slab of soft white limestone had been placed over the head and feet at the southern end of the grave This measured 0.55m by 0.32m and appeared undecorated, although the limestone was badly decayed

Trench B9 (Figure 14)

- 11.9 This trench was located on fairly level ground immediately to the south of Tunstall Beck, sited so as to investigate a linear geophysical anomaly running from north-east to south-west (Figure 12) and was orientated from north-north-west to south-south-east The trench lay across the line of an in-filled mill-race shown on the 1857 Ordnance Survey map running parallel to the beck towards the former mill in Catterick village The modern ground surface was at a level of 59.31m AOD to the south, sloping down slightly to 58.94m AOD at the northern end
- 11.10 Removal of some 0.30m of modern turf and topsoil [432] revealed the surface of natural gravel and clay [442], cut by several linear features crossing the trench from east to west Across much of the area of the trench was a deposit of orange brown sandy silt and gravel [436] which was shown to be within a broad shallow cut [435] more than 13m wide and up to 0.46m deep, and probably representing an ancient palaeochannel of the beck
- 11.11 At its northern end, near to the break of slope down to the modern beck channel, the trench was crossed by an in-filled ditch [433], 3.5m wide and 0.85m deep with a

shallow 'U'-shaped profile. It had a primary fill [434] of dark greyish brown clayey silt which produced an assemblage of generally non-diagnostic Roman pottery, but considered unlikely to be later than mid 3rd century in date. Other finds included iron nails and fragments. The upper part of the cut was in-filled with orange-brown stony sandy silt [440] which did not produce finds.

- 11 12 Towards its southern end the trench was crossed by a linear cut [437], 4.2m wide and 0.85m deep. This could be equated with the former mill-race which was in-filled within living memory. The lower part of the feature was filled with loamy dark grey sandy silt [438] presumably deposited whilst the feature was an active channel. This produced 19th or 20th century pottery from its base and also a non-waterlogged (i.e. recent) leather and iron fragment. The upper part of the cut contained clean, mid brown silty sand and gravel [439] presumably deposited when the channel was in-filled and which produced a non-diagnostic brick fragment.

Trench B10 (not illustrated)

- 11 13 This trench was located on the south-east facing slope to the north of the beck and was orientated from east to west so as to intersect a curvilinear anomaly on the geophysical survey (Figure 12). The modern ground surface was at a level of 58.83m AOD at the western end of the trench, sloping down to 57.27m AOD to the east.
- 11 14 Removal of 0.3m of topsoil [417] revealed a 0.12m thick layer of dark reddish brown silty sand and gravel subsoil [418], which produced a sherd of 19th century pottery. The natural within this trench consisted of glacio-fluvial gravels [419]. The targeted geophysical anomaly proved to be a layer of loose, yellow-brown sand forming part of this sequence and out-cropping in a linear exposure along the south-east facing slope. No archaeological features were identified within this trench.

Discussion

- 11.15 Trench B8 showed that, of the two linear geophysical anomalies it was intended to examine, one was a post-medieval field boundary removed within living memory. A long linear boundary feature running from north-west to south-east parallel to Dere Street, and likely to be of Romano-British date, was not identified within the trench, and re-examination of the geophysical survey results suggested that there may be an interruption in the line of the feature in the area of the trench. This trench also demonstrated that 20th century ploughing, and possibly earlier medieval ridge and furrow cultivation, has caused some damage to archaeological deposits within this field.
- 11 16 Trench B9 identified the position of the former mill race running to the south of Brough Beck towards Catterick mill, in-filled within living memory but not clearly visible on the geophysical survey. The recorded geophysical anomaly across which

- the trench was sited was shown to be a substantial Roman ditch unlikely to date from later than the mid 3rd century. Due to the limited extent of the geophysical survey it is unclear how this feature relates to the wider contemporary landscape. The position of the ditch in Trench B9, following the top of the slope down to the Brough Beck, did, however, indicate that the course of the beck has not altered significantly since the Romano-British period
- 11 17 Trench B10 to the north of Brough Beck demonstrated that the targeted curvilinear geophysical anomaly was of natural origin, resulting from outcropping of a bed of sand within the gravels forming the steep south-facing slope down to the beck
- 11 18 Numerous Romano-British and Anglian burials have previously been identified within the area of the A1 junction and mobile phone mast at Bainesse and the discovery of a Romano-British burial within Trench B8 potentially extends this distribution a further 150m to the north-west. There is no evidence to date for extensive planned cemeteries during the Roman period in the Catterick area, the excavated burials having been found either singly, in small discreet groups reminiscent of individual 'family plots', or widely scattered over quite large areas.
- 11 19 The burial in Field 163 exhibited several typically Romano-British funerary practices. Partial lining of the grave with unshaped stone slabs or occasionally large cobbles was a common practice at Catterick and Bainesse, usually either across the base of the grave and/or along one or more sides. Capping stones have rarely been recorded, although this may in many cases be due to subsequent plough disturbance. The practice of lining the sides of graves with cobbles continued in the area into the Anglian period (Speed, forthcoming). In view of the small size of the grave the Field 163 burial is unlikely to have been interred with a coffin. The small number of nails found within the grave may have formed part of wooden grave goods or could have been accidental inclusions within the grave backfill.
- 11 20 Post-mortem decapitation seems to have become a relatively common practice amongst Romano-British inhumation burials, particularly during the 4th century in south-eastern England where approximately 6% of burials were so treated. However, the practice is poorly represented in the Catterick area. Of the 65 adult burials catalogued by Mays (2002), none are reported as having been decapitated, nor any of the 11 Roman burials where body position could be determined at Hollow Banks Farm (Speed, forthcoming). The only previous example of this practice recorded in the Catterick area was one of a group of five burials of late 4th century or later date excavated at Bridge Road, Brompton in 2002 (NAA 2004). In that instance the head had been deposited on the lower legs of the body.
- 11 21 Groups of hobnails, indicating the inclusion of footwear with a burial, are not uncommon within Romano-British burials, although few such finds have been made either at Catterick or Bainesse. The only large group to have been excavated (36 nails) were found accompanying the burial of a possible *gallus* at Bainesse; unfortunately the published description and illustrations of this burial (Wilson 2002

vol 1, 176-8) do not indicate the position of the hobnails. Two other burials at Bainesse were accompanied by small groups of six and three hobnails, and a burial at Honeypot Road, Brompton by one which is likely to have been an accidental inclusion

- 11 22 Dating of the burial in Field 163 is uncertain, although Romano-British inhumation burials are generally considered to date to the 3rd or 4th centuries and this is consistent with the practices of decapitation and inclusion of footwear. A heavily abraded sherd of Roman pottery recovered during assessment of the skeleton was found to be late for inclusion within the pottery assessment, but will in any case only provide a *terminus post quem* for the burial. There is growing evidence that later Roman burial practices continued well into the 5th century in northern England. A small group of extended inhumations similar to that from Field 163 was excavated from a Romano-British enclosure ditch at Parlinton Hollms near East Garforth, West Yorkshire (SE 423 345) in 1996 and included single examples of decapitation, hobnailed boots and partial lining of the grave cut with stone slabs (Roberts *et al* 2001, 101-2). Radiocarbon dates obtained for these burials placed them as a group within the 5th to 6th centuries AD. Without the radiocarbon dates, these graves would be unequivocally classed as later Roman' (Roberts *et al*, *op cit*, 283). Selective radiocarbon dating of burials excavated to the east of Bainesse Farm in 1981-2 identified two inhumations where the date-ranges extended into the 5th century, one of which also had a partially stone-lined grave (Wilson 2002 vol 1, 178-80). A proposed programme of radiocarbon dating for a group of burials excavated at Bridge Road, Brompton in 2002, and dated on artefactual evidence to the late 4th century or later (NAA 2004) has yet to be carried out. These burials also included examples of partial stone-lining of the grave and the only other decapitation burial from the Catterick area.

12.0 FIELD 164 EXCAVATION RESULTS

- 12 1 This field was located at the western side of the A1 opposite Catterick village, between Tunstall Road to the south and the trackway over Manor House Bridge to the north, and centred at SE23559745. The field sloped generally up towards the north-western corner, although with a relatively level area to the south where the trenches were located. At the time of excavation the field was under stubble.
- 12 2 Previous fieldwalking along the proposed route of the new motorway through this field in 1993 (CAS Site 513) produced a small assemblage of Romano-British, medieval and post-medieval pottery and two worked flints. Geophysical survey identified a rectilinear enclosure towards the southern end of the field associated with an area of increased magnetic susceptibility (Wilson 1994). More extensive geophysical survey for the present scheme also identified further m-filled ditches forming rectangular enclosures within the south-eastern half of the field, presumably forming part of a field system (Figure 15). The feature forming the eastern side of

this group had the same general alignment as linear anomalies crossing Field 163 and 160 to the south, suggesting the presence of an extensive agricultural landscape extending behind the Romano-British street-front settlement on the western side of Dere Street.

Trench B6 (Figure 16)

- 12.3 This trench was located over a linear feature on the eastern side of the smaller enclosure recorded by the geophysical survey and was orientated from north-east to south-west. The modern ground surface in the area of the trench was level, at a typical height of 58.80m AOD. The area of the trench was covered by 0.35m of modern ploughsoil [371] which produced a pottery sherd of probably post-medieval date. The topsoil across much of the area of the trench directly overlies natural gravel [372].
- 12.4 The gravel was cut by a ditch [374] running from south-west to north-east and then either terminating or returning to the north-west (Plate 8). It had a total observed length of 15.4m, was typically 0.9-1.0m wide and, where excavated, was 0.30m deep. It was filled with dark brown sandy silt containing moderate quantities of gravel, charcoal flecks and small lumps of fired clay. Two segments of this feature were excavated (contexts [376] and [378]) and finds from these segments (respectively contexts [375] and [377]) included a moderate assemblage of 83 sherds of pottery of possibly pre-Hadrianic date, fragments of fired clay and iron nails and fragments. A soil sample from this feature produced a tiny quantity of unidentifiable charcoal and few charred seed or gram fragments. Twelve sherds of pottery recovered from the surface of the unexcavated ditch fill (context [373]) included material of possibly slightly later date extending up to the mid 2nd century.
- 12.5 Some patches of mid reddish brown sandy silt subsoil [379] up to 0.11m thick overlay the natural gravel and ditch [374] and possibly represented the remnants of furrow bases from former ridge and furrow cultivation. A probable furrow [385] crossed the trench running from south-west to north-east at an angle to and cutting ditch [374]. Part of the mid brown clayey sand fill [384] was removed where it obscured the underlying ditch, and produced a sherd of medieval pottery of possibly 13th century date.

Trench B7 (Figure 17)

- 12.6 This trench was orientated north-west to south-east and was positioned so as to intersect the linear geophysical anomaly forming the northern side of the 'field' containing the smaller enclosure examined in Trench B6 (Figure 15). It was also intended to investigate the apparently blank area to the south of this ditch. The area of the trench was covered by 0.3m of stony, dark greyish brown sandy silt [410] directly overlying clayey natural gravel. The natural gravel was cut by a small ditch

[412] mning from north-east to south-west and corresponding to the geophysical anomaly Ditch [412] was up to 1.0m wide and 0.25m deep with a flat-based 'U'-shaped profile. It was filled with mid brown silty sand [411] containing occasional small pebbles. This feature contrasted sharply with the ditch [374] in Trench B6 in that it produced no finds despite hand excavation of the full 3m length of this ditch available within the trench, and it remained undated. No other features were identified within the remaining area of the trench.

Discussion

- 12.7 The two trial trenches excavated in Field 164 indicated that the modern topsoil generally directly overlay natural gravel. This suggested that archaeological deposits within the field are likely to have been truncated both by modern ploughing and also by medieval ridge and furrow cultivation, evident both on the geophysical survey and within one of the excavated trenches. The excavated results indicated that the geophysical survey gave a good indication of the archaeological features present within this field, with the anticipated ditches found but no additional features identified within either trench.
- 12.8 The relatively large pottery assemblage recovered from the enclosure ditch in Trench B6 suggested that the enclosure had a settlement function. That no animal bone was recovered from either trench suggested that its absence was a result of poor preservational conditions rather than other factors. The contrast between the relatively large finds assemblage recovered from the ditch adjacent to the smaller enclosure investigated in Trench B6 and the complete absence of finds from the 'field system' ditch excavated in Trench B7 suggested that the two groups of features, although sharing a common orientation, were not contemporary. The early, possibly pre-Hadrianic, date of the pottery assemblage recovered from the ditch in Trench B6, is in accord with the apparently rapid economic development of the Bainesse settlement in the later 1st and 2nd centuries.
- 12.9 That no finds were recovered from the 'field-system' ditch in Trench B7 perhaps suggests that it is earlier and forms part of a pre-Roman Iron Age landscape of large ditched fields. To the north of the Swale, parts of an extensive later Iron Age and Romano-British agricultural landscape interspersed with settlement have been excavated at Hollow Banks Farm and Grange Farm, Scorton (Speed, forthcoming, Copp and Roe 1996; 1997). It is probable that many of the land-divisions and associated enclosures recorded by aerial photography and geophysical survey to the south of the Swale within the area between Bainesse and *Cataractonium* are also of Iron Age origin. This is particularly likely considering the presence of easily-tilled soils overlying the gravel terraces of the area and the presence of successive early and later Iron Age settlement enclosures excavated in this area at Pallet Hill quarry and Catterick racecourse (Brewster and Finney, forthcoming, Moloney *et al* 2003).

13.0 ASSESSMENT OF THE SITE ARCHIVE

- 13 1 It is considered that the stratigraphic evidence contained within the excavated trenches has been described in sufficient detail within this report. Little further additional analysis, other than minor refinements to the dating based upon additional analysis of the finds assemblage, could usefully be undertaken at this stage.
- 13 2 The written, drawn and photographic records, artefacts and biological remains from the evaluation are currently held by NAA
- 13 3 The retention and disposal policy for the assemblage from Bainesse will be full retention of all stratified artefacts and biological remains except for post-medieval material and non-diagnostic undated material
- 13 4 The evaluation was undertaken for the A1 D2B Joint Venture who will have responsibility for archive deposition. The agreement of the various landowners will be sought over deposition of the artefacts and site archive in either the Richmondshire or Yorkshire Museum

14.0 SPECIALIST FINDS ASSESSMENTS

14.1 Processing and quantification

Washing of the bulk finds was completed after fieldwork had ended. All finds recovered have been recorded, marked where appropriate, packed in labelled bags or other packaging as appropriate and placed in labelled museum storage boxes. Metal objects and other potentially unstable materials were packaged and transferred immediately to the Conservation Laboratory at the Archaeology Department, University of Durham. A finds database was produced in order of context number. This database tabulates the artefact type, quantity and a brief description. The artefact assemblage from both the site assessment and excavation phases is summarised below.

Table 2: Finds assemblage

<i>Artefact type</i>	<i>Quantity</i>
Flint	4
Pottery	482
Clay tobacco pipe	1
Copper alloy	3
Lead	1
Iron	125
Other metal	1
Glass	13
Ceramic building materials	13
Fired clay	11
Industrial waste	545
Human skeletons	1
Animal Bone	33
Environmental samples	9 (23 tubs)
Total	1242

14.2 Flint assessment (Appendix A)

Peter Makey

14.2.1 *Summary*

The trenches produced an assemblage of five struck flints consisting of a broken flake, a spall/chipping, a possible core rejuvenation flake, an edge retouched flake and a broken leaf shaped arrowhead of early Middle Neolithic date. The flint was consistent with that derived from till deposits along the Yorkshire coast. All five pieces were in a fresh state with only light traces of post-depositional edge damage. All of the assemblage could be considered domestic in nature. The material is of limited significance due to the small assemblage size.

14.2.2 *Recommendations*

The very fine example of a leaf shaped arrowhead is the only piece of note in this assemblage, and would warrant illustration for future reference. Otherwise, no further work is required on this material. The assemblage should be retained.

14.3 Prehistoric pottery assessment (Appendix B)

Blaise Vyner

14.3.1 Summary

Assessment was been undertaken in order to obtain preliminary information on the chronology and nature of the pottery assemblage, and the range of pottery fabrics present, and to provide information on the extent and nature of any further required examination of the material.

A single abraded plain sherd from a jar of pre-Roman Iron Age or native character Roman date was recovered from Trench B9

Ditch 500 in Trench B12 produced an assemblage of Peterborough Ware sherds from at least three, and probably four, vessels. The small assemblage is important in that it provides information on site date and function. It suggests that the site was the location of activity in the later Neolithic, and is further evidence for this period in the Catterick area. One vessel has carbonised accretions on its interior surface which may be sufficient to provide a radiocarbon date. Peterborough Ware belongs to the later Neolithic, although poorly dated in this region.

14.3.2 Recommendations

This assemblage has the potential to contribute usefully to the further understanding of prehistoric ceramic production and use in the northern part of the Vale of Mowbray, where assemblages of late Neolithic date are not common.

Consideration should be given to further examination to include

- Confirmation of the pottery fabric character and decorative traits
- Catalogue of pottery
- Brief review of the pottery in the local and regional context

Further examination will confirm sherds appropriate to illustrate; assessment suggests that at least two sherds should be drawn.

14.4 Romano-British pottery assessment (Appendix C)

Peter Didsbury M. Phil

14.4.1 *Summary*

A total of 463 sherds of Roman or later pottery, weighing 6070 grams and having an average sherd weight (ASW) of 13.1 grams, was recovered from the excavations at Bainesse. Romano-British material amounted to 322 sherds, weighing 4450 grams (ASW 13.8 grams). Material was quantified by the two measures of count and weight, according to fabric type within archaeological context. Data was recorded on an Access database.

The site assemblage was relatively small, and came from widely dispersed parts of the extensive linear 'site', these factors acted as a constraint upon the comparison of the material with that from other sites. Certain chronological and functional biases were apparent, however. Material which may be as early as Flavian appeared in some contexts, but the high value for Black Burnished 1 and BB1-type wares suggests that a considerable portion of the assemblage was deposited after the Hadrianic period. There were some well-defined 3rd century assemblages though the 4th century, certainly the second half, was not visible. The near total absence of colour-coated wares (represented only by a probable 3rd or 4th century non-beaker form) and low values for other 'finewares' and specialist forms may be noted. Functionally, the site assemblage was heavily biased towards common coarsewares in grey and Black-Burnished Ware fabrics, which account for c. 64% by number of sherds.

The samian, mortaria and amphorae await specialist opinion, and therefore the chronology of the Roman site assemblage could not be finalised, though fairly accurate spot-dates could be suggested for most assemblages with sufficient quantities of material. Outside these categories, chronologically diagnostic forms and fabrics occurred principally within the grey and Black-Burnished wares. Overall, these suggested occupation, resulting in ceramic deposition, from at least the first half of the 2nd century, and possibly from the late 1st. A total of eight sherds of masticated ware from various contexts, conventionally dated c. AD 70-130/150 and often reflecting a nearby military presence, were noted. Similarly early material may also prove to be present among the samian and mortaria.

14.4.2 *Recommendations*

The site assemblage as a whole suggests activity from pre-Hadrianic times to at least the 3rd century, and possibly into the early 4th. Although many of the assemblages are of little evidential value, there are good assemblages with further potential for refining site dating in Trenches B4, B5, B6 and B8. Of particular interest is the enclosure ditch in Trench B6, possibly a pre-Hadrianic feature containing imports from North Lincolnshire. In terms of the phase-dating offered by Evans for Bainesse

Site 46 (Evans 2002, 401 ff) this feature may well belong to Phase 2, suggested as pre-Hadrianic.

It is recommended that the samian, amphorae and mortaria are submitted for specialist analysis, in the interest both of augmenting our data-set for these classes of material in the area, and of refining dating of the site and individual features. In addition, a sherd of Roman pottery found during examination of a human skeleton from Trench B8 after the other material had been sent for assessment and with the potential to provide a *terminus post quem* for the burial should be assessed and included in any final report.

Any published report on the excavations should include a short discursive pottery report, with detailed discussion and supported by a small number of illustrations. All material should be retained, and deposited in an appropriate regional archive.

14.5 Glass assessment (Appendix D)

Denise Allen

14.5.1 *Summary*

Two fragments of possible Roman glass were submitted for assessment, however both proved to be of post-medieval or modern date. An additional twelve fragments of post-medieval and modern glass were not submitted for assessment.

14.5.2 *Recommendations*

Neither submitted fragment warrants further study or illustration. It is not recommended that any of the glass recovered from Bainesse be retained within the site archive.

14.6 Clay tobacco pipe

Greg Speed

14.6.1 *Summary*

A single clay tobacco pipe stem fragment was recovered. It was undecorated and unstamped, and of probable 19th century date.

14.6.2 *Recommendations*

This object is of no archaeological value. No further analysis or illustration is recommended. It should be discarded.

14.7 Conservation assessment (Appendices E and F)

Jennifer Jones

14.7.1 Summary

Initially 138 metal objects were submitted for examination, conservation assessment and X-radiography, comprising three copper alloy, two lead or lead/tin alloy, and 133 iron objects. Subsequently, a further 68 iron objects recovered from samples of ironworking slag samples were added to this total

The objects were briefly visually examined to assess their condition, to determine the material from which they were made, and to look for surface and technological detail. The majority of objects were found to be moderately to highly corroded when examined. Details of the artefacts examined, including an identification of the material and of the object where possible, the condition of the object when examined, its XR plate number, and any technological or other observations, were added to the site database.

The objects were received well-packed for medium to long term storage.

Many of the objects X-radiographed were proved to be nails. There were also two groups of iron hobnails (428AF, 441AA), which have layered, mineralised leather on the shanks. Several other non-nails would require further investigative conservation for identification.

The majority of objects recovered from the slag samples remained unidentifiable following X-radiography. Most were highly corroded, and little of their form and detail appeared to survive. Hammerscale was observed on some objects, and this could sometimes be seen on the XR plate. Some objects were found to be iron corrosion blister, or were identified as being slag fragments. Several of the objects from context 368 were found to have particularly ill-defined outlines when examined, as though they had been partly melted – though no evidence of burning (e.g. reddening or charcoal fragments) was observed on their surfaces. One object (386AA) was observed to be covered with a vitrified substance.

14.7.2 Recommendations

The following objects might benefit from investigative conservation to define and elucidate their form, function and surface detail:

- 341AD Fe ?brooch frag
- 341AE Fe ?strip
- 341AH Fe ?loop, with ?red part

- 341AJ ?Pb/Sn EDXRF (energy dispersive X-ray fluorescence)
- 361AE Fe object with 'toothed edges'
- 434AB Fe ?blade
- 361AH Fe ?nail shank
- 421AA Fe ?split pin
- 490AA Fe obj
- 499AA Fe ?obj
- 499Ab Fe ?pierced sheet
- 368AD investigate possible piercing
- 368AM · investigate possible 'looped' object

Recommendations for further investigative conservation have been made without consideration of the archaeological importance of the individual objects.

14.8 Small Finds assessment (Appendix G)

M C Bishop

14.8 1 *Summary*

A total of 138 metal finds were submitted for assessment. This comprised three copper-alloy and two lead alloy items, and 133 ferrous objects. In addition, a number of items were recovered during examination of the industrial waste. All had been assessed for conservation and examined using X-radiography by the conservation laboratory at the University of Durham.

Objects were studied with reference to the X-rays to facilitate identification and to permit recommendations for further work to be formulated. All of the finds were appropriately packaged for short- to medium-term storage in accordance with museum and conservation guidelines.

The copper alloy objects comprised a fragment of scrap sheet and two modern buttons. The lead object was a fragment of waste from casting or scrap.

The iron objects included a possible length of Roman shield-strengthening bar and a number of modern or undated objects and fragments. A large number of nails were recovered including 86 hobnails from the single burial excavated.

Fragments recovered from industrial waste in Trench B5 included a number of probable offcuts from smithing, but included a rectangular object, possibly part of a billet, a possible knife blade and a possible rectangular buckle.

The artefacts recovered provided little insight into the nature of the site, other than to indicate Roman activity and structural elements in the vicinity due to the high number of nails. The possible piece of shield strengthening bar may reflect military presence in civil contexts, or it may just be scrap.

14.8.2 *Recommendations*

The majority of the small finds do not merit further work. Only one of the items (object 383AA) is recommended for illustration and may merit inclusion with a consolidated finds catalogue with more detailed citation of parallels than is appropriate in an assessment report, if any further excavation is undertaken on the site.

14.9 Ceramic building materials assessment

Greg Speed

14.9.1 *Summary*

A total of thirteen fragments of brick and tile were recovered from the trenches at Bainesse. All of the material was either clearly of post-medieval manufacture or so fragmentary as to be lacking in diagnostic features. On this basis the material was not submitted for specialist assessment.

14.9.2 *Recommendations*

It is recommended that the material be discarded.

14.10 Industrial waste and fired clay assessment (Appendix H)

Jane Cowgill

14.10.1 *Summary*

A total of 1026 pieces (nearly 17kg) of slag, coal and fired clay were submitted for recording. The vast majority of the assemblage was recovered from Trench B5, the remainder of the material being of so scattered and residual a nature as to not warrant evaluation. The material was identified solely on morphological grounds by

visual examination, sometimes with the aid of a x10 binocular microscope. A note of probable fuel type was recorded when fragments were incorporated with the slag. The finds were recorded on pro forma recording sheets and this information was entered into a Microsoft Access database which is included within the site archive. Any iron, or potential iron objects were counted, weighed and then extracted and bagged separately. When the slag was washed the soil left in the washing bowl was kept, dried and then a magnet was run through it to recover any hammer scale that was present.

All of the slag assessed from Trench B5 was a by-product of Roman iron smithing. Two different assemblages of slag were probably represented, each likely to be the by-product of a different smith or smithy (even though they could be sequential). The group from the later Roman ditch 366 was exceptionally well preserved and most was in a very 'fresh' condition, suggesting it was a primary deposit, deposited into the ditch directly from the smithy. The quantity, size and condition of the hammer scale (particularly from fill 368) supported this. Almost half of the hearth bottoms are also complete (40 out of 89), although admittedly their small size would increase the likelihood of this. Small hearth bottoms suggest a skilled smith who valued their iron, although alternately it could simply mean that only small pieces of work were undertaken in which little iron was employed and very high welding temperatures were not required. The latter scenario is unlikely if there was a permanent smithy, which this quantity of waste and the number of tuyere fragments suggest. Coal was the only fuel used by this smith to heat the hearth. This assemblage suggested that there was a permanent smithy nearby from which slag was being deposited directly into the ditch. This must have occurred over a period of time as the ditch was becoming infilled.

The second group was recovered from the earlier and deeper ditch 380 that was cut by ditch 366. The assemblages from the two features were comparable in size (224 pieces to 246 excluding hammer scale and prill) but there appear to be few other similarities. This group had fewer proto-hearth bottoms but many more of the other smaller slag types including smithing-slag lumps, undiagnostic slag and iron cinder, while the hearth bottoms were generally larger. Describing this second group was problematic because much of it has been affected and de-stabilised by the fluctuating water table within the deeper ditch. Generally the hearth bottoms were quite large in size, some were dense and a number had hearth lining attached, a feature noticeably absent in the ditch 366 group. The presence of hammer scale suggested that some smithy waste was being deposited in the ditch directly from a smithy or smithy slag heap. Once again coal was the sole fuel used by the smith, probably of relative local origin.

Coal and clinker amongst the assemblage was considered most likely to have derived from steam-driven agricultural machinery used on the land during the 19th and early 20th century.

14 10.2 *Recommendations*

This assemblage is stable and requires no particular storage conditions. The stratified material from Trench B5 should be retained, other material can be discarded. No further analysis is required. A summary of the assessment report should be prepared for any publication report.

14.11 Human bone assessment (Appendix I)

Malin Hoist

14 11.1 *Summary*

Osteological analysis revealed that the skeleton was that of a male, aged between 26 and 35 years. The poor preservation of the skeleton meant that little evidence of disease could have survived. However, it was possible to identify that this man had suffered from poor dental health, including badly receding gums, thick dental plaque and numerous cavities.

14 11 2 *Recommendations*

No further analysis of this skeleton is recommended. It should be retained with the site archive. An edited version of the assessment report will need to be prepared for any future publication report.

14.12 Biological remains assessment (Appendix J)

John Carrott and Deborah Jaques (Palaeoecology Research Services)

14.12.1 *Summary*

Biological remains recovered from nine sediment samples and a small quantity of hand-collected bone were submitted for an evaluation of their bioarchaeological potential. Three animal bone fragments from post-medieval contexts were not submitted for assessment.

Most of the plant and invertebrate remains recovered from the samples were of modern origin, but each also gave a little unidentified charcoal and some included small quantities of other charred plant remains. The majority of the last consisted of very poorly preserved fragments of unidentified charred grains or seeds from two Roman ditch fills (Contexts 368 and 377) and possibly also from a fill of the prehistoric Ditch 500 (Context 505). Context 321 (undated) gave a small assemblage of charred plant remains which consisted largely of fine root/culm fragments which may represent remains from burnt heather or turf. In general, the remains were too few and too poorly preserved to be of any interpretative value though some of the remains from Contexts 321, 368 and 377 may provide sufficient

suitable material for radiocarbon dating (via AMS) if required (all of the remaining sediment, if any, should be processed to maximise the available material).

Only two of the excavated trenches (B4 and B5) in the Bainesse area of the proposed road widening scheme produced hand-collected bone. Preservation of these remains was poor and their fragile nature had resulted in a high degree of fragmentation. Few fragments could be identified.

14.12.2 *Recommendations*

A little further investigation of the charred plant remains from Context 321 would, perhaps, clarify the nature of this material but, apart from this, no additional work can be justified other than the selection of suitable material for submission for radiocarbon dating (if required).

The current vertebrate assemblage does not warrant further analysis.

On the evidence of the material reported here, any further excavations in the immediate vicinity are unlikely to encounter deposits with interpretatively valuable concentrations of biological remains.

The remains recovered from the processed subsamples and the hand-collected material should be retained as part of the physical archive for the site – the human bone recovered from the sample from Context 428 should be reconciled with any retrieved from the grave by hand collection. Any remaining sediment from Contexts 321, 368 and 377 should also be retained pending a decision regarding radiocarbon dating and further recording of the charred plant remains from Context 321. The unprocessed sediment from Contexts 505, 507 and 508 may be discarded.

14.13 Radiocarbon dating assessment

Greg Speed

14.13.1 *Summary*

For the majority of the excavated features at Bainesse, dating derived from the pottery assemblages will provide a closer date-range for the activity that would be possible from radiocarbon dating. Two features, however, warrant further consideration for this analytical technique.

There is currently only a relatively limited suite of radiocarbon dates for Neolithic activity within the Vale of Mowbray. The only published dates for features associated with Peterborough Ware come from Marton-le-Moor (Abramson 2003, Speed *et al* forthcoming). A single date for Peterborough Ware is currently available from the Catterick area, from Hollow Banks Farm (Speed, forthcoming). The prehistoric pottery assessment (section 14.3.1 above) has identified carbonised

residues adhering to one of the sherds recovered from Bainesse which may prove sufficient to provide a viable sample for AMS radiocarbon dating

Stallibrass (2000, 75) has highlighted the paucity of recorded burials relating to the late Roman and early post-Roman period in northern England. O'Brien (1999, table 5) was unable to identify any published post-Roman 'British' burials in northern England. However, radiocarbon dating has recently begun to redress this imbalance, with 'Roman' burials possibly dating to the 5th and perhaps 6th centuries identified at Parlington Hollins near East Garforth, West Yorkshire (Roberts *et al* 2001, 283) and at Bainesse (Bayliss 2002, 385). A proposed programme of radiocarbon dating for a group of burials excavated at Bridge Road, Brompton in 2002, and dated on artefactual evidence to the late 4th century or later (NAA 2004) has yet to be carried out. The Field 163 burial provides an additional opportunity to test the attribution of such 'late Roman' burials to the late 4th century. Recent advances in high resolution radiocarbon dating offer the potential for very accurate dating in the early 5th century where the calibration curve is steep enough to allow it (Lucy and Reynolds 2002, 9).

14.13 2 *Recommendations*

At this stage, it is recommended that a single sample of carbonised residue from one of the Neolithic pottery sherds be submitted for AMS radiocarbon assay.

Since it is likely that further inhumation burials of Roman or early post-Roman date will be encountered during the proposed larger-scale excavations associated with construction of the planned new motorway in the Bainesse area, it is recommended that the skeleton from Field 163 be included within any future programme of radiocarbon dating. However, should no further excavation works be undertaken, then it is recommended that bone from this skeleton be submitted as a second sample for radiocarbon assay.

15.0 SIGNIFICANCE OF RESULTS

- 15.1 The primary significance of the evaluation has been to provide additional information upon which to base the final mitigation scheme for the Bainesse area. The evaluation confirmed that, along the route of the proposed alignment, the geophysical survey programme had given a good indication of the presence or absence of significant archaeological features. To the south of Bainesse, the proposed route appears to cross an area containing a few scattered features but no extensive archaeological sites. To the west and north-west of Bainesse the route transects an area containing ditches and other features representing an enclosed landscape of Romano-British and possibly earlier date, comprising fields interspersed with smaller enclosures probably representing small-scale settlement or industrial activity.

- 15.2 The evaluation trenches excavated within Fields 154, 155 and 157 did not identify significant archaeological features.
- 15.3 A trench excavated in Field 158 showed that a short length of a curvilinear anomaly identified by the geophysical survey was a previously unknown Neolithic monument, probably either a ring ditch or segmented pit circle. This adds to the range of early prehistoric monument types identified within the wider Catterick landscape.
- 15.4 The two trenches excavated within Field 160 confirmed that geophysical anomalies of an enclosure system were of Romano-British date. The results indicated that the enclosures had been repeatedly re-modelled and hence must have continued in use over a long period of time. A significant finding was the identification of an area of Roman ironworking activity, again occurring over a prolonged period of time and possibly concentrated within the south-western part of field 162.
- 15.5 Trenches excavated within Field 163 identified a Roman ditch and, combined with the results of the geophysical survey, indicated that the enclosure system identified within Field 160 to the south and Field 164 to the north probably continued across this field.
- 15.6 Identification of a Roman grave in Field 163 extends considerably the known extent of such burials at Bainesse. It has served as an indication of the potential for burials to be present almost anywhere along the proposed route alignment. Its discovery has also emphasised that geophysical survey does not usually reveal burials or other scattered pits.
- 15.7 Trenches located to examine enclosures recorded by the geophysical survey within Field 164 produced significant results. A ditch associated with a smaller enclosure produced a relatively large assemblage of early, probably pre-Hadrianic, pottery consistent with settlement activity. This contrasted sharply with an absence of pottery within a ditch forming part of the larger surrounding 'field system' enclosures, perhaps suggesting that the field system was of pre-Roman Iron Age origin.

16.0 POTENTIAL FOR FURTHER ANALYSIS

16.1 Stratigraphic record

- 16.1.1 Until wider excavation of the site is undertaken in advance of development, there is only limited potential for further analysis of the stratigraphic archive based upon improved dating from further analysis of the pottery assemblages.

16.2 **Artefactual record**

16.2.1 Several classes of artefact and environmental evidence require further analysis, recording or report amendment. These include

- the flint (illustration only)
- the prehistoric pottery
- the Romano-British pottery
- the metal finds
- the biological remains
- radiocarbon samples

16.2.2 Classes of artefact which do not require further analysis are

- the clay tobacco pipe
- the glass
- the brick and tile
- the industrial waste
- the human bone

17.0 **PROPOSED POST-EXCAVATION PROGRAMME**

17.1 **Stratigraphic record**

17.1.1 Little additional work is warranted at this stage on the stratigraphic record for this site. The preliminary results of the excavated evidence undertaken during the post-excavation assessment will be reviewed and amended in the light of additional information obtained from additional analysis of parts of the artefactual assemblage.

17.1.2 The results of the evaluation should be integrated with those from any wider-scale archaeological works undertaken during the proposed motorway scheme.

17.1.3 Upon completion of the scheme the indexed site archive (paper and artefactual records) will be deposited in a suitable museum with the agreement of the landowners (see section 13.4 above) and to agreed guidelines.

17.2 Artefactual record

The flint

A single piece of flint requires illustration

The prehistoric pottery

This assemblage has the potential to contribute usefully to the further understanding of prehistoric ceramic production and use in the northern part of the Vale of Mowbray, where assemblages of late Neolithic date are not common. Further examination is recommended to confirm the pottery fabric character and decorative traits. A catalogue of the pottery should be prepared, together with a brief review of the pottery in its local and regional context for inclusion within a publication report. Further examination will confirm sherds appropriate to illustrate, at this stage it is recommended that at least two of the sherds require illustration.

The Romano-British pottery

It is recommended that the samian, amphorae and mortaria are submitted for specialist analysis, in the interest both of augmenting our data-set for these classes of material in the area, and of refining dating of the site and individual features. In addition, a sherd of Roman pottery found during examination of a human skeleton from Trench B8 after the other material had been sent for assessment and with the potential to provide a *terminus post quem* for the burial should be assessed and included in any final report.

The metal finds

One iron object (383AA) is recommended for investigative conservation in order to define and elucidate its form. It is recommended for illustration and inclusion within a consolidated finds catalogue with more detailed citation of parallels, to be included within any final publication report.

The biological remains

It is recommended that further investigation of the charred plant remains from Context 321 be undertaken. A summary report of the results of analysis of the biological remains should be prepared suitable for inclusion within a final publication report.

Radiocarbon samples

It is recommended that, at this stage, a single sample of carbonised residue from one of the Neolithic pottery sherds be submitted for AMS radiocarbon assay.

However, provision should be made that, should no further excavation be undertaken as part of the proposed development, a second sample from the human skeleton may be submitted for radiocarbon assay

18.0 CONCLUSION

- 18 1 The programme of trial trenching carried out both within and adjacent to the Scheduled site at Bainesse has fulfilled the objectives of the evaluation, in terms of assessing the potential impact of the proposed alignment on those remains and testing the validity of the geophysical results along the proposed alignment
- 18 2 The evaluation confirmed that, within most parts of the site, the geophysical survey programme and previous evaluations had given a good indication of the presence or absence of significant archaeological features To the south of Bainesse, the proposed route appears to cross an area containing a few scattered features but no extensive archaeological sites. To the west and north-west of Bainesse the route transects an area containing ditches and other features representing an enclosed landscape of Romano-British and possibly earlier date, comprising fields interspersed with smaller enclosures probably representing small-scale settlement or industrial activity.
- 18 3 A trench excavated near the north-western corner of Field 155 determined that a discrete rectilinear anomaly recorded by the geophysical survey had been caused by undated episodes of turf or heather burning perhaps associated with an undetermined industrial process
- 18 4 A trench excavated in Field 157 did not identify features relating to a discrete possible Romano-British enclosure suggested by the survey, and is likely that the 'enclosure' was the product of the coincidental positioning of several unrelated post-medieval or modern features.
- 18.5 Evidence for the presence of a previously unidentified earlier prehistoric funerary or 'ritual' monument was identified within Field 158 This was dated by pottery to the middle or later Neolithic period
- 18 6 Geophysical survey had suggested the existence of ditched enclosures forming a continuous enclosed landscape of probable Roman date, consisting of larger 'field' enclosures containing smaller possible settlement enclosures, extending northwards from Field 160 through Fields 163 and 164 Trenches excavated within Field 160 confirmed that enclosures there were of Romano-British date Several phases of re-definition and modification of the boundaries were recorded The relatively small quantities of pottery recovered suggested that the enclosures did not have a domestic function Large assemblages of ironworking slag and other wastes recovered from two different phases of enclosure ditches at the northern edge of the field suggested

- the presence nearby of a Roman smithy, probably located within Field 162 immediately to the north. The material from the different phases of enclosure ditch was distinguishable as being derived from the activities of two different smiths, suggesting that the smithy operated over a prolonged period of time.
- 18 7 Trenches excavated within Field 163, the only part of the Scheduled area evaluated, identified a Roman ditch running parallel to the southern edge of the Tunstall Beck. This probably formed part of the more widespread enclosure system with a second ditch running at right angles recorded by the geophysical survey. A trench positioned to target this second feature did not identify it, probably as a result of passing through an entrance gap, but found a Roman inhumation burial which may have been located in association with the boundary.
- 18 8 The presence of the human inhumation, some 150m to the north-west of burials previously recorded in the area of the existing A1 junction, could suggest the presence of further dispersed burials within the general area.
- 18 9 Geophysical survey indicated that within Field 164 at the northern end of the area of investigation contained large enclosures forming part of the larger former field system but including a smaller enclosure possibly representing settlement. A trench excavated across a ditch associated with the smaller enclosure produced a rich assemblage of pottery confirming its probably domestic character and also indicated an early Romano-British, probably pre-Hadrianic, date for the activity. By contrast, investigation of one of the ditches of the larger 'field system' enclosures produced no artefacts at all. This may suggest that the apparently aceramic field system pre-dates the pottery-rich settlement enclosure. In view of the early date of the settlement, the field system may therefore date from the pre-Roman Iron Age.
- 18 10 Several of the evaluation trenches produced additional evidence of medieval agricultural activity across the area in the form of pottery derived from manuring and the furrow-bases from ridge and furrow cultivation. This data was complementary to the extensive and important body of information available for the Catterick area which has yet to be collated and analysed.
- 18 11 The results from several of the trenches highlighted the need for development of a strategy for permitting a period of weathering of exposed subsoils and hand-cleaning of machined surfaces where archaeology is considered likely to be present during the proposed development. In many areas archaeological features were overlain by layers of relict ploughsoils or colluvium. These would need to be removed in a separate, controlled, exercise as part of any archaeological works in advance of motorway construction.
- 18.12 Due to their small and scattered nature, the assemblages of Romano-British artefactual and biological remains recovered during the excavations were in themselves only of limited value. However, as a group they contribute to the larger cumulative assemblage for the Roman site at Bainesse, and the hinterland of

Cataractonium as a whole, and increase the volume of material available for any future analysis

- 18.13 The post-excavation analysis has established that there is some limited potential for further analysis of parts of the stratigraphic archive and artefactual and biological assemblages from Bainesse. Given the nationally important nature of the site, further analysis of the artefactual and biological assemblages and preparation of a report suitable for publication should be undertaken. However, should further excavation be undertaken in advance of the proposed motorway scheme, the proposed further analysis should be deferred and integrated with that for the wider scheme.

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Appendix A
FLINT ASSESSMENT

Peter Makey

Summary

The Bainesse trenches produced five struck flints

The flint assemblage came from four separate trenches (B1, B5, B8 and B12) and four separate contexts (317, 369, 420 and 505). The assemblage consists of 1 broken flake (archive record 9), 1 spall/chipping (archive record 7), 1 possible core rejuvenation flake (archive record 5), 1 edge retouched flake (archive record 8) and a broken leaf shaped arrowhead (archive record 6).

The flint is consistent with that derived from till deposits along the Yorkshire coast. All five pieces are in a fresh state with only light/very light traces of post-depositional edge damage. This trait is present on the leaf shaped arrowhead and the edge-retouched flake.

Trench B1

Trench B1 produced two pieces, both of which came from the fill [317] of undated linear cut [316]. Both pieces are in a surprisingly fresh state. The pieces comprised a small tertiary flake with core facets on its platform (archive record 5) and a leaf shaped arrowhead of Green's (1980) class 3AL (archive record 6). The tertiary flake is probably a core rejuvenation flake from a small flake core. The arrowhead is a finely flaked example that has been manufactured on a fine-grained olive grey flint. The piece is missing its tip and has fine fluting damage on both of its faces, this is consistent with impact damage. The arrowhead has probably been fired.

Dating

The possible core rejuvenation flake is of a form consistent with a Later Neolithic to early Bronze Age date. The leaf arrowhead is of a form with restricted Early Middle Neolithic associations.

The arrowhead from Trench B1 is a stray find that has been used, as such its dating potential is limited. However, the fine state of the implement suggests that it was rapidly incorporated into the archaeological record. This might suggest a Neolithic date for linear cut [316].

Trench B5

A small, fresh, un-corticated flint chipping (archive record 7) was recovered from a sample of the fill [369] of Roman enclosure ditch [366]. The piece cannot be dated other than being prehistoric, although it is in a fresh state and is suggestive of on-site knapping.

Trench B8

An irregular secondary flake with a right hand side edge retouch (archive record 8) was recovered from the topsoil [420] Such pieces are very common in most Later Neolithic and Early Bronze Age assemblages

Trench B12

The fill [505] of ring ditch [500] produced a fine broad secondary flake (42 x 25mm) The flake is damaged at the proximal (butt) and distal (tip) ends but possesses fine traces of left hand side use wear

The size and form of the piece is consistent with debitage from Neolithic assemblages

Archaeological Potential

All five pieces can be considered domestic The material is of limited significance due to the small assemblage size The freshness of the material is surprising and may indicate a possible prehistoric date for linear cut [316]

Recommendations

The leaf shaped arrowhead (archive record 6) from cut [316] is the only piece of note in this assemblage The piece is a very fine example and would warrant illustration for future reference Otherwise, no further work is required on this material

Reference

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Appendix B
PREHISTORIC POTTERY ASSESSMENT

Blaise Vyner

Introduction

Assessment has been undertaken in order to obtain preliminary information on the chronology and nature of the pottery assemblage, and the range of pottery fabrics present, and to provide information on the extent and nature of any further required examination of the material. The pottery was examined on 28th February 2006.

Trench B9, context 434

Jar, single abraded plain sherd, surfaces brown-grey, fabric dark grey, wall thickness 10mm, wt 8g, few obvious grits but with a medium-sized mudstone fragment. Pre-Roman Iron Age or Roman native style.

Trench B12

Assemblage significance

This small assemblage is important in that it provides information on site date and function. It suggests that the site was the location of activity in the later Neolithic, and is further evidence for this period in the Catterick area.

Ceramic content

This is a small assemblage, but comprising parts of at least three, and probably four, vessels.

Peterborough Ware

Two vessels are represented by single rim sherds, while a few fragments may derive from a third (508). A fourth vessel is distinguished by different grits (505). Carbonised accretions on its interior surface may be sufficient to provide a radiocarbon date.

Chronology

Peterborough Ware belongs to the later Neolithic, although poorly dated in this region.

Nature of the assemblage

Small mixed ceramic assemblages are a feature of the Neolithic. In the region these are more commonly recorded from eastern Yorkshire than the lowland Vale of Mowbray, and only a small quantity of Peterborough Ware has been recovered from this area. The nature of the activity represented by such assemblages remains unclear.

Vessel fabrics

Vessel fabrics in this period tend to be highly variable. The base sherds present have sedimentary quartz grits, while other pieces have mixed igneous and riverine inclusions.

Accretions

Carbonised accretions have been noted on the interior surfaces of the base sherds.

Illustration

Further examination will confirm sherds appropriate to illustrate, assessment suggests that at least two sherds should be drawn.

Conservation

The sherds are in a friable condition and care needs to be taken when handling this material for examination or illustration.

Further analysis

This assemblage has the potential to contribute usefully to the further understanding of prehistoric ceramic production and use in the northern part of the Vale of Mowbray, where assemblages of late Neolithic date are not common.

Consideration should be given to further examination to include:

- 1 Confirmation of the pottery fabric character and decorative traits
- 2 Catalogue of pottery
- 3 Brief review of the pottery in the local and regional context

Appendix C
ROMAN AND LATER POTTERY ASSESSMENT

Peter Didsbury M Phil

Introduction and methodology

A total of 463 sherds of ceramic, weighing 6070 grams and having an average sherd weight (ASW) of 13.1 grams, was recovered from the excavations

Material was quantified by the two measures of count and weight, according to fabric type within archaeological context. Data was recorded on an Access database, which is supplied as an integral part of this report and which should be consulted on matters of detail where appropriate

Fabric codes used in the database are set out in an appendix, below

Summary description of the site assemblage

Romano-British material amounted to 322 sherds, weighing 4450 grams (ASW 13.8 grams). Simplified fabric profiles of the site assemblage are given in Tables 1 and 2, below

Table 1. Proportional distribution of material by chronological period

<i>Period</i>	<i>% sherds</i> <i>(n = 463)</i>	<i>% weight</i> <i>(n = 6070 grams)</i>
Roman	69.8	73.3
Medieval	1.1	0.2
Post-medieval/modern	22.0	25.0
Uncertain	7.3	1.5
TOTALS	100.2	100.0

Table 2. Simplified fabric profile of the Roman assemblage

<i>Fabric</i>	<i>% sherds</i> <i>(n = 322)</i>	<i>% weight</i> <i>(n = 4050 grams)</i>
---------------	-------------------------------------	--

Amphora	6 2	47 2
Mortaria	3 1	7 3
Samian	9 9	2 3
Colour-coated	0 6	0 3
BB1 and -type	31 1	20 0
Greyware	33 2	26 9
Coarsely gritted	1 9	2 5
Oxidised wares	13 0	3 3
Whitewares	0 9	0 1
TOTALS	99 9	99 9

The site assemblage is relatively small, and comes from widely dispersed parts of an extensive linear 'site'. These factors act as constraint upon the comparison of data in Table 2 with that from other sites (but see further below). Certain chronological and functional biases are apparent, however. Material which may be as early as Flavian appears in some contexts (see below), but the high value for BB1 and BB1-type wares suggests that a considerable portion of the assemblage was deposited after the Hadrianic period. There are some well-defined 3rd century assemblages though the 4th century, certainly the second half, is not visible. The near total absence of colour-coated wares (represented only by a probable 3rd or 4th century non-beaker form) and low values for other 'finewares' and specialist forms may be noted. Functionally, the site assemblage is heavily biased towards common coarsewares in grey and Black-Burnished Ware fabrics, which account for c 64% by number of sherds.

The samian, mortaria and amphorae await specialist opinion, and therefore the chronology of the Roman site assemblage cannot be finalised, though fairly accurate spot-dates can be suggested for most assemblages with sufficient quantities of material. Outside these categories, chronologically diagnostic forms and fabrics occur principally within the grey and Black-Burnished wares. Overall, these suggest occupation, resulting in ceramic deposition, from at least the first half of the 2nd century, and possibly from the late 1st. A total of eight sherds of rusticated ware from various contexts, conventionally dated c AD 70-130/150 and often reflecting a nearby military presence, may be noted here. Similarly early material may also prove to be present among the samian and mortaria.

Discussion: the trench assemblages

Trenches B1-3 and B10-13

These trenches may be considered together because in each case pottery was only recovered from topsoil and/or subsoil assemblages, or from demonstrably post-Roman deposits (viz 'post-medieval

colluvium' in B10, and a ridge-and-furrow fill in B12) With the exception of the B12 topsoil, which had a large assemblage of modern material, contexts in these trenches yielded of very small amounts of material, often single sherds A dating summary is provided below The database may be consulted for further details

Table 3. Summary dating of contexts from Trenches B1-3 and B10-13

<i>Trench</i>	<i>Context and type</i>	<i>Dating</i>
B1	312, subsoil	c 13th-century
B2	301, topsoil	residual Roman, 1st-3rd century
B3	322, topsoil	uncertain
B10	418, post-medieval colluvium	19th century
B11	443, topsoil	19th century with residual samian
B12	499, topsoil	19th century
B12	501, ridge-and-furrow fill	residual Roman, 1st-3rd century
B13	490, topsoil	post-medieval
B13	491, subsoil	uncertain

Trench B4

Pottery was obtained from fills 355 and 356, and 357 and 343, of two sections of the 'main enclosure' ditch, from pit fill 415, from fill 413 of a ditch subdividing an enclosure, from fill 347 of a medieval furrow, and from topsoil 341 These are discussed in stratigraphic order below

The main enclosure

Nothing chronologically diagnostic came from fill 356, but fill 355 yielded a large assemblage of 109 sherds, representing 33.9% of the entire Roman site assemblage by sherd count The earliest material present is a sherd of Flavian-early Antonine rusticated ware, but there is clear evidence that the bulk of the assemblage dates from after the late 2nd century It is dominated by Black-Burnished wares, among which were noted Gillam Types 329 (AD 190-340), 138 or later (AD 150-250), 143-145 (AD 180-300), a straight-sided flanged bowl with flange below bead, and a jar sherd with obtuse-angled lattice A basal fragment of Nene Valley-type colour-coated ware might be from a late (3rd or 4th century) non-beaker vessel The latest material might be a 'Throlam-type' wide-mouthed bowl, cf Monaghan 1997, Type BT2, dated at York c AD 280-410 Similar forms are certainly available earlier in the 3rd century, however, and too much weight must not be placed upon this vessel in determining a closure date for the assemblage The optimum interpretation of this assemblage at present would be

that it is largely of 3rd century date, perhaps continuing into the earlier 4th. This judgement is not contradicted by the remaining groups from the enclosure ditch.

Fill 357 contained only a single mortarium rim sherd. This resembles Gillam Type 275 (AD 230-320) in form, though not in fabric. Specialist opinion is awaited.

Fill 343 contained 19 sherds, of which 13 came from a Black-Burnished jar with decidedly obtuse lattice. The rim is missing, but body and neck profile suggest that derivation from Gillam Type 145 (AD 230-300) is the most likely. These sherds form the most diagnostic component of the assemblage.

Pit fill 415

The feature contained only two amphora sherds. These are from the same vessel, not Dressel 20 in form or fabric. Specialist opinion must be sought.

Ditch fill 413

This contained only three body sherds of Black-Burnished Ware.

Other

Furrow fill 347 contained a small fragment (two grams) from a medieval suspension-glazed jug. It is probably Tees Valley B ware, and therefore datable to the c. mid 13th to mid 14th century.

Topsoil 341 contained a small assemblage of 19th century, residual Roman and undated pottery. The database may be consulted for details.

Trench B5

Material came from fills 381, 382, 383 and 386 of the 'main Roman enclosure ditch', from fills 369, 368 and 365 of the 'latest Roman ditch', from cleaning surface 367, from context 362 (not described), and from topsoil 361. These are discussed in stratigraphic order below.

The main enclosure ditch

There is little of evidential value in the fills of this ditch. Black-Burnished wares occur in both 383 and 386, which at least affords a Hadrianic terminus post quem (hereafter TPQ). The database may be consulted on matters of detail.

The latest Roman ditch

Fill 369 contained only a Black-Burnished jar rim and body sherd, cf. Gillam Type 133 or 135, c. AD 160/170-230/250.

In fill 368, the most diagnostic material was two sherds from a Black-Burnished open form with broad basal chamfer, probably cf. Gillam Type 308 or 327, both c. AD 130-180.

Fill 365 yielded little of evidential value. Sherds of Black-Burnished type wares suggest at least a Hadrianic TPQ, while a samian sherd, if correctly identified as form 31, will push this forward to

c AD 150 Both the samian and a possible mortarium sherd have the potential to refine the dating of this fill

As far as can be judged at present, the feature should probably be dated between the mid 2nd and mid 3rd centuries

Other

Context 362 contained a small Roman assemblage, in which the most diagnostic material was the very abraded rim of a small bowl in fine pinkish fabric Its form might be compared to Evans 2002, form B 15.6 in the Cataractonium type series Evans calls the B 15 series 'flange rim bowls' A mid 2nd to mid 3rd century date might be appropriate

Cleaning surface 367 yielded three fragments of 19th century pottery, while topsoil 361 had a small assemblage of 19th century and residual Roman material

Trench B6

Material was obtained from fills 375, 377 and 373 of a Roman enclosure ditch, and from later topsoil, subsoil and furrow contexts These are discussed in stratigraphic order below

The enclosure ditch

Fill 375 contained only a large Dressel 20 amphora sherd The type has a wide date-range from the 1st to 3rd century The sherd is from a handle, and might therefore have the diagnostic potential to refine the dating

Fill 377 had a large assemblage of 87 sherds, of some evidential value Five large rim and body sherds of the same Rusticated Ware jar may be dated c AD 70-130/150 The main component in the greywares consists of eighteen sherds from a single vessel, apparently a rather globular necked jar with at least two zones of fingernail decoration in multiple lines, separated by constrictions Such fingernail/stabbing decoration appears to be broadly contemporaneous with Rusticated Ware in North Lincolnshire and the Humber region, cf May 1996, nos 801, 877, from Dragonby The vessel may well be an 'import' from Lincolnshire, and there are other vessels among the greywares which may suggest a similar origin, viz two small rather globular jars with everted rims and high shoulders, a vessel reminiscent of the stubby-rimmed jars with shoulder groove from the earliest Roman phases at Dragonby (cf May 1996 no 818), and a carination sherd (very sharply angled) from a thin-walled carinated jar All these have a broadly Flavian - early Antonine appearance A pre-Hadrianic date for the assemblage might be suggested by the complete absence of Black-Burnished fabrics Final conclusions on the dating of the feature must await specialist analysis of the amphora, mortarium and samian from the fill

'Overall fill' 373 contained thirteen sherds Of evidential value are two vessels which appear to belong to the first half of the 2nd century The first of these is a jar which finds a fairly close parallel to in Evans 2002, J 17.1 in the Cataractonium type series, a vessel which Evans compares to a mid 2nd century jar from Trentholme Drive, York (Gillam 1968, fig 29, no 15) The second is a mortarium rim which may tentatively be compared (in form if not fabric) to Gillam Type 245, c AD 110-160? This must await specialist opinion

At present, it seems acceptable to see the beginning of this ditch in the late 1st or early 2nd century, possibly in the pre-Hadrianic period. The last pottery it received may have been in the middle of the 2nd century.

Other

Furrow fill 384 contained a single medieval jug sherd in a North Yorkshire fabric tradition, possibly of c 13th century date. The database may be consulted for details.

Topsoil 371 contained a sherd of undiagnostic oxidised ware, most likely of post-medieval date.

Trench B8

All three pottery-producing contexts in the trench (topsoil 421, and post-medieval deposits 421 and 422) were characterised by the presence of 19th or early 20th century pottery with residual Roman assemblages. The earliest material among the latter is a sherd of Rusticated Ware from 422. Mortaria, samian and amphora sherds have the potential to augment our knowledge of supply and use of these categories of material at Bainesse. Among the post-medieval material, a sherd of 18th century White English salt-Glazed Stoneware with 'Scratch Blue' decoration may be noted.

Trench B9

Material was obtained from fill 434 of a Roman ditch, and from fill 438 of a post-medieval mill-race.

Fill 434 contained sixteen sherds of Roman pottery, of which five (making the majority by weight) came from the base and lower body of a single greyware jar. It is in a fine sandy mid-grey fabric with lighter surfaces. This is scarcely chronologically diagnostic, though its turned base, with neatly moulded and finished basal angle, might suggest that it is unlikely to be later than mid 3rd century in date.

Fill 438 contained a single body sherd of 19th or 20th century plain white porcelain.

Conclusions and recommendations

The site assemblage as a whole suggests activity from pre-Hadrianic times to at least the 3rd century, and possibly into the early 4th. Although many of the assemblages are of little evidential value, there are good assemblages with further potential for refining site dating in Trenches B4, B5, B6 and B8. Of particular interest is the enclosure ditch in Trench B6, possibly a pre-Hadrianic feature containing imports from North Lincolnshire. In terms of the phase-dating offered by Evans for Bainesse Site 46 (Evans 2002, 401 ff) this feature may well belong to Phase 2, suggested as pre-Hadrianic. The suggested dating of the other principal features is offered above.

It is recommended that the samian, amphorae and mortaria are submitted for specialist analysis, in the interest both of augmenting our data-set for these classes of material in the area, and of refining dating of the site and individual features. Any published report on the excavations should include a short discursive pottery report, with detailed discussion and illustration of the main features from the trenches listed above.

All material should be retained, and deposited in an appropriate regional archive.

Appendix: fabric common names and database codes

Roman fabric terms are generic, and in accepted use or self-explanatory. Post-Roman material is categorised only by chronological period in the 'Fabric' field of the database, but more specific fabric codes may be employed in the 'Remarks' field. These follow the fabric terminology set out in Watkins 1987, unless otherwise stated.

<i>Code</i>	<i>Common name/remarks</i>
<i>Roman</i>	
BB	Black Burnished Ware (BB1 and BB1-type wares)
RA	Amphorae
RCC	Colour-coated ware
RG	Greyware
RG(RUS)	Rusticated ware
RGRIT	Coarsely grit-tempered ware
RM	Mortaria
RO	Oxidised wares
RO(WS)	Oxidised wares, white-slipped
RS	Samian
RW	White wares
<i>Post-Roman and other</i>	
MFP	Miscellaneous (modern) factory products
CBM	Ceramic building material
CREAM	Creamware
EMOD	Early modern
FLOB	'Flow Blue' (variety of TPWW)
FPBW	Factory-produced brown earthenware
FPWW	Factory-produced white earthenware

GREB	Post-medieval glazed red earthenwares with brown glazes
LBLAK	Late Blackware (nineteenth-century iron-glazed)
MED	Medieval
MOD	Modern
MODSW	Modern stoneware
PMED	Post-medieval
PORC	Porcelain
STAFSL	Staffordshire Slipware
TPWW	Transfer-printed white earthenwares
UGRE	Unglazed red earthenware
UNAT	Unattributed to type/period
WESGSW(SB)	White English Salt-Glazed Stoneware ('Scratch Blue')
WHDIP	White-Dipped Ware (nineteenth-century pancheons etc)

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Appendix D
GLASS ASSESSMENT

Denise Allen

Introduction

Two fragments of glass from Bainesse were submitted for assessment

Catalogue

Context 317 Post-medieval/modern bottle rim, blue-green glass

Context 420 Post-medieval/modern fragment, olive green glass

Archaeological potential and recommendations

Neither fragment warrants further study or illustration. It is not recommended that either be retained within the site archive.

Appendix E
CONSERVATION ASSESSMENT

Jennifer Jones, Dept of Archaeology, University of Durham

Quantification and condition

138 metal objects were received for examination, conservation assessment and X-radiography. These comprised 3 copper alloy, 2 lead or lead/tin alloy, and 133 iron objects.

The objects were briefly visually examined to assess their condition, to determine the material from which they were made, and to look for surface and technological detail.

The majority of objects were found to be moderately to highly corroded when examined, with only a few found to be lightly corroded (491AA, 499AA). Most of the material was stable when examined, with just a few pieces showing signs of cracking or spalling of the corrosion products (e.g. 322AC, 490AA).

Lightly corroded metallic material is defined as having a thin, often compact corrosion surface, sometimes with good patination, which obscures little of the object's form or surface detail. There is significant metal remaining below the corrosion surface.

Moderately corroded metallic material is defined as having the surface detail, but not usually the general form of the object, obscured by corrosion products, and has some metal remaining below the corrosion.

Highly corroded metallic material is defined as either having both the form and the surface detail of the object obscured by corrosion, and/or having little or no metal remaining in its core.

Details of the artefacts examined, including an identification of the material and of the object where possible, the condition of the object when examined, its XR plate number, and any technological or other observations, were added to the site database.

X-Radiography

The objects were sorted into groups of a similar density, which were X-rayed together. 11 XR plates were used.

XR results and recommendations

Many of the objects X-radiographed were proved to be nails. There were also two groups of Fe hobnails (428AF, 441AA), which have layered, mineralised leather on the shanks. Several other non-nails would require further investigative conservation for identification.

The following iron objects might benefit from investigative conservation to define and elucidate their form, function and surface detail.

- 341AD Fe ?brooch frag
- 341AE Fe ?strip
- 341AH Fe ?loop, with ?red pamt
- 341AJ ?Pb/Sn EDXRF (energy dispersive X-ray fluorescence)
- 361AE Fe object with 'toothed edges'
- 434AB Fe ?blade
- 361AH Fe ?nail shank
- 421AA Fe ?split pin
- 490AA Fe obj
- 499AA Fe ?obj
- 499Ab Fe ?pierced sheet

Recommendations for further investigative conservation have been made without consideration of the archaeological importance of the individual objects

Storage

The objects were received well-packed for medium to long term storage

They should continue to be stored in airtight containers at a stable temperature and below 20% RH, to inhibit further corrosion. The RH should be controlled by active silica gel, which is regularly monitored and regenerated as necessary.

Appendix F

ADDITIONAL CONSERVATION ASSESSMENT OF SMALL FINDS RECOVERED FROM SLAG

Jennifer Jones, Dept of Archaeology, University of Durham

Quantification and condition

68 Fe objects were received for examination, conservation assessment and X-radiography

The objects were briefly visually examined to assess their condition, to determine the material from which they were made, and to look for surface and technological detail

Most of the material was found to be highly corroded, though some pieces (e.g. 365AD, 382AH), were found to be moderately corroded. Most of the material was stable when examined, with only a few objects (e.g. 382AD, 368AJ), showing evidence of cracking of the corrosion layer

Moderately corroded metallic material is defined as having the surface detail, but not usually the general form of the object, obscured by corrosion products, and has some metal remaining below the corrosion

Highly corroded metallic material is defined as either having both the form and the surface detail of the object obscured by corrosion, and/or having little or no metal remaining in its core

Details of the artefacts examined, including an identification of the material and of the object where possible, the condition of the object when examined, its XR plate number, and any technological or other observations, were added to the site database (attached)

X-Radiography

The objects were sorted into groups of a similar density, which were X-rayed together. 6 XR plates were used

XR Results and recommendations

The majority of objects remain unidentifiable following X-radiography. As mentioned, most are highly corroded, and little of their form and detail appears to survive. Hammerscale had been observed on some objects (e.g. 368AV), and this could sometimes be seen on the XR plate. Some objects were found to be Fe corrosion blister (e.g. 382AK), or were identified as being slag fragments (e.g. 368AN)

Several of the objects from context 368 were found to have particularly ill-defined outlines when examined, as though they had been partly melted – though no evidence of burning (e.g. reddening or charcoal fragments) was observed on their surfaces. One object (386AA) was observed to be covered with a vitrified substance

Only 2 objects might benefit from further investigative conservation

368AD investigate possible piercing

368AM investigate possible 'looped' object

Recommendations for further investigative conservation have been made without consideration of the archaeological importance of the individual objects

Storage

The material was received well packed for medium to long term storage. The objects should continue to be stored in an airtight container at a stable temperature and below 20% RH, to inhibit further corrosion. The RH should be controlled by active silica gel, which is regularly monitored and regenerated as necessary.

Appendix G
SMALL FIND ASSESSMENT

M C Bishop

Introduction

This assessment of the recorded finds ('small finds') from the evaluation at Bainesse (AIDB) has been undertaken to accord with MAP2 Appendix 4 'Assessment Report Specification' (English Heritage 1991)

The total number of finds from the site considered in this assessment report is 138. This comprised three copper-alloy and two lead alloy items, and 133 ferrous objects. In addition, a number of items were recovered during examination of the industrial waste. All had been assessed for conservation and examined using X-radiography by the conservation laboratory at the University of Durham (Jones 2006)

Objects were studied with reference to the X-rays to facilitate identification and to permit recommendations for further work to be formulated. All of the finds were appropriately packaged for short- to medium-term storage in accordance with museum and conservation guidelines.

Catalogue

Copper alloy

- 1 Coin D. mm 31 AA
- 2 Sheet folded over on itself and slightly distorted. It has been both cut and torn around the edges, suggesting it is scrap awaiting reprocessing. L 60mm, W 55mm 491 AA
- 3 Button Modern D 17mm 420 AA
- 4 Button lacking its loop Modern D 22mm 341 AI

Lead alloy

- 5 Sub-oval blob of lead alloy, flat on the underside. Waste from casting or scrap being recycled. L 25mm, W 12mm 341 AK

Iron

- 6 Possible length of shield-strengthening bar? L 73mm, W 11mm 383 AA **Recommended for illustration**
- 7 Circular-sectioned triangular loop Modern? L 80mm, W 82mm 322 AC

- 8 Complete chain link with a portion of one of its neighbours still corroded to it Modern L 67mm, W 32mm 322 AB
- 9 Triangular portion of a blade Modern? L 80mm, W 65mm 499 AB
- 10 Round-ended oval-sectioned strip Modern? L 54mm, W 24mm, Th 7mm 434 AB
- 11 Length of an irregularly sectioned object L 55mm, W 25mm 361 AE
- 12 Rectangular-sectioned triangular object Modern file? L 125mm, W 20mm, Th 12mm 499 AA
- 13 Curved length of strip Heel reinforce from sole of shoe or boot Modern L 80mm, W 11mm 499 AC
- 14 Rectangular-sectioned bar twisted through 90 degrees near one end Modern agricultural fitting? L 295mm, W 23mm 361 AA
- 15 Rectangular-sectioned rectangular bar L 75mm, W 13mm 421 AA
- 16 Length of rectangular sheet folded over on itself L 40mm, W 11mm, Th 2mm 490 AB
17. Length of rectangular sheet folded over on itself L 49mm, W 17mm, Th 3mm 341 AH
- 18 Length of rectangular-sectioned rectangular bar L 50mm, W 33mm, Th 8mm 490 AC
- 19 Body and one prong of a joiner's dog or staple L 60mm, W 10mm 490 AA
- 20 Staple prong? L 50mm 361 AH
- 21 Staple prong? L 40mm 499 AE
- 22 Rod, L 29mm, Th 3mm 420 AC
- 23 Rectangular fragment L 27mm; W 22mm 362 AA
- 24 Rectangular fragment L 31mm, W 21mm 341 AE
- 25 Triangular fragment L 48mm, W 29mm 361 AG
26. Twisted strip L 36mm, W 18mm 341 AD
- 27 Two fragments of circular-sectioned rod, one L-shaped L 23mm & 17mm 434 AF

Nails

No.	Manning type	Length	Finds Code
28	1a	67mm	421 AC
29	1a	80mm	428 AB
30.	1a	100mm	421 AE

No.	Manning type	Length	Finds Code
31	1a	102mm	361 AC
32	1a	190mm	
33		95mm	322 AA
34	1b	19mm	434 AD
35	1b	24mm	434 AE
36	1b	30mm	474 AA
37	1b	40mm	368 AC
38	1b	50mm	420 AD
39	1b	50mm	428 AD
40	1b	52mm	341 AF
41	1b	55mm	499 AF
42	1b	60mm	428 AE
43	1b	67mm	421 AA
44	1b	68mm	361 AB
45	1b	72mm	421 AF
46	1b	77mm	428 AC
47	1b	78mm	421 AG
48	1b	80mm	421 AD
49	1b	85mm	382 AA
50	1b	100mm	382 AB
51	?	36mm	341 AG
52	?	36mm	382 AC
53	?	40mm	368 AB
54	?	46mm	428 AA

Hobnails

No.	Notes	Finds Code
55	19 examples	428 AF
56	67 examples	441 AA

Fragments

No.	Notes	Finds Code
57		377 AD
58	Possibly a Manning 1b nail head	434 AC
59	Nail of uncertain type. L 35mm	377 AC
60	Noted as magnetic L. 58mm	311 AA
61		420 AB
62		361 AF
63		499 AD
64	four frags	434 AA
65		341 AC

66 Fragments recovered from industrial waste include 361 AD, AI, 365 AC-AJ, 367 AA-AB, 368 AD-AV, 369 AB, 377 AE-AF, 381 AA-AM, 382 AD-AL, 383 AB-AF, 386 AA-AF. Of these, the bulk appear to be offcuts from smithing, but the following are of note

a a rectangular object, possibly part of a billet L 55mm, W 25mm 368 AE

b a possible knife blade L 122mm, H 35mm 361 AD

c a possible rectangular buckle L 20mm, W 23mm 382 AD

Other

67 Amorphous fragment possibly of a modern alloy L 21mm 341 AJ

Assessment

The artefacts recovered provide little insight into the nature of the site, other than to indicate Roman activity and structural elements in the vicinity due to the high number of nails. The possible piece of shield strengthening bar may reflect military presence in civil contexts, or it may just be scrap.

Recommendations

The majority of the finds from Bainesse (A1DB) do not merit further work. Only one of the items is recommended for illustration and may merit inclusion within a consolidated finds catalogue with more detailed citation of parallels than is appropriate in an assessment report, if any further excavation is undertaken on the site.

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Appendix H

SLAG AND ASSOCIATED FINDS ASSESSMENT

Jane Cowgill

Introduction

A series of trenches were excavated by Northern Archaeological Associates within and adjacent to the Scheduled area of Bainesse Farm, Catterick. The majority of the assemblage was recovered from Trench B5, which was a transact across the north-western corner of a multi-phase Romano-British enclosure. No finds were recovered from the earliest phase of the ditch but quite a lot of pottery was found in the fills of later phases, there were few other types of find such as animal bone. This has led to the suggestion that there may not have been domestic settlement in the vicinity. In Trench B5 Ditch 366 is later than Ditch 380, but this latter feature may be part of the same enclosure ditch as that found in Trench B4 (Ditch 344). It is probable that the slag derived from activities undertaken to the north of the enclosure. Although this area is outside the remit of this project, an earlier geophysical survey gave low magnetic susceptibility readings for the area recently evaluated but much higher readings were obtained for the zone just north of the adjacent boundary hedge.

Recording Methodology.

A total of 1026 pieces (nearly 17kg) of slag, coal and fired clay were submitted for recording. The finds were identified solely on morphological grounds by visual examination, sometimes with the aid of a x10 binocular microscope. A note of probable fuel type has been recorded when fragments were incorporated within the slag. The finds were recorded on *pro forma* recording sheets and this information was entered into a Microsoft Access database using the following encoded fields: Site code, Context, Finds letters, Type, Count, Weight, Craft, Fuel type, Condition, Comments. Any iron, or potential iron objects were counted, weighed and then extracted and bagged separately. When the slag was washed the soil left in the washing bowl was kept, dried and then a magnet was run through it to recover any hammscale that was present. This material has been included in the catalogue under the category of 'Magnetic Matter'. The complete catalogue is included within the site archive.

Discussion.

All of the slag recovered is a by-product of iron smithing - the production, repair or recycling of iron objects. The following categories in Table 1 below comprise the evidence for iron smithing: iron cinder (FECIND), plano-convex slag accumulations (commonly known as hearth bottoms HB), magnetic matter if it includes hammscale (MAGM), proto-hearth bottoms (PROTO), all indeterminate slag (in this instance) and smithing-slag lumps (SSL). The tuyeres are also probably associated. This report will concentrate on the assemblage from Trench B5, all of which is thought to be Roman in date.

Two different assemblages of slag are probably present here, each are likely to be the by-product of a different smith or smithy (even though they could be sequential). The group from the later Roman Ditch 366 is exceptionally well preserved and most is in a very 'fresh' condition, suggesting it is a primary deposit, deposited in to the ditch directly from the smithy. The quantity, size and condition of

the hammerscale (particularly from Fill 368) supports this. Almost half of the hearth bottoms are also complete (40 out of 89), although admittedly their small size would increase the likelihood of this. The average weighs only 68.5g, with only five weighing over 250g including the multi-layered piece from Fill 368, (a weight of over 500g is not unusual). Small hearth bottoms suggest a skilled smith who valued their irons, although alternately it could simply mean that only small pieces of work were undertaken in which little iron was employed and very high welding temperatures were not required. The latter scenario is unlikely if there was a permanent smithy, which this quantity of waste and the number of tuyere fragments suggest. Coal was the only fuel used by the smith to heat the hearth.

The finds from cleaning Layer 367 are directly comparable to those from the ditch fills below and have therefore been included in the equations. The slag was recovered from all three ditch fills with the greatest quantity being from central Fill 368. Fill 365 above contained significantly less slag, but a very high quantity of prill, especially from Sample AB. The absence of hammerscale which should be far more abundant than prill suggests that a large mesh size may have been used to recover the sample residue (1mm or less is recommended). The slag in the ditch basal Fill 369 is less 'fresh' and has obviously suffered from post-depositional processes probably due to a fluctuating water table. The slags are encrusted with soil, stones and corrosion products but otherwise resemble those from the higher ditch fills.

This assemblage suggests that there was a permanent smithy close to the site, perhaps to the north as is suspected, from which slag was being deposited directly into the ditch. This must have occurred over a period of time as the ditch was becoming in-filled, unless it was actively encouraged to help fill in the ditch.

The second group was recovered from the earlier and deeper Ditch 380 that was cut by Ditch 366. The assemblages from the two features are comparable in size (224 pieces to 246 excluding hammerscale and prill) but there appear to be few other similarities. This group has fewer proto-hearth bottoms but many more of the other smaller slag types including smithing-slag lumps, undiagnostic slag and iron cinder, while the hearth bottoms are generally larger. Describing this second group is problematic because so much of it has been affected and de-stabilised by the fluctuating water table (pers comm Greg Speed) after it was buried. Many of the pieces are encrusted with soil and corrosion masking surface features such as levels of abrasion, fuel inclusions and often whether the piece is complete. This varies between the four fills within the ditch that contained slag with the pieces in the lowest two fills (382 and 381) being most severely affected. It is for this reason that only 11 out of a total of 83 hearth bottoms could be recorded as complete (13%) giving a very low average weight of 36g, but the two heaviest are over 450g. The smaller pieces are less likely to corrode which accounts for these skewed figures. Generally these hearth bottoms are quite large in size, some are dense and a number have hearth lining attached, a feature noticeably absent in the Ditch 366 group. A few contain patches that are a glossy mid-grey colour. Many of the hearth bottoms are abraded, either from weathering on the ground surface or while within the ditch or perhaps from frequent redeposition. The presence of hammerscale (a very stable iron oxide that seldom corrodes) suggests that some smithy waste is being deposited in the ditch directly from a smithy or smithy slag heap. Often smiths heap their by-products outside the smithy until the heap becomes too large or a convenient opportunity arises to dispose of it. This is what may have happened in this instance which would account for the weathering of some pieces.

Table 1. Summary of the finds giving the number of fragments by context (brick and cinder are excluded)

Cont Desc	Context	CLINKER	COAL	FECIND	FIRE	HB	IRON	MAGM	PROTO	SLAG	SSL	TUYERE
Trench B3												
Layer	321	3	1		1				#			
Trench B4												
Ditch 344	343	1										
Trench B5												
Topsoil	361					1	2					
Cleaning	367	1		2	3/2			\$	5/4		9	
Ditch 366	365		259	2	1	4/1	10	c 60	9/4	127	7	1
Ditch 366	368		61	3		45/1	19	1000+	15/13	49	45	9
Ditch 366	369					6/6	1	c 40		7		5
Cleaning	362	1		2	1	1				1	3	
Ditch 380	386		1	1		22	5	\$	1		4	
Ditch 380	383		1	2	1	12/1	5	c 300	3/3	26	10	2
Ditch 380	382			3		33/2	15	c 300	4/3	40	11	6
Ditch 380	381			4	1	5/1	19	c 80	2/1	24	11	7
Trench B6												
Ditch 374	373				1							
Ditch 374	377				12		2	#				
Trench B8												
Topsoil	420	1										
Ploughsoil	422											
Trench 89												
Ditch 433	434						1					
Trench 813												
Topsoil	490	1										
Subsoil	491											
Trench 812												
	507								#			
Ditch 500	508								#			

MAGM. magnetic material extracted from the soil after washing the slag, # all natural, \$ not kept
 HB (Hearth bottom) and PROTO (Proto-hearth bottoms) total number/ number complete

The largest quantity of slag and hammerscale is from Fill 382, although Fill 383 above has an equal quantity of hammerscale. The amount of hammerscale from Fill 386 is unknown. This assemblage again suggests that this ditch was close to a smithy, although the building need not have been as close

as that suggested by the 366 Ditch assemblage. Once again coal was the sole fuel used by the smith, probably of relative local origin.

The coal and clinker amongst the assemblage is probably from steam-driven agricultural machinery used on the land during the 19th and early 20th century. It is just possible that it is associated with the iron slag but this is perhaps less likely.

Summary

A number of small groups of cinder, clinker, iron, fired clay and slag were recovered from the Bainesse Farm Trenches but only those from Trench 5 were deemed significant enough to report on above. This appeared to represent two assemblages of iron-smithing slags deposited in two different ditches. Although post-depositional factors have affected one group, its compositional characteristics seem distinct enough from the other to suggest an origin of different smithies.

Recommendations

This assemblage is stable and requires no particular storage conditions. No further work is required at the post-excavation stage.

Appendix I
HUMAN BONE ASSESSMENT

Malin Holst

(York Osteoarchaeology Ltd Report 0206)

Summary

York Osteoarchaeology Ltd was commissioned by Northern Archaeological Associates to carry out the osteological analysis of a single human skeleton recovered from a field (Field 163) 350m north-west of Bainesse Farm, Catterick, North Yorkshire (NGR SE 23717 97275). The skeleton was buried in a sandstone and limestone cist in a supine extended position in a north to south orientation. The individual's skull lay by his feet, at the southern end of the grave. Nails indicative of hobnailed boots were found around the feet.

Osteological analysis revealed that the skeleton was that of a male, aged between 26 and 35 years. The poor preservation of the skeleton meant that little evidence of disease could have survived. However, it was possible to identify that this man had suffered from poor dental health, including badly receding gums, thick dental plaque and numerous cavities.

Introduction

York Osteoarchaeology Ltd was commissioned by Northern Archaeological Associates to carry out the osteological analysis of a partial skeleton. The skeleton had been recovered in September 2005 during trial trenching in Field 163, 350m north-west of Bainesse Farm, Catterick, North Yorkshire (NGR SE 23717 97275).

The skeleton had been interred in an extended position, with the right arm crossing the lower left arm. It was lying with the upper body to the north and the legs to the south. The skull had been placed by the individual's feet, facing to the west. The skeleton wore hobnailed boots and had been buried in a limestone and sandstone cist.

Aims and objectives

The aim of the skeletal analysis was to determine the age, sex and stature of the skeleton, as well as to record and diagnose any skeletal manifestations of disease and trauma.

Methodology

The skeleton was analysed in detail, assessing the preservation and completeness, as well as determining the age, sex and stature of the individual (Appendix 1). All pathological lesions were recorded and described.

Osteological Analysis

Osteological analysis is concerned with the determination of the identity of a skeleton, by estimating its age, sex and stature. Robusticity and non-metric traits can provide further information on the appearance and familial affinities of the individual studied. This information is essential in order to determine the prevalence of disease types and age-related changes. It is crucial for identifying gender dimorphism in occupation, lifestyle and diet, as well as the role of different age groups in society.

Preservation

Skeletal preservation depends upon a number of factors, including the age and sex of the individual as well as the size, shape and robusticity of the bone. Burial environment, post-depositional disturbance and treatment following excavation can also have a considerable impact on bone condition. Preservation of human skeletal remains is assessed subjectively, depending upon the severity of bone surface erosion and post-mortem breaks, but disregarding completeness.

Preservation was assessed using a grading system of five categories: very poor, poor, moderate, good and excellent. Excellent preservation implied no bone surface erosion and very few or no breaks, whereas very poor preservation indicated complete or almost complete loss of the bone surface due to erosion and severe fragmentation.

The skeleton was in a poor condition (Table 1). It had suffered from considerable post-mortem fragmentation, which can probably be attributed to increased bone fragility due to the effects of some of the capping stone slabs collapsing onto the skeleton. This led to the loss of the majority of spongy bones, such as the vertebrae and many of the joints. Moderate superficial erosion was also observed. The skull was severely fragmented, but better preserved than the remainder of the skeleton, with the exception of the feet, which were also in a relatively good condition.

Table 1 Summary of osteological and palaeopathological results

Preservation	Completeness	Age	Sex	Stature	Pathology
Poor	50%	26-35	Male	-	Periodontitis, caries, calculus

Because of the poor preservation, the skeleton was only 50% complete (see Table 1).

Assessment of age

Age was determined using standard ageing techniques, as specified in Scheuer and Black (2000a; 2000b) and Cox (2000). Age estimation relies on the presence of the pelvis and uses different stages of bone development and degeneration in order to calculate the age of an individual. Age is split into a number of categories, from foetus (up to 40 weeks in utero), neonate (around the time of birth), infant (newborn to one year), juvenile (1-12 years), adolescent (13-17 years), young adult (ya, 18-25 years), young middle adult (yma; 26-35 years), old middle adult (oma, 36-45 years), mature adult (ma, 46+) to adult (an individual whose age could not be determined more accurately as over the age of seventeen).

In this instance, the poor preservation meant that only very fragmentary ageing criteria survived. The fact that the long bone ends were completely fused suggested that this individual was at least 17 years old. The cranial sutures were partially closed, which suggests young middle age. However, cranial sutures have been found to be a relatively inaccurate age indicator and as a result, more emphasis was placed on the ageing criteria of the hip. The dental wear suggested an age 26 to 35. It was therefore determined that this individual was a young middle adult, aged 26 to 35 years (see Table 1).

Sex determination

Sex determination was carried out using standard osteological techniques, such as those described by Mays and Cox (2000). Assessment of sex in both males and females relies on the preservation of the skull and the pelvis and can only be carried out once sexual characteristics have developed, during late puberty and early adulthood.

Only one pelvic sexing characteristic survived, so sex estimation was largely based on the skull. All sexing indicators suggested that this was a male.

Metric analysis and non-metric traits

The severe fragmentation of the bones meant that it was not possible to carry out any measurements to establish the stature or cranial shape of this skeleton.

Non-metric traits are additional sutures, facets, bony processes, canals and foramina, which occur in a minority of skeletons and are believed to suggest hereditary affiliation between skeletons (Saunders 1989). The origins of non-metric traits have been extensively discussed in the osteological literature and it is now thought that while most non-metric traits have genetic origins, some can be produced by factors such as mechanical stress (Kennedy 1989) or environment (Trnkhaus 1978).

A total of thirty cranial (skull) and thirty post-cranial (bones of the body and limbs) non-metric traits were selected from the osteological literature (Buikstra and Ubelaker 1994, Finnegan 1978, Berry and Berry 1967) and recorded. These were anomalies that would not have affected the individual.

The only non-metric traits observed were divided articular joint facets on the talus and calcaneus (ankle bones), which would not have affected the individual.

Conclusion

Osteological analysis of the skeleton established that this individual was a young middle adult male, who was relatively robust in appearance.

Pathological analysis

Pathological conditions (disease) can manifest themselves on the skeleton, especially when these are chronic conditions or the result of trauma to the bone. The bone elements to which muscles attach can also provide information on muscle trauma and excessive use of muscles.

No evidence for pathology was observed.

Dental health

Analysis of the teeth from archaeological populations provides vital clues about health, diet and oral hygiene, as well as information about environmental and congenital conditions. A total of eighteen of a possible 32 teeth survived in the jaw of this individual. The first right maxillary molar had been lost ante-mortem. The remaining teeth were probably lost post-mortem, although this could not be verified, as most of the jaw bone was not present.

It is likely that the severity of periodontal disease (receding gums), observed in the surviving left mandible fragment had contributed to the loss of some teeth. The jaw bone had receded considerably, exposing the surviving teeth to the formation of dental plaque concretions (calculus), which is commonly observed in archaeological populations. Calculus mineralises and forms concretions on the tooth crowns, along the line of the gums. Calculus was observed to a moderate or severe degree on all teeth and would have irritated the gums and further aggravated the periodontal disease.

Dental wear tends to be more common and severe in archaeological populations than in modern society. In this instance, a coarser diet using the contemporary corn grinding techniques would have produced greater wear. Severity of the dental wear was assessed using a chart developed by Smith (1984). Each tooth was scored using a grading system ranging from 1 (no wear) to 8 (severe attrition of the whole tooth crown). The surviving teeth showed moderate wear.

Caries lesions (cavities) were not very common before an increase in the availability of sugar in the 17th century (Roberts and Manchester 1995, 49). Diet in Roman England was largely sucrose-free for the majority of the populace. Five cavities were observed in the surviving eighteen teeth, all of which were located at the cemento-enamel junction, where the tooth crown and root meet. This suggests that the cavities only developed once the jaw bone had receded, exposing this part of the tooth to decay.

Dental analysis showed that this individual suffered from relatively poor dental health, probably caused by inadequate oral hygiene. This had led to the formation of dental plaque concretions on the teeth, periodontal disease and cavities.

Mortuary practice

The single male skeleton had been interred in a stone cist. The man lay on his back in an extended position in a north to south orientation. The skull lay to the south of the feet, facing west. The left arm lay straight beside the torso, while the lower right arm lay across the left forearm. Nails found by the feet suggested that he wore hobnailed boots.

The position of the skull by the feet of the skeleton suggests that the individual's head had been decapitated during life or prior to burial. Because no vertebral fragments survived, evidence for decapitation could not be found.

Decapitated burials were relatively widespread in the Roman period throughout England. Local examples of Roman decapitated skeletons, whose heads had been placed by their feet, include numerous burials at Driffield Terrace in York (Anton pers comm).

During the Roman period, decapitation could occur prior to death as a punishment (Taylor 2003, 19). Alternatively, removal of the head could take place after death or even after decomposition and this is

thought to have been carried out for superstitious or religious reasons. It is clear that the positioning of the skull by the man's feet was a deliberate act, although the motives are not fully understood.

Other cist burials have been reported for the Roman period from Catterick and other parts of North Yorkshire, including recently excavated examples at Pickering (Holst, forthcoming).

Discussion and summary

A single skeleton was excavated during an archaeological excavation at Bainesse Farm, Catterick. The skeleton had been interred in an extended position in a stone cist, with the skull placed by the skeleton's feet. The manner of burial, including the presence of hobnailed boots suggests that the burial dates from the Roman period.

Osteological analysis found that the skeleton was a young middle adult male, aged between 26 and 35 years. Poor oral hygiene led to severe tooth decay, formation of thick deposits of dental plaque and receding gums. No skeletal pathological lesions were observed, which might be a result of the poor preservation of this individual.

Acknowledgements

York Osteoarchaeology Ltd would like to thank Sarah Wilkinson of Northern Archaeological Associates for her help and support.

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Table 2: Osteological and palaeopathological catalogue

Skeleton Number	430															
Preservation	Poor															
Completeness	50%, the skull, legs, feet, small fragments of the arms, right shoulder, ribs and pelvis															
Age	26 to 35, young middle adult															
Sex	Male															
Stature	-															
Non-Metric Traits	Double inferior talar facets (bilateral), double anterior calcaneal facets (bilateral)															
Pathology	None															
Dental Health	Caries 5/18, Plaque 15/18, severe periodontitis															
	Right Dentition								Left Dentition							
Present	-	-	-	P	P	P	-	-	-	-	P	P	P	AM	-	-
Calculus	-	-	-	Sb	Sb	Sb	-	-	-	-	-	-	-	-	-	-
DEH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caries	-	-	-	-	-	-	-	-	-	-	-	Lm	-	-	-	-
Wear	-	-	-	3	3	3	-	-	-	-	5	5	5	-	-	-
Maxilla	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
Mandible	8	7	6	5	4	3	2	1	1	2	3	4	5	6	7	8
Present	P	P	P	P	-	-	P	P	P	P	-	P	P	P	P	P
Calculus	-	Sa	Sa	MI	-	-	MI	MI	MI	MI	-	MI	MI	MI	SI	SI
DEH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Caries	Mm	-	-	-	-	-	-	-	-	-	-	-	-	Mb	Sb	Mb
Wear	2	2	4	3	-	-	5	5	5	5	-	3	4	4	2	2

KEY:

Present - Tooth presence, am - ante-mortem tooth loss, pm - post-mortem tooth loss, p - tooth present, - - jaw not present

Caries - Calculus, F - flecks of calculus, S - slight calculus, M - moderate calculus, H - heavy calculus, a - all surfaces, b - buccal surface, d - distal surface, m - mesial surface, l - lingual surface, o - occlusal surface

DEH - dental enamel hypoplasia, l - lines, g - grooves, p - pits

Caries - caries, s - small lesions, m - moderate lesions, l - large lesions

Wear - dental wear, numbers from 1-8 - slight to severe wear

Appendix J

BIOLOGICAL REMAINS ASSESSMENT

John Carrott and Deborah Jaques

(Palaeoecology Research Services Report 2006/16)

Summary

Biological remains recovered from nine sediment samples and a small quantity of hand-collected bone, recovered from deposits encountered during excavations at Bannesse Farm, near Catterick, North Yorkshire, were submitted for an evaluation of their bioarchaeological potential. Archaeological features included enclosure ditches and a grave of Roman date, and a possible Neolithic/early Bronze Age ring or barrow ditch.

Most of the plant and invertebrate remains recovered from the samples were of modern origin, but each also gave a little unidentified charcoal and some included small quantities of other charred plant remains. Context 321 (undated) gave a small assemblage of charred plant remains which consisted largely of fine root/culm fragments which may represent remains from burnt heather or turf. In general, the remains were too few and too poorly preserved to be of any interpretative value though some of the remains from Contexts 321, 368 and 377 may provide sufficient suitable material for radiocarbon dating.

Only two of the twelve trenches excavated in this area of the proposed road widening scheme produced hand-collected bone. Preservation of these remains was poor and their fragile nature had resulted in a high degree of fragmentation.

A little further investigation of the charred plant remains from Context 321 may clarify the nature of this material but, apart from this, no additional work can be justified other than the selection of suitable material for submission for radiocarbon dating (if required). The current vertebrate assemblage does not warrant further analysis.

On the evidence of the material reported here, any further excavations in the immediate vicinity are unlikely to encounter deposits with interpretatively valuable concentrations of biological remains.

Introduction

Archaeological evaluation excavations were undertaken by Northern Archaeological Associates along the route of the proposed widening of the Dishforth to Barton section of the A1, North Yorkshire, between August and November 2005.

A series of 47 trenches were excavated, primarily concentrated around and within the scheduled areas at Catterick Roman town, Catterick and Healam Bridge Roman fort and vicus and Bannesse Farm.

This report presents an evaluation of the biological remains recovered (by both hand-collection and from samples) from six of the twelve trenches (B3, B4, B5, B6, B8 and B12) excavated in the scheduled area at Bannesse Farm. Most of the features encountered in Trenches B4, B5 and B6 were enclosure ditches of Roman date. Trench B8 produced a Roman grave, whilst the sample from Trench

B3 came from an undated burnt deposit. A possible Neolithic/early Bronze Age ring or barrow ditch was uncovered in Trench B12.

Remains recovered from nine sediment samples ('GBA'/'BS' sensu Dobney *et al* 1992) processed by NAA and a very small quantity of hand-collected bone were submitted to Palaeoecology Research Services Limited (PRS), County Durham, for an evaluation of their bioarchaeological potential.

Methods

Sediment samples

The sediment subsamples were processed by NAA prior to delivery to PRS, and the unsorted 'flots' (hereafter termed washovers) and biological remains recovered from the residues submitted for evaluation. The weights and volumes of the subsamples were recorded before being placed onto 500 micron nylon mesh in a sieving tank. The light organic fraction was washed over into a 500 micron sieve to collect the washovers. Both the washover and residue fractions of the processed subsamples were dried.

The submitted remains were identified as closely as possible and their suitability for radiocarbon dating by standard radiometric technique or accelerator mass spectrometry (AMS) was also considered. Nomenclature for plant species follows Stace (1997).

Hand-collected vertebrate remains

For the hand-collected vertebrate remains, subjective records were made of the state of preservation, colour of the fragments, and the appearance of broken surfaces ('angularity'). Other information, such as fragment size, dog gnawing, burning, butchery and fresh breaks, was noted where applicable.

Fragments were identified to species or species group using the PRS modern comparative reference collection. The bones that could not be identified to species were described as the 'unidentified' fraction. Within this fraction, fragments were grouped into three categories: large mammal (assumed to be cattle, horse or large cervid), medium-sized mammal (assumed to be caprovid, pig or small cervid) and completely unidentifiable.

Results

Sediment samples

Results of the examination of the washovers and components from the residues are presented in Table 1, together with notes regarding any remains suitable for radiocarbon dating.

Hand-collected vertebrate remains

Small quantities of vertebrate remains were recovered from two of the trenches (B4 and B5), the whole assemblage amounting to just 30 fragments.

Trench B4

Vertebrate remains recovered from this trench amounted to 18 fragments. All were from Context 355, a fill of ditch segment 354 of Roman date. The bone was of very poor preservation and was heavily fragmented. A horse lower third molar was identified, whilst the other fragments included 11 large mammal tooth enamel fragments and several large mammal vertebrae.

Trench B5

Context 381, the primary fill of Ditch 380 (of Roman date), produced 12 fragments of poorly preserved bone. The fragments represented a single horse molar that had broken on excavation or during post excavation processes.

Discussion and statement of potential

Most of the plant and invertebrate remains recovered from the samples were of modern origin, but each also gave a little unidentified charcoal and some included small quantities of other charred plant remains. The majority of the last consisted of very poorly preserved fragments of unidentified charred grains or seeds from two Roman ditch fills (Contexts 368 and 377) and possibly also from a fill of the prehistoric Ditch 500 (Context 505). Context 321 (undated) gave a small assemblage of charred plant remains which consisted largely of fine root/culm fragments which may represent remains from burnt heather or turf. In general, the remains were too few and too poorly preserved to be of any interpretative value though some of the remains from Contexts 321, 368 and 377 may provide sufficient suitable material for radiocarbon dating (via AMS) if required (all of the remaining sediment, if any, should be processed to maximise the available material).

Only two of the excavated trenches (B4 and B5) in the Bainesse area of the proposed road widening scheme produced hand-collected bone. Preservation of these remains was poor and their fragile nature had resulted in a high degree of fragmentation. Few fragments could be identified.

Despite previous excavations recovering substantial bone assemblages of Roman date from Bainesse (Meddens 2002), the current assemblage is too small and too poorly preserved to be of interpretative value and implies little potential for the recovery of bone in the immediate vicinity.

Recommendations

A little further investigation of the charred plant remains from Context 321 would, perhaps, clarify the nature of this material but, apart from this, no additional work can be justified other than the selection of suitable material for submission for radiocarbon dating (if required).

The current vertebrate assemblage does not warrant further analysis.

On the evidence of the material reported here, any further excavations in the immediate vicinity are unlikely to encounter deposits with interpretatively valuable concentrations of biological remains.

Retention and disposal

The remains recovered from the processed subsamples and the hand-collected material should be retained as part of the physical archive for the site – the human bone recovered from the sample from Context 428 should be reconciled with any retrieved from the grave by hand collection. Any remaining sediment from Contexts 321, 368 and 377 should also be retained pending a decision.

regarding radiocarbon dating and further recording of the charred plant remains from Context 321
The unprocessed sediment from Contexts 505, 507 and 508 may be discarded

Archive

All material is currently stored by Palaeoecology Research Services (Unit 8, Dabble Duck Industrial Estate, Shildon, County Durham), along with paper and electronic records pertaining to the work described here

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Table 1 Bainesse Farm (near Catterick), North Yorkshire Summary of biological remains recovered from sediment samples, with notes on any material suitable for submission for radiocarbon dating Key 'CN' = context number, 'Sub' = size of processed subsample (kg/litres), 'Rem' = approximate quantity of unprocessed sediment remaining (litres), '-' = unknown, details not available or not applicable

CN	Trench	Date	Context type	Sub	Rem	Washover	Sorted from residue	Material for radiocarbon dating	Radiocarbon dating method
321	B3	-	undated burnt deposit	11/8	22	~80 ml of charred fine (but woody) root and ?culm fragments, with a little modern rootlet and other plant debris – the charred material possibly represents burnt heather or turf	~1 g of unidentified charcoal to 6 mm	Possibly on charred root/culm fragments	AMS
365	B5	Roman	fill of Ditch 366	12/10	0	~90 ml, approximately two-thirds of which was modern rootlets and the remainder of fine unidentified charcoal (to 7 mm) and cinder (to 4 mm)	A small fragment of unidentified material was submitted as 'fish bone' but was not bone	No	-
368	B5	Roman	fill of Ditch 366	12 5/10	0	~120 ml of modern rootlets, with a trace of unidentified charcoal (to 6 mm) and a few very poorly preserved (and unidentified) charred grain fragments	~1 g of unidentified charcoal to 6 mm There were also two fragments (to 3 mm) of unidentified bone and two other fragments of unidentified material submitted as bone	Possibly on cereal grain fragments	AMS
369	-	Roman	fill of Ditch 366	9/5	0	~25 ml of modern rootlets and occasional modern arthropod fragments (including thrips), with a little unidentified fine charcoal (to 2 mm)	A small fragment of unidentified material was submitted as 'fish bone' but was not bone	No	-
377	B6	Roman	fill of Ditch segment 378	-/-	-	~15 ml of modern rootlets, ?cereal chaff and seeds/fruits (including of the goosefoot family – Chenopodiaceae) and earthworm egg capsules There was also a trace of fine charcoal (to 5 mm) and a few charred seed/grain fragments (? <i>Bromus</i>)	~1 g of unidentified charcoal to 6 mm	Possibly on seed/grain fragments	AMS
428	B8	Roman	Grave 431 –	10/8	0	~10 ml of modern rootlets and fine sediment	Unsurprisingly, given that	No	-

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CN	Trench	Date	Context type	Sub	Rem	Washover	Sorted from residue	Material for radiocarbon dating	Radiocarbon dating method
			stained area around feet of skeleton			particles, with some modern seeds/fruits, arthropod fragments, earthworm egg capsules and a trace of fine charcoal (to 2 mm)	this sample was from a grave fill, the seventeen bone fragments recovered were all identified as human		
505	B12	prehistoric	fill of Ditch 500	10/10	20	~20 ml of modern rootlets, with a few modern seeds and earthworm egg capsules and a trace of unidentified ?charred grain fragments	~2 g of crumbly unidentified charcoal to 12 mm	No	-
507	-	-	-	11/10	20	~3 ml of modern rootlets, with a trace of unidentified fine charcoal (to 1 mm) and a few modern earthworm egg capsules	~2 g of unidentified charcoal to 15 mm	No	-
508	B12	prehistoric	fill of Ditch 500	10/10	20	~15 ml of modern rootlets, a few seeds/fruits, beetle and other arthropod fragments and an occasional small piece of ?coal (to 2 mm)	~2 g of unidentified charcoal to 10 mm	No	-

**Appendix K
CONTEXT AND FINDS CATALOGUE**

Context	Trench	Field	Description	animal bone	cbm	clay pipe	cu alloy	fe	fired clay	flint	glass	human bone	ind waste	metal	pb	pottery	sample
301	B2	155	Topsoil													5	
302	B2	155	Subsoil														
303	B2	155	Natural														
311	B1	154	Topsoil					1									
312	B1	154	Subsoil													1	
313	B1	154	Natural gravel														
314	B1	154	Linear cut														
315	B1	154	Fill of cut 314														
316	B1	154	Linear cut														
317	B1	154	Fill of cut 316							2	1						
321	B3	155	Layer										2				4
322	B3	155	Topsoil		3		1	9						1	1	6	
323	B3	155	Drain cut														
324	B3	155	Fill of drain cut 323														
325	B3	155	Drain cut														
326	B3	155	Fill of dram cut 325														
327	B3	155	Subsoil														
328	B3	155	Boulder clay														
329	B3	155	Layer														
330	B3	155	Drain														
341	B4	160	Topsoil														
342	B4	160	Natural gravel														
343	B4	160	Fill of ditch segment 344										1			19	
344	B4	160	Ditch segment														

A1D2B Bainesse Archaeological Evaluation Trenching Post-Excavation Assessment Report

Context	Trench	Field	Description	animal bone	cbm	clay pipe	cu alloy	fe	fired clay	flint	glass	human bone	ind waste	metal	pb	pottery	sample
345	B4	160	Fill of ditch segment 346														
346	B4	160	Ditch segment														
347	B4	160	Fill of furrow 348													1	
348	B4	160	Furrow														
349	B4	160	Fill of ditch 346														
350	B4	160	Fill of furrow 351														
351	B4	160	Furrow														
352	B4	160	Furrow														
353	B4	160	Fill of furrow 352														
354	B4	160	Ditch segment														
355	B4	160	Fill of ditch segment 354	18												106	
356	B4	160	Fill of ditch segment 354													5	
357	B4	160	Fill of ditch segment 344													1	
361	B5	160	Topsoil					9					2			10	
362	B5	160	Cleaning			1		1					10			7	
363	B5	160	Fill of furrow 364														
364	B5	160	Furrow														
365	B5	160	Fill of ditch 366					8					31			8	4
366	B5	160	Ditch														
367	B5	160	Cleaning	-				2					22			3	
368	B5	160	Fill of ditch 366					21					168			13	1
369	B5	160	Fill of ditch 366					1					15			2	1
370	B5	160	Natural gravel														
371	B6	164	Topsoil													1	
372	B6	164	Natural														
373	B6	164	Fill of ditch 374						1							12	
374	B6	164	Ditch														
375	B6	164	Fill of ditch segment 376													1	
376	B6	164	Ditch segment														

AID2B Bainesse Archaeological Evaluation Trenching Post-Excavation Assessment Report

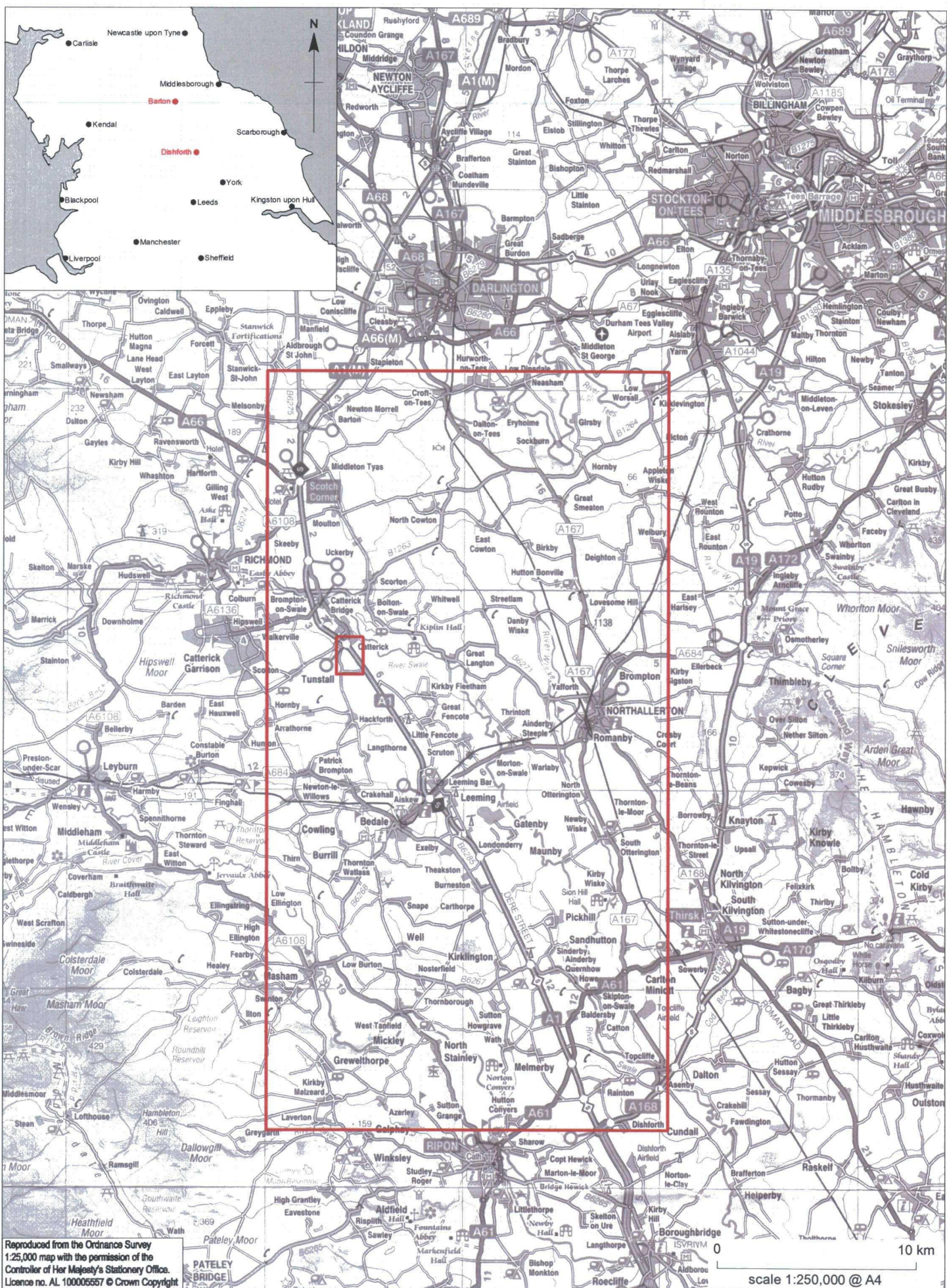
Context	Trench	Field	Description	animal bone	cbm	clay pipe	cu alloy	fe	fired clay	flint	glass	human bone	ind waste	metal	pb	pottery	sample
377	B6	164	Fill of ditch segment 378					5	9							82	4
378	B6	164	Ditch segment														
379	B6	164	Subsoil														
380	B5	160	Ditch														
381	B5	160	Fill of ditch 380	12				13					76			2	
382	B5	160	Fill of ditch 380					12					111			12	
383	B5	160	Fill of ditch 380					6					61			5	
384	B6	164	Fill of ?furrow 385													1	
385	B6	164	?Furrow														
386	B5	160	Fill of ditch 380					6					36			10	
387	B5	160	Gully														
388	B5	160	Fill of gully 387														
389	B5	160	Fill of ditch 366														
390	B5	160	Ditch segment														
391	B5	160	Fill of ditch segment 390														
392	B5	160	Fill of ditch segment 390														
393	B5	160	Ditch segment														
394	B5	160	Fill of ditch segment 393														
395	B5	160	Ditch														
396	B5	160	Fill of ditch 395														
397	B5	160	Fill of ditch segment 398														
398	B5	160	Ditch segment														
410	B7	164	Topsoil														
411	B7	164	Fill of ditch 412														
412	B7	164	Ditch														
413	B4	160	Fill of ditch segment 414													3	
414	B4	160	Ditch segment														
415	B4	160	Fill of cut 416													2	
416	B4	160	Cut														

A1D2B Bainesse: Archaeological Evaluation Trenching Post-Excavation Assessment Report

Context	Trench	Field	Description	ammal bone	cbm	clay pipe	cu alloy	fe	fired clay	flint	glass	human bone	md waste	metal	pb	pottery	sample
417	B10	163	Topsoil														
418	B10	163	Subsoil													1	
419	B10	163	Natural														
420	B8	163	Topsoil	2	4		1	3		1	2		1			13	
421	B8	163	Layer					7			3					3	
422	B8	163	Layer	1	4						5		1			45	
423	B8	163	Fill of ditch 429		1												
424	B8	163	Cover stones in grave 431														
425	B8	163	Stones														
426	B8	163	Layer														
427	B8	163	Natural gravel														
428	B8	163	Fill of grave 431					5									1
429	B8	163	Ditch														
430	B8	163	Skeleton in grave 431									1					
431	B8	163	Grave cut														
432	B9	163	Topsoil														
433	B9	163	Ditch														
434	B9	163	Fill of ditch 433					6	1				1			14	
435	B9	163	Palaeochannel														
436	B9	163	Fill of palaeochannel 435														
437	B9	163	Mill race														
438	B9	163	Fill of mill race 437													1	
439	B9	163	Fill of mill race 437		1												
440	B9	163	Fill of ditch 433														
441	B8	163	Deposit in grave 431					67									
442	B9	163	Natural gravel														
443	B11	157	Topsoil													3	
444	B11	157	Subsoil														
445	B11	157	Natural														

A1D2B Bainesse Archaeological Evaluation Trenching Post-Excavation Assessment Report

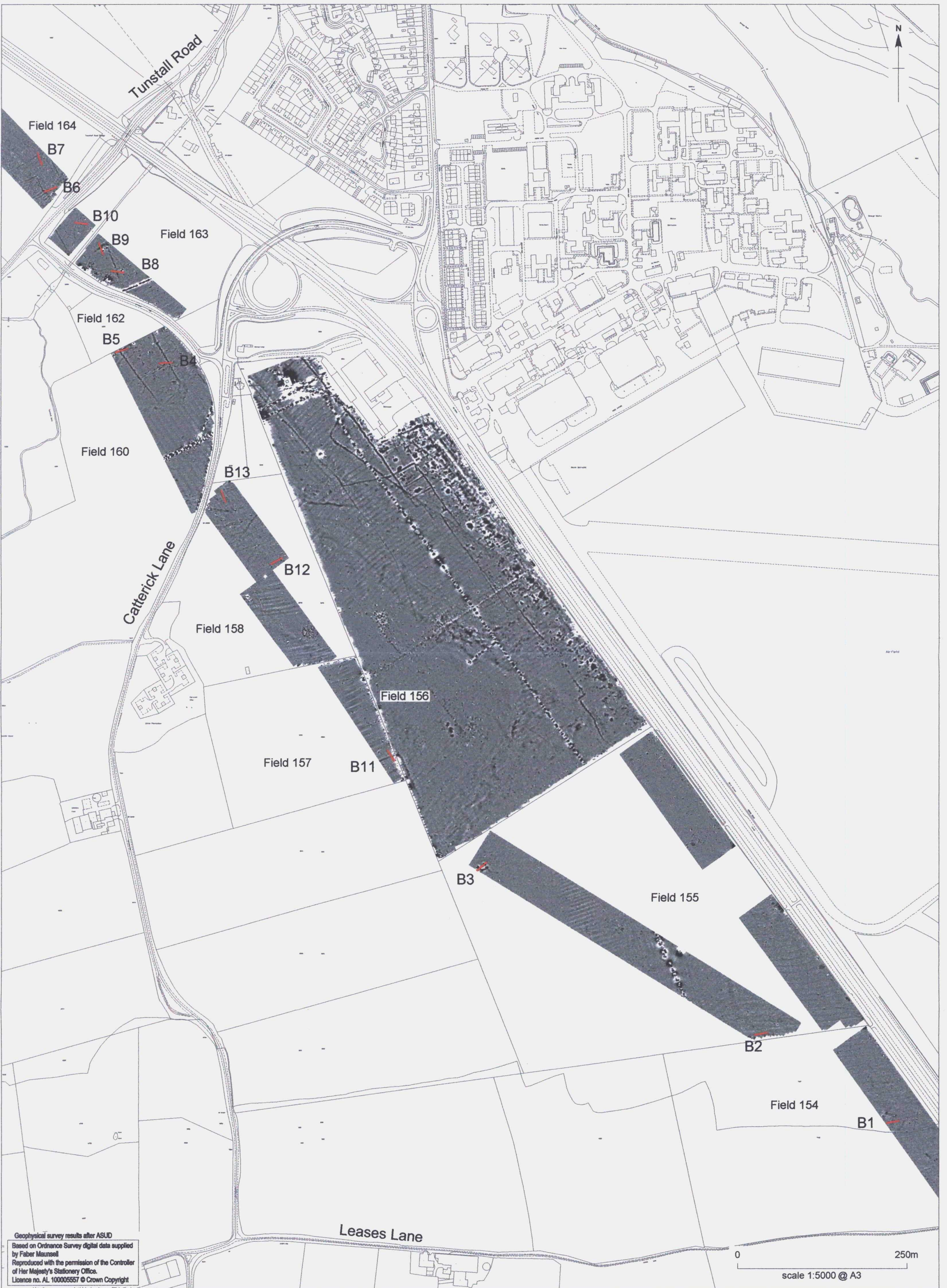
Context	Trench	Field	Description	animal bone	cbm	clay pipe	cu alloy	fe	fired clay	flint	glass	human bone	ind waste	metal	pb	pottery	sample
490	B13	158	Topsoil					3					1			1	
491	B13	158	Subsoil				1						5			4	
492	B13	158	Natural														
499	B12	158	Topsoil					6			2					46	
500	B12	158	Ditch														
501	B12	158	Furrow cut and fill													1	
502	B12	158	Layer														
503	B12	158	Layer														
504	B12	158	Fill of ditch 500														
505	B12	158	Fill of ditch 500							1						31	4
506	B12	158	Fill of ditch 500														
507	B12	158	Fill of ditch 500														
508	B12	158	Fill of ditch 500													1	4
509	B12	158	Fill of ditch 500														



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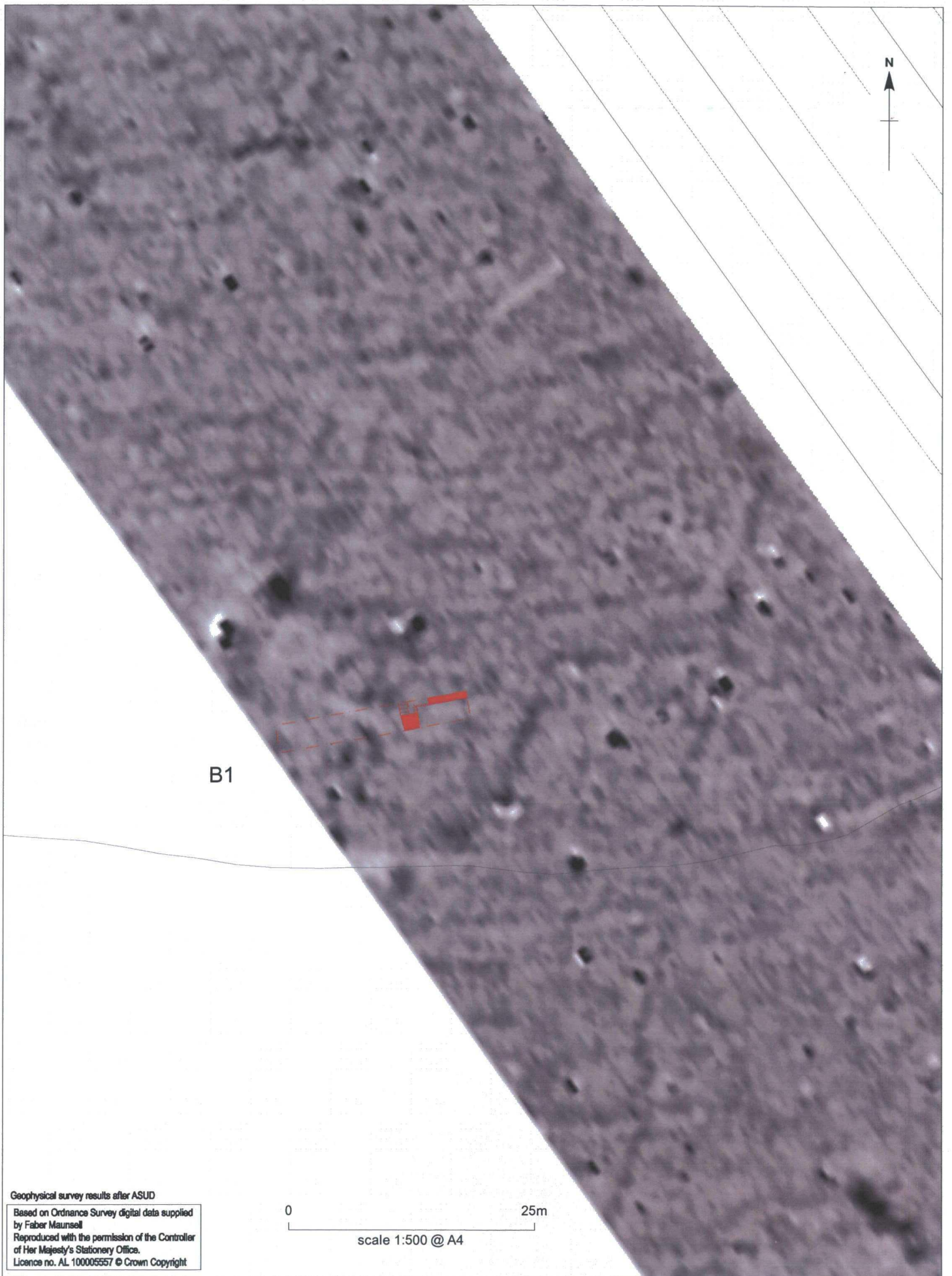
scale 1:250,000 @ A4
10 km

Figure 1 A1 Barton to Dishforth: scheme location and location of Bainesse



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Figure 2 A1 Barton to Dishforth: Bainsse trench locations



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0 25m
scale 1:500 @ A4

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Figure 3 Barton to Dishforth, Bainesse: trench B1 overlain on geophysics greyscale results

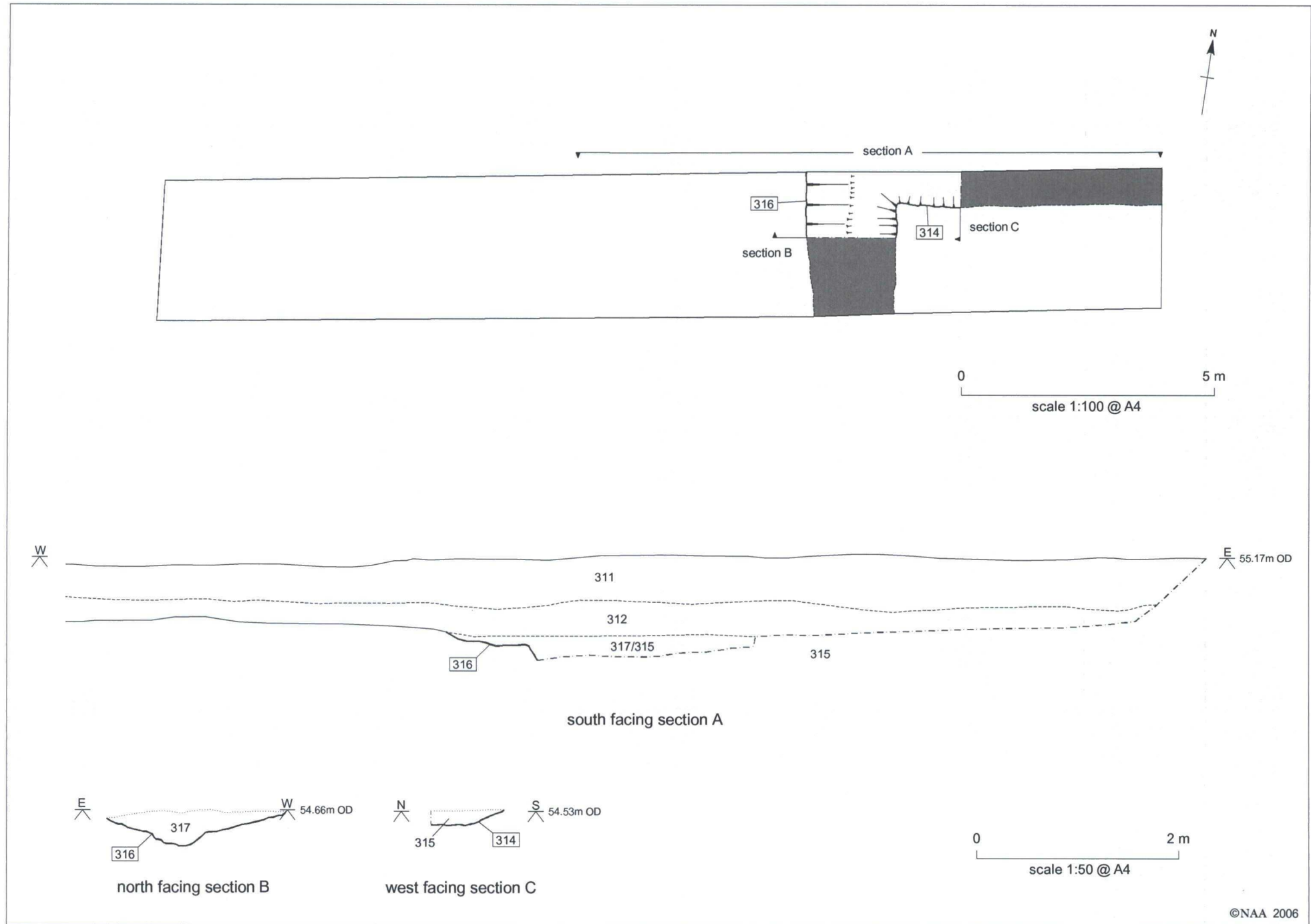


Figure 4 A1 Dishforth to Barton, Bainesse: Trench B1, plan and sections

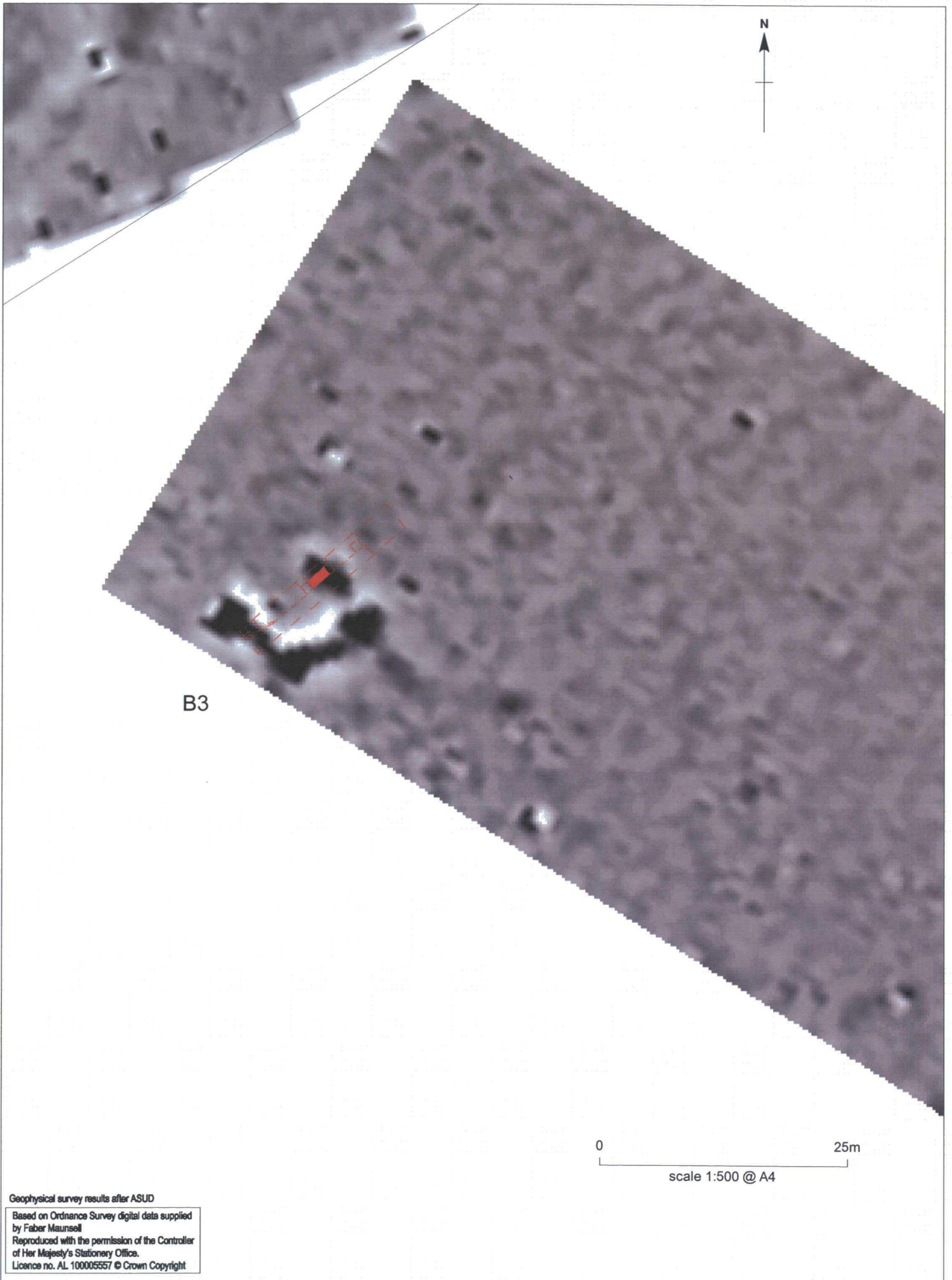


Figure 5 Barton to Dishforth, Bainesse: trench B3 overlain on geophysics greyscale results

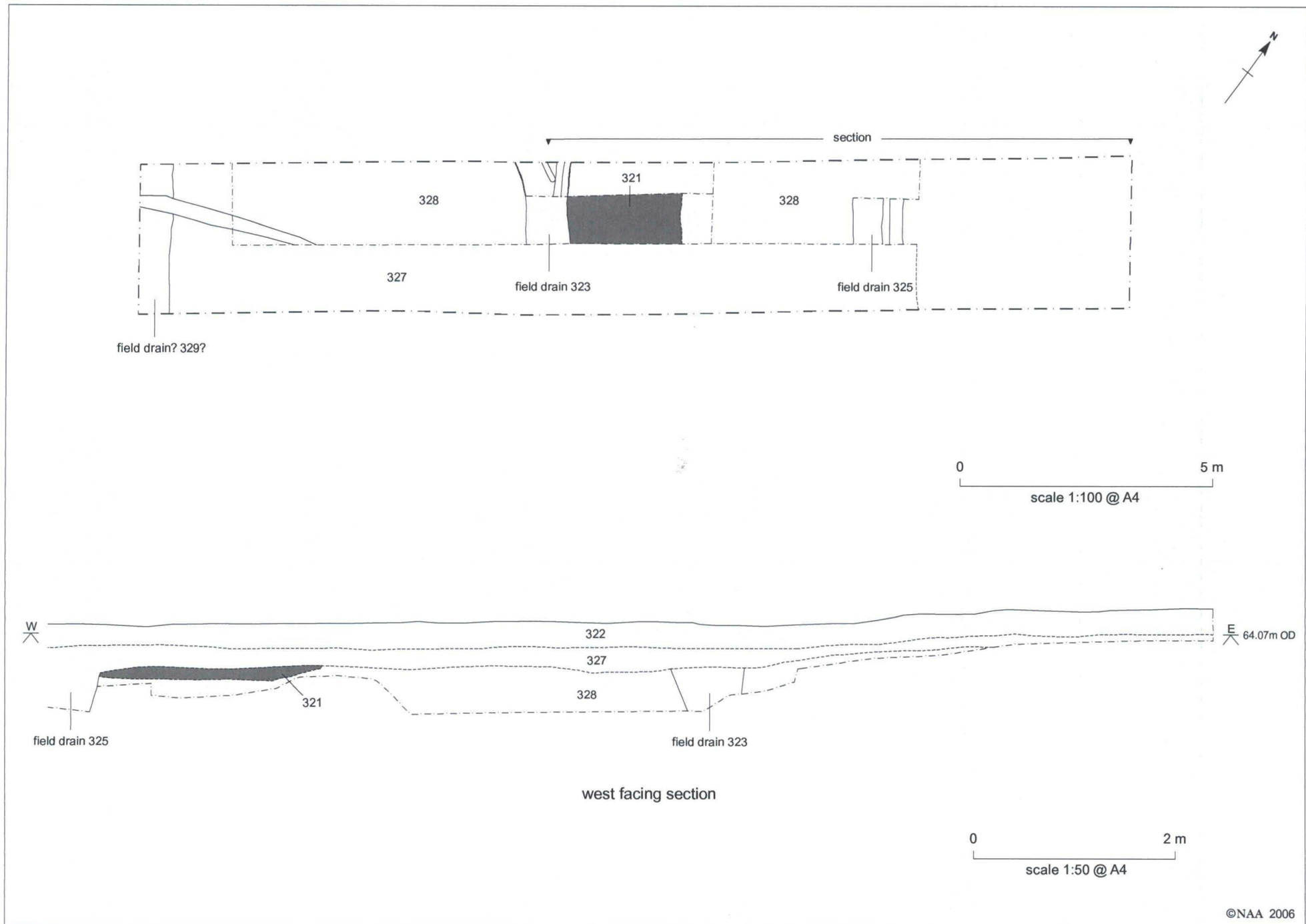
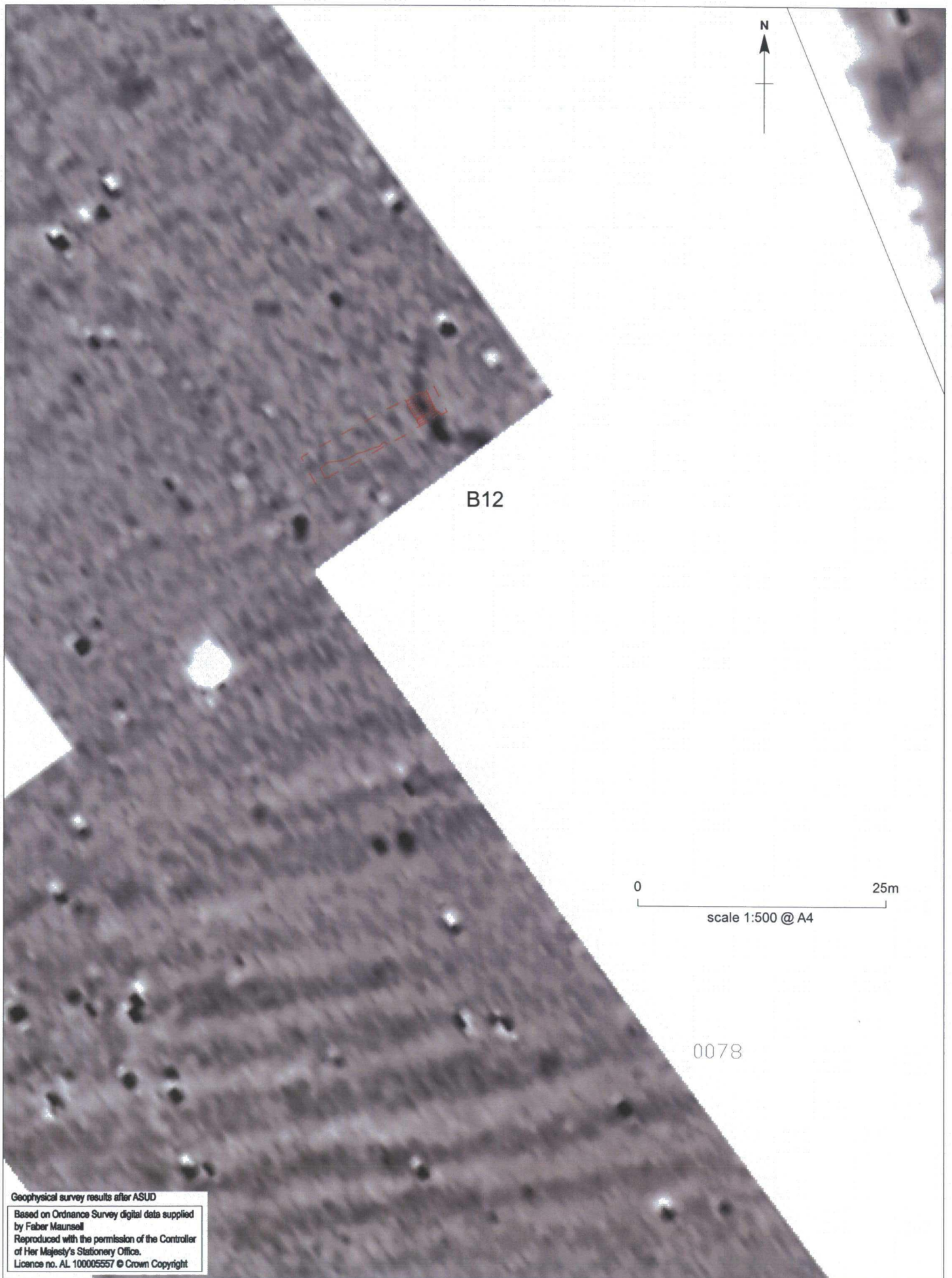
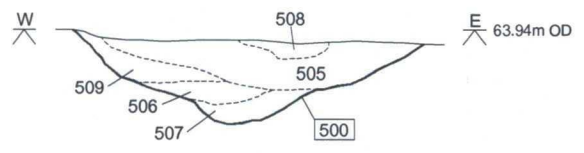
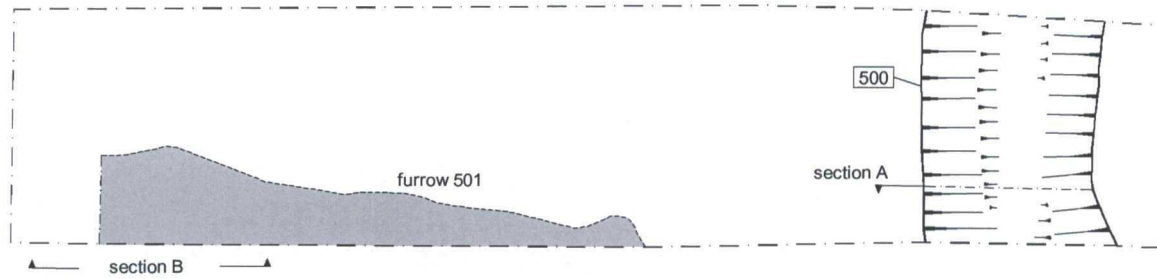


Figure 6 A1 Dishforth to Barton, Bainesse: Trench B3, plan and section

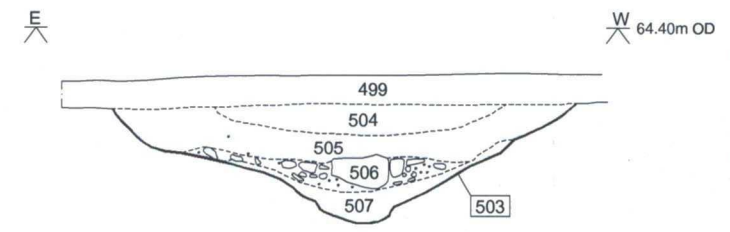


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Figure 7 Barton to Dishforth, Bainesse: trench B12 overlain on geophysics greyscale results



south facing section A



north facing section B



Figure 8 A1 Dishforth to Barton: Trench B12, plan and sections

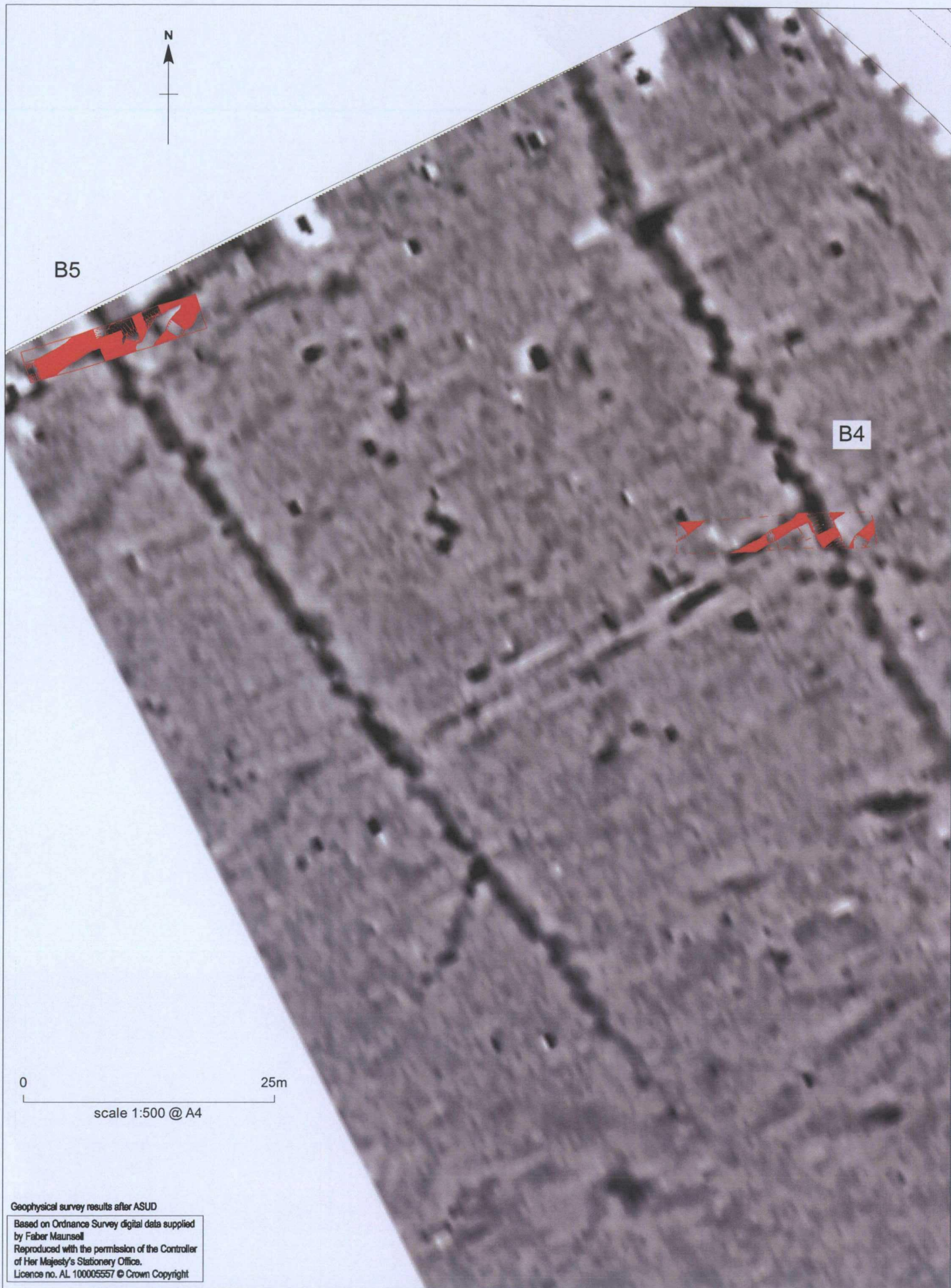
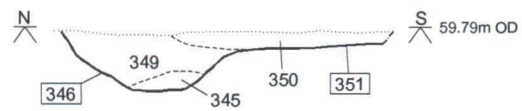
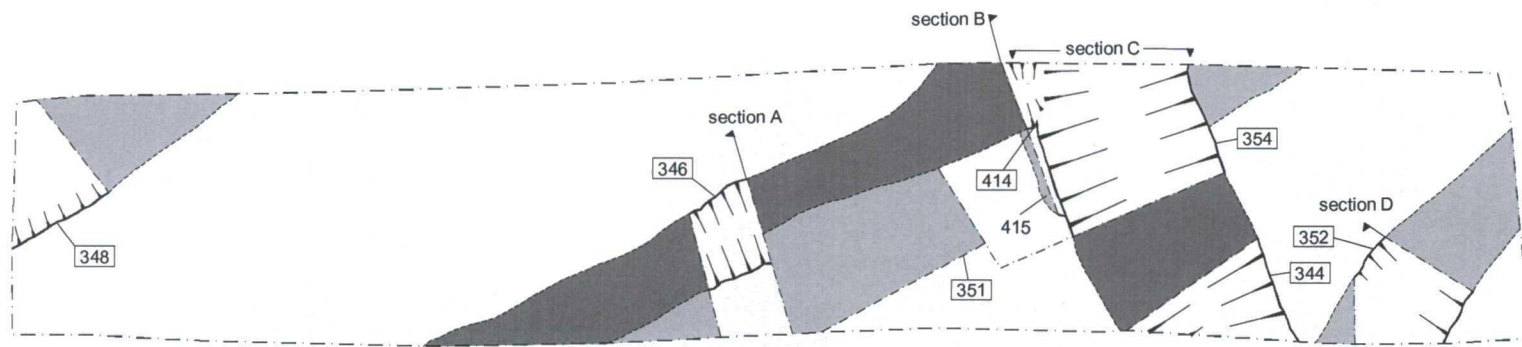
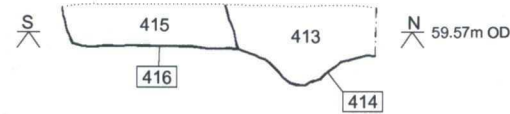


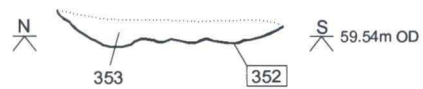
Figure 9 Barton to Dishforth, Bainesse: trench B4 and B5 overlain on geophysics greyscale results



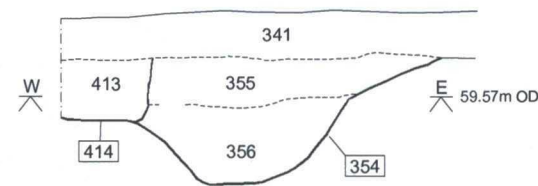
west facing section A



east facing section B



west facing section D



south facing section C



Figure 10 A1 Dishforth to Barton, Baines: Trench B4, plan and section

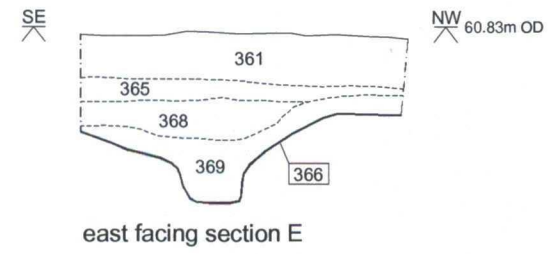
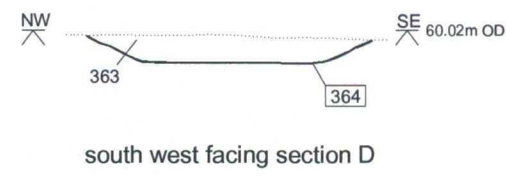
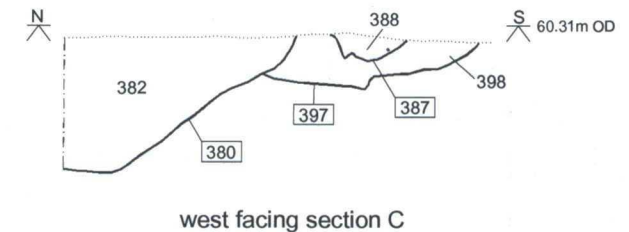
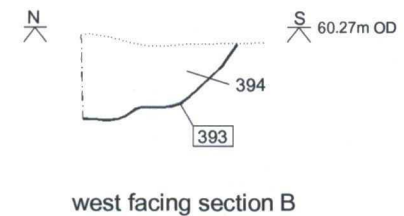
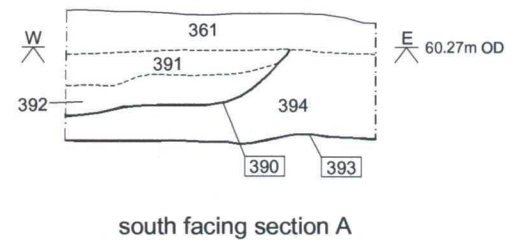
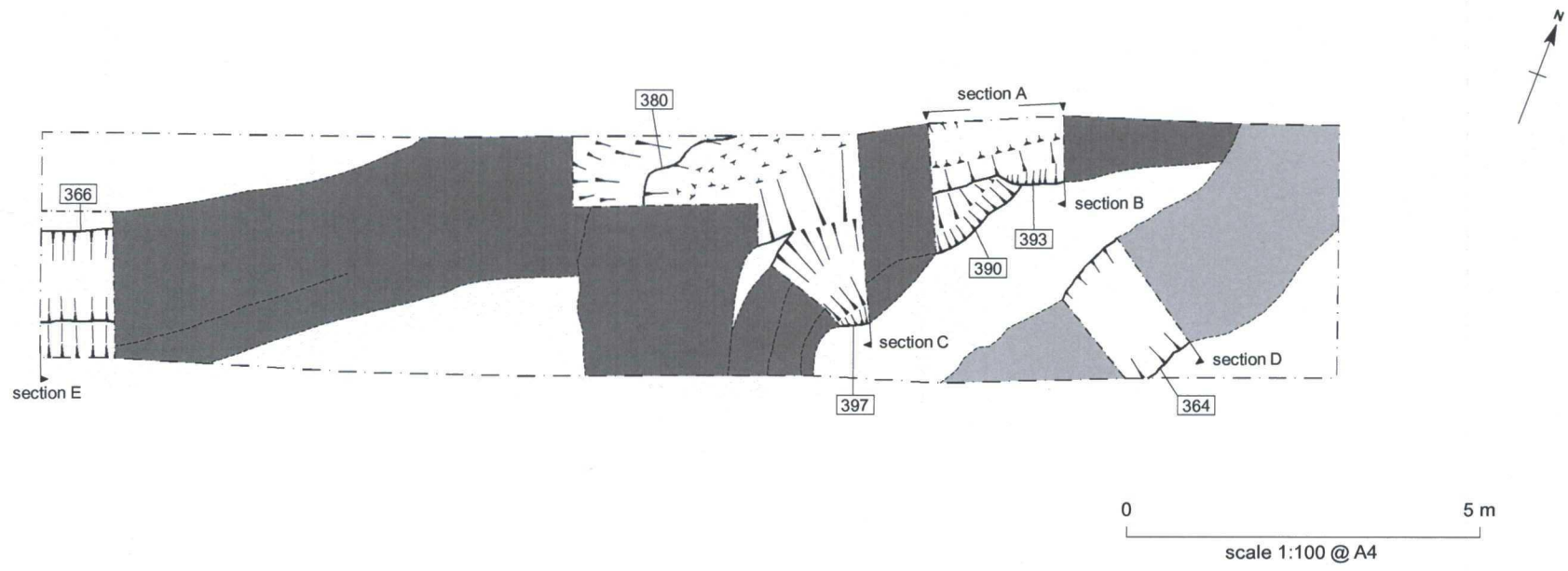


Figure 11 A1 Dishforth to Barton, Bainesse: Trench B5, plan and sections

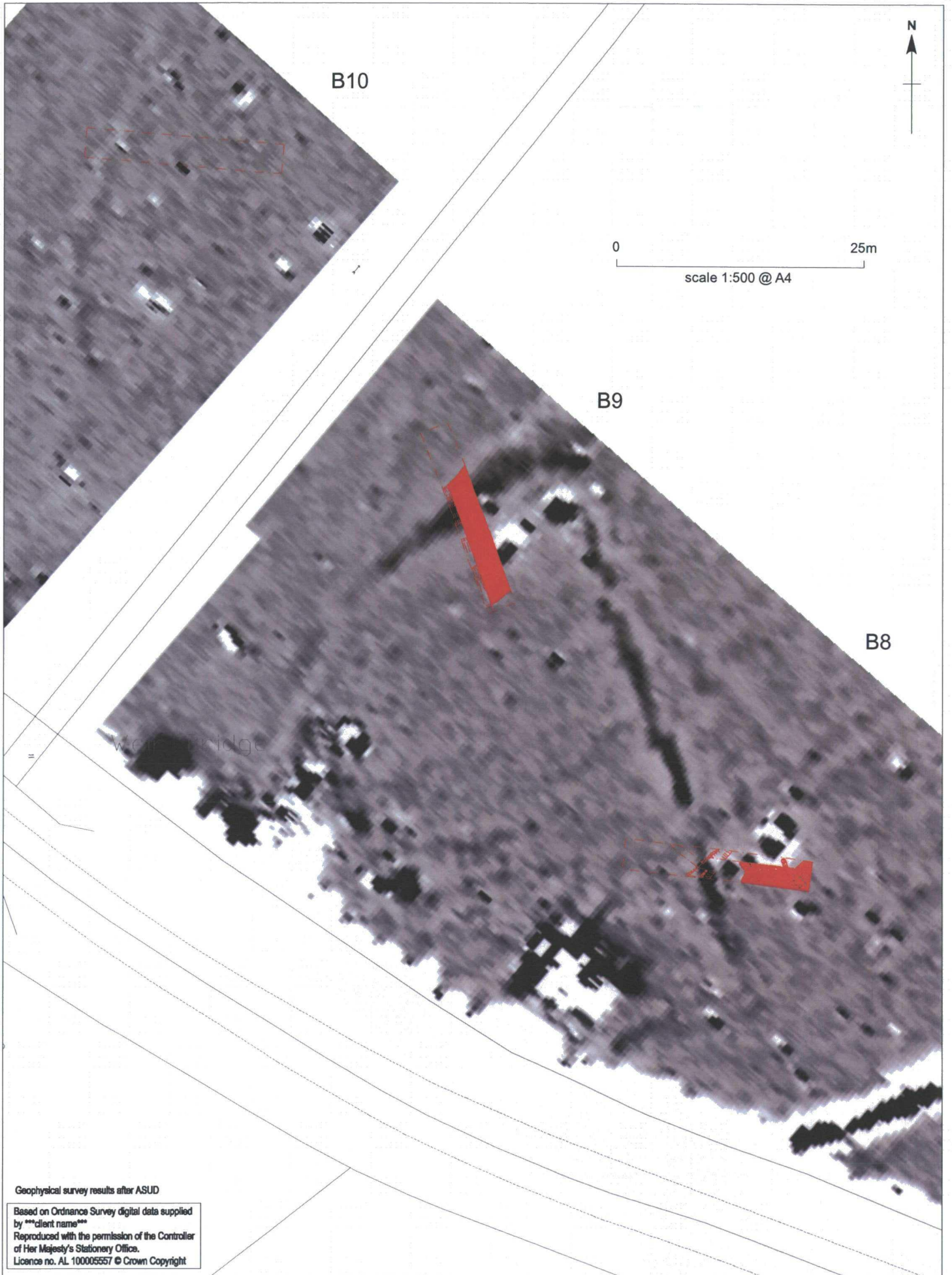


Figure 12 Barton to Dishforth, Bainesse: trenches B8, B9 and B10 overlain on geophysics greyscale results

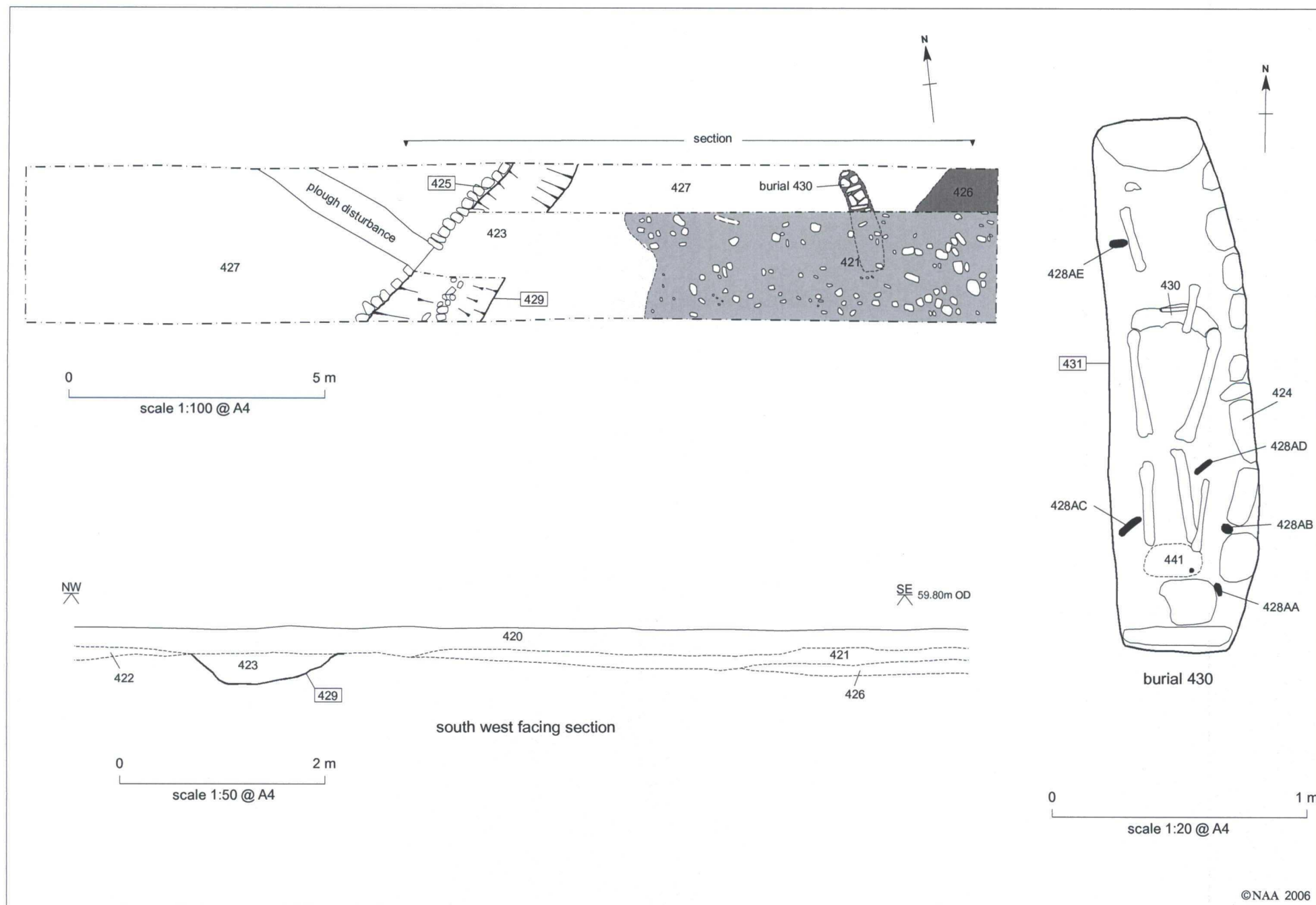


Figure 13 A1 Dishforth to Barton, Bainesse: Trench B8, plans and section

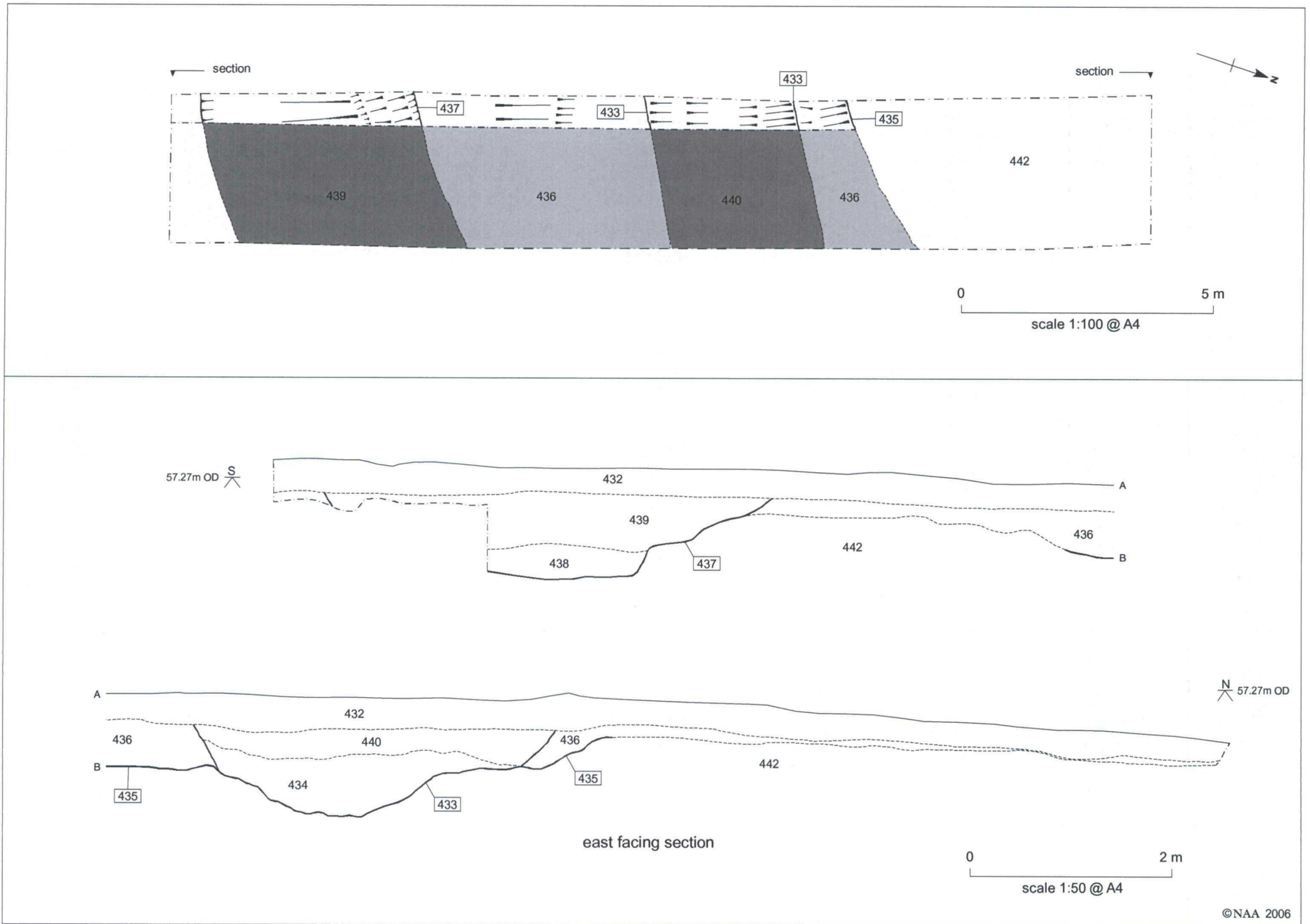


Figure 14 A1 Dishforth to Barton, Baines: Trench B9, plan and section

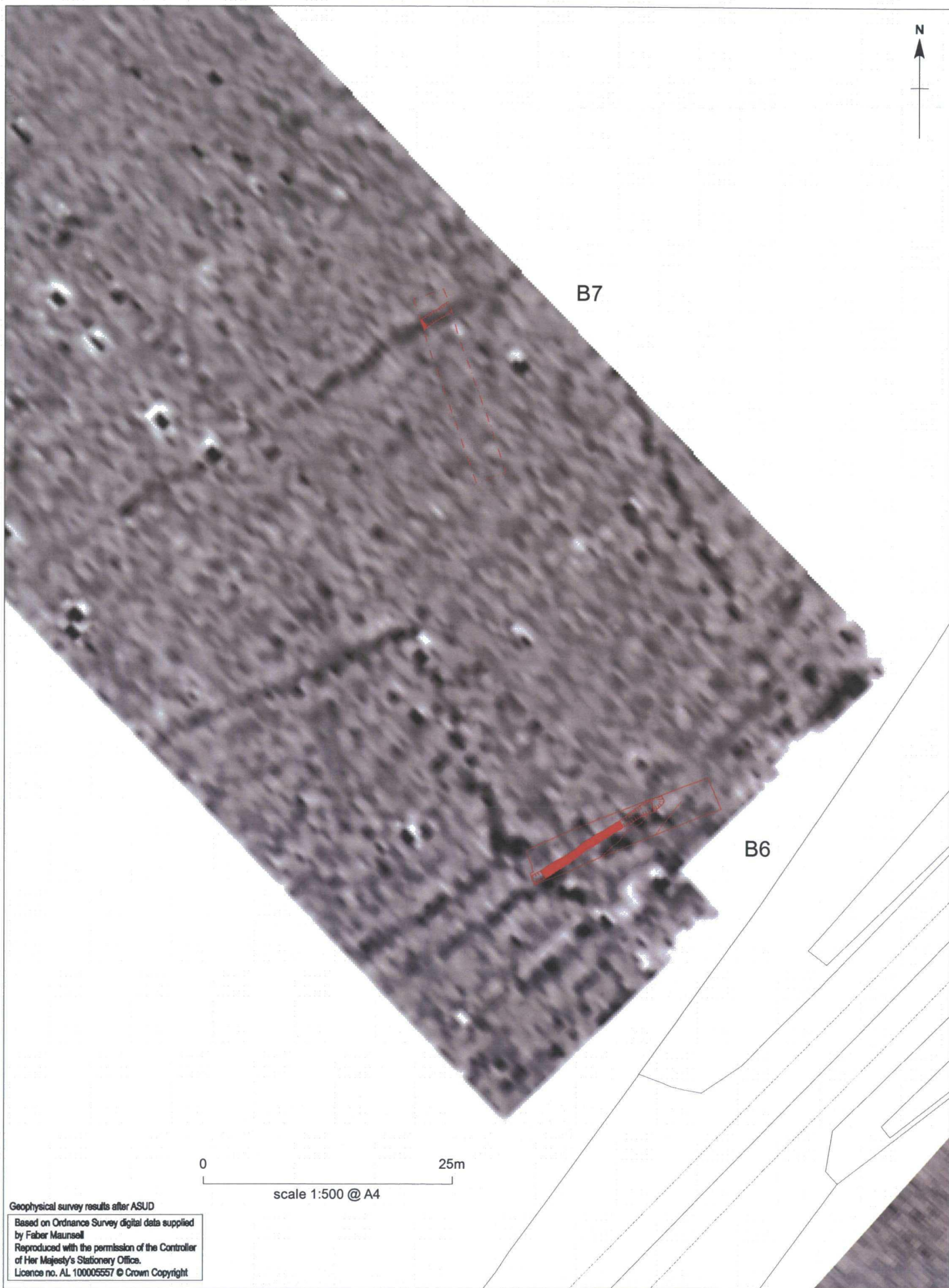


Figure 15 Barton to Dishforth, Bainesse: trenches B6 and B7 overlain on geophysics greyscale results

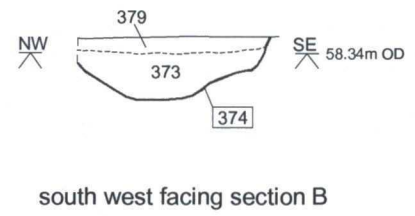
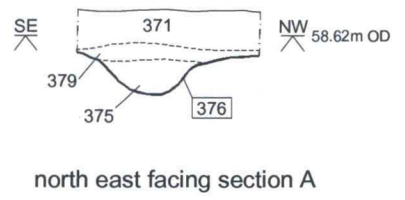
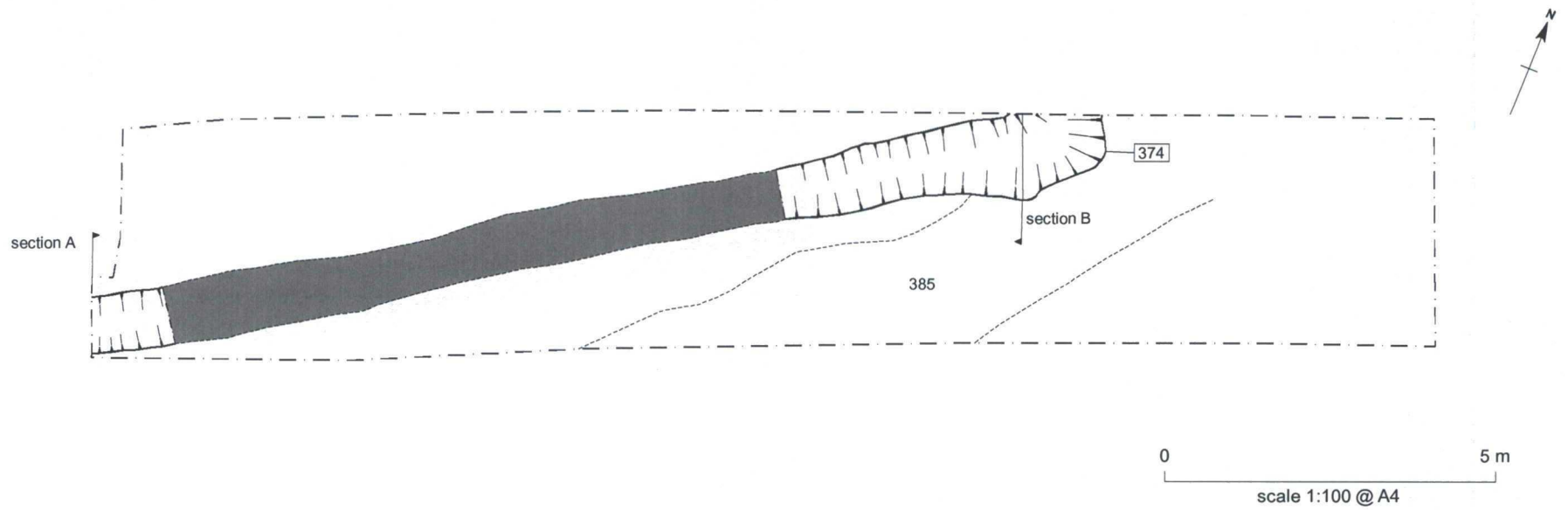


Figure 16 A1 Dishforth to Barton, Bainesse: Trench B6, plan and sections

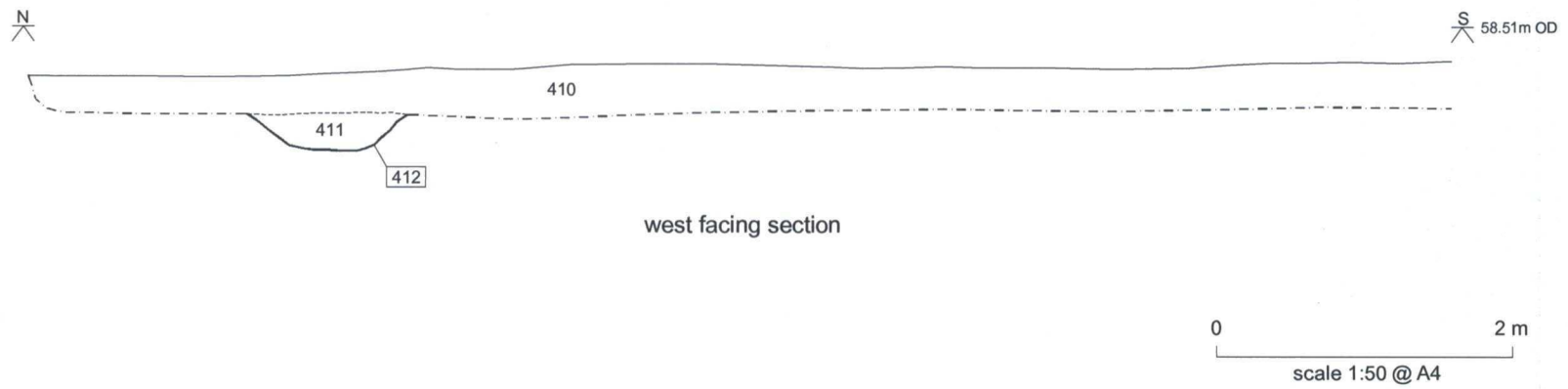
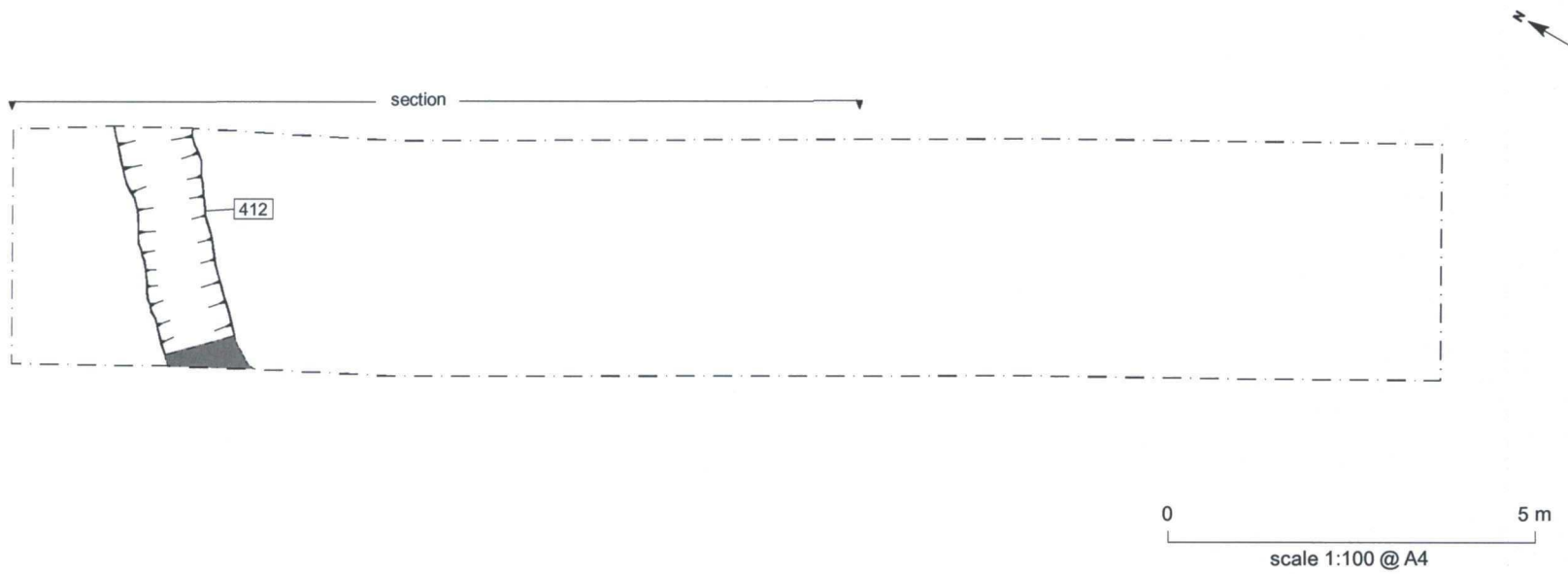


Figure 17 A1 Dishforth to Barton, Bainesse: Trench B7, plan and section