Archaeological Services
University of Durham

Marne Barracks, Catterick, North Yorkshire

archaeological excavation: assessment

on behalf of
Gallifordtry Construction Ltd

for
Debut Management Services

DEFENCE ESTATES
Delivering Estate Solutions to Defence Needs

ASUD Report 1219
March 2005

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% Debut Management Services, Vimy Barracks, Scotton Road, Catterick Garrison, North Yorkshire DL9 3PS

for

Debut Management Services

Vimy Barracks, Scotton Road, Catterick Garrison, North Yorkshire DL9 3PS

and

Defence Estates

Gough Road, Catterick Garrison, North Yorkshire DL9 3EJ

Contents

Part I: Excavation and post-excavation assessment

1. Summary

The project

1.1 This report presents the results of an archaeological excavation conducted in advance of development at Marne Barracks, Catterick. The excavation covered an area of 11ha to the northeast of the runway.

1.2 The works were commissioned by Gallifordtry Construction Ltd and conducted by Archaeological Services University of Durham in accordance with a brief supplied by Defence Estates and a Project Design provided by Archaeological Services, approved by the Heritage Unit at North Yorkshire County Council.

Results

1.3 A Mesolithic knapping floor was identified, containing over 1100 chert flakes, all debitage from tool manufacture. The floor was situated in a bend of a palaeo-channel of the River Swale. Several other palaeo-channels were identified across the site and all were earlier than any other archaeological feature on the site (except for this Mesolithic knapping floor).

1.4 Overlying the knapping floor was a large Neolithic palisaded enclosure. This was only partly exposed with *c*.40% lying to the south of the excavated area. It consisted of two concentric sub-circular palisades that, based on projections from the exposed structure, would originally have enclosed a total area of *c*.2.75ha. Each palisade was formed from a series of closely spaced radial slots separated from each other by a narrow gap of *c*.0.1m, the posts being *c*.1m apart. On excavation each slot resolved into two postholes at depth, indicating that each palisade had consisted of a double circle of posts. Most of these on the western side of the monument had been sufficiently carbonised for the posts to be identifiable. A sample from one of them yielded a C^{14} date of 2630 BC – 2470 BC (cal).

1.5 The enclosure had entrances on the northern and eastern sides with the latter entrance containing a line of smaller stakes. Similar stakes were not identified in the northern entrance although post-depositional conditions here were not conducive to the survival of such evidence. A number of postholes were present in the approximate centre of the enclosure although they formed no recognisable pattern and were all undated, so it is not known whether they were related to the enclosure or not.

1.6 Palisaded enclosures of Neolithic date are an extremely rare monument type and the Marne Barracks enclosure exhibits significant differences to other known examples. It is therefore in many respects unique and should be regarded as a discovery of national importance.

1.7 Two areas of sinuous, multi-phase ditch were present towards the east of the excavation. Both produced Roman pottery consistent with a 1st or early 2nd

century date for the ditches. A broken vessel of similar date was recovered from the base of a 1930s levelling deposit slightly further to the west. These dates are significantly earlier than those of other known Roman features from Marne Barracks, though of similar date to the Bainesse Farm settlement near the entrance to the barracks.

1.8 A number of shallow linear gullies crossed the western half of the site on a variety of orientations. These were undated but at least some of them may have been a continuation of a Romano-British field system that is known to exist on the south side of the runway and was partly excavated under the REME workshop in 1994.

1.9 Medieval land use was represented by remnants of furrows from ridge and furrow field systems.

1.10 The post-medieval Oran Road survived at the southern end of the site and proved to be a well-made road with a kerb on each side and a gravel surface. A stone culvert ran under it to a soakaway pit on the east side. Less well preserved remains of the road survived along the northern edge of the site. Ditches associated with a second track and former field boundaries were identified; these are all shown on early maps of the area. Other post-medieval deposits consisted of a field clearance cairn and a few pits.

1.11 Much of the site was covered with up to 1m of infill dating from the levelling of the airfield in the 1930s. Smaller areas showed evidence for truncation of deposits at this time. The depth of this cut and fill was consistent with depths shown on contemporary proposal plans for the development of the airfield. A circular brick structure (possibly a sentry box) and a slit trench underlay this infill while a brick path (possibly running round a former radio mast) and two concrete blocks that may once have held targets overlay the infill.

Recommendations

1.12 An Updated Project Design including recommendations for the final phase of works is included in Part II of this report.

2. Project background

Location (Figure 1)

2.1 Marne Barracks, formerly RAF Catterick, is situated immediately south of Catterick village in North Yorkshire, and is bounded to the west by the A1 and to the east by the River Swale. It occupies approximately 158ha and contains 122 buildings and 84 Service Family Quarters. The current development (centred on NGR: SE 2510 9695) covers 11ha of land to the north of the runway, but within the perimeter track.

Development proposal

2.2 The proposal is to construct a series of modular accommodation blocks for service personnel, along with associated car parking and services. These works are part of a national MoD initiative, Project SLAM, to upgrade living accommodation across the whole of the Defence Estate.

Objective

2.3 The objective of the scheme of works was to identify, record the extent of and excavate the varied archaeological resource within the proposed development area, interpreting it in the context of the known archaeological and historical framework and assessing its information potential and significance. In addition, the impact of the development on the resource was to be assessed and mitigation strategy recommendations provided as appropriate. A detailed list of research objectives is provided in the Project Design.

Methods statement

2.4 The works have been undertaken in accordance with a brief supplied by Defence Estates and a Project Design provided by Archaeological Services (ref. DH04.56), approved by the Heritage Unit at North Yorkshire County Council.

Dates

2.5 Fieldwork was undertaken between 2nd September and 19th November 2004. This report was prepared between 21st November and 18th March 2005.

Personnel

2.6 Fieldwork was conducted by Janice Adams, Neil Adamson, Barry Atkinson, Graeme Attwood, Amanda Brend, Simon Cleggett, Ben Curtis, Richard Deakin, Jacquelyn Frith, Paul Gelderd, Ian Howard, Lucy Loughman, Jason Mole, Kevin Moore, Paul Morrison, Simon Noon, Alan Rae, Owen Raybould, James Roberts, Louise Robinson, Keith Spencer, Natalie Swann, Jeff Tilbury, Vaughan Wastling and Geoff Wilson, and was supervised by Jamie Armstrong, Sarah Phillips and Mark Randerson, and directed by Andy Platell and Daniel Still. This report was prepared by Andy Platell with contributions by Duncan Hale and with illustrations by Linda Bosveld, Martin Railton, David Graham and Janine Fisher. Specialist analysis was conducted by Dr Steve Willis (Roman ceramics), Dr Chris Cumberpatch (medieval and later ceramics), Dr Rob Young (lithics) and Dr Charlotte O'Brien (macrofossil

analysis). Radiocarbon dating was carried out by Beta Analytic of Miami, Florida. The Project Manager was Duncan Hale.

Acknowledgements

2.7 Archaeological Services is grateful for the assistance of the Quartermaster and service personnel of Marne Barracks, staff of Gallifordtry Construction Ltd, Debut Management Services, Defence Estates, English Heritage (in particular the EH Aerial Photographic Unit), North Yorkshire County Council Heritage Unit and Blaise Vyner in facilitating this project.

2.8 This report is dedicated to the late Lt Col (retd) Nick Cheesman in recognition of his long-term support of the study of the archaeology of the Defence Estate.

Archive

2.9 The site code is MBC 04, for Marne Barracks, Catterick 2004 and the OASIS code for the site is archaeol3-7320. It is intended to deposit the site archive and finds with the Yorkshire Museum at York at the end of the project.

3. Landuse, topography and geology

3.1 At the time of the excavation the development area comprised an open area of closely-cut grass within the perimeter track of the former airfield.

3.2 With the exception of Castle Hills, the land is predominantly level with a mean elevation of *c*.53m AOD. The solid geology of the site comprises Carboniferous Millstone Grit which is overlain by river gravels, except for the area around Castle Hills. The 'hills' are composed of Boulder Clay, with a limited area of glacial sands and gravels immediately to the west and alluvium to the east along the line of the river.

4. Historical and archaeological background

4.1 The historical and archaeological background to the site has been extensively covered by an assessment report (ASUD 2001a) and an evaluation report (ASUD 2002) carried out in response to the Establishment Development Plan (EDP) for Marne Barracks. Since these reports were written, a major volume on Roman Catterick has been published (Wilson 2002). The main findings of these reports are summarised below.

The prehistoric period (up to 70 AD)

4.2 A limited quantity of Mesolithic and later flint and chert has been found at Brough St Giles (Cardwell & Speed 1996) and also in fieldwalking as part of the A1(M) evaluation (Makey 1994). A Neolithic cursus and Late Neolithic/Early Bronze Age ring ditches and pit alignments are known from Scorton (Topping 1982); a huge Late Neolithic/Early Bronze Age chambered cairn and possible henge has been excavated at Catterick Racecourse (Moloney 1996, Moloney *et al*. forthcoming); and a possible Bronze Age stone-filled ring-ditch to the south of the runway at Marne Barracks was discovered and sampled during the ASUD evaluation (ASUD 2002). Later

prehistoric remains include Iron Age settlements located at Catterick Racecourse (Moloney 1996) and Brough St Giles (Cardwell & Speed 1996).

The Roman period (70 AD to 5th century AD)

4.3 A Roman fort was built on the south bank of the River Swale at Catterick Bridge in *c*.80AD. This developed into the town of *Cataractonium*, one of the most important Roman settlements in Northern England. Civilian settlement spread to both banks of the river and was also concentrated further south along Dere Street at Bainesse Farm, to the west of the development site (Wilson 1984, Wilson 2002). This roadside settlement extends slightly into the western perimeter of the barracks and has recently been scheduled by English Heritage. In addition, a substantial Roman building, possibly part of a villa complex, exists in the centre of the barracks, in the vicinity of the Catholic Church (Hildyard 1955, Wilson *et al*. 1996). Romano-British field systems occur to both the north and the south of the runway (Geoquest Associates 1994, ASUD 2002) and also to the west of the A1 (Wilson 1984, Wilson 2002, ASUD 2005).

The early medieval period (5th century AD to 1066 AD)

4.4 Documentary evidence indicates that Catterick remained an important site throughout the early medieval period with several royal marriages and baptisms taking place there (Cosgrave & Mynors 1969, Whitelock 1955, Wilson *et al* 1996). It has been suggested that the later medieval motte and bailey on Castle Hills overlies an earlier Anglian royal vill, although evidence for this remains largely conjectural (Wilson *et al*. 1996). Anglo-Saxon *Grubenhauser* have been found at four locations in the Catterick area, including under the REME building at Marne Barracks (Geoquest Associates 199). Numerous burials of this date have been found around Catterick. These include two sites to the north of Bainesse Farm, another site outside the entrance to Marne Barracks, and at two locations within the base, including some cut into the foundations of the Roman 'villa' (Wilson *et al*. 1996).

The medieval period (1066 AD to 1540 AD)

4.5 Castle Hills, immediately northeast of the runway, is thought to be a Norman motte and bailey castle and is a scheduled monument. A number of authors (e.g. MacLauchlan 1849, Wilson *et al*. 1996) have suggested that it overlies earlier earthworks although this has never been proven. A topographic survey carried out by ASUD in 2001 recorded other features which did not appear to be contemporary with the castle, although the date of these is not known. Ridge and furrow field systems are clearly visible on geophysical survey plans of the airfield (ASUD 2001a), although these proved ephemeral during trial trench evaluations (ASUD 2002).

The post-medieval period (1541 AD to 1899 AD)

4.6 No records survive for the date of the parliamentary enclosure of Catterick parish. Certainly this was carried out before the date of the earliest detailed plan in 1739. This shows the field pattern to be little different to that of today, save for the removal of numerous field boundaries to increase the size of fields (ASUD 2001a). A road is shown on this and later maps, running north from

Oran House to Catterick village. Sometime between 1822 and 1842 it was realigned back to the original course of the Roman Road (*i.e.* to the line of the current A1).

The modern period (1900 AD to present)

4.7 A Royal Flying Corps unit was posted to Catterick in 1916, beginning the development of what would become RAF Catterick (Francis 2001). This development was small-scale at first, since the land was not then owned by the Air Ministry (it was finally purchased in 1924/5). After 1925 the pace of development increased, particularly during the late 1930s as the threat of war increased. As part of this development the runway was extended and hardened, involving considerable landscaping of the site. Following the war, the airfield became the headquarters of the RAF Regiment until 1994, when the RAF station was closed and the site taken over by Land Command.

Previous archaeological works

4.8 Numerous archaeological interventions have taken place at Marne Barracks over a number of years. These are more fully described in our earlier assessment report (ASUD 2001a), which included desk-based research and geophysical, topographical and auger surveys. Following on from this, further geophysical surveying in the northern part of the base (ASUD 2001b) and evaluation by trial trenching (ASUD 2002) was carried out. Geotechnical boreholes excavated by the Babtie Group in advance of the proposed construction of the National Army Museum (North) were also monitored (ASUD 2003).

5. The excavation

Introduction

5.1 The excavation, occupying an area of *c*.11 ha, covered the eastern half of all the land to the north of the runway but within the perimeter track of the former airfield (Figures 1 & 31). Topsoil and infill from the 1930s landscaping of the airfield was removed by 360° tracked excavators working under strict archaeological supervision. Following machine stripping, the extents of features identified at this level were surveyed by a Leica Total Station Theodolite connected to PenMap surveying software. These features were then sampled and recorded by hand excavation. During excavation, the site was sub-divided into 5 areas to comply with the client's work programme. These sub-divisions have been retained where appropriate in this text to aid the location of excavated features.

5.2 The natural subsoil [3] across most of the site consisted of gravel although this was replaced by sand and boulder clay at the eastern end of the site close to Castle Hills. The gravel varied from place to place across the site, with this variation being most apparent on aerial photographs (see Figure 32). Three broad distinctions were present:

- a very light brown gravel containing silty lenses that was present mainly in area 1 and the southwest corner of area 4

- a reddish-brown gravel containing few silt lenses that was present across the southern half of areas 2 and 3
- a more mixed dark brown gravel containing frequent silt patches was present across the remainder of the site

The first of these types occurred only in areas levelled during the 1930s and was surrounded by gravel of the second type. It is interpreted as the unweathered counterpart of the second gravel that has not been exposed to aerial conditions for long enough to have been oxidised to a reddish-brown colour or had its silt lenses washed out. The third of these types is interpreted as terrace gravel that has been reworked by later stream channels (see below, paragraph 5.4).

5.3 Since the gravel generally contained many sand and silt lenses, some of these were investigated to determine whether they were of natural or archaeological origin. Features that were investigated and then interpreted as natural deposits are listed in Appendix 1 and full details of these contexts can be found in the site archive. A number of dark silt patches within area 5 [51-52 / 113-7 / 125-126 / 160-1 / 424-5] were interpreted as former tree boles, dating from before the airfield was levelled. Again, details can be found in the site archive.

Phase 0 (Figures 2, 32 and 33)

5.4 A number of patches of dark silt, filling definite depressions in the gravel, were present across the site. Almost all of these were located within the third of the gravel types described above. Where archaeological features were present, these silt patches invariably pre-dated them (with the exception of the Mesolithic activity described below, paragraph 5.8). From the ground they appeared to be discrete patches of silt although from the air they were more continuous. Aerial photographs showed them to be sinuous in shape and often braided (see Figure 32). They have been interpreted as palaeo-channels of the River Swale.

5.5 The most prominent of these channels [27 = 238] was aligned northwest to southeast along the foot of the scarp slope that marked the edge of the higher ground of area 1 which had been levelled during the 1930s (Figure 33). This channel measured 5m in width and 0.25m in depth and contained a noticeable break, where it was replaced by a yellow silty gravel [80]. This can be seen on aerial photos to have been deposited from a stream flowing from the higher ground towards the southwest. Another less prominent channel on a similar orientation [28] traversed area 1 to the west of the Oran Road and was 3.7m wide and 0.1m deep.

5.6 A number of channels crossed the northern half of area 2 on a broadly east-west alignment. Although on the ground these appeared to be composed of numerous small patches of silt, aerial photographs show them to be more continuous and forming several sinuous channels that merged together towards the east. In order from north to south, there was a rather patchy channel [73] that ended eastwards in a large irregular area of silt [212], then a wider and more continuous channel [157] that merged eastwards with a more southerly channel [228], which consisted of a line of dark material on either side of a

band of lighter gravel. A narrower fourth channel [148] merged with this latter one a little to the west. Eastwards these palaeo-channels were less obvious but appeared to continue as an area of dark silt in the west of area 3 [465] and as a second patch in the west of area 5 [418]. Further towards the southeast, two channels [188 and 702] merged together into one larger channel [718] in the north of area 4.

5.7 A number of other small patches of similar silt were investigated and are thought to be remnants of other palaeo-channels, too poorly preserved to be identified as such on the ground. These are catalogued in Appendix 1 and are more fully described in the site archive.

Phase 1 (Mesolithic)

5.8 A knapping floor containing over 1000 chert flakes was identified towards the southern edge of area 5. It was roughly circular, measuring 9m in diameter. Above a thin silt layer [440] was a rough floor of rounded cobbles up to 0.1m in diameter [435] overlain by a thin upper layer of silt [517]. The stones appeared to have just been pressed into the ground *ad hoc* to dry out the surface, rather than being a deliberate attempt to create a floor. Almost all the chert was found within the southwest quadrant of the platform and mainly consisted of waste from knapping activity (described in Section 6, below).

5.9 A shallow gully [F188], 15m long and up to 2m wide but only 0.1m deep bounded the northeast side of the platform (Figure 3, Section 136) . It was filled with a black silt [189] resembling the other palaeo-channel fills in the area and was likely to be a continuation of these. It could be proven to be contemporary with or to post-date the knapping platform, since it contained chert flakes derived from the platform.

Phase 2 (Neolithic)

5.10 A large sub-circular enclosure occupied much of areas 3, 4 and 5 (Figures 4 & 34). With the benefit of hindsight, the feature is partly visible on the earlier geophysical survey (ASUD 2001a) and appears to extend to the south of the runway as well. A charcoal sample collected from an *in situ* post in the enclosure palisade produced a C^{14} date of 2630 BC – 2470 BC (cal), dating it to the late Neolithic (see Appendix 3).

5.11 The enclosure consisted of two concentric, sub-circular palisades. Assuming that the geophysical anomalies to the south of the runway are a continuation of the same feature (although this has not been proven by excavation), the approximate dimensions of the palisades are given in Table 1 (overleaf):

5.12 Each palisade was composed of a series of radial slots approximately 2m long and just under 1m wide. They were spaced 1m apart from centre to centre, leaving a very narrow gap between each slot. This pattern can be seen particularly well in the aerial photographs (Figures 34 and 35). Most slots were an elongated oval in shape, although some were ‘dumbbell’ shaped and others were visible as two discrete postholes on the surface. Upon excavation, all slots resolved at depth into two postholes, each one approximately 0.5m in diameter and between 0.5m and 1.25m in depth, with a half-depth lip between

them, so the variations in plan were superficial and probably related to the degree of truncation.

Table 1 Dimension of Neolithic enclosure

	Inner Palisade	**Outer Palisade**
Long axis	175m	200m
Short axis	136m	162m
Perimeter	480m	610m
Perimeter (Exposed)	262m (55%)	330m (54%)
Area	1.8ha	2.75ha
Area (Exposed)	0.98ha (54%)	1.8ha (58%)

5.13 A number of these postholes contained *in situ* charcoal from carbonised posts. In places the degree of carbonisation was sufficient to allow individual wood fibres to be identified. Such remains were particularly concentrated around the western side of the monument, with virtually all posts in the inner palisade and most in the outer one surviving (see Figures 36 & 37). Elsewhere posts were only intermittently preserved by this method. Usually charcoal only survived to around half the depth of the posthole. It is thought that this was due to less intense burning at depth, so that the lower parts of the posts were not sufficiently carbonised to have survived. In some slots the gravel surrounding the posts had a pinkish tinge due to heat-alteration of the surrounding fill.

5.14 Where carbonised posts survived, they were almost invariably between 0.2m and 0.25m in diameter, indicating a considerable degree of uniformity in the appearance of the original structure. The great difference between the width of the postholes and their associated posts was no doubt due to the practical consideration of obtaining sufficient working space during their original excavation. The low lip between the two postholes in each slot was probably also a practical measure to allow excavation of the bottom of the postholes.

5.15 Little evidence was seen for post pipes in the slot fills outside of the areas of carbonised remains. This was likely to have been due to the loose nature of the surrounding gravel fills, causing the voids left by the rotting posts to be filled by subsidence of the slot backfill rather than by infill with extraneous material.

5.16 A number of the postholes had shallower profiles on their outside edges than on their inside ones, particularly towards the top of the hole (see for example Figure 6, slots [F872], [F873] and [F604]). This may have been a deliberate design feature, creating a ramp to facilitate the erection of the post.

5.17 Several adjoining slots contained identical fills (e.g. [F634] / [F635], [F569] / [F670]) suggesting they were opened at the same time and backfilled simultaneously. However, others exhibited intercutting relationships, with the cutting sequence either running in a clockwise direction (e.g. [F569] cutting [F536]) or else in an anti-clockwise direction (e.g. [F673] cutting [F550]). This suggests the construction sequence was rather *ad hoc*, with people working in both directions during the original construction.

5.18 Where necessary a JCB fitted with a toothless ditching blade was used to remove shallow deposits of overburden (that had not been fully removed by the original site strip) in order to expose the full extent of the feature within the development area. This had occurred the day before aerial photographs were taken and explains the areas of fresh disturbance visible on these photos. Once exposed, the full extent of the exposed monument was planned by total station, with smaller representative sample areas being planned by hand as well.

5.19 23 radial slots in the outer palisade and 25 slots in the inner palisade (approximately 10% of the total) were sampled by excavation. To maximize the information potential, a variety of sampling strategies were adopted. Individual slots were sampled either longitudinally or laterally, and for some slots just the posts were examined while for others the whole slot was removed. Sampling was deliberately biased towards the western side of both palisades since this area contained the greatest number of carbonised posts and was also the area of best preservation. Due to the loose nature of their fills, excavation had to be terminated in some slots before complete excavation had taken place. Descriptions of the individual slots below run clockwise from the western edge of the exposed monument.

The outer palisade [F542] (Figures 5 to 10)

5.20 The western side of the outer palisade was not visible on the ground surface in typical light conditions, largely due to a lack of carbonised posts. However, in favourable conditions it could be traced continuously in a clockwise direction for 32m from the runway, to a point where burnt postholes became more common and visibility of the feature improved. Here slot [F574] measured 1.9m in length and 0.6m in width (Section 319). At depth it resolved into two postholes, each 0.4m in diameter and 0.8m deep. Carbonised remains survived of an outer post [546] that was 0.2m in diameter and 0.4m in depth and an inner post [544] 0.25m in diameter and 0.4m in depth. Surrounding these was a uniform deposit of loosely packed gravel [575], filling both of the postholes.

5.21 The next sampled slot [F828] measured 1.85m in length and 1.0m in width (Sections 357 and 362). Only the inner (eastern) half of this slot was excavated, exposing a posthole 1.1m deep. No post pipes were visible within this slot, the hole being filled with gravel [827].

5.22 Northwards again, slot [F570] measured 2.4m by 0.9m (Section 274). Again, the eastern side of this slot was sampled, exposing a posthole 0.8m in depth. Carbonised remains [573] survived to a depth of 0.5m and were surrounded by gravel [571].

5.23 Northwards again, slot [F867] measured 2.4m by 1.0m and contained two post settings, an outer one 0.8m deep filled with reddish-brown gravel [639] and an inner one 0.9m deep filled with a similar reddish brown gravel [624] (Section 269). These were surrounded by a more yellowish gravel [668]. Little charcoal was present in either posthole and the 'post fills' identified [639 and 624] were far wider than carbonised posts in other slots, suggesting that these contexts

were the limits of heat-alteration of general slot fill [668] rather than separate postpipe fills.

5.24 Slot [F594] was not fully excavated due to the instability of the fill but measured 2.3m by 1.1m and contained post settings 0.45m deep (Section 252). Within these, the outer post [523] measured 0.5m in diameter and survived to a depth of 0.35m while the inner post [521] measured 0.4m in diameter and survived to a depth of 0.4m. They were surrounded by gravel fill [595].

5.25 Slot [F868] measured 1.8m in length and 0.9m in width and contained post settings 0.7m deep. The outer post [626] measured 0.2m in diameter while the inner post [641] measured 0.2m in diameter (Sections 285 and 286).

5.26 Slot [F506] measured 1.9m in length and 1.1m in width and contained post settings 0.6m deep. In this slot a differentiation could be made between the general slot backfill [504] and the gravels under the carbonised remains of the posts themselves. These had a pinkish tinge, presumably due to the burning event that carbonised the posts. Carbonised remains of the outer post [503] measured 0.25m in diameter and 0.2m in depth with the remaining postpipe fill [515] extending to a depth of 0.35m, while the carbonised remains of the inner post [505] measured 0.25m in diameter and 0.2m in depth with the remaining postpipe fill [516] extending to a depth of 0.55m (Section 215).

5.27 Slot [F615] measured 1.8m in length and 1.1m in width and contained post settings 0.6m deep. The outer post [603] measured 0.25m in diameter and 0.5m in depth while the inner post [596] measured 0.3m in diameter and 0.35m in depth. They were surrounded by gravel fill [614] (Sections 261, 263 and 264).

5.28 Slot [F507] measured 2.1m in length and 1.0m in width and contained post settings 0.5m deep. Outer post [524] measured 0.25m in diameter and 0.3m in depth while inner post [508] measured 0.3m in diameter and 0.5m in depth. They were surrounded by gravel fill [528] (Section 218).

5.29 Slot [F872] measured 2.1m in length and 0.9m in width and contained an outer post setting 0.65m deep and an inner one 0.8m deep. Carbonised remains of the outer post [751] measured 0.25m in diameter and survived to a depth of 0.45m while remains of the inner post [748] measured 0.3m in diameter and also survived to a depth of 0.45m. These were surrounded by gravel fill [749] (Section 343).

5.30 Slot [F604] measured 2.1m in length and 1.1m in width and contained post settings 0.6m deep (Section 257). The outer post [608] measured 0.3m in diameter and 0.2m in depth while the inner post [606] measured 0.2m in diameter and 0.25m in depth. These were surrounded by gravel fill [609]. As with slot [F506], gravel immediately around the post remains had a pinkish tinge, probably due to heat-alteration (here given the context numbers [607] and [605] respectively).

5.31 Slot [F873] measured 2.4m in length and 1.0m in width and contained post settings 0.9m deep. Only the outer post [778] survived in a carbonised state, measuring 0.3m in diameter and 0.25m in depth. The fill of the inner post [780] could not be distinguished from the general slot backfill [777] (Section 348).

5.32 Slot [F487] measured 3.1m in length and 0.8m in width and contained post settings 0.75m deep. The outer post [486] measured 0.4m in diameter and 0.6m in depth while the inner post [485] measured 0.45m in diameter and 0.75m in depth; both were surrounded by gravel fill [484] (Section 284).

5.33 Slot [F869] measured 2.1m in length and 0.8m in width. Due to the instability of the fills in this slot, it was only excavated to a depth of 0.75m. Remains of the outer post [499] measured 0.2m in diameter and 0.1m in depth while remains of the inner post [495] measured 0.15m in diameter and 0.1m in depth. They were surrounded by gravel fill [870] (Section 214).

5.34 Slot [F882] measured 2.4m in length and 0.7m in width. The fill of this slot [883] was particularly unstable, causing the section to collapse before it could be properly recorded. Carbonised remains had been present in both post settings and the holes themselves were at least 0.9m deep.

5.35 To the north of slot [F882] there was a gap of 45.2m in the enclosure where radial slots were not observed under any lighting or drying conditions. This is likely to be due to poor visibility of the features in this area rather than due to a real break in the circuit, since the inner circuit was complete here but could only be traced in exceptional light and drying conditions, such as the day that aerial photographs of the site were taken (see Figure 35). The poor visibility was partly due to the fact that the area of carbonised post remains finished at this point. Beyond this apparent gap, the typical sequence of radial slots was visible again (Figure 8). In this area slot [F428] had been heavily disturbed by a tree root and was therefore not fully excavated.

5.36 At its northern extremity, there was a 16.5m wide gap in the palisade. Since this lined up with a similar gap in the inner palisade, and postholes to either side were not significantly truncated, this gap is thought to have been an original entrance to the enclosure. The western side of this entrance was not marked by any variation from the normal pattern of radial double-post slots (although it should be noted that the feature was very poorly defined at this point). Towards the east however, the palisade began again with a single large posthole [F839] that was centrally placed from the normal double-post settings. This post measured 0.8m in diameter and 0.35m in depth and was filled with a sandy gravel [840] (Section 378).

5.37 Beyond this single post, the sequence of double-posts began again. The first of these consisted of two discrete postholes without an associated slot (Sections 383 and 384). The outer posthole [F862] measured 0.6m in diameter and was 0.25m deep while the inner posthole [F864] measured 0.7m in diameter and was 0.5m deep. No charcoal was visible in either hole and both were filled with gravel ([861] and [863] respectively).

5.38 Eastwards from this, the next pair of posts sat within a more typical radial slot [F437], measuring 1.9m in length by 0.7m in width (Section 309). The outer post [439] measured 0.2m in diameter by just 0.15m in depth while the inner post [438] measured 0.25m in diameter by 0.5m in depth. It is possible that the outer post was not fully excavated and the depth given merely relates to the carbonised remains of the post, since the slot fill [436] closely resembled the natural gravel.

5.39 Slot [F689] measured 1.9m in length by 0.8m in width (Section 313). It contained an outer post [690] measuring 0.25m in diameter by 0.4m in depth and an inner post [688] measuring 0.2m in diameter by 0.45m in depth. They were surrounded by slot fill [691].

5.40 In suitable lighting and drying conditions the palisade could be traced eastwards from this point for a further 80m until it was obliquely cut by a later ditch (see below, paragraph 5.95). It was visible again beyond this ditch as a clearly-defined slot [F831] containing a mid grey-brown sandy silt [830] (Section 370). This measured 1.8m by 0.6m and contained two post settings each 0.6m deep although no evidence for the original posts survived, either as charcoal or as a change in fills.

5.41 Outside the enclosure at this point were two features that on the surface resembled radial slots but were orientated tangentially to it. They had similar dimensions (1.5m by 0.6m for [F715] and 1.9m by 0.55m for [F717]) and their fills ([714] and [716] respectively) were similar to the fill of radial slot [F831]. However upon excavation neither proved to contain postholes. Both were pits 0.2m deep and their relationship to the enclosure is unknown.

5.42 Southwards from here, the radial slots became poorly defined again due to the very mixed nature of the natural gravel. However, on one occasion, due to exceptional lighting and drying conditions, the slots became visible for a few hours (see Figure 39). Further south again, carbonised wood began to be preserved again and the natural gravel became less variable in nature, making the postholes and slots easier to identify. A normal pattern of radial slots continued until a point 5m north of the runway (Figure 10). Here a smaller than typical slot [F855] was slightly offset inwards from the line of the palisade. It measured 1.2m by 0.5m and contained an outer posthole 0.25m deep, filled with grey sandy clay [854]. No inner posthole was identified for this slot (Section 375).

5.43 A second entrance began beyond this point. After a two metre gap, there was another even smaller, although otherwise typical, radial slot [F844] that measured 0.9m by 0.3m and contained well-carbonised remains of an outer post [845] 0.25m in diameter and 0.15m deep and an inner post [846] 0.2m in diameter and 0.1m deep surrounded by a grey sandy gravel fill [849] (Section 374). Half a metre south from this, and separated from each other by a half metre gap, were two stakes [847] and [848] both surviving in carbonised form. These stakes were 0.11m and 0.08m in diameter respectively and 0.13 and 0.12m deep and sat directly in holes ([F890] and [F891] respectively) with no evidence for associated fills, indicating that they had been driven into the

ground rather than dug in. Half a metre further south, feature [F853] was partly exposed along the southern baulk of the excavation. This appeared to be another small radial slot similar in size to [F844] and contained a carbonised post [850] at its southern end surrounded by a grey sandy gravel [852] (Section 373). All these features lay slightly out of alignment with the remainder of the palisade.

The inner palisade [F541] (Figures 11 to 17)

5.44 The inner palisade was clearly visible both as a soil mark and as a double line of carbonised posts for a continuous distance of 110m northwards and eastwards from the runway (see Figure 36).

5.45 Slot [F635] measured 2.6m by approximately 1m although the boundary between this slot and the next one to the north was indeterminate as both were filled by the same materials, a lower darker gravel [633] and an upper reddish-brown sandy gravel [631]. The slot contained two post settings, an outer one 1.1m deep and an inner one 0.85m deep (Sections 295 and 328). Since the natural gravel at the base of these holes contained a band of pure sand, markedly different to the gravel fills, these measurements have a particularly high degree of certainty. Carbonised remains of an outer post [576] with a diameter of 0.3m survived to a depth of 0.4m, while the inner post [709] survived to a depth of 0.4m.

5.46 The next radial slot to the north [F634] measured 2.9m in length and approximately 0.9m in width (Sections 295 and 328). As mentioned above, the fills of this slot (a lower one [632] and an upper one [631]) overlapped into slot [F635] to the south, indicating that they were filled simultaneously with the same material. The outer post setting measured 1.25m in depth and contained carbonised post remains [514] to a depth of 0.35m although the inner post [513], with a diameter of 0.2m, only survived to a depth of 0.1m.

5.47 Further to the north, slot [F530] collapsed twice during excavation due to the very loose nature of its fill [529]. Because of this, it was only partially excavated and recorded. It measured approximately 2.1m in length by 0.9m in width and contained an inner post [518] 0.3m in diameter and 0.5m deep and an outer one [526] of similar diameter that only survived to a depth of 0.1m (Section 221).

5.48 Slot [F881] contained two discrete postholes, an outer one [805] measuring 1.1m by 1.0m and 0.7m deep and an inner one [804] measuring 1.2m by 0.8m and 0.9m deep. No carbonised post remains were present, the fills being gravels [803] and [802] respectively (Section 359).

5.49 Slot [F880] again contained two discrete postholes, an outer one [800] measuring 0.95m by 0.9m and 0.66m deep and an inner one [801] measuring 1.0m by 0.9m and 0.83m deep. As with slot [881], no carbonised post remains survived, the holes being filled with gravels [798] and [799] respectively (Section 358).

5.50 Slot [F879] again contained two discrete postholes, an outer one [797] measuring 0.9m in diameter and 0.73m deep and an inner one [795] measuring 1.0m by 0.9m and 0.72m deep. No carbonised remains were present, the holes being filled with gravels [796] and [794] (Sections 352 & 353).

5.51 Slot [F673] measured 2.3m by 0.8m and contained two post settings 0.65m deep. Carbonised remains of the inner post [672] measured 0.2m in diameter and 0.25m deep. The outer post did not survive in a carbonised state and could not be distinguished from the gravel fill [674] (Sections 282 & 288).

5.52 Slot [F550] measured 2.8m by 1.4m and contained an outer post setting 0.45m deep and an inner one 0.6m deep. No carbonised post remains were visible in this slot, it being filled with gravel [553]. It could be seen to be cut by slot [F673] towards the south (Sections 234 & 288).

5.53 Slot [F581] measured 2.6m by 0.8m and contained two post settings 0.6m deep. Carbonised remains of the outer post [578] measured 0.2m in diameter and 0.4m deep while carbonised remains of the inner one [580] were 0.2m in diameter and 0.25m in depth. Both of these posts leaned at an angle of approximately 110^{o} to the east. The remainder of the slot was filled with gravel [582] (Section 243).

5.54 Slot [F811] measured 2.8m by 1.1m and contained an outer post setting 0.6m deep and an inner one 0.8m deep. Carbonised remains of the outer post [808] were 0.2m in diameter and 0.5m deep while carbonised remains of the inner one [812] measured 0.2m in diameter and 0.65m in depth. The remainder of the slot was filled with gravel deposits [809/810] (Section 367).

5.55 Slot [F536] measured *c*.2.6m by *c*.1.0m and contained an outer post setting more than 0.7m deep and an inner one *c*.1.2m deep. Carbonised remains of the outer post [616] were *c*.0.25m in diameter and *c*.0.4m deep while carbonised remains of the inner one [592] measured *c*.0.25m in diameter and more than 0.3m in depth. The remainder of the slot was filled with gravel [535] (Section 266). The natural gravel was particularly loose around this slot, causing the excavated section to collapse before recording could take place so all these dimensions should be regarded as approximate.

5.56 Slot [F569] measured 2.8m by 0.8m and had an inner post setting 0.75m deep containing carbonised remains of a post [566] 0.2m in diameter and 0.3m deep, surrounded by gravel [568]. The outer post was not excavated in this slot, although a carbonised post measuring 0.3m in diameter was recorded in plan. The slot could be seen to cut radial slot [F536] to the south, although there was no relationship with slot [F670] to the north, both being filled with identical gravels (Section 276).

5.57 Slot [F670] measured 2.8m by 1.0m and had an inner post setting 0.75m deep containing carbonised remains of a post [654] 0.35m in diameter and 0.35m deep, surrounded by gravels [669] and [679]. As with slot [569], the outer post was not excavated although a carbonised post measuring 0.25m in diameter was plotted on plan (Section 276).

5.58 Only the carbonised post remains were excavated in slot [F874]. The outer post [537] measured 0.25m in diameter and 0.4m in depth while the inner one [539] was 0.25m in diameter and 0.3m deep.

5.59 Like slot [F874], only the carbonised post remains were excavated in slot [F877]. The outer one [586] was 0.3m in diameter and 0.3m deep while the inner one [584] measured 0.3m in diameter and 0.35m in depth.

5.60 As in slots [F874] and [F877], only the carbonised post remains were excavated in slot [F878]. The outer one [612] measured 0.3m in diameter and 0.35m in depth while the inner one [610] was 0.3m in diameter and 0.45m deep.

5.61 Slot [F565] was not fully excavated due to the looseness of the gravel fill [564]. It measured at least 1.6m by 0.85m and contained carbonised remains of an outer post [511] that was 0.25m in diameter and 0.4m deep, and an inner one [562] that was 0.3m in diameter and 0.45m in depth.

5.62 Slot [F666] measured 2.4m by 1.0m and contained an outer post setting 0.5m deep and an inner one 0.6m deep. Carbonised remains of the outer post [560] were 0.2m in diameter and 0.3m deep while carbonised remains of the inner one [558] measured 0.2m in diameter and 0.25m in depth. The remainder of the slot was filled with gravel [667] (Section 297).

5.63 Only the carbonised remains of the posts were excavated in slot [F875]. The outer post [394] measured 0.15m in diameter and 0.35m in depth while the inner one [556] measured 0.2m in diameter and 0.4m in depth (Section 281).

5.64 Slot [F494] measured 1.7m by 0.7m and contained carbonised remains of an outer post [491] 0.2m in diameter and 0.25m deep and an inner one [489] of similar size. The remainder of the slot was filled with gravel [493] (Sections 198 to 200).

5.65 Slot [F531] measured 2.3m by 0.9m and contained post settings 0.95m deep. Carbonised remains of the outer post [534] measured 0.25m in diameter and 0.5m in depth while carbonised remains of the inner one [532] were 0.25m in diameter and 0.8m deep. The remainder of the slot was filled with mixed gravels [643/644/588] (Section 247).

5.66 For a distance of 25m beyond this point the palisade was only visible in exceptional conditions, due to the mixed nature of the surrounding gravel and the lack of carbonised remains. However, it showed up very clearly on aerial photographs of the site (see Figure 35). Beyond this, there were a few slots where the inner posts (although not the outer ones) were visible as carbonised remains and then an area disturbed by later deposits where the palisade was not at first observable. A JCB equipped with a toothless ditching bucket was used to carefully strip soil from this area until the palisade slots became visible or the recognizably natural subsoil surface was reached. The machining exposed radial slots across most of this area with the exception of a 14m gap in line with the gap in the outer palisade. To test whether this gap was an

original design feature or due to truncation of deposits, a section was excavated through the slot on either side, as follows.

5.67 Immediately to the west of the gap, the inner post setting of slot [F842] was excavated, proving to be 0.7m in width by 0.6m in depth. Although the gravel fill [843] contained a significant quantity of charcoal, it was spread throughout the fill rather than in the area of the former post, perhaps indicating greater post-depositional mixing of the fill here.

5.68 At the eastern side of the gap, slot [F858] was 0.7m in width and more than 0.9m in length although its southern half was obscured by a post-medieval tree bole that was still *in situ* below the airfield levelling deposits. The outer post [857] measured 0.25m in diameter by more than 0.75m in depth and was surrounded by sandy silt [856] (Section 377).

5.69 The surviving depth of the above two postholes indicates that truncation of deposits could not explain this gap in the palisade. It lies directly in line with a similar gap in the outer palisade that also could not be explained by truncation of deposits and is therefore regarded as an original entrance to the enclosure. No evidence was found for any contemporary features within the entrance, however it should be noted that the natural gravel here was very dark in colour (due to manganese staining) and was also disturbed by later features. Therefore stake holes or other slight features (such as were found in the eastern entrance to the outer palisade, see above paragraph 5.43) would not have been clearly visible here.

5.70 Eastwards from the entrance, a continual line of radial slots (Figure 15) could be traced for a distance of 86m as far as slot [F727]. This measured 2.5m by 0.7m and contained post settings 1.05m deep. Both posts in this slot contained charcoal extending to the full depth of the postholes, with more charcoal at depth than on the surface. A similar situation was found in nearby slot [F705] but was not seen elsewhere on either palisade. This was probably a result of a change in the local geology from gravel to sands and clays. Either this had caused a change in the intensity of *in situ* burning or it had allowed greater movement of material after the posts rotted away. The outer post [771/2] measured 0.2m in diameter while the inner post [765/6] measured 0.25m in diameter. The slot fills consisted of a lower clay [768] and an upper more silty clay [770] (Section 346).

5.71 16m to the south, beyond a number of poorly visible slots, there was a short section where six pairs of carbonised postholes were visible on the surface. Slot [F705], at the northern end of these, measured 2.3m by 0.9m and contained an outer post setting 0.75m deep and an inner one 0.9m deep. As with slot [F727], carbonised remains of the posts (outer post [697] and inner post [698]) survived to the full depth of the holes. These were surrounded by a lower grey clay [734] and an upper orange-brown silty clay [706].

5.72 Beyond these carbonised posts, slots became increasingly difficult to identify and could not be determined at all from a point 9m from the runway (Figure 17). Since this lined up with the clearly defined beginning of the eastern

entrance in the outer palisade, it is likely to represent a real break, rather than apparent, in the circuit at this point.

Features within the enclosure (Figure 18)

5.73 Twelve postholes were exposed within the enclosure, approximately at its centre. These did not form any identifiable pattern and no dating evidence was obtained from any of them. Therefore at present they are unphased and it is not known whether they are related to the structure or not. They have been included in this part of the report on the strength of their central location within the enclosure. It should be noted that all of them lay along the southwest edge of a ridge of higher ground that had been machined off during the levelling of the airfield in the 1930s. Potentially therefore, further postholes had originally been present towards the northeast, but these had been truncated by later activity.

5.74 Six postholes formed a tightly clustered central group. Posthole [F638] measured 0.7m by 0.6m, was 0.3m deep and contained a reddish-brown sandy clay fill [637] (Section 275). To the south posthole [F650] measured 0.7m in diameter, was 0.3m deep and contained a similar reddish-brown sandy clay fill [649] (Section 276) while to the southeast posthole [F676] measured 0.6m by 0.5m by 0.3m deep and again contained a reddish-brown sandy clay fill [675] Section 301). Slightly further to the south, posthole [F663] measured 0.6m in diameter, was 0.45m deep and contained a reddish-brown silty clay fill [662] that was cut by a later posthole [F661], measuring 0.6m by 0.5m by 0.4m in depth and containing a similar reddish-brown silty clay fill [660] (Section 300). Westwards from here, posthole [F652] measured 0.7m by 0.6m by 0.3m in depth and contained a similar reddish-brown sandy clay fill [651] (Section 277).

5.75 Three postholes were situated a few metres to the south and east of this central group. Two metres to the southeast, posthole [F678] measured 0.4m by 0.3m by 0.35m deep and contained a dark grey sandy clay fill [677] (Section 302). Four metres to the east, posthole [F680] measured 0.7m by 0.6m and was 0.4m deep and contained a dark brown sandy clay fill [681] (Section 306). Five metres to the southeast, posthole [F696] measured 0.4m in diameter, was 0.2m deep and contained a reddish-brown sandy clay fill [695] (Section 308).

5.76 A further three postholes were situated further to the northwest of the central group. Seven metres towards the northwest, posthole [F775] measured 0.8m by 0.6m by 0.3m in depth and contained a mid-brown sandy silt fill [776] (Section 347). Eight metres beyond this, posthole [F762] measured 0.6m by 0.45m by 0.35m deep and contained a reddish-brown sandy silt fill [763] that became more gritty [764] towards the bottom (Section 345). Three metres northeast of [F775], posthole [F745] measured 0.6m in diameter, 0.5m deep and contained a mid-brown sandy silt fill [746] over a yellow-brown sand [747] (Section 342).

5.77 A pit [F648] measuring 0.3m in diameter and 0.25m in depth was located between the inner and outer palisades on the western side of the monument. It was filled with a dark brown sandy silt that also containing a little calcined

bone [647] although insufficient bone was present for it to have been a buried cremation (Section 268).

Discussion

5.78 At first the enclosure feature was provisionally classified as a henge, however, once it had been cleaned, it became apparent that both circuits were composed of series of radial slots rather than continuous ditches. Since enclosure banks and ditches are characteristic features of henges, this enclosure clearly does not belong to such a monument type. Instead it belongs to the much rarer category of Later Neolithic Palisaded Enclosures. In a survey of such sites Gibson (2002) lists just 19 potential palisaded enclosures for the whole of Great Britain. Many of these are unproven and consist of unexcavated cropmarks or curving pit alignments that have not been traced for any great distance. Amongst the proven palisades, Gibson (1998) recognises three morphological types: Type 1 Palisades consisting of spaced individual posts, each set in their own postpit (e.g. Meldon Bridge); Type 2 Palisades consisting of close set but not contiguous posts set in closely spaced pits (e.g. Hindwell); and Type 3 Palisades consisting of contiguous posts set within a palisade trench (e.g. Mount Pleasant). The Marne Barracks enclosure fits most readily into the second of these morphological types.

5.79 Even within this group there are significant differences between all the known enclosures. Few contain two or more palisades, the only known examples being Ballynahatty, Blackhouse Burn, Dunragit (a Type 1 Palisade with three palisades) and West Kennett 1 (a Type 3 Palisade). None of these (and none of the single palisade enclosures either) contained the 'paired post' arrangement of the two palisades at Marne Barracks. As far as is known at present, this is a unique feature of this site.

5.80 In terms of size, these enclosures range from *c*.1ha for Ballynahatty up to *c*.34ha for Hindwell with most averaging just under 5ha (Gibson 2002 p.6). The Marne Barracks enclosure, measuring 2.75ha (outer palisade) and 1.8ha (inner palisade), lies towards the lower end of this range but is not exceptionally small.

5.81 Although smaller than average for these enclosures, the fact that the Marne Barracks site contained two palisades and each of these was composed of 'paired posts' effectively giving the enclosure four timber circuits, means that the total number of posts in the monument compares favourably with other larger enclosures. Assuming the geophysical anomalies to the south of the runway represent the southern edge of the monument, and that the unexposed part continued in a similar fashion to the exposed part, and the part-exposed east entrance was similar in size to the north one and there were no further entrances, then originally there would have been a total of *c*.580 post slots and *c*.1160 posts in the outer palisade and *c*.450 post slots and *c*.900 posts in the inner palisade. This gives a total of just over 2000 posts in the whole monument compared to 1600 posts for Mount Pleasant, 2800 posts for West Kennett 1 (another double palisade), 1600 posts for West Kennett 2 and 1400 posts for Hindwell. Even if the two palisades at Marne Barracks represent two phases of the monument rather than contemporary structures, the total number

of posts in each phase would still make this enclosure comparable to other such examples.

5.82 Two entrances were identified in the Marne Barracks enclosure, a gap of 14m along the northern edge (of both palisades) and a part-exposed gap of at least 5m along the eastern edge. Stakes were present in the eastern entrance but no such features were found in the northern one, although this could have been due to preservation conditions at this point. These entrances are in marked contrast to those of other Type 1 Palisades. Forteviot, Leadketty, Meldon Bridge and Walton palisades all contained externally pointing double avenues of posts that approached the palisade at a slant, while the avenue for the central palisade at Dunragit approached at a more perpendicular angle. No such external avenue was present at Marne Barracks. However, the wide entrances of the Marne Barracks enclosure are not paralleled by the narrow gaps present at either Hindwell (Type 2) or Mount Pleasant (Type 3).

5.83 In common with other Neolithic palisaded enclosures, the Marne Barracks enclosure does not appear to be defensive: there is no evidence for either ditches or banks, nor for quarrying to provide material for banks or box-ramparts; the circumference is so large that it could not easily be defended (especially as there are gaps between individual posts wide enough for thin people to squeeze through); the entrances are wide and, even if they were filled by smaller stakes, these would present a weakness in the structure at its most vulnerable point; the site is in a lowland location overlooked by a hill and near a river. Although a limited number of postholes were identified in the centre of the enclosure, there was no other evidence (such as pits, houses, burials etc) for occupation of the interior. It is therefore suggested that this site may have been used for ritual purposes such as funerary rites or religious observances, although other functions cannot be ruled out.

5.84 Palisaded enclosures are typically placed in ritual landscapes, surrounded by other ceremonial monuments, such as henges, timber circles, burial mounds and pit alignments. The Marne Barracks site is no exception. In 1995 archaeological excavations were carried out at the southern end of Catterick Racecourse by West Yorkshire Archaeology Service prior to sand and gravel extraction. The excavations revealed evidence for a huge late Neolithic/early Bronze Age kerbed burial cairn and pits (Moloney 1996, Moloney *et al*. forthcoming). A putative Roman amphitheatre also identified there is now thought more likely to be a Neolithic henge monument, based on aerial photographic evidence (MacLeod 2002). Another huge Neolithic ritual monument, a cursus, has been identified at Scorton, to the north of the Swale (Topping 1982). The cursus comprises two parallel ditches traversing the landscape for some 2km, forming a ceremonial avenue. Various ring ditches and pit alignments also appear to be associated with the cursus; proposals for extensions to Scorton Quarry in 1997 at Hollowbanks Farm led to numerous archaeological investigations there by GeoQuest Associates (1997), Wessex Archaeology (1998a; 1998b) and Northern Archaeological Associates (2000). Only 15km to the south of Marne Barracks south lie the three henges and cursus at Thornborough, and just beyond them the henges at Nunwick, Hutton Moor and Cana Barn. Although there is currently no evidence for Neolithic

occupation in the vicinity of Catterick, these ritual monuments indicate the significance of the area for Neolithic people.

5.85 A number of large Late Neolithic mounds are known and many of these are associated with henges or palisaded enclosures. The best known of these is Silbury Hill, which overlooks the West Kennett palisades (and also the henge at Avebury). Other examples include Conquer Barrow in Dorset, overlooking Mount Pleasant henge and palisade, Marlborough Mound (Wiltshire), Hatfield Barrow (contained within Marden Henge, Wiltshire) and Duggleby Howe. It has been suggested (Barrett 1994, 31) that Silbury Hill formed a raised platform to allow a select group to observe activities in the surrounding enclosures and that other such Neolithic mounds had a similar function.

5.86 The Dunragit palisade is overlooked by a large mound (Droughduil Mote) 400m to its south that had long been interpreted as a medieval motte. However, the form of the mound appeared slightly unusual compared to other local mottes and therefore it was recently investigated as part of an excavation programme on the palisades. This excavation proved it to be an artificial mound of uncertain date but capped by an Early Bronze Age cairn (Thomas 2002). It therefore appears to be a similar Neolithic 'viewing platform'. It has also been suggested that Knapp Mount (which lies outside the Walton palisade), another unexcavated mound long identified as a motte, is also a mis-identified Neolithic mound (CPAT 2004).

5.87 Interestingly the Marne Barracks palisade is overlooked by a similar unexcavated mound (Castle Hills), again long identified as a motte but recognised to be slightly abnormal in shape. A number of authors (e.g. MacLauchlan 1849, Wilson *et al*. 1996, ASUD 2001a) have commented on this and suggested that the feature is a natural hill that may have been occupied in the Roman and/or Anglian periods and with a medieval motte being added later. The discovery of the palisaded enclosure raises the possibility that the motte may originally have been a mound of Neolithic date placed on the top of an already prominent hill and modified by later use.

Phase 2a (Bronze Age)

5.88 A shallow gully was found in evaluation trench N5 that was dated to the late Bronze Age/early Iron Age on the basis of a radiocarbon date (ASUD 2002, 10). This feature was not identified during the current excavation although it would have been located immediately southwest of the eastern side of the north entrance to the outer palisade. Several silt-filled depressions were present in this area (such as contexts [682] and [893]). These are thought to be post-medieval in date since they are bounded by post-medieval gully [F411] (see below, paragraph 5.112). Given its proximity to the Neolithic palisade, it is possible that the feature identified during the evaluation had been a similar silt patch that had been contaminated with carbon from the palisade.

Phase 3 (Roman) (Figures 19 to 21)

5.89 Two areas of large sinuous ditch systems were exposed; an east-west section in area 5 and a north-south section in areas 4 and 5. The join between these two sections was not exposed and it is not known whether they were related or

not. However, pottery from both dates from the late 1st/early 2nd centuries, suggesting they are of a broadly similar date (although only a single sherd was recovered from the north-south section, so any date from this should be treated with caution).

5.90 The east-west ditch system traversed the northeast corner of area 5 and was partially sampled during the evaluation, when two ditches were identified in Trench N6 (ASUD 2002). No finds were recovered from either ditch but two late Iron Age/early Roman radiocarbon dates were obtained. These dates are slightly earlier than the pottery dates obtained during the current work and may indicate slight contamination of the ditch fills with residual carbon derived from the Neolithic enclosure. During the current works, six sections were excavated across the ditch system, identifying at least four phases of use.

5.91 The earliest phase [F885] was largely truncated in all the excavated sections. At its eastern end, it was represented by cut [F707], which lay to the north of the later cuts and was filled with a dark grey-brown sandy gravel [708]. Further west, this earliest cut lay to the south of the second one, although this cross-over was not noticed on the ground. The first phase was represented by [F309] in Section 111 and was filled by a similar gravelly fill [312], although containing silt patches [311] and [313] in its base and another thin silt layer [871] at its top (N.B. this section was cut to examine the terminus of later cut [F308] and intersected cut [F309] at a very acute angle. Dimensions for cut [F308] are therefore distorted). Further west, the first phase was represented by cut [F318] in Section 160, which again had a gravel fill [46] underlain by silt [319]. Two silt patches [42] and [44] within the gravel may have been very truncated postholes, but their shallowness (0.15m and 0.05m) in relation to their width (0.7m and 0.5m) makes it more likely that they were simply areas where the gravel had been pulled out in the roots of a fallen tree. The ditch was represented by cut [F121] in section 75, filled with gravel fill [122], and cut [F127] in section 70, filled with gravels [128] and [129], then a silt band [130] and then another gravel [131]. West of this section, the ditch came to a butt end and an extra cut [F32] was visible to the south, perhaps representing a re-cut to the terminus. Again this was filled with gravel [34], with a thin band of overlying silt [33].

5.92 The second phase [F886] consisted of a cut [F712] to the south of the phase 1 ditch in section 356 at the eastern end of the exposure but to the north elsewhere ([F321], [F123] and [F162] in sections 160, 74 and 70 respectively). It could not be traced to the west of this point and appears to have terminated at a similar point to the phase 1 cut. It contained gravel fills ([713], [320], [124] and [163] respectively) similar to those of the first phase cuts. After a gap of 3m, a partly truncated ditch cut [F754] again with a gravel fill [755] could have been a continuation of either the first or second phase cuts.

5.93 The third and best preserved phase [F887] consisted of a ditch cut running eastwards for 60m (and crossing the earlier ditch termini) before turning south and coming to a butt end. After a gap of 7m, the ditch continued again with another south-pointing terminus. Six sections sampled this cut; [F756] in section 344 to the west, [F164] in section 70, [F118] in section 74, [F47] in

section 160, [F307] in section 151 and [F826] in section 356 at the eastern end of the site. This ditch was filled with a yellowish-brown clay silt [757/758], [132], [119/120], [70], [308] and [825/824/823] respectively.

5.94 A fourth phase [F759] was visible towards the western end of the exposure. This measured 5m in width, 0.25m in depth, contained a dark brown silty clay fill [760] and came to a butt end after 13m. It had been re-cut [859]; with this containing a similar fill [761]. This fourth phase was not present across the rest of the excavation.

5.95 The north-south ditch system consisted of a long sinuous ditch running for 100m northwards from the helicopter landing pad to the north of the runway. This north-south ditch cut the outer palisade of the Neolithic enclosure along its eastern edge. In most places two cuts were present to this ditch; an earlier one in the east and a later one to the west. Fills of the earlier cut were generally of gravel, becoming more silty northwards, while fills of the later cut were generally of silt with occasional gravel lenses.

5.96 Five sections were excavated through these ditches. Towards the south, ditch [F685] was filled by gravel [686] (with silt lens [704]) and re-cut by [F683], filled by gravel [684]. A silt layer [687] overlay both ditch cuts and was probably a later re-cut (Section 304). Northwards, ditch [F728] was filled by gravel [729] and re-cut by [F730], filled by [731] (Section 331). Northwards again, ditch [F788] was filled by gravel [786] (with silt lens [787]) and re-cut by [F785], filled by upper and lower silts [782] and [784], separated by gravel lens [783]. A deeper section of this ditch was filled with a grey silt [791] similar to [784]. This deeper section was over 1.2m deep and was not fully excavated (Section 351). In the fourth section, ditch [F186] was filled by silty gravel [187] and re-cut by [F299], filled by silt [300] (Section 133). Finally, its northern end, ditch [F821] was filled by silt [820] and re-cut by [F819], filled by upper and lower silts [818 and 834] separated by gravel lenses [833] and [835]. Here cut [F821] came to a butt end but cut [F819] continued and a third cut [F817] was present towards the west, pre-dating [F819]. This contained a silt fill [816] underlain by a thin gravel band [832] (Section 364).

5.97 Immediately towards the north, these ditches were cut by the butt end of an eastwards running ditch [F174]. Two more butt ends were present 5m towards the east, close to the baulk. The northern cut [F173] was the earliest of the three and was 3.5m wide by 0.2m deep and contained a lower fill of silty gravel [172] and an upper one of silty clay [171]. It was cut by ditch [F174], 6m wide by 0.8m deep and containing a lower fill of grey gravelly clay [177] and an upper one of mid brown silty clay [175] separated by a gravel lens [185]. To the south this was cut by ditch [F180], measuring 5m by 0.6m deep and containing similar gravelly clay [182] and silty clay [181] fills (Section 111).

5.98 Fourteen conjoining pot sherds from a single vessel, a jar dating from AD 50-150, were recovered from the northern end of area 3. These sherds [334] were residual within the base of the 1930s landscaping fill but do indicate Roman

activity, possibly a cremation burial, within the surrounding area, although the exact location of this activity cannot be established.

5.99 All the pottery from these features dates from the late 1st to 2nd centuries AD. This is earlier than the late 3rd to mid 4th century date obtained from the 'villa' in the centre of the base (Hildyard 1955) and the 4th century date obtained from the field system extending under the REME building (Geoquest Associates 1994), indicating that the ditches are unconnected to these previously known sites. However, it of similar date to the earliest phases of occupation at Bainesse Farm, 1km to the west. Although the assemblage appears typical of a military site (see below, paragraph 6.11), this should be treated with caution due to the small size of the sample. Certainly the sinuous plan and rounded profile of the ditches is more suggestive of a domestic rather than a military site.

5.100 Second century (together with post-Roman) material was recovered from an excavation on Castle Hills in *c*.1847 (Maclauchlan 1849, Wilson 2002). Details about this early excavation are sketchy but it has been suggested that the Roman material was residual within soil scraped up from a wide area to form the mound (Wilson 2002, 32). The present discovery of stratified deposits containing 2nd century material directly below Castle Hills may strengthen this possibility. However, there seems little evidence for significant truncation of these deposits (or the nearby Mesolithic and Neolithic ones) and it has been argued above (paragraph 5.87) that the mound could even have been a focus for Neolithic activity. In this case the Roman material could be indicative of occupation of the hill and its surroundings at that date, with these ditches representing the outer limits of this occupation.

Phase 3a (Anglian)

5.101 A gully of supposed Anglian date was identified during the evaluation (ASUD 2002, 10). The current excavation has shown that this gully was post-medieval in date and the early radiocarbon age that was obtained from the fill had been due to contamination with carbon derived from elsewhere. It is more fully described below (paragraph 5.111).

Phase 4 (Medieval) (Figures 22, 23 and 24)

5.102 Isolated remains of ridge and furrow cultivation survived in a number of locations across the excavation. In the south of area 1, there were a series of southwest – northeast aligned furrows, 6m apart. In the north - centre of area 2, similarly aligned furrows were present, although here they were 7.5m apart. Southeast – northwest aligned furrows 5m apart were found in the east of area 4 and east – west aligned furrows 8.5m apart were found in the centre of area 5. These orientations correspond to the anomaly orientations that were detected in the geophysical survey of the airfield and which had been interpreted as ridge and furrow remains (ASUD 2001a).

5.103 The ridge and furrow remains were not investigated in detail since they had already been examined as part of the evaluation and, due to their poor survival state, were regarded as being of low archaeological importance. However, sections were placed through five of the furrows within area 2: [F139/143],

[192], [208], [467] and [469]. These contained similar sandy silt fills [140/144], [193], [209], [466] and [468] respectively. A shallow sub-circular depression [F153] measuring 4m by 3m by 0.15m deep and containing a similar sandy silt fill [156] occupied a gap in the sequence of furrows. Given its location, it is likely to be a disturbed furrow that is broader than the normal ones.

5.104 Only one sherd of medieval pottery was recovered from the entire excavation (and this was residual within a post-medieval context; [84]). This low concentration of medieval pottery would suggest that the site lay some distance from the medieval centres of occupation.

Phase 5 (Post-medieval) (Figures 22 to 26)

5.105 Remains of a road were found in area 1, overlying the ridge and furrow. These were in the correct position and orientation to be the former Oran Road, known from cartographic evidence and detected as a geophysical anomaly. Remains were present at both the northern and southern extremities of the site, with those towards the south being better preserved. This fits the pattern of 20th century landscaping, since the central part of area 1 was subject to the largest degree of levelling, with less material being removed to both the north and the south.

5.106 At its southern end, the Oran Road [F57] appears to have originally contained a pronounced camber that has since been ploughed out, as it contained two mirror image sets of deposits running each side of a central band of natural gravel [15] (Figure 25 and Figure 26, Section 12). These deposits consisted of two shallow cuts ([55] on the west and [56] on the east), bounded on their outer edges by kerbs of sub-rounded cobbles up to 0.3m in diameter ([F12] and [F18] respectively). Inside these were two strips of gritty sand ([13] and [16]), with small areas of cobbling ([14] and [17]) surviving in places over them. A clay-tile land drain ran lengthwise down the centre of the road.

5.107 The road surface overlay a stone culvert and soakaway pit, but was much wider than these features: the road surface overlay the fill of the soakaway pit, indicating that it belonged to a later phase. The culvert [95] consisted of a linear cut [F92] containing two lines of large, sub-angular stones [91] that supported a roof of flat slabs (Figure 40). Smaller cobbles overlay these slabs, sealing any holes in the structure. The culvert was filled with a mid grey-brown clay [94] that also extended to the outside of the wall stones on the northern side of the excavated section, perhaps indicating erosion of the sides during use (Section 32). A rectangular pit [F101] measuring 2.6m by 1.3m by 1.2m in depth formed a soakaway on the east side of the culvert (Section 34). It was filled with lower and upper deposits of green-grey silty clay ([100] and [98] respectively), and a middle one of brown-grey silty clay [99]. There were frequent large, rounded stones up to 0.8m in length throughout contexts [99] and [100] although very few such stones in context [98]. Most of these stones had been tipped in from the west (*i.e.* from the direction of the road).

5.108 The road surface was too well-made to have been the *ad hoc* development of a track and must have been deliberately planned. On the 1st edition Ordnance

Survey map (after the road had been moved westwards to its current location along the line of the A1) it is named as the 'Boroughbridge and Piersebridge (*sic*) Trust'. A search of the Durham County Records Office website shows that this turnpike road (correctly the Boroughbridge, Catterick and Piercebridge Trust) was sanctioned by a parliamentary act of 1742, with later modifications by acts of 1749, 1784, 1803, 1825, 1862 and 1875. Presumably the road surface relates to sometime between the creation of this turnpike in 1742 and the date that it was moved towards the west (from cartographic evidence some time between 1842 and 1857). Examination of the actual records for this turnpike may refine the date of the road still further.

5.109 Less well-preserved road remains survived at the northern edge of the excavation. A number of gullies ran in a northwest-southeast direction (*i.e.* parallel to the line of the road) for *c*.8m from the baulk. The most westerly of these [F83] was 0.6m in width, 0.3m in depth and contained an orange-brown clay silt [84]. It was cut on its east side by gully [F85], 0.6m wide, 0.5m deep and containing a grey-brown clay silt [86] (Sections 41 and 42). One metre to the east, gully [F102] was 1.4m wide, 0.3m deep and contained a grey-brown clay silt [103]. A fourth gully [F53] lay 7.8m towards the east and was 1.0m in width, 0.3m in depth and contained a grey-brown silty clay [54]. Gully [F83] lined up with the western side of the road in the main exposure while gully [F53] lined up with the eastern side. An area of cobbling [63] was partly exposed in the extreme northwest corner of the trench and overlay the gullies [F85] and [F102]. It is interpreted as road metalling with the underlying gullies being ruts or drains from the pre-turnpike phase of the track.

5.110 Two features were present along the western edge of the road, suggesting they were related to it. Pit [F142] measured 0.8m in diameter by 0.4m in depth and was filled with mid-brown sandy silt [141] that contained two links from an iron chain. Posthole [F112] lay 7.6m towards the north, measured 0.25m in diameter by 0.2m in depth and contained a light brown silty clay fill [111] (Figure 25, Sections 51 & 61).

5.111 A second north-south track was present towards the east end of the excavation. This track is visible on historic maps of the area, being denoted as a bridleway on the first edition Ordnance Survey map. On the ground it was visible as two parallel gullies 3.25m apart. To the west, gully [F326] was 0.4m wide, 0.1m deep and contained a dark orange-brown clay-silt [325] (Sections 168 & 169). To the east, two gullies [F411 and F413] were present, both containing similar dark orange-brown clay silts [410 and 412] (Section 175). No evidence for road metalling was present between these two gullies. The easternmost of these gullies had been sampled during the evaluation and plant macrofossils within the fill were radiocarbon dated to the immediate post-Roman/Anglian period (ASUD 2002, 10). However it is now known that the evaluation trench had been placed at the point where the track cut the Neolithic palisade and the radiocarbon date obtained is therefore most probably due to contamination of the ditch fill with residual carbon from the palisade. The westernmost of the two trackside gullies had produced post-medieval pottery during the evaluation.

5.112 Where the track crossed between areas 4 and 5, a large spread of similar clay-silt [893] covered the whole of the track and extended eastwards for a distance of over 35m and northwards for over 20m. It overlay the inner palisade and, following recording, was machined off to properly examine the earlier feature. A smaller but otherwise similar spread of clay-silt [682] overlay the eastern side of the inner palisade and covered an area of 6m by 5m. A rough gravel track [694] in a slight cut [F693] curved round the northern side of this spread, again cutting through the palisade.

5.113 A gully [F456] ran on a southwest - northeast orientation for 110m across areas 2 and 3 and was sampled in nine locations: [F234], [F253], [F292], [F336], [F342], [F348], [F354], [F378] and [F380], each section containing a similar mid-brown silty clay [235], [254], [293], [335], [341], [349], [355], [379] and [381] (Sections 126, 101, 110, 146, 140, 144, 149 & 164). Although an unabraded Samian ware rim sherd came from [F349], the gully corresponded to a post-medieval field boundary, as recorded on maps until 1842, and was demonstrably later than the unphased (but possibly Roman) gullies in this area. In places the gully had a parallel second cut 1.2m towards the northwest ([F236] / [F403], with fills [237] / [402]) and in one small area a third parallel cut ([F401], filled by [400]) lay between these two gullies.

5.114 A narrow gully [F270] / [F298], 0.15m wide, 0.05m deep and filled with dark brown silty clay [271] / [297] ran southwards from [F456] (Section 132). This was also stratigraphically late and was orientated in the correct position to be another field boundary as shown on early maps.

5.115 Towards the northern end of area 2, pit [F233] measured 0.7m in diameter and 0.5m in depth and was filled with a silt [224] containing coal, ash, cinders and small fragments of burnt bone. Modern nails and other metal fragments within the fill proved that it was of recent date (Section 102). A second area of burnt material [255] lay at the base of the topsoil 11m towards the northwest.

5.116 A rough pile of rounded stones [107] up to 0.2m in diameter was located in the southwest corner of the excavation. This stone pile had no discernible structure and contained a fragment of concrete, suggesting it was a field clearance cairn of post-medieval date. It was cut by a posthole [F109] 0.35m in diameter and 0.2m deep, containing a silty gravel fill [110]. An area of dark brown silt containing animal bone [88] in the west of area 1 is likely to have been a fragment of the post-medieval plough soil preserved in a dip in the ground.

5.117 Two short linear cuts were found in the south of area 1. Cut [F72] ran northeast to southwest, was 2.9m long, 0.4m wide and 0.2m deep and contained a dark grey-brown sandy silt fill [71] that contained a bone fragment. Given the poor survival rate of bone from the site, this would suggest a post-medieval date for the cut, with it possibly being a plough furrow. Immediately to the southwest, cut [F90] ran northwest to southeast, was 2.4m long, 0.4m wide and 0.2m deep, and contained a similar fill [89].

Phase 6 (Modern) (Figures 22 to 24)

5.118 Aircraft from the Royal Flying Corps were first stationed at Catterick in September 1916, beginning the military occupation of the site (ASUD 2001a). The airfield was greatly improved in the 1930s, with the runway being extended and hardened. During this phase of development, the entire site was levelled by cut and fill operations.

5.119 One military feature pre-dated this episode of levelling. In the centre of area 3, feature [F892] consisted of a sub-circular cut 3m in diameter and filled with a clayey sand [474] that contained frequent 20th century bricks and other modern material such as light bulb fragments and a bakelite door handle. It may have been an infilled sentry box (or similar) dating from the early phase of development of the airfield.

5.120 The airfield was levelled by cut and fill operations in the 1930s. Areas of truncation and depths of infill broadly followed the estimated values shown in our original assessment report (ASUD 2001a, Figure 3), derived from Air Ministry proposal plans of the 1930s. This shows that these proposals were carried out to a high degree of accuracy and allow extrapolation from these plans. Up to 1m of material will have been removed from most of area 1 (excluding its northern and southern edges) together with material from the southwest corner of area 2 and a narrow ridge in the southwest corner of area 4. The remainder of the site was covered with a silty gravel infill deposit [8] of varying depth, being absent towards the western end of the site and up to 1m thick towards the centre.

5.121 Overlying this levelling deposit in the north of area 2, feature [F25] was a structure consisting of two crescent-shaped bays, each 29m in diameter and facing towards the runway. It was constructed from brick, concrete and plaster rubble, faced with a line of more regularly laid bricks. Steel anchoring rings were set in the ground just outside the horns of each crescent. The western bay had been half-truncated and there had possibly been a third one to the east, now almost completely removed. This indicates that further levelling work had taken place after the initial landscaping of the airfield. These anchoring rings suggest that it had been constructed to support a free-standing structure such as a radio or radar mast, while the insubstantial nature of the brickwork would suggest that this merely formed a walkway around the structure.

5.122 Two concrete blocks [F150], each 0.5m square, were set in the ground to the southwest of the above feature. Each had a metal plate bolted onto its top, with a hinge on its southern side.

5.123 A slit trench [F165] measuring 2.9m by 0.7m by 1.2m in depth was located at the eastern end of area 5, close to the defensive position of Castle Hills. It had postholes in each corner, perhaps to support a camouflage net and had been backfilled with redeposited natural [166].

Unphased (Figures 27 to 30)

5.124 A large pit [F597] measuring 4.6m by 2.25m by 0.9m deep cut the inner palisade immediately south of the knapping platform (Figure 30, Section 256).

Two of the palisade slots [F619] and [F621] could clearly be seen to be cut by this pit (neither of these was excavated). The pit contained five fills; a bottom one of clayey gravel [602] that was probably a primary weathering deposit from the pit sides, followed by a grey-brown clay [601], a band of red-brown coarse sand [600], an upper band of clayey gravel [599] and finally a deposit of grey-brown sandy clay [598].

5.125 A cobble containing a circular depression was recovered from deposit [599]. Peck marks were visible inside this depression, indicating that it had been deliberately created. A second very faint indentation lay to one side, indicating another incipient marking. While these hollows have the appearance of Bronze Age cup-marks (Dr M Diaz-Andreu pers. comm.), two other alternative explanations have been proposed. Firstly it has been suggested that the hollows may have been deliberately created as a receptacle for grinding pigments or dehusking barley (Dr F Hunter pers. comm.). In this respect there is a grey residue visible in the hollow that could be a remnant of this activity. An alternate explanation is that the stone was a Mesolithic flint-knapping anvil stone (Dr M White pers. comm.). Similar 'cup-marks' have been found on other Mesolithic working floors in Scotland and Northern England and are associated with the knapping of small, river-worked flint pebbles. The location of this context, less than 3m from the knapping floor, suggests this latter possibility is more likely. Since the pit cuts the Neolithic palisade, the stone is residual within its context.

5.126 A series of linear gullies traversed areas 1, 2 and 3. Although shallow, some could be traced for distances of more than 140m. Two of these gullies were on alignments corresponding to post-medieval field boundaries (see above, paragraph 5.113). The remainder were not orientated to correspond with either the medieval or the post-medieval field pattern. A single highly abraded sherd of Roman pottery was recovered from one gully but no other dateable finds were recovered. Therefore the dating of these features is questionable, although at least some of them may have dated from the Roman period, since there are known Roman field systems to the north, south and west of the runway.

5.127 Gully [F458] ran for 140m in a southwest to northeast direction and was sectioned in eight places: [F290], [F344], [F346], [F352], [F367], [F390], [F463] and [F470], containing similar mid-brown silty clays [291], [345], [347], [353], [366], [389], [464] and [471] (Sections 141, 149, 150, 159, 174 and 190). An abraded sherd of Roman pottery was recovered from [389]. To the west of this, gully [F457] started from a butt end in the southwest and gradually converged with [F458], although the relationship between these two features did not survive. Three sections were cut across this gully: [F294], [F350] and [F376], containing similar mid-brown silty clays [295], [351] and [379].

5.128 Another gully [F263] ran in an east-west line for 110m across the middle of the site before curving southwards at its eastern end and northwards at its western end. This western end followed the foot of a natural scarp slope that had been preserved by infill during the 20th century levelling of the airfield.

Although the line of the gully crossed the southern end of gully [F456], unfortunately it did not survive in this area so no relationship was present. Nine sections were excavated across it: [F226], [F229], [F231], [F240], [F242], [F244], [F246], [F263] and [F278], containing similar dark brown sandy silts [225], [230], [232], [241], [243], [245], [247], [264] and [279] respectively (Sections 103, 104, 105, 109, 113, 114, 117, 120 & 130). A broken copper alloy ring was recovered from [279].

5.129 Towards the south of area 2 the gullies could only be seen in exceptional conditions for a few hours after rain when the ground was beginning to dry out (Figure 41). Gully [F260] ran at right-angles to gully [F458] and was cut by it. It was sampled in four places [F249], [F259], [F261] and [F281] and, unlike other gullies in this area, contained two different fills, a lower silty one [250/1], [258], [262], [280] and an upper gravelly one [252] which was very thin but persistent along much of the length of the exposed feature (Sections 115, 116, 119 & 127). It may represent a heavily truncated deliberate backfill to the gully after a period of normal silting. Another gully [F284], 0.75m wide, 0.35m deep, running parallel to [F260] and filled with reddish-brown sandy silt [283], was partly exposed in the southern baulk of the excavation (Section 128).

5.130 In the northwest corner of area 3, gully [F454] measured 0.5m in width, 0.2m in diameter and contained a mid-brown sandy silt fill [455] (Sections 209 & 211). It ran east-west, curving round towards the south at its eastern end. Here it cut another east-west gully [F387] containing a similar fill [388], which was visible for a distance of 6.2m. A gully [F460] filled by a similar silt [459] (Section 206) ran northwards from gully [F454] although too little of the intersection to determine any relationship between these two gullies. Two other stretches of east-west orientated gully [F282] and [F405] crossed the north of areas 2 and 3. The former could possibly have been a continuation of gully [F454], although it lay 76m further towards the west. The latter ran parallel to and 3m south of gully [F387].

5.131 A north-south gully [F475] ran for 35m down the west side of area 3 and was sectioned 4 times: [F476], [F478], [F480], and [F482]. It measured 0.5m in width, 0.2m in depth and contained a mid-brown silt [477], [479], [481] and [483] respectively (Sections 192, 194, 195 & 196).

5.132 In the southwest corner of area 1, gully [F97] was 0.75m wide, 0.2m deep, was exposed for a distance of 19m and was filled by a dark brown silty clay [96] (Sections 33 & 40). It can clearly be seen on the geophysical survey as a slightly curving linear anomaly crossing the whole of the surveyed area north of the runway and possibly continuing into the Romano-British field system south of the runway. A 3m long section of a parallel gully [F133] that lay 1.6m to the north and contained a similar fill [134] was exposed along the western edge of the excavation (Section 54).

5.133 In the south centre of area 1, pit [F135] measured 1.9m by 1.0m by 0.3m deep and contained a silty gravel fill containing charcoal flecks [136]. Two pits were located 1.3m apart in the north of area 2. Pit [F198] measured 0.4m in

diameter and 0.15m in depth and contained a dark brown sandy silt fill [197], while pit [F200] measured 0.5m in diameter and 0.1m in depth and contained a similar fill [199] (Sections 80 & 81).

5.134 A large pit [F288] was located in the south of area 3, measuring 4.6m in diameter and 0.8m in depth. It was filled with a dark brown sandy silt [287] overlying a light brown silty sand [296] (Section 132).

5.135 A curving ditch [F449] was part-exposed in the northeast of area 3. This was 4.6m wide and 0.85m deep and contained rather mixed lower fills of gravel [448] and silt [447] and an upper fill of dark brown sandy silt [446] (Section 191).

5.136 An area of large sub-angular stones [860] was located in the northwest of area 4. Although this lay within the Neolithic enclosure, the presence of lime mortar on the stones indicates that they were unrelated to the enclosure. Five stones, measuring up to 0.3m in length, formed a right-angled corner. Several other similar stones were displaced during machining and one of these contained a circular depression, indicating that it had been a pivot stone for a door jamb. This feature lay on the western side of the ridge that had been levelled during landscaping of the airfield (see above, paragraph 5.2) and too little of the structure survived to identify its original date or nature.

5.137 Two isolated postholes were found in the east of the excavation. Cut [F167] in area 5 measured 0.4m in diameter and 0.2m in depth, was filled with a dark brown silty clay [168] (Section 90) and cut Roman ditch fill [131]. At the northern edge of area 4, cut [F732] measured 0.4m in diameter by 0.1m in depth and was filled with a light grey silty clay fill [733] (Section 334).

6. The artefacts

6.1 A number of unstratified finds, and some from obviously modern contexts, were discarded following cataloguing, since they had no potential to add further information about the archaeology of the site. These have been indicated in the text.

Roman pottery

Summary

6.2 68 sherds of Roman pottery were recovered, all from stratified contexts. Of these, 42 sherds came from one vessel and 14 from a second vessel.

Context 26

6.3 Two conjoining sherds from a handle, oxidised pale red fabric with moderate coarse quartz grains and clay pellets, from a flagon, (the handle has 3 exterior grooves) 30g. Date *c*. AD 50-150.

Context 33

6.4 Base sherd and conjoining body sherd, the fabric has an unoxidised core and exterior surface, oxidised pale yellowish-brown interior, common to abundant quartz grains, from a jar wt 18g. *c*. AD 50-200. Burnt exterior.

Rim sherd, unoxidised yellowish-brown surface but with oxidised core. Fabric has fine quartz inclusions, from a jar with everted rim, wt 10g, rim diameter 120mm, surviving circumference 11%, *c*. AD 50-180. Carbonised residue on rim.

Context 34

6.5 2 body sherds from the same vessel, Central Gaulish Samian from Lezoux, from a bowl or dish. Date *c*. AD 120-200. Much of the interior and exterior surface is missing.

Context 70

6.6 2 body sherds from the same vessel, unoxidised fabric with sparse angular quartz grains from a jar form, 32g. *c*.AD 50-180. Some evidence of burning on exterior surface.

40 body sherds, 1 base sherd and 1 rim sherd, an unoxidised v fine pale grey fabric with powdery feel, from a thin-walled jar with everted rim, wt 57g. Rim diameter *c*.120mm, surviving rim circumference *c*.7%. *c*. AD 50-150.

Context 187

6.7 Rim sherd, Central Gaulish Samian from Lezoux, the form is probably Drag. 18/31, (rather than form Drag. 31 which is the other possibility). Wt 3g, rim diameter 180mm, surviving circumference 5%, date c. AD 120-140.

Context 334

6.8 4 rim sherds and 10 body sherds of the same vessel, unoxidised mid-grey fabric with mica and sparse quartz grains, jar with out-turned bead rim, with pronounced cordon at junction of neck and shoulder. Wt 266g, rim diameter c.112mm, surviving circumference 67%, *c*. AD 50-150.

Context 349

6.9 Rim sherd, Central Gaulish Samian from Lezoux, the form is Drag. 18/31. Wt 11g, rim diameter 180mm, surviving circumference 11%, date *c*. AD 120-140. From a different vessel to the shard from context 187.

Context 389

6.10 Body sherd in an unoxidised fabric, virtually free of inclusions, probably from a jar, wt. 3g. Date *c*. AD 50 – 200. Very abraded.

Conclusions

6.11 All the Roman pottery would be consistent with late 1st century and/or early 2nd century activity on the site. Although this is a small group, the strong representation of Samian items, combined with utilitarian jars and a flagon suggest it is likely to be associated with the Roman military in some way. The

fabrics of these coarse-ware items are not diagnostic as to their source but they are likely to be from the English midlands or possibly more locally to the site.

Burnt clay

Context 88

6.12 2 fragments of burnt clay of amorphous form, probably not a prepared clay, so likely to be a random burning of natural clay.

Context 571

6.13 Amorphous fragment of yellowish-brown burnt clay, wt 2g. Probably randomly burnt, however some voids occur indicating combusted grass or chaff inclusions, suggesting a prepared clay of some type. Some slight finger moulding occurs; however the fragment is unlikely to be pottery as there are no clear surfaces.

Lithics

6.14 A total of 1179 pieces of lithic material were recorded from the area of the knapping platform; 14 other pieces from unrelated contexts are dealt with at the end of the main report. The lithics data are listed in Appendix 2, Table 1. The raw materials used (for lithics from all contexts) are shown in Table 2. The total finds from the area of the knapping platform, broken down by context, are shown in Table 3 and recorded artefact categories (from the knapping platform) are shown in Table 4. Out of the total, 52 pieces retained cortex to a greater or lesser degree, 50 pieces exhibited hard fawn cortex and 2 retained soft fawn cortex. Many other pieces contained cortical inclusions in the body of the chert.

Table 2 Raw materials from all contexts.

Raw material type	**No.**
Off White/Grey Chert	1171
Blue-Grey quartzy chert	12
Dark Grey Chert	2
Banded Brown Chert	1
Dark Grey Flint	5
Grey Brown Flint	1
Translucent Brown Flint	1
Total	**1193**

Table 3 Quantities of lithics from the knapping floor.

Context	**No.**
435	389
517	669
U/S (but over 517)	121
Total	**1179**

Table 4 Recorded artefact categories.

Category	**435**	**517**	**U/S**
Cores	-	1	1
Core Fragments	-	3	1

Core Trimming Flakes (Complete/Broken)	2/5	2/5	1/1
Microliths	-	6	-
Scrapers	3	4	-
Utilised flakes	-	1	1
Primary Flakes (Complete/Broken)	1/1	4/1	1/-
Secondary Flakes (Complete/Broken)	9/6	6/3	3/3
Inner Flakes (Complete/Broken)	-/4	86/69	12/6
Primary Blades (Complete/Broken)	-/4	-/-	-/1
Secondary Blades (Complete/Broken)	18/74	2/4	-/1
Inner Blades (Complete/Broken)	60/70	27/97	3/25
Blade Segments	52	92	17
Denticulated pieces	-	1	-
Chips	77	245	39
Chunks	6	9	5
Natural pieces	1	1	1
Total	**389**	**669**	**121**

Technology

6.15 The very low representation of primary flakes and core/core fragments throughout the three main contexts related to the knapping floor is striking and would imply that primary knapping was not heavily represented in the overall assemblage. The cores that were exploited at the site were probably well worked, but not spent (and therefore not discarded but curated). Both hard hammer and soft hammer percussion techniques were dominant throughout the assemblage. A comparison of extant bulbs of percussion and platform type on blades and flakes can be used to gain an insight into technological processes and these data are set out in Tables 5 and 6 below. Plain butts and diffuse bulbs dominate the blade sample, suggesting that soft hammer percussion was the dominant method of blade production.

Table 5 Bulbs of percussion and platform types on flakes

Context	Pronounced Bulb	Diffuse Bulb	Plain Butt	Facetted Butt	Cortical Butt	Dihedral Butt
435	53	47	87	1	10	2
517	46	80	115	-	11	1
U/S	10	7	15	-	2	-
Total	**104**	**134**	**217**	**1**	**23**	**3**

Table 6 Bulbs of percussion and platform types on blades

Context	Pronounced Bulb	Diffuse Bulb	Plain Butt	Facetted Butt	Cortical Butt	Dihedral Butt
435	12	51	61	1	1	-
517	9	83	86	-	3	3
U/S	6	11	17	-	-	-
Total	**27**	**145**	**164**	**1**	**4**	**3**

6.16 There is also a lack of recognisable tool forms from the site and as the discussion below will show, the assemblages from all three contexts are dominated by blade segments, and blades with either the bulbar or distal end

removed. There is a great deal of evidence for the dominance of snap fractures to remove the ends of flakes and blades, as if the intention was to prepare blanks that could be further modified for tool production. Only one piece possibly shows signs of micro-burin technique (SF48, U/S).

6.17 The fact that only 6 microliths (all broken) and seven scrapers were recorded in the whole assemblage from the three main contexts suggests that finished tools were removed from the knapping platform area, along with the cores, when the site went out of use.

6.18 Again as the discussion below will show, there is evidence for core rejuvenation in the form of a series of core trimming flakes. In the main these are either core tablets struck to remove the top of the core, similar to removing the top of a hard-boiled egg, or flakes struck to remove the edge of the striking platform to provide a better flaking angle as the core sizes were reduced through use.

6.19 Given that the surviving material suggests an emphasis on blade/bladelet production (ultimately it might be suggested for the preparation of blade segments) the lack of butt faceting is of interest. Whittaker has suggested (1995, 101) that faceting is a method for removing irregularities on striking platforms and that it can also be used to change external platform angles, helping to lengthen flake removals. The lack of the technique here may be a reflection of the knapping qualities of the raw material.

6.20 A detailed discussion of recorded material, given by context is presented in what follows.

Context [435]

6.21 This context represents a circular 'floor', some 9m in diameter, probably formed by the *ad hoc* pressing of pebbles into the natural surface, when necessary, to dry out puddles.

Cores/Core Fragments

6.22 None was recorded.

Scrapers

6.23 Three were recorded. SF755 is the remains of an end scraper on the distal end of an inner blade-like flake. It has been broken obliquely to the flake's long axis and retains scraper retouch around the distal end. SF900 has been retouched around the bulbar and distal ends and also along the right edge. This is a heavily burnt and spalled inner flake; the left edge has been irregularly shattered. SF912 is a scraper on the distal end of a secondary flake, retaining hard fawn cortex on the dorsal face. The piece has been retouched around the distal end and snapped transversely to its long axis at the bulbar end.

Blades/Bladelets

6.24 Four broken secondary blades, each retaining fawn cortex on their dorsal faces, were recorded in addition to 18 complete, and 74 broken inner blades. Of the complete inner blades, five exhibit hinge fracturing at their distal end

and one example is burnt. All 18 blades have plain butts, while 14 of them exhibit diffuse bulbs and four have pronounced bulbs of percussion.

6.25 Of the broken blades, one secondary example and 32 inner pieces have been broken at the bulbar end and four of these exhibit distal hinge fracturing. A further three secondary blades and 42 inner pieces have been snapped at the distal end. 43 of these exhibit plain butts; one has a cortical butt and one exhibits bulbar faceting. 37 have diffuse bulbs and 8 exhibit pronounced bulbs of percussion. Three pieces were burnt, spalled and shattered.

6.26 Complete blades range in length from 16mm to 50mm with a mean length of 29.8mm and in breadth from 5mm to 17mm with a mean breadth of 10.2mm.

Blade Segments

6.27 52 examples of blade segments of varied overall size were recorded. 49 were from inner flakes or blades, 1 was burnt and 2 were from secondary flakes or blades.

Waste flakes i) core trimming flakes

6.28 Two complete and five broken examples were recorded. SF22 is a complete core tablet exhibiting plain butt and diffuse bulb, while SF865 has been struck to remove the edge of a striking platform. Four of the broken pieces have been struck to remove the edge of a striking platform, while one example, SF790 has been struck from the base of the core to remove part of the striking platform.

Waste flakes ii) primary flakes

6.29 Only 1 complete primary flake (SF1090) was recorded. It measured 19 x 22 x 4mm and retained soft fawn cortex on the dorsal face. It had been broken transversely to its long axis at the distal end.

Waste flakes iii) secondary flakes

6.30 Nine complete and five broken secondary flakes were recorded. Complete flakes range in length from 15mm to 44mm with a mean length of 24.7mm and in breadth from 12mm to 43mm with a mean width of 25mm. Three of the complete examples and four of the broken flakes exhibit hinge fracturing at the distal end.

Waste flakes iv) inner flakes

6.31 60 complete inner flakes and 70 broken examples were recorded. Three of the complete flakes and four of the broken examples exhibit hinge fracturing at the distal end. Complete inner flakes range in length from 7mm to 42mm with a mean length of 20mm and from 4mm to 46mm in breadth with a mean breadth of 15mm.

Chips

6.32 77 irregular chips were recorded of which 4 were burnt.

Chunks

6.33 Six examples were recorded.

Natural Pieces

6.34 One 'pot lid' flake was identified.

Context [517]

6.35 This context represents silt overlying [435]. The quantity of lithic material recovered from this silt suggests that it was contemporary with use of the platform.

Cores/Core Fragments

6.36 One complete core and three core fragments were recorded. The complete example has had flakes removed from at least three directions.

Microliths

6.37 Six examples were recorded. SF251 is the distal end of a possible scalene triangle exhibiting characteristic steep blunting retouch on the right edge. SF437 may be another broken scalene triangle exhibiting retouch on right edge and broken obliquely to the long axis at the bulbar end. SF563 may be an obliquely blunted point exhibiting a hinge a hinge fracture at the distal end and retouch on the left edge. SF610 is part of a rod microlith, broken transversely to the flakes long axis at both ends, while SF679 is broken transversely at the distal end and retouched on the left edge. This piece may be part of a scalene triangle. A further possible fragment (Context [517], S. Quadrant/2) may be from a rod but it is broken transversely at both ends and exhibits retouch on the left edge.

Scrapers

6.38 Four examples were recorded. SF183 is on an inner flake with a hinge fracture at the distal end. Scraper retouch is in evidence around the bulbar end. SF390 is also on a roughly circular inner flake and has been retouched at the distal end. SF641 is on a secondary flake with a cortical butt. This piece has been retouched at the distal end. The dorsal face retains hard fawn cortex. SF657 is another end scraper on the distal end of a primary flake. It has also been retouched on both edges.

Utilised Flakes

6.39 SF666 is a large inner flake with a plain butt, a pronounced bulb of percussion and a hinge fracture at the distal end. It shows clear evidence for utilisation down its left edge.

Denticulated Pieces

6.40 One possible example was recorded. SF195 is a mid section blade segment broken transversely at both ends. It exhibits denticulation on the left edge.

Blades/Bladelets

6.41 Six secondary blade-like removals were recorded. Two are complete and four are broken. The broken examples all had their bulbar ends removed. 27 complete inner blades and 97 broken examples were also recorded. Of the broken inner blades 32 had their bulbar ends removed and 65 had been truncated at the distal end. Complete blades range from 10mm to 52 mm in

length with a mean length of 30mm and in breadth from 4mm to 21mm with a mean breadth of 11mm.

Blade Segments

6.42 92 examples were recorded of which six were burnt. Two were on pieces from secondary removals.

Chips

6.43 245 examples were recorded of which 32 were burnt.

Chunks

6.44 Nine were recorded of which one showed signs of thermal damage.

Natural pieces

6.45 One pot lid flake was recovered.

Waste flakes i) core trimming flakes

6.46 Eight were recorded, seven of which had been struck to remove either a complete or partial section of striking platform edge and one (No. 721) had been struck in parallel to the core striking platform to produce a classic 'core tablet'.

Waste flakes ii) primary flakes

6.47 Four complete and one broken primary flakes were recorded. The complete examples range in length from 13mm to 33mm with a mean length of 23mm and in breadth from 13mm to 50 mm with a mean breadth of 30 mm.

Waste flakes iii) secondary flakes

6.48 Six complete and three broken secondary flakes were recorded. Of the complete examples two exhibit hinge fracturing at the distal end. Two of the broken pieces were truncated at the distal end and one at the bulbar end. Complete secondary flakes range in length from 23mm to 63 mm with a mean length of 30mm and in breadth from 15mm to 32mm with a mean breadth of 22mm.

Waste flakes iv) inner flakes

6.49 86 complete inner flakes and 69 broken examples were recorded. Of the 86 complete pieces, 22 exhibit hinge fracturing at their distal ends. Complete inner flakes range in length from 7mm to 56 mm with a mean length of 19mm and in breadth from 6mm to 37mm with a mean breadth of 14.6mm.

Unstratified (but over [517])

6.50 The knapping platform was not identified until several weeks of weathering had exposed a number of chert flakes as surface finds. Since modern material (e.g. bullet casing fragments) was also found on the surface in this area, there is a possibility of sample contamination for these surface finds and therefore they have been recorded as unstratified. Most, if not all, of the lithic material in this area is likely to have been derived from context [517] through weathering.

Core/Core Fragments

6.51 One core SF73 was recorded from this context. It has two opposed platforms, set at oblique angles to each other, and retains hard fawn cortex on one face. The core fragment SF126 has shattered from a larger piece and clearly shows flake removals from two directions.

Miscellaneous Retouched /Utilised Pieces

6.52 SF77 represents an utilised chunk of blue/grey quartzy chert. It retains traces of retouch/utilisation on one edge.

Blades

6.53 Only one broken secondary bladelet (SF118) was recorded. This was broken transversely at the distal end and retains hard fawn cortex on the right edge, dorsal face. Three complete and 25 broken inner blades were recorded. One of the complete examples exhibits hinge fracturing at its distal end. Of the broken blades 14 were truncated at the bulbar end and two exhibit hinge fracturing at the distal end. Eleven were broken at the distal end. SF48 is an interesting piece. It shows clear evidence for notching on the right edge at the bulbar end and this may be the only evidence we have for the use of the micro-burin technique of microlith manufacture at the site.

Blade Segments

6.54 17 were identified, of which one was on a secondary removal retaining hard fawn cortex.

Chips

6.55 39 were recorded of which four were burnt.

Chunks

6.56 Five were recorded of which one showed signs of intense burning.

Natural Pieces

6.57 One pot lid flake was recovered.

Waste flakes i) core trimming flakes

6.58 One complete example (SF106) was recorded. This was a core tablet struck in parallel to the existing striking platform. It has a hinge fracture at the distal end. One broken example (SF70) had been struck to remove the edge of the striking platform and had subsequently been truncated transversely at the bulbar end.

Waste flakes ii) primary flakes

6.59 One complete example (SF151) retains hard smooth grey cortex.

Waste flakes iii) secondary flakes

6.60 Three complete and three broken examples were recorded. All retain hard fawn cortex on the dorsal face. Complete flakes range in length fro 25mm to 48mm with a mean length of 40.3mm and in breadth from 18mm to 25mm with a mean breadth of 21.6mm.

Waste flakes iv) inner flakes

6.61 Twelve complete inner flakes and six broken examples were recorded. Of the six broken examples three were truncated at the bulbar end, one at the distal end and two were broken at both ends. Complete inner flakes range in length from 12mm to 33mm with a mean length of 23.3mm and in breadth from 8mm to 29mm with a mean breadth of 16.5mm.

Lithic finds from other contexts

6.62 It is interesting to note that finds of flint only came from contexts unassociated with the knapping floor. Of particular note is SF2 from context [104] (medieval silt). This is an end scraper on a dark grey inner flint flake. SF4, a grey brown inner flint flake which has been retouched on both edges, comes from context [3], the subsoil just outside a Roman ditch, while SF23 a dark grey mottled secondary flint flake and SF5 a broken brown translucent flint blade both come from context [312], the fill of a Roman ditch. SF7 a grey mottled inner flint flake comes from context [266], an undated silt patch.

6.63 Three chert flakes came from context [189], the palaeo-channel that ran around the knapping platform and two pieces of flint SF1071, SF1072 and one chert chunk come from context [436], a post setting from the Neolithic enclosure. Other contexts in the post setting ([521], [706] and [716]) also produced chert pieces.

General observations

6.64 The main assemblage of material from the knapping platform and related contexts would appear to be Later Mesolithic in terms of broad date. The broken microlith forms would lend support to this. The overall aim at the site seems to have been the production of serviceable blanks for further tool manufacture. This is suggested by the number of blades and blade segments present in the assemblage. The lack of cores and other recognisable tool types would also suggest that this was a manufacturing site and that the finished articles may well have been removed when the site was abandoned. The technology employed seems to have been fairly straightforward with both hard and soft hammer percussion being evidenced in the surviving material. What is of interest, however, is the lack of evidence for the utilisation of the micro-burin technique for the removal of either bulbar or distal ends of flakes. The technique employed at the Marne Barracks site seems to have been simple snap fracturing.

Recommendations for further work

6.65 More needs to been done in terms of comparative analysis at the regional level to find other examples of similar sites and compare artefact morphology and technology. The assemblage needs to be set into its regional context through a detailed search for available published comparanda.

6.66 More work should be carried out on the metrical data. Again broader regional comparisons could be made and in the (current) absence of radiocarbon dates for the platform it might be possible to provide firmer dating by comparison with other sites producing a similar range of lithic finds.

6.67 Material should be selected for illustration with a view to the final site report.

6.68 A full report on the material, building on this initial assessment, should be prepared for the final publication.

Animal bone

6.69 Four post-medieval contexts produced faunal remains. Details are provided in Table 7. Preservation is not good; the bones are flaking and crumbling. Most of the bone fragments were not identifiable. Context [84] produced three horse teeth which all appear to derive from one lower jaw. All the remaining identifiable finds from all contexts were of cattle. These are mostly teeth. One distal humerus has characteristic dog gnawing marks. No further work can be done on this small group.

Table 7 Animal bone data

Context	Species	Comments
71	Cow	Tooth enamel frags.
84	Horse	x3 maxillary teeth in wear
84	Cow	Tib dist unfused
88	Cow	Jaw M1 & M2 in wear
88	Cow	Hum dist chewed
88	Cow	Ilm
88	Cow	UM3
88	Cow	UPM3 in wear
88	Cow	Frag UM1/2
107	Cow	LM3 in wear
107	Cow	UM1/2 slight wear

Clay pipe

6.70 *Unstratified*
4 stem fragments (Discarded)
Context [107]
1 stem fragment, 8mm dia, 28mm long.

Glass

6.71 *Unstratified*
3 sherds of modern bottle glass (Discarded)
Context [94]
2 conjoining body sherds with fresh break from a thin-walled vessel in blue-green glass. From a post-medieval context.
Context [98]
1 sherd of green glass. From a post-medieval context.

Building materials

6.72 *Unstratified*
14 brick fragments, all of 20th century manufacture (Discarded)
6 tile fragments from the clay-tile land drains present across the site (Discarded)

Stone objects

6.73 *Context [262]*
Crinoid stem fragment ('Cuddy's Bead'), 6mm diameter, 11mm long
Context [599]
Rounded sandstone cobble, dimensions: 165 x 150 x 100 mm, D-shaped in section, with a central deep pecked hollow (D 54 x 59, 14 mm deep) and a second incipient pecked area (25 x 23 x 2.5 mm) on the flat surface. The main hollow has well-defined peckmarks; its regular shape suggests it was manufactured rather than arising from wear. A number of conflicting interpretations have been brought forward for this object:

- The stone was a Mesolithic anvil stone with the apparent cupmarkings being a consequence of its use for knapping small flint pebbles. In this case the shape would allow the stone to be bedded into the ground in use, while the incipient marks beside the main hollow suggest wear arising from use;
- The hollow had been designed as a receptacle for pounding or grinding functions. As with the above explanation, its shape would allow it to be bedded into the ground in use. It could have been a mortar for grinding pigments or a knocking stone for dehusking barley. A grey residue is visible in the hollow and over parts of the upper surface. This should be sampled for XRD analysis as it could be mineral residue from use as a mortar.
- The hollow had been deliberately created to form a portable cup-marked stone for ritual use:

Context [860]
Squared-off sandstone cobble, 280mm by 210mm by 140mm. Circular pivot hole 60mm in diameter and 37mm in depth on top surface. Smooth base and partially smoothed sides to pivot hole. Lime-mortar fragments attached to surface of stone.

Iron objects

6.74 *Unstratified*
1 Fe strip, 45mm by 20mm by 10mm, little corroded (Discarded)
1 crescent-shaped sheet of iron, 110mm long, 35mm wide, tapering to 15mm wide at horn of crescent. 10mm thick
Context [26]
1 pick head, little corroded (Discarded)
1 shovel head, little corroded (Discarded)
1 bark scraper head, 140mm by 68mm by 40mm, moderately corroded
Context [68]
1 scythe head, 285mm by 18mm by 5mm, moderately corroded
Context [141] (SF 3)
2 links of a chain, each link 50mm by 25mm, made from 5mm diameter wire, moderately corroded

Copper alloy objects

6.75 *Unstratified*
4 machined copper strips, little corroded (Discarded)
4 pennies dated 1914, 1918, 1919 and 192(?), all from north end of area 2

1 brass button, 16mm diameter, uncorroded (SF 52)
1 Cu alloy button, 25mm diameter, irregular in shape, heavily corroded
Context [279] (SF 8)
1 ring fragment, two thirds complete. 17mm diameter, 2mm thick, heavily corroded. No sign of decoration on surface.

Industrial residues

6.76 *Context [89]*
1 lump of metal-working slag

Conservation

Context [279] (SF 8)

6.77 One piece of copper alloy, part of a finger ring. The ring was examined under x16 magnification. Its surface is very uneven and pitted, and the object is fragile, with little or no metal remaining. The object was X-rayed at varying exposures, to try to pick up any surface decoration. The XR plate shows a ring around two thirds complete, with an uneven edge, but there is no definite indication of decoration. The colour of the corrosion products, and the rather featureless density of the XR image suggests that the alloy may be quite heavily leaded. Further investigative conservation would be necessary to determine this and also to detect the presence of decoration.

6.78 The object should be stored in an airtight container at a stable temperature and below 40% RH, to inhibit further corrosion. The RH should be controlled by active silica gel, which is regularly monitored and regenerated as necessary.

7. The environmental evidence

Methods statement

7.1 Five litres from each of 147 samples were manually floated and sieved through a 500 µ mesh. The residues were retained, described and scanned using a magnet for ferrous fragments. The flots were dried slowly and scanned at x 40 magnification for waterlogged and charred botanical remains. Identification of these was undertaken by comparison with modern reference material held in the Environmental Laboratory at Archaeological Services, University of Durham. Total numbers of remains per species were logged and the results were interpreted in their archaeological and palaeoecological contexts. Plant taxonomic nomenclature follows Stace (1997).

7.2 In addition, context [26] (a dark brown soil horizon) was sampled in the field using a 25cm long monolith tin. In the laboratory, a sample was extracted from the top, middle and bottom of the tin for pollen assessment. One ml of sediment from each was assessed. Pollen was extracted using sodium hydroxide to remove humic and fulvic acids and a heavy liquid technique to separate the pollen from minerogenic material. The pollen was mounted in silicone fluid and scanned at high magnification for 5 traverses of a 22 x 40mm coverslip. Identification of pollen and spores was undertaken by comparison with modern reference material. Plant taxonomic nomenclature follows Stace (1997).

Results

7.3 Most of the contexts produced low volumes of flot in which few plant remains were preserved. Only 22 contexts contained charred seeds, most of which were present in very low numbers. They included grains of barley and wheat, and chaff of emmer and spelt wheat. Fragments of hazelnut, ribwort plaintain, cleavers, grass and dock also occurred charred occasionally. Uncharred seeds included fat-hen, fumitory, knotgrass, clover and elder. The samples also contained small amounts of bone, charcoal, coal, flint fragments, insects and modern roots. The contents of the flots are listed in Appendix 2, Table 2.

7.4 Pollen was either absent or very badly degraded in all three samples from context [26]. Microscopic charcoal and fungal spores were present. The results are listed in Appendix 2, Table 3.

Discussion

7.5 Charred cereal remains occurred in contexts [96], [71], [243], [264], [251], [185], [279], [245], [189], [345], [447], [459], [686], [704], [714], [120], [132] and [129]. These included a few grains of barley, wheat and indeterminate cereals. The only context with a large number of cereal grains was context [251], a gully. These were dominated by barley and indeterminate cereals. Small amounts of indeterminate wheat chaff occurred in contexts [345], [714], [199], [200] and [704]. The presence of chaff without cereal grains suggests that these contexts accumulated as the result of disposal of crop processing waste. In context [704] a few glume bases of emmer and spelt wheat occurred. Spelt was the most common wheat used in northern England during the Roman Period, while emmer was abundant during the Bronze Age (Huntley & Stallibrass, 1995). It is likely that the context accumulated during the Roman Period and the emmer chaff has been reworked from older material nearby.

7.6 Charred fragments of hazelnut were present in context [251], [262], [349] and [517] which suggests that these were gathered from local woodland as an additional food source. A charred seed of ribwort plantain was present in context [521], an inner post of the palisaded enclosure. This may have grown in pasture land or on disturbed ground. A charred dock seed was present in context [686], a fill of a curvilinear ditch. Docks grow in a wide range of open, disturbed or damp ground areas.

7.7 The aerobic, well-drained nature of the sediment allowed the penetration of modern roots which were present in small quantities in many of the flots. The uncharred seeds of fat-hen, fumitory, knotgrass, clover and elder, in addition to the fragments of insects and molluscs, are likely to be later introductions. Fragments of flint were present in contexts [189], [308], [388] and [517] which are likely to relate to knapping activities of possible Mesolithic date.

7.8 Plant macrofossils were absent from context [26], the dark soil horizon. In addition, only a few grass pollen grains and fungal spores occurred. This poor preservation of plant remains suggests that this soil horizon was not deposited under waterlogged conditions. The presence of charcoal may indicate that the soil was burnt, or the dark colour may relate to leaching.

Recommendations

7.9 Full analysis of contexts [71], [129], [132], [251], [686] and [704] may provide further information regarding economic and agricultural practices at the site. All these contexts relate to the Roman ditch system in areas 4 and 5, with the exception of contexts [71] and [251], both of which relate to unphased gullies in areas 1 and 2.

8. Conclusions

8.1 The excavations at Marne Barracks have identified archaeological deposits from a number of different periods. These have been assessed and ranked in importance on a scale ranging from 'local' through 'regional' to 'national' importance.

8.2 The earliest archaeological deposit was a Mesolithic knapping floor, containing over 1000 flint flakes, all debitage from tool manufacture. This floor was situated in a bend of a palaeo-channel of the River Swale. Several other palaeo-channels were identified across the site and all were earlier than any other archaeological feature on the site (except for this Mesolithic knapping floor). Due to the low population density throughout Britain at the time, all Mesolithic sites are rare. Therefore this site is of regional archaeological significance.

8.3 Overlying the knapping floor was a large Neolithic palisaded enclosure, consisting of two concentric sub-circular palisades that enclosed a total area of *c*.2.75ha. Each palisade was formed from a series of closely spaced radial slots separated from each other by a narrow gap of *c*.0.1m. On excavation all the slots resolved into two postholes at depth, indicating that each palisade had consisted of a double circle of posts. A number of postholes were present in approximately the centre of the enclosure although they formed no recognisable pattern and were all undated, so it is not known whether they were related to the enclosure or not. Palisaded enclosures of Neolithic date are an extremely rare monument type and the Marne Barracks enclosure exhibits significant differences to other known examples. It is therefore in many respects unique and should be regarded as a discovery of national importance.

8.4 Two areas of sinuous, multi-phase ditch were present towards the east of the excavation. Both produced Roman pottery consistent with a 1st or early 2nd century date for the ditches. A broken vessel of similar date was recovered from the base of a 1930s levelling deposit slightly further to the west. These dates are significantly earlier than those of other known Roman features from within Marne Barracks and therefore they can provide further detail about Roman occupation in the Catterick area. Because of this, these deposits are of regional archaeological significance.

8.5 A number of shallow linear gullies crossed the western half of the site on a variety of orientations. These were undated but at least some of them may have been a continuation of a Romano-British field system that is known to exist on the south side of the runway and was partly excavated under the

REME workshop in 1994. Because of their uncertain date, these deposits are of local archaeological significance, although this would rise to regional significance should they be proven to be of Roman date.

8.6 Medieval land use was represented by remnants of furrows from ridge and furrow field systems while post-medieval land use was represented by remains of a turnpike road, a track and old field boundaries that are all present on early maps of the area. Other post-medieval deposits consisted of a field clearance cairn and a few pits. All these deposits are of local archaeological significance.

8.7 Much of the site was covered with up to 1m of infill dating from the levelling of the airfield in the 1930s. Smaller areas showed evidence for truncation of deposits at this time. The depth of this cut and fill was consistent with depths shown on contemporary proposal plans for the development of the airfield. A circular brick structure (possibly a sentry box) and a slit trench underlay this infill while a brick path (possibly running round a former radio mast) and two concrete blocks that may once have held targets overlay the infill. These deposits are of local archaeological significance.

Part II: Updated Project Design
Post-excavation analysis, archiving and publication

9. Introduction

9.1 The background to the project has been presented in Section 1 of this report. The excavations at Marne Barracks have greatly increased knowledge of the archaeology of the area, particularly in relation to the Mesolithic, Neolithic and Roman periods, with deposits of these dates being assessed as being of regional or national importance. In addition, later deposits of local importance have been identified and recorded.

9.2 This Updated Project Design sets out the post-excavation analysis works, the outcomes of which will be presented in the final project report.

10. Summary of the archaeological resource

10.1 The previously known archaeological resource at the airfield and its potential was described in detail in our Phase 1 report (ASUD 2001a); more recent discoveries by ASUD have been described in our Phase 3 report (ASUD 2002) and in this assessment report. In summary the resource within the 2004 excavation area comprises:

- A number of palaeo-channels of the River Swale
- A Mesolithic flint knapping floor
- A Neolithic palisaded enclosure
- A Roman ditch system of uncertain function, but possibly situated on the edge of a settlement
- An undated but possibly Roman field system
- A medieval ridge and furrow field system
- A post-medieval turnpike road and associated ditches
- Post-medieval field boundary ditches, pits, a track and a clearance cairn
- Modern military structures
- Miscellaneous features (undated)

10.2 The Neolithic palisaded enclosure is a discovery of national significance; such monuments are extremely rare. This enclosure displays significant differences to other known examples and all such enclosures have a high potential to provide new information about Neolithic ritual activity and land use.

10.3 The Mesolithic knapping floor and the Roman ditch system are considered to be of regional significance as they are both relatively rare feature types that have the potential to provide significant new information about settlement and land use in the region at their respective times.

10.4 Other features are currently regarded as being of local significance since they can add fine detail to the history of the local area but have little potential to

provide information of significance on a regional or national level. However, the undated field system is potentially of regional significance, should it be proven to be of Roman date.

10.5 In summary, the archaeological resource of the site has the potential to elucidate details about Neolithic ritual activity in general, and also the settlement history and economic development of the area, particularly for the Mesolithic, Neolithic and Roman periods. The palaeo-channels and the medieval and later features add details of local significance.

11. Research objectives and recommendations

11.1 Specific research objectives were formulated prior to the commencement of any site works (ASUD 2004). These objectives can now be reviewed in the light of the post-excavation assessment, and recommendations made for works required to realise those objectives.

Palaeo-channels

11.2 A number of palaeo-channels of the River Swale were identified by excavation. Palaeo-environmental assessment of their deposits showed that ground conditions had not been conducive to the preservation of organic remains. Therefore no value can be added by further investigative works on these remains.

Mesolithic knapping floor

11.3 The Mesolithic knapping floor was an unexpected discovery during the excavation. Therefore no specific research objectives had been set for this feature in the original project design. The size and shape of the floor have been determined and the recovered lithics quantified and assessed. A number of research objectives can be identified for the assemblage:

- How does the assemblage compare to other knapping floors of similar date in the region?
- Can its date be refined more closely?
- Has the chert been obtained from local or distant sources?

11.4 The first objective can be realised by carrying out further work on the metrical data and comparative analysis of the assemblage at the regional level, in order to find other examples of similar sites and compare artefact morphology and technology. This will set the assemblage into its regional context.

11.5 The above work may also refine the date of the assemblage by analogy with other more closely dated examples. However, in addition, an AMS radiocarbon date will be obtained from a plant macrofossil obtained from the upper silt layer, context [517].

11.6 The third objective can be realised by geological examination of the chert and comparison with known chert deposits in the Catterick area.

11.7 In addition, items should be selected for illustration and a full report on the material, building on the initial assessment, should be prepared for the final publication.

Neolithic palisaded enclosure

11.8 The Neolithic palisaded enclosure was also an unexpected discovery during the excavation, so again no specific research objectives had been set for this structure in the original project design. The size, shape, nature and construction methods used for each palisade were determined by the excavation. However, a number of questions remain unanswered:

- Are the two palisades contemporary or sequential in date?
- Are the postholes inside the enclosure related to it or is their location coincidental?
- What was the likely function of the structure?
- What is the structure's relationship to other large Neolithic monuments in the area?
- Does it form part of a ritual landscape?

11.9 To answer the first of these objectives, a programme of AMS radiocarbon dating will be carried out on charcoal samples collected from posts within the enclosure. Twenty samples will be dated in total and these will be drawn from both the inner and the outer palisades. This will provide secure dates for the construction of each palisade and will determine to within a narrow margin whether they were contemporary or sequential structures. Unfortunately no material suitable for radiocarbon dating was recovered from any of the postholes in the centre of the monument.

11.10 The remainder of these research objectives will be realised by further post-excavation analysis, discussion and interpretation of the resource, by comparison with similar sites (including Hindwell, Dunragit and Meldon Bridge) and by further desk-based research and synthesis on Neolithic palisaded enclosures and Neolithic ritual monuments in general.

Roman ditch system

11.11 The Roman ditch system had been identified during the 2001 evaluation stage of the investigation, but had been radiocarbon dated to the late Iron Age, perhaps due to cross-contamination of the sample. Sufficient pottery was obtained from the east-west component to securely date it to the late 1st/early 2nd century AD. However, only a single sherd was obtained from the north-south component, making its date insecure due to the problem of finds residuality.

11.12 One of the original research objectives was to determine whether there was any evidence for pre-Norman settlement and activities in the eastern part of the airfield near the Castle Hills monument (ASUD 2004, 5). This objective has been achieved by this work. Further research objectives can be identified for this site:

- Is the north-south ditch component of similar age to the east-west one?

- What is the nature of the Roman occupation in this area?
- What is this feature's relationship to other Roman sites in the surrounding area?

11.13 To answer the first of these objectives, AMS radiocarbon dates will be obtained from plant macrofossils collected from three soil samples from the north-south ditch (Samples 49, 153 and 173 from contexts [185], [686] and [704] respectively). These will supplement the date obtained from the single pot sherd recovered during the excavation and provide a more secure date for the feature. Care will be taken to select samples from as far away from the palisaded enclosure as possible, to try to prevent cross-contamination with radiocarbon from this feature.

11.14 The pottery assemblage obtained from the ditches was suggestive of military occupation; however the ditches themselves were more typical of civilian occupation. The second research objective will be addressed by full analysis of soil samples from four contexts within the ditch fills: contexts [129], [132], [686] and [704]. This will provide information about agricultural and economic practices at the site during the early Roman period.

11.15 The third of these research objectives will be realised by further post-excavation analysis, discussion and interpretation of the resource, and by comparison with other Roman sites in the surrounding area.

Undated field system

11.16 A number of gullies were identified crossing the western and central parts of the site. These are thought to be old field boundaries but were not aligned with either the medieval or the post-medieval field patterns. No finds were recovered except for an unidentified and undated ring fragment. It is thought that at least some of these field boundaries are associated with the known Romano-British field system that lies to the south and west of the site. Research objectives for these features are:

- What is the date of the gullies?
- Are they field boundaries, and if so, what were the agricultural practices at their time of use?

11.17 The first research objective will be addressed by radiocarbon dating of plant macrofossils recovered from six samples taken from various gully fills (Samples 45, 48, 57, 59, 67 and 90, taken from contexts [243], [251], [245], [262], [345] and [459] respectively). This will provide a date for the infill of these gullies.

11.18 The second research objective will be addressed by full analysis of the soil sample from context [251]. This will provide information about agricultural and economic practices at the site when this context was deposited.

11.19 Both research objectives will be addressed by further conservation work on the ring fragment recovered from context [279]. This will identify any decoration or construction techniques used and may lead to the identification and dating

of the object, providing a date for the context and also information about the economy of the area and the social status of its inhabitants at this time.

Medieval ridge and furrow

11.20 A limited number of furrows from a degraded ridge and furrow field system were recorded. These had already been recorded geophysically (ASUD 2001) and sampled by trial trenching (ASUD 2002) and were regarded as being of low archaeological importance (ASUD 2004, 4). The original research objectives for these features have been fully addressed and no further value can be added by additional work. Therefore no further investigative works are recommended for these features.

Post-medieval road

11.21 A post-medieval road (the 'Oran Road') was recorded and sectioned. This road was already known from cartographic and geophysical research (ASUD 2001). Excavation proved it to be a well-built turnpike road. It is already fairly closely dated from cartographic evidence. Documentary research into the parliamentary acts relating to this turnpike may refine this date still further. No extra value could be added by further analysis of the material remains from this road.

Post-medieval field boundaries, pits, a track and a clearance cairn

11.22 A number of post-medieval field boundary ditches, pits, a track and a clearance cairn were recorded. Due to their late date, these are regarded as being of low archaeological importance (ASUD 2004, 4). The original research objectives for these features have been fully addressed and no further value can be added by additional work. Therefore no further investigative works are recommended for these features.

Modern military structures

11.23 A small number of modern military structures were recorded. Due to their late date, these are regarded as being of low archaeological importance (ASUD 2004, 4). The original research objectives for these features have been fully addressed and no further value can be added by additional work. Therefore no further investigative works are recommended for these features.

Miscellaneous features (undated)

11.24 A number of miscellaneous features were recorded, such as isolated pits and postholes, furrow marks and a short section of mortared wall. Due to their isolated nature and uncertain date, these features have no potential to add extra value through further analysis. Therefore, with the exception of the 'cup-marked' stone mentioned below, no further investigative works are recommended for these features.

11.25 One pit contained a 'cup-marked' stone. This is undated and its exact nature and function are unclear. The pit cut the inner palisaded enclosure and therefore its fills are likely to have been cross-contaminated with carbon from that feature, making any radiocarbon date for the pit insecure. In addition, it is unclear whether the stone was residual or not. Therefore it is not proposed to attempt to date it by radiocarbon analysis.

11.26 Energy Dispersive X-Ray Fluorescence analysis will be carried out on the residue in the 'cup-marked' stone to identify this residue. This may shed light on the original function of the object.

12. Final analysis report

12.1 The final report presenting the results of the project will interpret and discuss the various components of the archaeological resource in terms of local, regional and national contexts, and with reference to regional and national research agendas and frameworks. It will be fully illustrated with photographs, line drawings and digital drawings. Appendices will include excavation, artefact, environmental and other analysis data and stratigraphic matrices.

12.2 Five bound paper copies of the report will be provided. In addition the report will be provided in digital format on CD as both a text only .rtf file and with digital images of figures and illustrations presented as .tiff files. All images will be scanned at both high (1200dpi) and low resolution (200dpi). The whole document will also be provided on CD as a complete text and image file in .pdf format. The CD will also contain the digitised survey information geo-referenced to the Ordnance Survey. This will be provided in a format compatible with ArcView shape files. Metadata providing a written description of conventions used in the survey and the digital presentation of GIS information, together with an intuitively-based GIS file-naming format, will also be provided. Three copies of the CD will be provided.

13. Archiving

13.1 The project code is MBC 04 for **M**arne **B**arracks **C**atterick 20**04**.

13.2 Copyright of material and data generated by this project will be passed to Defence Estates, unless and except where such material or data is existing material or data acquired from a third party. In the latter case ASUD will supply details of data sources, a description of what the data show, the terms under which the material or data was acquired and, where possible, contact names and addresses.

13.3 The final project archive will be compiled in accordance with Appendix 3 of MAP2 (English Heritage 1991) and in accordance with the *Guidelines for the Preparation of Archaeological Archives for Long Term Storage* (UKIC 1990) and will contain copies of reports produced for the project (project designs, interim reports, assessment and final reports, specialist reports), correspondence, survey data, excavation records, context sheets and registers, summary account of the context record, site drawings and registers, photographic records and registers, site matrices, artefacts, summary account of the artefact record, sample record sheets and registers, ecofacts, summary of the environmental record and X-ray plates. Some of this material is in digital format.

13.4 The archive is currently held by Archaeological Services, University of Durham. It is understood that the archive will be deposited at The Yorkshire Museum in York upon completion of the project.

14. Publication

14.1 It is recommended that an integrated Project Report should be published, in order to disseminate results of the excavations and post-excavation analysis to the profession. It is recommended that the *Yorkshire Archaeological Journal* and/or *Proceedings of the Prehistoric Society* be approached with respect to this publication. It is also recommended that an interim report on the Neolithic palisaded enclosure should be prepared for submission to *Antiquity*, in order to bring this nationally important find to professional attention as soon as possible. Popular reports can be prepared for the Gallifordtry and the Defence Estates *Estatement* internal magazines and also for *Current Archaeology*.

14.2 The popular reports will be fully illustrated and will summarise the results of the whole project for the non-specialist, highlighting the project's contribution to the understanding of the Catterick area.

15. Timetable

15.1 The further works, comprising post-excavation analysis, preparation of final analysis report and academic report will be completed within 6 months of approval of this assessment report and UPD.

15.2 The popular reports, to be approved by the client, will be prepared within 6 months of approval of this assessment report and UPD.

15.3 The complete project archive will be deposited with the Yorkshire Museum within six months of the submission of the final analysis report and academic report.

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Archaeological Services
University of Durham

**Marne Barracks, Catterick,
North Yorkshire**

**archaeological excavation
report 1219**

Figure 1

Location plan showing Areas 1-5

on behalf of
Gallifordtry Construction Ltd
for
**Debut Management Services
Defence Estates**

0 250m

scale 1:5000 - for A3 plot

area of excavation

outline of palisades

possibly associated
geophysical anomalies

976
975
974
973
972
971
970
969
968
967
966
965
964

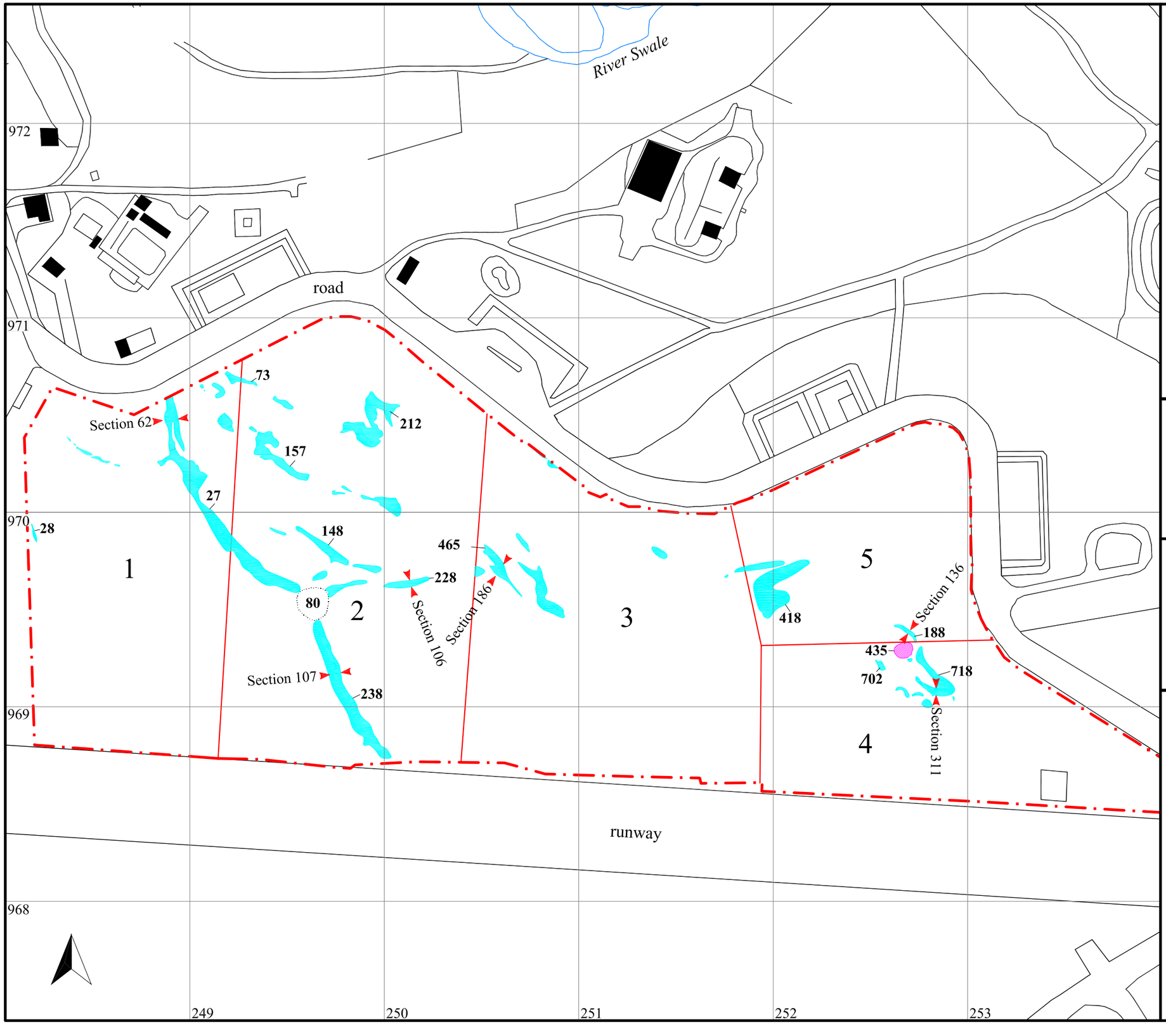
243 244 245 246 247 248 249 250 251 252 253 254 255 256

1
2
3
4
5

runway

A1(T)

River Swale



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Marne Barracks, Catterick, North Yorkshire

archaeological excavation report 1219

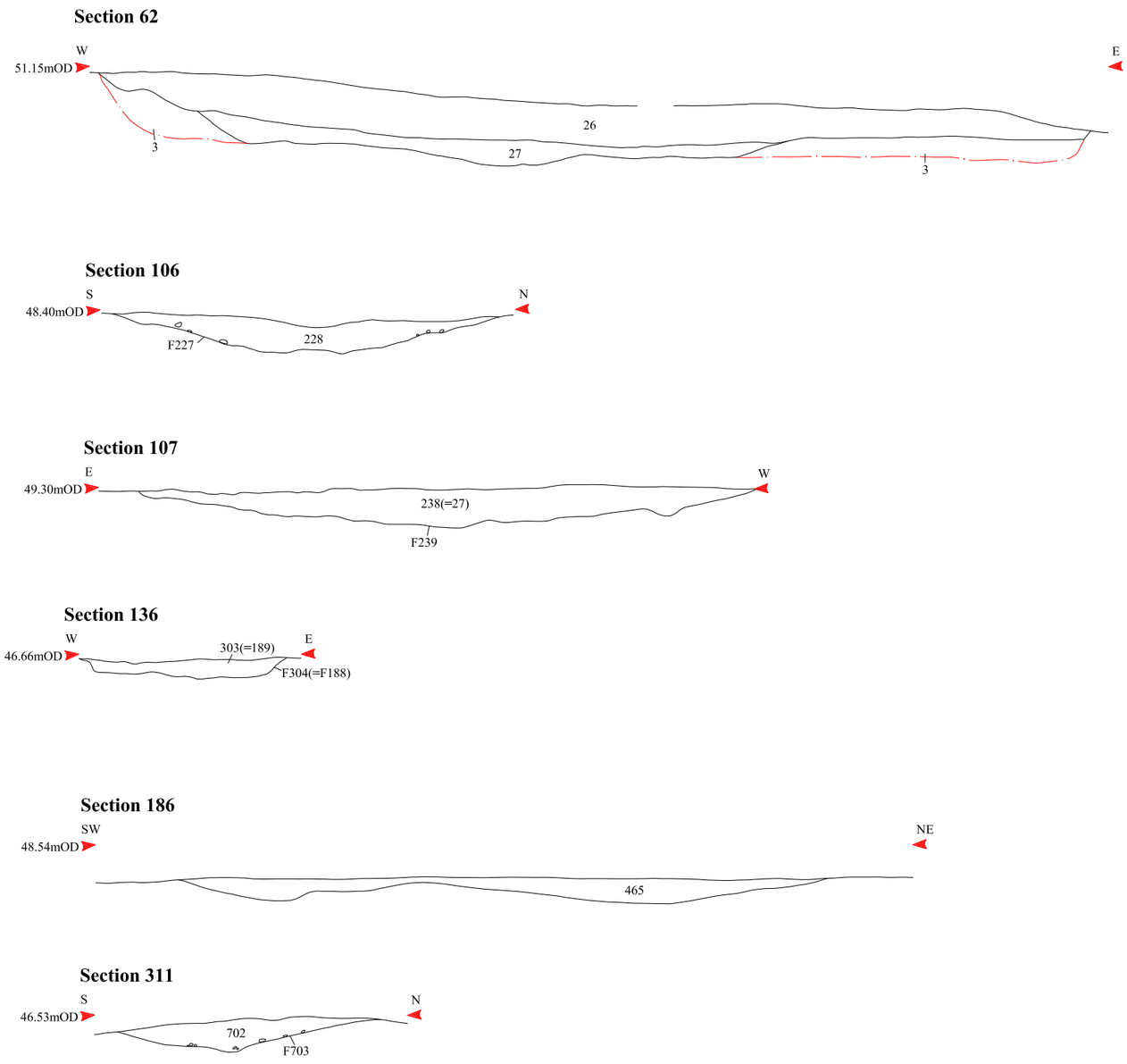
Figure 2

Plan of palaeochannels and Phase 1 features

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services Defence Estates

0 100m
scale 1:2000 - for A3 plot

limit of excavation
location of sections
palaeo-channels
knapping platform



Archaeological Services
University of Durham

Marne Barracks, Catterick, North Yorkshire

archaeological excavation report 1219

Figure 3

Sections through palaeochannels

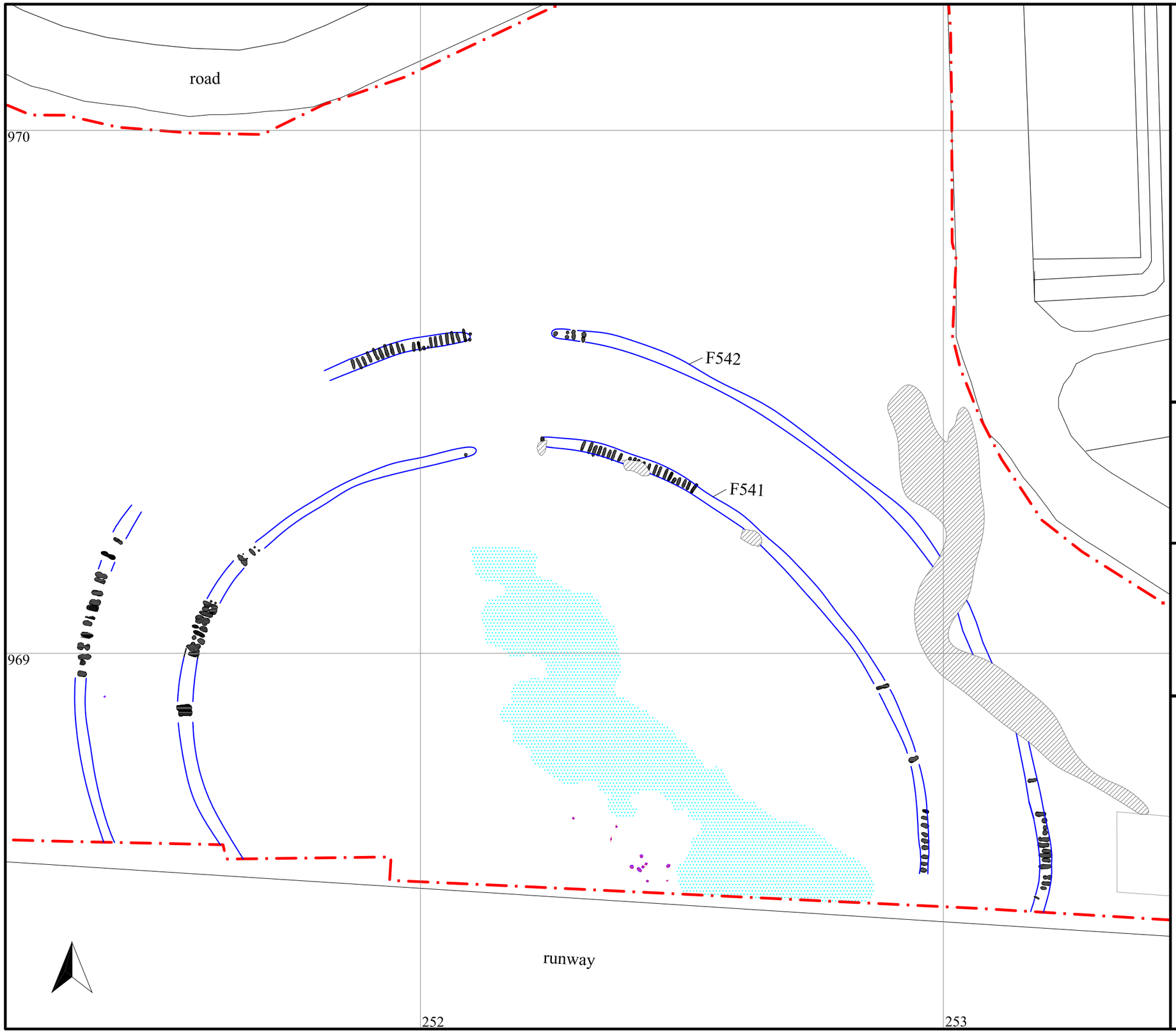
on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services Defence Estates

0 2m

scale 1:50 - for A3 plot

limit of excavation

location of sections



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**Marne Barracks, Catterick,
North Yorkshire**

**archaeological excavation
report 1219**

Figure 4

Plan of Phase 2 features

on behalf of
Gallifordtry Construction Ltd
for
**Debut Management Services
Defence Estates**

0 30m

scale 1:750 - for A3 plot

limit of excavation

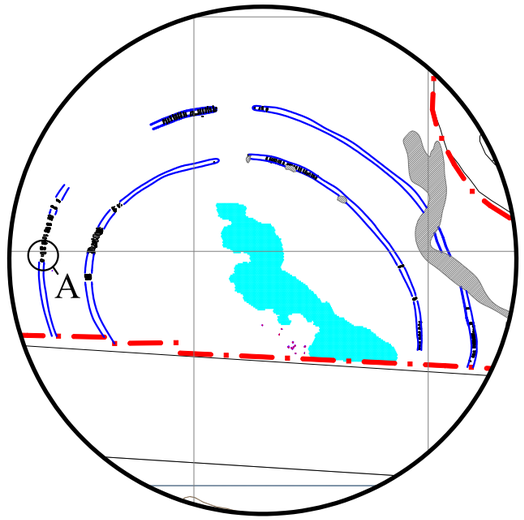
outline of palisades

sampled palisade slots

possible Phase 2 features

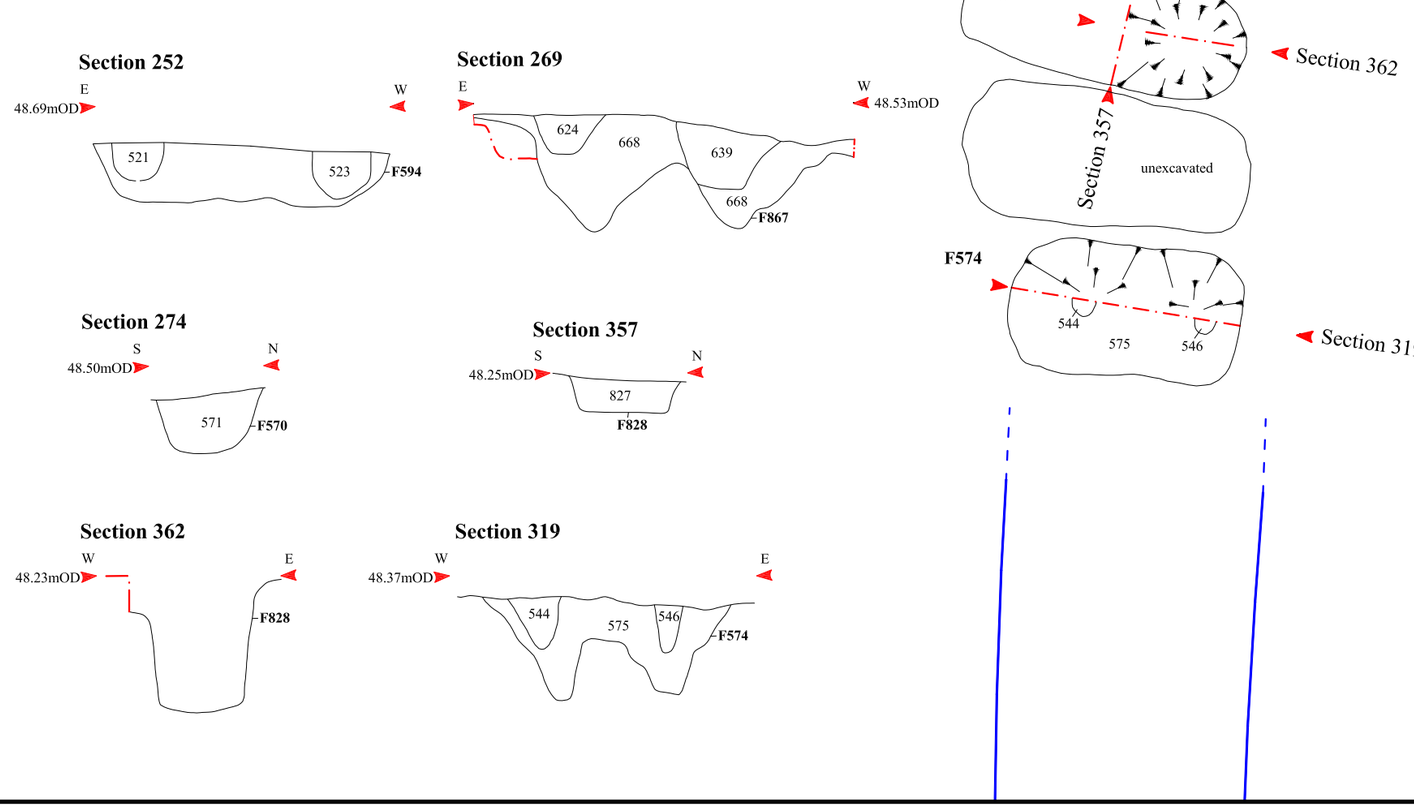
later features cutting palisades

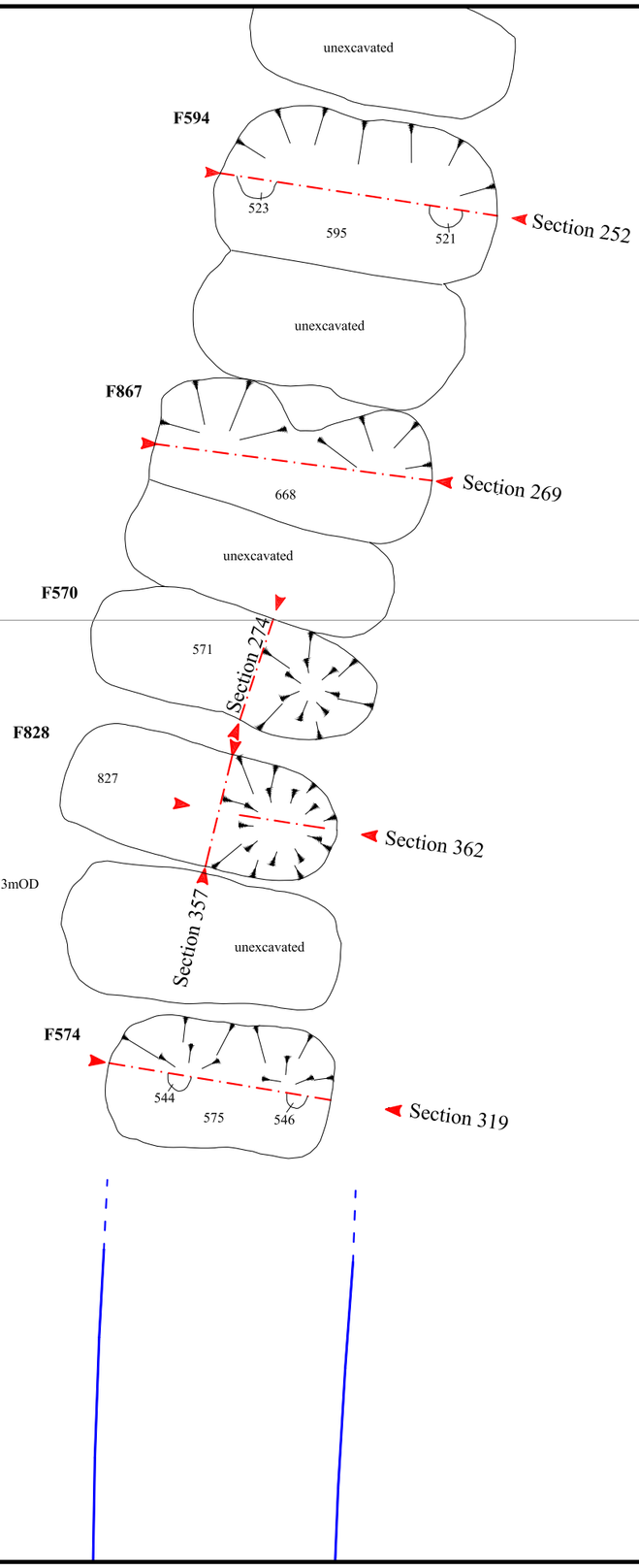
area truncated by 1930s levelling



Insert showing location of features in Area A

969





Archaeological Services
University of Durham

**Marne Barracks, Catterick,
North Yorkshire**

**archaeological excavation
report 1219**

Figure 5

Plan and sections of features in Area A

on behalf of
Gallifordtry Construction Ltd
for
**Debut Management Services
Defence Estates**

0 2m

scale 1:50 - for A3 plot

limit of excavation

outline of palisades

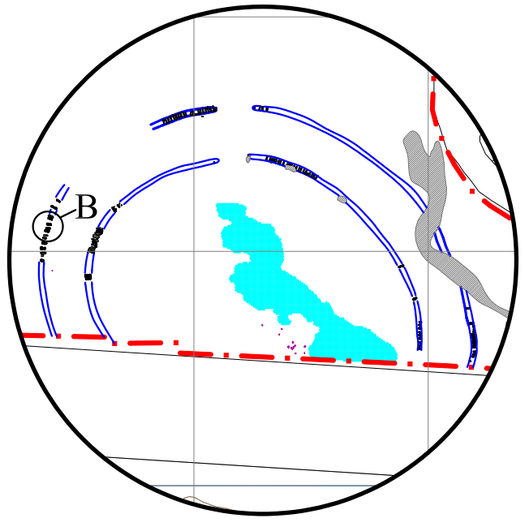
sampled palisade slots

possible Phase 2 features

later features cutting palisades

area truncated by 1930s levelling

location of sections



Insert showing location of features in Area B

B

F873
778
777
Section 348
F604
608
607
609
605
606
Section 257
unexcavated
F872
751
749
748
Section 343
unexcavated
F507
524
528
508
Section 218
F615
603
614
596
Section 263
Section 264
Section 261
F506
504
Section 215
F868
626
894
641
Section 285
Section 286
unexcavated
F594

Section 215
E W
48.41mOD
505 504 503 F506
504 516 505 515

Section 218
E W
48.28mOD
508 528 524 F507

Section 257
E W
48.37mOD
606 609 608 607 605 F604

Section 261
S N
48.31mOD
F615 596

Section 263
N S
48.32mOD
F615 603

Section 264
S N
48.32mOD
F615 614

Section 285
N S
48.32mOD
626 F625

Section 286
S N
48.41mOD
641 F640

Section 343
E W
48.31mOD
748 749 751 F872

Section 348
E W
48.10mOD
777 778 F873

Archaeological Services
University of Durham

Marne Barracks, Catterick, North Yorkshire

archaeological excavation report 1219

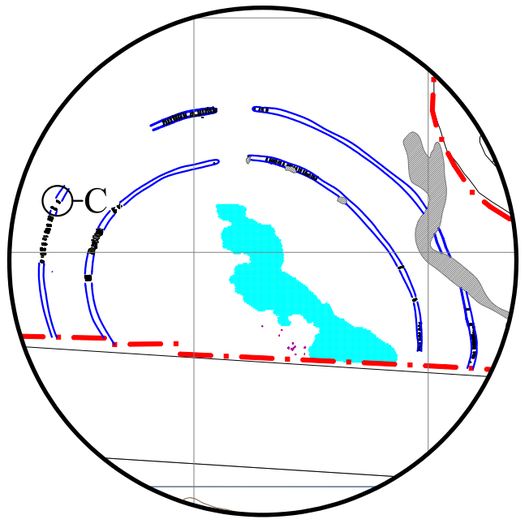
Figure 6

Plan and sections of features in Area B

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services
Defence Estates

0 2m
scale 1:50 - for A3 plot

limit of excavation
outline of palisades
sampled palisade slots
possible Phase 2 features
later features cutting palisades
area truncated by 1930s levelling
location of sections



Insert showing locations of features in Area C

C

F869

499

870

495

Section 214

F487

Section 284

Section 214

E W 48.22mOD

495 499

F869 870

Section 284

E W 48.24mOD

F487

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Figure 7

Plans and sections of features in Area C

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services Defence Estates

0 2m

Area C scale 1:50 - for A3 plot

limit of excavation

outline of palisades

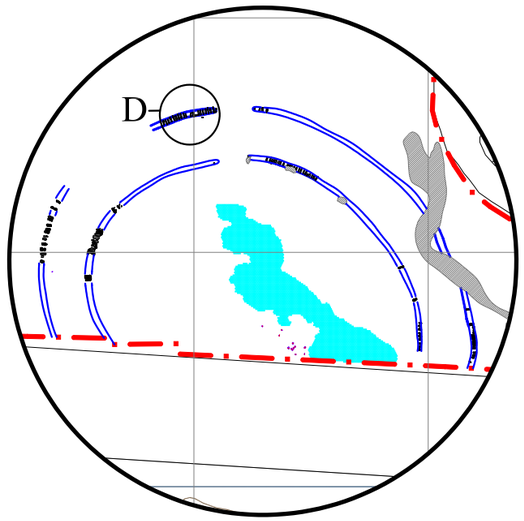
sampled palisade slots

possible Phase 2 features

later features cutting palisades

area truncated by 1930s levelling

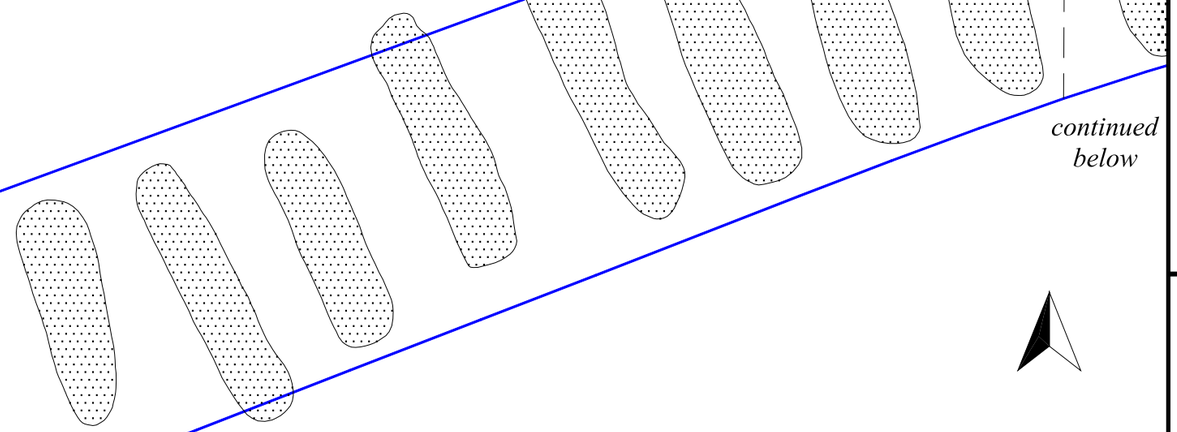
location of sections



Insert showing locations of features in Area D

D

continued below



D

continued from above

Section 241

Section 241

SW NE 47.11mOD

426

427 F428

252

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Figure 8

Plans and section of features in Area D

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services
Defence Estates

0 2m

scale 1:50 - for A3 plot

limit of excavation

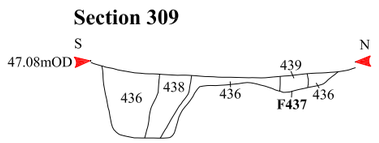
outline of palisades

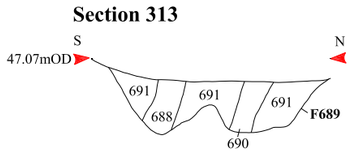
sampled palisade slots

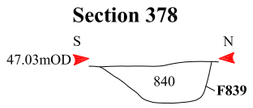
possible Phase 2 features

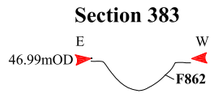
later features cutting palisades

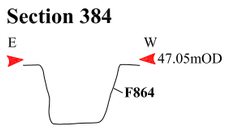
area truncated by 1930s levelling

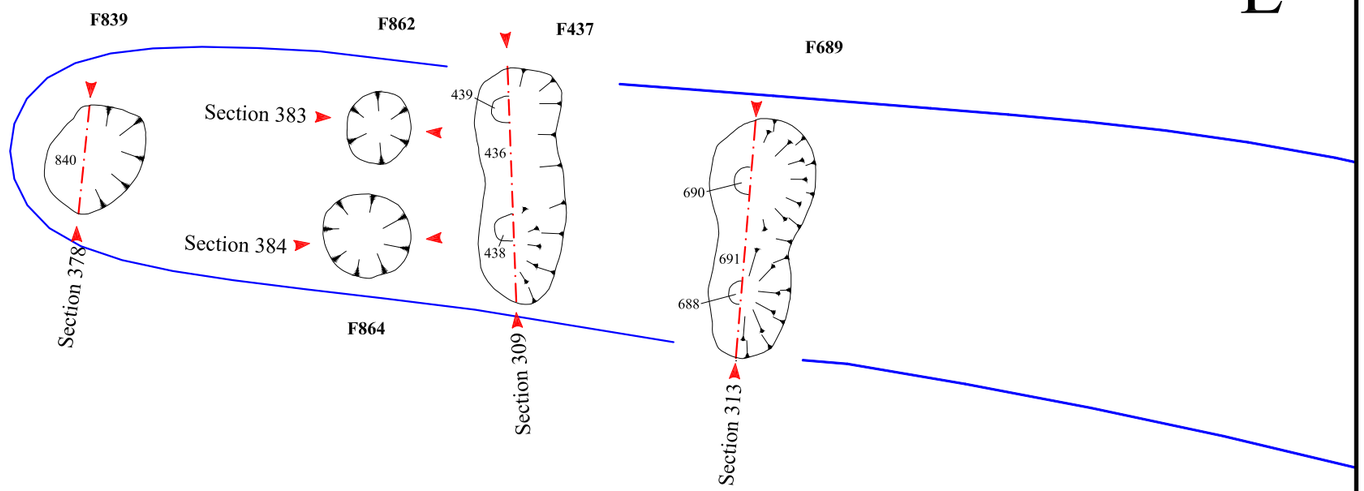




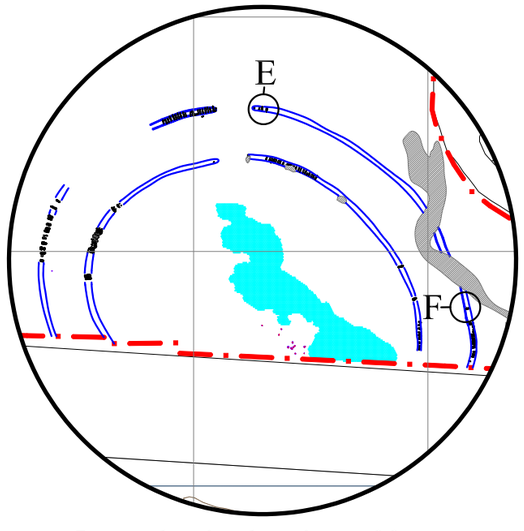




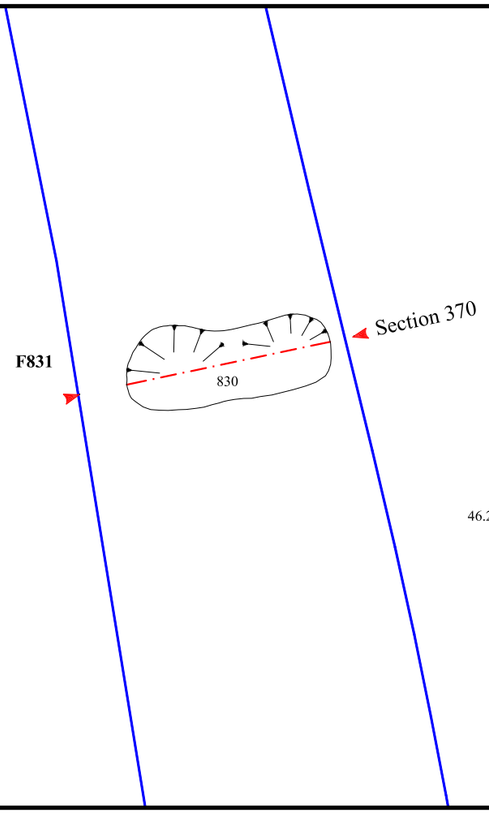




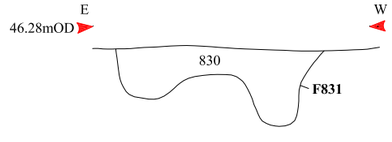
E



Insert showing locations of features in Area E and Area F



Section 370



F

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Figure 9

Plans and sections of features in Area E and Area F

on behalf of
Gallifordtry Construction Ltd
for
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Defence Estates

0 2m

scale 1:50 - for A3 plot

limit of excavation

outline of palisades

sampled palisade slots

possible Phase 2 features

later features cutting palisades

area truncated by 1930s levelling

location of sections

G

H

continued from left

F855

854

Section 375

F844

846

849

845

Section 374

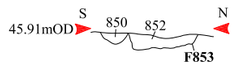
F890

F891

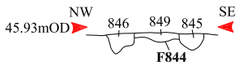
F853

Section 373

Section 373

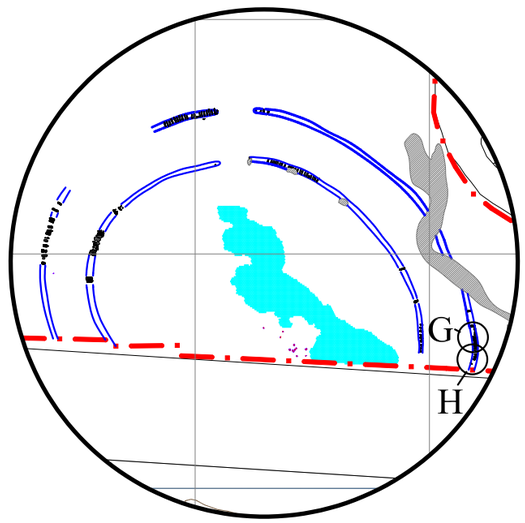


Section 374



Section 375

continued right



Insert showing locations of features in Area G and Area H

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Figure 10

Plans and sections of features in Area G and Area H

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services Defence Estates

0 2m

scale 1:50 - for A3 plot

limit of excavation

outline of palisades

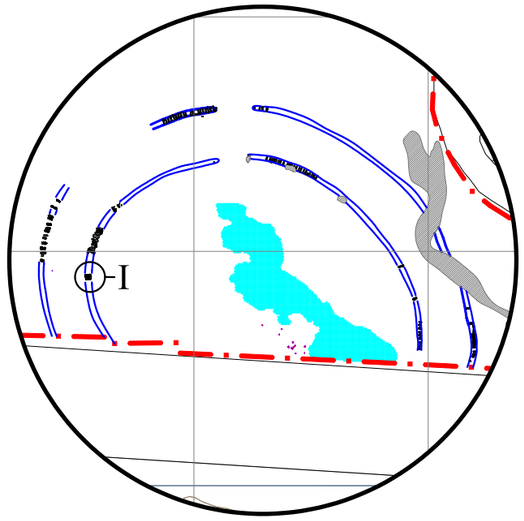
sampled palisade slots

possible Phase 2 features

later features cutting palisades

area truncated by 1930s levelling

location of sections



Insert showing location of features in Area I

I

F634

514 631 513

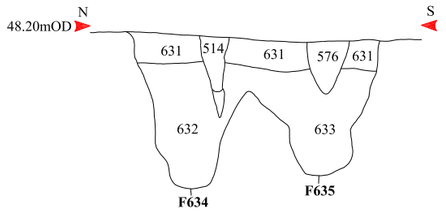
576 631 709

F635

Section 295

Section 328

Section 295



Section 328

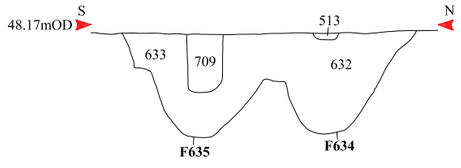


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Figure 11

Plan and section of features in Area I

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services Defence Estates

0 2m

scale 1:50 - for A3 plot

limit of excavation

outline of palisades

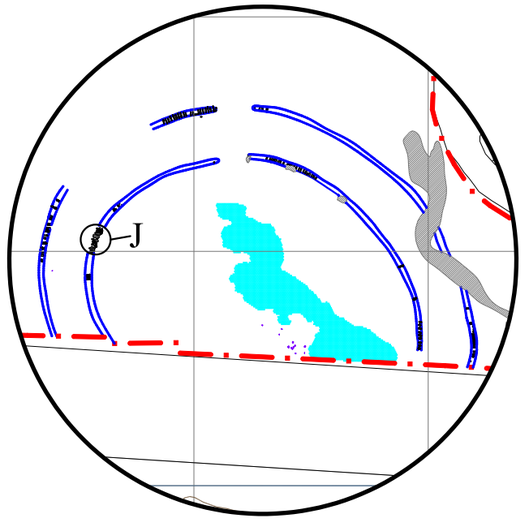
sampled palisade slots

possible Phase 2 features

later features cutting palisades

area truncated by 1930s levelling

location of sections



Insert showing location of features in Area J

J

F874
F670
F569
F536
F811
F581
F550
F673
F879
F880
F881
F530
969
539
537
Section 278
Section 229
unexcavated
654
unexcavated
566
collapsed section
Section 266
808
812
Section 367
Section 243
Section 288
Section 282
674
672
Section 234
Section 353
F797
794
Section 352
F795
790
799
803
802
529
Section 358
Section 359
Section 221

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Figure 12

Plan of features in Area J

on behalf of
Gallifordtry Construction Ltd
for
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0 2m

scale 1:50 - for A3 plot

limit of excavation

outline of palisades

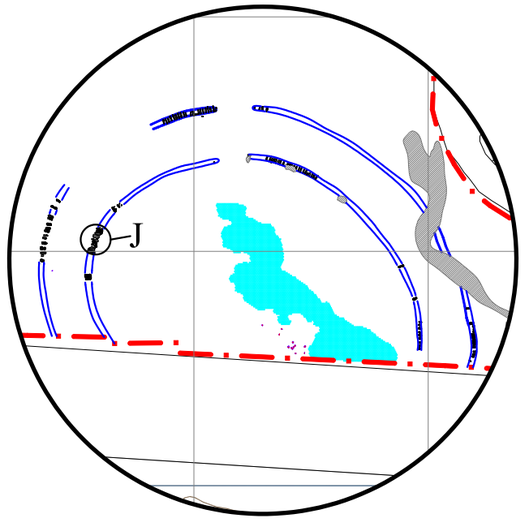
sampled palisade slots

possible Phase 2 features

later features cutting palisades

area truncated by 1930s levelling

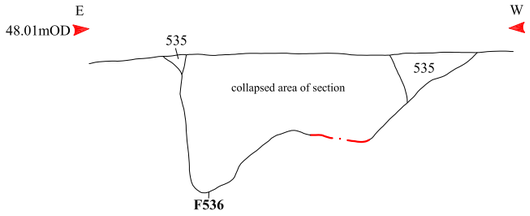
location of sections



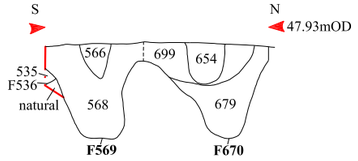
Insert showing location of features in Area J

J

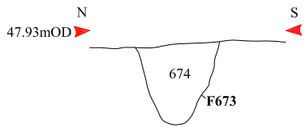
Section 266



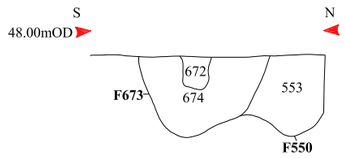
Section 278



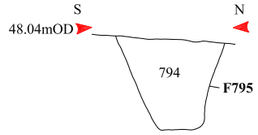
Section 282



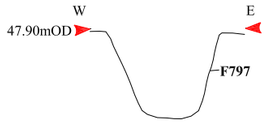
Section 288



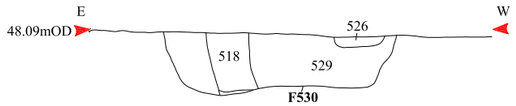
Section 352



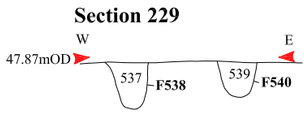
Section 353



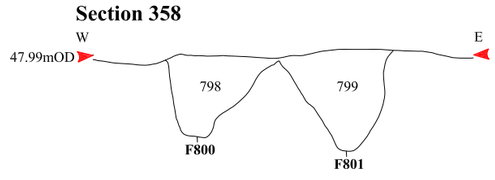
Section 221



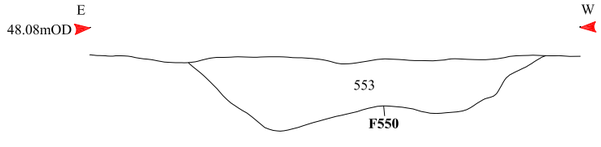
Section 229



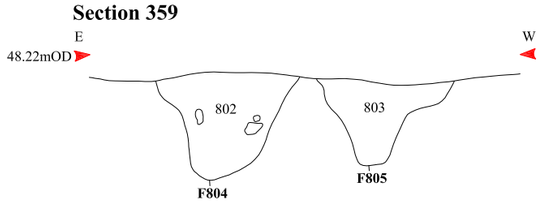
Section 358



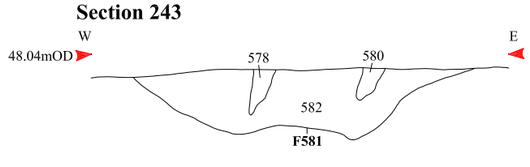
Section 234



Section 359



Section 243



Section 367

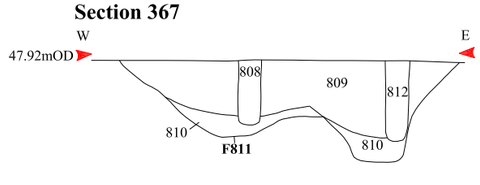


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Figure 13

Sections of features in Area J

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services Defence Estates

0 2m

scale 1:50 - for A3 plot

limit of excavation

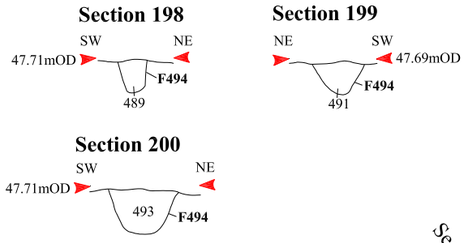
outline of palisades

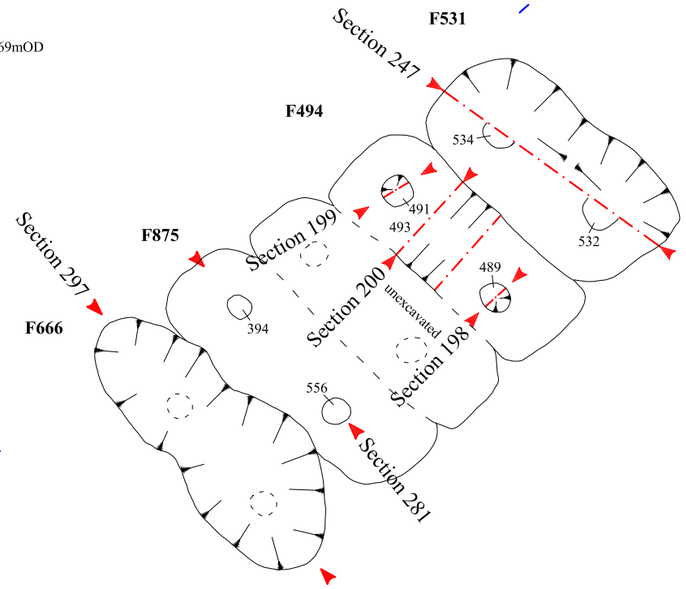
sampled palisade slots

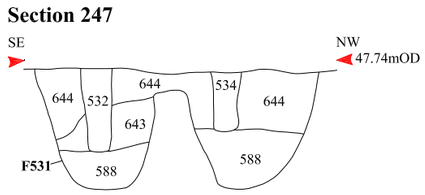
possible Phase 2 features

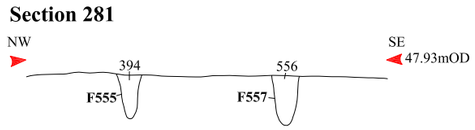
later features cutting palisades

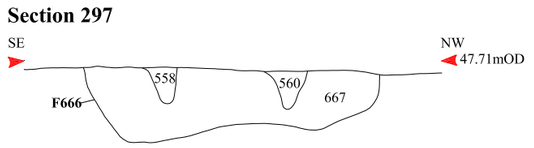
area truncated by 1930s levelling

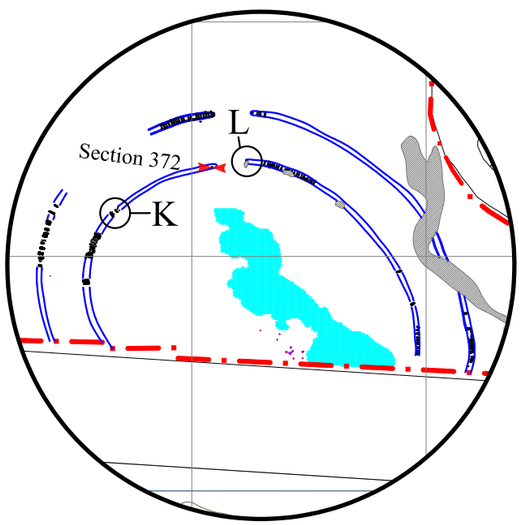




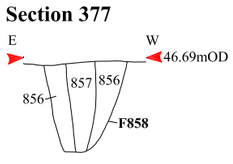


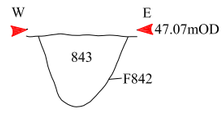


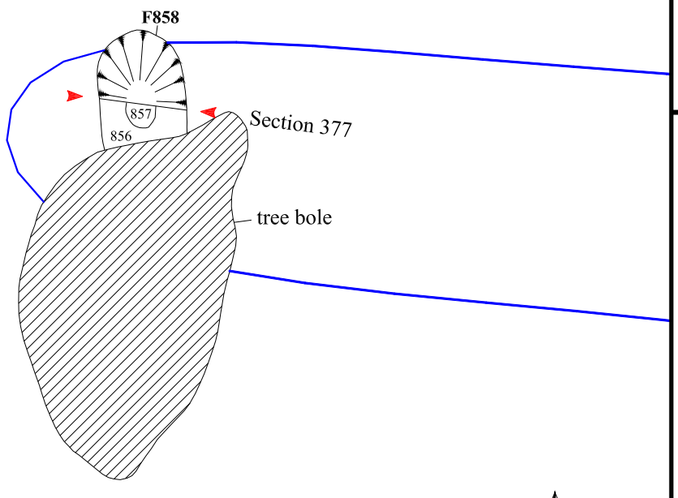




Insert showing locations of features in Area K and Area L







L

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Figure 14

Plans and sections of features in Area K and Area L

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services
Defence Estates

0 2m

scale 1:50 - for A3 plot

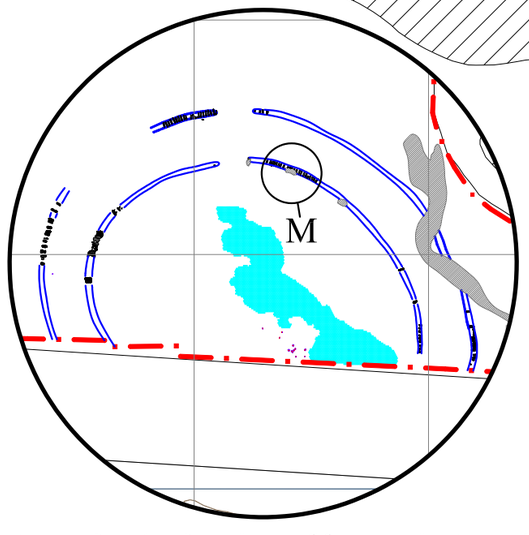
- limit of excavation
- approximate outline of palisades
- sampled palisade slots
- possible Phase 2 features
- later features cutting palisades
- area truncated by 1930s levelling
- location of sections

M

continued below

continued from above

M



Insert showing locations of features in Area M

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Figure 15

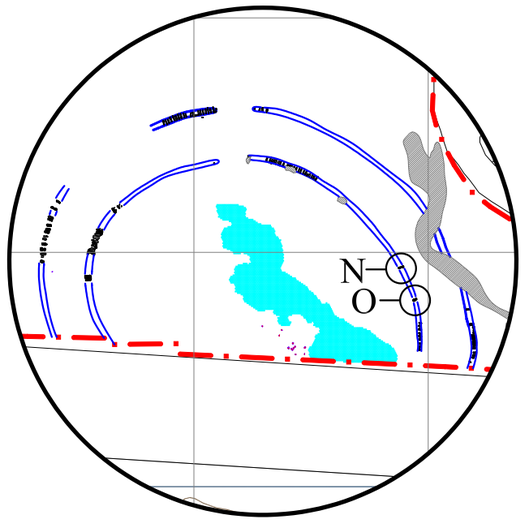
Plan of features in Area M

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services Defence Estates

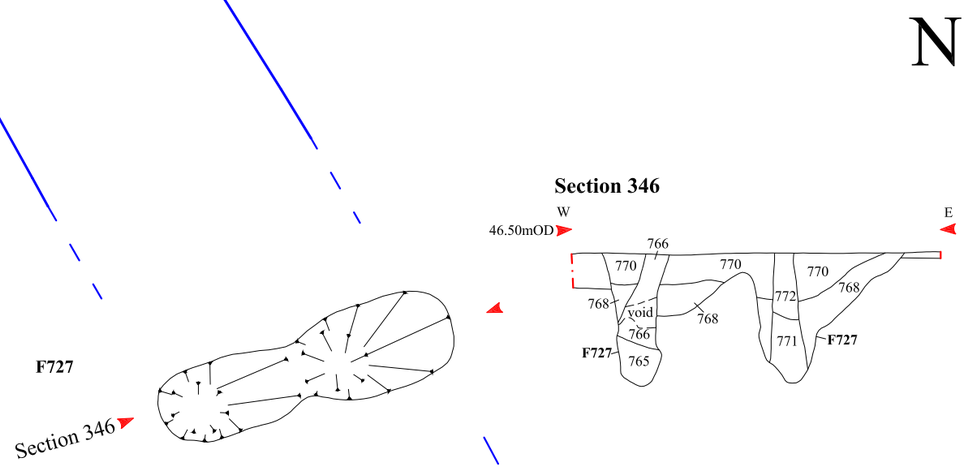
0 5m

scale 1:100 - for A3 plot

- limit of excavation
- outline of palisades
- sampled palisade slots
- possible Phase 2 features
- later features cutting palisades
- area truncated by 1930s levelling



Insert showing locations of features in Area N and Area O



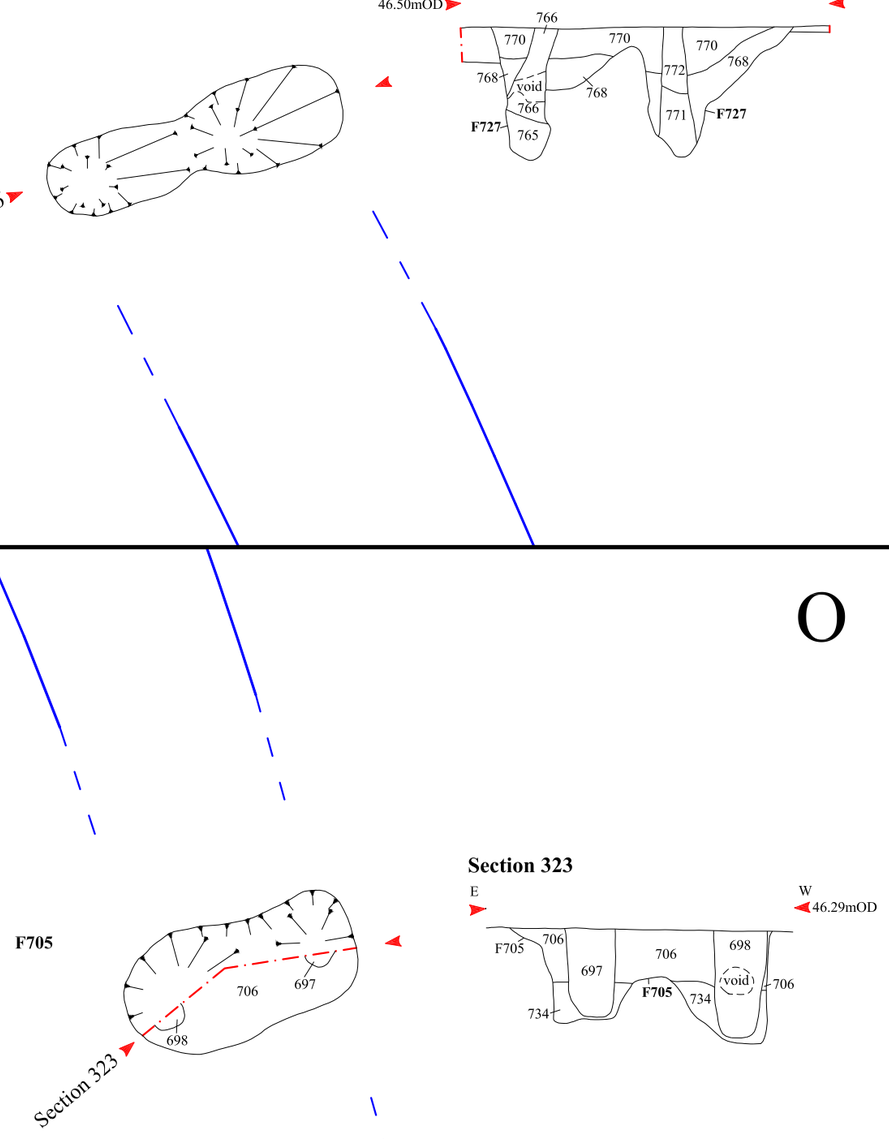


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Figure 16

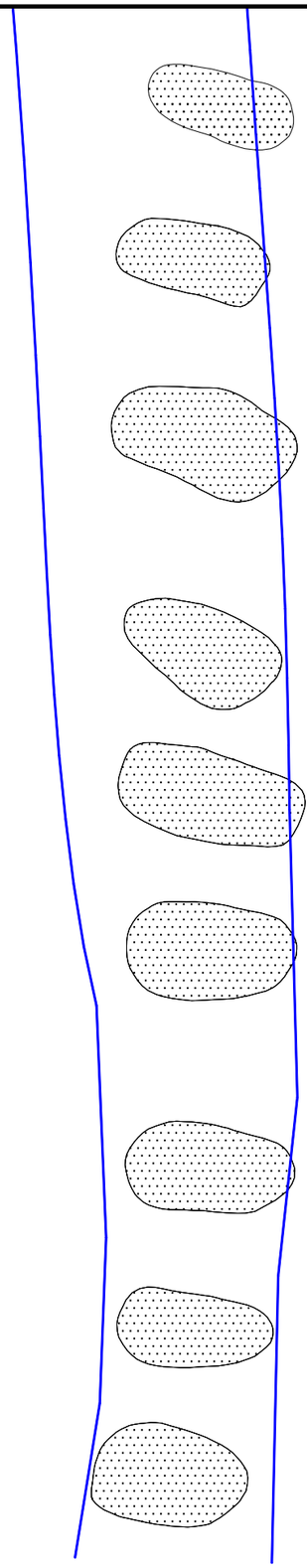
Plans and section of features in Area N and Area O

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services
Defence Estates

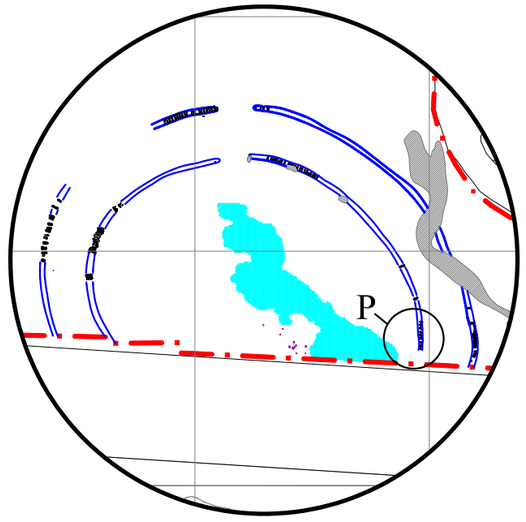
0 2m

scale 1:50 - for A3 plot

- limit of excavation
- outline of palisades
- sampled palisade slots
- possible Phase 2 features
- later features cutting palisades
- area truncated by 1930s levelling
- location of sections



P



Insert showing locations of features in Area P

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**Marne Barracks, Catterick,
North Yorkshire**

**archaeological excavation
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Figure 17

Plan of features in Area P

on behalf of
Gallifordtry Construction Ltd
for
**Debut Management Services
Defence Estates**

0 5m

scale 1:100 - for A3 plot

limit of excavation

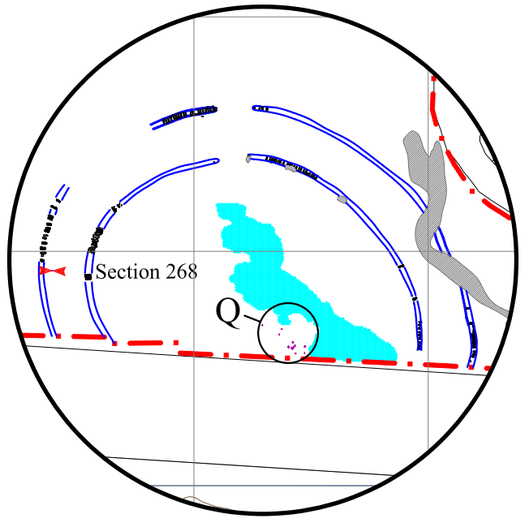
outline of palisades

sampled palisade slots

possible Phase 2 features

later features cutting palisades

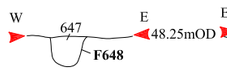
area truncated by 1930s levelling



Insert showing locations of features in Area Q

Q

Section 268

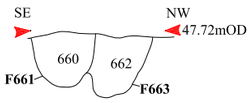


Section 275

Section 276

Section 277

Section 300



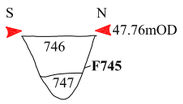
Section 301

Section 302

Section 306

Section 308

Section 342



Section 345

Section 347

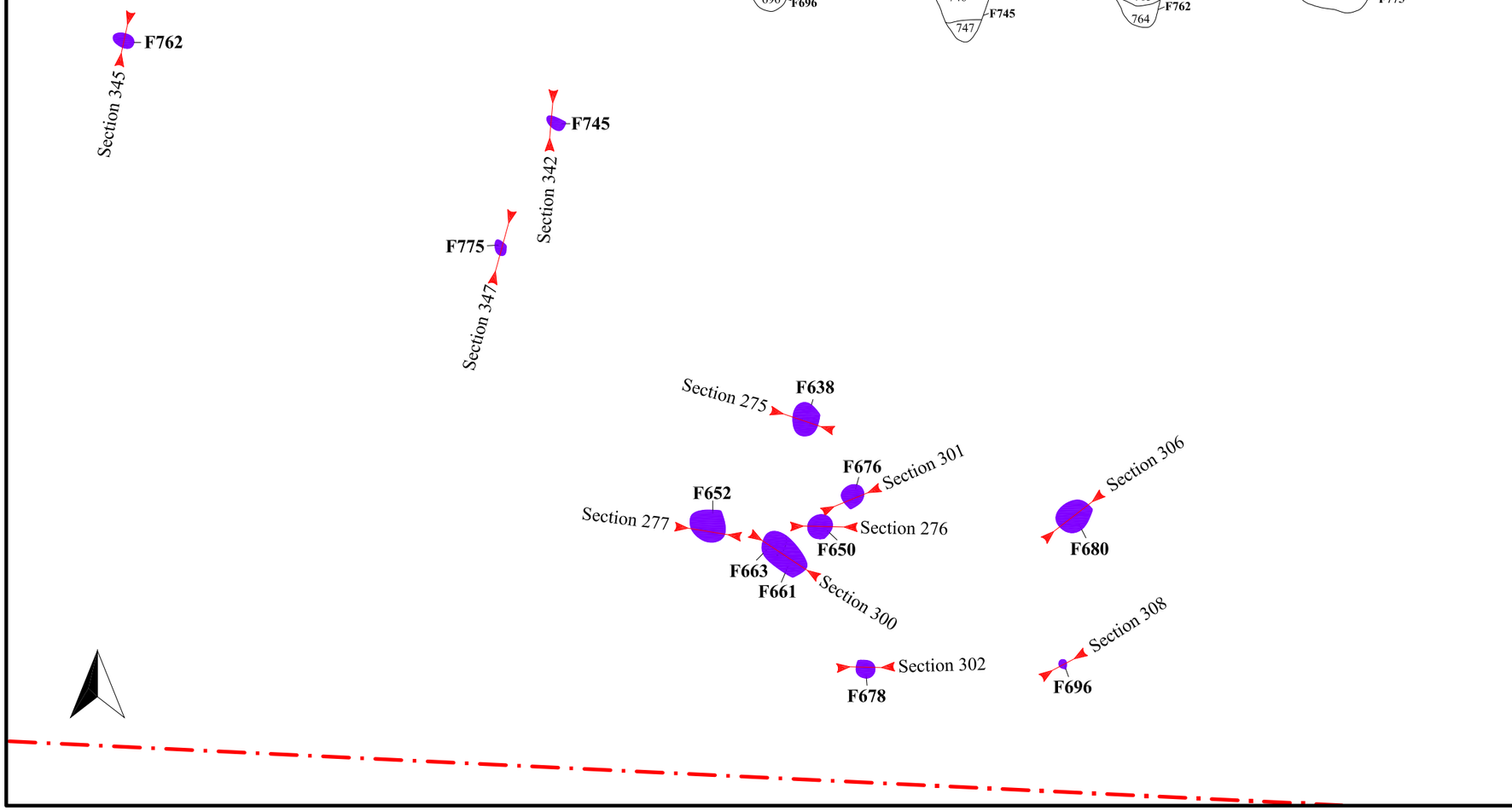


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Figure 18

Plan and sections of possible Phase 2 features in Area Q

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services
Defence Estates

0 2m
scale of sections 1:50 - for A3 plot

0 5m
scale of plan 1:100 - for A3 plot

limit of excavation

outline of palisades

sampled palisade slots

possible Phase 2 features

later features cutting palisades

area truncated by 1930s levelling

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Figure 19

Plan of Phase 3 features

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services
Defence Estates

0 50m
scale 1:1000 - for A3 plot

road

970

location of 334

Section 344
Section 70
Section 74
Section 160
Section 151
Section 356
Section 111
Section 364
Section 133
Section 351
Section 331
Section 304

5
3
4

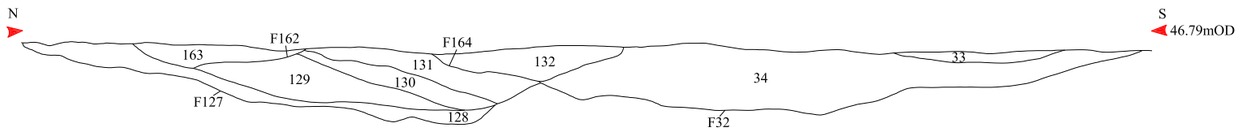
969

runway

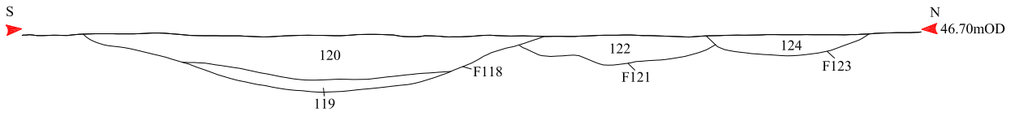
251
252
253

limit of excavation
outline of Phase 3 ditches
location of sections

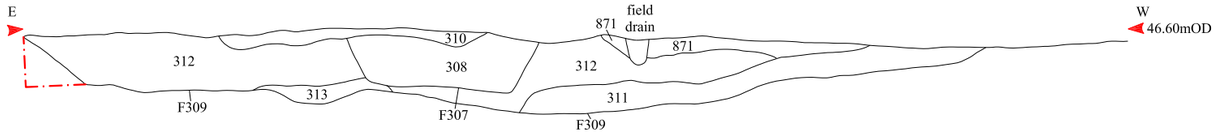
Section 70



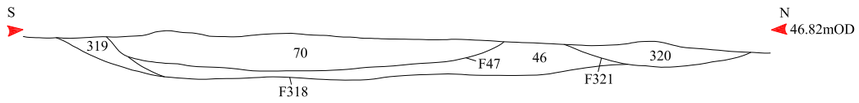
Section 74



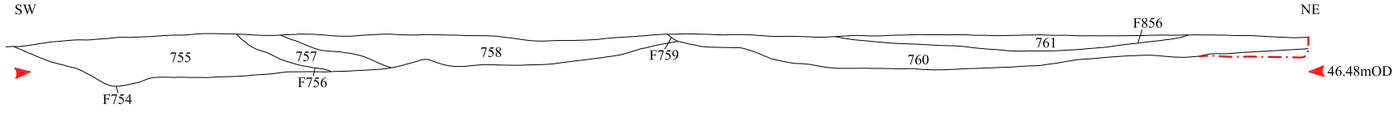
Section 151



Section 160



Section 344



Section 356

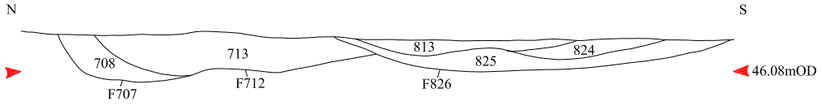


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Figure 20

Sections of Phase 3 features

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services
Defence Estates

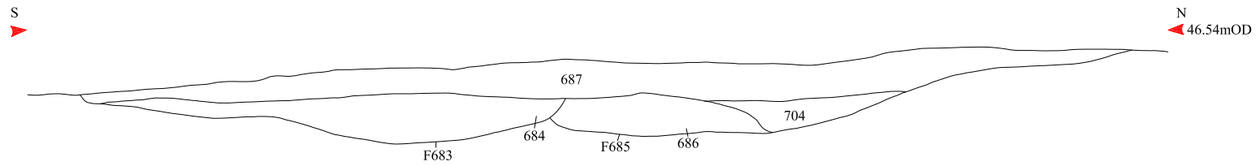
0 2m

scale 1:50 - for A3 plot

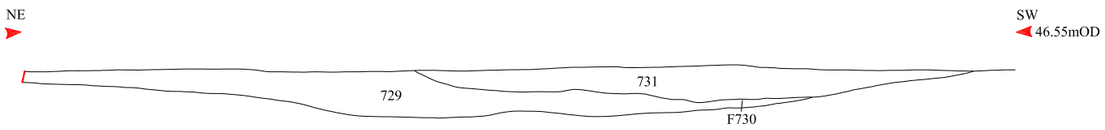
limit of excavation

location of sections

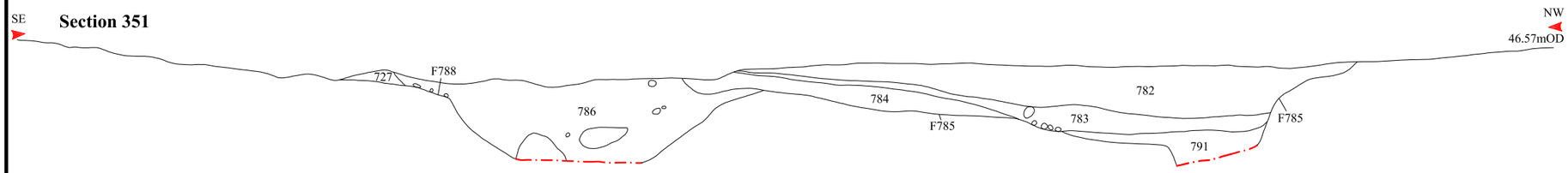
Section 304



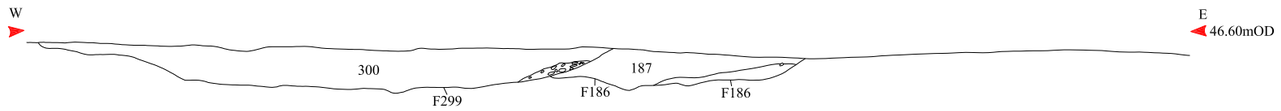
Section 331



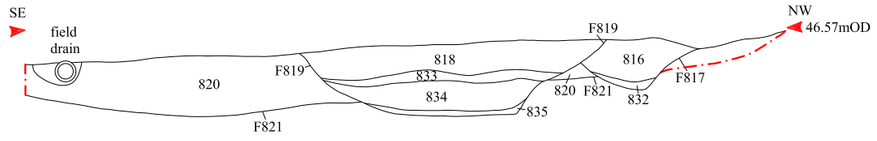
Section 351



Section 133



Section 364



Section 111

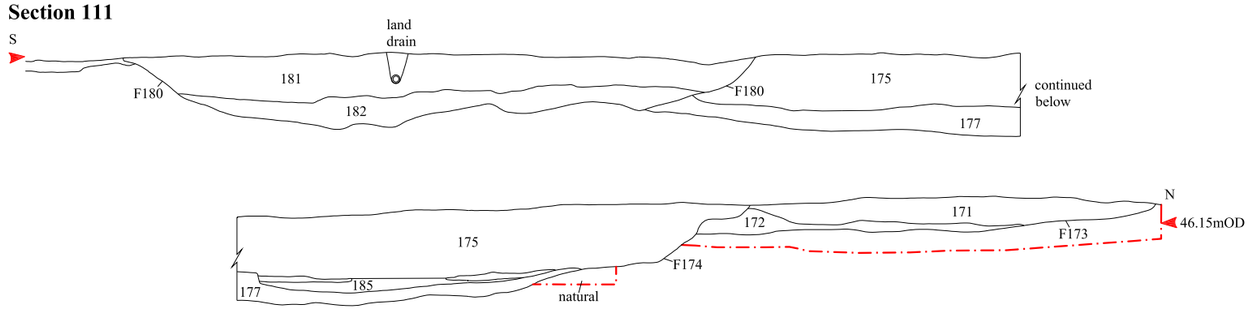


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Figure 21

Sections of Phase 3 features

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services
Defence Estates

0 2m

scale 1:50 - for A3 plot

limit of excavation

location of sections

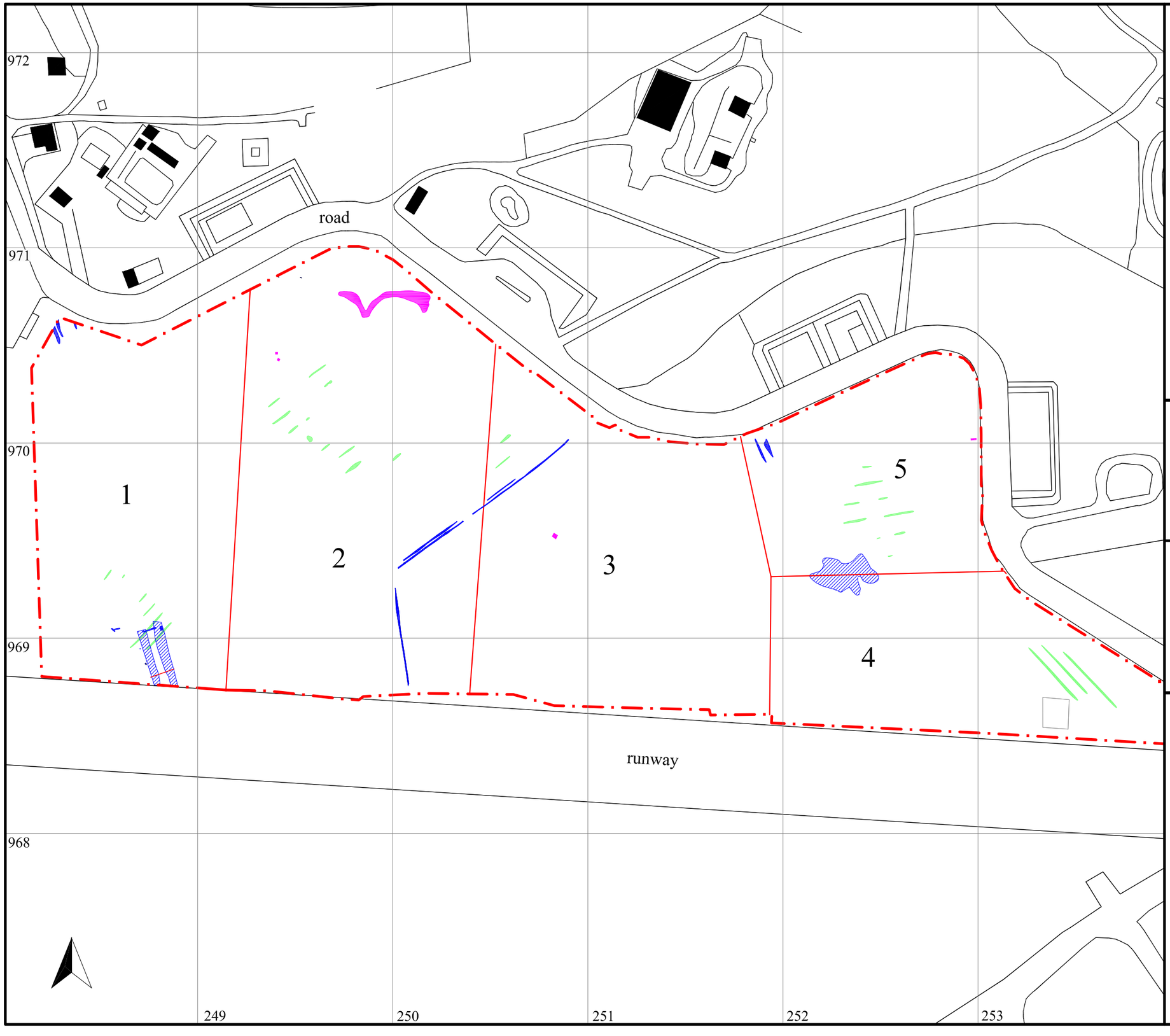

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Figure 22

Plan of Phase 4-6 features

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services Defence Estates

0 100m

scale 1:2000 - for A3 plot

limit of excavation

location of sections

Phase 4 features

Phase 5 features

Phase 6 features

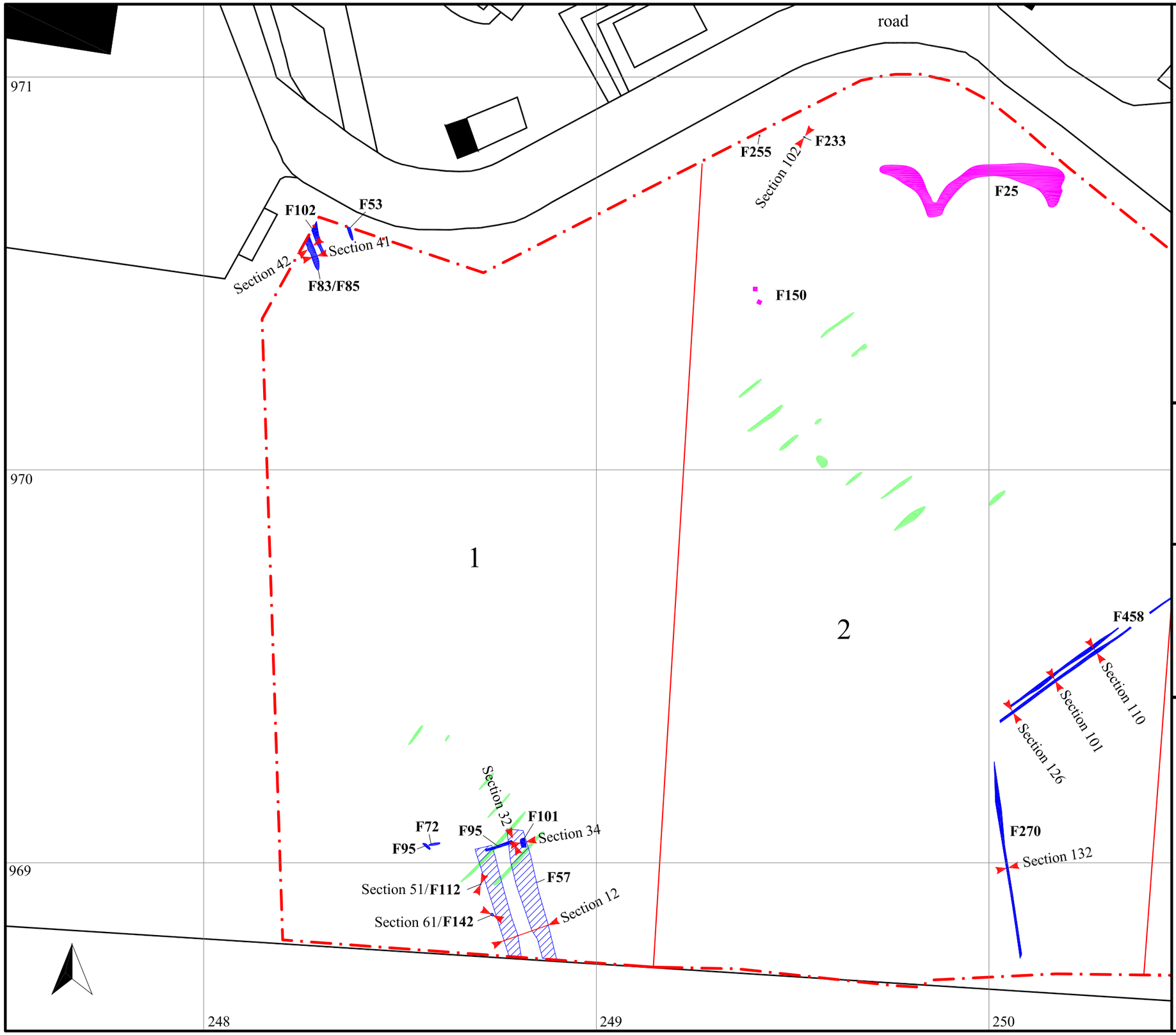

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Figure 23

Plan of Phase 4-6 features to the west of the site

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services
Defence Estates

0 50m

scale 1:1000 - for A3 plot

- limit of excavation
- location of sections
- Phase 4 features
- Phase 5 features
- Phase 6 features

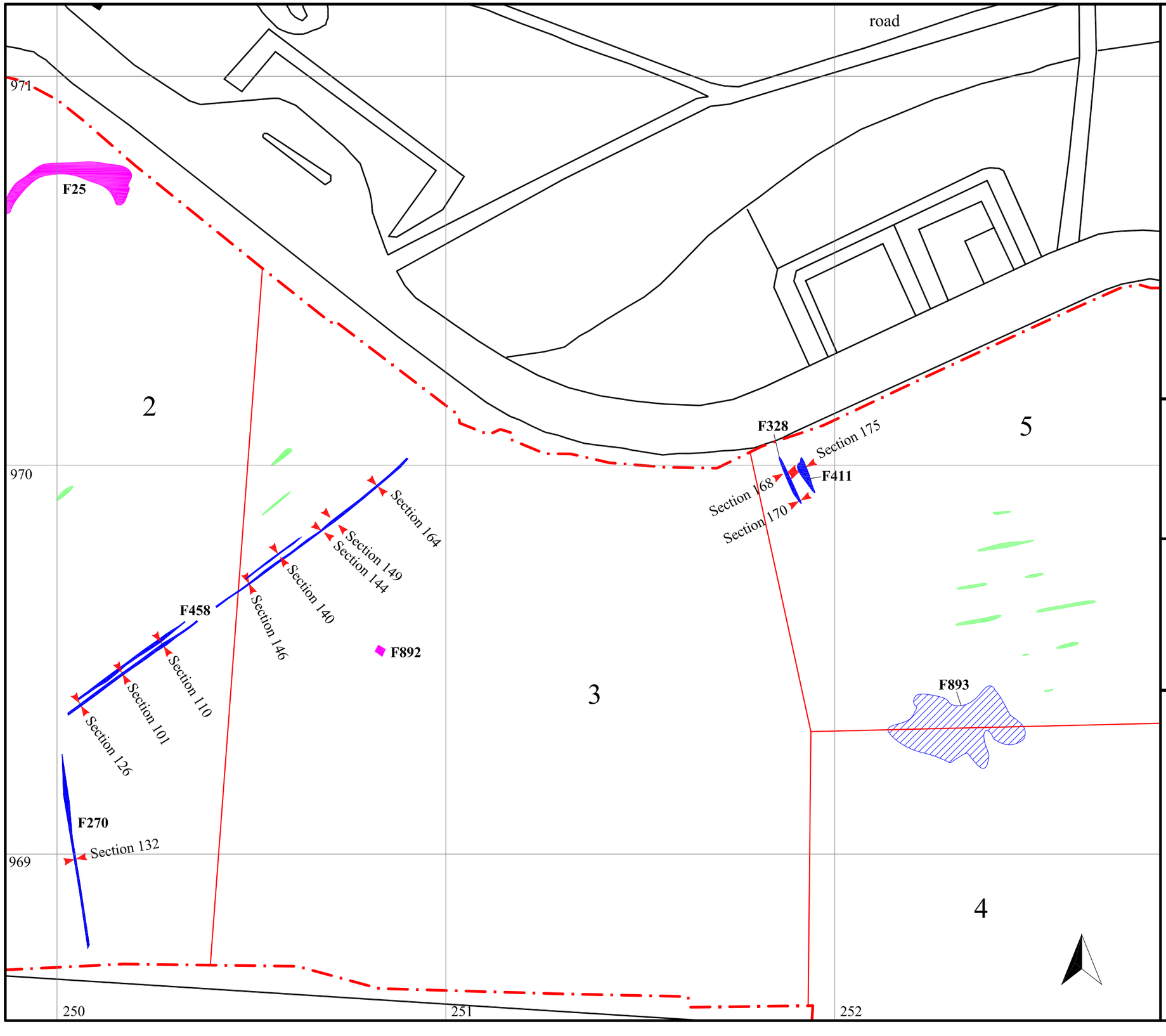

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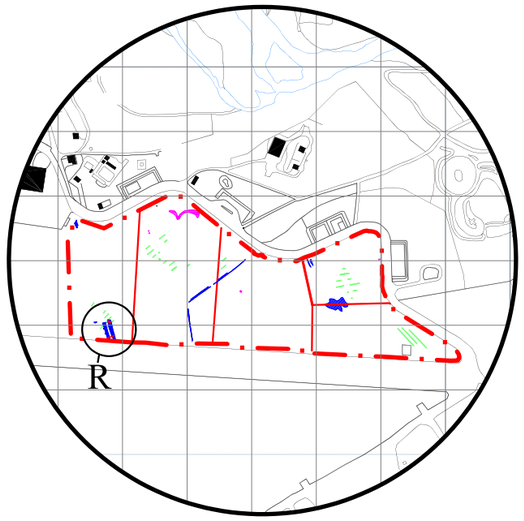
Figure 24

Plan of Phase 4-6 features to the east of the site

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services
Defence Estates

0 50m
scale 1:1000 - for A3 plot

limit of excavation
location of sections
Phase 4 features
Phase 5 features
Phase 6 features



Insert showing location of features in Area R

969

R

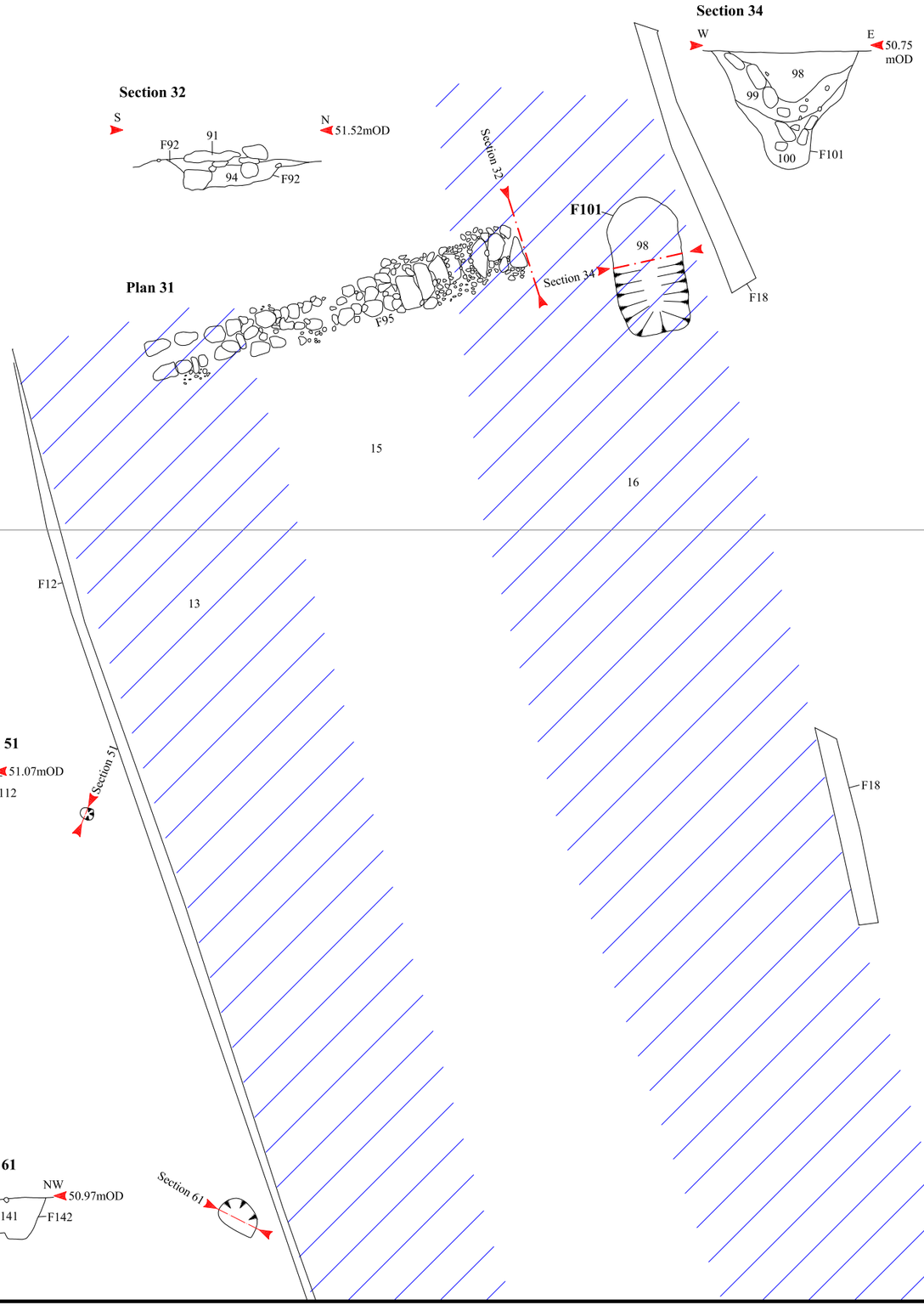


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Figure 25

Plans and sections of Phase 5 features in Area R

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services Defence Estates

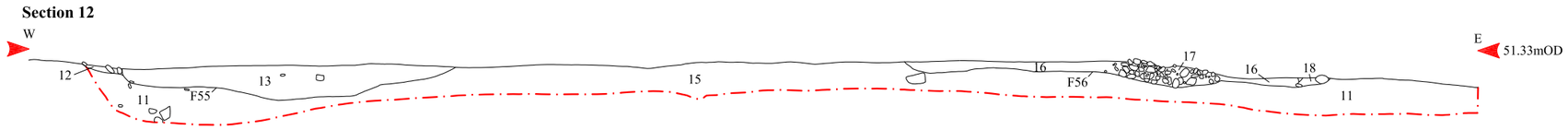
0 5m
scale for plans 1:100 - for A3 plot

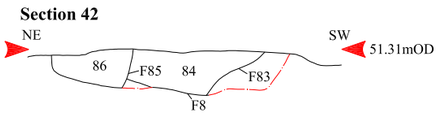
0 2m
scale for sections 1:50 - for A3 plot

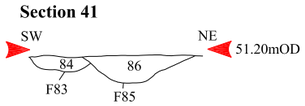
limit of excavation

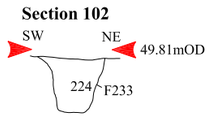
location of sections

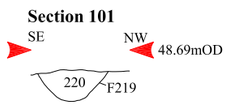
surface of Oran Road

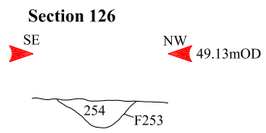


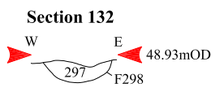


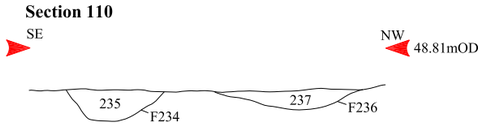


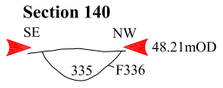


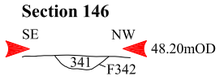


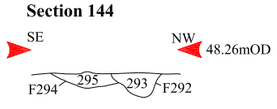


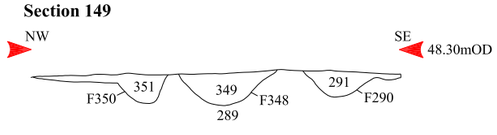


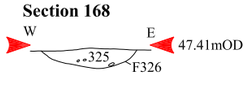


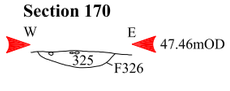












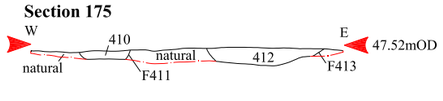


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Figure 26

Sections of Phase 5 features

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services Defence Estates

0 2m
scale 1:50 - for A3 plot

limit of excavation

location of sections

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North Yorkshire**

**archaeological excavation
report 1219**

Figure 27

Plan of unphased features

on behalf of
Gallifordtry Construction Ltd
for
**Debut Management Services
Defence Estates**

0 100m
scale 1:2000 - for A3 plot

limit of excavation

unphased features

road

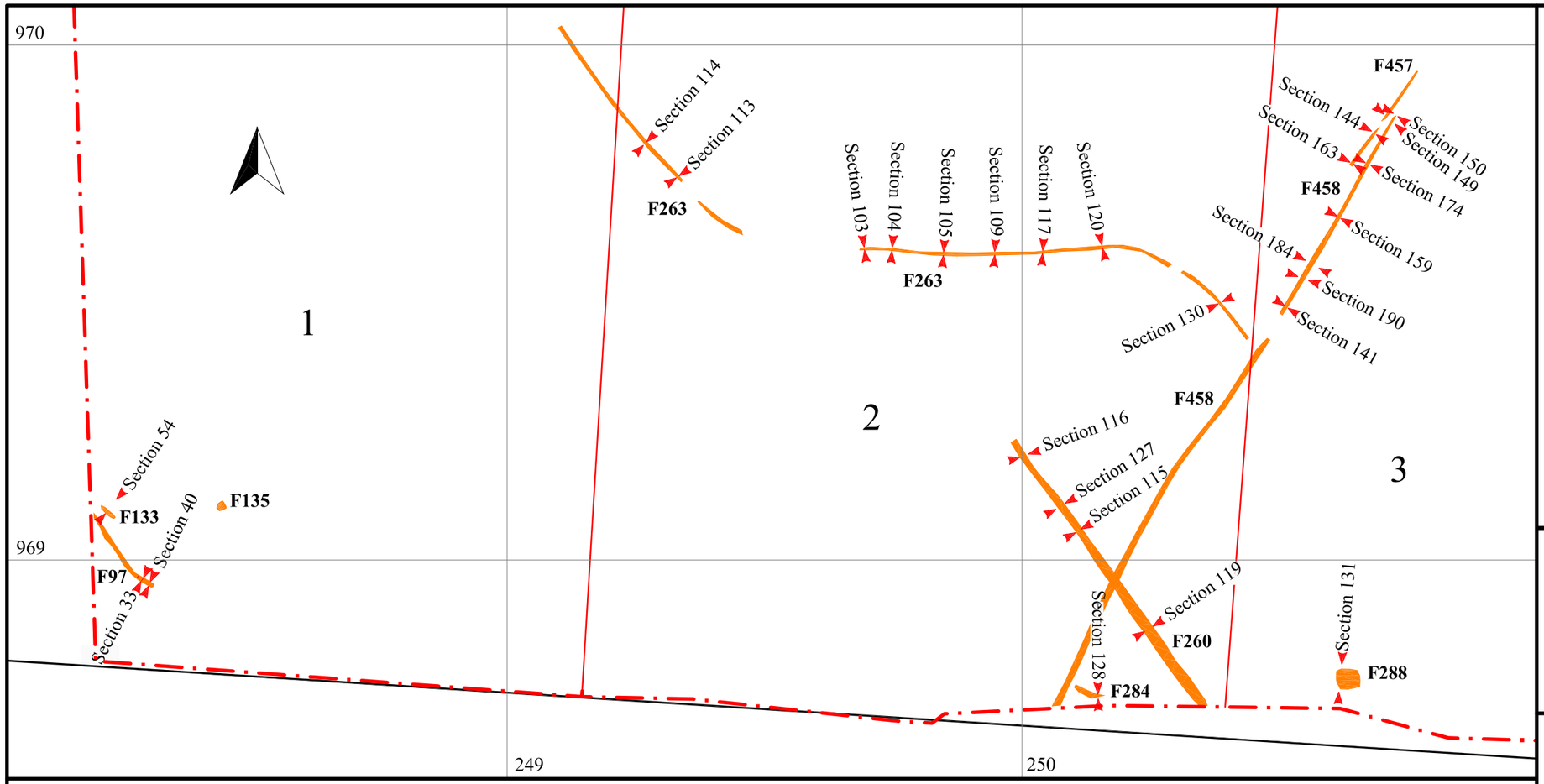
runway

1 2 3 4 5

F200 F198 F282 F460 F454 F387 F405 F167 F449 F457 F458 F263 F263 F475 F458 F732 F597 F860 F133 F135 F97 F260 F284 F288

972 971 970 969 968

249 250 251 252 253



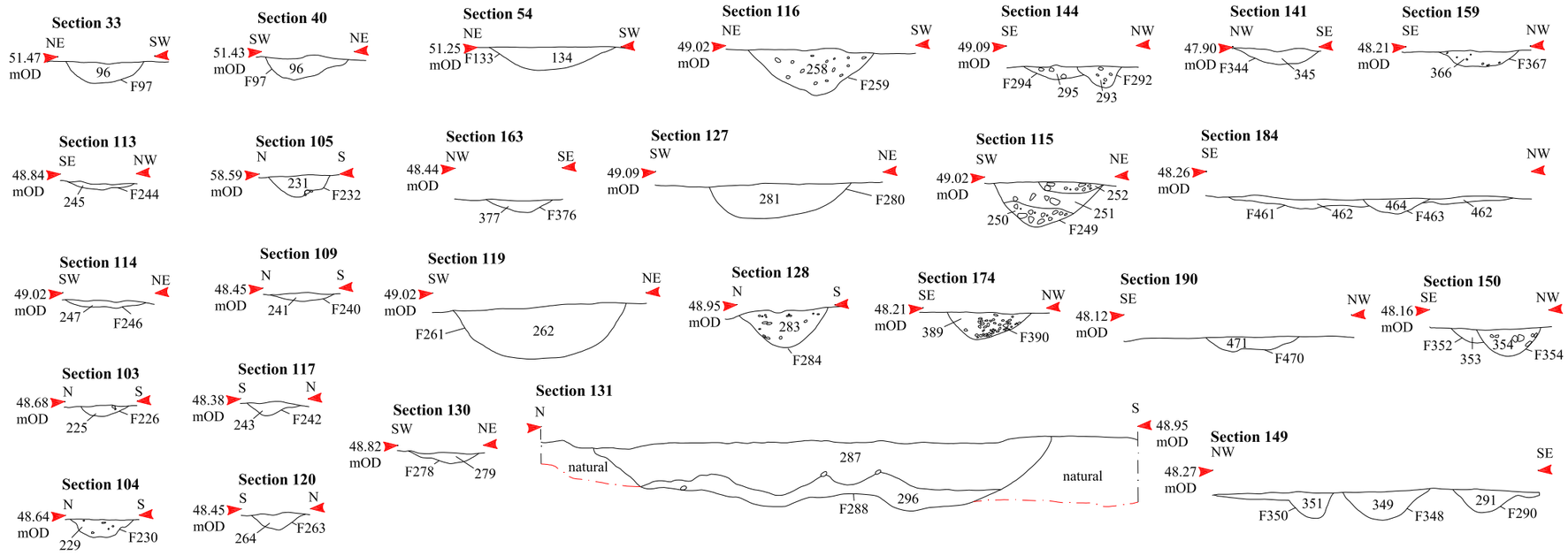


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Figure 28

Plan and sections of unphased features in the south-west of the site

on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services Defence Estates

0 50m
scale of plan 1:1000 - for A3 plot

0 2m
scale of sections 1:50 - for A3 plot

limit of excavation

unphased features

location of sections

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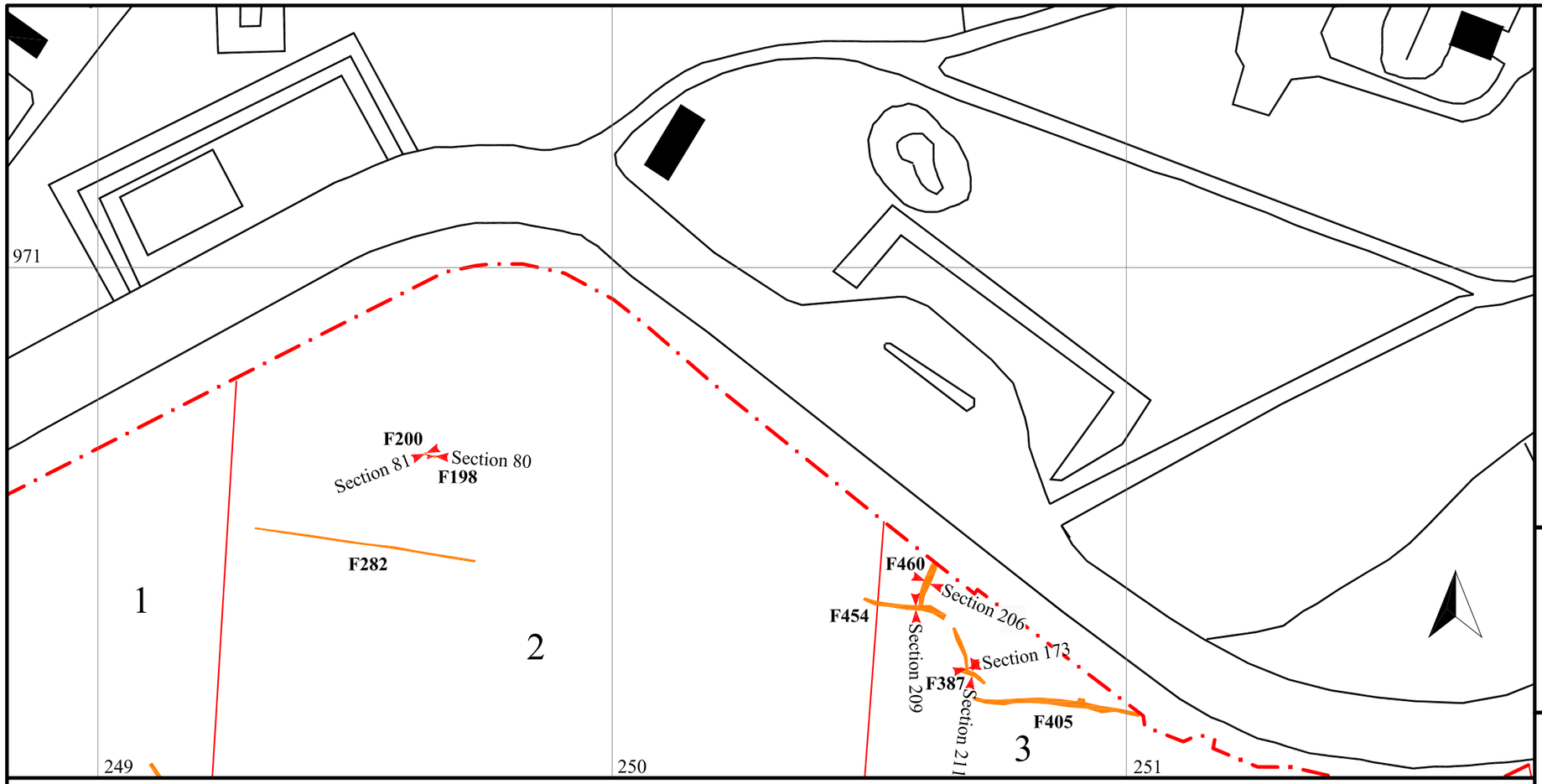
Figure 29

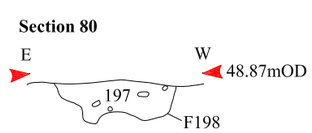
Plan and sections of unphased features in the north of the site

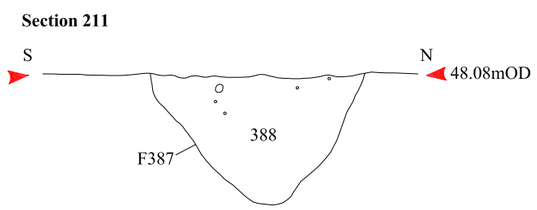
on behalf of
Gallifordtry Construction Ltd
for
Debut Management Services Defence Estates

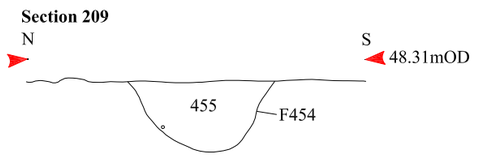


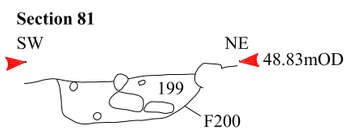
0 50m
scale of plan 1:1000 - for A3 plot

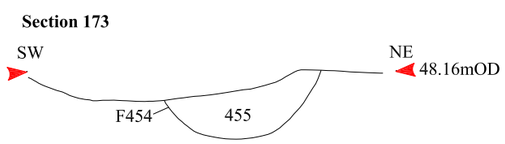
0 1m
scale of sections for 1:20 - for A3 plot

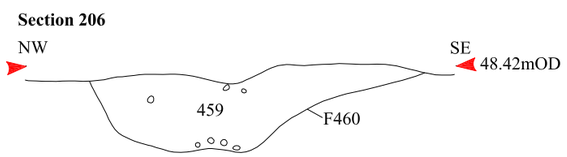








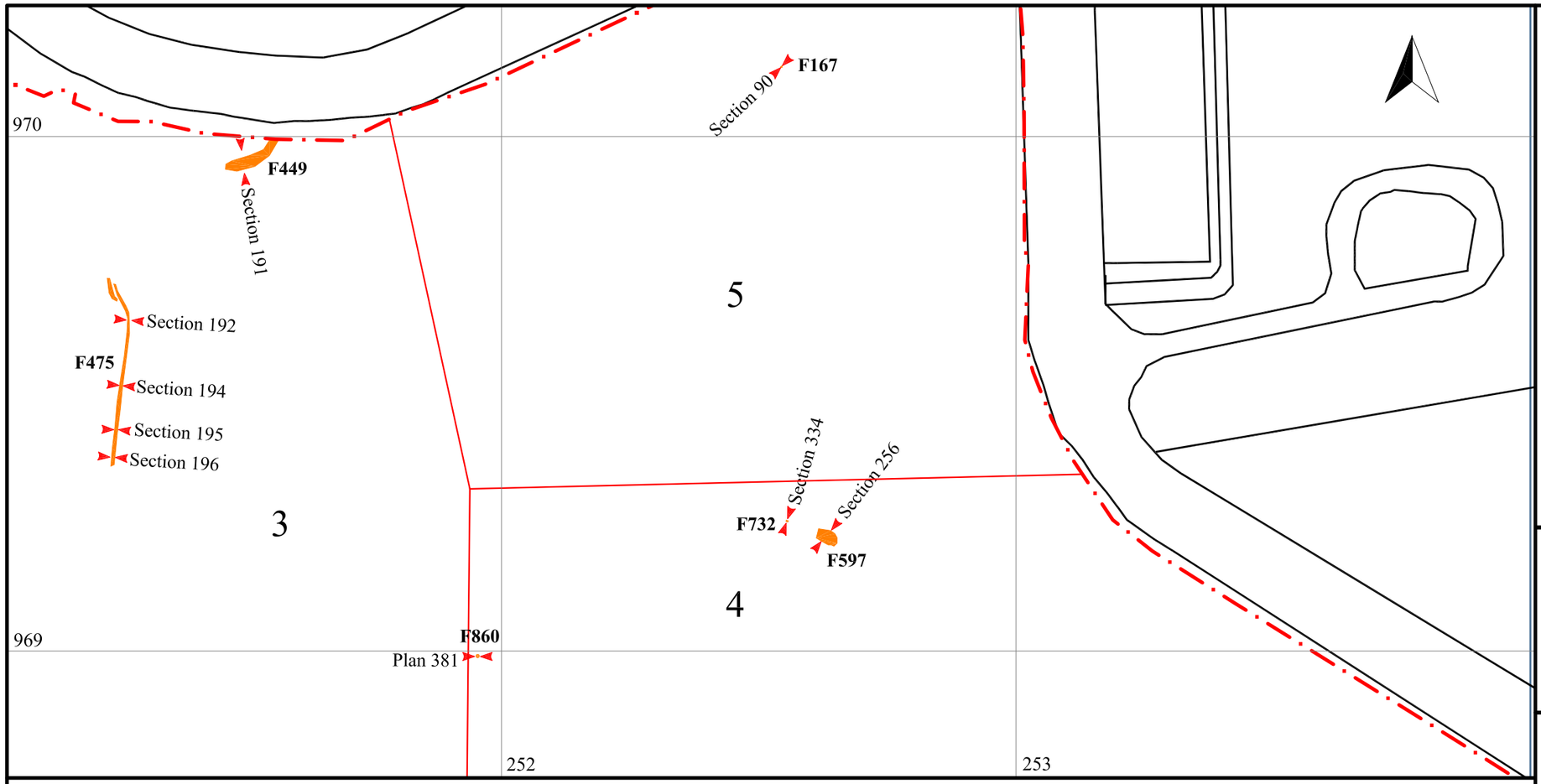


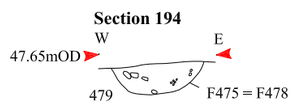


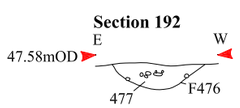
limit of excavation

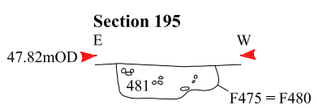
unphased features

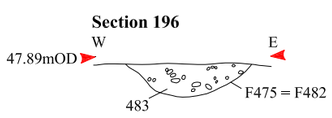
location of sections

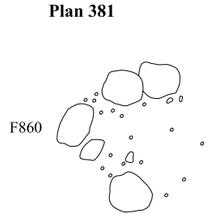


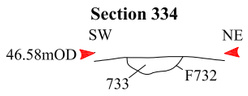


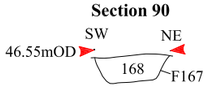


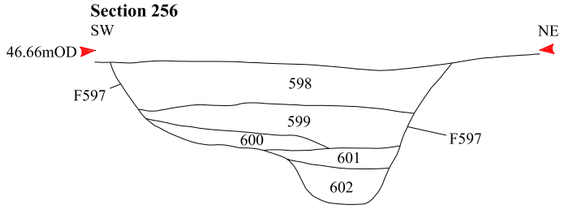


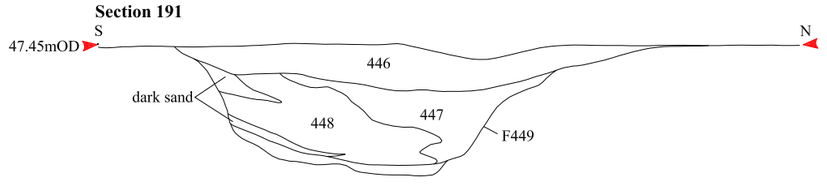












Archaeological Services
University of Durham

**Marne Barracks, Catterick,
North Yorkshire**

**archaeological excavation
report 1219**

Figure 30

Plan and sections of unphased features in the north-east of the site

on behalf of
Gallifordtry Construction Ltd
for
**Debut Management Services
Defence Estates**

0 50m
scale of plan 1:1000 - for A3 plot

0 2m
scale of sections & plan 381 1:40 - for A3 plot

limit of excavation

unphased features

location of sections

Figure 31
Aerial view of the site
© English Heritage

Figure 32
Aerial view showing palaeo-channels
© English Heritage

Figure 33
Palaeo-channel [26] with scarp slope to west (left)

Figure 34
Aerial view of the palisaded enclosure
© English Heritage

Figure 35
Digitally enhanced photo showing construction slots, NW edge of inner palisade
© English Heritage

Figure 36
Western edge of inner palisade showing carbonised posts

Figure 37
Detail of carbonised posts

Figure 38
Half section through slots F634 and F635

Figure 39
Construction slots on eastern side of outer palisade in optimum visibility

Figure 40
Oran Road culvert

Figure 41
Unphased gullies in area 2 in optimum conditions

Appendix 1: Context data

Summary list of contexts. The • symbols in the columns at the right indicate the presence of finds of the following types: P pottery, B bone, M metals, F flint, S slag, O other materials.

No	Description	P	B	M	F	S	O
1	Natural sand deposit						
2	'Cut' for 1						
3	Natural gravel						
4	'Cut' for 5						
5	Natural sand deposit						
6	Lower fill of F7						
F7	Pit at western end of F61						
8	Topsoil	•					
9	'Cut' for 10						
10	Natural sand deposit						
11	Lower soil deposit under F57	•					
12	Western kerb to F57						
13	Western sub-base to F57						
14	Western surface to F57						
15	Same as 11						
16	Eastern sub-base to F57						
17	Eastern surface to F57	•					
18	Eastern kerb to F57						
19	'Cut' for 20						
20	Natural sand deposit						
F21	Section through F61						
22	Fill of F21						
23	'Cut' for 24						
24	Natural sand deposit						
F25	Modern brick structure						
26	Levelling deposit from landscaping of airfield	•		•			
27	Palaeo-channel fill						
F28	Palaeo-channel						
29	Fill of F28						
30	'Cut' for 31						
31	Natural sand deposit						
F32	Section through F885						
33	Upper fill of F32	•					
34	Lower fill of F32	•					
35	Same as F759						
36	Same as 760						
37	Variation in natural gravel 3						
38	'Cut' for 39-41						
39	Natural sand deposit above 40						
40	Natural silt deposit above 41						
41	Natural clay deposit						
42	Upper silt fill of F43						

No	Description	P	B	M	F	S	O
F43	Tree root disturbance within ditch F318						
44	Fill of F45						
F45	Tree root disturbance within ditch F318						
46	Upper fill of F885						
F47	Section through F887						
48	Lower silt fill of F43						
49	'Cut' for 50						
50	Natural sand deposit						
51	'Cut' for 52						
52	Natural sand deposit						
F53	Gully under F57 at north end of site						
54	Fill of F53						
55	Western cut for F 57						
56	Eastern cut for F57						
F57	Feature number for Oran Road						
F58	Section through F61						
59	Fill of F58						
60	Natural sand deposit						
F61	Curving E-W ditch in N of area 1						
62	Western continuation of 67						
63	Road metalling for Oran Road						
64	Western continuation of 67						
65	Natural sand deposit						
66	Natural sand deposit						
67	Palaeo-channel fill in junction of 73 and 157						
68	Same as 11			•			
69	Upper fill of F7						
70	Fill of F47	•					
71	Fill of F72		•				
F72	SW-NE furrow in area 1						
73	Palaeo-channel fill						
74	'Cut' for 75						
75	Variation in natural gravel 3						
76	'Cut' for 77						
77	Variation in natural gravel 3						
78	Same as 27						
79	Same as 26						
80	Weathered surface layer to natural gravel 3						
81	Western continuation of 157						
82	Natural sand deposit						
F83	Gully under F57 at north end of site						
84	Fill of F83	•	•				
F85	Gully under F57 at north end of site						
86	Fill of F57						
87	'Cut' for 82						
88	Post-medieval plough soil in west of area 1		•				•
89	Fill of F90					•	

No	Description	P	B	M	F	S	O
F90	NW-SE furrow in area 1						
91	Stonework of culvert F95						
92	Cut for culvert F95						
93	Same as 16						
94	Fill of culvert F95						•
F95	Culvert running under road F57						
96	Fill of F97						
F97	Unphased NW-SE gully in SW corner of area 1						
98	Upper fill of F101						•
99	Middle fill of F101						
100	Lower fill of F101						
101	Soakaway associated with culvert F95						
F102	Gully under F57 at north end of site						
103	Fill of F102						
104	Unused						
105	'Cut' for 106						
106	Small area of palaeo-channel fill						
107	Stone pile in SW corner of area 1	•	•				•
108	Palaeo-channel fill at junction of 73 and 157						
F109	Posthole cut into 107						
110	Fill of F109						
111	Fill of F112						
F112	Posthole on western edge of F57						
113	Natural sand deposit under 52						
114	Natural sand deposit under 113						
F115	Cut of tree bole						
116	Upper fill of F115						
117	Lower fill of F115						
F118	Section through F887						
119	Lower fill of F118						
120	Upper fill of F118						
F121	Section through F885						
122	Fill of F121						
F123	Section through F886						
124	Fill of F123						
125	Fill of tree root						
126	'Cut' for 125						
F127	Section through F885						
128	Lower fill of F885						
129	Fill of F885 over 128						
130	Fill of F885 over 129						
131	Fill of F885 over 130						
132	Fill of F164						
F133	Gully cut parallel to F97						
134	Fill of F133						
F135	Pit cut						
136	Fill of F135						

No	Description	P	B	M	F	S	O
137	'Cut' for 138						
138	Small area of palaeo-channel fill						
139	Fill of F140						
F140	Cut of ridge and furrow						
141	Fill of F142			•			
142	Pit along western edge of F57						
143	Same as F139						
144	Same as F140						
145	Natural sand deposit						
146	Natural sand deposit under 145						
147	Natural clay deposit under 146						
148	Palaeo-channel fill						
149	'Cut' for 149						
F150	Modern concrete blocks						
151	Palaeo-channel fill under 138						
152	Eastern continuation of 157						
F153	Cut of disturbed furrow within ridge and furrow						
154	'Cut' for 155						
155	Western continuation of 148						
156	Fill of F153						
157	Palaeo-channel fill						
158	Eastern continuation of 157						
159	Eastern continuation of 157						
F160	Cut for Tree bole						
161	Fill of F160						
F162	Section through F886						
163	Fill of F886						
F164	Section through F887						
F165	Slit trench						
166	Fill of F165						
F167	Posthole cutting ditch fill 131						
168	Fill of F167						
169	Natural silt deposit						
170	Natural sand deposit under 169						
171	Upper fill of F173						
172	Lower fill of F173						
F173	Cut for E-W ditch cutting N-S one in area 5						
F174	Re-cut to F173						
175	Upper fill of F174						
176	Same as F174						
177	Lower fill of F174						
178	Same as 175						
179	Same as 177						
F180	Re-cut to F174						
181	Upper fill of F180						
182	Lower fill of F180						
F183	Cut for land drain						

No	Description	P	B	M	F	S	O
184	Fill of F183						
185	Gravel lens in 175						
F186	Cut for section through N-S ditch, areas 4+5						
187	Fill of F186	•					
188	Fill of F189						
F189	Palaeo-channel running round knapping platform						
190	Eastern continuation of 157						
191	Cut for 190						
F192	Cut of ridge and furrow						
193	Fill of F192						
194	Small area of palaeo-channel fill						
195	Small area of palaeo-channel fill						
196	Eastern continuation of 157						
197	Fill of F198						
F198	Pit in north of area 2						
199	Fill of F198						
F200	Pit in north of area 2						
201	Cut for 202						
202	Small area of palaeo-channel fill						
203	Cut of 204						
204	Eastern continuation of 157						
205	Natural sand deposit						
206	Natural sand deposit						
207	Natural sand deposit						
F208	Cut of ridge and furrow						
209	Fill of F208						
210	Cut for 212						
211	Same as 26						
212	Fill of large palaeo-channel at E end of 73						
213	‘Cut’ for 214						
214	Natural silt deposit						
215	Natural sand deposit						
216	Eastern continuation of 204						
217	Light brown clay under 216						
218	Cut for 216						
F219	Section through F456						
220	Fill of F219						
221	Eastern continuation of 148						
222	‘Cut’ for 221						
223	Natural sand deposit						
224	Fill of F233						
225	Fill of F226						
F226	Section through F263						
227	Cut for 228						
228	Palaeo-channel fill						
F229	Section through F263						
230	Fill of F229						

No	Description	P	B	M	F	S	O
F231	Section through F263						
232	Fill of F231						
F233	Post-medieval pit cut						
F234	Section through F456						
235	Fill of F234						
F236	Gully parallel to F456						
237	Fill of F236						
238	Same as 27						
239	'Cut' for 238						
F240	Section through F263						
241	Fill of F240						
F242	Section through F263						
243	Fill of F242						
F244	Section through F263						
245	Fill of F244						
F246	Section through F263						
247	Fill of F246						
248	Same as 238						
F249	Section through F260						
250	Lower fill of F249						
251	Middle fill of F249						
252	Upper fill of F249						
F253	Section through F456						
254	Fill of F253						
255	Area of coal and ash						
256	Small area of palaeo-channel fill						
257	Natural sand deposit						
258	Fill of F258						
F259	Section through F260						
F260	Unphased NW-SE gully in south of area 2						
F261	Section through F260						
262	Fill of F261						•
F263	Unphased E-W gully in centre of area 2						
264	Fill of F264						
F265	Cut for shallow depression in natural ground surface						
266	Fill of F265						
267	Cut for 267						
268	Eastward continuation of palaeo-channel 73						
269	Same as F270						
F270	Post-medieval field boundary ditch						
271	Fill of F270						
F272	Cut for shallow depression in natural ground surface						
273	Fill of F272						
274	Same as 267						
275	Same as 268						
276	Unused						
277	Lower palaeo-channel fill under 212						

No	Description	P	B	M	F	S	O
F278	Section through F263						
279	Fill of F278			•			
280	Fill of F281						
F281	Section through F260						
F282	E-W gully in north of area 2						
283	Fill of F284						
F284	Unphased NW-SE gully in south of area 2						
285	Natural silt deposit						
286	Natural silt deposit						
287	Upper fill of F288						
F288	Large pit in south of area 3						
289	Northern continuation of 465						
F290	Section through F458						
291	Fill of F290						
F292	Section through F456						
293	Fill of F292						
F294	Section through F457						
295	Fill of F394						
296	Lower fill of F288						
297	Fill of F298						
F298	Section through F270						
F299	Re-cut to F286						
300	Fill of F299						
F301	Cut for land drain						
302	Fill of F301						
303	Same as 189						
304	Same as 188						
305	Same as 189						
306	Same as 188						
F307	Section through F887						
308	Fill of F307						
F309	Section through F885						
310	Same as 26						
311	Silt patch in base of F309						
312	Gravel fill of F309						
313	Silt patch in base of F309						
314	Fill of F315						
F315	Northwesterly continuation of F189						
316	Fill of F317						
F317	Silt patch outside F189						
F318	Section through F885						
319	Lower fill of F885						
320	Fill of F321						
321	Section through F886						
322	Cut for 324						
323	Same as 26						
324	Fill of palaeo-channel						

No	Description	P	B	M	F	S	O
325	Fill of F326						
F326	Gully on west side of post-medieval track						
327	Palaeo-channel fill under 324						
328	Unused						
329	Small area of palaeo-channel fill						
330	Cut for 329						
331	Eastern continuation of 465						
332	Same as 334						
333	Supposed cut for 334 – not a real feature						
334	Spread of Roman pottery within 26	•					
335	Fill of F336						
F336	Section through F456						
337	Natural silt deposit						
338	Small area of palaeo-channel fill						
339	Natural sand deposit						
340	'Cut' for 339						
341	Fill of F342						
F342	Section through F456						
343	Natural silt deposit						
F344	Section through F458						
345	Fill of F458						
F346	Section through F458						
347	Fill of F346						
F348	Section through F456						
349	Fill of F348	•					
F350	Section through F457						
351	Fill of F350						
F352	Section through F458						
353	Fill of F352						
F354	Section through F456						
355	Fill of F354						
356	Cut for 357						
357	Section through 465						
358	Cut for 359						
359	Section through 465						
360	Small area of palaeo-channel fill						
361	Cut for 360						
362	Southern continuation of 465						
363	Small area of palaeo-channel fill						
364	Same as 368						
365	Natural sand deposit						
366	Fill of F367						
F367	Section through F458						
368	Natural sand deposit						
369	'Cut' for 368						
370	Small area of palaeo-channel fill						
371	Small area of palaeo-channel fill						

No	Description	P	B	M	F	S	O
372	Unused						
373	'Cut' for 374/5						
374	Gravel under 375						
375	Natural silt deposit						
F376	Section through F457						
377	Fill of F376						
F378	Section through F456						
379	Fill of F378						
F380	Section through F456						
381	Fill of F380						
382	Shallow hollow in natural ground surface						
383	Small area of palaeo-channel fill						
384	Cut for 383						
385	Shallow hollow in natural ground surface						
386	Shallow hollow in natural ground surface						
F387	E-W gully cut by gully F454						
388	Fill of F387						
389	Fill of F390	•					
F390	Section through F458						
391	Shallow hollow in natural ground surface						
392	Shallow hollow in natural ground surface						
393	Shallow hollow in natural ground surface						
394	Outer post in F875						
395	Small area of palaeo-channel fill along N baulk						
396	Natural silt deposit						
397	Gravelly silt under 396						
398	'Cut' for 396/7						
399	Small area of palaeo-channel fill along N baulk						
400	Fill of F401						
F401	Gully parallel to F456						
402	Fill of F402						
F403	Gully parallel to F456						
404	Shallow hollow in natural ground surface						
F405	E-W gully in north of area 3						
406	Same as F405						
407	'Cut' for 408						
408	Section through 465						
409	Same as 408						
410	Fill of F411						
F411	Gully on east side of post-medieval track						
412	Same as 410						
413	Same as 411						
414	Natural silt deposit						
415	'Cut' for 414						
416	Natural silt deposit						
417	'Cut' for 416						
418	Palaeo-channel fill						

No	Description	P	B	M	F	S	O
419	'Cut' for 418						
420	Same as 418						
421	Same as 419						
422	Unused						
423	Unused						
424	Cut for 425						
425	Tree bole						
426	Upper fill of F428						
427	Lower fill of F428						
F428	Post slot in outer palisade, disturbed by tree roots						
429	'Cut' for 430						
430	Natural silt deposit						
431	'Cut' for 432						
432	Natural silt deposit						
433	'Cut' for 434						
434	Natural silt deposit						
435	Knapping platform						
436	Fill of F437						
F437	Post slot in outer palisade						
438	Inner post in F437						
439	Outer post in F437						
440	Silt under knapping platform 435						
441	Unused						
442	Unused						
443	Unused						
444	Unused						
445	Natural silt deposit						
446	Upper fill of F449						
447	Silt lower fill of F449						
448	Gravel lower fill of F449						
F449	Curving ditch in NE of area 3						
450	Natural silt deposit						
451	Natural gravel deposit						
452	Natural sand deposit						
453	'Cut' for 450-2						
F454	Unphased curving gully in north of area 3						
455	Fill of F454						
F456	Post-medieval field boundary ditch in areas 2 and 3						
457	Unphased SW-NE gully in areas 2 and 3						
F458	Unphased SW-NE gully in areas 2 and 3						
459	Fill of F460						
F460	Unphased N-S gully in north of area 3						
461	Cut for 462						
462	Small area of palaeo-channel fill						
F463	Section through F458						
464	Fill of F463						
465	Palaeo-channel fill						

No	Description	P	B	M	F	S	O
466	Fill of F467						
F467	Cut of ridge and furrow						
468	Fill of F469						
F469	Cut of ridge and furrow						
F470	Section through F458						
471	Fill of F470						
472	Small area of palaeo-channel fill						
473	Natural silt deposit						
474	Fill of F893						
F475	Unphased N-S gully in area 3						
F476	Section through F475						
477	Fill of F476						
F478	Section through F475						
479	Fill of F478						
F480	Section through F475						
481	Fill of F480						
F482	Section through F475						
483	Fill of F482						
484	Fill of F484						
485	Inner post in F487						
486	Outer post in F487						
F487	Post slot in outer palisade						
488	Natural sand deposit						
489	Inner post in F494						
490	Post-pipe for 489						
491	Outer post in F494						
492	Post-pipe for 491						
493	Fill of F494						
F494	Post slot in inner palisade F541						
495	Inner post in F869						
496	Post-pipe for 495						
497	Same as 870						
498	Same as F869						
499	Outer post in F869						
500	Post-pipe for 499						
501	Same as 870						
502	Same as F869						
503	Outer post in F506						
504	Fill of F506						
505	Inner post in F506						
F506	Post slot in outer palisade						
F507	Post slot in outer palisade						
508	Inner post in F507						
509	Unused						
510	Leeched lower half of 508						
511	Outer post in F565						
512	Same as 565						

No	Description	P	B	M	F	S	O
513	Inner post in F634						
514	Outer post in F634						
515	Post pipe fill below 503						
516	Post pipe fill below 505						
517	Silt over knapping platform 435						
518	Inner post in F530						
519	Post-pipe for 518						
520	Post-pipe for 521						
521	Inner post in F594						
522	Post-pipe for 523						
523	Outer post in F594						
524	Outer post in F507						
525	Leeched lower half of 524						
526	Outer post in F530						
527	Post-pipe for 526						
528	Fill of F507						
529	Fill of F530						
F530	Post slot in inner palisade F541						
F531	Post slot in inner palisade F541						
532	Outer post in F531						
533	Same as 531						
534	Inner post in F531						
535	Fill of F536						
536	Post slot in inner palisade F541						
537	Inner post in F874						
538	Post-pipe for 537						
539	Outer post in F874						
540	Post-pipe for 539						
F541	Feature no. for inner palisade of Neolithic enclosure						
F542	Feature no. for outer palisade of Neolithic enclosure						
543	Unused						
544	Inner post in F574						
545	Unused						
546	Outer post in F574						
547	Unused						
548	Unused						
549	Unused						
F550	Post slot in inner palisade F541						
551	Same as 581						
552	Same as 581						
553	Fill of F550						
554	Same as 582						
555	Post-pipe for 394						
556	Inner post in F875						
557	Post-pipe for 556						
558	Inner post in F666						
559	Post-pipe for 558						

No	Description	P	B	M	F	S	O
560	Outer post in F666						
561	Post-pipe for 560						
562	Inner post in F565						
563	Same as 565						
564	Fill of F565						
F565	Post slot in inner palisade F541						
566	Inner post in F569						
567	Post-pipe for 566						
568	Fill of F569						
F569	Post slot in inner palisade F541						
F570	Post slot in outer palisade						
571	Fill of F570						•
572	Post-pipe for 573						
573	Inner post in F570						
F574	Post slot in outer palisade						
575	Fill of F574						
576	Outer post in F635						
577	Post-pipe for 578						
578	Outer post in F581						
579	Post-pipe for 580						
580	Inner post in F581						
F581	Post slot in inner palisade F541						
582	Fill of F581						
583	Same as 582						
584	Inner post in F874						
585	Post-pipe for 584						
586	Outer post in F874						
587	Post-pipe for 586						
588	Fill of F531						
589	Same as 588						
590	Palaeo-channel fill						
591	Cut for 590						
592	Inner post in F536						
593	Post-pipe for 592						
F594	Post slot in outer palisade						
595	Fill of F594						
596	Inner post in F615						
F597	Large pit cutting inner palisade F541						
598	Upper fill of F597						
599	Fill of F 597 below 598						•
600	Fill of F 597 below 599						
601	Fill of F 597 below 600						
602	Fill of F 597 below 601						
603	Outer post in F615						
F604	Post slot in outer palisade						
605	Fire-altered gravel in base of 606						
606	Inner post in F604						

No	Description	P	B	M	F	S	O
607	Fire-altered gravel in base of 608						
608	Outer post in F604						
609	Fill of F604						
610	Inner post in F878						
611	Post-pipe for 610						
612	Outer post in F878						
613	Post-pipe for 612						
614	Fill of F615						
615	Post slot in outer palisade						
616	Outer post in F536						
617	Post-pipe for 616						
618	Area of animal disturbance in post slot F536						
F619	Unexcavated post slot cut by F597						
620	Fill of F619						
F621	Unexcavated post slot cut by F597						
622	Fill of F621						
623	Same as 867						
624	Inner post in F867						
625	Post-pipe for 626						
626	Outer post in F868						
627	Stones within 632						
628	Post-pipe for 514						
629	Stones within 631/3						
630	Post-pipe for 576						
631	Upper fill of F634/F635						
632	Lower fill of F634						
633	Lower fill of F635						
634	Post slot in inner palisade F541						
F635	Post slot in inner palisade F541						
636	Post-pipe for 513						
637	Fill of F638						
F638	Posthole in centre of palisade						
639	Outer post in F867						
640	Post-pipe for 641						
641	Inner post in F868						
642	Same as 643						
643	Fill of F531						
644	Fill of F531						
645	Same as 644						
646	Same as 644						
647	Fill of F648						
F648	Cut for possible cremation between palisades						
649	Fill of F650						
F650	Posthole in centre of palisade						
651	Fill of F652						
F652	Posthole in centre of palisade						
653	Same as 867						

No	Description	P	B	M	F	S	O
654	Inner post in F670						
655	Post-pipe for 654						
656	Silt patch in hollow in natural ground surface						
657	Silt patch in hollow in natural ground surface						
658	Silt patch in hollow in natural ground surface						
659	Silt patch in hollow in natural ground surface						
660	Fill of F661						
F661	Posthole in centre of palisade						
662	Fill of F663						
F663	Posthole in centre of palisade						
664	Same as 673						
665	Same as 674						
F666	Post slot in inner palisade F541						
667	Fill of F666						
668	Fill of F867						
669	Upper fill of F670						
F670	Post slot in inner palisade F541						
671	Post-pipe for 672						
672	Inner post in F673						
F673	Post slot in inner palisade F541						
674	Fill of F541						
675	Fill of F676						
F676	Posthole in centre of palisade						
677	Fill of F678						
F678	Posthole in centre of palisade						
679	Lower fill of F670						
F680	Posthole in centre of palisade						
681	Fill of F680						
682	Clay-silt spread overlying E side of inner palisade						
683	Re-cut to F685						
684	Fill of F683						
F685	Cut for section through N-S ditch, areas 4+5						
686	Lower fill of F685						
687	Silt overlying F683/F685						
688	Inner post in F689						
F689	Post slot in outer palisade						
690	Outer post in F689						
691	Fill of F689						
692	Unused						
F693	Cut for gravel track						
694	Fill of F693						
695	Fill of F695						
F696	Posthole in centre of palisade						
697	Outer post in F705						
698	Inner post in F705						
699	Paleo-channel fill						
700	Same as 322						

No	Description	P	B	M	F	S	O
701	Same as 324						
702	Southern continuation of 718						
703	'Cut' for 702						
704	Silt lens at top of fill of F685						
F705	Post slot in inner palisade F541						
706	Upper fill of F705						
F707	Section through F885						
708	Fill of F707						
709	Inner post in F635						
710	Post-pipe for 709						
711	Same as 323						
F712	Section through F886						
713	Fill of F712						
714	Fill of F715						
F715	Pit outside eastern edge of palisade						
716	Fill of F717						
717	Pit outside eastern edge of palisade						
718	Palaeo-channel fill						
719	Palaeo-channel fill under 718						
720	Cut for 718						
721	Unused						
722	Unused						
723	Same as 633						
724	Same as 635						
725	Same as 632						
726	Same as 634						
F727	Post slot in inner palisade F541						
F728	Cut for section through N-S ditch, areas 4+5						
729	Fill of F728						
730	Re-cut to F728						
731	Fill of F730						
F732	Posthole on northern edge of area 4						
733	Fill of F732						
734	Lower fill of F705						
735	Natural silt deposit						
736	'Cut' for 735						
737	Natural silt deposit						
738	'Cut' for 737						
739	Fill of F740						
740	Shallow hollow in natural ground surface						
741	Fill of F742						
742	Shallow hollow in natural ground surface						
743	Fill of F744						
744	Shallow hollow in natural ground surface						
F745	Posthole in centre of palisade						
746	Upper fill of F745						
747	Lower fill of F745						

No	Description	P	B	M	F	S	O
748	Inner post in F872						
749	Fill of F872						
750	Same as F872						
751	Outer post in F872						
752	Same as 749						
753	Same as F872						
F754	Western continuation of either F885 or F886						
755	Fill of F754						
F756	Section through F887						
757	Lower fill of F 756						
758	Upper fill of F756						
F759	Fourth phase of E-W ditch system across area 5						
760	Fill of F759						
761	Fill of F859						
F762	Posthole in centre of palisade						
763	Upper fill of F762						
764	Lower fill of F762						
765	Inner post in F727 (lower half)						
766	Inner post in F727 (upper half)						
767	Same as 768						
768	Lower fill of F727						
769	Unused						
770	Upper fill of F727						
771	Outer post in F727 (lower half)						
772	Outer post in F727 (upper half)						
773	Same as 768						
774	Same as 770						
F775	Posthole in centre of palisade						
776	Fill of F775						
777	Fill of F873						
778	Outer post in F873						
779	Same as F873						
780	Inner post in F873						
781	Same as F873						
782	Upper silt fill of F785						
783	Gravel fill of F785						
784	Lower silt fill of F785						
F785	Re-cut to F788						
786	Fill of F788						
787	Silt lens in 786						
F788	Cut for section through N-S ditch, areas 4+5						
789	Natural sand deposit cut by F785/F788						
790	Natural gravel deposit under 789						
791	Lower silt fill of F785. Same as 784?						
792	Variation in 790						
793	Same as 790						
794	Fill of F795						

No	Description	P	B	M	F	S	O
795	Inner posthole in F879						
796	Fill of F797						
797	Outer posthole in F879						
798	Fill of 800						
799	Fill of 801						
800	Outer posthole in F880						
801	Inner posthole in F880						
802	Fill of 804						
803	Fill of 805						
804	Inner posthole in F881						
805	Outer posthole in F881						
806	Void						
807	Same as 765						
808	Outer posthole in F811						
809	Upper fill of F811						
810	Lower fill of F811						
F811	Post slot in inner palisade F541						
812	Inner posthole in F811						
813	Same as 809						
814	Same as 810						
815	Same as 811						
816	Fill of F817						
F817	Third ditch cut in area of F819/F821						
818	Upper silt fill of F819						
F819	Re-cut to F819						
820	Fill of F821						
F821	Cut for section through N-S ditch, areas 4+5						
822	Same as 770						
823	Upper fill of F826						
824	Middle fill of F826						
825	Lower fill of F826						
F826	Section through F887						
827	Fill of F828						
F828	Post slot in outer palisade						
829	Fill of F828						
830	Fill of F831						
F831	Post slot in outer palisade						
832	Lower gravel fill of F817						
833	Upper gravel fill in F819						
834	Lower silt fill in F819						
835	Lower gravel fill in F819						
836	Ceramic land drain						
F837	Cut for 836						
838	Fill of F837						
F839	Single post at northern entrance to outer palisade						
840	Fill of F839						
841	Clay lump within 840						

No	Description	P	B	M	F	S	O
F842	Post slot in inner palisade F541						
843	Fill of F842						
F844	Post slot in eastern entrance to outer palisade						
845	Outer post in F844						
846	Inner post in F844						
847	Stake in eastern entrance to palisade						
848	Stake in eastern entrance to palisade						
849	Fill of F844						
850	Post in F853						
851	Post pipe for 850						
852	Fill of F853						
F853	Post slot in eastern entrance to outer palisade						
854	Fill of F853						
F855	Post slot in outer palisade						
856	Fill of F858						
857	Outer post in F858						
F858	Post slot in inner palisade F541						
F859	Re-cut to F759						
860	Area of stonework in NE of area 4						•
861	Fill of F862						
F862	Post slot in outer palisade (same as 864)						
863	Fill of F864						
F864	Post slot in outer palisade (same as 862)						
865	Gravel lens within F43						
866	Same as 668						
F867	Post slot in outer palisade						
F868	Post slot in outer palisade						
F869	Post slot in outer palisade						
870	Fill of F869						
871	Upper silt fill of F309						
F872	Post slot in outer palisade						
F873	Post slot in outer palisade						
F874	Post slot in inner palisade F541						
F875	Post slot in inner palisade F541						
876	Same as F666						
F877	Post slot in inner palisade F541						
F878	Post slot in inner palisade F541						
F879	Post slot in inner palisade F541						
F880	Post slot in inner palisade F541						
F881	Post slot in inner palisade F541						
F882	Post slot in outer palisade						
883	Fill of F882						
884	Gravel lens between 138 and 151						
F885	First phase of E-W ditch system across area 5						
F886	Second phase of E-W ditch system across area 5						
F887	Third phase of E-W ditch system across area 5						
888	Fourth phase of E-W ditch system across area 5						

No	Description	P	B	M	F	S	O
889	Same as 734						
890	Cut for stake 847						
891	Cut for stake 848						
F892	Cut for circular structure (sentry box?)						
893	Clay-silt spread overlying N side of inner palisade						
894	Fill of F868						

Appendix 2

Table 1 Lithics data

Catalogue arranged by context and small find no (where applicable). Finds in the west quadrant of the knapping platform were logged in 3 dimensions. Those in Context 435 were frequently in clusters [designated (A) to (S)]. Finds from the east quadrant were collected as bulk finds; the other two quadrants were unexcavated. Finds from these quadrants have been numbered sequentially. Unless otherwise stated all items are inner removals.

Context	SF no	Comments
U/S	31	Inner flake. Plain butt, pronounced bulb. 28 x 18 x 8mm.
U/S	32	Inner flake. Plain butt, diffuse bulb. 21 x 11 x 4mm.
U/S	33	Secondary flake, snapped transversely at bulbar end. Retains hard, fawn cortex on dorsal face, distal end.
U/S	34	Inner flake. Plain butt with pronounced small bulb faulted on left edge of distal end. 33 x 10 x 3mm.
U/S	35	Bulbar end of blade. Plain butt, diffuse bulb. Snapped transversely.
U/S	36	Bulbar end of blade/flake. Plain butt, diffuse bulb. Snapped transversely.
U/S	37	Blade segment, broken transversely at distal end and irregularly at bulbar.
U/S	38	Chip.
U/S	39	Blade segment, broken obliquely at distal end and transversely at bulbar.
U/S	40	Burnt chip.
U/S	41	Irregular chunk.
U/S	42	Very small blade segment broken transversely at both ends.
U/S	43	Bulbar end of blade. Plain butt, diffuse bulb. Broken transversely.
U/S	44	Inner flake. Plain butt, diffuse bulb. 31 x 23 x 3mm.
U/S	45	Chip.
U/S	46	Distal end of inner flake. Broken obliquely at bulbar end, hinge termination at distal.
U/S	47	Pot lid flake from thermal shattering. Burnt.
U/S	48	Inner blade. Plain butt, diffuse bulb. Slight notch on right edge at bulbar end? 39 x 15 x 6mm.
U/S	49	Inner flake, broken transversely at bulbar end.
U/S	50	Small section of blade segment, snapped obliquely at both ends.
U/S	51	Secondary flake, snapped transversely at both ends. Retains hard, fawn cortex on right edge, dorsal face.
U/S	54	Thick secondary flake. Plain butt, pronounced bulb. Hard, fawn cortex all down left edge of dorsal face. 48 x 22 x 8mm.
U/S	55	Distal end inner flake/blade, broken transversely.
U/S	56	Inner bladelet, bulbar end removed transversely.
U/S	57	Inner blade-like flake. Plain butt, small pronounced bulb. Slight hinge fracture at distal end. Clearly struck from core with opposed platforms: flake scars on dorsal surface show this. 63 x 22 x 5mm.

Context	SF no	Comments
U/S	60	Chip.
U/S	61	Chip.
U/S	62	Rounded, blue-grey quartzy chunk. ?Natural.
U/S	63	Dorsal end of inner blade/flake, broken transversely.
U/S	64	Dorsal end of inner blade/flake, broken transversely.
U/S	65	Inner blade segment, broken transversely at both ends.
U/S	66	Distal end of inner flake, broken transversely.
U/S	67	Bulbar end of inner flake/blade. Plain butt, pronounced bulb. Broken transversely.
U/S	68	Middle segment of blade broken transversely at both ends.
U/S	69	Bladelet. Complete, but bulbar end removed obliquely.
U/S	70	Core trimming flake, struck to remove ridge of striking platform. Bulbar end snapped off transversely. 41 x 9 x 7mm.
U/S	71	Secondary flake, broken transversely at bulbar end. Retains hard, fawn cortex on dorsal face, left edge.
U/S	72	Very small central section of blade segment, broken transversely at both ends.
U/S	73	Core, with two opposed platforms at opposed angles. Very small – evidence for hinge fracturing and edge shattering on striking platform. Retains hard, fawn cortex on one face. Max. dimensions 40 x 25 x 17mm.
U/S	74	Irregular chip.
U/S	75	Inner flake, broken transversely at bulbar end.
U/S	76	Inner flake from blade core. Plain butt, pronounced bulb. 27 x 15 x 4mm.
U/S	77	?Utilised piece of rounded, grey-blue quartzy chert. Chunk with ?retouch along one edge.
U/S	79	Inner, banded cherty flake. Bulbar end removed irregularly.
U/S	81	Chip.
U/S	82	Chip.
U/S	83	Burnt chip.
U/S	84	Chip.
U/S	85	Bulbar end of small blade. Plain butt, pronounced bulb. Broken transversely.
U/S	86	Chip.
U/S	87	Chip.
U/S	88	Chip.
U/S	89	Chip.
U/S	90	Chip.
U/S	91	Small irregular chunk.
U/S	92	Chip.
U/S	93	Chip.
U/S	94	Burnt chip.
U/S	95	Inner flake. Hinge fracture at distal end, shattered irregularly at bulbar end.
U/S	96	Chip.
U/S	97	Chip.
U/S	98	Chip.

Context	SF no	Comments
U/S	99	Chip.
U/S	100	Chip.
U/S	101	Inner blade segment. Plain butt, diffuse bulb. Broken transversely at distal end.
U/S	102	Inner segment from blade/flake, shattered irregularly at both ends.
U/S	103	Chip.
U/S	104	Inner segment from blade/flake, broken transversely at bulbar end.
U/S	105	Distal end of inner flake, broken transversely at bulbar end.
U/S	106	Core trimming flake, struck to remove platform. Struck parallel to platform. Complete. Hinge fracture at distal end. 33 x 17 x 5mm.
U/S	107	Irregularly shattered inner piece. ?Chip.
U/S	108	Small piece of blade segment, broken transversely at both ends.
U/S	109	Chip.
U/S	110	Bulbar end of inner blade. Plain butt, diffuse bulb. Broken transversely at distal end.
U/S	111	Distal end of inner blade/flake, broken transversely at distal end.
U/S	112	Distal end of inner blade/flake, broken transversely at bulbar end.
U/S	113	Bulbar end of inner blade/flake. Plain butt, diffuse bulb. Broken irregularly at distal end.
U/S	14	Chip.
U/S	115	Irregular chip with ?pot lid spalling. Burnt.
U/S	116	Inner flake. Plain butt, pronounced bulb. Hinge fracture at distal end. 23 x 16 x 3mm.
U/S	117	Bulbar end of bladelet. Plain butt, diffuse bulb. Broken transversely at distal end.
U/S	118	Secondary bladelet. Plain butt, diffuse bulb. Distal end broken at tip transversely. Retains hard, fawn cortex on right edge, dorsal face.
U/S	119	Inner blade segment, broken transversely at both ends.
U/S	120	Inner flake, irregularly shattered.
U/S	121	Inner flake. Plain butt, diffuse bulb. Hinge termination at distal end. 12 x 15 x 2mm.
U/S	122	Inner chip.
U/S	123	Inner flake. Plain butt, pronounced bulb. 12 x 18 x 2mm.
U/S	124	Thin, irregular inner flake. Plain butt, pronounced bulb. 12 x 8 x 2mm.
U/S	125	Bulbar end of inner blade segment. Plain butt, diffuse bulb. Broken transversely at distal end.
U/S	126	Core retaining patch of hard, fawn cortex on one face. Flakes struck from two directions ?from a bigger core. One face has some very large flake removals in evidence. The opposed face clearly for blade removal. Overall max. dimensions 45 x 28 x 27mm.

Context	SF no	Comments
U/S	127	Large secondary flake. Cortical butt, pronounced bulb. 48 x 25 x 11mm.
U/S	128	Inner blade. Plain butt, pronounced bulb. 30 x 10 x 3mm.
U/S	129	Inner blade/flake segment, irregularly shattered at both ends.
U/S	130	Bladelet. Plain, thin bulb. Broken transversely at distal tip.
U/S	131	Chip.
U/S	132	Chip.
U/S	133	Irregular chip.
U/S	134	Chip.
U/S	136	Inner blade segment, broken transversely at both ends.
U/S	137	Distal end of inner flake, broken transversely at bulbar end.
U/S	138	Inner blade/flake segment, broken transversely at both ends.
U/S	139	Chunk.
U/S	140	Chip.
U/S	141	Inner blade segment, broken transversely at both ends.
U/S	144	Chip.
U/S	145	Inner flake, broken irregularly at both ends.
U/S	146	Bulbar end of blade/flake. Plain butt, pronounced bulb. Broken obliquely at distal end.
U/S	147	Chip.
U/S	148	Distal end of inner flake, broken transversely at bulbar end.
U/S	149	Chip.
U/S	150	Inner bladelet segment, broken obliquely at bulbar end.
U/S	151	?Primary flake. Cortical butt, diffuse bulb. Very quartzy flint dorsal face. Hard, smooth grey cortex. 16 x 11 x 2mm.
U/S	152	Small, irregular chunk. Burnt, crackled and scaled.
U/S	153	Inner flake. Plain butt, pronounced bulb. 30 x 22 x 11mm.
U/S	154	Inner bladelet. Bulbar end removed transversely.
U/S	155	Distal end of inner flake. Snapped obliquely, with hinge fracture at distal termination.
U/S	156	Inner flake. Dihedral butt, pronounced bulb. Irregularly broken at distal end.
U/S	157	Very irregular inner flake. Plain butt, ?diffuse bulb. Hinge termination. 19 x 29 x 8mm.
U/S	158	Chip.
U/S	159	Inner flake. Plain butt, pronounced bulb. Very irregular. 20 x 15 x 5mm.
U/S	160	Chip.
U/S	161	Chip.
517	143	Burnt chip.
517	168	Chip
517	169	Bulbar end of small blade/flake. Plain butt, diffuse bulb. Broken transversely.
517	170	Chip.
517	171	Chip.
517	172	Inner flake. Plain butt, diffuse bulb. 15 x 11 x 2mm.
517	172a	Mid segment of bladelet, broken transversely at both ends.
517	173	Chip.

Context	SF no	Comments
517	174	Mid section of blade segment, broken transversely at both ends.
517	175	Inner flake. Plain butt, pronounced bulb. 16 x 8 x 3mm.
517	176	Distal end of blade/flake, broken transversely.
517	177	Mid section of inner blade segment, broken transversely at both ends.
517	178	Chip.
517	179	Chip.
517	180	Chip.
517	181	Core trimming flake, struck at angle to platform to remove part of the platform edge. Broken at bulbar end.
517	182	Chip.
517	183	Inner flake with ? hinge fracture at distal end. Scraper retouch around bulbar end. Bulb removed. 28 x 25 x 5mm.
517	184	Chip.
517	185	Chip.
517	186	Chip.
517	187	Heavy, thick inner flake with many cortical inclusions. Cortical butt, pronounced bulb. Snapped transversely at distal end.
517	188	Chip.
517	189	Inner flake. Plain butt, pronounced bulb. 20 x 14 x 4.
517	190	Chip.
517	191	Inner flake. Plain butt, diffuse bulb. Broken transversely at distal end.
517	192	Burnt chip, heavily spalled.
517	193	Chip.
517	194	Mid section of thick blade-like flake, broken transversely at both ends.
517	195	Mid section of blade segment, broken transversely at both ends. ? Slight denticulation on left edge.
517	196	Chip.
517	197	Chip.
517	198	Chip.
517	199	Chip.
517	200	Chip.
517	201	Burnt chip.
517	202	Chip.
517	203	Chip.
517	204	Inner flake. Plain butt, diffuse bulb. Broken transversely at distal end.
517	205	Chip.
517	206	Secondary flake. Plain butt, pronounced bulb. Hinge fracture at distal end. Retains hard, fawn cortex on right edge of dorsal face, at distal end.
517	207	Irregular inner flake. Plain butt, pronounced bulb. Hinge fracture at distal end. 11 x 10 x 4mm.
517	208	Bulbar end of blade/flake. Plain butt, diffuse bulb, broken obliquely.
517	209	Chip.

Context	SF no	Comments
517	210	Blue-grey quartzy chert inner flake. Broken obliquely at bulbar end.
517	211	Distal end of blade, broken transversely at bulbar end.
517	212	Irregular chip.
517	213	Inner blade. Plain butt, pronounced bulb. 43 x 21 x 4mm.
517	214	Inner flake. Plain butt, pronounced bulb. 36 x 22 x 6mm.
517	215	Bulbar end of secondary flake. Cortical butt, pronounced bulb, broken transversely.
517	216	Chip.
517	217	Inner blade, bulbar end removed transversely.
517	218	Burnt chip.
517	219	Chip.
517	220	Inner flake. Plain butt, pronounced bulb. 17 x 10 x 3mm.
517	221	Chip.
517	222	Mid section of blade, broken transversely at both ends.
517	223	Chip.
517	224	Inner flake, broken transversely at bulbar end.
517	225	Bulbar end of inner blade/flake. Plain butt, diffuse bulb. Broken transversely.
517	226	Chip.
517	227	Grey-blue cherty blade segment, broken transversely at both ends.
517	228	Core trimming flake, struck at angle to remove edge of striking platform. Plain butt, diffuse bulb. 34 x 8 x 7mm.
517	229	Bladelet. Plain butt, diffuse bulb. Broken transversely at distal end.
517	230	Central section of blade segment, broken transversely at both ends.
517	231	Bulbar end of small bladelet. Plain butt, diffuse bulb, broken obliquely.
517	232	Distal end of inner flake, broken transversely.
517	233	Large inner flake. Plain butt, pronounced bulb. 31 x 37 x 5mm.
517	234	Mid section of small blade, broken transversely at both ends.
517	235	Heavily burnt and spalled irregular chip.
517	236	Chip.
517	237	Heavily burnt and spalled mid section of blade segment, broken transversely at both ends.
517	238	Burnt and spalled angular chunk.
517	239	Cortical irregular chip.
517	240	Chip.
517	241	Distal end of inner blade/flake, broken transversely.
517	242	Central section of blade segment, broken transversely at both ends.
517	243	Distal end of inner flake/blade, broken obliquely at bulbar end.
517	244	Distal end of inner flake/blade, broken transversely.
517	245	Blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517	246	Blade. Dihedral butt, diffuse bulb. 49 x 12 x 6mm.
517	247	Distal end of secondary blade, broken transversely at bulbar end.

Context	SF no	Comments
517	248	Blade-like flake, broken transversely at bulbar end.
517	249	Cortical chunk.
517	250	Core trimming flake, broken transversely at bulbar end. Struck to remove striking platform edge
517	251	Distal end of broken microlith. Steep retouch on right edge. ?From scalene triangle.
517	252	Inner flake. Plain butt, diffuse bulb. 16 x 6 x 4mm.
517	253	Fragment from core trimming flake.
517	255	Chip.
517	256	Chip.
517	257	Blade/flake segment, irregularly broken at both ends. Burnt.
517	258	Inner flake. Plain butt, pronounced bulb. Hinge fracture at distal end. 20 x 25 x 6mm.
517	259	Inner flake. Plain butt, diffuse bulb. Cortexy inclusions in flake. 28 x 16 x 2mm.
517	260	Mid section blade segment, broken obliquely at both ends.
517	261	Chip.
517	262	Blade. Plain butt, diffuse bulb. Snapped transversely at distal end.
517	263	Inner flake. Dihedral butt, pronounced bulb. Irregularly shattered at distal end.
517	264	Chip.
517	265	Central section of blade segment, broken transversely at both ends.
517	266	Inner flake. Plain butt, diffuse bulb. Hinge fracture at distal end. 28 x 25 x 8mm.
517	267	Shattered inner flake.
517	268	Inner flake. Plain butt, diffuse bulb. 26 x 19 x 6mm.
517	269	Inner flake. Plain butt, diffuse bulb. Thick hinge fracture at distal end. 21 x 16 x 6mm.
517	271	Irregular chunk.
517	272	Inner flake. Plain butt, diffuse bulb. Broken transversely at distal end.
517	273	Chip.
517	274	Inner flake, broken irregularly at both ends.
517	275	Distal end of inner flake, broken transversely.
517	276a	Bulbar end of inner flake/blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517	276b	Heavy inner flake with cortical butt. Diffuse bulb, heavily snapped transversely.
517	277	Chip
517	278	Bulbar end of blade. Plain butt, diffuse bulb. Broken transversely.
517	280	Inner flake, snapped transversely at bulbar end.
517	281	Mid section of blade segment, broken transversely at both ends.
517	282	Angular chip.
517	283	Inner flake. Plain butt, diffuse bulb. 16 x 10 x 2mm.
517	284	Chip.

Context	SF no	Comments
517	285	Blade segment. Broken transversely at both ends.
517	286	Blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517	287	Irregular chip.
517	288	Mid section inner blade segment, broken obliquely at both ends.
517	289	Inner flake, Plain butt, pronounced bulb. 18 x 12 x 4 mm.
517	290	Inner flake. Plain butt, diffuse bulb. Heavy hinge fracture at distal end. 28 x 36 x 9mm.
517	291	Bulbar end of inner blade. Plain butt, diffuse bulb.
517	292	Blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517	293	Chip.
517	294	Mid section inner blade segment, broken transversely at both ends.
517	295	Very small mid section of blade segment, broken transversely at both ends.
517	296	Chip.
517	297	Blade segment, broken transversely at bulbar end. Hinge fracture at distal end.
517	298	Inner flake. Plain butt, pronounced bulb. 17 x 8 x 3mm.
517	299	Chip.
517	300	Inner flake. Plain butt, pronounced bulb. Irregularly shattered at distal end.
517	301	Inner flake, broken obliquely at bulbar end.
517	302	Chip.
517	303	Inner blade. Plain butt, pronounced bulb. Broken transversely at distal end.
517	304	Chip.
517	305	Mid section of blade segment, broken transversely at both ends.
517	306	Distal end of inner flake, broke transversely.
517	307	Chip.
517	308	Inner flake. Plain butt, diffuse bulb. 18 x 10 x 5mm.
517	309	Irregular chip.
517	310	Cortical secondary blade-like flake, broken transversely at bulbar end.
517	311	Chip.
517	312	Chip.
517	313	Chip.
517	314	Mid section of blade segment, broken transversely at both ends.
517	315	Mid section of blade segment, irregularly shattered at both ends. Spalled and burnt.
517	316	Chip.
517	317	Inner blade segment, broken transversely at distal end and obliquely at bulbar end.
517	318	Primary flake. Cortical butt. Dorsal face retains hard, smooth, fawn cortex. 21 x 33 x 5mm.
517	319	Small bladelet, broken transversely at bulbar end.
517	320	Secondary flake. Plain butt, diffuse bulb. Broken transversely at distal end. Retains hard, pitted cortex on right edge of dorsal face.

Context	SF no	Comments
517	321	Mid section inner blade segment. Broken transversely at both ends.
517	322	Chip.
517	323	Blade section. Plain butt, diffuse bulb. Broken transversely at distal end.
517	324	Small inner flake. Plain butt, diffuse bulb. 8 x 10 x 2mm.
517	325	Blade. Plain butt, pronounced bulb. 37 x 10 x 5mm.
517	326	Small inner flake. Plain butt, pronounced bulb. Hinge fracture at distal end. 7 x 10 x 3mm.
517	327	Distal end of inner blade/flake, broken transversely.
517	328	Mid section of large blade segment, broken transversely at bulbar end and obliquely at distal end.
517	329	Distal end of inner blade/flake. Hinge fracture at distal end, broken transversely.
517	330	Blade segment, broken transversely at bulbar end.
517	331	Inner flake. Thin plain butt, diffuse bulb. Hinge fracture at distal end. 15 x 12 x 2mm.
517	332	Chip.
517	333	Bulbar end of blade segment. Plain butt, pronounced bulb. Broken transversely at distal end.
517	334	Primary flake. Cortical butt, pronounced bulb. Hard fawn cortex on all of dorsal face. 33 x 50 x 26mm.
517	335	Bulbar end of burnt inner flake. Plain butt, diffuse bulb. Irregularly spalled and shattered at distal end.
517	337	Blade segment. Broken transversely at both ends.
517	338	Inner flake. Cortical butt, pronounced bulb. Broken transversely at distal end.
517	339	Inner bladelet. Plain butt, diffuse bulb. 21 x 9 x 3mm.
517	340	Inner blade segment, broken transversely at both ends.
517	341	Core trimming flake, struck to remove one angle edge of striking platform. Plain butt, pronounced bulb. Broken transversely at both ends.
517	342	Middle section of inner blade segment, broken transversely at both ends.
517	343	Inner flake. Plain butt, diffuse bulb. 17 x 13 x 2mm.
517	344	Inner blade segment, broken transversely at both ends.
517	345	Inner blade. Small plain butt, diffuse bulb. Blade tip snapped transversely. 38 x 13 x 4mm.
517	346	Inner blade-like flake. Thin plain butt, diffuse bulb. Cortex inclusion at distal end on bulbar face. 29 x 11 x 4mm.
517	347	Inner blade. Cortical butt, diffuse bulb. Broken transversely at distal end. 52 x 19 x 7mm.
517	348	Small inner flake. Plain butt, diffuse bulb. Hinge fracture at distal end. 9 x 7 x 1mm.
517	349	Small inner flake. Plain butt, pronounced bulb. Hinge fracture at distal end. 52 x 25 x 10mm.
517	350	Distal end of inner flake, broken transversely.

Context	SF no	Comments
517	351	Bulbar end of inner blade. Plain butt, diffuse bulb. Broekn transversely.
517	352	Chip.
517	353	Irregular chip.
517	354	Chip.
517	355	Inner flake. Plain butt, diffuse bulb. Hinge fracture at distal end. 12 x 10 x 2mm.
517	356	Chip.
517	357	Bulbar end of inner blade. Plain butt, diffuse bulb. Broken transversely.
517	358	Inner flake. Plain butt, pronounced bulb. 16 x 15 x 4mm.
517	359	Irregular chip.
517	360	Inner blade segment, broken irregularly at bulbar end.
517	361	Chip.
517	362	Chip.
517	363	Chip.
517	364	Inner blade. Dihedral butt, diffuse bulb. 37 x 13 x 6mm.
517	365	Inner blade. Broken transversely at bulbar end, hinge fracture at distal end.
517	366	Irregular chunk.
517	367	Small inner bladelet .?Cortical butt, diffuse bulb. Broken transversely at distal end.
517	368	Inner flake. Plain butt, diffuse bulb.14 x 7 x 2mm.
517	369	Chip.
517	370	Inner blade segment, broken transversely at both ends.
517	371	Secondary blade segment, broken obliquely at both ends. Retains hard, fawn cortex on left edge.
517	372	Chip.
517	373	Central section of blade segment, broken transversely at both ends.
517	374	Chip.
517	375	Chip.
517	376	Inner flake. Plain butt, pronounced bulb. 24 x 16 x 3mm.
517	377	Inner flake. Plain butt, diffuse bulb. Hinge fracture at distal end. 15 x 13 x 3mm.
517	378	Chip.
517	379	Chip.
517	380	Distal end of inner blade, broken transversely.
517	381	Chip.
517	382	Chip.
517	383	Small inner blade segment, broken transversely at bulbar end.
517	384	Chip.
517	385	Inner blade. Bulbar and distal ends both removed transversely.
517	386	Inner flake. Plain butt, pronounced bulb. 11 x 12 x 3mm.
517	387	Inner flake. Plain butt, diffuse bulb. 16 x 10 x 2mm.
517	388	Chip.
517	390	Inner flake. Plain butt, diffuse bulb. Scraper retouch at distal end. Roughly circular. 23 x 20 x 4mm.

Context	SF no	Comments
517	391	Inner blade segment, broken transversely at both ends.
517	392	Inner flake. Plain butt, pronounced bulb. 11 x 14 x 13mm.
517	393	Inner flake. Plain butt, diffuse bulb.27 x 15 x 4mm.
517	394	Inner flake, obliquely broken at bulbar end.
517	395	Inner blade segment, broken transversely at both ends.
517	396	Chip.
517	397	Irregular blade. Plain butt, pronounced bulb. 19 x 10 x 4mm.
517	398	Inner blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517	399	Secondary blade, broken transversely at bulbar end. Retains hard, pitted, fawn cortex on dorsal face.
517	400	Chip.
517	401	Secondary flake, broken transversely at bulbar end. Retains hard, pitted, fawn cortex on dorsal face, distal end.
517	403	Chip.
517	404	Inner blade segment, broken transversely at bulbar end and obliquely at distal end.
517	405	Small inner bladelet. Plain butt, diffuse bulb. Broken transversely at distal end.
517	406	Bulbar end of inner flake. Plain butt, diffuse bulb. Broken irregularly at distal end.
517	407	Cortical flake. Plain butt, diffuse bulb. 16 x 24 x 5mm.
517	408	Chip.
517	409	Central section of inner blade segment, broken transversely at both ends.
517	410	Inner blade. Plain butt, diffuse bulb. Broken obliquely at distal end.
517	411	Chip.
517	412	Small bladelet. Plain butt, diffuse bulb. Broken transversely at distal end.
517	413	Chip.
517	414	Chip.
517	415	Inner bladelet. Plain butt, diffuse bulb. 17 x 8 x 2mm.
517	416	Chip.
517	417	Irregular chip.
517	418	Irregular inner flake. Plain butt, pronounced bulb. 11 x 11 x 6mm.
517	419	Inner bladelet. Plain butt, diffuse bulb. 21 x 11 x 3mm.
517	420	Chip.
517	421	Chip.
517	422	Blade. Thin, plain butt, diffuse bulb. 32 x 8 x 2mm.
517	423	Inner blade segment, broken transversely at both ends.
517	424	Irregular chip.
517	425	Bulbar end of inner blade. Plain butt, diffuse bulb. Broken transversely.
517	426	Inner flake. Plain butt, diffuse bulb. Hinge fracture at distal end. 11 x 10 x 1mm.

Context	SF no	Comments
517	427	Inner blade, broken transversely at bulbar end. Hinge fracture at distal end.
517	428	Inner bladelet. Plain butt, diffuse bulb. Broken transversely at distal end.
517	429	Inner blade. Plain butt, diffuse bulb. 28 x 8 x 4mm.
517	430	Central section of small inner blade segment, broken transversely at both ends.
517	431	Inner blade segment, broken transversely at both ends.
517	432a	Inner blade segment. Plain butt, diffuse bulb. Broken transversely at distal end.
517	432b	Small inner blade segment, broken transversely at both ends.
517	433	Inner flake. Plain butt, diffuse bulb. 10 x 6 x 2mm.
517	434	Chip.
517	435	Inner blade segment, broken transversely at bulbar end and irregularly at distal end.
517	436	Central section of blade segment, broken transversely at both ends.
517	437	Microlith. Retouched on right edge, broken obliquely at bulbar end. ?From scalene triangle.
517	438	Bulbar end of inner flake. Plain butt, diffuse bulb. Broken transversely at distal end.
517	439	Inner blade. Plain butt, diffuse bulb. 43 x 12 x 5mm.
517	440	Inner flake, broken irregularly at bulbar end.
517	441	Chip.
517	442	Small inner flake. Plain butt, diffuse bulb. 8 x 8 x 2mm.
517	443	Small bladelet, broken transversely at bulbar end.
517	444	Bladelet, broken transversely at bulbar end
517	445	Inner blade segment. Plain butt, diffuse bulb. Broken transversely at bulbar end
517	446	Irregular chip. Burnt.
517	447	Chip.
517	448	Inner blade segment, broken transversely at both ends.
517	449	Inner flake. Plain butt, diffuse bulb. Hinge fracture at distal end. 16 x 22 x 3mm.
517	450	Chip.
517	451	Distal end of inner flake, broken transversely at bulbar end.
517	452	Irregular inner flake. Plain butt, diffuse bulb. Irregularly shattered at distal end.
517	453	Distal end of inner blade, broken transversely.
517	454	Irregular flake fragment. Burnt and spalled.
517	455	Irregular chip.
517	456	Inner blade segment, broken transversely at both ends.
517	457	Chip
517	458	Chip
517	459	Distal end of inner flake, broken obliquely at bulbar end.
517	460	Inner blade segment, broken transversely at both ends.
517	461	Chip.

Context	SF no	Comments
517	463	Bulbar end of inner blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517	464	Irregularly fractured inner flake fragment. Chip.
517	465	Burnt chip.
517	466	Chip.
517	467	Bulbar end of inner blade, broken transversely.
517	468	Very elegant blade. Thin plain butt, diffuse bulb. 57 x 8 x 5mm.
517	469	Chip.
517	470	Small inner bladelet. Plain butt, diffuse bulb. 10 x 4 x 1mm.
517	471	Burnt chip.
517	472	Small inner flake. Plain butt, diffuse bulb. 12 x 10 x 3mm.
517	473	Inner flake. Plain butt, diffuse bulb. 17 x 6 x 2mm.
517	474	Irregular burnt fragment. Chip.
517	475	Inner flake. Plain butt, diffuse bulb. 17 x 12 x 4mm.
517	476	Inner chip.
517	478	Mid section of inner blade segment. Broken transversely at both ends.
517	479	Irregular burnt ship.
517	480	Bladelet. Plain butt, diffuse bulb. 27 x 12 x 3mm.
517	481	Bulbar end of inner blade. Plain butt, disuse bulb. Broken transversely.
517	482	Distal end of inner blade, broken transversely, Hinge fracture at distal end.
517	483	Inner bladelet, broken transversely at bulbar end.
517	484	Inner blade-like flake. Plain butt, diffuse bulb. 48 x 20 x 10mm.
517	485	Inner blade segment, broken transversely at bulbar end. Hinge fracture at distal end.
517	486	Irregular chunk, retaining hard, pitted fawn cortex.
517	487	Burnt chip.
517	488	Burnt chip.
517	489	Distal end of inner blade-like flake. Broken transversely at bulbar end.
517	490	Inner flake, broken irregularly at bulbar end. Hinge fracture at distal end.
517	491	Chip.
517	492	Irregular burnt chip.
517	493	Bulbar end of inner blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517	494	Inner blade segment. Plain butt, diffuse bulb. Broken transversely at distal end.
517	495	Mid section of inner blade segment, broken transversely at both ends.
517	496	Irregularly shattered inner flake, broken at both ends.
517	497	Irregularly shattered core fragment.
517	498	Inner flake. Plain butt, diffuse bulb. 13 x 14 x 2mm.
517	499	Inner blade segment, broken transversely at both ends.
517	500	Irregular ?burnt chip.
517	501	Chip.

Context	SF no	Comments
517	502	Inner flake. Plain butt, pronounced bulb. 27 x 11 x 4mm.
517	503	Inner blade, broken transversely at bulbar end.
517	504	Inner flake. Plain butt, diffuse bulb. Broken transversely at distal end.
517	505	Inner flake. Dihedral butt, pronounced bulb. Broken irregularly at distal end.
517	506	Mid section of blade segment, broken transversely at both ends.
517	507	Burnt chip.
517	508	Burnt chip.
517	509	Inner flake, broken transversely at bulbar end.
517	510	Chip.
517	511	Chip.
517	512	Inner flake. Plain butt, diffuse bulb. Hinge fracture at distal end. 12 x 9 x 2mm.
517	513	Chip.
517	514	Chip.
517	515	Chip.
517	516	Chip.
517	517	Chip.
517	518	Mid section of inner blade segment. Broken obliquely at bulbar end and transversely at distal end.
517	519	Burnt chip.
517	520	Chunk.
517	521	Bladelet. Plain butt, diffuse bulb. Broken transversely at distal end. Burnt.
517	522	Mid section of small inner blade segment, broken transversely at both ends.
517	523	Inner flake. Broken transversely at bulbar end, hinge fracture at distal end.
517	524	Chip.
517	525	Inner flake. Thin, plain butt, diffuse bulb. 14 x 11 x 4mm.
517	526	Burnt chip.
517	527	Irregular chip.
517	528	Pot lid flake?
517	529	Secondary flake. Plain butt, pronounced bulb. Broken transversely at distal end.
517	530	Chip.
517	531	Small inner flake. Plain butt, diffuse bulb. 10 x 9 x 2mm.
517	532	Chip.
517	533	Chip.
517	534	Burnt chip.
517	535	Inner blade segment, broken obliquely at both ends.
517	536	Inner flake. Plain butt, diffuse bulb. 8 x 12 x 2mm.
517	537	Bulbar end of inner blade. Plain butt, diffuse bulb. Broken transversely.
517	538	Core fragment, retaining hard, fawn cortex on one face. Irregularly shattered.
517	539	Chip.

Context	SF no	Comments
517	540	Burnt chip.
517	541	Chip.
517	542	Blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517	543	Fragmentary inner flake. Irregularly broken at both ends. Burnt and spalled.
517	544	Blade segment, broken transversely at both ends.
517	545	Irregularly shattered fragment. Burnt and spalled.
517	546	Burnt chip.
517	547	Chip.
517	548	Secondary blade-like flake. Plain butt, pronounced bulb. Hard, fawn cortex patch on dorsal face, bulbar end. 27 x 15 x 4mm.
517	549	Blade segment. Broken transversely at bulbar end, slight hinge fracture at dorsal.
517	550	Bulbar end of inner blade. Plain butt, diffuse bulb. Broken transversely.
517	551	Blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517	552	Thin inner blade segment. Broken transversely at both ends.
517	553	Chip.
517	554	Inner flake. Plain butt, diffuse bulb. Broken obliquely at distal end.
517	555	Inner flake. Plain butt, diffuse bulb. 13 x 10 x 3mm.
517	556	Chip.
517	557	Inner blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517	558	Inner flake. Plain butt, pronounced bulb. 16 x 22 x 6mm.
517	559	Inner blade. Plain butt, diffuse bulb. Hinge fracture at distal end. 34 x 10 x 5mm.
517	560	Inner flake, broken transversely at both ends.
517	561	Distal end of inner flake, broken transversely at bulbar end.
517	562	Inner blade segment, broken transversely at both ends.
517	563	Microlith. Obliquely blunted point on bladelet, with hinge fracture at distal end. Retouched on left edge. Right edge very sharp and fresh. 30 x 9 x 3mm.
517	564	Chip.
517	565	Irregular burnt flake.
517	566	Inner blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517	567	Irregular inner flake, broken transversely at bulbar end.
517	569	Irregular inner flake. Spalled and burnt.
517	570	Inner flake, broken obliquely at bulbar end.
517	571	Chip.
517	572	Chip.
517	574	Small, mid section blade segment, broken transversely at both ends.
517	575	Irregular inner flake. Shattered, spalled and burnt.
517	576	Chip.
517	577	Irregular chip.

Context	SF no	Comments
517	578	Irregular inner flake. Plain butt, diffuse bulb. ?Mis-hit plunging flake. 24 x 8 x 3mm.
517	579	Blade. Plain butt, diffuse bulb. Snapped transversely at distal end.
517	580	Inner flake. Plain butt, diffuse bulb. Hinge fracture at distal end. 26 x 23 x 5mm.
517	581	Chip.
517	582	Inner bladelet. Thin, plain butt, diffuse bulb. Broken irregularly at distal end.
517	583	Central section of inner blade segment. Broken transversely at both ends.
517	584	Middle section of blade segment. Broken obliquely at bulbar end and transversely at distal. Burnt.
517	585	Inner blade, broken transversely at bulbar end.
517	586	Inner flake. Thin, plain butt, diffuse bulb. Hinge fracture at distal end. 11 x 12 x 4mm.
517	587	Chip.
517	588	Blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517	589	Secondary flake. Plain, thin butt, diffuse bulb. Hinge fracture at distal end. Hard, fawn cortex on dorsal face. 26 x 30 x 7mm.
517	590	Mid section of inner blade segment, broken transversely at both ends.
517	591	Primary flake. Broken transversely at both ends. Retains hard, fawn cortex on all of the dorsal face.
517	592	Inner blade, broken transversely at both ends.
517	593a	Chip.
517	593b	Chip.
517	594	Inner flake, broken transversely at bulbar end.
517	595	Inner flake. Plain butt, diffuse bulb. 12 x 11 x 2mm.
517	596	Inner blade, broken transversely at both ends.
517	597	Heavy inner flake. Plain butt, diffuse bulb. 28 x 27 x 7mm.
517	498	Inner flake with ?cortical butt, pronounced bulb. Broken transversely at distal end.
517	599	Small inner flake. Plain butt, diffuse bulb. 11 x 7 x 2mm.
517	600	Inner blade segment, broken transversely at bulbar end.
517	601	Bulbar end of inner flake/blade. Thin, plain butt, diffuse bulb. Broken transversely at distal end.
517	602	Inner blade. Plain butt, diffuse bulb. Broken obliquely at distal end.
517	602a	Primary flake. Plain butt, pronounced bulb. Dorsal face retains hard, fawn cortex. 25 x 24 x 5mm.
517	603	Distal end of inner blade. Hinge fracture at distal end. Broken transversely at bulbar end.
517	604	Chip.
517	605	Irregular chip.
517	606	Inner flake. Plain butt, diffuse bulb. Broken transversely at distal end.

Context	SF no	Comments
517	607	Inner flake. Thin, plain butt, diffuse bulb. Broken transversely at distal end.
517	608	Distal end of inner flake. Broken transversely at bulbar end.
517	609	Inner blade. Plain butt, diffuse bulb. 21 x 9 x 3mm.
517	610	Microlith. Broken transversely at both ends, retouched on left edge. ?Rod-like or broken triangle. 21 x 8 x 2mm.
517	611	Distal end of inner flake, broken irregularly at bulbar end.
517	612	Very thin mid section of blade segment, broken transversely at both ends.
517	613	Inner blade, dorsal end with marked hinge fracture, Broken transversely at bulbar end.
517	614	Secondary blade. Thin, cortical butt, diffuse bulb. Retains hard, fawn cortex on dorsal face, left edge. 33 x 13 x 3mm.
517	615	Irregular chip.
517	616	Inner flake. Thin, plain butt, diffuse bulb. 31 x 10 x 3mm.
517	617	Inner blade, broken transversely at bulbar end.
517	618	Chip.
517	619	Chip.
517	620	Inner flake. Plain butt, diffuse bulb. 14 x 8 x 3mm.
517	621	Inner flake. Plain butt, pronounced bulb. 16 x 15 x 3mm.
517	622	Inner flake. Plain butt, pronounced bulb. 15 x 9 x 3mm.
517	623	Inner flake. Plain butt, diffuse bulb. 17 x 18 x 2mm.
517	624	Irregular flake fragment. Burnt and spalled.
517	625	Chip.
517	626	Small inner flake. Plain butt, very diffuse bulb. Hinge fracture at distal end. 9 x 9 x 1mm.
517	627	Mid section of inner blade segment, broken transversely at both ends.
517	628	Inner blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517	629	Mid section of small inner blade segment. Broken transversely at both ends.
517	630	Irregular angular chunk. Very fresh, sharp edges.
517	631	Chip.
517	632	Inner flake. Thin, plain butt, diffuse bulb. 15 x 15 x 2mm.
517	633	Irregular shattered flake. Burnt and spalled.
517	634	Irregular bladelet. Plain butt, diffuse bulb. 18 x 6 x 2mm.
517	635	Chip.
517	636	Inner flake, broken transversely at bulbar end.
517	637	Burnt chip.
517	638	Inner flake, broken transversely at bulbar end. Hinge fracture at distal end.
517	639	Inner flake, irregularly shattered at bulbar end.
517	640	Inner flake, broken obliquely at bulbar end.
517	641	Scraper on secondary flake. Cortical but, diffuse bulb. Retouched around distal end. Dorsal face retains hard, fawn cortex. 28 x 22 x 6mm.
517	642	Inner flake, broken transversely at bulbar end.

Context	SF no	Comments
517	643	Inner flake. Broken transversely at distal end, shattered irregularly at bulbar end. Burnt and spalled.
517	644	Inner flake, broken transversely at both ends.
517	644a	Chip.
517	645	Chip.
517	646	Inner blade. Plain butt, diffuse bulb. 38 x 10 x 6mm.
517	647	Chip.
517	648	Inner blade. Hinge fracture at distal end, broken transversely at bulbar end.
517	649	Chip.
517	650	Irregular chip.
517	651	Irregular chip.
517	652	Inner blade, broken transversely at bulbar end, hinge fracture at distal.
517	653	Inner flake. Plain butt, diffuse bulb. Broken transversely at distal end.
517	654	Distal end of inner blade, broken transversely at bulbar end.
517	655	Chip.
517	656	Irregular chip. Burnt and spalled.
517	657	End scraper on distal end of primary flake. Plain butt, pronounced bulb. Retouched at distal end and on right and left edges. 30 x 25 x 7mm.
517	658	Chip.
517	659	Inner flake. Plain butt, diffuse bulb. Hinge fracture at distal end. 13 x 8 x 1mm.
517	660	Irregular chip. Burnt and spalled.
517	661	Secondary flake. Cortical butt, pronounced bulb. Hinge fracture at distal end. 25 x 18 x 7mm.
517	662	Burnt chip.
517	663	Dark grey chert inner flake. Plain butt, diffuse bulb. 25 x 10 x 2mm.
517	665	Chip.
517	666	Huge inner flake. Plain butt, pronounced bulb. Slight hinge fracture at distal end. ?Utilised on left edge. 93 x 40 x 15mm.
517	667	Chip.
517	668	Chip.
517	669	Chip.
517	670	Mid section of inner blade segment. Broken transversely at both ends.
517	671	Chip.
517	672	Chip.
517	673	Inner flake. Plain butt, diffuse bulb. 16 x 7 x 3mm.
517	674	Chip.
517	675	Inner flake, broken transversely at bulbar end.
517	676	Irregularly shattered inner flake. Burnt and spalled.
517	677	Inner blade, broken irregularly at bulbar end.
517	678	Heavy inner flake segment, broken transversely at both ends.

Context	SF no	Comments
517	679	Microlith. Broken transversely at distal end. Retouched on left edge. ?Large scalene triangle. 25 x 8 x 3mm.
517	680	Inner bladelet. Plain butt, diffuse bulb. Snapped transversely at distal end.
517	681	Heavy inner flake. Plain butt, pronounced bulb. 28 x 28 x 12mm.
517	681a	Irregular flake fragment. Burnt, shattered and spalled.
517	682	Inner blade. Bulbar end removed transversely.
517	683	Inner flake. Plain butt, diffuse bulb. 14 x 11 x 2mm.
517	684	Bulbar end of inner flake, Plain butt, pronounced bulb. Broken transversely at distal end.
517	685	Chip.
517	686	Inner flake. Plain butt, pronounced bulb. 25 x 21 x 4mm.
517	687	Mid section of inner blade segment. Broken transversely at both ends.
517	688	Chip.
517	689	Mid section of inner blade segment. Broken transversely at both ends.
517	690	Heavy inner flake. Plain butt, pronounced bulb. Large hinge fracture at distal end. 56 x 26 x 9mm.
517	691	Inner flake. Plain butt, pronounced bulb. Hinge fracture at distal end. 24 x 25 x 6mm.
517	692	Inner blade. Plain butt, diffuse bulb. Broken obliquely at distal end.
517	693	Bulbar end of inner blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517	694	Inner flake. Plain butt, diffuse bulb. Hinge fracture at distal end. 14 x 14 x 2mm.
517	695	Inner flake. Broken obliquely at bulbar end, hinge fracture at distal end.
517	696	Chip.
517	697	Bulbar end of inner blade. Plain butt, pronounced bulb. Broken obliquely at distal end.
517	698	Mid section of inner blade segment, broken transversely at both ends.
517	699	Mid section of inner blade segment, broken transversely at both ends.
517	700	Chip. Burnt and spalled.
517	701	Distal end of inner blade, broken transversely.
517	702	Bulbar end of inner blade. Plain butt, diffuse bulb. Broken transversely.
517	703	Inner flake. Plain butt, diffuse bulb. 17 x 10 x 2.
517	704	Chip.
517	705	Inner blade segment, broken transversely at both ends.
517	706	Inner blade segment, broken transversely at bulbar end and obliquely at distal.
517	707	Inner blade segment, broken transversely at both ends.
517	708	Mid section of inner blade segment, broken transversely at bulbar end and obliquely at distal

Context	SF no	Comments
517	709	Chip.
517	710	Chip.
517	711	Core trimming flake, struck to remove a corner of striking platform. Previous blade removals clearly seen on one face. Broken obliquely at bulbar end.
517	712	Bulbar end of inner blade. Plain butt, diffuse bulb. Broken transversely.
517	713	Inner flake. Plain butt, diffuse bulb. 18 x 18 x 7.
517	714	Inner flake. Plain butt, diffuse bulb. 18 x 12 x 2.
517	715	Bulbar end of inner blade/flake. Plain butt, diffuse bulb. Broken transversely.
517	716	Bulbar end of inner blade/flake. Plain butt, diffuse bulb. Broken obliquely.
517	717	Small inner flake, broken transversely at bulbar end.
517	718	Inner flake. Cortical butt, pronounced bulb. 22 x 23 x 4mm.
517	719	Mid section of inner blade segment, broken transversely at both ends.
517	720	Chip.
517	721	Core trimming flake, struck to striking platform to remove core tablet. Cortical butt, pronounced bulb. Previous flake removals from core visible across distal end.
517	722	Chip.
517	723	Chip.
517	724	Chip.
517	725	Inner flake. Broken irregularly at bulbar end and transversely at distal.
517	726	Large, thick angular flake. Cortical butt and pronounced bulb. 26 x 30 x 12mm.
517	727	Secondary flake, broken obliquely at bulbar end. Hard, fawn cortex on right edge of dorsal face.
517	728	Chip.
517	729	Chip.
517	730	Chip.
517	731	Chip.
517	732	Distal end of inner blade/flake. Burnt and spalled.
517	733	Inner flake. Plain butt, diffuse bulb. Hinge fracture at distal end. 12 x 10 x 2mm.
517	734	Chip.
517	735	Inner blade. Plain butt, diffuse bulb. Broken transversely at distal end. ?Large bulbar end removal.
517	736	Chip.
517	737	Inner blade segment, broken transversely at bulbar end and obliquely at distal. Burnt and spalled.
517	738	Middle section of inner blade segment, broken transversely at both ends.
517	739	Chip.
517	740	Inner flake. Plain butt, diffuse bulb. Thick hinge fracture at distal end. 9 x 21 x 4mm.

Context	SF no	Comments
517	741	Cortical flake. Cortical butt, diffuse bulb. 13 x 13 x 2mm.
517	742	Chip.
517	743	Chip.
517	744	Inner blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517	745	Chip.
517	746	Chip.
517	747	Inner flake. Cortical inclusions on butt, diffuse bulb. 28 x 16 x 5mm.
517	748	Chip.
517	749	Irregular, angular chip.
517S1	-	Bulbar end of blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517S2	-	Possible microlith fragment. Broken at both ends. ?Retouch on left edge.
517S3	-	Inner flake. Plain butt, pronounced bulb. 38 x 13 x 4mm.
517S4	-	Inner bladelet. Plain butt, diffuse bulb. 19 x 5 x 2mm.
517S5	-	Inner flake, broken transversely at bulbar end.
517S6	-	Inner flake. Plain butt, pronounced bulb. Broken obliquely at distal end.
517E1	-	Secondary flake, broken transversely at both ends. Retains hard, fawn cortex on right edge of dorsal face.
517E2	-	Core. Flakes removed from at least three directions. Max. dimensions 50 x 47 x 24mm.
517E3	-	Heavy chert inner flake. Irregularly shattered.
517E4	-	Heavy secondary flake. Plain butt, pronounced bulb. Cherty cortex on right edge dorsal face. 63 x 32 x 17mm.
517E 5	-	Inner flake. Plain butt, diffuse bulb. Broken obliquely at distal end.
517E6	-	Inner blade, broken irregularly at bulbar end and transversely at distal end.
517E7	-	Blade, broken transversely at both ends.
517E8	-	Mid section of inner blade segment, broken transversely at both ends.
517E9	-	Inner blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517E10	-	Blade. Broken transversely at bulbar end, slight hinge fracture at distal end.
517E11	-	Blade. Plain butt, diffuse bulb. 34 x 13 x 6mm.
517E12	-	Inner flake. Plain butt, pronounced bulb. 25 x 26 x 6mm.
517E13	-	Inner flake. Broken transversely at bulbar end and irregularly at distal end.
517E14	-	Inner blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517E15	-	Bulbar end of inner flake. Plain butt, diffuse bulb. Broken transversely.
517E16	-	Bladelet. Plain butt, diffuse bulb. 23 x 9 x 4mm.

Context	SF no	Comments
517E17	-	Inner flake. Plain butt, pronounced bulb. Hinge fracture at distal end. 41 x 26 x 5mm.
517E18	-	Bulbar end of inner flake. Plain butt, diffuse bulb.
517E19	-	Blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517E20	-	Distal end of inner flake/blade, broken transversely.
517E21	-	Distal end of inner flake, broken transversely.
517E22	-	Blade. Plain butt, diffuse bulb. 29 x 9 x 2mm.
517E23	-	Middle section of blade segment, broken transversely at both ends.
517E24	-	Inner blade-like flake. Plain butt, diffuse bulb. 26 x 15 x 4mm.
517E25	-	Inner flake, distal end broken transversely and broken obliquely at bulbar end.
517E26	-	Mid section of inner flake segment, broken transversely at both ends.
517E27	-	Bulbar end of blade. Plain butt, diffuse bulb. Broken transversely at distal end.
517E28	-	Inner flake, broken transversely at bulbar end.
517E29	-	Bulbar end of inner blade. Plain butt, diffuse bulb. Irregularly broken at distal end.
517E30	-	Inner flake. Plain butt, diffuse bulb. ?From core trimming. 27 x 25 x 7mm.
517E31	-	Inner flake. Plain butt, diffuse bulb. 34 x 19 x 5mm.
517E32	-	Mid section of inner blade segment, broken transversely at both ends.
517E33	-	Inner flake. Plain butt, diffuse bulb. 19 x 14 x 3mm.
517E34	-	Inner flake. Plain butt, diffuse bulb. 22 x 28 x 4mm.
517E35	-	Bulbar end of inner flake. Plain butt, diffuse bulb. Broken transversely.
517E36	-	Inner blade. Plain butt, diffuse bulb. 22 x 9 x 4mm.
517E37	-	Core fragment. Burnt, spalled and irregularly shattered.
517E38	-	Mid section of inner blade segment, broken transversely at both ends.
517E39	-	Inner flake. Plain butt, diffuse bulb. Slight hinge fracture at distal end. 21 x 20 x 3mm.
517E40	-	Inner flake, broken irregularly at both ends.
517E41	-	Inner flake. Plain butt, pronounced bulb. 24 x 10 x 5mm.
517E42	-	Inner blade, broken transversely at bulbar end.
517E43	-	Inner flake. Plain butt, diffuse bulb. 16 x 19 x 2mm.
517E44	-	Mid section of inner bladelet segment, broken transversely at both ends.
517E45	-	Bulbar end of inner flake/blade. Plain butt, diffuse bulb. Broken transversely.
517E46	-	Inner flake. Plain butt, pronounced bulb. Broken transversely at distal end.
517E47	-	Small chunk.
517E48	-	Core trimming flake, struck to remove edge of platform. Bulbar end broken transversely.

Context	SF no	Comments
517E49	-	Dark grey inner chert flake. Plain butt, diffuse bulb. Broken transversely at distal end.
517E	-	7 ?Natural blue-grey, quartzy fragments, 6 burnt chips, 19 chips, 1 chert chunk.
435(A)	750	Inner blade segment, broken transversely at both ends
435(A)	751	Irregular inner flake. Plain butt, diffuse bulb. 26 x 22 x 6mm.
435(A)	752	Chip.
435(A)	753	Inner blade-like flake. Plain butt, diffuse bulb. 25 x 17 x 4mm.
435(A)	754	Chip.
435(A)	755	Distal end of inner blade-like flake. Retains ?scraper retouch around distal end. Broken obliquely.
435(A)	756	Small inner bladelet. Plain butt, diffuse bulb. 15 x 5 x 1m.
435(A)	757	Irregular inner flake, irregularly shattered at bulbar end.
435(A)	758	Chip.
435(A)	759	Inner blade segment, broken transversely at both ends.
435(A)	760	Inner flake. Plain butt, diffuse bulb. Broken irregularly at distal end.
435(A)	761	Secondary flake. Cortical butt, pronounced bulb. Slight hinge fracturing at distal end. Retains patch of hard, fawn cortex on left edge dorsal face. 36 x 22 x 5mm.
435(A)	762	Inner flake. Plain butt, pronounced bulb. 36 x 22 x 5mm.
435(A)	763	Inner flake. Plain butt, pronounced bulb. Broken obliquely at distal end.
435(A)	764	Inner blade. Snapped transversely to remove bulbar end.
435(A)	765	Inner blade segment. Plain butt, diffuse bulb. Snapped transversely at distal end.
435(A)	766	Chip.
435(A)	767	Inner blade-like flake. Plain butt, diffuse bulb. Broken transversely at distal end.
435(A)	768	Irregular inner flake. Plain butt, diffuse bulb. 17 x 13 x 3mm.
435(A)	769	Blade. Plain butt, diffuse bulb. Broken transversely at distal end.
435(A)	770	Irregular chip.
435(A)	771	Chip with hard, fawn cortex on one face.
435(A)	772	Inner flake. Dihedral butt, pronounced bulb. Irregularly broken at distal end.
435(A)	773	Chip.
435(A)	774	Inner flake. Irregularly shattered at both ends.
435(A)	775	Bulbar end of thin blade/blade-like flake. Plain butt, diffused bulb. Broken transversely at distal end.
435(A)	776	Chip.
435(A)	777	Inner flake. Plain butt, pronounced bulb. Broken obliquely at distal end.
435(A)	778	Secondary flake. Broken at bulbar end. Hard fawn cortex on dorsal face.
435(B)	779	Inner flake. Plain butt, pronounced. 14 x 13 x 3mm.
435(B)	780	Distal end inner flake, broken transversely.
435(B)	781	Bulbar end of inner bladelet, broken transversely.

Context	SF no	Comments
435(A)	782	Very small inner blade segment. Broken transversely at bulbar end.
435(A)	783	Bulbar end of small bladelet. Plain butt, diffuse bulb. Broken transversely at distal end.
435(A)	784	Irregularly shattered inner flake.
435(A)	785	Inner flake. Cortical butt, pronounced bulb. Hinge fracture at distal end. 12 x 18 x 4mm.
435(A)	787	Inner flake. Plain butt, diffuse bulb. Hinge fracture at distal end. 28 x 15 x 3mm.
435(A)	788	Distal end of small bladelet, broken transversely at bulbar end.
435(A)	788a	Inner blade. Plain butt, diffuse bulb. Broken transversely at distal end.
435(A)	789a	Chip.
435(A)	789b	Chunk.
435(A)	790	? Core trimming flake. Struck from base of core to remove platform, but broken transversely at bulbar end.
435(A)	791	Inner flake. Plain butt, diffuse bulb. 24 x 11 x 3.
435(A)	792	Inner flake. Plain butt, diffuse bulb.19 x 21 x 3mm.
435(A)	793	Light grey inner flake. Plain butt, pronounced bulb. 9 x 11 x 2mm.
435(A)	794	Light grey inner flake. Plain butt, pronounced bulb. 27 x 7 x 3 mm.
435(A)	795	Light grey/off-white inner flake. Plain butt, diffuse flake scars. 25 x 22 x 24mm.
435(A)	796	Light grey/off-white blade segment, broken acutely at bulbar and transversely at distal.
435(A)	797	Light grey/off-white blade-like inner flake, broken transversely at distal. Plain butt, diffuse bulbar. 25 x 10 x 2 mm.
435(A)	798	Light grey/off-white inner flake, plain butt, pronounced bulb, hinge fracture at distal. 15 x 16 x 4mm.
435(A)	799	Thin inner flake. Plain butt, diffuse bulb. Irregularly broken at distal end.
435(A)	800	Light grey/off-white secondary blade-like flake. Cortical butt, diffuse bulb broken transversely at distal. Retains fawn pebble cortex, rough and pitted on dorsal face. 44 x 15 x 6mm.
435(A)	801	Distal end of inner flake, broken transversely ?from small blade-like flake.
435(A)	802	Light grey/off-white irregular chip.
435(A)	803	Irregular inner flake. Plain butt, pronounced bulb. 9 x 11 x 3mm.
435(A)	804	Irregular chip.
435(A)	805	Inner flake. Small hinge fracture broken transversely at bulbar end.
435(A)	806	Blade segment – inner flake broken transversely bulbar and distal.
435(A)	807	Irregular inner flake. Plain butt, pronounced bulb. 12 x 8 x 2 mm.
435(A)	808	Irregular chip.
435(A)	809	Blade segment, broken transversely bulbar and distal.

Context	SF no	Comments
435(A)	810	Small blade segment, broken transversely at both ends.
435(A)	811	Chip.
435(A)	812	Secondary flake. Plain butt, diffuse bulb retains fawn pebble cortex on right edge dorsal face. 14 x 18 x 3mm.
435(A)	813	Inner flake. Broken transversely at distal.
435(A)	814	Chip.
435(A)	815	Bladelet, broken transversely at distal end. Diffuse bulb.
435(A)	816	Light grey/off-white bladelet. Broken transversely at bulbar end.
435	817	Chunk.
435	818	Chunk.
435	819	Distal end of inner flake, broken transversely.
435	820	Secondary blade-like flake. Broken transversely at bulbar end. Retains hard, pitted cortex on distal end.
435	821	Chip.
435	822	Inner flake. Cortical butt, diffuse bulb. 30 x 13 x 7.
435(A)	823	Inner flake, broken transversely bulbar.
435(A)	824	Inner flake. Diffuse bulb, plain butt, irregularly broken distal.
435(A)	825	Inner blade-like flake. Broken acutely at bulbar end.
435(A)	826	Inner bladelet, broken transversely bulbar end.
435(A)	827	Chip.
435(C)	828	Off-white inner flake, with irregular flaking scars from at least 3 directions. Plain butt, small bulb. 42 x 20 x 5mm.
435(C)	829	Inner flake, hinge fracture at distal, irregularly broken at bulbar.
435(C)	830	Distal end of inner flake, broken transversely at bulbar end. With 11 blade scars on dorsal face.
435(C)	831	Inner blade-like flake, broken transversely at bulbar end. With eleven scars on dorsal face.
435	832	Distal end of inner flake, broken obliquely at bulbar end.
435	833	Chip.
435	834	Thick inner flake, triangular section. ?Crude retouch on left edge dorsal flake. 18 x 5 x 4.
435	835	Inner flake. Plain butt, pronounced bulb. 11 x 18 x 2mm.
435	836	Chip.
435	837	Inner flake. Plain butt, pronounced bulb. 35 x 15 x 6mm.
435(K)	838	Inner flake, broken transversely at bulbar end.
435(K)	839	Chip.
435(K)	840	Complete, dark grey flint inner bladelet. Plain bulb, diffuse butt. 23 x 6 x 2mm.
435(K)	841	Chip.
435(K)	842	Chip.
435	843	Secondary flake. Plain butt, pronounced bulb. Retains hard, fawn cortex on distal end of dorsal face. Hinge fracture distal end. 19 x 17 x 5mm.
435	844	Plain butt, pronounced bulb. Hinge fracture at distal end. 23 x 11 x 4mm.
435(M)	845	Blade. Plain butt, diffuse bulb. Tip snapped transversely at distal end.
435(M)	846	Chip.

Context	SF no	Comments
435(M)	847	Irregular inner flake. Plain butt, diffuse bulb. Shattered irregularly at distal end.
435(M)	848	Bulbar end of inner blade/flake. Plain butt, pronounced bulb. Broken at angle at distal end.
435(M)	849	Chip.
435(M)	850	Squat inner flake. Plain butt, diffuse bulb. 8 x 14 x 3mm.
435(M)	851	Bulbar end of inner flake. Plain butt, diffuse bulb. Broken transversely.
435	852	Bulbar end of inner blade. Plain butt, pronounced bulb. Broken transversely at distal end.
435(D)	853	Inner flake with blade scars on dorsal. Plain butt, pronounced bulb. Chipped on left edge. 26 x 18 x 4mm.
435(D)	854	Inner flake. Plain butt, diffuse bulb, broken transversely at distal end.
435(D)	855	Inner flake, broken irregularly on all edges and sides.
435(D)	856	Thick, squat inner flake. Plain butt, pronounced bulb. 18 x 20 x 8mm.
435(D)	857	Inner blade segment, broken transversely at distal end and irregular at bulbar.
435(D)	858	Chip.
435(F)	859	Inner flake. Plain butt, pronounced bulb. Slight hinge fracture at distal end. 13 x 12 x 2mm
435(F)	860	Secondary flake, butt pronounced. Bulb retains hard fawn cortex on right edge distal end, dorsal face. 27 x 27 x 7mm
435(E)	861	Inner flake. Plain butt, pronounced bulb. 15 x 15 x 3mm.
435(E)	862	Chip.
435	863	Inner pot lid flake. ? Natural spalling.
435	864	Distal end of inner blade/flake. Plain butt, pronounced bulb. Broken transversely at distal end.
435	865	Blade ?removed from striking platform of a core. Plain butt, diffuse bulb. Left edge exhibits flake removals struck from blade scar surface ?from multi-facetted core. 58 x 11 x 5mm.
435(G)	866	Inner flake. Plain butt, pronounced bulb. Hinge fracture at distal end. 18 x 12 x 3mm.
435(G)	867	Inner flake. Plain butt, diffuse bulb. Broken irregularly at distal end.
435(G)	868	Inner flake. Broken irregularly, ridges bashed.
435(G)	869	Inner flake, irregularly broken.
435(G)	870	Inner flake. Plain butt, pronounced bulb. Broken irregularly at distal end.
435(G)	871	Inner blade segment. Broken transversely at bulbar end and acutely at distal.
435(G)	872	Inner blade-like flake. Plain butt, diffuse bulb. Broken transversely at distal end.
435(G)	873	Bulbar end of inner bladelet. Broken transversely at distal end.
435(G)	874	Irregular chip.
435(H)	875	Inner blade. Plain butt, pronounced bulb. Broken transversely at distal end.

Context	SF no	Comments
435(H)	876	Irregular chip.
435(H)	877	Blade, broken transversely at bulbar end.
435	878	Inner blade-like flake. Plain butt, diffused bulb. Broken transversely at distal end.
435(J)	879	Inner blade-like flake. Plain butt, diffuse bulb. Broken irregularly at distal end.
435(J)	880	Distal end of inner flake, broken transversely.
435(J)	881	Inner bladelet. Broken transversely at bulbar end, hinge fracture at distal.
435(K)	882	Inner blade/flake. Very long and thin. Plain butt, diffuse bulb. 41 x 10 x 4mm.
435(K)	883	Bladelet. Plain butt, diffuse bulb. 26 x 8 x 2mm.
435(K)	884	Chip.
435(K)	885	Chip with fawn cortex on dorsal face.
435(K)	886	Inner flake. Plain butt, diffuse bulb. Broken irregularly at distal end.
435(K)	887	?Core trimming flake. Struck to remove edge of a cortical striking platform. Fawn cortex. ?Broken at both ends?
435(K)	888	Inner blade segment, broken transversely at both ends.
435(K)	889	Inner bladelet. Plain butt, diffuse bulb. Broken transversely at distal end.
435	890	Inner flake, broken obliquely at bulbar end.
435	891	Inner blade-like flake, broken transversely at bulbar end.
435	892	Inner flake. Plain butt, diffuse bulb. 25 x 11 x 3.
435	893	Secondary blade segment. Broken transversely at both ends. Retains hard, fawn cortex on distal end of dorsal face.
435	894	Chip.
435	895	Inner flake. Plain butt, pronounced bulb. 21 x 14 x 5.
435	896	Irregular chip.
435	897	Inner flake. Plain butt, diffuse bulb. From core trimming struck at angle to remove striking platform edge. 24 x 9 x 7mm.
435	898	Inner flake, broken transversely at bulbar end.
435	899	Bulbar end of inner blade. Plain, thin butt, diffuse bulb. Broken obliquely at distal end.
435	900	Burnt scraper. Spalled and fractured but still retaining diffuse bulb retouched around bulbar end and right edge. Also retouched around distal end. Left edge irregularly shattered and spalled from burning.
435	901	Small inner blade segment, broken transversely at both ends.
435	902	Blue-grey chert chunk.
435	903	Distal end of inner flake. Hinge fracture at distal end, obliquely shattered at bulbar.
435	904	Distal end of inner blade with hinge fracture at distal end. Broken transversely at bulbar end.
435	905	Secondary flake. Plain butt, pronounced bulb. Broken obliquely at distal end. Retains patch of hard, fawn cortex on dorsal face of bulbar end.
435	906	Chip.

Context	SF no	Comments
435	907	Inner flake. Plain butt, pronounced bulb. Hinge fracture at distal end. 16 x 9 x 3mm.
435	908	?Primary flake. Cortical butt, pronounced bulb. Hard, fawn cortex on striking platform and dorsal face. Broken transversely at distal end.
435(I)	909	Inner flake, broken irregularly.
435(I)	910	Inner blade. Plain butt, pronounced bulb. Thermal damage – spalls removed on both faces. 25 x 9 x 2mm.
435(I)	911	Inner blade, broken transversely at distal end and irregularly at bulbar.
435	912	Scraper on distal end of secondary flake. Retains patch of hard, fawn cortex on dorsal face. Broken transversely at bulbar end. 24 x 20 x 4mm.
435	913	Inner flake. Plain butt, pronounced bulb. Broken transversely at distal end.
435	914	Secondary flake, broken transversely at bulbar end. Retains hard, fawn cortex on right edge of dorsal face.
435	915	Inner blade-like flake segment. Plain butt, pronounced bulb. Broken transversely about mid section. Conjoins with 916.
435	916	Distal end of blade-like inner flake. Broken transversely about mid section. Conjoins with 915. Overall dimensions 50 x 17 x 4mm.
435	917	Inner blade segment, broken transversely at both ends.
435	918	Chip.
435	919	Bulbar end of inner blade. Plain butt, diffused bulb. Broken transversely at distal end.
435(N)	920	Chip.
435(N)	921	Blade-like flake, broken transversely at bulbar end and at distal end.
435(N)	922	Large secondary blade, very fresh. Plain butt, diffuse bulb. Slightly chipped and broken at distal end. Retains soft, fawn cortex on left side distal face. 44 x 12 x 5mm.
435(P)	923	Blade-like inner flake. Plain butt, pronounced bulb. 49 x 15 x 5mm.
435(P)	924	Inner flake. Plain butt, diffuse bulb. Broken transversely at distal end.
435(P)	925	Inner blade-like flake, broken transversely at bulbar end.
435	925a	Chip.
435(P)	926	Inner bladelet, snapped obliquely at bulbar end.
435(P)	927	Distal end of inner flake, broken obliquely at bulbar end.
435(P)	928	Distal end of inner flake, snapped transversely. Large hinge fracture.
435(P)	929	Short, squat inner flake. Plain butt, diffuse bulb. 9 x 13 x 2mm.
435	930	Inner blade segment, broken transversely at both ends.
435	931	Inner flake. Plain butt, diffuse bulb. 18 x 15 x 3mm.
435(Q)	932	Inner chip
435(Q)	933	Inner chip
435	934	Inner bladelet, snapped transversely at bulbar end.

Context	SF no	Comments
435	935	Irregularly shattered inner flake fragment.
435	936	Chip.
435	937	Inner flake, broken transversely at both ends.
435(S)	938	Inner flake. Plain butt, diffuse bulb. Hinge fracture at dorsal end. 20 x 12 x 4 mm.
435	939	Irregularly shattered inner flake. Burnt.
435	940	Inner blade segment, broken transversely at both ends.
435	941	Inner blade. Plain butt, diffuse bulb. Broken transversely at distal end.
435	942	Inner blade segment, broken transversely at both ends.
435	943	Irregular chip, retaining hard, fawn cortex on one face.
435	944	Chip.
435	945	Chip.
435	946	Inner flake. Plain butt, diffuse bulb. Broken transversely at distal end.
435	947	Blade segment, broken transversely at both ends.
435	948	Chip.
435	949	Grey, cherty inner flake. Plain butt, pronounced bulb. 43 x 28 x 8mm.
435	950	Inner blade segment, broken transversely at both ends.
435	951	Cortical chip retaining hard, fawn cortex.
435	953	Secondary core trimming flake struck to remove angle of striking platform. Cortical butt, diffuse bulb. Broken transversely at distal end. Left edge exhibits flake scars from core striking.
435	954	Chip.
435	955	Inner flake. Plain butt, pronounced bulb. Broken transversely at distal end.
435	956	Inner flake. Plain butt, pronounced bulb. Broken irregularly on left edge and at distal end.
435	957	Bulbar end of inner blade/flake. Facetted butt, pronounced bulb. Broken transversely at distal end.
435	958	Inner flake, broken obliquely at bulbar end.
435	959	Inner flake. Plain butt, pronounced bulb. 18 x 16 x 2mm.
435	960	Inner flake. Cortical butt, diffuse bulb. 16 x 8 x 5mm.
435(S)	961	Irregular chunk.
435(S)	962	Irregular inner flake, broken transversely at bulbar end.
435	963	Irregularly shattered secondary flake fragment. Retains patch of hard, fawn cortex on dorsal face. Burnt.
435	964	Irregularly shattered inner flake. Burnt.
435	965	Chip.
435	966	Inner bladelet, broken obliquely at bulbar end.
435	967	Burnt chip.
435	968	Chip.
435	969	Chip.
435	970	Blue cherty inner flake. Facetted butt, diffuse bulb. 25 x 15 x 4mm.
435(S)	971	Inner flake. Dihedral butt, pronounced bulb. 18 x 17 x 3mm.
435(S)	972	Very thin chip.

Context	SF no	Comments
435(S)	973	Very thin chip.
435(S)	974	Inner flake. Plain butt, pronounced bulb. 8 x 15 x 2mm.
435(S)	975	Inner blade-like flake. Plain butt, diffuse bulb. Broken transversely at distal end.
435(S)	976	Inner bladelet. Plain butt, diffuse bulb. 25 x 6 x 2mm.
435(S)	977	Distal end of inner flake, broken transversely.
435(S)	978	Inner flake segment, irregularly broken at both ends.
435(S)	979	Inner flake/bladelet segment, broken obliquely at bulbar end and transversely at distal.
435(S)	980	Very small inner flake, pronounced bulb. 11 x 11 x 2mm.
435(S)	981	Inner bladelet, broken transversely at distal end.
435(S)	982	Irregular inner flake. Thin plain butt, diffuse bulb. 21 x 8 x 1mm.
435(S)	983	Inner flake. Plain butt, diffuse bulb, hinge fracture at distal end. 12 x 19 x 2mm.
435	985a	Inner bladelet. Plain butt, diffuse bulb. Broken obliquely at distal end.
435	985b	Distal end of inner bladelet, broken transversely at bulbar end. These two pieces are non-conjoining
435(R)	987	Distal end of inner flake. Plain butt, pronounced bulb. Broken transversely.
435(R)	988	Very small inner bladelt, broken transversely at distal end. Plain butt, diffuse bulb.
435(R)	989	
435(R)	990	Inner chip.
435(R)	991	Inner chip.
435(R)	992	Secondary flake. ?Cortical butt, pronounced bulb. Snapped obliquely at distal end.
435	993	Inner flake. Conical butt, pronounced bulb. Broken transversely at distal end.
435(L)	994	Inner blade segment, broken transversely at bulbar and obtusely at distal.
435(L)	995	Shattered chunk.
435(L)	996	Inner blade, broken transversely at bulbar end. 39 x 8 x 2mm.
435(L)	997	Heavy secondary flake. Plain butt, pronounced bulb, hard fawn cortex on distal end, right edge. 20 x 39 x 9mm.
435(L)	998	Secondary flake, broken acutely at bulbar end and at distal end. Small patch hard fawn cortex on dorsal face, left edge.
435(L)	999	Inner flake, broken transversely at both ends.
435(L)	1000	Blade on secondary removal, broken transversely at distal. Plain butt, pronounced bulb, hard fawn cortex on right edge, dorsal face.
435(L)	1001	Blade-like flake. Plain butt, diffuse bulb broken transversely at distal end.
435(L)	1002	Blade-like flake. Plain butt, diffuse bulb broken transversely at distal end.
435(L)	1003	Inner flake. Plain butt, pronounced bulb. 17 x 13 x 3mm.
435(L)	1004	Inner flake, broken irregularly at bulbar end.
435(L)	1005	Bulbar end of broken inner flake

Context	SF no	Comments
435(L)	1006	Inner flake from core trimming. Struck at acute angle to striking platform. Broken transversely at both ends.
435(L)	1007	Inner flake, broken transversely at bulbar end.
435(L)	1008	Inner flake, irregularly shattered at both ends. Thermal damage.
435(L)	1009	Inner flake/blade segment, broken transversely at bulbar end and at angle at distal.
435(L)	1010	Bulbar end of bladelet. Plain butt, diffuse bulb. Broken transversely at distal end.
435(L)	1011	Inner flake. Plain butt, diffuse bulb. 20 x 8 x 4mm.
435(L)	1012	Bulbar end of blade, snapped transversely at distal end. Plain butt, diffuse bulb.
435(L)	1013	Inner flake. Hinge fracture at distal end. Plain butt, pronounced bulb. 20 x 18 x 5mm.
435(L)	1014	Distal end of very thin, fine bladelet, snapped transversely.
435(L)	1015	Blade segment, broken transversely at both ends.
435(L)	1016	Irregular chip.
435(L)	1017	Blade segment, broken transversely at distal end and at angle at bulbar.
435(L)	1018	Inner flake. Plain butt diffuse bulb. 16 x 6 x 3.
435(L)	1019	Bulbar end of bladelet, broken transversely at distal end.
435(L)	1020	Irregularly snapped blade segment.
435(L)	1021	Chip.
435(L)	1022	Very small inner flake. Plain butt, pronounced bulb. 8 x 7 x 1mm.
435(L)	1023	Inner flake, irregularly broken at bulbar end.
435(L)	1024	Chip.
435(L)	1025	Chip.
435(L)	1026	Bladelet, broken transversely at bulbar end. Hinge fracture at distal.
435(L)	1027	Irregularly shattered chip.
435(L)	1028	Chip.
435(L)	1029	Irregular chip. ?Burnt?
435(O)	1030	Large secondary flake. Plain butt, diffuse bulb. Retains fawn, pitted cortex over most of dorsal face. 38 x 36 x 15mm.
435(O)	1031	Inner flake, plain butt, diffuse bulb. Hinge fracture at distal end. Thermal spall removed on bulbar face. 31 x 15 x 4mm.
435(O)	1032	Inner bladelet. Plain butt, diffuse bulb. Broken transversely at long axis.
435(O)	1033	Irregular chip. ? Thermal spalling.
435(O)	1034	? Irregular chunk with some surface crackling. ? Thermal?
435(O)	1035	Thin blade-like flake. Plain butt, pronounced bulb. 50 x 12 x 7mm.
435(O)	1036	Inner flake. Plain butt, pronounced bulb. 25 x 25 x 5mm.
435(O)	1037	Blade-like flake, bulbar end removed transversely. Broken, but elegant. 36 x 8 x 5mm.
435(O)	1038	Blade-like flake, broken transversely at bulbar end and at angle at distal.

Context	SF no	Comments
435(O)	1039	Blade – bulb of percussion removed transversely. Broken, but almost complete. 43 x 12 x 5mm.
435(O)	1040	Irregularly fractured chip.
435(O)	1041	Inner flake. Plain butt, diffuse bulb tip removed transversely at distal end.
435(O)	1042	Irregular, shattered inner flake with some crackling. ? Burnt ?
435(O)	10043	Small blade segment, broken transversely at bulbar end and at angle at distal.
435(O)	10044	Inner bladelet, broken transversely at bulbar end.
435(O)	10045	Inner flake. Plain butt, pronounced bulb, broken transversely at distal end.
435(O)	1046	Irregular chip. Burnt.
435(O)	1047	Blade-like flake, broken transversely at both ends.
435(O)	1048	Distal end of inner flake, broken transversely to remove bulbar end.
435(O)	1049	Blade-like inner flake, bulbar end removed transversely.
435(O)	1050	Chip.
435(O)	1051	Inner flake. Plain butt, diffuse bulb. 23 x 11 x 3mm.
435(O)	1052	Distal end, inner flake broken transversely. Shattered around edges.
435(O)	1053	Bladelet. Plain butt, diffuse bulb. 28 x 8 x 2mm.
435(O)	1054	Irregular inner flake, broken at bulbar end. Burnt.
435(O)	1055	Inner flake. Plain butt, diffuse bulb. 16 x 21 x 4mm.
435(O)	1055a	Chip
435(O)	1056	Heavily calcined chip, irregularly shattered.
435(O)	1057	Heavy inner flake. Broad plain butt, pronounced bulb. 34 x 46 x 13mm.
435(O)	1058	Smoothed and founded fawn/grey flint pebble. Unworked.
435(O)	1059	Inner flake, broken transversely at bulbar end.
435(O)	1060	Dorsal end of bladelet, broken transversely.
435(O)	1061	Inner flake. Plain butt, diffuse bulb. 7 x 8 x 2mm.
435	1062	Inner flake. Broken transversely at bulbar end.
435	1063	Heavy irregular flake ?struck to remove cortical inclusion in core. Plain butt, pronounced bulb. 33 x 45 x 8mm.
435	1064	Distal end of inner bladelet/flake, broken transversely.
435	1065	Chip.
435	1066	Cherty chunk.
435	1067	Inner flake, shattered and burnt.
435	1068	Inner flake, shattered and burnt.
435	1069	Inner bladelet, broken transversely at bulbar end.
435	1070	Inner bladelet, broken irregularly at bulbar end.
435(L)	1073	Blade-like flake, bulb removed irregularly.
435(L)	1074	Blade-like flake. Plain butt, diffuse bulb. 35 x 13 x 3mm.
435(L)	1075	Grey, cherty flint blade segment. Broken at angle at bulbar end, irregularly fractured at distal end. 11 scars on dorsal face.
435(L)	1076	Inner flake. Plain butt, pronounced bulb. Hinge fracture at distal end. 9 x 14 x 3mm.
435(L)	1077	Irregular chip.

Context	SF no	Comments
435(L)	1078	Grey, cherty flint blade. Plain butt, diffuse bulb. Slight hinge fracture at distal end. 31 x 10 x 4mm.
435(L)	1079	Distal end of bladelet. Broken irregularly at bulbar end, hinge fracture at distal.
435(L)	1080	Chip.
435(L)	1081	Very fine bladelet. Plain butt, diffuse bulb. 16 x 5 x 2mm.
435(L)	1082	Small blade segment broken at an angle at both ends.
435(L)	1083	Delicate blade. Plain butt, diffuse bulb. Broken transversely at distal end.
435(L)	1084	Irregular chip.
435(L)	1085	Bulbar end of small bladelet, snapped transversely. Plain butt, diffuse bulb.
435(L)	1086	Irregular flake ?from core trimming to remove edge of striking platform. Large spall on bulbar face has removed bulb of percussion. Broken. 18 x 47 x 9mm.
435(L)	1087	Cherty chip.
435(L)	1088	Grey, cherty bladelet. Plain butt, diffuse bulb. Snapped transversely at distal end.
435(L)	1089	Blade segment, irregularly shattered at both ends.
435(L)	1090	Primary flake. Cortical butt, diffuse butt retains soft fawn/grey pitted cortex on dorsal face. 19 x 22 4mm.
435(L)	1091	Inner flake. Plain butt, diffuse bulb. Hinge fracture at distal end. 17 x 20 x 5mm.
435(L)	1092	Mottled grey, irregular blade segment. Broken transversely at both ends.
435(L)	1093	Bladelet, broken transversely at bulbar end and at angle at distal.
435(L)	1094	Inner blade. Plan butt, diffuse bulb. Broken transversely at distal end.
435(L)	1095	Bulbar end of blade. Plain butt, diffuse bulb. Broken irregularly at distal end. Burnt. Spalled on both faces.
435(L)	1096	Inner flake. Plain butt, diffuse bulb. 12 x 10 x 2mm.
435(L)	1097	Inner flake. Plain butt, diffuse bulb. 16 x 27 x 7mm.
435(L)	1098	Inner flake. Plain butt, pronounced bulb. Hinge fracture at distal end. 22 x 20 x 5mm.
435(L)	1099	Inner blade-like flake. Plain butt, diffuse bulb. Hinge fracture at distal end. 23 x 14 x 4mm.
435(L)	1100	Blade-like flake, irregularly broken at bulbar end.
435(L)	1101	Bladelet, broken at angle at distal end and irregularly at bulbar end.
435(L)	1102	Chip.
435(L)	1103	Blade-like flake, broken at angle at bulbar end. ?burnt.
435(L)	1104	Blade segment, broken transversely at both ends.
435E1	-	Inner flake. Hinge fracture at distal end, broken transversely at bulbar.
435E2	-	Inner flake. Hinge fracture at distal end, broken transversely at bulbar.
435E3	-	Secondary flake retaining patch of hard, fawn pebble cortex on dorsal face, distal end. Plain butt, diffuse bulb. 15 x 20 x 3mm.

Context	SF no	Comments
435E4	-	Inner blade-like flake. Plain butt, pronounced bulb. Broken transversely at distal end.
435E5	-	Inner blade segment. Plain butt, pronounced bulb. Broken transversely at distal end.
435E6	-	Inner blade. Plain butt, diffuse bulb. Hinge fracture at distal end. 28 x 8 x 3mm.
435E7	-	Inner flake, broken irregularly at both ends.
435E8	-	Inner blade segment, broken transversely at bulbar end and obliquely at distal.
435E9	-	Bulbar end of inner blade. Plain butt, diffuse bulb. Broken transversely at distal end.
435E10	-	Blade segment. Plain butt, diffuse bulb. Broken transversely at distal end.
435E11	-	Inner flake. ?Banded, cherty flint. Plain butt, diffuse bulb. Broken transversely at distal end.
435E12	-	Inner blade segment. Broken transversely at bulbar and irregularly at distal end.
435E13	-	Inner blade segment, broken transversely at both ends.
435E14	-	Irregularly broken inner flake segment.
435E15	-	Inner blade segment. Thin plain butt and diffuse bulb. Broken Transversely at distal end.
435E16	-	Inner blade-like flake. Plain butt, diffuse bulb. Hinge fracture distal end. 28 x 14 x 4mm.
435E17	-	Inner flake. Plain butt, diffuse bulb. 22 x 12 x 4mm.
435E18	-	Blade segment, broken transversely at distal end and irregularly at bulbar. Burnt.
435E19	-	Chip.
435E20	-	Inner blade-like flake, broken transversely at distal and irregularly at bulbar end.
435E21	-	Chip.
435E22	-	Core trimming tablet. Struck to remove cortical striking platform. Plain butt, diffuse bulb. 26 x 21 x 10mm.
435E23	-	Irregular inner flake. Plain butt, pronounced bulb. 26 x 24 x 9mm.
435E24	-	Irregular inner flake. Cortical butt, pronounced bulb. 35 x 26 x 7mm.
435E25	-	Inner blade-like flake, broken transversely at bulbar end.
435E26	-	Chip. ?Burnt.
435E27	-	Chip.
435E28	-	Irregularly shattered inner flake. Burnt.
435E29	-	Irregular, thin inner flake. Broken at bulbar end.
435E30	-	Chip.
435E31	-	Inner bladelet. Plain butt, diffuse bulb. Broken transversely at tip of distal end.
435E32	-	Chip.
435E33	-	Irregular inner flake. Cortical butt, pronounced bulb. 15 x 15 x 6mm.
435E34	-	Thick, blade-like flake. Broken transversely at bulbar end.

Context	SF no	Comments
435E35	-	Chip.
435E36	-	Irregular secondary flake. Plain butt, diffuse bulb. Evidence of hinge fracturing at distal end. Retains hard patch of fawn cortex on left edge dorsal face. 22 x 43 x 10mm.
435E37	-	Inner flake. Plain butt, diffuse bulb. Broken transversely at distal end.
435E38	-	Heavy inner flake. Thick plain butt, pronounced bulb. Broken transversely at distal end.
Lithics from other contexts		
3	4	Grey-brown inner flint flake/blade. Plain butt, diffuse bulb. Hinge termination at distal end. Retains very small patch hard, grey, pitted cortex on dorsal face at distal end. Retouched down both edges. 49 x 18 x 7mm.
104	2	End scraper in proper dark grey flint on inner flake. Retouched around bulbar end. Bulbar face shows ?evidence of plough damage. ?Denticulated on right edge. Hinge fracture at distal end.
172	5	Brown, translucent flint blade, broken transversely at bulbar and. Slight fawn cortex inclusion at distal end. Very fresh and unabraded.
184	21	Inner blade. Plain butt, diffuse bulb. Hinge fracture at distal end. Grey cherty flake from platform. 31 x 10 x 2mm.
189	22	Cherty inner flake. Plain butt, diffuse bulb. 34 x 19 x 8mm.
189	23	Inner cherty blade. Plain butt, diverse bulb. 32 x 8 x 4mm.
266	7	Grey mottled flint inner flake. Plain butt, pronounced bulb. Hinge fracture at distal end. 24 x 3 x 6mm.
312	23	Secondary flake of dark grey, mottled flint. Cortical butt, pronounced bulb. Retains hard, fawn pebble cortex along distal end, dorsal face. 24 x 37 x 7mm.
436	994	Inner grey flint flake, broken transversely at bulbar end.
436	1072	Inner grey flint flake. Plain butt, diffuse bulb. ?Broken transversely at distal end.
436	-	Angular, rounded, cherty chunk.
521	164	Rounded and smoothed chert flake. Plain butt, diffuse bulb. ?Residual from knapping platform. 46 x 22 x 7mm.
706	-	Inner chert blade segment, broken transversely at both ends.
716	-	Cherty chip.

Appendix 2 Table 2. Contents of the flots from MBC04.

Sample	1		2	14	**18**	19	26	33	34	45	47	**48**	49	50
Context	22	26	6	96	71	89	141	197	199	243	264	251	185	279
Volume processed	5000	200	5000	5000	5000	5000	5000	5000	5000	5000	5000	4000	5000	5000
Flot volume	50	1	40	4	2	3	2	2	5	3	2	20	1	30
Volume assessed	50	1	40	4	2	3	2	2	5	3	2	20	1	30
Flot matrix (relative abundance)														
Bone (unburnt)														
Bone (calcined)														
Charcoal	1	1			1	1	1			1		1	1	1
Coal	1						1		1				1	
Flint														
Insect fragments														
Modern roots	2			1		1		1	1					
Molluscs							3							
Charred remains (total counts)														
(c) Cerealia indeterminate				2	14					2	1	29	1	
(c) *Hordeum* sp (Barley)				1	5							52		1
(c) *Triticum* sp (Wheat)												1		
(c) *Triticum* sp (Wheat) glume base														
(c) *Triticum dicoccum* (Emmer) glume base														
(c) *Triticum spelta* (Spelt) glume base														
(r) *Plantago lanceolata* (Ribwort plantain)														
(t) *Corylus avellana* (Hazelnut)												8		
(x) *Galium aparine* (Cleavers)														
(x) Poaceae (Grass)												3		
(x) *Rumex* sp (Dock)														
Waterlogged remains (relative abundance)														
(a) *Chenopodium album* (Fat-hen)									1			1		
(a) *Fumaria* sp (Fumitory)					1		1							
(r) *Polygonum aviculare* (Knotgrass)														
(r) *Trifolium* sp (Clover)														
(t) *Sambucus nigra* (Elder)														

Table 2. Continued

Sample	52	56	57	58	59	60	62	64	66	67	68	69	70
Context	283	287	245	258	262	281	334	335	189	345	308	313	311
Volume processed	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
Flot volume	2	50	40	2	1	2	1	5	1	2	1	10	1
Volume assessed	2	50	40	2	1	2	1	5	1	2	1	10	1
Flot matrix (relative abundance)													
Bone (unburnt)													
Bone (calcined)					1								
Charcoal			1				1					1	
Coal					1			1					
Flint									1		1		
Insect fragments													1
Modern roots									1				
Molluscs													
Charred remains (total counts)													
(c) Cerealia indeterminate									1	1			
(c) *Hordeum* sp (Barley)													
(c) *Triticum* sp (Wheat)			2										
(c) *Triticum* sp (Wheat) glume base										1			
(c) *Triticum dicoccum* (Emmer) glume base													
(c) *Triticum spelta* (Spelt) glume base													
(r) *Plantago lanceolata* (Ribwort plantain)													
(t) *Corylus avellana* (Hazelnut)					1								
(x) *Galium aparine* (Cleavers)													
(x) Poaceae (Grass)													
(x) *Rumex* sp (Dock)													
Waterlogged remains (relative abundance)													
(a) *Chenopodium album* (Fat-hen)		1					1						
(a) *Fumaria* sp (Fumitory)													
(r) *Polygonum aviculare* (Knotgrass)													
(r) *Trifolium* sp (Clover)													
(t) *Sambucus nigra* (Elder)								1					

Table 2. Continued

Sample	76	80	81	84	85	86	87	88	89	90	91	92	93
Context	389	400	402	351	349	291	446	447	484	459	455	388	489
Volume processed	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
Flot volume	2	2	1	30	4	1	1	1	10	5	3	1	5
Volume assessed	2	2	1	30	4	1	1	1	10	5	3	1	5
Flot matrix (relative abundance)													
Bone (unburnt)													
Bone (calcined)													
Charcoal			1		1				1				1
Coal		1	1		1			1		1	1		
Flint												1	
Insect fragments													
Modern roots	1	1	1			1				1	1	1	
Molluscs													
Charred remains (total counts)													
(c) Cerealia indeterminate								1		1			
(c) *Hordeum* sp (Barley)													
(c) *Triticum* sp (Wheat)													
(c) *Triticum* sp (Wheat) glume base													
(c) *Triticum dicoccum* (Emmer) glume base													
(c) *Triticum spelta* (Spelt) glume base													
(r) *Plantago lanceolata* (Ribwort plantain)													
(t) *Corylus avellana* (Hazelnut)					1								
(x) *Galium aparine* (Cleavers)													
(x) Poaceae (Grass)													
(x) *Rumex* sp (Dock)													
Waterlogged remains (relative abundance)													
(a) *Chenopodium album* (Fat-hen)	1		1				1						1
(a) *Fumaria* sp (Fumitory)													
(r) *Polygonum aviculare* (Knotgrass)													
(r) *Trifolium* sp (Clover)													
(t) *Sambucus nigra* (Elder)		1	1		1								

Table 2. Continued

Sample	94	95	96	97	99	100	101	103	104	105	106	107	108
Context	491	505	503	508	511	477	497	532	534	537	539	518	526
Volume processed	5000	5000	5000	5000	5000	5000	4000	4000	2500	5000	4000	5000	2000
Flot volume	50	5	3	50	100	2	3	10	10	90	30	2	2
Volume assessed	50	5	3	50	100	2	3	10	10	90	30	2	2
Flot matrix (relative abundance)													
Bone (unburnt)													
Bone (calcined)													
Charcoal	2	1	1	2	3		1	1	1	3	1	1	1
Coal													
Flint													
Insect fragments													
Modern roots			1										
Molluscs													
Charred remains (total counts)													
(c) Cerealia indeterminate													
(c) *Hordeum* sp (Barley)													
(c) *Triticum* sp (Wheat)													
(c) *Triticum* sp (Wheat) glume base													
(c) *Triticum dicoccum* (Emmer) glume base													
(c) *Triticum spelta* (Spelt) glume base													
(r) *Plantago lanceolata* (Ribwort plantain)													
(t) *Corylus avellana* (Hazelnut)													
(x) *Galium aparine* (Cleavers)													
(x) Poaceae (Grass)													
(x) *Rumex* sp (Dock)													
Waterlogged remains (relative abundance)													
(a) *Chenopodium album* (Fat-hen)	1	1	2		1		1		1	1		1	
(a) *Fumaria* sp (Fumitory)													
(r) *Polygonum aviculare* (Knotgrass)													
(r) *Trifolium* sp (Clover)							1						
(t) *Sambucus nigra* (Elder)													

Table 2. Continued

Sample	109	110	114	115	116	117	118	119	120	121	123	124	125
Context	562	573	513	514	576	596	584	586	566	603	578	582	580
Volume processed	5000	5000	2500	5000	5000	5000	5000	5000	5000	5000	2500	5000	500
Flot volume	40	40	40	200	150	30	100	50	50	1	80	2	3
Volume assessed	40	40	40	200	150	30	100	50	50	1	80	2	3
Flot matrix (relative abundance)													
Bone (unburnt)													
Bone (calcined)													
Charcoal	2	2	2	4	3	2	2	1	2	1	3	1	1
Coal								1					
Flint													
Insect fragments													
Modern roots													
Molluscs												1	
Charred remains (total counts)													
(c) Cerealia indeterminate													
(c) *Hordeum* sp (Barley)													
(c) *Triticum* sp (Wheat)													
(c) *Triticum* sp (Wheat) glume base													
(c) *Triticum dicoccum* (Emmer) glume base													
(c) *Triticum spelta* (Spelt) glume base													
(r) *Plantago lanceolata* (Ribwort plantain)													
(t) *Corylus avellana* (Hazelnut)													
(x) *Galium aparine* (Cleavers)													
(x) Poaceae (Grass)													
(x) *Rumex* sp (Dock)													
Waterlogged remains (relative abundance)													
(a) *Chenopodium album* (Fat-hen)	1	1	1	1	1	1		1	1	2			
(a) *Fumaria* sp (Fumitory)				1									
(r) *Polygonum aviculare* (Knotgrass)													
(r) *Trifolium* sp (Clover)													
(t) *Sambucus nigra* (Elder)													

Table 2. Continued

Sample	127	129	130	131	132	133	134	138	139	141	142	143	144
Context	553	535	592	616	521	624	610	523	626	571	573	639	606
Volume processed	4500	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	2000
Flot volume	2	1	150	100	10	50	150	50	40	20	3	2	50
Volume assessed	2	1	150	100	10	50	150	50	40	20	3	2	50
Flot matrix (relative abundance)													
Bone (unburnt)													
Bone (calcined)													
Charcoal	1	1	4	3	1	1	4	2	2	1	1	1	2
Coal													
Flint													
Insect fragments													
Modern roots													
Molluscs													
Charred remains (total counts)													
(c) Cerealia indeterminate													
(c) *Hordeum* sp (Barley)													
(c) *Triticum* sp (Wheat)													
(c) *Triticum* sp (Wheat) glume base													
(c) *Triticum dicoccum* (Emmer) glume base													
(c) *Triticum spelta* (Spelt) glume base													
(r) *Plantago lanceolata* (Ribwort plantain)					1								
(t) *Corylus avellana* (Hazelnut)													
(x) *Galium aparine* (Cleavers)													
(x) Poaceae (Grass)													
(x) *Rumex* sp (Dock)													
Waterlogged remains (relative abundance)													
(a) *Chenopodium album* (Fat-hen)	1	1	1		1	1	1	1	1	1			
(a) *Fumaria* sp (Fumitory)													
(r) *Polygonum aviculare* (Knotgrass)													
(r) *Trifolium* sp (Clover)													
(t) *Sambucus nigra* (Elder)													

Table 2. Continued

Sample	145	146	147	148	149	150	151	152	**153**	154	155	156	157
Context	608	605	607	609	648	641	648	633	686	672	674	558	560
Volume processed	4000	5000	5000	5000	5000	5000	5000	5000	5000	2000	5000	2500	1500
Flot volume	150	20	10	1	1	100	1	3	15	50	2	50	100
Volume assessed	150	20	10	1	1	100	1	3	15	50	2	50	100
Flot matrix (relative abundance)													
Bone (unburnt)													
Bone (calcined)							1						
Charcoal	3	1	1		1	3			1	2		3	4
Coal					1				1				
Flint													
Insect fragments													
Modern roots											1		
Molluscs													
Charred remains (total counts)													
(c) Cerealia indeterminate													
(c) *Hordeum* sp (Barley)									1				
(c) *Triticum* sp (Wheat)									1				
(c) *Triticum* sp (Wheat) glume base													
(c) *Triticum dicoccum* (Emmer) glume base													
(c) *Triticum spelta* (Spelt) glume base													
(r) *Plantago lanceolata* (Ribwort plantain)													
(t) *Corylus avellana* (Hazelnut)													
(x) *Galium aparine* (Cleavers)													
(x) Poaceae (Grass)													
(x) *Rumex* sp (Dock)									1				
Waterlogged remains (relative abundance)													
(a) *Chenopodium album* (Fat-hen)		1			1					1	1		1
(a) *Fumaria* sp (Fumitory)													
(r) *Polygonum aviculare* (Knotgrass)		1											
(r) *Trifolium* sp (Clover)													
(t) *Sambucus nigra* (Elder)													

Table 2. Continued

Sample	158	159	160	161	162	163	164	166	168	169	171	172	**173**
Context	594	556	667	654	544	697	698	706	517	435	709	684	704
Volume processed	3500	1500	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000
Flot volume	300	50	5	20	40	15	20	1	10	1	100	2	5
Volume assessed	300	50	5	20	40	15	20	1	10	1	100	2	5
Flot matrix (relative abundance)													
Bone (unburnt)													
Bone (calcined)												1	
Charcoal	5	2	1	1	2	2	1				3	1	
Coal							1						1
Flint									3				
Insect fragments													
Modern roots									1	1			
Molluscs													
Charred remains (total counts)													
(c) Cerealia indeterminate													
(c) *Hordeum* sp (Barley)													
(c) *Triticum* sp (Wheat)													
(c) *Triticum* sp (Wheat) glume base													8
(c) *Triticum dicoccum* (Emmer) glume base													3
(c) *Triticum spelta* (Spelt) glume base													2
(r) *Plantago lanceolata* (Ribwort plantain)													
(t) *Corylus avellana* (Hazelnut)									1				
(x) *Galium aparine* (Cleavers)													
(x) Poaceae (Grass)													
(x) *Rumex* sp (Dock)													
Waterlogged remains (relative abundance)													
(a) *Chenopodium album* (Fat-hen)	2		2		1						1		1
(a) *Fumaria* sp (Fumitory)													
(r) *Polygonum aviculare* (Knotgrass)													
(r) *Trifolium* sp (Clover)													
(t) *Sambucus nigra* (Elder)													

Table 2. Continued

Sample	175	176	177	178	180	181	182	183	184	185	186	188	192
Context	714	716	729	731	698	734	691	688	690	438	436	746	748
Volume processed	5000	5000	5000	5000	5000	500	5000	5000	5000	5000	5000	5000	5000
Flot volume	40	1	2	2	1	1	50	6	3	40	10	50	50
Volume assessed	40	1	2	2	1	1	50	6	3	40	10	50	50
Flot matrix (relative abundance)													
Bone (unburnt)	1												
Bone (calcined)													
Charcoal	1		1			1	1	1	2	1	1	1	2
Coal				1	1								
Flint													
Insect fragments												1	
Modern roots							1	1	2	1	2	3	
Molluscs													
Charred remains (total counts)													
(c) Cerealia indeterminate													
(c) *Hordeum* sp (Barley)													
(c) *Triticum* sp (Wheat)													
(c) *Triticum* sp (Wheat) glume base	1												
(c) *Triticum dicoccum* (Emmer) glume base													
(c) *Triticum spelta* (Spelt) glume base													
(r) *Plantago lanceolata* (Ribwort plantain)													
(t) *Corylus avellana* (Hazelnut)													
(x) *Galium aparine* (Cleavers)													
(x) Poaceae (Grass)													
(x) *Rumex* sp (Dock)													
Waterlogged remains (relative abundance)													
(a) *Chenopodium album* (Fat-hen)	1		1								1		1
(a) *Fumaria* sp (Fumitory)													
(r) *Polygonum aviculare* (Knotgrass)													
(r) *Trifolium* sp (Clover)													
(t) *Sambucus nigra* (Elder)													

Table 2. Continued

Sample	193	194	195	196	197	198	**199**	**200**	201	202	203	204	205
Context	751	763	757	778	120	777	132	129	765	806	784	786	764
Volume processed	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	5000	4000
Flot volume	70	20	1	100	2	1	10	10	2	10	1	1	10
Volume assessed	70	20	1	100	2	1	10	10	2	10	1	1	10
Flot matrix (relative abundance)													
Bone (unburnt)													
Bone (calcined)													
Charcoal	3	1	1	2		1	1		1	1			1
Coal											1		
Flint													
Insect fragments													
Modern roots		1			1								1
Molluscs													
Charred remains (total counts)													
(c) Cerealia indeterminate					1								
(c) *Hordeum* sp (Barley)													
(c) *Triticum* sp (Wheat)							1	1					
(c) *Triticum* sp (Wheat) glume base							4	1					
(c) *Triticum dicoccum* (Emmer) glume base													
(c) *Triticum spelta* (Spelt) glume base													
(r) *Plantago lanceolata* (Ribwort plantain)													
(t) *Corylus avellana* (Hazelnut)													
(x) *Galium aparine* (Cleavers)													
(x) Poaceae (Grass)													
(x) *Rumex* sp (Dock)													
Waterlogged remains (relative abundance)													
(a) *Chenopodium album* (Fat-hen)	1					1							
(a) *Fumaria* sp (Fumitory)													
(r) *Polygonum aviculare* (Knotgrass)													
(r) *Trifolium* sp (Clover)													
(t) *Sambucus nigra* (Elder)													

Table 2. Continued

Sample	206	208	211	212	213	214	215	216	217	218
Context	747	827	771	772	774	883	843	845	846	847
Volume processed	5000	5000	5000	5000	5000	5000	5000	1000	2500	1500
Flot volume	1	1	50	10	1	5	1	2	1	2
Volume assessed	1	1	50	10	1	5	1	2	1	2
Flot matrix (relative abundance)										
Bone (unburnt)										
Bone (calcined)						1				
Charcoal			2	2		1		1	1	1
Coal		1								
Flint										
Insect fragments	1									
Modern roots	1						1			
Molluscs										
Charred remains (total counts)										
(c) Cerealia indeterminate										
(c) *Hordeum* sp (Barley)										
(c) *Triticum* sp (Wheat)										
(c) *Triticum* sp (Wheat) glume base										
(c) *Triticum dicoccum* (Emmer) glume base										
(c) *Triticum spelta* (Spelt) glume base										
(r) *Plantago lanceolata* (Ribwort plantain)										
(t) *Corylus avellana* (Hazelnut)										
(x) *Galium aparine* (Cleavers)										
(x) Poaceae (Grass)										
(x) *Rumex* sp (Dock)										
Waterlogged remains (relative abundance)										
(a) *Chenopodium album* (Fat-hen)	1	1			1	1				
(a) *Fumaria* sp (Fumitory)									1	
(r) *Polygonum aviculare* (Knotgrass)										
(r) *Trifolium* sp (Clover)	1									
(t) *Sambucus nigra* (Elder)										

Table 2. Continued

Sample	219	221	222	223	224	225	226
Context	848	830	854	840	861	863	857
Volume processed	1000	5000	5000	5000	5000	5000	5000
Flot volume	10	25	2	2	1	3	50
Volume assessed	10	25	2	2	1	3	50
Flot matrix (relative abundance)							
Bone (unburnt)							
Bone (calcined)							
Charcoal	2		1			1	2
Coal							
Flint							
Insect fragments							
Modern roots				1	1	1	
Molluscs							
Charred remains (total counts)							
(c) Cerealia indeterminate							
(c) *Hordeum* sp (Barley)							
(c) *Triticum* sp (Wheat)							
(c) *Triticum* sp (Wheat) glume base							
(c) *Triticum dicoccum* (Emmer) glume base							
(c) *Triticum spelta* (Spelt) glume base							
(r) *Plantago lanceolata* (Ribwort plantain)							
(t) *Corylus avellana* (Hazelnut)							
(x) *Galium aparine* (Cleavers)							
(x) Poaceae (Grass)							
(x) *Rumex* sp (Dock)							
Waterlogged remains (relative abundance)							
(a) *Chenopodium album* (Fat-hen)							
(a) *Fumaria* sp (Fumitory)							
(r) *Polygonum aviculare* (Knotgrass)							
(r) *Trifolium* sp (Clover)							
(t) *Sambucus nigra* (Elder)		1					

(a: arable weed; c: cultivated plant; r: ruderal; t: trees/shrubs; x: wide niche) Relative abundance is based on a scale from 1 (lowest) to 5 (highest).

Table 3. Result of pollen assessment

Context	26		
	Top	Middle	Base
Microscopic charcoal (relative abundance)	3	3	3
Pollen (relative abundance)			
Poaceae sp (Grass)	-	1	-
Unidentified	1	1	1
Fungal spores	1	1	1

Relative abundance is based on a scale from 1 (lowest) to 5 (highest).

Appendix 3: Radiocarbon dating

BETA

BETA ANALYTIC INC.

DR. M.A. TAMERS and MR. D.G. HOOD

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REPORT OF RADIOCARBON DATING ANALYSES

Dr. Duncan Hale — Report Date: 11/4/2004

University of Durham — Material Received: 10/28/2004

Sample Data	Measured Radiocarbon Age	13C/12C Ratio	Conventional Radiocarbon Age(*)
Beta - 197192	4060 +/- 40 BP	-26.8 o/oo	4030 +/- 40 BP

SAMPLE : MBCO4A
ANALYSIS : AMS-Advance delivery
MATERIAL/PRETREATMENT : (charred material): acid/alkali/acid
2 SIGMA CALIBRATION : Cal BC 2630 to 2470 (Cal BP 4580 to 4420)

Dates are reported as RCYBP (radiocarbon years before present, "present" = 1950A.D.). By International convention, the modern reference standard was 95% of the C14 content of the National Bureau of Standards' Oxalic Acid & calculated using the Libby C14 half life (5568 years). Quoted errors represent 1 standard deviation statistics (68% probability) & are based on combined measurements of the sample, background, and modern reference standards.

Measured C13/C12 ratios were calculated relative to the PDB-1 international standard and the RCYBP ages were normalized to -25 per mil. If the ratio and age are accompanied by an (*), then the C13/C12 value was estimated, based on values typical of the material type. The quoted results are NOT calibrated to calendar years. Calibration to calendar years should be calculated using the Conventional C14 age.

CALIBRATION OF RADIOCARBON AGE TO CALENDAR YEARS

(Variables: C13/C12=-26.8:lab. mult=1)

Laboratory number: **Beta-197192**

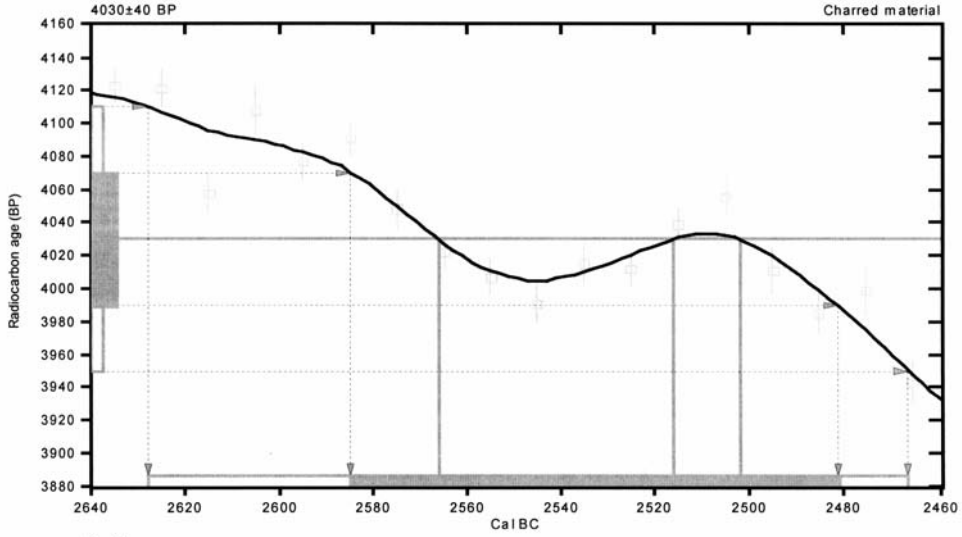
Conventional radiocarbon age: **4030±40 BP**

2 Sigma calibrated result: (95% probability) **Cal BC 2630 to 2470 (Cal BP 4580 to 4420)**

Intercept data

Intercepts of radiocarbon age with calibration curve: Cal BC 2570 (Cal BP 4520) and Cal BC 2520 (Cal BP 4470) and Cal BC 2500 (Cal BP 4450)

1 Sigma calibrated result: (68% probability) Cal BC 2580 to 2480 (Cal BP 4540 to 4430)



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