# Excavations at Langtoft, Lincolnshire

Areas F to H
The Bluebell Land



Jacqui Hutton

CAMBRIDGE ARCHAEOLOGICAL UNIT UNIVERSITY OF CAMBRIDGE



## **Excavations at Langtoft, Lincolnshire**

## Areas F to H

The Bluebell Land

## Jacqui Hutton

With contributions from Katie Anderson, Emma Beadsmore, Adrian Challands, Quita Mould, Maisie Pryor, Krish Seetah, Simon Timberlake and Anne de Vareilles

> ©Cambridge Archaeological Unit University of Cambridge Department of Archaeology

> > Report No. 795 December 2007

An archaeological watching brief and excavation was undertaken by a team from Cambridge Archaeological unit on behalf of Hanson Aggregates PLC on a c. 2.5ha site at Baston No. 2 Quarry. The excavation revealed field systems of probable Bronze Age, Romano-British and Medieval/Post Medieval date. In addition the northwest corner of a Romano-British enclosed settlement with internal features and complimentary settlement debris was excavated and recorded. The results of the excavation provide an insight to the community of the Romano-British people and place the site in context with the surrounding landscape.

## Acknowledgements

Many thanks to Tom Gifford, Unit Manager at Hanson Aggregates Plc and John Willson, General Foreman, also at Hanson Aggregates Plc. The Project was managed by Alison Dickens, CAU, and monitored on behalf of Lincolnshire County Council (the mineral planning authority) by Beryl Lott. The archaeology was excavated and interpreted by Ricky Patten, Martin Oakes, Tony Baker, Haley Roberts, Ilanith Pongolini, Virginia Vargo, David Williams, Catherine Ranson, Kerry Murrell, Laura James, Geoff Marchall, Tara Gullbrand and Iona Roberts. The area was surveyed and digitised by Donald Horne and Iain Forbes. The machine excavation was conducted with great care by Dave from Barton Services Ltd. Gwladys Montiel sorted and catalogued the finds, Dave Webb assisted with the photographs and Vicky Herring assisted with the illustrations. Particular thanks go to Alison Dickens and the staff from Baston 1 and 2 for all their past help and continued support during the project.

## **Contents**

Introduction	1
Methodology	1
Topography, Geology and Archaeological background	3
Results	6
Prehistoric	6
Romano-British	6
Medieval/Post Medieval	21
Specialist Reports	25
An Assessment of the Bulk Environmental Samples	25
An Assessment of the Roman Pottery	33
An Assessment of the Faunal Remains	50
An Assessment of the Metalwork	54
An Assessment of the Leather	57
An Assessment of the Tile, Daub and Burnt Clay	62
An Assessment of the Worked Stone	63
An Assessment of the Iron Slag	65
An Assessment of the Roman Glass	66
An Assessment of the wood	66
Discussion	68
Bibliography	71
Appendix 1	75
Basic Feature Descriptions	75

#### Introduction

Periodically from November 2005, through to January 2007, an archaeological excavation was undertaken at Hanson Aggregates Plc, Baston Quarry No.2, Langtoft, Lincolnshire (NGR 513400 312900). Three phases of investigation were carried out, which related to the stripping and excavation of three areas (F, G and H), this was necessary due to the presence of badger setts within the intervening land. Archaeological evidence of occupation and domestic activity was prevalent throughout the area in the form of a network of linears, and the northwest corner of a Romano-British enclosed settlement with associated internal features.

The collection of artefactual evidence (such as different forms of ceramic, faunal remains, metal work and construction material debris), provided an opportunity to assess the function and status of an enclosed settlement previously only seen in the form of aerial photographs. The good preservation and recovery of organic material from anaerobic conditions, including leather, textile and wood allowed a study of artefacts not previously recorded in this area. Collectively, the artefacts, structural, functional and divisional features of the field system and enclosure, provided a comprehensive date range and placed the settlement in context with the surrounding landscape in an area of fairly intensive activity spanning several periods.

## Methodology

Both areas F and H were simultaneously stripped towards the end of 2005, with Area F going straight into excavation; undertaken between 2<sup>nd</sup> November and 5<sup>th</sup> December 2005. Area H (where more intense activity was identified) was then postponed, with full excavation occurring between 6<sup>th</sup> February and 10<sup>th</sup> March 2006. Work on Area G was between 25th September 2006 and 19th January 2007 when a watching brief and mapping programme conducted towards the west end of the site, and the settlement core to the east was fully excavated between 2nd November 2006 and 19th January 2007. Although the areas were predefined by the requirement of the quarry, archaeology of several periods encompassed the whole area. Therefore the archaeology will be discussed in the text as separate period landscape sets rather than the designated areas.

The areas were stripped with a 360° tracked excavator and toothless ditching bucket under the careful supervision of an experienced archaeologist. All features were planned at 1:50, with sections drawn at 1:10. Archaeological features were assigned a unique number (e.g. F.001) and each stratigraphically distinct episode was recorded with a unique context number (e.g. [001]. The site was surveyed into the Ordnance Survey Grid and Ordnance Datum by means of a RTK GPS unit.

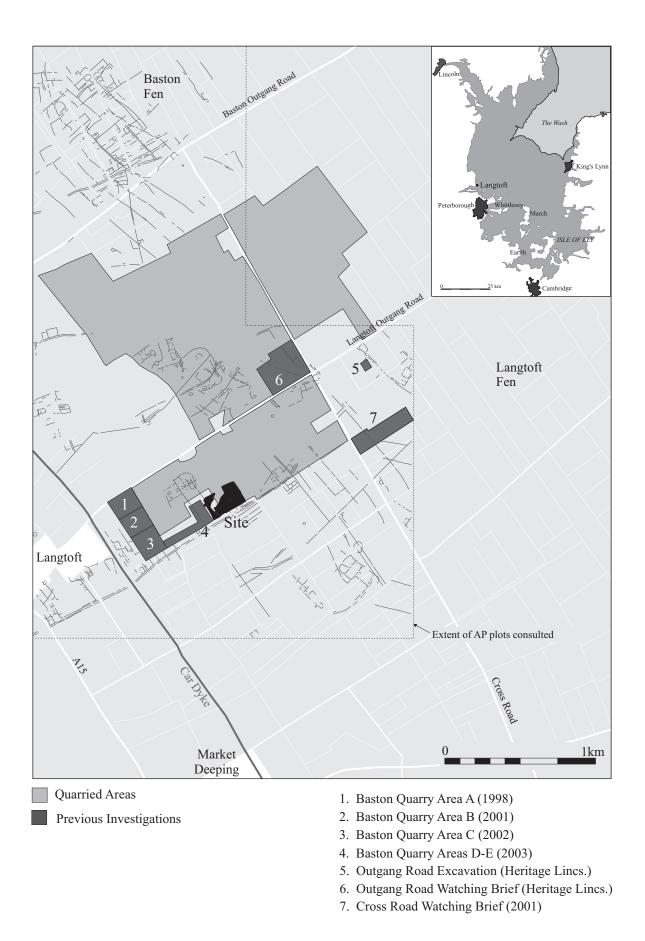


Figure 1. Location map

## Topography, Geology and Archaeological background

The site was located at c.3.60m OD, 2.5 km northeast of the village of Langtoft, Lincolnshire (NGR 513400 312900) within an area of gravel quarrying. The geology consisted of Oxford Clay overlain by First Terrace river gravels.

Four probable Bronze Age barrows have been identified from aerial survey northeast of the site, close to the contemporary fen edge (Hayes & Lane, 1992) and further attest to the extent of later prehistoric activity within the Langtoft landscape. Successive excavations by the CAU within the quarry have provided evidence for later prehistoric settlement spanning the Bronze Age to Late Iron Age (Hall, 1998; Webley, 2004). A Middle Iron Age saltern has been excavated to the north of the site, with sub-circular and sub-square buildings along with quantities of briquetage (Lane, 2001). Further evidence of Iron Age activity was recorded during a watching brief to the northwest of the Quarry, on the northern side of Outgang Road (Heritage Lincolnshire, 1992).

Romano-British activity has primarily been identified from aerial photographic surveys. A cropmark complex extending across the quarry environs is thought to date to this period, see Figure 1. This includes a road or trackway, orientated northeastsouthwest, located south of the quarry, with traces of a field system and enclosures extending at right-angles into the quarry area. To the west is the known course of King Street, a major Roman road (believed to have gone from near Castor (Peterborough), at a juncture with Ermine Street, where it followed the fen edge to Ancaster (Lincolnshire) and rejoined Ermine Street), from where the trackway probably extends. Substantial quantities of Roman pottery recovered during quarrying on the north side of Outgang Road, to northwest of the site (Petch, 1961; Phillips, 1970), further attests to the presence of Romano-British settlement within the area. To the west of the site was Car Dyke, a feature thought to be either a Roman canal or a drainage feature. Part of the Dyke excavated at Baston (and indeed sections studied at Peterborough) has been interpreted as a catchwater drain (Thorpe & Zeffertt, 1989). Within the guarry environs previous excavations identified Roman field system ditches and the corner of a settlement enclosure in Area C (Figure 2) with an inhumation (Webley, 2004). A similar settlement distribution was uncovered 1.9km to the north, where comparable enclosures were adjacent to an additional trackway on a north south alignment and suggests possible links between the communities (Andy Mudd, pers. comm.).

The site was located within medieval Langtoft's East Field beyond the eastern edge of cultivation, and formed part of the pasturelands of Langtoft Common (Hallam, 1965: 114-5). To the west of the site lies the moated enclosure of Langtoft Hall. There is no indication of occupation on the site on three early maps at 1 inch to 1 mile scale. Armstrong's *Map of Lincolnshire* of 1778, Bryant's *Map of the County of Lincoln* of 1828 and C. and J. Greenwood's *Map of the County of Lincoln* of 1830 shows a layout of field boundaries similar to that of today. Cropmark plots have shown ridge and furrow cultivation across the quarry.

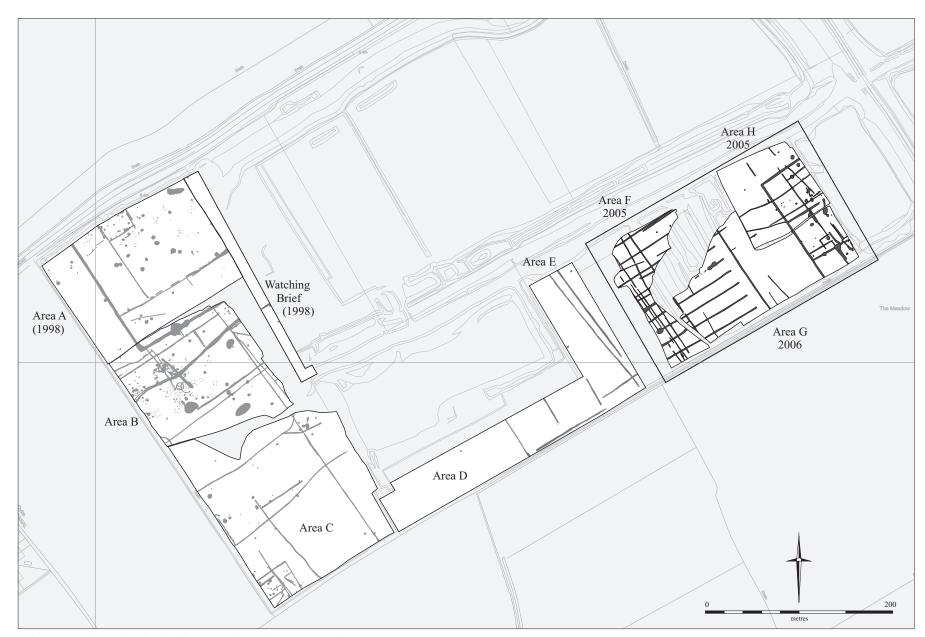


Figure 2. Site plan including previously excavated areas

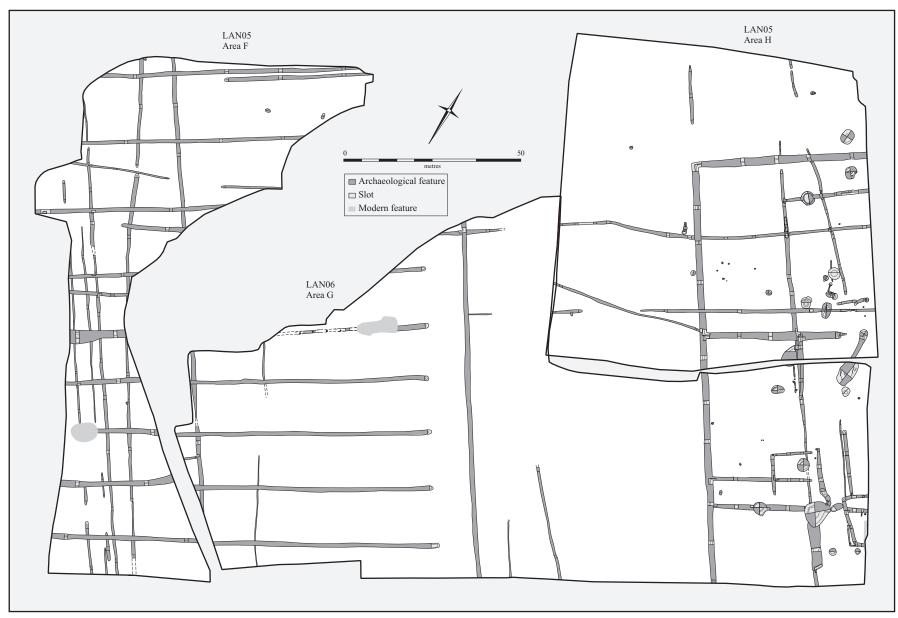


Figure 3. Site plan

#### **Results**

Archaeological features from the prehistoric period to the post-medieval period were uncovered throughout the area. The most intense area of archaeology was the northwest corner of a Romano-British enclosed settlement with associated features. These consisted of a network of linears, postholes and pits, pit/wells and watering holes of varying size and evidence of structures in the form of beam/post slots.

A wide range of artefacts were recovered which included metalwork, worked wood, leather, textiles, worked stone, burnt clay from oven/kilns, glass, daub, large quantities of pot (both domestic and imported wares) and faunal remains. The anaerobic conditions allowed for the preservation of organic materials such as leather shoes (with evidence of repair), worked wood, seeds and other environmental data. The artefacts provided evidence that local resources were utilised in addition to extensive trade networks.

#### **Prehistoric**

Possible traces of a prehistoric field system were formed by short sections of linear ditches orientated northwest-southeast and northeast-southwest, (Figure 4a). The majority of linears were truncated whereas F.20047, F.20070, F.20071, F.20075, F.20081 and F.20082, range from 0.37m to 0.65m wide and 0.08 to 0.52 m deep, and had moderately steep U-shaped profiles with rounded terminals and consisted of a single fill of mid grey/brown sandy silt. These were devoid of artefacts suggesting an area of sparse activity, as evidenced by the lack of other associated features. These linears appear to be similar to and on the same alignment as a Bronze Age field system and settlement located towards the north and east of this investigation (Hutton, forthcoming).

Another possible prehistoric feature, (F.20065) was a large sub-oval pit located towards the northern excavation boundary, 4.10m x 3.30m wide and 1.16m deep with steep convex sides and flat base. The silty fills accumulated over time with periodic episodes of slumping. In layers [20300] and [20301] an orange coloured line was noted in the section which may indicate the point of the water level at the time the feature was in use, and the fills below this suggest water silting. The layers above suggest slumping from the banks of original excavated material. The sharp undercutting of the sides near the base implies water worn activity. Context [20301] suggested that this pit may have been re-cut or cleaned out during its life use.

#### Romano-British

### Ditches

The Romano-British field system was concentrated towards the southwest of the area, where F.20011 (1.10m wide and 0.22m deep) and F.20020 (0.20-0.47m wide and 0.03-0.14m deep) produced pot attributed to the Roman period. The additional linears were severely truncated with no dateable artefacts, although the profiles and silt fills were similar, these can tentatively be attributed to the same date.

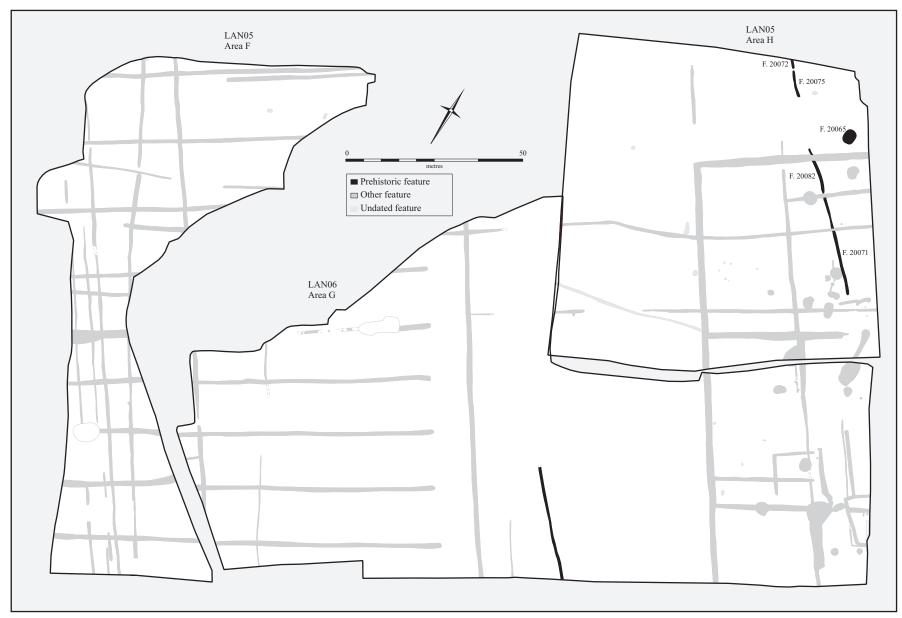


Figure 4a. Prehistoric features

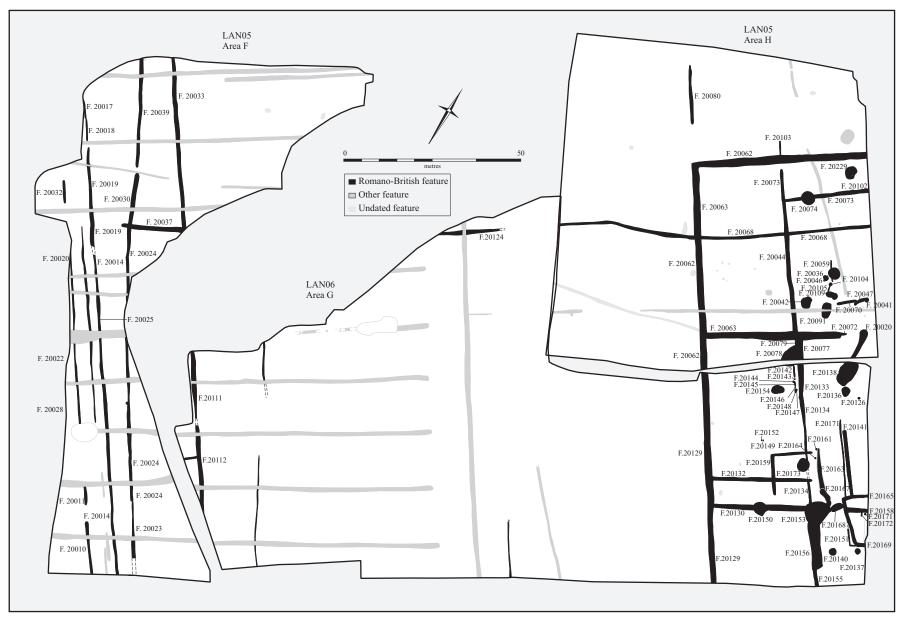


Figure 4b. Romano-British features

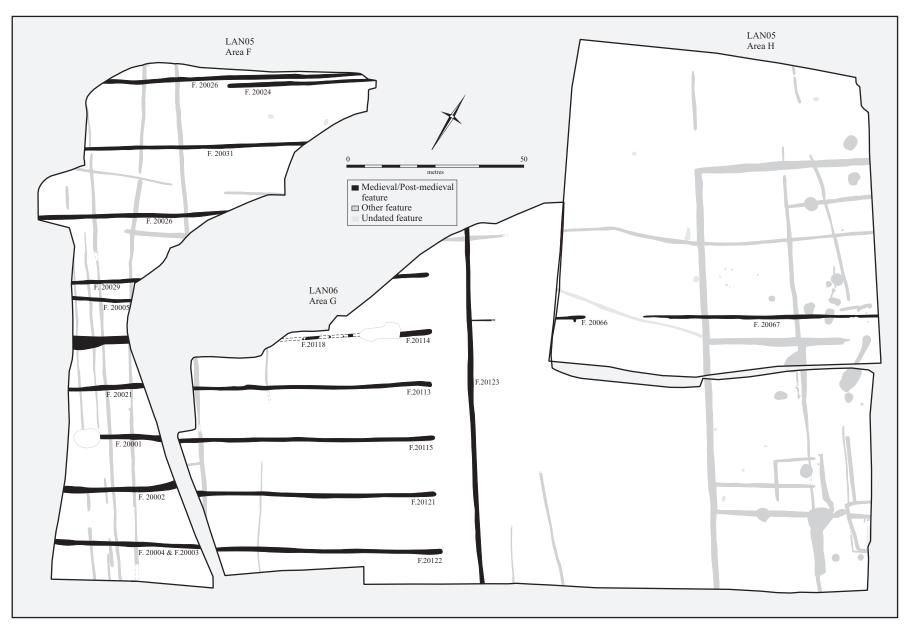


Figure 4c. Medieval/Post-medieval features

The area towards the northeast was dominated by the north western corner of a Romano-British enclosure, (Figure 4b). Constructed and adapted in various phases, the enclosure comprised a larger outer boundary ditch with smaller internal divisions. The initial boundary of the enclosure was represented by F.20063, (0.43-1.80m wide and 0.53-0.80m deep) which (alone) appeared to form an 'L' shaped linear. This was aligned northeast-southwest and turned 90° to the northwest at its southern end, forming the eastern edge of the enclosure. A later change to the enclosure was represented by F.20062, which replaced F.20063, and formed the north western corner of the enclosure. Further internal changes occurred with the construction of F.20073, (0.49-0.76m and 0.13-0.47m deep) and L shaped linear, which cut an earlier linear and may have been the reaffirmation of an internal division.

F.20063 was a northsouth-eastwest linear at the corner point. Once the feature went out of use it was cut along its north south line by F.20062. This was a Roman enclosure ditch or boundary, orientated northwest-southeast. This cut linear F.20063 which turned at this point and continued on the same alignment of the enclosure. The varying depths of [20282], rising towards the northeast corner may suggest more than a constructive event. However, it seems that the whole ditch was filled at the same time and should be considered a single boundary feature. The fills are consistent with a natural silting up of an unstable sand and gravel natural.

The boundary ditch (F.20062) continued as F.20129, (1.00-1.55mm wide and 0.36-0.48m deep), see Figure 5. This linear cut a southeast-northwest aligned internal ditch (F.20130, 0.46-1.24m wide and 0.19-0.32m deep) indicating that the boundary ditch was re-cut at some point to re-establish or alter the perimeter of the settlement. However, F.20132, (0.41-1.12m wide and 0.20-0.31m deep), which also runs on the same alignment, appeared to be contemporary with the boundary ditch suggesting an altered layout or possible 'extension'. F.20158 (0.80-1.07m wide and 0.21-0.24m deep) continued on the same alignment although the terminals of both ditches were cut by later features (F.20153 and F.20165).

There were eight internal linear divisions in addition to the northwest-southeast linear marking the boundary of the settlement that continued through the area and presumably continued into the fields to the south, thus enclosing the settlement to the east. Internal divisions such as F.20134 (0.40-0.90m wide and 0.11-0.22m deep) and F.20155 (0.95m wide and 0.20m deep) appeared to indicate the first phase of occupation (which was probably an early pre-settlement field system) as it was cut by other features such as the pit F.20153 and later phases of linear divisions such as (F.20133 and F.20156). F.20156 was a large square-ended ditch, (13.50m x 2.72m wide and 0.57-0.63m deep), representing the re-establishment of the previous linear divisions.

In F.20044 (0.78-1.19m wide and 0.09-0.31m deep) there was a charcoal rich midden/deposit/dump caught in the upper fill of a north-south linear at a junction point with an east-west linear of unknown relationship. Excavated in a series of one metre sections, the majority of artefacts recovered from the southern end and the pottery recovered suggested a Roman date.

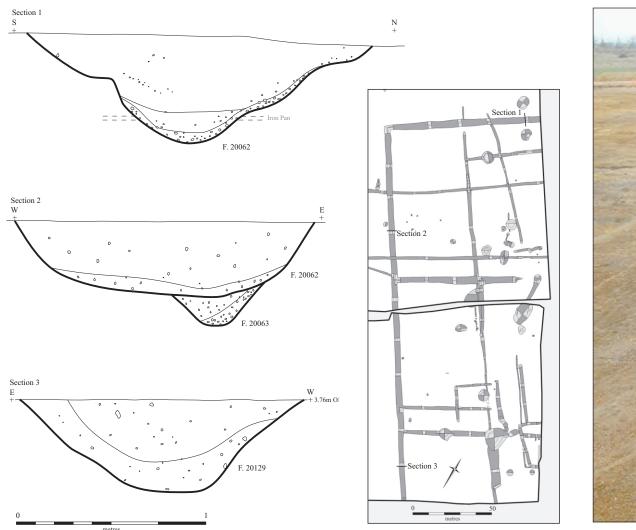




Figure 5. Boundary ditches F.20062 and F.20129

Ditch F.20062

At the centre of the area, running parallel with F.20133 and F.20134, were several small truncated features possibly representing a fence line, this comprised of postholes (F.20143, F.20146 and F.20147) with a truncated gully between for the fencing (F.20142, F.20145 and F.20148). Two parallel ditches (F.20141 0.42-0.90m wide and 0.22-0.29m deep and F.20151 0.20-0.35m wide and 0.07-0.19m deep) represent different layouts in the area. F.20151, which was severely truncated, was cut by F.20165 (Structure 1) and could be earlier than F.20141, representing spatial alteration.

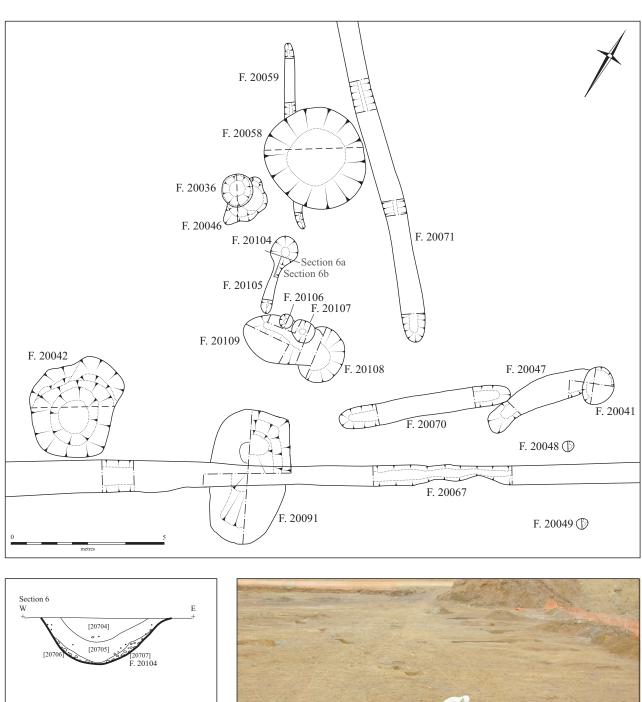
A north-south aligned ditch, F.20043 ran into the area of a watering hole (F.20138) although the relationship is now lost due to quarry workings. This linear, 1.56m wide and 0.29m deep was fairly shallow with concave stepped sides with mid orange/brown sandy silt fill. It is uncertain as what the function or nature of this feature was, the alignment does not mirror other internal divisions, although the cheese press/colander and spatula firmly dates it with the rest of the settlement.

#### Pits

Located within the enclosure were sixteen pit/wells and watering holes. The main differences between these feature types were their size and profiles. Pit/wells were mainly sub-circular in plan ranging from 2 to 4 meters diameter with steep sides and flat/round bases. Watering holes were sub-oval in plan and ranged from 4 to 7 meters diameter and had a sloping 'access ramp' on one side running down to a fairly flat base, while the opposite side was more steep and vertical. Common factors between the two types of features were that of the initial usage and fills. Both were utilised for water and after they went out of use, there followed periods of backfilling, natural slumping and dumping of domestic material.

The pit/wells were spread throughout the area, with three (F.20041, F.20058 and F.20091) clustered close together and the forth (F.20078) truncated by quarry workings. Each of these features, with the exception of F.20091, produced a large amount of artefactual material. Recovered from F.20041 (a sub-circular pit 1.20m x 0.90m wide and 0.15m deep, with steep sides and flat base) was a large amount of broken pottery vessels of varying forms. These were within a dark grey/brown sandy silt deposit which included charcoal and burnt bone rich lenses, and together appeared to represent rubbish dumps. Within close proximity, F.20058 contained a similar assemblage of pottery along with animal bone.

Towards the northeast of the area there were a cluster of pits and shallow features, which can be seen in Figure 6. F.20036, a sub-oval pit 0.96m x 0.87m wide and 0.59m deep with steep straight to concave sides and flat to concave base was initially thought to be a cremation, instead during post-excavation analysis it was considered burnt faunal remains in conjunction with the dumping of ceramic material. Adjacent was feature (F.20104/5), although severely truncated and with no direct evidence of burnt residue, the profile and shape suggests a small oven; this consisted on a circular hollow with a linear flue. Similar features were found at Wakerly, Northants (Jackson et al, 1978).



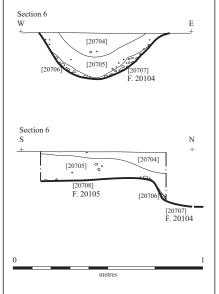




Figure 6. Cluster of features in Area H, including pits and an oven

F.20042 was a large sub-oval pit (2.63m x 3.60m and 0.79m deep with moderate concave and convex sides and concave base) with several episodes of dumping of burnt material. [20256] was a discrete deposit, probably from a small hearth with a concentration of pottery. [20275] was a large dumping of burnt gravel material. The majority of the deposits were concentrated towards the northeast area of the pit. Initially layers [20262] and [20263] were thought to have been remains of a cremation pyre. The deposits had quantities of burnt bone, although they were not very thick and underneath layers displaying no evidence of burning. Therefore it was probably a midden with deposits of domestic material after it went out of use as a well.

F.20058 was a circular pit, 3.30m x 3.42m and 1.16m deep with moderate to steep sides and flat base and produced a rich array of artefacts. There were many episodes of dumping of material waste and natural slumping, and it appeared that this feature had a relatively short life span as various sherds of the same pot was found in various different contexts. The slumping was not uniform around the circumference of the pit; at the western edge there appeared a more complete slumping pattern indicating that the original upcasts were placed here. After slumping, the pit edge appears to have been cleaned or re-cut giving it a straight edge, after which organic rubbish was dumped [20293]. Three organic fills overlaid these [20245], 20254] and [20264] and domestic pot was found within [20254]. These contexts were capped by a slump layer [20288] and a rubbish layer [20244] that provided evidence of silting from the eastern edge. A final rubbish layer [20287] was then deposited after which the pit appears to have fallen out of disuse and only contained residual domestic pot. The basal deposits were rich with organic material; recovered from this was a fragment of triangular waste leather with a perforation indicating leather working was taking place in the vicinity.

F.20074 was a large circular pit 3.78m x 3.70m wide and 1.21m deep with moderately steep uneven concave sides and concave base, and contained multiple phases of backfilling and slumping and contained organic material and fragments of un-worked wood in the basal fill [20400]. The feature was mostly silted up when an internal linear ditch (F.20073) was cut through it and a later pit (F.20040) after that. F.20040 was a circular pit 3.50m x 3.00m wide and 0.20m deep with moderately steep concave sides and flat base. A single fill of green/grey sandy silt represents natural silting.

With similar deposits to that of F.20058, a large sub oval pit, F.20078 (4.00m+ x 6.50m wide and 1.30m deep with steep convex sides and uneven concave base) produced a large quantity of pottery and animal bone, along with preserved organics; fragments of worked wood, possibly from a box or frame and a leather shoe with hobnails. The pit was subject to a series of initial slumps and weathering episodes interspersed with the deposition of small organic material represented by [20494] and [20480]. The quantities of bone however do not seem substantial enough to suggest prolonged use of the pit for domestic refuse. The upper fills appear to have been deliberately re-deposited natural sands and gravel, particular [20476] and this may represent the sealing of the decomposing organic material and the end of the period of use.

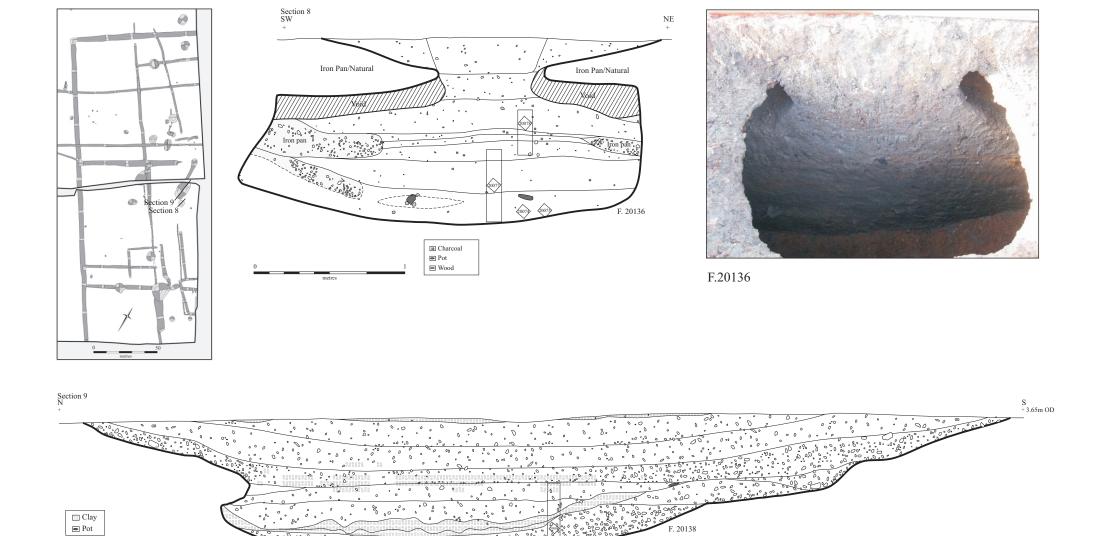


Figure 7. Well F.20136 and watering hole F.20138

metres

A sub-circular pit, F.20136, 2.25m x 2.34m wide and 1.26m deep with gradual sloping sides at the top, with a small sharp opening dug through the natural iron pan, opened out to form a large bell-shaped pit with undercutting vertical sides and flat to uneven concave base, (seen in Figure 7). A plug of silty clay [20816] was removed to reveal a void with silted organic layers at the base of the feature, [20821]. The anaerobic conditions preserved organic remains which included several pieces of leather; two partial fragments of footwear representing a sandal and a shoe. Twisted vegetable matting or rope was also recovered along with several circular hoops of twisted round wood, used as re-enforcement for containers or used as ties for bundles of wood or sheaves. Twisted withies were also used in the construction of thatched roofs and securing animals. Similar artefacts have been found at Eton Rowing Lakes, (Taylor, forthcoming) and at Heathrow Terminal 5, (Lewis, 2006).

The pottery assemblage included a complete flagon and near complete Samian bowl with STENNIUS stamped in the centre, which was produced in Central Gaul in 150-180 AD, suggesting deposition occurred during the late 2nd century. There was evidence of repair which indicates that it was curated and deposition may have happened later than the manufactured date.

Towards the southeast of the area, a circular pit/well F.20140, (3.50m x 3.00m and 0.20m deep with moderately steep concave sides and flattish base), appeared to have been back filled with a mixture of redeposited natural and degraded soil after its initial use as a well. At the base of the feature, preserved wood in the form of round wood and split fragments were found, one with punched holes, another was worked to a point, and a peg was also recovered in the basal fill [20147].

F.20150, a pit/well was circular in plan, 3.75m x 3.70m and 1.25m deep with moderate steep concave and convex sides, more gradual slope to the south with flat to concave base. This feature cut internal linear F.20130, and was initially utilised as a well with organic rich deposits at the base including large quantities of small branches, twigs and other organic deposits which naturally accumulate in pools. Fill [20934] may represent the level of standing water, due to the silting nature of the fill. Layers above this appear to have been back-filled intentionally with mixed deposits including clay which could have been used for 'capping' material such as cess. Alternatively the back-filling could have occurred due to changes in the layout of the settlement, although the upper fills appear to have silted naturally.

West of F.20136 and F.20138, an additional oval pit/well (F.20154), 3.23m x 2.32m and 1.49m deep with steep concave and convex sides and flat base, produced only a small number of artefacts. The primary fill [20992] caused by immediate slumping of natural (a copper alloy pin was recovered from this layer), and then subsequent layers of back-filling producing mixed layers, while the upper layers are probably from the effects of silting.

F.20173, a sub-circular pit 3.40m x 3.75m and 1.22m deep with moderately steep concave sides with convex undercutting on east side and flat base was located in the centre of Structure 1, see Figure 8.

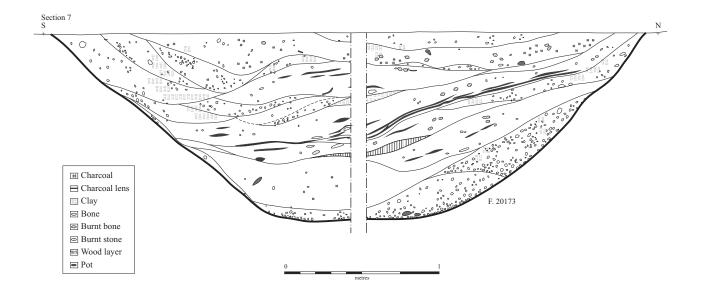




Figure 8. F. 20173 within Structure 1

There were several banded layers throughout the pit [21111] and [21113] representing a series of dumping activity, probably from hearths, with lenses of charcoal, ash and burnt bone as well as settlement debris (pot and bone). Beneath this a black charcoal rich, anaerobic organic layer [21114] containing general wood debris (branches and twigs), a leather shoe and a bent silver pin. Overlying this were several layers of redeposited natural and silt suggesting that the whole pit was filled in and not left to naturally silt up, suggesting that the whole immediate area was cleared consecutively to that of Structure 1, as both their upper fills appeared to be similar, and the pot assemblage supports this.

There were several intercutting pits at the southern terminal of F.20163, which was part of Structure 1. F.20166 was an oval pit, 2.50m x 1.70m wide and 0.61m deep, with moderately steep straight to concave sides and concave base, which cut the southern terminal of F.20163. The fills [21054 – 20156] of mid brown grey sandy silts and natural sand and gravel slumping represented natural silting. The relationship with adjacent pit F.20167 (oval in plan 2.00m x 1.30m wide and 0.55m deep) is unclear, as the fills were similar, although this cuts F.20169, a pit or segmented linear, (1.00m x 0.80m wide and 0.45m deep with steep straight sides and concave base), which cuts the watering hole F.20153. All these features produced residual pot dated from 2<sup>nd</sup> to 4<sup>th</sup> century AD.

One of the two large watering holes, F.20138, an irregular lozenge/oval shaped pit 7.50m x 4.40m wide and 1.16m deep with very steep and undercut sides to the north with gradual slope to the south which probably represents an access ramp, and a concave to flat base, as seen in Figure 9. The majority of artefacts, which were general settlement detritus dated to mid 2nd-mid 3rd century AD, were located in the upper fills which were slow accumulating silts. Below these were several layers indicating remnants of a pool with areas of slumping and weathering. Below this were several disturbed layers indicating continual activity such as cleaning out and trampling, [20838] and [20857] were primary fills, accumulating during use and perhaps raked out regularly to maintain a pool, and formed a low bank to the south and east where upon a piece of timber [20871] was placed which would have allowed easy access in the form of a step.

The second large sub-circular watering hole (F.20153) was 7.00m x 7.25m wide and 1.18m deep with gradual to steep convex sides, more sloping to the east and more vertical to the west with a flat base, and cuts through the intersection of several linears with an access ramp towards southeast. This feature is similar to F.20138 but with markedly less finds. The primary fills comprised of horizontally banded gravely sands from the erosion of the sides into the water during its use as a watering hole. Very dark and compacted silty sand occurred at the access ramp to the south and east representing trample during use. These overlay a black, anaerobic deposit which comprised of waste products and demolition material (large stones) and recovered artefacts included a single leather shoe complete with hob-nails. This was overlain by a fairly clean lens representing erosion from final sporadic use or occurring during deposition of [20958]; back-filling material of mixed and tipped angled lenses from a series of dumping episodes possibly organic and degradable rubbish with waste soils.

This rubbish pit usage was followed by more horizontally banded levelling and back filling (after [20958] had settled and rotted down) possibly using original upcasts. The final fill [20956] a generally fine sediment representing the slow accumulation/silting of the subsistence hollow.

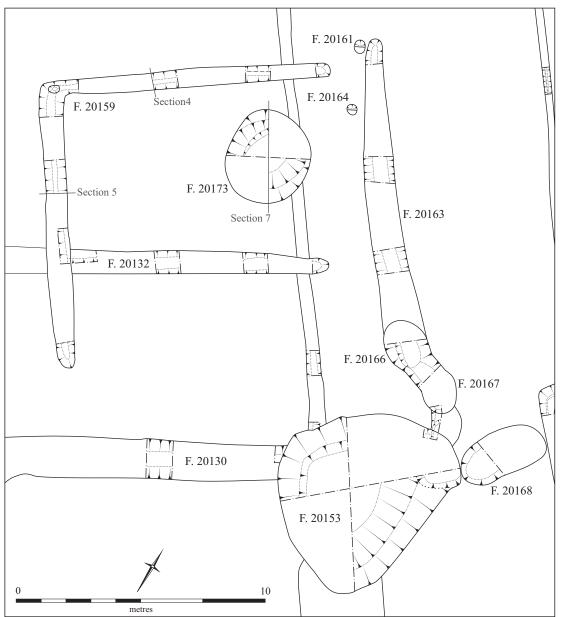
#### Structures

A possible four-poster feature towards the northeast extremities of the area, with two post holes adjacent, (F.20048 circular posthole 0.35m x 0.35m and 0.12m deep with steep sides and concave base and F.20049 circular posthole 0.35m x 0.30m and 0.10m deep with steep sides and concave base). However, the others have been quarried away towards the east. There are examples of other solitary postholes, (F.20050 circular posthole 0.40m x 0.35m and 0.15m deep with steep sides and concave base and F.20056 circular posthole 0.35m x 0.35m and 0.06m deep with steep sides and concave base). Additional features include small pits such as F.20057 a sub-rectangular pit 1.10m x 0.90m wide and 0.30m deep with vertical sides and flat base with charcoal, burnt stone and pot representing dumped light industrial or domestic hearth material.

#### Structure 1

Located in the centre of the area, there appeared to be a three sided structure, (approx. dimensions 14.00 x 11.50m), F.20159 and F.20163; there was no evidence of a forth wall (Figure 9). The northwest and southwest sides were one continuous slot (F.20159, 0.54m wide and 0.35m deep with steep convex sides with vertical sides at the bottom and a flat base) with evidence of a beam slot (more so on the northern side) or a slot for the erection of posts. Flat stones were recorded in situ which probably represent packing and/or post pads. The fill was dark grey black charcoal rich sandy silt with areas of burnt clay and ash indicating deposits from hearths etc. which could also correspond with the fills from the pit in the centre, F.20173. The pottery included several vessels of fine table-ware including panel decorated Samian and a Nene Valley indented beaker with feathered decoration (dated to mid 3rd century). The foundation trench F.20163, (1.27m wide and 0.30m deep with sloping concave sides and flat base) to the east was much larger in width. Two post-holes, (F.20161 and F20164) adjacent to the northern terminal could represent an entrance way. F.20161 was sub-circular 0.45m x 0.35m wide and 0.27m deep with vertical sides and concave base and F.20164, 0.45m x 0.40m wide and 0.17m deep and similar in profile. Both fills were similar, which consisted of mid brown grey silty clay with charcoal inclusions, F.20161 produced pot dating 2<sup>nd</sup>-3<sup>rd</sup> centuries.

The northern terminal of F.20163 produced a corroded coin of Antoninus Pius, minted 154-155 AD, in addition to a fragment of slag, several nails and part of a copper alloy brooch. This suggests a date for the structure to late 2nd early 3rd century AD or later. The southern terminal cannot be seen due to the disturbance of an inter-cutting pit (F.20166). A large quantity of pot and bone was recovered from this structure, especially in the western proximity, suggesting that the building was dismantled and settlement debris was dumped in this area, therefore providing a date after the event. It is possible that this could have been some sort of 'out building' either to keep animals or possibly light industrial activity.



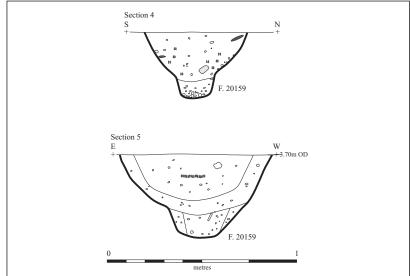




Figure 9. Structure 1

#### Structure 2

This structure (F. 20165) was composed of a continuous beam slot on three sides; the western side unfortunately lost by quarry workings (approx. dimensions 12.00+ x 30.00m). The width of the slot was 0.65m and 0.34m deep with steep convex sides and flat base and consisted of mid grey sandy silt. It is also on a slightly different alignment to that of the rest of the features and overlies earlier internal ditches. The quantity of finds were not as numerous as that of Structure 1, although a further Nene Valley indented Beaker with feathered decoration and a fragment of copper alloy brooch were recovered. The cut on the northern side of the feature is clear and convex in profile due to the natural (firm gravel), whereas in the south it is more concave due to the sandy nature of the geology in that area. The eastern end of the structure has been lost through previous quarry workings.

#### Medieval/Post Medieval

Eight linears were recorded as medieval or post-medieval, a single boundary ditch (F.20067, 0.55-1.00m wide and 0.13-0.22m deep with steep sides and concave base and dark brown sandy silt fill) on a northeast southwest alignment cut through the Romano-British settlement. This linear was associated with the furrows recorded within other areas of the quarry. Although in itself it is not dissimilar to a furrow, the lack of any other features of this attribution within the area suggests it was more likely a boundary marker (elsewhere multiple furrows have been recorded rather than individual).

Of the remaining linears, F.20113 to F.20115, and F.20120 to F.20122, six were on a northeast-southwest alignment terminating to the east; the seventh linear, F.20123, running northwest-southeast marks the boundary edge, see Figure 4c. The northeast-southwest linears are all similar in depth, width and profile and have no associated artefacts, (averaging 1.26m wide and 0.21m deep with mid grey brown sandy silt fills). An articulated skeleton of a cow which had been interred in a pit (F.20027) cut into the western end of linear F.20036.

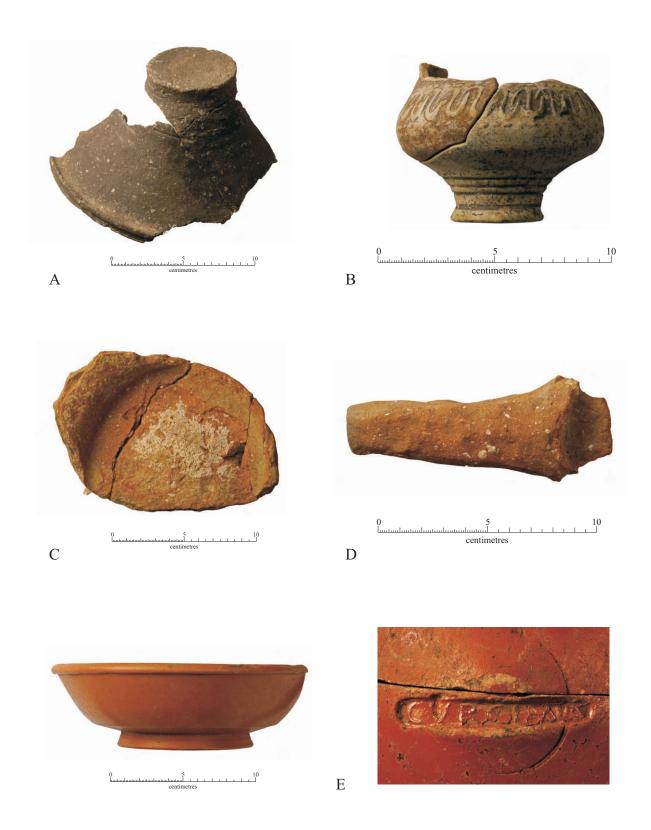


Figure 10. Examples of pottery recovered: A) Shell-tempered lid, B) Joined fragments of the same vessel found in linear F.20102 and pit F.20051, C) Vessel with limescale residue from watering hole F.20138, D) Shell-tempered handle from pit F.20139, E) Samian bowl with manufacturer's stamp reading 'CVRVIMA', from F.20136.

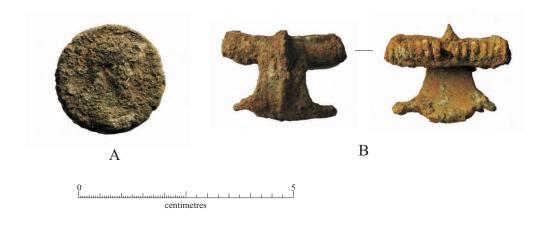




Figure 11. Metalwork: A) Antonius Pius As coin from F.20163, posthole associated with Structure 1, B) Fragment of Fibula Brooch also from F.20163, C) Nail cleaner from pit F.20043, D) Ligula from pit F.20042, E) A sewing needle from pit F.20058, F) Ligula from pit F.20154, G) Dress pin from pit F.20173.





Figure 12. Leather shoes and 'Withy Rings': A) Leather shoe from F.20173, B) Child's leather, right shoe with hobnails from F.20153, C) A 'Withy Ring' from F.20136.

## **Specialist Reports**

## An Assessment of the Bulk Environmental Samples

Anne de Vareilles

## Methodology

Seven bulk soil samples were processed using an Ankara-type flotation machine at the Cambridge Archaeological Unit. The flots were collected in  $300\mu m$  meshes and the remaining heavy residues washed over a 1mm mesh. The flots were dried indoors and scanned for the presence of charred plant macro remains. Three samples appeared to be waterlogged. These were consequently sub-sampled and floated using  $300\mu m$  meshes, in the George Pitt-Rivers Laboratory, McDonald Institute, University of Cambridge.

Sorting and identification of macro remains were carried out under a low power binocular microscope. Identifications were made using the reference collection of the GPR laboratory. Floral nomenclature follows Stace (1997). All environmental remains are listed in tables 1, 2 and 3.

#### Preservation

Both carbonisation and waterlogging were evident. Sample 20074 from F.20136 context [20821] was processed as a waterlogged sample, though carbonised remains were also noted (see tables 1 and 2 for carbonised and 3 for waterlogged macro remains). The bulk of samples 20056 F.20058 [20264] and 20083 F.20150 [20938] were floated for carbonised remains. Sub-samples were also taken, however, to be processed for waterlogged remains (see table 3). All other samples were only floated for carbonised remains.

Sample 20079 F.20138 [20850], however, did contain some previously waterlogged seeds in the dried flot; they are recorded in table1 but should be seen as an incomplete representation of a waterlogged assemblage. All samples contained some intrusive rootlets.

#### Results and Discussion

Pre-historic Ditch, F.20071.

This was the only sample processed from a probable prehistoric feature; no plant macro remains were found other than a few pieces of small charcoal (<2mm).

The remaining samples were all taken from mid  $2^{nd}$  – mid  $3^{rd}$  cent. AD features. Enclosure Ditch(s), F.20062 [20271] and F.20129 [20802]

Two samples were taken from the ditch(s) surrounding the 'settlement' area. Neither sample revealed anything other than a little charcoal and a few modern seeds.

## Pits, F.20058 [20264], F.20150 [20938] and F.20140 [20867]

The three pits contained very little environmental data. F.20058 is the only feature in which evidence was found for oat (*Avena* sp.) and rye (*Secale cereale*) (one grain and one rachis segment respectively). A single spelt wheat glume base (*Triticum spelta*) was found in F.20150. Out of the three pits, F.20140 contained the most charcoal though it had no other charred plant remains.

Instead, waterlogged seeds from four different species testify to its past wet condition; it appears to have dried out leaving only the tougher, lignin rich seeds to survive. 500ml sub-samples from F.20058 and F.20150 were also processed for waterlogged remains, the results are discussed below.

## Structure 1, F.20159 and Structure 2, F.20165

Whereas samples from S1 [21061] and S2 [21080] revealed almost no plant remains, the second sample from S1, in [21088], had a rich assemblage of agricultural waste. The cereal component is dominated by spelt and possibly emmer wheat (*T. spelta/dicoccum*), with a little hulled barley also present (*Hordeum vulgare sl.*). Apart from grains six wheat glume bases and six grass stems, possibly cereal straw, were noted. The 70 wild plant seeds, representing at least 15 different taxa, were most likely crop weeds. The nine vetches or wild pea (*Vicia/Lathyrus*) may have originated from a bean crop, though it is likely that they too were cereal crop weeds. The pulses mentioned above, along with another nitrogen-fixing clover or medic (*Trifolium/Medicago*), suggest that the soil farmed was low in nutrients. The assemblage suggests that the burning of cereal processing waste, and perhaps cereal processing itself, took place within or close to that area of Structure 1.

## Midden in Ditch F.20044, [20209]

The midden contained 15 to 30 wheat grains (15 of which could be barley -Triticum/Hordeum) and more than twice as many glume bases. The range of wild plant seeds was extensive and probably represents various sources. The dominance of wheat glume bases over grain and the high number of crop weeds suggest that the final stages of sieving and hand-sorting of crops before consumption took place nearby (Hillman 1984 glume wheats stages 8-14). There are no signs of the earlier stages of threshing and winnowing. Charcoal occurred in very low quantities, which seems to indicate that the cereal processing waste was burnt, or used as fuel without the addition of much wood. 47 pulses (probably wild – *Vicia/Lathyrus* 1.2mm-4mm), and the presence of clover(s) and/or medic indicate poor levels of soil fertility. Other specimens such as red bartsia (Odontites vernus) and scentless mayweed (Tripleurospermum inodorum) are also found on poor soils. The latter species is associated with sandy soils and light loams in Britain (Clapham pers. comm.), unlike spike-rushes (Eleocharis sp.) and sedge (Carex sp.) which were found in relatively high quantities. Whereas these may have grown on the margins of crops, they were probably collected for thatching, weaving, basketry, etc. from wetter areas of natural fen vegetation. A single lentil (Lens culinaris) and flax seed (Linum usitatissimum) offer a glimpse into the range of economic crops that are unlikely to have preserved through carbonisation.

## 'Water-hole', F.20138 [20850]

The charred remains consisted of two cereal grains, 15 wheat glume bases, five wild plant seeds and very little charcoal. These remains, though few, suggest wheat preparation for consumption. This sample also contained some waterlogged seeds, seen in the dried flot. Crowfoot (*Ranunculus* Subgen *BATRACHIUM*) was the only aquatic plant present; the others all grew on waste or disturbed land or perhaps even arable. Corn-cockle (*Agrostemma githago*) was certainly a common arable crop weed during the Roman period (Greig 1991), and the two most abundant species in the sample (oraches – *Atriplex prostrata/patula* and knotgrass – *Polygonum aviculare*) were common on arable.

Since other waterlogged seeds were probably lost during flotation and subsequent drying, the interpretation of that ensemble must remain tentative. Due to the feature's close proximity to the well (described below) however, it is likely that the two features shared a very similar waterlogged assemblage of local plants.

## Well, F.20136 [20821]

Charred and associated waterlogged remains (500ml sample)

The concentration of charred remains is surprisingly high for the sample's low volume. As well as charcoal, fragments of compressed plant ash were noticed. These appeared as small lumps of burnt dung: a mix of soft plant tissue, including monocot leaves/stems, densely matted together (one or two fragments were also found in the 'watering-hole'). Their preservation suggests combustion under reducing conditions, as though the fire had been covered in some way thus reducing the input of oxygen. Wild plant seeds are more frequent than cereal remains, which are dominated by wheat glume bases. Similarly to the midden, the well appears to contain waste from the last stages of crop processing, namely glume wheat but also possibly rye (2 Triticum/Secale grains). Although some of the wild species found in the well were not uncovered from the midden, the two assemblages are comparable in showing that, though they may not contain the same crop, they do point to similar types of soil (nutrient deficient and not too clay-rich). Field gromwell (Lithospermum arvense) occurs in abundance and is a clear loam indicator (Hanf 1983); scentless mayweed, also found in the midden and common in the well, fairs well on poor, sandy loams. The two charred crowfoot seeds (aquatic plant - Ranunculus subgen. BATRACHIUM) are an unusual find; water was perhaps collected to extinguish a fire, thus exposing aquatic plants to carbonisation. Crowfoot seeds were also found waterlogged in the well and may have grown on the water's surface. The same can be said for rushes that occurred waterlogged in far greater numbers than charred; they probably grew around the adjacent 'watering hole'.

Other species, such as bur chervil (*Anthriscus caucalis*), fool's parsley (*Aethusa cynapium*) and selfheal (*Prunella vulgaris*) were found as both waterlogged and charred seeds in similar quantities. Their association with carbonised cereal suggests they were crop weeds rather than plants growing around the well. Extremely probable crop weeds, such as field gromwell and corn-cockle also occurred as both waterlogged and charred; in fact, waterlogged corn-cockle was more common than charred. 25 waterlogged wheat glume bases (five of spelt) demonstrate that fresh, as well as burnt; wheat processing waste was indeed discarded into the well.

## Waterlogged remains (same 500ml sample)

It is difficult to determine which of the seeds originated from the settlement area as opposed to the cultivated fields because of the mix of waterlogged and charred remains. Nevertheless, it would appear that the top-soil around the well and 'watering hole' was quite light and free-draining even though the water-table was naturally high. The immediate landscape seems to have been generally tree-less with small plants, such as stinging nettle (*Urtica dioica*), blinks (*Montia fontana*), chickweeds (*Stellaria* sp.) and greater plantain (*Plantago major*), covering the regularly trampled, i.e. disturbed by humans, ground surface. Sedges (*Carex* sp.) probably grew closer to the water-table in the 'watering hole'.

A few (probable) opium poppy seeds (*Papaver* cf. *somniferum*) were found; opium poppy was introduced into Britain during the Roman Empire when it may have been grown for its medicinal properties (Greig 1991, Clapham *et al.* 1989). The flax (*Linum usitatissimum*) seeds may come from a number of sources, including feral plants.

In the fen flax is known to have been used for fibre since at least the Bronze Age (Martin and Murphy 1988), and it is possible that retting<sup>1</sup> was done at this site though one cannot be sure without finding waterlogged flax stems. The cabbage seeds (*Brassica* sp.) may be from wild plants though it would not be surprising to find that such vegetables were grown.

# Pits, F.20058 [20264] and F.20150 [20938] Waterlogged Remains (500ml sub-samples)

These waterlogged samples did not contain as many seeds as the well F.20136. Interestingly, some of the plants that were present in the well but not the pits are those found as both waterlogged and charred specimens. The pits contained a little charcoal but no other charred plant remains or obvious plant foods that may have been procured away from the settlement. Otherwise, the pits assemblages are generally the same as that from the well in showing a light, sandy loam sustaining small plants of waste or disturbed land. An elder seed (Sambucus nigra) in F.20150 indicates a nearby tree, whilst the large quantities of Salix flowers and bracts demonstrated that it was shaded by a willow. F.20150 does contain more plants of wet and marshy environments than the well; crowfoot, duckweeds (Lemna sp.) and water-flea eggs (Daphnia sp.) show that the pit contained shallow, stagnant water, whilst marsh stitchwort (Stellaria palustris) and clustered dock (Rumex conglomeratus) probably grew on the muddy margins. Water-flea eggs, clustered dock and marsh stitchwort were also found in pit F.20058, albeit in fewer numbers. The latter was certainly dug into the water-table but appears to have contained less water, or to have suffered more drying episodes, than pit F.20150.

#### Conclusions

The overall picture is one of a relatively dry ground surface of a sandy loam with a high water-table. The settlement seems to have supported an open grassland/meadow type of vegetation with few trees, though further samples are needed to confirm such a generalisation.

Crops, grown in the vicinity on the same type of soil, include spelt wheat, barley and possibly emmer wheat, rye and oat. The large assemblages of crop processing waste come from Structure 1, the well and the midden or 'rubbish deposit' in ditch F.20044. Their location within the site suggests that crop processing was not restricted to a specific area of the 'settlement'. Lentils and other pulses may have been grown, however the small size of those found suggests the latter were crop contaminants. Other crops may have included types of cabbages or mustard, flax and opium poppy. Gathered sedges and rushes are likely to have been used in basketry, thatching, etc.

\_

<sup>&</sup>lt;sup>1</sup> The flax plants would be left to rot in a watery pit so that the fibres could be extracted from the soft tissue and used in making linen or ropes.

The potential for good botanical preservation is high. Occupation deposits excavated in future field seasons should be sample for both waterlogged and carbonised remains. Waterlogged assemblages contained high concentrations of insect remains which could be sampled for separately to gain information on micro-environments and the eventual storage/use of dung (there remains enough of sample 20074 from the well to be sent for entomological analysis). Any agricultural field systems likely to be associated with the settlement should be sampled for an off-site / on-site comparison.

**Table 1: Carbonised Plant Macro Remains** 

Table 1. Carbonised Flant Macro Remains							
Sample number		<20070>	<20054>	<20079>	<20108>	<20110>	<20101>
Context		20426	20209	20850	21061	21088	21080
Feature		20071	20044	20138	20159	20159	20165
Feature type		Ditch	Midden	Water hole	Structure 1	Struc. 1	Struc. 2
Phase / Date		Pre-hist.		mid 2nd	- mid 3rd C	entury AD	
Sample volume - litres		11	15	6	5	7	9
Flot fraction examined		100%	100%	100%	100%	100%	100%
Hordeum vulgare sensu lato	Hulled Barley grain					2	
Triticum sp.	Unspecific Wheat		10			8	
T. spelta / dicoccum	Spelt or Emmer wheat		5	1	1	24	
Triticum / Hordeum	Wheat or Barley grain		15			13	
Indeterminate cereal fragmen	ts		23	1		21	
Triticum sp. glume base	Wheat glume base		99	10		4	
T. spelta glume base	Spelt glume base		6	5		2	
T. spelta/dicoccum g.b.	Spelt or Emmer g.base		6				
Triticum sp. rachis segment -	Wheat chaff		2				
Papaver sp.	Poppy		1				
Chenopodium sp	Goosefoots		8			4	
Atriplex patula / prostrata	Oraches		10	1		10	
Cerastium sp.	Mouse-ears		1				
Fallopia convolvulus	Black-bindweed					1, 1cf.	
Rumex conglomeratus/ sanguineus/ obtusifolius	Small seeded Dock		1	1		4	
Malva sp.	Mallows					1	
Vicia / Lathyrus 1.2-1.5mm	Vetches / Wild Pea		26.5			3	
Vicia / Lathyrus 2 - 3mm	Vetches / Wild Pea		17			5	
Vicia / Lathyrus 3.2 -4mm	Vetches / Wild Pea		3			1	
Lens culinaris	Lentil		1				
Trifolium / Medicago	Clovers / Medics		1			1	
Trifolium sp.	Clovers		1				
Linum usitatissimum	cultivated Flax		1				
Odontites vernus	Red bartsia		18			1	
Galium aparine	Cleavers		1			1	
Tripleurospermum inodorum	Scentless mayweed		3				
Indet. Asteraceae	Daisy family seed		1				
Eleocharis sp	Spike rushes		20				
Carex sp. trilete, type 1	Sedge, type 1		11	1		1	
Arrhenatherum elatius ssp. tuberosum	False oat grass swollen basal culms		1				
Bromus sp.	Bromes			1			
Large Poaceae	Large wild grass seed		19	1		7	

Medium Poacea	Medium wild grass		6			3	
Poaceae fragments	Grass seed fragments		15			26	1
Indeterminate wild plant seed			6				
Indeterminate bud						1	
Charcoal >4mm			-	-		++	
2 - 4mm		-	+	-	-	+++	1
<2mm		+	+++	+	++	+++	++
Vitrified						++	
Lumps of compressed plant ash (not wood - dung?)				-			
Parenchyma - undifferentiated plant storage tissue			++			++	
Culm node, -internode-	Grass stem		3, -2-			-6-	
Monocot. root node	Grass central root			1			

key: '-' 1 or 2, '+' <10, '++' 10-50, '+++' >50 items

**Table 2: Carbonised Plant Macro Remains** 

Context		Remains						
Feature   20136   20062   20129   20058   20150   2015     Feature type   Well   Enclosure Ditches   Pit   Pit   Pit   P   Phase / Date   mid 2nd - mid 3rd Century AD     Sample volume - litres   0.5   7   12   10.5   8   1     Flot fraction examined   100%   100%   100%   100%   100%   100%   100%   100%   100%     Triticum sp.	Sample number		<20074>	<20071>	<20094>	<20056>	<20083>	<20080>
Feature type	Context		20821	20271	20802	20264	20938	20867
Phase / Date   Sample volume - litres   0.5   7   12   10.5   8   1	Feature		20136	20062	20129	20058	20150	20140
Sample volume - litres	Feature type		Well	Enclosur	e Ditches	Pit	Pit	Pit
Flot fraction examined 100% 100% 100% 100% 100% 100% 100% 100	Phase / Date			mid 2	nd - mid 3	3rd Centur	y AD	
Triticum sp.         Unspecific Wheat         1           Triticum / Secale         Wheat or Rye grain         2           Avena sp.         Oat grain         1           Indeterminate cereal fragments         4         4           Triticum sp. glume base         Wheat glume base         7           T. spelta glume base         Spelt glume base         5           Spelt or Emmer         1         1           T. spelta/dicoccum g.b.         g.base         3         1           Secale cereale rachis fragment         Rye chaff         1         1           Undeveloped cereal embryo         1         1         1           Ranunculus Subgen. BATRACHIUM - Crowfoot         2         2         2           Papaver sp.         Poppy         1         1         1           Urtica dioica         Stinging nettle         ++ M         4           Chenopodium sp         Goosefoots         6         ++ M           Atriplex patula / prostrata         Oraches         9           Stellaria media         Common chickweed         4           Agrostema githago         Corncockle         2           Polygonum sp.         Knotgrasses         1           Rumex conglo	Sample volume - litres		0.5	7	12	10. 5	8	11
Triticum / Secale         Wheat or Rye grain         2           Avena sp.         Oat grain         1           Indeterminate cereal fragments         4         4           Triticum sp. glume base         Wheat glume base         7           T. spelta glume base         Spelt glume base         5           T. spelta/dicoccum g.b.         g.base         3         1           Secale cereale rachis fragment         Rye chaff         1         1           Undeveloped cereal embryo         1         1         1           Ranunculus Subgen. BATRACHIUM - Crowfoot         2         2         2           Papaver sp.         Poppy         1         1         1           Urtica dioica         Stinging nettle         ++         ++           Chenopodium sp         Goosefoots         6         ++ M           Atriplex patula / prostrata         Oraches         9           Stellaria media         Common chickweed         4           Agrostema githago         Corncockle         2           Polygonum sp.         Knotgrasses         1           Rumex conglomeratus/ sanguineus/ obtusifolius         Small seeded Dock         1	Flot fraction examined		100%	100%	100%	100%	100%	100%
Avena sp.         Oat grain         1           Indeterminate cereal fragments         4           Triticum sp. glume base         Wheat glume base         7           T. spelta glume base         Spelt glume base         5           T. spelta/dicoccum g.b.         Spelt or Emmer         1           T. spelta/dicoccum g.b.         g.base         3         1           Secale cereale rachis fragment         Rye chaff         1         1           Undeveloped cereal embryo         1         1         1           Ranunculus Subgen. BATRACHIUM - Crowfoot         2         2         2           Papaver sp.         Poppy         1         1         1           Urtica dioica         Stinging nettle         ++         ++         Chenopodium sp         Goosefoots         6         ++ M         4           Atriplex patula / prostrata         Oraches         9         9         5         5         1         1           Stellaria media         Common chickweed         4<	Triticum sp.	Unspecific Wheat	1					
Indeterminate cereal fragments	Triticum / Secale	Wheat or Rye grain	2					
Triticum sp. glume base Wheat glume base 5  T. spelta glume base Spelt glume base 5  Spelt or Emmer g.base 3 1  Secale cereale rachis fragment Rye chaff 1  Undeveloped cereal embryo 1  Ranunculus Subgen. BATRACHIUM - Crowfoot 2  Papaver sp. Poppy 1  Urtica dioica Stinging nettle ++  Chenopodium sp Goosefoots 6 ++ M  Atriplex patula / prostrata Oraches 9  Stellaria media Common chickweed 4  Agrostema githago Corncockle 2  Polygonum sp. Knotgrasses 1  Rumex conglomeratus/ sanguineus/ obtusifolius Small seeded Dock 1  Table 1  1  1  1  1  1  1  1  1  1  1  1  1	Avena sp.	Oat grain				1		
T. spelta glume base         Spelt glume base         5           Spelt or Emmer         3         1           T. spelta/dicoccum g.b.         g.base         3         1           Secale cereale rachis fragment         Rye chaff         1         1           Undeveloped cereal embryo         1         1         1           Ranunculus Subgen. BATRACHIUM - Crowfoot         2         2         2           Papaver sp.         Poppy         1         1         1           Urtica dioica         Stinging nettle         ++         ++         Chenopodium sp         Goosefoots         6         ++ M         4           Atriplex patula / prostrata         Oraches         9         9         5         5           Stellaria media         Common chickweed         4         4         4         4           Agrostema githago         Corncockle         2         2         Polygonum sp.         Knotgrasses         1         1           Rumex conglomeratus/ sanguineus/ obtusifolius         Small seeded Dock         1         1	Indeterminate cereal fragmen	ts	4					
Spelt or Emmer g.base 3 1  Secale cereale rachis fragment Rye chaff 1  Undeveloped cereal embryo 1  Ranunculus Subgen. BATRACHIUM - Crowfoot 2  Papaver sp. Poppy 1  Urtica dioica Stinging nettle ++  Chenopodium sp Goosefoots 6 ++ M  Atriplex patula / prostrata Oraches 9  Stellaria media Common chickweed 4  Agrostema githago Corncockle 2  Polygonum sp. Knotgrasses 1  Rumex conglomeratus/ sanguineus/ obtusifolius Small seeded Dock 1	Triticum sp. glume base	Wheat glume base	7					
Spelt or Emmer g.base 3 1  Secale cereale rachis fragment Rye chaff 1  Undeveloped cereal embryo 1  Ranunculus Subgen. BATRACHIUM - Crowfoot 2  Papaver sp. Poppy 1  Urtica dioica Stinging nettle ++  Chenopodium sp Goosefoots 6 ++ M  Atriplex patula / prostrata Oraches 9  Stellaria media Common chickweed 4  Agrostema githago Corncockle 2  Polygonum sp. Knotgrasses 1  Rumex conglomeratus/ sanguineus/ obtusifolius Small seeded Dock 1	T. spelta glume base	Spelt glume base	5				1	
Undeveloped cereal embryo 1  Ranunculus Subgen. BATRACHIUM - Crowfoot 2  Papaver sp. Poppy 1  Urtica dioica Stinging nettle ++  Chenopodium sp Goosefoots 6 ++ M  Atriplex patula / prostrata Oraches 9  Stellaria media Common chickweed 4  Agrostema githago Corncockle 2  Polygonum sp. Knotgrasses 1  Rumex conglomeratus/ sanguineus/ obtusifolius Small seeded Dock 1			3			1		
Undeveloped cereal embryo	Secale cereale rachis fragmen	nt Rye chaff				1		
Papaver sp.       Poppy       1         Urtica dioica       Stinging nettle       ++         Chenopodium sp       Goosefoots       6       ++ M         Atriplex patula / prostrata       Oraches       9         Stellaria media       Common chickweed       4         Agrostema githago       Corncockle       2         Polygonum sp.       Knotgrasses       1         Rumex conglomeratus/ sanguineus/ obtusifolius       Small seeded Dock       1	Undeveloped cereal		1					
Papaver sp.       Poppy       1         Urtica dioica       Stinging nettle       ++         Chenopodium sp       Goosefoots       6       ++ M         Atriplex patula / prostrata       Oraches       9         Stellaria media       Common chickweed       4         Agrostema githago       Corncockle       2         Polygonum sp.       Knotgrasses       1         Rumex conglomeratus/ sanguineus/ obtusifolius       Small seeded Dock       1								
Urtica dioica Stinging nettle ++  Chenopodium sp Goosefoots 6 ++ M  Atriplex patula / prostrata Oraches 9  Stellaria media Common chickweed 4  Agrostema githago Corncockle 2  Polygonum sp. Knotgrasses 1  Rumex conglomeratus/ sanguineus/ obtusifolius Small seeded Dock 1	Ranunculus Subgen. BATRACHIUM - Crowfoot		2					
Chenopodium sp     Goosefoots     6     ++ M       Atriplex patula / prostrata     Oraches     9       Stellaria media     Common chickweed     4       Agrostema githago     Corncockle     2       Polygonum sp.     Knotgrasses     1       Rumex conglomeratus/ sanguineus/ obtusifolius     Small seeded Dock     1	Papaver sp.	Poppy	1					
Atriplex patula / prostrata Oraches 9  Stellaria media Common chickweed 4  Agrostema githago Corncockle 2  Polygonum sp. Knotgrasses 1  Rumex conglomeratus/ sanguineus/ obtusifolius Small seeded Dock 1	Urtica dioica	Stinging nettle						++ WL
Stellaria media       Common chickweed       4         Agrostema githago       Corncockle       2         Polygonum sp.       Knotgrasses       1         Rumex conglomeratus/ sanguineus/ obtusifolius       Small seeded Dock       1	Chenopodium sp	Goosefoots	6		++ M			
Agrostema githago Corncockle 2  Polygonum sp. Knotgrasses 1  Rumex conglomeratus/ sanguineus/ obtusifolius Small seeded Dock 1	Atriplex patula / prostrata	Oraches	9					
Polygonum sp. Knotgrasses 1  Rumex conglomeratus/ sanguineus/ obtusifolius Small seeded Dock 1	Stellaria media	Common chickweed	4					
Rumex conglomeratus/ sanguineus/ obtusifolius Small seeded Dock 1	Agrostema githago	Corncockle	2					
sanguineus/ obtusifolius Small seeded Dock 1	Polygonum sp.	Knotgrasses	1					
Rubus sp. Brambles ++		Small seeded Dock				1		
	Rubus sp.	Brambles						++ WL
Viola sp. Violets + V	Viola sp.	Violets						+ WL
Vicia / Lathyrus 2 - 3mm Vetches / Wild Pea 3	Vicia / Lathyrus 2 - 3mm	Vetches / Wild Pea	3					
Trifolium / Medicago Clovers / Medics 1	Trifolium / Medicago	Clovers / Medics	1					
Anthriscus caucalis Bur chervil 1	Anthriscus caucalis	Bur chervil	1					
cf. Aethusa cynapium Fool's parsley 2	cf. Aethusa cynapium	Fool's parsley	2					
Lithospermum arvense Field gromwell 37	Lithospermum arvense	Field gromwell	37					
Prunella vulgaris Selfheal 1	Prunella vulgaris	Selfheal	1					

Plantago lanceolata	Ribwort plantain	1					
Odontites vernus	Red bartsia	3					
Galium aparine	Cleavers	14					
cf. Picris sp.	Oxtongues	1					
Tripleurospermum inodorum	Scentless mayweed	25					
Juncus sp.	Rushes	1					
Eleocharis sp	Spike rushes	5					
Carex sp. trilete, type 2	Sedge, type 2						+ WL
Large Poaceae	Large wild grass seed	3					
Small Poaceae	Small wild grass	6					
Indeterminate wild plant see	ed	6					
Charcoal >4m	m	+		-	-		++
2 - 4mm		++		-	+		+++
<2mm		++	-	++	++	++	+++
Vitrified			+				
Lumps of compressed plant	ash (not wood - dung?)	+++					
Parenchyma - undifferentiated plant storage tissue		+			·		
Culm node, -internode-	Grass stem	9, -6-					
Monocot. root node	Grass central root	1			1		
Entomological remains		1		140			

key: '-' 1 or 2, '+' <10, '++' 10-50, '+++' >50 items; M= modern, WL= waterlogged

Table 3: Waterlogged Plant Macro Remains

Sample number		<20074>	<20079>	<20056>	<20083>
Context		20821	20850	20264	20938
Feature		20136	20138	20058	20150
Feature type		Well	Water hole	Pit	Pit
Phase / Date		mi	d 2nd - mid 3	rd century	AD
Sample volume - litres		0.5	6 (dried flot)	0. 5	0. 5
Flot fraction examined		100%	100%	100%	100%
Triticum sp. glume base	Wheat glume base	15			
T. spelta glume base	Spelt glume base	5			
T. spelta/dicoccum g.b.	Spelt or Emmer g.base	5			
Ranunculus cf. sardous	Hairy buttercup		+		
R. bulbosus/acris/repens - Bu	lbous/Meadow/Creeping	+	+		-
R. Subgen. BATRACHIUM	Crowfoot	+	-		+
Papaver sp.	Poppy			+	-
Papaver cf. somniferum	Opium poppy	+			
Papaver rhoeas	Common poppy	++			
Urtica dioica	Stinging nettle	++	+	++	+++
Urtica urens	Small nettle	+		-	-
Chenopodium sp.	Goosefoots	++	++	++	+
C. cf. ficifolium	Fig-leaved goosefoot	+			
Atriplex patula / prostrata	Oraches	++	+++	++	++
Montia fontana Ssp. minor	Blinks	+		++	
Stellaria media	Common chickweed	++	++	++	++
S. pallida	Lesser chickweed	+			
S. graminea	Lesser stitchwort	+			
S. palustris	Marsh stitchwort			-	++
Cerastium sp.	Mouse-ears	+		+	
Agrostema githago	Corncockle (skin frag)	- (+)	+		

Persicaria lapathifolia	Pale persicaria	-	+		
Polygonum sp.	Knotgrasses	-			+
P. aviculare	Knotgrass	++	+++	++	
Rumex conglomeratus	Clustered dock tepals			+	+
R. obtusifolius - tepals	Broad-leaved dock	+			+
R. conglomeratus/					
sanguineus/ obtusifolius	Small seeded Dock	+	++	+++	+
Salix sp. flowers, (bracts)	Willow flowers, (bracts)				+++, (++)
Capsella bursa-pastoris	Shepherd's-purse			-	+
Thlaspi arvense	Field penny-cress	-			
Brassica sp.	Cabbages	+	+		
Anagallis sp.	Pimpernels	-			-
Anagallis arvensis	Pimpernel	-			
Rubus sp.	Brambles				-
cf. Aphanes sp.	Parsley-pierts	+			
Epilobium sp.	Willowherbs	-		+	-
E. cf. hirsutum	Great willowherb	-			
Linum usitatissimum	cultivated Flax	++			
L. catharticum*	Fairy flax	+			
cf. Oxalis sp.	Possible Wood-sorrel	-			
Indet. Umbelliferae type 1	Carrot family seed	-		-	
Indet. Umbelliferae type 2	Carrot family seed	-			
Hydrocotyle vulgaris	Marsh pennywort		-		
Anthriscus caucalis	Bur chervil	-			
Aethusa cynapium	Fool's parsley	-			
T. japonica / arvensis	Upright / Spreading				+
T. cf. nodosa	Knotted hedge-parsley			-	-
Daucus carota	Carrot				_
Hyoscyamus niger	Henbane		_	_	
Lithospermum arvense	Field gromwell	_			
Stachys sp.	Woundworts	_	_		
Lamium sp.	Dead-nettles		_		+
Prunella vulgaris	Selfheal	++	++		+
Plantago major	Greater plantain	+		++	+
Odontites vernus	Red bartsia	++		- ' '	'
Galium aparine	Cleavers				
Sambucus nigra	Elder				
Valerianella locusta	Common cornsalad	-			+
Indet. Asteraceae	Daisy family seed	_		<u> </u>	-
	Thistles	-		<u> </u>	
Carduus / Cirsium		+		<del>                                     </del>	+
Hypochaeris sp.	Possible Cat's-ears			+	-
Leontodon cf. autumnalis	Autumn hawkbit	+		1	
Anthemis cotula	Stinking chamomile			+	-
Tripleurospermum inodorum	Scentless mayweed	+		1	
Lemna sp.	Duckweeds			1	+
Juncus sp.	Rushes	+++		+	-
Eleocharis sp.	Spike rushes	+	+	+	+
Eleocharis / Carex	Spike rushes or Sedge	++		1	
Isolepis setacea	Bristle club-rush	+		+	
Carex sp. flat type	flat seed Sedge			-	
Carex sp. trilete, type 1	Sedge, type 1	++	++	+	++
Carex sp. trilete, type 2	Sedge, type 2	-	+		+

	0.1 4 2				
Carex sp. trilete type 3	Sedge, type 3	1			-
Carex cf. nigra	Possible Common sedge				++
Indeterminate wild plant seed	and -bud-	6	1	5, -2-	5
Charcoal >4mm	1				
2 - 4mm				+	-
<2mm			++		
Vitrified	Vitrified			-	
Culm node, -internode-	Grass stem	-			
Leaf fragments		+			
Entomological remains	Insect fragments	++		++	+++
Daphnia egg cases	Water flea	+	++	++	++
Frog bones				-	-

key: '-' 1 or 2, '+' <10, '++' 10-50, '+++' >50 items

# An Assessment of the Roman Pottery

Katie Anderson

The assemblage comprised a total of 4187 sherds of Roman pottery, weighing 88098g and representing 125.12 EVEs. All of the pottery was examined and details of fabric, form, EVE, decoration, useware and date were recorded.

# Assemblage Composition

The mean weight of the assemblage is 21g, which is relatively high, although in terms of the size and condition of sherds, the assemblage was diverse, varying from small, abraded sherds, to semi-complete vessels. At this stage is it worth highlighting the tight date range of the pottery from this site, with all vessels dating early/mid 2nd century AD to mid/late 3rd century AD. Therefore, with the exception of a small number of vessels, there is no dating commentary

Although a relatively large number of fabric types were present (see Table 4), most only represented a small percentage of the total assemblage (usually less than 2%). In fact the assemblage is dominated by just three fabric groups.

			%	
			By	
Fabric	No.	Wt(g)	No.	EVE
Black-slipped ware	34	523	0.81	2.11
Buff sandy ware	29	258	0.69	1.22
Central Gaulish Samian	63	1550	1.5	4.97
Coarse sandy greyware	973	15436	23.2	32.31
East Gaulish Samian	20	868	0.48	3.12
Fine sandy greyware	44	1003	1.05	3.04
Grog-tempered	12	169	0.29	0.19
Hadham reduced ware	12	542	0.29	0.65
Horningsea greyware	4	95	0.1	0.11
Imitation black-burnished	4	25	0.1	0
Late Baetican amphora	5	458	0.12	0
Late Colchester colour-coat	1	3	0.02	0
Lincoln Market fine reduced ware	3	7	0.07	0

<sup>\*</sup> the fairy flax may simply be an immature cultivated flax seed

London fine, reduced ware	3	153	0.07	0.32
Mancetter-Hartshill whiteware	6	38	0.14	1
Mottled greyware	382	5195	9.12	8.36
Nar Valley whiteware	1	15	0.02	0
Nene Valley greyware	462	11253	11	23.01
Nene Valley colour-coat	207	2151	4.94	7.34
Oxidised sandy ware	11	75	0.26	0
Pakenham colour-coat	13	153	0.31	1.12
Shell-tempered ware	1761	43543	42.1	30.27
Verulamium whiteware	1	53	0.02	0
Wattisfield reduced ware	1	19	0.02	0
West Stow fine reduced ware	18	522	0.43	0.89
Whiteware (unsourced)	73	1048	1.74	3.18
Nene Valley whiteware	44	2943	1.05	3.71
TOTAL	4187	88098	100	126.9

Table 4: All pottery by fabric

Perhaps surprisingly, the assemblage was dominated by shell-tempered wares, which collectively represented 42.1% of the entire assemblage. Within this, five main fabric groups were identified, varying in size, frequency and the sorting of the shell inclusions.

**Shell-tempered** – common to abundant shell, occasional other inclusions. Similar to Harrold shelly ware and other late Roman shell-temp. Often handmade and can be very thick walled.

**Type 1 Shell-temp** – Pale grey, coarse sandy with moderate angular shell, poorly sorted.

**Type 2 Shell-temp** – Usually black in colour, sometimes burnished exterior. Moderate to common shell, poorly sorted. Wheel-made

**Type 3 Shell-temp** – Usually reduced, with common to abundant shell inclusions, which are much smaller than those seen in shell-temp and Type 2 shell-tempered.

**Type 4 Shell-temp** – Usually oxidised, common to abundant large shell, like shell-temp but wheelmade.

The 'shell-tempered' fabric was the most commonly occurring. Although it is similar in composition to the wares produced at the Harrold kilns in Bedfordshire, it seems more likely that these wares were produced much closer to the site from one or more kilns. Work on the Roman shell-tempered industry in Cambridgeshire has suggested that in the later Roman period, the production of shell-tempered vessels was taking place on a local, small scale, yet these industries were widely spread throughout the area (Anderson forthcoming). Therefore it seems likely that the shell-tempered wares from Langtoft were produced locally at one or more sites, even though the exact sources are as yet unclear.

Nene Valley wares combined, represented c. 17% of the total assemblage, although within this, the greywares were dominant, with a total of 462 sherds. Colour-coated sherds (see Figure 10b for an example), represented less than half this number (207 sherds), while the whitewares comprised just 44 sherds, which is likely to be in direct correlation with the very low number of mortaria recovered from the site (see below). Langtoft is located approximately 25km from the main Nene Valley production area and therefore the quantity of Nene Valley wares might be expected to be higher than

17%. This is perhaps due to access to supply networks, with it being easier to acquire the more locally made shell-tempered wares.

The ratio of the Nene Valley greywares to colour-coats is interesting, since it is more usual for the colour-coated vessels to be recovered in larger quantities than the greywares. This is perhaps therefore, a reflection on the function and/or status of the site. This is discussed in more detail below.

Greywares as a group represented c. 32% of the assemblage, though these can be divided into two main groups. The first are referred to as 'mottled greywares' due to the distinct nature of the surface. There is the possibility that many of these may be variants of Nene Valley greywares, since some of the sherds did appear to be very similar and the vessel forms were also comparable with the know Nene Valley repertoire. However, the clay matrix does differ from the known Nene Valley products.

The second group of greywares comprised all those which were unsourced, representing 23.2% of the assemblage. Given the nature of the assemblage, it was deemed that there were more important factors than distinguishing between various unsourced greyware fabrics, thus they have been grouped together. Although it should be noted that within this, two distinctive types were recorded in more detail, although these only represented 1% of the assemblage.

Greyware type 1 – Moderately fine sandy greyware, with common silver mica. Usually light-grey core and dark grey exterior.

Greyware types 2 – Moderately coarse sandy greyware, although the surfaces tend to be relatively smooth. Dark grey core and light grey surfaces.

As is typical of Roman greywares, most are unsourced; however, the nature of the Roman pottery industry suggests a relatively local source is most likely. It is common for greywares to feature highly on domestic settlements; however, in this assemblage the shell-tempered wares are almost twice as common.

A number of coarsewares from known sources were identified, although all representing only small quantities of pottery. This included four Horningsea greyware sherds, six Mancetter-Hartshill sherds and a single example of Nar Valley ware and Wattisfield reduced ware.

#### *Imported wares*

Imports represented just 2% of the assemblage, with only three fabrics identified. Central Gaulish Samian was the most common, with a total of 63 sherds, weighing 1550g. Nine different vessel forms were identified, of which there were ten examples of Dragendorff 31s, and Dr18/31 and Dr33 were also well represented with eight and six vessels respectively. Three different Dr18s were recorded, and there was one example each of a Dr37, Dr27, Dr26, a Curle 11 and a Curle 15.

Eastern Gaulish Samian comprised 20 sherds (868g), with six different vessel forms represented; see Figure 10e for an example. There were four examples of Dr18 and three examples of Dr18/31. The remaining four forms comprised one Dr32, one Dr40, one Dr33 and one Dr30. Five vessels had stamps of which three were complete, comprising two Central Gaulish vessels with stamps of 'SENNIVS' and

'PEIIVRROF' and one East Gaulish vessel with a stamp reading 'CVRVIMA', see Figure 10e.

The stamps are marks of the maker/manufacturer of the vessels, but there were also two vessels which had small grooves scratched into the footring on the base of the vessel and can be seen in other assemblages such as Earith Camp Ground (Anderson forthcoming). These marks were made after the production of the vessels, either while being transported or later on, possibly being owner's marks. There were three examples of Samian vessels which had resin on the edges, indicative of repair. This is not uncommon on Samian vessels and implies that on this site, these vessels were more highly regarded than other finewares, enough so that when broken, attempts were made to fix them and to curate them. The third imported ware comprised five Late Baetican amphora sherds, although whether this represent more than one vessel is difficult to prove. The sherds were distributed over the entire site; therefore it seems unlikely that they are from a single vessel.

On first look, the pottery from this site appears to be a 'typical' Roman domestic assemblage, which is dominated by jars of varying size. However, the assemblage is more diverse than many with a range of vessel forms present, although this could be simply be due to the size of the assemblage.

Form	No.	Wt(g)
Amphora	5	458
Beaker	149	1507
Beaker/jar	8	145
Bowl	134	3676
Cup	12	399
Dish	81	3641
Flagon	30	2204
Jar	1343	45340
Lid	50	1623
Mortaria	7	614
Sieve	14	320
TOTAL	1833	59927

Table 5: All diagnostic sherds by vessel form

There are also a number of interesting elements concerning vessel forms. The first is the large number of lids recovered from the site, a total of 50 sherds representing a minimum of 19 different vessels. Although when compared to the assemblage as a whole, this is not a particularly large number (2.7% of all diagnostic sherds, 1.2% of the whole assemblage) it does seem unusually high when compared to other assemblages. Eye, Peterborough (Anderson, 2004) had an assemblage of 1576 sherds, with only a single lid identified. A solitary lid was also recovered from an assemblage of 758 sherds from Tower Works in the Fengate area of Peterborough (Anderson, 2005). Finally excavations at the Peterborough Community Church (Anderson, 2004) recovered 414 sherds, of which three were identified as lids. Although these are only three examples, they are similar in nature and date to Langtoft, all peaking in the mid/late 2nd-3rd century AD, and these emphasise the unusually large number of lids recovered from Langtoft.

Further evidence may be highlighted by examining the ratios of lids to other vessel forms, namely jars and bowl, since not only are they the most frequently occurring vessel forms, but are also the vessels used in conjunction with the lids.

At Langtoft the ratio of lids to jars is 1:27, while lids to bowls is 1:2.7., which is not surprising since jars are clearly dominant. An example of a lid can be seen in Figure 10a. However, these need to be compared to other sites in order to assess their significance. Earith Camp Ground (Anderson forthcoming), produced a very large and diverse pottery assemblage (NO> WT) but the ratio of lids was much lower at 1:66.3 for jars and 1:29 for bowls.

The relevance of the lids in this assemblage could be viewed in a number of ways. The most likely explanation is that it is a reflection of the types of vessels local industries, which is further supported by examining the fabrics. Shell-tempered were the most commonly occurring lid fabric, with a total of 19 sherds, however, a number of other fabric types (all probably local) were represented. 17 of the lid sherds were from sandy greyware vessels, along with six whitewares (four Nene Valley), three Nene Valley colour-coats, three black-slipped wares and one oxidised sandy ware. These are all likely to be local wares, which suggests the large number of lids is in part a result of a large number being manufactured. However, it should be considered that the products being made by an industry are likely to have been produced as a result of demand, and therefore it seems likely that an increase in the number of lids on this site reflects a preference for them, whether at this site specifically or within the local community.

It should also be considered that the large number of lids in the assemblage are a reflection on the precise nature and function of the site. It is likely that the lids would have been used in conjunction with jars and/or bowls and to investigate this further, a graph showing the rim diameters of lids versus jars (Graph 5) and lids versus bowls (Graph 6) was produced. There is some correlation between the lids and jars, with the category 17-d18cm containing both the largest number of both. However, overall both graphs imply that the lids were not made to be used with a specific vessel with examples of lids which could be used with vessels as small as 7-8cm in diameter, up to those used with very wide mouth jars 35-36cm diameter (since the largest diameter of a bowl was 23-24cm). There is an apparent 'set', with lids [20262] appearing to fit very well with a lid-seated bowl [20219]. Both of these vessels are shell-tempered fabrics, although they are not identical. Whether or not these were originally a pair or not is unclear, however, they demonstrate that the shell-tempered industries in this area were producing sets of vessels.

The presence of lids of various sizes suggests that their use was not restricted to a single function, perhaps supported by the useware evidence which shows that four of the lids to have heavy sooting, thus have been used over a fire. The large number of lids found at this site may therefore reflect a different or at least more intense level of food production, although other types of evidence to support this would be needed in order to assess whether this is true.

Sieves also occurred more frequently than are found in many domestic assemblages, although the relative quantities are small. This again may be related to both the nature and function of the site and also a reflection on the local industries.

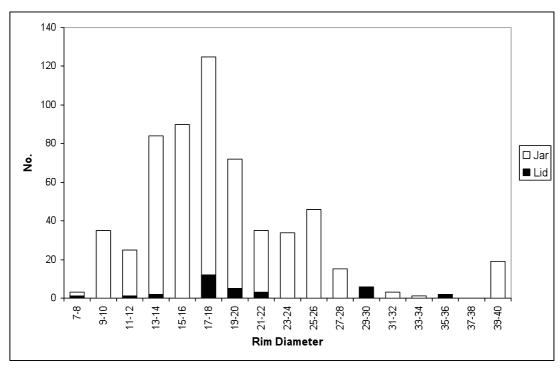


Table 6: The correlation in rim diameter between lids and jars

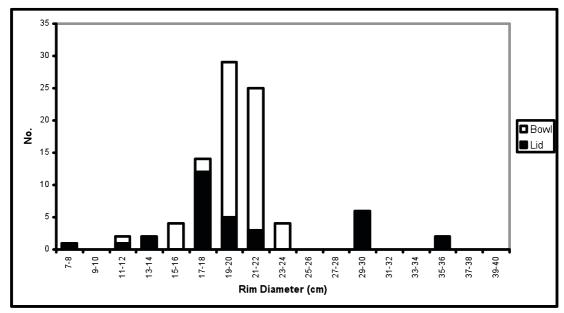


Table 7: the correlation in rim diameter between lids and bowls

Another unusual factor of this assemblage is that very few mortaria were recovered from the site, with just seven sherds representing a maximum of six vessels (0.3% of the assemblage). While it may be argued that this excavation was only a sample of the site, all other forms expected in a typical Roman domestic assemblage are well represented which would imply that the numbers are a true reflection of the assemblage. The low number of mortaria identified also stands out because these vessels are very easy to identify, due to the distinctive rims, interior gritting and the often thick walls. Therefore the relative lack of these vessels in the assemblage is unlikely to be a result of misidentification.

This is not the only site in the area to have a noticeable absence of mortaria, and a comparison to similar assemblages shows often these vessels did not play an important role. Pottery from Eye (Anderson 20), Tower Works (Anderson 2005) and Peterborough Community Church (Anderson 2005) mentioned above, also had few mortaria sherds, representing less than 1% of the assemblage in all cases. All three of these sites are located in or around Peterborough, and are likely to have had easy access to Nene Valley products in particular, as does Langtoft, which did have Nene Valley vessels. Therefore, this suggests that the lack of mortaria is not a result of poor access to trade networks, but perhaps an active choice to reject these vessel forms, because they were not needed.

An unusual shell-tempered handle was recovered (see Figure 10d) measuring approx. 12cm in length. It is not only the size of this handle which is unusual but also the way in which it would have been attached to a vessel, by being pushed through a slot in the side of the vessel, then smoothed down, a technique not commonly used for Roman handles. It is unclear exactly what type of vessel this handle would have been used in association with, however, an almost exact parallel was recovered from Orton Longueville (Mackreth 2001:77), in what appears to be a very similar shelly fabric. In this case it is suggested that it may be part of a griddle, although no other parallels are known.

#### Feature Analysis

Within the site, several features stand out as containing larger than average quantities of pottery (see Table 8), including ditches, pits and wells. For the purposes of this report these features have been selected for discussion, in order to get a better understanding of the features themselves, as well as the site as a whole, and to enable a comparison of different feature types across the site.

Ft	Type	No.	Wt(g)	EVE	MW(g)
20043	Ditch	100	1806	1.75	18.06
20044	Ditch	220	4965	6.13	22.57
20136	Well	149	4673	9.05	31.36
	Watering				
20138	hole	267	8104	14.94	30.35
20160	Ditch	149	2677	6.26	17.97
20165	Ditch	246	3907	10.2	15.88
20173	Well	188	4780	10.85	25.43

Table 8: Features with large deposits of pottery

There were 12 wells/watering holes and large pits excavated on the site, a number of which had relatively large dumps of pottery. A small number of features have been selected for more detailed discussion below.

#### Feature 20042

This feature, a large pit, contained 555 sherds of pottery weighing 11950g, representing 10.96 EVEs and with a relatively high mean weight of 21.5g. The material was collected from 12 contexts as well as the surface of the feature. Pottery was fairly evenly distributed across the feature (see Table 9), although there were some contexts which contained much larger quantities of material.

The largest single group of pottery came from a dumping deposit, [20724], which contained 137 sherds of pottery, weighing 4104g and representing 4.09 EVEs. The mean weight of pottery from this context was also relatively high at 29.9g. The pottery included one Nene Valley greyware jar which was more than half complete, as well as three sherds from a shell-tempered lid, one Nene Valley whiteware lid, and one other whiteware lid. There were also a range of jars including three shell-tempered storage jars. This context was noted as containing frequent charcoal. An examination of the pottery showed a small number of sherds which were burnt or with sooting, but the vast majority had no evidence of this, thus implying the pottery had not been burnt in-situ.

Feature 20042				
Context	No.	Wt(g)	MW(g)	EVE
Surface	15	241	16.0	0.4
[20255] – Upper fill	89	1302	14.6	0.88
[20275] Dumping				
deposit	8	114	14.2	0
[20256] Dumping				
deposit	50	1056	21.1	0.8
[20258]	65	1218	18.7	0.71
[20259]	78	1804	23.1	1.12
[20724] Dumping				
deposit	137	4104	29.9	4.09
[20260]	8	87	10.8	0
[20261]	21	188	8.9	0.08
[20262]	36	754	20.9	0.81
[20263]	14	545	38.9	1.11
[20276]	14	160	11.4	0.2
[20277]	20	339	16.9	0.6
TOTAL	555	11912	-	10.8

Table 9: Pottery from contexts in F.20042 in stratigraphic sequence

A second dumping deposit, [20256], contained a total of 50 sherds, weighing 1056g and representing 0.8 EVEs. Again this context was described as having charcoal flecks, although the pottery displays no evidence of being burnt in-situ. Pottery from this context included one late Baetican amphora sherd, and 13 sherds from a large shell-tempered jar. A third recorded dumping phase, [20275], contained only eight sherds of pottery, although this fill appeared to be redeposited natural, hence the small quantity of pottery is not unexpected. Three other contexts within this feature contained comparatively large quantities of pottery. The upper fill of this feature, [20255], contained 89 sherds (1302g), which included a black-slipped lid, a shell-tempered lid and sherds from several different jars, of varying size. The mean weight of the sherds is much lower than in other fills, suggesting this deposit did not consist of newly broken vessels. The deposit may instead be a result of cleaning, where any stray material was pushed into the feature.

Context [20258], located immediately below [20255], contained 65 sherds (1218g), which included nine sherds from a medium-sized, shell-tempered jar. The size and condition of the material was similar to that from the upper fill. The basal fill did not contain any pottery, however the context immediately above, context [20277]

contained 20 sherds in total. 19 of these were from an almost complete miniature, shell-tempered jar, probably broken as a result of being deposited within this feature. The sequencing of this feature is interesting as on the one hand the numerous different fills suggest that it was filled over a comparatively long period of time. However there were a number of sherds from a single vessel, recovered from different contexts within the pit, suggesting either that these contexts were deposited within a short period of time, or that some recutting/redeposition was involved, although all the sherds were from adjacent contexts.

Interestingly, however, there is no clear difference in date between pottery from the bottom of this feature and pottery from the top, or any context in between. One reason for this may be that the pottery itself in this area changed very little over this period, and with few imported or established wares which could be more closely dated, it is unclear when exactly the feature was dug and when it had finally gone out of use. This is a pattern seen across the site (see below).

The continuous dumping of pottery (amongst other things) within this feature, suggests it may have functioned as a midden, even if this was not the intended original function.

#### Feature 20058

This feature contained a total of 466 sherds of pottery, weighing 12152g from ten different fills, with varying quantities of pottery. Up to five of the contexts may be considered dumping deposits due to the quantities of pottery.

The upper fill [20285] contained 94 sherds of pottery (2106g), which included 19 sherds from a large shell-tempered storage jar, one late Baetican amphora sherd and one sherd from an East Gaulish Samian Dr.31. Most of the sherds were non-diagnostic, although this context had a relatively high mean weight of *c*. 22g.

Context [20244] contained the largest quantity of pottery in this feature with 169 sherds weighing 4699g, with a mean weight of c. 27g.

The pottery included two central Gaulish Samian Dr31s, one East Gaulish cup and two shell-tempered lids. 18 body sherds, plus two rim sherds came from a single vessel, a sandy greyware jar, of medium size. The interesting aspect of this vessel is that the body sherds plus one of the rim sherds had been burnt, while the other rim sherd had not. This implies that the burning had taken place post-breakage, and perhaps more importantly is unlikely to have taken place in-situ.

[20287] one of the larger, middle fills, contained 67 sherds of pottery, weighing 1824g. Ten sherds were from a whiteware flagon. There was also a large base sherd from a shell-tempered storage jar and a further shell-tempered lid. Immediately above this context was [20286], which had a total of 49 sherds of pottery, weighing 1280g. This included two Samian dishes (a Dr 18 and a Dr 18/31). Finally, [20354] contained 40 sheds (1202g), although this was dominated by 23 sherds from one vessel, a sandy greyware jar.

As with Feature 20042 the sequencing of this feature is not straightforward. The feature had multiple fills which on the one hand may suggest longevity, however the date of the pottery suggesting the filling of this feature took place within a short

period of time, with no clear difference in date between sherds recovered from the bottom and top of the feature.

Feature 20136

A large well, Feature 20136, contained 120 sherds of pottery, weighing 3524g (MW 29.3g) and representing 5.65 EVEs. Pottery was recovered from eight fills.

The upper fill [20816] contained just three sherds, weighing 54g, comprising one sandy greyware jar and one body sherd. Assuming this was a final levelling fill, rather than a specific rubbish dump, would explain the lack of material. This is likely to have taken place towards the end of occupation at the site.

Context [20815] immediately below, contained the largest quantity of pottery from a single fill, comprising 54 sherds, weighing 822g. This included one Nene Valley whiteware mortaria sherd (possibly the same vessel as sherds recovered from the watering hole F.20138), one Nene Valley greyware dish, one Central Gaulish Samian sherd and four different sell-tempered jars. This context is likely to be contemporary with [20817] as the two fills are very similar in composition. 13 sherds, weighing 180g were collected from this context, comprising one Pakenham colour-coated imitation Dr36, one Nene Valley colour-coated sherd and two greyware sherds.

17 sherds of pottery, weighing 221g were recovered from a middle fill, [20818]. Three sherds were from a Nene Valley self-colour beaker with brown painted arrow design, along with one Central Gaulish Dr18/31 and three burnt, shell-tempered sherds.

A further middle fill, context [20819] contained just two sherds, comprising a West Stow fine reduced ware sherd and one shell-tempered sherd. Context [20820] contained four sherds, weighing 123g, which included one greyware dish and one Nene Valley greyware sherd.

Second from bottom, context [20855] contained seven sherds, weighing 439g. This comprised three sherds from a Central Gaulish Dr31, with a complete stamp reading 'CVRVIMA', which is as yet, unsourced. This vessel also had remains of resin where it had been repaired in antiquity as well as scratched notches on the base ring, not uncommon on Samian vessels and though to be related to batches or ownership. A further Central Gaulish Samian body sherd was recovered along with one sherd from a West Stow fine reduced ware jar and one grog-tempered sherd.

The lower fill [20821], described as being 'organic' contained 23 sherds, weighing 1725g. This comprised one, almost complete, small, Nene Valley whiteware flagon, which had heavy post-breakage burning on the exterior. Ten sherds from a shell-tempered jar were also noted as being heavily burnt on both the interior and exterior, especially around the rim and the edges of the vessel. There was also a sherd from a West Stow fine reduced ware imitation Dr31. Two sherds were collected from a Central Gaulish Dr33 cup with a complete stamp reading 'SENNIVS', a parallel for which has been found as Alcester (Cracknell et al, 1994) dated AD 150-180. At first this seems to be very useful, especially since it was recovered from the basal fill of the well, thus giving a good indication of the date this feature was dug. However, the date is referring to the date of production and gives no indication as to the longevity of the vessels life. This matter is further clouded by the presence of resin on the edges

showing the vessel had been repaired over its life, thus the period between production and deposition could be extensive.

Overall, although the quantity of pottery recovered from this feature was not vast, the deposition of it is interesting. There is a clear difference in size and condition of sherds between the lower two fills and the upper fills, with the upper fills containing small, more abraded sherds, with few refitting sherds (or at least sherds from a single vessel). In contrast, the lower two fills [20855] and [20821], although containing similar quantities, the sherds were generally much larger, including several half-complete vessels (when refitted), which represented fewer vessels in total. The relative completeness of a number of vessels at the bottom of this feature implies that, they are likely to have been dropped into the well very soon after breakage, with the possibility of some being unbroken. Some of the sherds showed evidence of post-breakage burning, suggesting that this was not done in-situ but took place before the vessels were deposited in the feature.

The pottery in the upper fills appears to have been deposited as a result of some sort of 'cleaning' activity with the sherds displaying signs of having been lying on the surface for a period of time before being deposited.

As with the pattern seen across the site, the filling of this feature took place over a relatively short period of time, between the early/mid 2nd century AD and the mid/late 3rd century AD.

#### Feature 20138

This large watering hole, Feature 20138, contained 296 sherds of pottery, weighing 9253g from ten fills, in varying quantities. Most of the fills contained fewer than 20 sherds, with only three contexts contained more significant quantities of material.

The majority of the pottery came from the upper fills of the feature. Context [20808/20842], near the top of the feature, contained 131 sherds of pottery, weighing 4498g. This included a range of vessel forms, although jars dominated, including shell-tempered and greyware varieties. 11 sherds came from a Pakenham colour-coated beaker, although the rim was absent. Five sherds from a Central Gaulish Dr18/31 were recovered, along with a Nene Valley greyware bowl which was half complete. This context contained one of only seven mortaria sherds found from the entire excavation. Two further sherds, possible from the same vessels were recovered from [20845] and one from the surface of this feature. The mean weight of pottery from this context was high, at 30g, and the presence of refitting sherds suggests that the material in this feature was deposited immediately after breakage, or in some cases may have been thrown in whilst complete.

Context [20809/20844] contained 85 sherds of pottery, weighing 2561g, with a mean weight of 30g. 36 of the sherds from this context came from a single vessel, a shell-tempered jar. A minimum of seven other jars were identified, two of which had heavy sooting on the exterior. This context also contained the unusual shell-tempered handle, discussed above. Pottery from [20844] included a large sherd from an East Gaulish Dr37 with a flower motif, along with a Nene Valley colour-coated bowl and a trimmed base of a Central Gaulish Dr31.

The middle fills contained much smaller quantities of material. Context [20810] contained 17 sherds (572g), comprising of jars and non-diagnostic sherds. Interestingly, several sherds were noted as having heavy sooting on the interior or exterior of the vessels, thus suggesting a hearth/cooking assemblage, supported by the presence of a vessel with heavy limescale on the interior, see Figure 10c). This fill is noted as having a charcoal lens, which is further evidence of cooking/hearth waste. Context [20845/20835] contained eight sherds, weighing 178g, including two Nene Valley whiteware mortaria sherds. The remaining sherds from this context were all non-diagnostic. [20836] contained six sherds, weighing 170g, which included a Nene Valley greyware sherd and shell-tempered sherds.

Towards the bottom of the feature the pottery becomes scarce. Nine sherds (272g) were collected from context [20871], including a Nene Valley colour-coated beaker, and a Nene Valley whiteware sherd. The basal fill [20838/20857] contained six sherds, weighing 199g. This comprised five shell-tempered sherds, three from a medium sized jar, and one sandy greyware.

It is thought that this feature ceased to be used as a watering hole by context [20836], and the pottery evidence supports this, since the quantity of pottery deposited within the earlier contexts is much less than found towards the top of this feature. It is possible that by context [20810] this feature had begun to be used as a rubbish pit, with the useware evidence implying it was used in particular for domestic waste. Contexts [20809], [20842], [29841/29807] and [20806] represent the largest dumps in terms of the quantity of pottery, and although the quantities are not as large as seen in other pits and wells, it is enough to imply that by this stage the feature had certainly come to be used as a rubbish pit for domestic waste.

In terms of dating this feature, as with all the others discussed there is little difference between the earlier and later fills of the feature. However the East Gaulish Dr37 from [20844], near the top of the feature, is perhaps a good indicator of a 3rd century AD deposit, compared to the earlier fills which have a 2nd-3rd century AD date. This therefore gives a basic chronology and it is likely that once this feature had ceased to be used as a watering hole, it was filled fairly rapidly.

#### Feature 20173

This feature contained 188 sherds, weighing 4780g and representing 10.85 EVEs, recovered from 13 contexts as well as from the surface of the feature. Within these are four contexts which stand out as having larger quantities of pottery, although when compared to some of the other pits and wells, they are not abundant.

The upper fill [21102] contained 33 sherds, weighing 455g, which included one shell-tempered jar, a Nene Valley colour-coated beaker as well as several greyware jars. The mean weight of pottery from this context was low at 13g, reflected in the large number of non-diagnostic sherds. A further fill near the top of this feature, [21105], contained 27 sherds, weighing 354g, with another comparatively low mean weight of 13g. This comprised a burnt sherd from a Nene Valley colour-coated castor box and three sherds from a West Stow, imitation Dr31. Six vessels were noted as having

sooting or being burnt, although this does not appear to have taken place in-situ and it seems more likely that the these vessel had been used for cooking purposes.

Context [21111] in the middle of this feature contained 25 sherds weighing 784g. Two Central Gaulish Samian Dr31s were recovered, one of which had a complete stamp, reading 'PEIIVRROF'. As yet, no parallel for this stamp has been found. A Central Gaulish Dr33 was also recovered along with a Nene Valley colour-coated beaded bowl.

Finally context [21114], near the bottom of the feature, contained 28 sherds, weighing 1195g, thus with a high mean weight of 42g. This comprised two sherds from a Nene Valley greyware dish, which were abraded, and a Nene Valley colour-coated dish which was burnt. There was also a Central Gaulish Dr18/31 and an East Gaulish Dr30. Two shell-tempered jars, along with five other vessels were recorded as having heavy sooting or being burnt, one of which also had limescale on the interior. This context was described as being a damp, organic layer, rich in charcoal, and it seems likely that the pottery had been used over a hearth for cooking.

The remaining contexts all contained fewer than 20 sherds, with six containing fewer than ten sherds each. The basal fill, [21115], contained 11 sherds, weighing 644g, two of which were noted as being burnt and with heavy sooting on the exterior.

The pottery from this feature fits the broader site pattern, showing a succession of fills, of which at least two, in this case [21105] and [21115], appear to be hearth waste, disposed of immediately after use. Also there is little to separate the contexts in terms of the date of the pottery, suggesting relatively rapid filling, redeposition or little change in pottery over this period. The pattern of the upper fills having a significantly lower mean weight than the lower fills is also apparent in this feature. These issues are discussed in more detail below.

Structure 1 Ditch F. 21059

Six slots were dug in this ditch, recovering a total of 584 sherds of Roman pottery, weighing 11864g, with a mean weight of 20.3g.

Context [21015] contained 74 sherds, weighing 1188g, although 40 of the sherds (695g) came from a single vessel, a Nene Valley greyware jar which was almost complete. There were also six sherds from a shell-tempered jar, which was semi-complete.

42 sherds, weighing 275g were recovered from [21031], with a mean weight of just 6.5g. Most of the sherds from this slot were small and fragmented, and included three sandy greyware jars and one Nene Valley greyware jar. Context [20132] contained 41 sherds, weighing 271g and the condition of the pottery was very similar to that from [21031] in that the pottery was generally small and fragmented.

Context [21061] contained 35 sherds, weighing 1745g, which was largely comprised of sherds from a large, shell-tempered storage jar, of which there were 31 sherds, weighing 1698g. Two Nene Valley colour-coated, bag-shaped beakers were recovered, representing 19 (49g) sherds and 18 sherds (109g) respectively. Six sherds

weighing 454g came from a Nene Valley greyware bowl, which although nearly complete, was abraded.

A Nene Valley colour-coated bowl consisting of 13 sherds (259g) was also recovered from this context, which was semi-complete. 36 sherds from a large, shell-tempered storage jar, weighing 2640g, were also collected. Finally six sherds (620g) were recovered from a greyware lid, which had a rim diameter of 30cm, which was half-complete.

The largest quantity of pottery came from context [21065], the corner of the ditch, which contained 354 sherds, weighing 7807g. This context stands out, not simply because it contains the largest quantity of material, but because of the nature of the There are several near/semi-complete vessels which are fragmented, although often refit, suggesting post-depositional breakage, although a number of the sherds were also noted as being abraded, with abraded surfaces in particular, implying the vessels had gone through different processes before being deposited. 32 sherds (350g) were from a Nene Valley colour-coated indented beaker, which refitted to be semi-complete. Other half complete vessels included six sherds from a Nene Valley greyware bowl, 13 sherds from a Nene Valley colour-coated bowl, six sherds from a sandy greyware jar and 37 sherds from a shell-tempered jar. The remaining sherds from this context, were generally medium to large in size, although not as complete as those vessels mentioned above. The pottery in this fill suggests that this was a distinct dump of pottery, associated with a single cleaning or clearing event. Although the varied condition of the sherds suggest that while some were deposited almost immediately, others may have been redeposited, or else had stayed on the surface for a period of time before being dumped in the ditch.

#### Feature 20132

This ditch formed part of the enclosure. It was cut into by Feature 20159, however, there is little noticeable difference in date between pottery from the earlier and later ditch. Feature 20132 contained 327 sherds of pottery, weighing 5305g and representing 11.86 EVEs.

Context [21058] contained 147 sherds in total, weighing 2634g, thus with a mean weight of 18g. The pottery was similar in nature to pottery recovered from Feature 20159, with several medium and large sherds although the number of refitting sherds was less. This included four Nene Valley colour-coated beakers, as well as five Central Gaulish Samian vessels, comprising two Dr31s, and one example each of a Dr33, Dr37 and a Curle 15. There were also number of greyware and shell-tempered jars. There were several sherds noted as being abraded, suggesting deposition was not immediate after breakage. Context [21086] contained 134 sherds (1892g) which included two different central Gaulish Dr 18/31s and one East Gaulish Dr18/31, along with a Central Gaulish Dr31. There were also eight sherds from a sandy greyware sieve and one greyware lid.

While this feature is clearly cut by Feature 20159, there is no clear difference in date between sherds from either feature, including sherds from a ditch slot which is not affected by the later feature.

Finally a ditch, Feature 20163, makes up a possible third side of this enclosure. It contained just 18 sherds of pottery, weighing 247g, including two shell-tempered jars, one black-slipped jar, one non-diagnostic Nene Valley colour-coat and one Nene

Valley greyware sherd. Therefore it appears to be contemporary, although given the nature of dating of the site, this may not count for a great deal.

Lying within this enclosure was Feature 20173, the large well discussed above. The pottery from the ditches and the well is contemporary, which causes some confusion about the nature of this structure/enclosure. If the well is contemporary with the ditches and the enclosure (although obviously not Feature 20134 which it cuts), then its position within this structure would have a great impact on how the space was used. However, given the nature of pottery deposition it is possible that the ditches were earlier in date than the well, but were filled up at around the same time as the well, which may have been later in the sequence.

#### Enclosure 2

Feature 20165 contained 246 sherds of pottery, weighing 3907g and representing 10.20 EVEs. Six slots were dug in this feature, which generally contained only small quantities of pottery. The exception to this was context [21088], which contained 45 sherds weighing 941g. This included a greyware beaded bowl, and several greyware and shell-tempered jars.

#### Discussion

In simplistic terms the nature of the pottery recovered from this site is reflective of a typical domestic assemblage, which is dominated by jars of varying size, with bowls and dishes well represented. The vast majority of the pottery came from the local area, with shell-tempered wares being particularly abundant. However there are a number of elements which make this assemblage much more than a simple, rural, domestic site

The level of Samian is also fairly typical, the fact that only vessels from the Central Gaulish and East Gaul kilns, is a reflection of the period of occupation. The finewares and imported wares present in this assemblage show the site had access to wider trade networks, although there is no evidence of real wealth. The curation of a number of the Samian vessels implies that these vessels were highly regarded thus effort was made to preserve them. This is not what would be expected from a site with had the means to acquire these vessels easily. Choices in vessel forms can be seen within this assemblage, with mortaria almost entirely absent, yet lids and sieves very well represented. As discussed above, there is some debate of the relationship between pottery supply and demand, with it being slightly ambiguous whether these vessels were produced due to demand, or the vessels were bought and used as a result of the market supply.

This assemblage provides an interesting insight into deposition processes during the Roman period, partly due to presence of a number of large pits and wells, often absent from rural site, as well as the relative simplicity of the archaeology and the comparatively short-lived occupation of the site. All of the pottery dates from the early/mid 2nd century AD to the mid/late 3rd century AD, with no examples of either earlier or later material. On the one hand, this shows that the site was occupied for a relatively short period of time with only two or three phases of activity. On the other hand however, this makes sequencing features problematical, since there was very little to separate the earlier from the later material, with much of the pottery only broadly datable to 2nd-3rd century AD.

Even sherds which could be more closely dated, namely the Samian vessels, do not necessarily help this process since the date of production does not correspond to the date of use or deposition, and the presence of several repaired Samian vessels highlights that these vessels were often curated over longer periods than other vessel types. Therefore, not only is it problematic trying to assess the relationship, in terms of date, between one feature and another, when neither feature cuts the other, but even within a single feature there is very little to separate an upper and lower fill, thus ascertaining whether a feature was filled rapidly or over a longer period of time it difficult.

One aspects of the deposition within pits and wells that stands out is the difference between the upper and lower fills in terms of sherd size. It is typical of these features to have larger sherds, which often refit, towards the base of the feature, yet towards the top the sherds are smaller, more abraded and more fragmented. This demonstrates that there were differing processes of deposition taking place on the site and vessels in use and broken around the same time may have been treated in any number of different ways. This element of the sites history may also be responsible for the difficulties in differentiating dates of features and fills within features. For example, pots in use and discarded at the same time may either be deposited immediately into a feature, or else left on the surface, where they will remain for some time before eventually being deposited within a feature. Therefore pottery of the same date may occur at any point in a sequence, and although the condition of the sherds should vary, in terms of dating the individual vessels, there is no difference. The potential for recutting of features and thus redeposition of pottery sherds should also not be discounted. Even then it is problematic deciding whether a feature had been filled rapidly or over a longer period of time.

There were contexts which appear to be dumps from a hearth, consisting of burnt sherds with interior and/or exterior sooting and sometimes burnt residue, as well as occasional vessels with heavy limescale residues, a product of boiling water. These contexts also sometimes contained vessels which showed evidence of post-breakage burning, although in no cases does this appear to have happened in-situ. There were often lots of charcoal within these fills, thus further evidence that these were one-off dumping events, straight after use. Although why the pottery was disposed of is unclear, it is possible that these represent vessels which had broken whilst being used. The nature of these deposits implies that the pottery had not travelled far from its domestic location, which may help to identify areas of the site which were being used for domestic cooking duties.

In most cases ditch fills consisted of much fewer fills than seen in pits and wells. However, there were still noticeable differences in the quantity and quality of material from different contexts. Within ditches, this is sometimes the product of a one-off dumping episode, which results in one particular section of a ditch containing a much larger quantity of material than other contexts. Comparisons can be made between pottery recovered from ditches and material from pits/wells, to see if there is any difference in the nature of deposition. It may be assumed that many of the pits/wells may have acted as rubbish pits, certainly in the case of the wells, once they had gone out of use. Therefore the pottery might be expected to be primarily domestic waste,

with a higher mean weight and lower level of abrasion, assuming that once a vessel had been broken it would have been disposed of immediately into the pit.

Ditches on the other hand, may not have functioned specifically as places for the disposal of domestic waste, and it may be assumed that material which ended up in ditches was often the result of some sort of cleaning of an area, perhaps suggesting that this material had been lying on the surface for a period of time before being deposited within the ditch.

As Table 10 shows, there was little difference in the quantity of pottery recovered from ditches compared to that recovered from pits and wells combined, thus not supporting a view that the pits and wells were the primary rubbish deposits. There is however, a difference in the mean weight of the material from the three main feature groups. Pottery from ditches had a mean weight of 18.22g, which although moderately high, is low when compared to 22.02g from pits and 28.89g from wells and the mean weight of the assemblage as a whole which was c.21g.

Feature Type	No.	Wt(g)	EVE	MW(g)
Ditch	2167	39472	54.8	18.22
Pit	1354	29817	35.9	22.02
Well/Watering hole	611	17651	35	28.89
Other	55	1158	1.17	21.05
Total	4187	88098	127	X

Table 10: All pottery by feature type

Other factors that should be considered when analysing the difference between the feature groups are EVEs and the level of fragmentation and refitting. The EVEs total is much higher from the ditches than from either the pits or wells, although when the latter two are combined, the figure is exceeds that of the ditches at 70.9 EVEs.

The level of fragmentation did appear to be higher in ditches and the general pattern was that there were lots of sherds from lots of vessels, with very few refits. Within the lower fills of the pits and the wells there were a similar number of sherds, however, they tended to be larger in size, with less abrasion and fragmentation and often with several refitting sherds (as detailed above).

Generally the level of abrasion was low, which is probably related to the comparative short occupation of the site, but also may be related to the ways in which many vessels appear to have been disposed of on the site, i.e. immediately or shortly after breakage, rather than being left lying around on the surface to become abraded before finally being deposited within a cut feature.

Finally analysis of this assemblage has shown that the occupation of this site was relatively short-lived, perhaps lasting no more than a century. It is unusual to have no traces of evidence for activity either prior or after this period and previous work in the area revealed pottery of the same date, again with no pottery that could confidently be date early or late Roman.

Although it may be that there is evidence for these periods elsewhere, there is no obvious reason why this site failed to survive into the 4<sup>th</sup> century AD.

## An Assessment of the Faunal Remains

K. Seetah

#### Introduction

A relatively large assemblage of animal bone was recovered from the Langtoft site during excavations carried out in 2005 and 2006. This report provides a brief outline of the results following zooarchaeological analyses of the material and concludes that this assemblage holds considerable promise for future research in the immediate area. The recovered material has not only demonstrated the potential to contribute an ecological and environmental perspective, but also to improve our understanding of Romano-British faunal exploitation within the region.

#### Method

The zooarchaeological investigation followed the system implemented by Bournemouth University with all identifiable elements recorded (NISP: Number of Identifiable Specimens) and diagnostic zoning (amended from Dobney & Reilly 1988) used to calculate MNE (Minimum Number of Elements) from which MNI (Minimum Number of Individuals) was derived. Aging of the assemblage employed fusion of proximal and distal epiphyses (Silver 1969). Elements from sheep and goats were distinguished, where possible, based on criteria established for the post-cranial skeleton by Boessneck (1969) and teeth by Payne (1985) and Halstead *et al* (2002). Identification of the assemblage was undertaken with the aid of Schmid (1972), Cohen and Serjeantson (1996) and reference material from the Cambridge Archaeological Unit, the Grahame Clark Zooarchaeology Lab, Dept. of Archaeology, Cambridge and the Zoology Museum, Cambridge. Taphonomic criteria including indications of butchery, pathology, gnawing activity and surface modifications as a result of weathering were also recorded when evident.

#### Preservation

The assemblage was hand collected and exhibited good overall preservation: of 200 separate contexts studied 73 where 'Quite Good' or 'Good' with minimal or no weathering, bone surface exfoliation and other erosive damage. 52 contexts showed 'Quite Poor' or 'Poor' levels of preservation, with 53 demonstrating 'Moderate' preservation. Although it would appear that these broadly equate to similar levels of preservation, when we observe the actual numbers of fragments that these figures correspond to: some 2722 bones showed a level of preservation that was quite good / good, compared to 741 that were quite poor / poor it is clear that overall the bone material was well preserved.

## Results

In total, for both 2005 and 2006 excavations seasons, 4811 fragments were analysed from the site with 2762 (57%) identifiable to element and 1351 (28%) further identified to species. The following will briefly outline the separate findings from each excavation season, LAN05 and LAN06, with a subsequent amalgamation of results.

#### LAN05

Of the two seasons, a greater number of bones were recovered following the 2005 excavation. A total of 3701 fragments were recorded, with 1980 (53%) identified to element and 1042 (29%) further identified to species. The figure attributed to identification to the level of element is marginally lower than one might expect. This was account for by one particular context, [20092] F.20062, containing the well preserved, but highly fragmentary remains of juvenile cattle. While much of the bone could confidently be identified to element and indeed species, the porous nature of the bone coupled with a high degree of breakage led to a large number of small, cancellous bone fragments that could not be identified, although they were probably from cattle.

Of the identifiable elements the overwhelming majority were assigned to domestic mammals. Cow accounted for the greatest proportion of the identifiable fragments, followed by ovicaprids, pig, horse, and finally dog (refer to Table 11 below). Cat (felis cattus) was proportionally well represented on this site and interestingly the individual animals themselves were either larger than average domestic animals, or wildcats (felis sylvestris). Although cow dominated the NISP count, ovicaprids were more numerous based on the MNI calculation. This has to be noted with caution as MNI calculations will tend to overestimate the smaller taxa. Furthermore, cattle would have been the more important provider of meat and while both animals would have been significant for secondary products, the potential use of cattle for traction would have made it the more important species economically.

Table 11: Species frequency by NISP (Number of Identifiable Specimens) and MNI (Minimum Number of Individuals)

	LAN0	15		LAN06			COMBINED		
Species	NISP	% NISP	MNI	NISP	% NISP	MNI	NISP	% NISP	MNI
Cow	668	64	21	203	66	14	871	64	35
Ovicaprid	267	28	32	51	17	7	318	24	39
Pig	30	2.8	4	14	4.5	3	44	3.2	7
Horse	26	2.4	2	13	4.2	2	39	2.8	4
Dog	19	1.8	2	5	1.6	1	24	1.7	3
Galliform	/	/	/	4	1.2	1	4	0.2	1
Cat	10	0.9	2	11	3.5	1	21	1.5	3
Red deer	5	0.5	1	1	0.3	1	6	0.4	2
Hare	1	0.1	1	/	/	/	1	0.07	1
Fox	/	/	/	1	0.3	1	1	0.07	1
Corvus sp.	16	1.5	1	/	/	/	16	1.2	1
Amphibian	/	/	/	6	1.9	1	6	0.4	1
Other Aves	10	0.9	ı	2	0.6	-	12	0.8	-
UMM	252	$12_{(\Sigma = 1980)}$	ı	130	$17_{(\Sigma = 782)}$	-	382	$14_{(\Sigma = 2762)}$	-
ULM	676	$34_{(\Sigma=1980)}$	ı	341	$44_{(\Sigma=782)}$	-	1017	$37_{(\Sigma = 2762)}$	-
UUM	1721	$46_{(\Sigma=3701)}$	-	328	$30_{(\Sigma = 1110)}$	-	2049	43 (Σ = 4811)	-

Key: UMM & ULM = Unid. Medium and Large Mammal / UUM = Unid. Fragment.

NB: Species percentages are out of 1042 for LAN05 / 309 for LAN06 / 1351 for COMBINED. These differ from the unidentified counts as these are calculated on the basis of element identification (for UMM & ULM) and total fragments (for UUM).

LAN06

A smaller assemblage was recovered from the 2006 excavation with a total of 1110 fragments recorded of which 309 (28%) was identifiable to species. A significantly higher proportion, 787 (70%), of fragments could be identified to element than was possible for LAN05.

In terms of species representation, as with LAN05, the assemblage was dominated by domestic animals (refer to Table 11 above). However, the tally of domestic species present was augmented with the addition of chicken which was found in small numbers. Cattle dominated both the NISP (203 / 66%) and MNI (14 individuals) count, with sheep and pig also proportionally well represented. Once again cat is evident in significant numbers, with a greater proportion (11 fragments / 3.5%) noted for LAN06 than LAN05; again all of the individuals would appear to be from large domestic cats or wildcats.

#### Combined Data

The combined data demonstrated a cattle dominated assemblage, with the smaller domesticates such as pig and sheep proportionally well represented. Horse was found in only marginally lower numbers than pig (39 fragments / 2.9% of total identified assemblage as opposed to 44 fragments / 3.2% for pig) and would seem to indicate the growing importance of this species for traction purposes.

A point to note however is that this species only supersedes cattle as the preferred traction animal in later periods when improvements in horse husbandry and morphology increase the traction ability of the horse: in the prehistoric and early historic periods cattle are still the dominant beast of burden and traction animal. The pig assemblage demonstrates at least one typical feature of Romano-British sites: juvenile animals. There has been a note penchant for suckling pig within the Roman diet and it would appear that this was practiced at Langtoft.

The species representation is surprisingly rich for the assemblage size and bodes well for future research. Not only are most domestic classes well presented, including non-food species such as horse and dog, but wild species are also present. Red deer (*Cervus elaphus*), hare (*Lepus* sp.) and fox (*Vulpes vulpes*) are present, as are potential wildcats. One near complete rook skeleton (*Corvus frugilegus*) was recovered in a very good state of preservation. There were also at least 12 fragments (0.8% of total identified assemblage) of unidentified, non-domestic bird, one of which was of a large juvenile wading bird (from LAN05 [20642], stork or possibly crane sized). Finally there were also six fragments of amphibian limb bones, paying testament to the good overall level of preservation on the site.

#### Conclusion

This has proved to be a very interesting assemblage. Not only is there a clear pattern of exploitation focused on cattle, a feature typical of Roman Britain, there is also high numbers of ovicaprids – considered typical of a native diet. It is important that future research clarifies age structures and kill patterns from this material with a more in depth analysis of toothwear and fusion data. Furthermore, whilst pig are present, including juvenile animals which are considered distinctive of Romano-British faunal assemblages, the numbers of this species are relatively small compared to cattle and ovicaprids; once again this deserves further investigation.

Metric data are also much needed: a number of examples of large cattle were evident on this site. It has been speculated that the Romano-British period witnessed the importation of cattle from continental Europe, a factor that played a crucial role in improvements of native stock (Bartosiewicz *et al* 1997). Not only would metrical data be a key source of data for evaluating this issue, but it would also be important for addressing changes in horse husbandry and use.

Although not recorded in great detail, there was clear butchery evidence that employed tools and techniques that have been identified as typical of the Romano-British period. Not only was there evidence of a butchery craft, but also a number of worked bone fragments, thus extended the range of craft / trade specialisms that depended on animal body parts.

#### An Assessment of the Metalwork

Adrian Challands and Jacqui Hutton

A variety of metalwork was recovered throughout the excavated area from features including linears, pit/wells and watering holes. The majority of the cu alloy artefacts were for personal use and adornment; such as bracelets, brooch fragments, dress pins and toilet implements (ligula). These indicate personal wealth and access and trade networks; this is especially evident with the nail cleaner, which is a rare example.

Other metal objects were also recovered, the majority being nails and nail shafts, indicating constructions; mechanical as well as structural.

Cu alloy

**<024>** [21037] F. 20163 Figure 11a.

As of Antoninus Pius AD 138-161) (very corroded).

Obv. [ANTONINVSAVGPIVSPPTRPXVIII] Laureate head, right.

Rev. [BRITANNIACOSIIIISJC]C Britannia seated left, on rock, resting her head on right hand, left hand on rock; to left round shield and standard.

Mint of Rome. Minted AD 154-155.

# **<345>** [21043] F.20165

Penannular snake head bracelet. Wt. 5.1g

The 40.8 mm long by 13.3 mm wide, penannular snake head bracelet terminal has a grooved tip but is otherwise, undecorated.

A similar undecorated bracelet was excavated from deposits dated to no earlier than the 4<sup>th</sup> century AD at Baldock, Hertfordshire (Stead and Rigby, 1986, 125, fig 53, 180).

**<346>** [21091] F.20163 Figure 11b.

Fibula brooch. Wt. 11.0g

The top fragment of the fibula brooch has a 12 turn spring with an external chord – Colin Hazelgrove? to report.

# **<347>** [21114] F.20173 Figure 11g.

Ag Dress pin. Wt. 1.5g

The c. 107.0 mm long by 1.7 mm tapering to 1.3 mm diameter dress pin is decorated with a button head above three cordons. The pin is a Cool Group 6 type which date to the second half of the 1<sup>st</sup> century and the early 2<sup>nd</sup> century AD (Cool, 1990, 157, fig 4).

A similar example in Cu alloy was excavated at the South Shields Roman Fort, Tyne and Wear (Allison-Jones and Miket, 1984, 180, 3.526).

**<348>** [20992] F.20154 Figure 11f.

Toilet implement or ligula. Wt. 5.3g

The 120 mm long by 3.0 mm diameter implement has a handle tapering to a point with an oval (12.0 mm, 5.4 mm by 1.5 mm thick) spatulate flattened end.

A similar implement was excavated at the South Shields Roman Fort, Tyne and Wear (Allison-Jones and Miket, 1984, 172, 3.465).

## **<352>** [20287] F20058 Figure 11e.

Sewing Needle Length 109 mm; Wt. 2.6 grm.

The sewing needle is a Crummy Type 3 and is complete except for a broken-off point. At the head, just below the eye, the needle has a maximum diameter of 2.2 mm. The 7.5 mm long eye is perforated within 21.0 mm long grooves extending above and below the eye.

A similar needle, not earlier than the second half of the 2<sup>nd</sup> century AD, was excavated at Lion Walk, Colchester, Essex (Crummy, 1983, 67, Fig 70, 1991). Two examples of similar date were excavated at Baldock, Hertfordshire (Stead and Rigby, 1986, 129, Fig 55, 227-8). Three needles dated to the late 2<sup>nd</sup> to 4<sup>th</sup> centuries were also excavated at Stonea, Cambridgeshire (Jackson and Potter, 1996, 342, Fig 108, 32-4).

## <353> Area H [20262] F20042 Figure 11d.

Ligula Wt. 3.4 grm.

The 135.0 mm long by 2.5 mm diameter implement has a handle which tapers to a point, with a broken, slightly angled spatulate, flattened end of probably round or oval shape (existing fragment size 5.7 mm, 4.2 mm by 1.0 mm thick).

Similar ligulae were excavated at Baldock, Hertfordshire (Stead and Rigby, 1986, 130, Fig 56, 245 – 261) and Stonea, Cambridgeshire (Jackson and Potter, 1996, 342-4, Fig 109, 46-52).

#### <354> [20218] I F20043 Figure 11c.

Nail cleaner Wt. 1.9 grm.

The 63.5 mm long cast nail cleaner has a suspension loop set on the same plane as the shaft, consisting of a 7.0 mm diameter by 1.1 mm thick plate with a 1.7 mm diameter central perforation.

The suspension loop is set above a 1.7 by 1.5 mm rectangular section, expanding through 6.5 mm into a 3.0 mm by 2.4 mm rectangular section. Below the previous rectangular section, a 3.2 mm by 2.7 mm by 6.0 mm long zone has a diamond pattern of cut grooves, possibly forming a nail file. The remaining 43.5 mm flat shaft length expands from a 2.5 mm by 1.9 mm cross section to 4.6 mm by 1.2 mm at the nail cleaning points. Towards the 'fish tail' nail cleaning points, a grooved cross decorates one face of the shaft.

No direct parallels can be located for the nail cleaner. Although, on the basis of the design of a plain cast example illustrated by Crummy, the Langtoft nail cleaner probably dates to mid to late 3<sup>rd</sup> century AD (Crummy, 1983, 58, fig 62, 1875).

Fe

**<349>** [20752] F.20123

Swivel and loop. Wt.198.8g

The total length of the swivel and loop is 105.0 mm. The loop is c. 67.0 mm diameter and forged from c. 11.8 mm diameter section bar. A c. 22.0 mm ball shaped head at

the top of a c. 20.0 mm long shaft supports the loop within the c. 48,0 mm diameter swivel forged from c. 13.0 mm diameter section bar.

A similar, although not identical, swivel and loop in the British Museum is from Gloucestershire (Manning, 1985, 138, pl 64, 54).

# **<350>** [20795] F.20129

Possibly chain link Wt. 11.7g Requires X-Ray.

## **<351>** [20841] F.20138

Unidentifiable fragment. Wt 59.2g Requires X-Ray.

## **<352>** [21022] F.20162

- (A) Manning Type 1B nail. Wt 7.2g
- c. 18.0 mm oval flattened head, c. 11.7 mm square section by c. 43.0 mm long shaft, tapering to a broken tip.
- (B) Nail shaft Wt. 4.5g
- c. 9.0 mm square by c. 37.0 mm long shaft fragment tapering to a point.

#### <353> B

Unidentifiable fragment. Wt. 1.5g

#### **<355>** [20209] F20044

- (A) Manning Type 1A Nail fragment Wt. 4.6 grm.
- 30.0 mm long by c. 11.0 mm square section shaft with a c. 21.0 mm by c. 15.0 mm oval flattened head.
- (B) Manning Type 1B Nail fragment Wt. 0.7 grm.
- 19.0 mm long by c. 4.5 mm square section tapering shaft with a c. 10.0 mm by c. 6.5 mm oval flattened head.
- (C) Nail shaft Wt. 0.3 grm.
- 30.0 mm long by c. 2.6 mm square section tapering shaft.

# <356> Area H [20244] F20058

- (A) Manning Type 1B Nail fragment Wt. 12.0 grm.
- 35.0 mm long by c. 8.5 mm square section shaft with a c. 22.7 mm by c. 19.3 mm oval flattened head.
- (B) Nail shafts Wt. 8.5 grm.
- 6 No. square section nail shafts.

#### **<357>** [20244] F20058

- (A) Nail shaft Wt. 23.3 grm. (with corrosion)
- 86.0 mm long by c. 8.6 mm square section shaft which tapers to c. 5.0 mm square section, just above the broken tip.
- (B) Fe concreted gravel Wt. 9.5 grm.

## An Assessment of the Leather

Quita Mould

## Methodology

This assessment is based on examination of the material on 18/05/2006. Only basic contextual information was provided, no pot spot dating was available. An initial record of the material has been made and is provided below and a working drawing of the shoe has been made (two views) as some further fragmentation may occur during the conservation process.

#### Condition of the material

The leather was wet and washed when examined. Currently the shoe is packed wet within an air-tight 'sealfresh' storage box, the other items are packed wet in double self-sealing polythene bags.

## Summary of the assemblage

Three items of Roman leather were recovered from within two large wells located within the Roman enclosure in Area H. A Roman shoe of single piece construction <066> and a scrap fragment <067>, possibly the sole area of another example, were found in [20494] in well F20078. A triangular piece of waste leather <063> was found in [20254] in well F20058.

#### Range of material

All the leather examined is of Roman date. A shoe <26> of single piece construction was found along with a bent silver pin and twigs and branches in an organic layer [21114] at the base of a circular pit [F20173] near the centre of Structure 1. The shoe was very heavily worn and has been repaired; it may be for a left foot. Circumstances of the find may suggest it to be the result of structured deposition. Small fragments <25> of a highly deteriorated shoe where found in a low, organic, fill [20850] of a large watering hole [F20138] in the north-east of Area G. Features of the shoe, of cattle hide, suggest it may have been of single piece construction. The bottom unit from a small shoe of nailed construction <31> was recovered from an anaerobic deposit [20959]. NB the box containing <31> was labelled context [20955] please Two pieces cut from a sandal bottom unit <004> and highly fragmentary remains of a shoe <005>, possibly of single piece construction, were found in the basal fill [20821] of a sub-circular bell-shaped well [F20136]. These shoe fragments appear to be discarded domestic rubbish rather than a 'structured deposit.' A small fragment of worn leather <001>, possibly sheep/goatskin, was found in a higher fill of the well. In addition fragments of bark <27> were found in a basal fill of a subcircular pit/well [F20140].

The heavily worn shoe <066> of adult size 1(33) to fit an adolescent or small woman's foot, is for the left foot and, though missing some of the fastening loops, appears to have been virtually whole when deposited. A delaminated piece with two fastening loops is likely to have been broken from the left side of the shoe but no certain join could be established on initial examination. The shoe is of single piece construction and is of a simple general style that one might expect from a rural native settlement. Holes have been worn through the 'sole area' at the toe and seat. The hole at the seat had been repaired with a patch, now missing, attached by a series a small wooden pegs: a feature not seen previously by this writer and of some interest.

This general style of shoe was worn throughout the Roman period so cannot be closely dated independently. The occurrence of a single shoe for the left foot in the well may indicate an act of structured deposition. Evidence for the deposition of a shoe for the left foot as part of a ritual of termination to mark the event of taking a well out of use, prior to back-filling, is increasingly being recognised in the archaeological record (van Driel-Murray 1999, 4). The recovery of scrap leather from the same context, however, is suggestive of domestic rubbish disposal. The single piece of triangular waste <063>, found in a second large well F20058, provides direct evidence of leatherworking being undertaken in the locality.

#### Comparative material

The general style of the shoe is common but the method by which the sole was repaired is not. The majority of Roman leather comes from military contexts or large urban centres with military associations. Leather from civilian, rural, contexts is relatively rare. A small amount of leather of later Roman date has been found previously at Rectory Farm, Market Deeping, Lincs. (Mould 1996) with which the Langtoft leather may be compared. I cannot confirm that the Rectory Farm leather has been published. Roman leather shoes from excavations at Lincoln in the 1980's have been examined by the writer but have not been published. I am unaware of the recovery of any other leather of Roman date from rural Lincolnshire in recent years. If any has been found the material does not appear to have been brought to publication or made available to a wider audience. Similarly, little Roman leather has been found in the counties that immediately surround it. A nailed shoe for the left foot was found in a well deposit dating to after AD250 at the Tower Works, Peterborough (Mould 2005), and a well deposit dating AD330-360 at the villa at Piddington, Northants (Friendship-Taylor 1997). Other small groups of leather from rural sites at Haynes Park, Beds (Mould 1996) and Bancroft, Bucks (Swann 1994), come from undated contexts.

On the face of it, the occurrence of shoes of three different constructions is rather unexpected. It possibly suggests a degree of sophistication, affluence and 'Romanisation' that one might not immediately associate with a small native settlement in rural Lincolnshire. Along with the imported pottery recovered it does reflect the extent of trade that was being undertaken.

The shoe <26> has a clump repair piece surviving and it will be necessary to compare this with the wooden pegs used to attach a repair piece to LAN05 <066>, found previously, to establish whether the unusual practice of securing repair pieces with wooden pegs was used on both shoes. A small amount of additional information might be obtained from examination of the nailed shoe bottom unit <31> following conservation. As a basic record of the leather has been made no further work is necessary on the rest of the assemblage.

# Potential for analysis

Roman leather is not commonly found on rural settlement sites and the information from the study of this material should be added to the small amount of data available on leather from rural civilian contexts in Britain. An aspect of the construction of the shoe is unusual, as previously described.

A small amount of research will be required to establish whether the feature is as uncommon as it appears, whether it is unique to this country and whether it can be paralleled from elsewhere in the Roman NW Provinces. The circumstances of the deposition of the shoe are of interest as a ritual deposition may be implied. Details of the well deposit and associated animal bone and ceramics are awaited.

## <1> [20820] F.20136

Leather scrap

Triangular-shaped fragment with all edges torn and no distinguishing features. A small area of iron encrustation is present at one corner. Leather worn, possibly sheep/goatskin. 45x43x1.04mm

# **<03>** [20821] F.20136

Vegetable fibre matting or rope. Small area of twisted vegetable fibres. The long vegetable fibres are lightly twisted together, not woven. A thin, black coating is present on both the upper and lower face of the piece.

Probably a small area of matting or tarred rope. Length 42mm, with a narrow strand extending the max length to 57mm, width 20mm, max thickness 5.75mm, min thickness 0.91mm

This item comes from the basal fill of a sub-circular bell-shaped well F20136 along with fragments broken from two shoes, one a sandal <04> the other probably a shoe of single-piece or nailed construction <05>, and small pieces of wooden lath and tree bark. I recommend that a specialist is shown the material if the contents of the well are going to be discussed in detail in the site narrative.

#### <4> [20821] F.20136

Leather sandal bottom unit parts

Rectangular piece cut from a shoe sole, torn at one end. No stitching present along the surviving sole edge. Seven grain/flesh holes arranged in an 'L-shape' apparently from the attachment of a repair piece. Leather worn bovine 2.08mm thick. Length 46mm, width 84mm

Fragment cut from bottom unit component, probably middle, of sandal with characteristic paired thonging slots present along each side. Upper edge cut, lower worn away. Likely to be associated with the sole fragment above. Leather worn bovine 2.16mm thick. Length 63mm, width 92mm Small fragments broken from the above.

## **<5>** [20821] F.20136

Leather shoe, highly fragmentary with paired tear-drop shaped cut outs Principle fragment apparently folded. The upper face, length 133mm width 57mm, grain upward with all edges broken, has a pair of semi-circular cut-outs in one side which is moulded upward. The lower face, length 70mm, width 60mm, has a small area of grain/flesh seam, stitch length 3-4mm, preserved. Leather delaminating, bovine max 2.22mm thick.

Fragment, all edges broken, curving inward at one side with a pair of decorative tear-drop shaped cut-outs present, each 10.30x4.56mm, spaced 4.25mm apart. The cut outs exactly match the semi-circular cut-outs on the other fragment indicating that two pairs of tear-drop shaped cut-outs are present. Leather worn bovine max 1.70mm thick. 90x48x1.70mm

Fragment with all edges broken and paired semi-circular cut-outs present. Leather bovine. 63x31x2.30mm

Fragment of fastening loop with a staggered cut edge possibly suggesting it had been deliberately cut away from the shoe. Delaminating bovine leather. 58x27x2.38mm Fragment with two very narrow straps, the widest 2.76mm wide. Leather delaminating. 41x13x2.45mm

Small fragments broken from the above. Fragments of thin wooden lath and bark also present

## <25> [20850] F.20138

Leather single piece shoe, highly fragmentary

Highly fragmentary remains of a shoe, comprising 25 small fragments of cattle hide, the thickness of the leather and the tooling suggest a shoe of one-piece construction. The fragments include, nine small fragments of narrow fastening loop with tooled edges producing a plano-convex section. Largest fragment length 31mm, width 5mm, thickness 3mm. Three small fragments of slightly wider strap. Largest fragment length 20mm, width 8.85mm, thickness 2.30mm. Fragment with a cut edge, other edges torn 42x20x2.60mm. Fragment of the stub of a torn fastening loop present 41x29x2.47mm. Small fragment torn along a line of stitching

#### <26> [21114] F.20173 Figure 12a

Leather single piece shoe, almost complete, possibly worn on the left foot. In four principal fragments and 10 small fragments broken from them. Much of the left side and the right side from the waist area to the back seam present, the toe, tread and seat areas worn away. The shoe has an edge/flesh butted back seam crudely stitched with whip stitching, stitch length 8mm and an edge/flesh seat seam. The top edge drops below the ankle and extends into a pair of relatively narrow fastening straps with teardrop shaped fastening holes. Elliptical fastening loops continue toward the toe. The top edge is tooled. The left side, now in two fragments, has two elliptical fastening loops at the forepart and part of the ankle strap present. The right has a complete ankle strap and a single fastening loop surviving. Holes present at broken 'seat' area from the attachment of a repair. Leather cattle hide 2.88mm thick. Approx. length from toe to back seam 260mm, back seam height 70mm. Clump repair piece worn away along two sides with paired, round grain/flesh holes from tunnel stitching around the surviving edge

Leather worn cattle hide 2.22mm thick. 100x81mm. Equivalent to modern English shoe size Adult 6(39)

#### **<31>** [20959] F.20153 Figure 12b

Leather shoe of nailed construction for a child's right foot. Nearly complete nailed bottom unit with blunt, round toe, medium tread tapering very slightly to the seat, lacking a distinct waist. Bottom unit comprises sole, middle packing and insole.

The seat area of the bottom unit is broken and fragmentary, small detached pieces broken from the sole and insole are present. The sole has widely-spaced nailing with a single row around the edge and a line running down the centre with four nails infilling the tread, the broken seat area is uncertain: probably van Driel-Murray type1D. The individual hobnails present have conical heads and appear unworn, Length 11mm (with curved shanks), head diameter 10mm, head height 5mm. The sole is nearly complete. The central area of the insole from the lower tread to the upper seat is present with fragments of middle packing visible beneath at the upper seat. The insole has a line of constructional thonging running up the centre. Various small fragments broken from the bottom unit are present including recognisable pieces of insole, one with a piece of the toe area of the upper surviving. Three other small fragments of upper pieces of upper and a small, curving fragment (35x19mm) with the grain side inward that appears to come from a heel stiffener. Leather upper worn bovine 1.97mm thick, insole bovine; probably calfskin.

Surviving length 166mm; width tread 58mm, 'waist' area 50mm, seat c 43mm. Equivalent to no smaller than modern English shoe size Child 8(26).

## <063> [20254] F20058

Leather waste. Triangular piece of primary waste with cut edges and an oval 'suspension' hole (8x4mm) in one corner and the impression of a 'grip' mark close to one edge.

85x76x2mm bovine, calfskin

#### **<066>** [20494] F.20078

Single piece of leather shoe, for the left foot, worn through at the seat and toe. Toe loop present on left side, rest of the top edge broken. Two loops present toward the toe end on the right side. The top edge appears tooled. Back seam small area present on the right side, the rest broken; two stitches only remain so seam type uncertain. Small areas of the butted edge/flesh seam remain around the seat. The hole worn through the seat area of the sole is surrounded by a series of small wooden pegs, max diameter 3mm, used to attach a clump seat repair patch, now missing. The majority of the wooden pegs remain in place, some are worn flat others protrude as much as 4mm above the leather.

Leather cattle hide 4mm thick

Length 218mm. Equivalent to Modern Adult size 1(33)

A fragment of top edge with two fastening loops now delaminated into two pieces, also present. The fragment is likely to be broken from the left top edge of the shoe but cannot be exactly fitted to the shoe at present. 114x46mm

## <067> [20494] F.20078

Leather scrap fragment with all edges torn, delaminating in some areas, appears slightly compacted. No distinguishing features. Some iron staining on the grain side. 109x93x2mm leather probably bovine

# An Assessment of the Tile, Daub and Burnt Clay Jacqui Hutton

Evidence of structures were found throughout the site with the recovery of fragments of daub and tiles in both dumping episodes and residual locations in linears, pits, wells, and watering holes. There appears to be no real concentration in any one area, they were probably deposited when an area was 'cleaned'. Fragments of burnt clay which could be from ovens or kilns were found throughout the area, the best example found in the beam slot of Structure 1 (F.20159). Unfortunately there were no features that could possibly represent these structures in the area uncovered during this investigation. However, as the majority of the total artefacts recovered illustrate domestic activity rather than industrial, the ovens/kilns could have been small and constructed on the 'surface' during the time of occupation and leave little or no trace in the archaeological record.

- <65> Two small fragments of fire clay from basal silt fill [20790] of the boundary ditch, F.20129. Un-diagnostic.
- <84> A fragment of roof tile from a watering hole, from an upper naturally silted fill [20809] in F.20138.

Dimensions 133 x 102 x 19 mm. Fine shell tempered fabric, smooth surface on both sides, good quality.

- <110> One small fragment of burnt clay, fine tempered fabric from a silt fill [208240] from a pit, F.20137. Un-diagnostic.
- <138> One fragment of burnt clay from a silt fill of a well/pit, F.20140. Fine tempered, un-diagnostic.
- <142> Two fragments of daub from a silt fill of a watering hole, F.20138. Possible organic inclusions and encrustations.
- <145> Two small fragments of burnt clay in a silted fill [20875] of a north-south aligned internal linear, F.20141. Both fragments are fine tempered and have flat surfaces on both facets. Possibly fragments of oven/kiln.
- <175> A fragment of burnt daub, from a lower fill [20959] with evidence of backfilling from a watering hole, F.20153.

Dimensions 41 x 34 x 15 mm. With a slightly uneven surface and 90° edge present.

- <196> One small fragment of flint tempered burnt clay from a natural silt fill {21013] in an east-west aligned ditch, F.20158. Non-diagnostic.
- <199> Part of a kiln bar from a beam slot fill [21015] from Structure 1, F.20159. Dimensions 83 x 40 x 21 mm. Coarse shell tempered and has fragmented lengthways.
- <216> Three small fragments of fined tempered burnt clay which has been exposed to high heat. Recovered from an upper silted fill [21032] from F.20159 which is Structure 1. Un-diagnostic.

- <234> One fragment of flint tempered burnt clay from silted fill [21058] from an east-west aligned linear, F.20160. Un-diagnostic.
- <238> One fragment of burnt clay silt fill [21060] of Structure 1, F.20159. Fine tempered, un-diagnostic.
- <245> One fragment of daub from tertiary fill [21065] from Structure 1, F.20159. Small organic inclusions.
- <274> Twenty five fragments and crumbs of burnt clay from silted fill [21102] from a pit, F.20173. Six have flat surfaces, three of them have small circular indentations which could be decoration or resulted from testing to see if clay was set. Fine tempered.
- <278> Two fragments of burnt clay from an upper silt fill of a pit, F.20173. One is shell tempered with 2 flat surfaces suggesting that it is a fragment of tile. The second fine tempered, flat of one side with a possible 90° edge suggesting an edge of a large tile.
- <282> Five fragments of burnt clay from an upper silt with moderate charcoal of a pit, F.20173.

Dimensions of 'rim' 48 x 30 x 9 mm. One piece gas a 'pinched-out' rim/edge with a clear thumb indentation. Possibly fragments from an oven/kiln, fine tempered.

<297> A small fragment of roof tile from a natural silted fill [201108] which was between dumping episodes in a pit, F.20173.

Dimensions 53 x 52 x 21 mm. Fairly rough shell tempered fabric, smooth surface on both sides.

- <298> Seven fragments of possible daub from an upper silt fill of a pit, F.20173. One has a slightly flat surface.
- <344> Sixty fragments of thick (43 mm) burnt clay, from fill of Structure 1, F.20159. Slightly rounded and smooth surface on one side, cracks on both sides but more pronounced on the 'underside'. Probably part of an oven/kiln, although there are no features associated with ovens or kilns on this site

#### An Assessment of the Worked Stone

Simon Timberlake and Jacqui Hutton

The majority of the quernstone fragments were from dumping contexts in pits/wells, although two were located in excavated slots from Structure 1. They appear to be small rotary querns primarily used for domestic purposes. The sources were not local which again accentuates trade networks.

Two fragments of whetstone, <169> from watering hole F.20153 and <261> from Structure 1 connect together. The fill from Structure 1 and the upper fills from watering hole appear to be contemporary which indicated that the watering hole was out of use at the time of deposition and was only represented by a depression in the ground.

<131> Quernstone fragment(s) from upper fill of a watering hole, F.20138.

Dimensions 100 x 110 x 30-50 mm. A medium-coarse grained arkosic grit, almost certainly of Millstone Grit sandstone (Namurian –Upper Carboniferous), the latter probably quarried and from a Southern Pennine source. Roman-Medieval Millstone Grit extraction sites have been identified at Wharncliffe Edge and Hathersage (Derbys.) (see Peacock 1988).

The fragment appears to come from the edge of what is probably the upper stone of a rotary quern; 35mm thick at the edge, with a probable radius in excess of 300mm. This is moderately well worn (on grinding surface), whilst the pitting on the upper (slightly convex) face was formed during the original dressing of the stone.

<166> A large quernstone fragment from the fill of a pit F.20042.

Dimensions 250 x180 x 20-30 mm. A medium-coarse grained pebbly arkosic grit (Millstone Grit) with some larger clasts of detrital orthoclase feldspar within a reticulate quartz-feldspar groundmass.

The fragment appears to be approx. quarter of a thin upper stone of a rotary quern, almost a complete radius (180-190mm) and between 25-30 mm thick. The grinding surface shows evidence for a great deal of fairly uneven wear which probably resulted in it thinning and possibly fracturing during use.

<314> A fragment of quernstone from the fill of a pit, F.20091.

Dimensions  $130 \times 150 \times 30-50$  mm. A medium-coarse grained felspathic arkosic grit (Millstone Grit) sandstone.

The fragment appears to be from part of the rim of an upper stone of a rotary quern, with a prominent concave grinding surface. There is some evidence for the redressing of the stone. Probably part of a small stone <200mm radius. The thinning suggests that the well-worn stone probably fractured in the centre.

<185> A fragment of quern from the burnt gravel dump layer within a pit, F.20042. Dimensions 180 x 175 x 20-30 mm. A medium-coarse grained felspathic arkosic grit (Millstone Grit) sandstone.

A large fragment (possibly one sixth) of a thin rotary quern stone, approx. 180mm in radius. The edge of the narrow central axle hole of the stone is visible in the centre. The grinding surface shows considerable degree of wear, and the stone is substantially thinned.

<189> A large fragment of quern from a burnt layer [20277] within a pit F.20042. Dimensions 150 x 240 x 20-60 mm. A medium-coarse grained arkosic grit (Millstone Grit sandstone) with some coarse grit to fine pebble clast bands.

Consist of approx. one third of a rotary quern stone, with the section through the axle hole intact. The hour-glass profile of the central axle hole suggests that this was for grain feed, implying that this was the upper stone which fitted into a concave lower stone. The lower grinding surface is very worn and has been burnt (sooted). The original quern radius would have been approx. 150mm, however, this is now damaged around its exterior.

<108> An abraded fragment of quern from the fill [20218] of a pit, F.20043. Dimensions 80 x 90 x 50 mm. A medium-grained arkosic grit (Millstone Grit) sandstone.

A small fragment of the rim (40-50mm thick) of a rotary quern stone, since broken and possibly re-used. The original radius of the stone may have been in excess of 200mm.

<247> A quernstone fragment found associated with Structure 1 (F.20159 [21065]), a building. Dimensions 125 x 70 x 30-45 mm. The source of the (originally quarried?) rock is probably the Lower Greensand (Cretaceous); the lithology of this seems typical of the Culham Greensand from Abington, Oxfordshire. However, there could be another source of this nearer to Lincolnshire.

Forms part of a rotary quern stone, probably > 150mm radius originally.

- <261> Fragments of quernstone and whetstone. From Structure 1 (F.20132 [21086]).
- (a) small fragment of Millstone Grit probably from a broken rotary quern stone. Dimensions 70 x 33 x 18mm.
- (b) fragment from a small slab of fine grained quartzitic sandstone, possibly a piece worked smooth on both upper and lower surfaces.

Dimensions  $100 \times 90 \times 33$  mm. The rock may be of Lower Greensand (Cetaceous), alternatively this comes from the Coal Measures (Carboniferous) – a fine grained ganister sandstone (slightly micaceous). Appears to have been used as a whetstone rather than as a quern.

- <169> A small fragment of a rectangular whetstone from an upper fill [20957] from a watering hole, F.20153; which joins up with the fragment above (<261>).
- <127> A small fragment of the outer rim of a rotary quern stone. From the fill [20842] of a pit, F.20138. Of medium-coarse grained Millstone Grit sandstone.
- <184> A fragment of building stone (?), roughly squared from a ditch, F.20156. Dimensions  $150 \times 140 \times 70 \text{ mm}$ . Of white-light grey shelly oolitic limestone, possibly of Jurassic age, and perhaps local to Lincolnshire, though possibly from the South-East.

## An Assessment of the Iron Slag

Simon Timberlake and Jacqui Hutton

Fragments of slag were found in ditches/slots associated with Structure 1, which could represent the possibility of smithy activity in this building; possibly an outbuilding for light industry. However, due to the small quantity this probably was not produced at an industrial level.

<205> Two fragments of metallurgical slag from the fill [20122] of a ditch/slot, F.20162 associated with Structure 1. Probably iron bloomery slag, suggesting the working up of iron objects by a smith from an impure bloom.

<246> One piece of metallurgical/hearth waste from fill [21065] present within a beam slot, F.20159 associated with Structure 1. Possibly hearth waste (forge cinders) with some charcoal inclusions. Possibly from smithing iron.

## An Assessment of the Roman Glass

By Jacqui Hutton

A small number of glass fragments were recovered from both phases of excavation. Fragments <272> and <273> were recovered from a dumping episode in a linear (F.20044). Little information can be ascertained as the fragments are too small for diagnostic analysis. However, number <272> shows signs of burning/melting corresponding with context evidence suggesting the dumping of burnt material. This fragment of glass was in or very close to an intense fire.

## <273> [20464] F.20044

Translucent blue-green fragment with bubbles, from the body of a vessel. Dimensions 33 x 19mm, 1-4mm thickness. Lines of swirling striations on outer surface. No signs of abrasion.

## <272> [20464] F.20044

Opaque blue-green fragment. Dimensions 31 x 16mm, 6mm thickness. Appears to have been burnt or melted.

#### An Assessment of the wood.

The organic remains recovered from this site were well preserved, with evidence of working in varying formats; worked timber fragments, and smaller branches twisted to form a circular shape. The artefacts were recovered from the pit/wells and watering holes, and were well preserved due to the anaerobic conditions of the features and deposition factors.

#### **<002>** [20820] F.20136

Semi-circular split fragment which could be part of a water pipe was recovered from the bell shaped pit/well.

#### **<010>** [20821] F.20136 Figure 12c.

This is the best and most complete example of the withy rings; there were 11 pieces of this 'twisted wood. Other fragments of wood were also recovered including a possible wedge and peg.

#### **<028>** [21114] F.20173

2=1 thin split fragments with 2 small holes, possibly representing a shingle. This pit was in the centre of Structure 1, which indicates that the roof of the building could have been constructed with this method.

#### <032> [21109] F.20173

Split fragment, possibly a wedge.

## **<051>** [21047] F.20140

Split fragment, possibly half of a semi-circular object.

# **<357>** [20821] F.20136

1 worked split-wood fragment, (parallel piped). Mike and Maisie wood number 77

# **<006>** [20871] F.20138

Large ½ split tree, (oak), was sampled for dendrochronology. The rest was discarded.

# [21045] F.20140

Three larger and 15 smaller fragments of bark (probably birch), the largest with a square nail-hole present 58x50x2.44mm

# **Discussion**

Prehistoric activity was much more ephemeral in this part of the quarry than in the area investigated to the west. Archaeological evidence suggests that the area was characterised by a field system during later prehistory, and that occupation was focussed to the west, represented by the structures recorded within Areas A-C (Webley, 2004). The ditches represent part of this extended field system with the pit/wells acting as seasonal watering holes. Prehistoric field boundaries comprising of interrupted ditch lines have been recorded elsewhere, including sites at Tanholt Farm, Eye (Patten 2003; 2004) and Bradley Fen (Knight forthcoming), where they have been interpreted as indicators of an enclosed landscape, with the ditches representing one facet of the demarcation.

The Romano-British period was represented in previous investigations within the quarry and the wider environs only by field system linears and discrete features with an enclosure of unknown purpose in the SW corner. The excavation has revealed a Romano-British settlement zone, comprising the north-western corner of a rectangular enclosure, which extends towards the trackway to the south. At least two phases of activity and redevelopment along with artefactual dating, suggests that the enclosure was only occupied from mid to late 2<sup>nd</sup> century through to the mid 3<sup>rd</sup> century AD. With a similar morphology to the enclosure recorded in Area C, and the location close to King Street, it seems probable that these represent settlements associated with this major Roman routeway.

The settlement lies to the north of a presumed Roman trackway which runs on a northeast-southwest alignment to or from Ashton (southwest of the site), a large Iron Age settlement that evolved into a substantial villa site, and continued to the northeast (Fowler, 1975). Evidence from aerial photographs shows a small number of similar settlements in the local landscape alongside the same trackway, see Figure 1. Although there is not firm dating evidence or status of the other settlements available, their proximity to the trackway suggest that these are likely to be broadly contemporary with the settlement site at Langtoft, thus indicating that this small settlement was part of a much wider but dispersed community during the Roman period, such as the comparable site recently excavated to the north (Andy Mudd, pers. comm.).

After the initial amalgamation of the Roman and local populace during 1<sup>st</sup> century AD, the majority of the trading and manufacturing took place in the 'centres' or towns. Later there was greater emphasis on trade within Britain, accompanied with change in location for industrial products. This led to rural areas expanding and a rise in the establishment of settlements. During the 2<sup>nd</sup> century, after Britain had become self sufficient and a major market force in its own right, there was a rise in rural sites manufacturing goods and produce for the local market, perhaps linked with the expansion of military occupation (Miller, 1990). These settlements were closely associated with roads, canals and droveways, giving easy access for trade. The rectilinear enclosures had subdivisions which consisted of house plots, gardens, stockyards and industrial enclaves. An example of similar settlements in the Fenland area can be found at Deeping St Nicholas which had a similar layout to Langtoft, and Weston which also produced a high number of storage jars (Salway, 1970).

The settlement at Langtoft could have been one small farmstead that utilised a niche in the local market and produced a commodity for trade. The features and layout of the site illustrates continual internal alteration and adjustment to a small degree, and together with the artefact distribution data, the function and status of the site can be suggested. The two structures were located towards the south of the enclosure indicating that main habitation was here, whereas the stockyard was towards the northern half clear from any major structures or features. The main domestic buildings were probably nearer to the road to the south, beyond the area of excavation.

The dating of the pottery highlights the relatively short lifespan of the settlement, perhaps representing just three generations of a family. The artefactual and structural evidence suggests a degree of sophistication and prosperity, which indicates the production of a commodity and/or resources available to them, resulting in the purchases of luxury items. There was a wide range of such artefacts including imported wares (Samian and Nene Valley), personal adornments and implements (ligula and nail cleaner) a wide range in leather footwear. Evidence of repair and curation on the Samian and footwear suggest that these were valued possessions.

Generating the means to acquire such items suggests a commodity or product would have been produced, that is not clearly being seen in the archaeological record. One such is dairy products. Cheese and other dairy products were highly valued during the Roman period, their production was relatively simple. For cheese, milk was placed into containers which were gently heated until the curds and whey separated. Rennet was usually added to quicken the process, after which the curds were skimmed off and put through a process of drying. Soft cheese was drained once, whereas hard cheese was pressed allowing further drainage of fluid. The product was then salted and left to mature. Other dairy products could also have been produced such as *melca* (thin yoghurt) and egg custard, (Alcock, 2001; Cool, 2006).

There was a high number of sheep/goat remains found at this settlement, whose milk was predominantly favoured during the Roman period, particularly for cheese. Goats yield five times more milk than cattle, and sheep four and the occurrence of young cattle bone suggests that cattle were bred and slaughtered for the purpose of providing rennet. Secondary products from these domesticates would have also been utilised, for their wool, skin and other subsidiaries.

Even though no direct evidence of cheese presses were recovered, a high number of sieves/colanders were found which could have been used for the separation of the curds from whey. Alternative methods were used instead of presses such as leather perforated bags, which were hung to drain in out-buildings (Alcock, 2001; Cool, 2006). A possible example of this was recovered from a pit (F.20058) where a fragment of leather with a hanging hole could provide evidence of an alternative to ceramic cheese presses. It is also possible that cheese presses were wooden and have simply not survived.

Mortaria were usually used for the separation process partly as bacteria needed to kick start the process stayed on the gritty surface. Perhaps the shell tempered vessels from this site was used instead of mortaria as the gritted surface would have similarly provided the means for this process.

Salt would have also been an important product in cheese production which could further suggest why the settlement was established in this part of the countryside. There was evidence of some briquetage but not in the numbers to suggest production occurred on this site; although it could have been manufactured in the vicinity at a contemporary site as it had been from the Bronze Age onwards (Lane, 2001; Webley, 2004).

The existence of the high number of jars and lids would suggest the storage and/or transport of a product, perhaps in liquid form. They could be used for the milk, salt and rennet used in this process, as well as the storage and transportation of the product. An additional function for the jars could be for the production of a subsidiary product such as beer. Wheat, barley and rye were predominantly used during the Roman period to brew beer; the grains were charred or roasted to add flavour to the beverage. This could also explain the high number of jars and these would be ideal to store this liquid product. The environmental data supports this hypothesis although not in a high enough number to suggest a high production rate. Beer was probably only produced as a subsidiary product to supplement the settlement's income or for immediate local consumption.

Towards the end of the 3<sup>rd</sup> century there were a variety of local circumstances and changes throughout the Empire which could have affected the abandonment of the site. If management of the site was hereditary, the family could have naturally died out or their progeny did not want to continue in the trade. Market forces could have also played a factor, such as competition from another farmstead that created a more desirable/cheaper produce, thus forcing them out of the market Miller, 1990; Taylor, 2001). Environmental evidence is suggestive of a high water table and poor soil conditions, and a long period of bad weather could have affected the local ecosystem and their local resources and produce.

What was happening politically within the Empire could also have had repercussions more locally in the small rural community. There was a change in taxation system during the later Roman period, and the nature and burden of the new taxation system could have applied pressure to the local market. Previously it is thought that an exchange system was in use as a form of trading, and changes in this exchange system could affect local productivity (Miller; 1990). These external factors could have combined to put pressure on the local community and production. There was a growth in some villas and estates coinciding with the decline of farmsteads and small holdings. The people who had lived in this settlement could have moved on and settled in a larger community or was absorbed into a large estates, such as the villa site at Ashton.

The wide range of domestic remains and evidence of structures, depositional features, field systems and environmental data offer an insight into life during the occupation of this farmstead. Settlement debris such as faunal remains and pottery, and a wide range of complimentary objects suggested the function/status of this settlement was that of light industry, probably producing dairy products. The occupants who lived in this landscape saw an opportunity to manufacture a product, probably exploiting a local niche in the market, and were part of a larger community with links to regional and national trade networks. After a few generations, the settlement was abandoned and the occupants moved on and settled in a different locale.

# **Bibliography**

Alcock, P. 2001. Food in Roman Times. NPI Media Group

Allison-Jones, L & Miket, R. 1984. *The Catalogue of small finds from South Shields Roman Fort*. The Society of Antiquaries of Newcastle upon Tyne.

Anderson, K. Forthcoming. The Roman pottery from the Camp Ground in Evans et al. *The Archaeology of Earith, Cambridgeshire*.

Anderson, K. Forthcoming. Later Roman shell-tempered wares in East Anglia

Anderson, K, The Roman Pottery in Brudenell, M. 2005. *Archaeological Investigations at the Former Tower Works Site, Mallory Road, Fengate, Peterborough.* CAU Report No. 675. University of Cambridge.

Anderson, K, The Roman Pottery in Williams, S. 2005. *An Archaeological Excavation on Land at Parnwell, Peterborough*. CAU Report No. 679. University of Cambridge.

Anderson, K, The Roman Pottery in Patten, R. 2004. *Bronze Age and Romano-British Activity at Eye Quarry, Peterborough: Phase 3.* CAU Report No.633. University of Cambridge.

Bartosiewicz, L. Van Neer. W & Lentacker. 1997. *Draught cattle: their osteological identification and history*. Annales Sciences Zoologiques Vol. 281

Boessneck, J. 1969. Osteological differences between sheep (*Ovis aries*) and goat (*Capra hircus*), in D. Brothwell and E. S. Higgs (eds.), *Science in Archaeology*, 2nd edition: 331-358. London: Thames and Hudson.

Burnham, B. C; Keppie, L, J, F; Esmonde Cleary, A, S; Hassall, M. W. C; Tomlin, R. S. O. Roman Britain in 1994. *Britannia*, Vol. 26 (1995) pp. 325-390.

Clapham, A.R., Tutin, T.G. and D.M. Moore. 1989. *Flora of the British Isles*. Third Edition. Cambridge: Cambridge University Press

Cohen, A., and Serjeantson, D. 1996. *A manual for the identification of bird bones from archaeological sites, revised edition*. London: Archetype Publications Ltd.

Cool, H. E. M. 2006. *Eating and Drinking in Roman Britain*. Cambridge University Press.

Cool, H. E. M. 1990. *Roman Metal Hair Pins* from Southern Britain Archaeological Journal 147, 148 – 182

Cracknell, S & Mahany, C. 1994. Roman Alcester; Southern Extramural Area. 1964-66 Excavations, Part 2; Finds, A Discussion. CBA Research Report No. 97.

Crummy, N. 1983. *The Roman small finds from excavations in Colchester 1971*-Colchester Archaeological Report 2 (Colchester)

Dobney, K., and Reilly, K. 1988. A method for recording archaeological animal bones: the use of diagnostic zones, *Circaea* 5 (2): 79-96.

Driel-Murray, C van. 1999. 'And did those feet in ancient time.....Feet and shoes as a material projection of the self' in P. Baker, C. Forcey, S. Jundi, R. Witcher (eds.), TRAC 98. Proceedings of the eighth annual theoretical Roman archaeology conference, Leicester 1998 (Oxford 1999), 131-140.

Greig, J.R. 1991. The British Isles. In Van Zest, W., Wasylikowa, K. and K-E. Behre (eds.), *Progress in Old World Palaeoethnobotany*. Brookfield and Rotterdam: A.A. Balkema, 299-334

English Heritage. 1995, *Guidelines for the care of waterlogged archaeological leather*. Scientific and Technical Publications Guideline 4.

Fowler, P, J. 1975. Recent work in rural archaeology. Moonraker Press.

Friendship-Taylor, D. 1997, Roman/Saxon Mongrels part 2, *Archaeological Leather Group Newsletter 5 (Spring)*, 2.

Hall, C. 1998. The Excavation of Terminal Bronze Age and Medieval Settlement Remains at Baston Quarry (No.2), Langtoft, Lincolnshire; Phase IV Area A. CAU Report 288.

Hallam, H. E. 1965. *Settlement and Society; A Study of the Agrarian History of South Lincolnshire*. Cambridge; Cambridge University Press.

Halstead, P, Collins, P, &, Isaakidou, V. 2002. Sorting the sheep from the goats: morphological distinctions between the mandibles and mandibular teeth of adult *ovis* and *capra*, *J. Archaeol. Sci.* 29, 545-533.

Hanf, M. 1983. The Arable Weeds of Europe. BASF United Kingdom Limited

Hayes, P. P. and T. Lane. 1992. *The Fenland Project No 5. Lincolnshire Survey; the South-west Fens* (East Anglian Archaeology Report 55). Sleaford; Heritage Trust of Lincolnshire.

Heritage Lincolnshire. 1992. Archaeological Watching Brief on Land Between Langtoft Outgang Road and Cross Road, Langtoft, Lincolnshire. Unpublished.

Hillman, G. 1984. *Plants and Ancient Man, Studies in palaeoethnobotany*. In: W. Van Zeist and W.A. Casparie (eds.). Interpretation of archaeological plant remains: the application of ethnographic models from Turkey. Rotterdam, Boston: A.A. Balkema; 1-42

Jacksone, D. A. 1978. Excavations at Wakerly, North Hants 1972-75. *Brittania* Volume 9 pp 115-242.

Jackson, R.P.J. and Potter, T.W. 1996. *Excavations at Stonea, Cambs. 1990 – 1995* (London, British Museum Publications)

Lane, T. 2001. A saltmaking site at Outgang Road, Langtoft, Lincolnshire, in T. Lane and E. L. Morris (eds). *A Millennium of Saltmaking; Prehistoric and Romano-British Salt Production in the Fenland* (Lincolnshire Archaeology and Heritage Report Series No. 4) 250-2. Sleaford; Heritage Trust of Lincolnshire.

Lewis, J. 2006. Landscape Evolution in the Middle Thames Valley; Heathrow Terminal 5 Excavations. Framework Archaeology Monograph 1. Oxford Archaeological Press.

Manning, W.H. 1985. Catalogue of the Romano – British Iron Tools, Fittings and Weapons in the British Museum (London)

Martin, E. and P. Murphy. 1988. West Row Fen, Suffolk: a Bronze Age fen-edge settlement site. *Antiquity* 62:353-358

Miller, M. 1990. The Romanization of Britain; an essay in archaeological interpretation. Cambridge University Press.

Mould, Q. 1996. Roman/Saxon mongrels spotted in eastern England, *Archaeological Leather Group Newsletter 4 (August)*, 4.

Mould, Q. 1996. The leather from Rectory Farm, West Deeping (?unpublished typescript)

Mould, Q. 2005. Assessment of the leather from the Tower Works, Peterborough (MPF04) (for CAU)

Payne, S. 1985. Morphological distinction between the mandibular teeth of young sheep *Ovis* and goats *Capra*, *J. Archaeol. Sci.* 12: 139-147.

Petch, D. F. 1961. Archaeological notes for 1959 and 1960. *Lincolnshire Architectural and Archaeological Society Reports 9* (1), 1-25.

Phillips, C. W. 1970. *The Fenland in Roman Times*. London; Royal Geographical Society.

Rollo and Wild: The Iron Age and Roman Pottery in Mackreth, D. F. 2001. *Monument 97, Orton Longueville Cambridgeshire: a Late Pre-Roman Iron Age and Early Roman Farmstead.* East Anglian Archaeology. Report No, 97.

Roman Finds Group and Finds Research Group AD 700-1700. 1993. The Guidelines for the Preparation of Site Archives and Assessments for all finds other than fired clay vessels.

Salway, P. 1970. The Fenland in Roman Times.

Schmid, E. 1972. Atlas of animal bones. Amsterdam: Elsevier.

Silver I. A. 1969. The ageing of domestic animals, in D. Brothwell and E. Higgs E. S. (eds.), *Science in archaeology*, 2<sup>nd</sup> edition: 283-301. London: Thames and Hudson.

Stace, C. 1997. New Flora of the British Isles. Cambridge: Cambridge University Press

Stead, I. M. and Rigby, V. 1986. *Baldock, the excavation of a Roman and pre – Roman settlement, 1968 – 72,* Britannia Monograph Ser. 7 (London)

Swann, J. 1994. Leather, in Williams, R J and Zeepvat, R J, *Bancroft: A Late Bronze Age/Iron Age Settlement, Roman Villa and Temple-Mausoleum. Volume 2: Finds and Environmental Evidence*. Buckinghamshire Archaeological Monograph Series 7,365-368

Taylor, J. 2001. Rural society in Roman Britain. In S. James & M. Millet (eds), From Britons & Romans; advancing an archaeological agenda. CBA Research Report 125.

Webley, L. Forthcoming. Bronze Age, Iron Age and Romano-British Settlement at Baston Quarry (No. 2), Langtoft, Lincolnshire; Areas B to E. CAU.

# Appendix 1

# **Basic Feature Descriptions**

_			_	
-1	7:	4~	L	00
	"	tc	п	es

F. 20001 a NE-SW linear 17m x 1.52m wide and 0.28m deep (20001) firm purple/grey sandy silt with occasional gravel inclusions (20002) firm light olive/brown sandy silt with occasional gravel inclusions [20003] sloping to moderate concave sides and concave base F. 20002 a NE-SW linear 32m x 1.81-2.04m wide and 0.45-0.46m deep (20004) firm purple/grey/brown sandy silt with rare gravel inclusions (20005) firm light olive/brown sandy silt with rare gravel inclusions (20006) firm light olive/brown sandy silt with frequent gravel inclusions [20007] moderate concave sides and flat to concave base (20182) friable brown organic silt (20183) firm mid brown/grey sandy silt with occasional gravel, charcoal and iron pan inclusions [20184] moderate to steep convex sides with flat base F.20003/4 a NE-SW linear 41.70m x 1.10-1.60 wide and 0.20-0.38m deep (20008) loose light yellow/grey sandy silt with rare gravel inclusions [20008] sloping sides and concave base (20010) loose mid red/brown sandy silt with rare gravel inclusions and charcoal (20011) loose light yellow/grey sandy silt with rare gravel inclusions [20012] moderate sides with flat/concave base F. 20005 a NE-SW linear 16.50m x 0.88-0.95m wide and 0.19-0.27m deep (20013) firm light yellow/brown sandy silt with occasional gravel inclusions [20014] sloping sides with concave base (20112) firm light yellow/brown sandy silt with occasional gravel inclusions [20113] u-shaped with moderate sides and concave base F. 20008 a NE-SW linear 76m x 1.15m wide and 0.15-0.16m deep (20021) compact mid brown/orange with occasional gravel inclusions [20022] sloping sides with concave base (20025) firm light brown/orange sandy silt with occasional to moderate gravel inclusions and occasional flecks of charcoal (20044) mid to dark brown sandy silt with occasional gravel inclusions (field drain) [20026] sloping sides with flat base (20029) compact mid brown/orange with occasional charcoal flecks [20030] sloping sides with concave base a NE-SW linear 42m x 0.70-1.29m wide and 0.12-21m deep F. 20009 (20019) compact mid brown/orange silty clay with moderate gravel inclusions and occasional flecks of charcoal

[0.0000]	alonina	aidaa	with	concave	haga
1200201	sioning	sides	with	concave	pase

(20023) firm orange/brown sandy silt with moderate gravel inclusions [20024] sloping sides with flat base (20027) firm orange/brown sandy silt with moderate gravel inclusions [20028] terminal, sloping sides with concave base (20139) firm mid grey/brown sandy silt with occasional gravel inclusions [20140] moderate sides with flat base F. 20010 a NW-SE linear 15m x 0.50-0.67m wide and 0.08-0.13m deep (20034) soft mid brown/orange sandy silt with occasional gravel inclusions [20035] sloping sides with concave base (20036) soft mid brown/orange sandy silt with occasional gravel inclusions [20037] sloping sides with concave base F. 20011 a NW-SE linear 5m x 1.10m wide and 0.22m deep (20038) firm mid brown/orange sandy silt with occasional gravel inclusions [20039] sloping sides with concave base F. 20012 a NW-SE linear 7.5m x 0.50-0.62m wide and 0.08-0.22m deep (20040) firm mid brown/orange sandy silt [20041] sloping sides with concave base (20042) soft dark orange/brown sandy silt with occasional to moderate gravel [20043] sloping sides with concave base F. 20013 a NE-SW linear 30.50m x 1.71-3.74m wide and 0.31-0.43m deep (20045) firm mid grey sandy silt with occasional gravel inclusions (20046) firm mid yellow/brown sandy silt with occasional fragments of iron pan (20047) firm mid yellow/grey sandy silt with frequent gravel inclusions and iron pan (20048) compact mid orange/yellow sandy silt with frequent gravel inclusions [20049] sloping sides with flat base (20114) firm purple/grey sandy silt with occasional gravel inclusions (20115) firm light yellow/brown with occasional charcoal, gravel and iron pan (20116) compact mid yellow/brown sandy silt with frequent gravel inclusions (20117) very compact mid orange/brown sandy silt with frequent gravel and iron pan inclusions [20118] u-shaped with moderate sides and flat base a NW-SE linear 90m x 0.45-0.83m wide and 0.02-0.23m deep F. 20014/42 (20050) firm mid grey/brown sandy silt [20051] moderate sides with concave base (20056) firm mid grey/brown sandy silt

(20078) firm light to mid grey sandy silt with occasional gravel inclusions

[20057] moderate sides with concave base

[20105] sloping sides with concave base (20106) firm mid brown sandy silt with occasional gravel and frequent iron pan inclusions [20107] moderate sides with concave base (20110) firm mid brown silty sand with occasional gravel and frequent iron pan inclusions [20111] moderate sides with concave base (20187) firm mid grey brown sandy silt with occasional gravel and moderate iron pan inclusions [20188] moderate steep concave sides with concave base (20189) firm mid grey/brown sandy silt with occasional gravel and iron pan inclusions [20190] moderate steep concave sides with concave base (20191) firm mid grey/brown sandy silt with occasional gravel and iron pan inclusions [20192] moderate steep concave to straight sides with sharp concave base F. 20015 a NW-SE linear 8m x 0.89m wide and 0.23m deep (20052) firm mid to dark brown sandy silt with occasional gravel inclusions [20053] moderate sides with concave base F. 20016 a NW-SE linear 7.5m x 0.61m wide and 0.12m deep (20054) firm mid grey/brown sandy silt [20055] sloping to moderate sides with concave base F. 20017 a NW-SE linear 5.5m x 0.48m wide and 0.11m deep (20068) firm mid brown/orange sandy silt with occasional gravel inclusions [20059] sloping sides with concave base F. 20018 a NW-SE linear 6.25m x 0.48m wide and 0.10m deep (20060) firm mid brown/orange sandy silt with occasional gravel inclusions [20061] sloping sides with concave base F. 20019 a NW-SE linear 29m x 0.36-1.07m wide and 0.08-0.16m deep (20062) firm mid brown sandy silt with occasional gravel inclusions [20063] sloping sides and concave base (20098) firm mid yellow/brown silty sand with occasional gravel and frequent iron pan inclusions [20099] sloping sides with concave bases (20102) firm mid yellow/brown sandy silt with occasional gravel and frequent iron pan inclusions [20103] sloping sides with concave base (20195) firm mid grey/brown sandy silt with occasional gravel and iron pan inclusions [20196] sloping sides with concave base

[20079] moderate sides with concave base

(20104) firm mid brown sandy silt with occasional gravel and iron pan inclusions

inclusions [20204] moderate concave sides with concave base a NW-SE linear 55.75m x 0.20-0.47m wide and 0.03-0.14m deep F. 20020/28 (20064) firm mid brown/orange sandy silt with occasional gravel and iron pan inclusions [20065] sloping sides with concave base (20066) firm mid brown/orange sandy silt with occasional gravel and iron pan inclusions [20067] sloping sides with concave base (20068) firm mid brown/orange sandy silt with occasional gravel and iron pan inclusions [20069] sloping sides with concave base (20070) firm mid brown/orange sandy silt [20071] sloping sides with concave base (20123) firm mid brown/orange sandy silt [20124] sloping concave sides with concave base (20125) firm mid brown sandy silt [20126] sloping sides with concave base F. 20021 a NE-SW linear 21.50m x 1.30-1.32m wide and 0.30-0.36m deep (20072) firm mid brown orange sandy silt [20073] sloping sides with concave base (20185) firm mid brown/grey sandy silt with occasional gravel and iron pan inclusions [20186] moderate concave sides with flat to concave base F. 20022 a NW-SE linear 47m x 0.32-0.64m wide and 0.06-0.14m deep (20074) firm mid brown/orange sandy silt with occasional iron pan inclusions [20075] sloping sides with concave base (20076) firm mid brown/orange sandy silt with occasional iron pan inclusions [20077] sloping sides with concave base (20119) firm mid brown/orange sandy silt [20120] sloping sides with concave base (20121) firm mid brown/orange silty sand with occasional iron pan and moderate gravel inclusions [20122] concave moderate sides with concave base F. 20023 a NW-SE linear 21.25 x 0.35-0.86 wide and 0.09-0.19m deep (20080) firm mid grey/brown sandy silt with occasional to frequent gravel inclusions [20081] sloping to moderate sides with flat/concave base (20082) firm mid grey/brown sandy silt with moderate gravel inclusions [20083] sloping to moderate sides with concave base F. 20024 a NW-SE linear 50.25m x 0.42-0.86m wide and 0.13-0.24m deep

(20203) firm mid grey/brown sandy silt with occasional gravel and iron pan

[20085] moderate to steep sides with flat base (20086) firm light to mid grey sandy silt [20087] moderate sides with flat base (20090) firm light grey sandy silt [20091] moderate sides with concave base (20127) firm mid brown/orange sandy silt with occasional gravel and iron pan inclusions [20128] convex sides with uneven/concave base F. 20026 a NE-SW linear 50m x 0.97-1.32m wide and 0.15-0.23m deep (20092) firm mid brown sandy silt with moderate gravel and charcoal inclusions [20093] sloping concave sides with uneven/flat base (20100) firm light yellow/brown sandy silt with occasional gravel and iron pan inclusions [20101] moderate sides with concave base (20165) firm mid brown sandy silt [20166] sloping sides with flat base F. 20029 a NW-SE linear 20m x 0.85-1.09m wide and 0.14-0.21m deep (20108) firm mid yellow/brown sandy silt with occasional gravel inclusions [20109] steep sides with moderate base (20193) firm mid brown sandy silt with occasional gravel and charcoal inclusions [20194] sloping concave sides with concave base F. 20030 a NW-SE linear 37m x 0.94-1.05m wide and 0.20-0.22m deep (20129) firm mid brown/orange silty sand with occasional gravel and moderate iron pan inclusions [20130] concave sloping sides with concave base (20207) firm mid brown silty sand with moderate gravel and iron pan inclusions [20208] moderate straight to concave sides with sharp concave base F. 20031 a NE-SW linear 63m x 0.80-1.01m wide and 0.13-0.26m deep (20131) loose mid to dark grown silty sand with frequent gravel inclusions [20132] moderate straight sides with concave base (20145) firm mid brown silty sand [20146] sloping to moderate sides with flat base (20147) firm mid grey/brown sandy silt with occasional gravel inclusions [20148] moderate sides with concave base (20149) firm to compact mid brown/grey sandy silt with occasional gravel and iron pan inclusions [20150] moderate to steep sides with flat base F. 20032 a NW-SE segmented linear 6.50m x 0.49-0.58m wide and 0.21-0.25m deep

(20084) firm light grey sandy silt with occasional gravel inclusions

	(20133) firm mid brown/orange silty sand with occasional gravel and moderate iron pan inclusions [20134] concave moderate sides with concave base
	(20135) firm mid brown orange silty sand with occasional gravel and moderate iron pan inclusions [20136] steep straight sides with concave base
F. 20033	a NW-SE linear 48m x 1.19m wide and 0.36m deep
	(20141) compact mid brown/grey silt with moderate iron pan inclusions [20142] moderate to steep sides with flat base
F. 20035	a NE-SW linear 17m x 0.70m wide and 0.20m deep
	(20151) firm to compact silty clay with occasional gravel inclusions [20152] moderate to steep sides with concave base
F. 20037	a NE-SW linear 18m x 1.15m wide and 0.23m deep
	(20163) firm mid grey sandy silt with occasional gravel and iron pan inclusions [20164] moderate to steep sides with flat base
F. 20038	an E-W linear 28.50m x 0.43-0.65m wide and 0.09-0.12m deep
	(20197) firm mid grey/brown sandy silt with occasional gravel and iron pan inclusions [20198] sloping concave sides with concave base
	(20199) firm mid grey/brown sandy silt with occasional gravel and iron pan inclusions [20200] moderate concave sides with concave base
	(20201) firm mid grey/brown sandy silt with occasional gravel and iron pan inclusions [20202] moderate concave sides with concave base
F. 20039	a NW-SE linear 31m x 0.69-0.84m wide and 0.17-0.23m deep
	(20137) firm mid orange/brown sandy silt with occasional gravel inclusions [20138] sloping to moderate sides with flat base
	(20205) firm mid brown silty sand with moderate gravel and iron pan inclusions [20206] moderate concave sides with flat base
F. 20043	a N-S linear 8.50m x 1.56m wide and 0.29m deep
	(20218) firm mid orange/grey clayey silt with frequent gravel inclusions (20219) compact mid orange/brown sandy silt with frequent gravel inclusions
F. 20044	a NW-SE linear 36.50m x 0.78-1.19m wide and 0.09-0.31m deep
	(20209) soft black sandy silt with occasional gravel and frequent charcoal inclusions
	(20411) mid brown/yellow clay with occasional chalk flecks (20412) green/grey sandy clay with occasional charcoal and gravel inclusions [20413] moderate concave sides and concave base
	(20414) soft mid brown/yellow clay with occasional charcoal and chalk inclusions [20415] moderate concave sides with flat base

(20462) light brown/orange clayey silt

[20463] truncated by F. 20073

(20464) black sandy silt with occasional gravel and frequent charcoal inclusions

(20465) firm light brown/orange clayey silt

[20466] gradual to moderate concave sides with flat to concave base

(20520) compact grey/orange sandy silt with occasional charcoal and iron pan inclusions

(20521) compact red coarse sand with frequent iron pan inclusions

[20522] moderately steep straight to concave sides with concave base

(20683) compact orange/green sandy silt with occasional gravel and moderate charcoal inclusions

(20684) dark grey/brown silty clay with occasional charcoal and moderate gravel and iron pan inclusions

(20685) grey/black sandy silt with occasional gravel inclusions

(20686) grey/brown sandy silt with occasional gravel inclusions

(20687) black sand with frequent charcoal and gravel inclusions

[20688] shallow sides with concave base

F. 20047 a NE-SW segmented linear 3.75 x 0.45-0.80m wide and 0.09-0.18m deep

(20216) firm light to mid brown sandy silt with occasional gravel inclusions [20217] steep sides with flat base

(20418) firm pale to mid brown sandy silt with occasional charcoal and gravel inclusions

[20419] moderate gradual concave sides with concave base

F. 20059 a NW-SE segmented linear 7.05 x 0.22-0.30m wide and 0.07-0.09m deep

(20360) grey sandy silt with occasional charcoal inclusions

[20361] gradual concave sides with concave base

(20689) mid grey clayey silt with occasional gravel inclusions

[20690] gradual concave sides with concave base

(20691) orange/grey clayey silt

[20692] moderate concave sides with concave base

F. 20062 a NW-SE segment of linear 57.50m x 1.60-2.10m wide and 0.41-0.60m deep

(20270) mid brown sandy silt with moderate gravel inclusions and iron pan staining

(20271) grey/brown sandy silt with moderate stone inclusions

[20274] steep sides with concave base

(20278) fine green/brown silty gravel with occasional gravel and moderate iron pan inclusions

(20279) fine grey clayey sand with occasional charcoal and gravel inclusions

(20280) fine grey clayey sand with occasional charcoal and gravel inclusions

(20281) natural gravel re-deposit

(20604) compact red/brown iron pan

(20605) light to mid brown silty sand with occasional gravel and moderate iron pan inclusions

[20282] gradual sides with concave base

- (20321) mid brown sandy silt with moderate gravel and mollusc inclusions
- (20332) mid grey sandy silt with occasional gravel and moderate mollusc inclusions
- [20323] steep sides with concave base
- (20324) mid brown sandy silt with moderate gravel and mollusc inclusions
- (20325) mid brown/grey sandy silt with moderate gravel inclusions
- [20327] steep sides with concave base
- (20328) mid brown sandy silt with moderate gravel and mollusc inclusions
- (20329) orange/brown sandy silt with moderate gravel inclusions
- (20330) mid grey sandy silt with moderate gravel inclusions
- [20331] steep sides with concave base
- (20351) mid brown silty sand with occasional gravel inclusions and moderate iron pan staining
- (20352) mid green/grey/brown silty sand with occasional gravel inclusions
- (20353) coarse mid brown sand with frequent gravel inclusions
- [20354] moderate convex sides with concave base
- (20355) light to mid brown silty sand with occasional gravel inclusions and iron pan staining
- (20356) mid brown silty sand with moderate iron pan inclusions
- (20357) compact mid brown silty sand with moderate gravel inclusions
- (20358) mid to dark clayey sand with occasional gravel inclusions
- [20359] gradual sides with concave base
- (20362) light to mid brown silty sand with occasional gravel inclusions
- (20363) mid brown silty sand with moderate gravel inclusions
- (20364) mid grey clayey silty sand with occasional gravel inclusions
- (20365) moderately compact redeposited gravel
- [20366] gradual sides with concave base
- (20428) firm mid grey/brown sandy silt with occasional to moderate gravel inclusions
- [20429] moderately steep concave sides with concave base
- (20428) firm mid brown/grey clayey sandy silt with frequent gravel inclusions
- (20606) firm brown/grey clayey sandy silt with frequent gravel inclusions
- (20607) firm mid grey clayey silt with frequent gravel inclusions
- [20429] moderately steep concave sides with concave base
- (20503) friable light grey/brown clayey silt with occasional charcoal and moderate gravel inclusions
- (20504) soft yellow/brown/grey clayey silt with occasional gravel inclusions
- (20505) firm grey/orange sandy clay with moderate iron pan inclusions
- (20506) friable grey sandy silt with occasional charcoal and gravel and moderate iron pan inclusions
- (20507) red/orange sand
- (20508) mottled orange/grey sandy clay with moderate iron pan inclusions
- (20509) firm pale green sandy clay with occasional iron pan inclusions
- (20510) yellow/grey sandy clay with occasional organic material
- (20511) friable dark red/grey sandy silt with occasional charcoal and frequent gravel inclusions
- (20512) friable dark brown/grey sandy silt with occasional charcoal and frequent gravel inclusions
- (20513) yellow coarse sand with frequent gravel inclusions
- (20514) grey/black coarse silty sand with organic inclusions
- (20515) bark brown humic material
- (20516) black humic material
- [20517] moderately steep convex sides with flat base

(20636) mid grey/brown sandy silt with occasional gravel inclusions

(20637) mid grey sandy silt with occasional gravel inclusions

[20638] moderately steep sides with concave base

F. 20063 a NE-SW section of linear 39.75m x 0.43-1.80m wide and 0.53-0.80m deep

(20265) mid grey/brown sandy silt with moderate gravel inclusions

(20266) grey/brown sandy silt with moderate gravel inclusions and iron pan staining

(20267) mid grey sandy silt with occasional gravel inclusions

(20268) natural sand and gravel re-deposit

(20272) mid grey sandy silt with occasional gravel inclusions

[20269] steep sides with concave base

(20369) mid grey/brown sandy silt with occasional gravel inclusions

(20370) mid grey sandy silt with occasional gravel and iron pan inclusions

(20371) orange/grey iron pan silt with frequent gravel inclusions

(20372) mid grey slightly sandy silt with frequent gravel inclusions

(20373) brown/grey slightly sandy silt with frequent gravel inclusions

(20374) dark grey slightly sandy silt with organic material and gravel inclusions

[20375] steep to vertical sides and concave base

(20380) compact mid brown silty sand with occasional gravel and frequent iron pan inclusions

(20381) compact blue/grey silty clay with iron pan lenses and occasional gravel inclusions

(20382) compact light yellow/brown silty gravel with gravel inclusions

[20383] moderately steep concave and convex sides with sharp concave base

(20597) mid orange/brown silty sand with occasional charcoal and frequent gravel inclusions

(20598) mottled orange dark grey silty sand with occasional iron pan inclusions

(20599) dark grey silty coarse sand with occasional charcoal and moderate iron pan inclusions

[20600] moderately steep convex sides with flat/uneven base

(20326) mid grey sandy silt with moderate gravel inclusions

[20633] moderately steep straight sides with sharp concave base

(20634) mid grey sandy silt with moderate gravel inclusions

[20635] moderately steep straight sides with sharp concave base

(20639) mid grey sandy silt with frequent gravel inclusions

(20640) re-deposited natural slump

[20641] moderately steep straight sides with sharp concave base

(20649) firm mid brown/grey sandy silt with occasional iron pan and moderate gravel inclusions

(20650) firm mid grey/brown sandy clayey silt with occasional gravel and iron pan inclusions

(20651) firm pale to mid grey sandy clayey silt with occasional iron pan and occasional to moderate gravel inclusions

[20652] moderately steep concave and convex sides with concave base

F. 20066 a NE-SW linear 8.75m x 0.51m wide and 0.12m deep

(20315) loose mid grey/brown sandy silt with occasional gravel inclusions and iron pan staining

[20316] loping concave sides with concave base

(20317) loose mid grey/brown sandy silt with occasional gravel inclusions and iron pan staining

[20318] loping concave sides with concave base

F. 20067 a NE-SW linear 49m x 0.55-1.00m wide and 0.13-0.22m deep (20319) loose mid grey/brown sandy silt with occasional gravel inclusions and iron pan staining [20320] gradual concave sides with concave base (20554) dark brown sandy silt with frequent gravel inclusions [20555] steep sides with concave base (20556) dark brown sandy silt with frequent gravel inclusions [20557] steep sides with concave base (20558) dark brown sandy silt with frequent gravel inclusions [20559] steep sides with concave base (20560) dark brown sandy silt with occasional gravel inclusions [20561] steep sides with concave base F. 20068 a NE-SW linear 77.50m x 0.47-0.85m wide and 0.06-0.33m deep (20345) firm light to mid brown/grey sandy silt with occasional gravel inclusions [20346] gradual concave sides with concave base (20434) friable brownish/grey sandy silt with occasional charcoal and gravel inclusions [20435] moderate concave sides with concave base (20436) friable brownish/grey sandy silt with occasional charcoal and gravel [20437] moderate concave sides with concave base (20467) firm light brown clayey silt (20468) firm orange/brown clayey silty gravel (20469) compact light brown clayey silt [20470] moderate straight sides with flat base (20495) firm light grey clayey silt with occasional iron pan inclusions (20496) firm brown/grey silty gravel [20497] moderately steep concave sides with concave base (20653) compact light brown silty sand (20654) firm light grey/brown clayey silt with occasional gravel inclusions [20655] steep straight sides with concave base (20677) compact light grey/brown sand with occasional gravel inclusions (20678) compact mid orange/brown sand and gravel slump [20679] gentle sloping sides with flat base (20680) compact light grey/brown sand with occasional gravel inclusions (20681) compact mid orange/brown sand and gravel slump [20682] moderate sloping sides with flat base F. 20069 a NE-SW linear 5.50m x 0.55-1.00m wide and 0.11-0.28m deep (20347) firm light to mid brown/grey sandy silt with occasional gravel inclusions

[20348] gradual concave sides with concave base

(20349) firm light to mid brown/grey sandy silt with occasional gravel inclusions [20350] moderate concave sides with concave base (20675) compact mid green/grey sand with occasional gravel inclusions [20676] gradual sides with concave base F. 20070 a NE-SW linear 5.55m x 0.65-0.69m wide and 0.16m deep (20420) firm mid brown/grey sandy silt with occasional charcoal and occasional to moderate gravel inclusions [20421] moderately straight to concave sides with sharp concave base (20422) firm mid brown/grey sandy silt with occasional charcoal and occasional to moderate gravel inclusions [20423] moderate concave sides with concave base F 20071 a NW-SE linear 29.85m x 0.58-0.74m wide and 0.16-0.52m deep (20424) firm pale to mid grey/brown sandy silt with occasional charcoal, gravel and iron pan inclusions [20425] gradual concave sides with concave base (20426) firm pale to mid grey/brown sandy silt with occasional charcoal, gravel and iron pan inclusions (20693) firm orange/brown sandy silt with moderate gravel inclusions [20427] moderately steep convex sides with flat base (20490) firm orange/brown sandy clayey silt [20491] moderately steep straight sides with flattish base (20498) firm light grey clayey silt (20499) orange/brown sandy silty gravel [20500] moderat3ely steep straight sides with flattish base (20694) orange/green/grey fine clayey silt with occasional charcoal and gravel inclusions [20695] moderate straight sides with sharp concave base (20696) orange/blue/grey clayey silt with occasional charcoal and gravel inclusions (20697) grey/orange/brown clayey silt with occasional gravel inclusions (20699) grey/orange/brown clayey silt with frequent gravel inclusions (20700) blue/grey clayey silt with occasional charcoal and gravel inclusions (20701) orange/gravel slump (20702) orange/brown clayey silt with occasional gravel inclusions [20703] moderate to steep convex sides with sharp concave base F. 20072 a NE-SW linear c. 4.00m x 0.55m wide and 0.20m deep (20367) mid grey/brown sandy silt with occasional gravel inclusions [20368] moderate concave sides with concave base a NE-SW linear 22.50m x 0.49-0.76m and 0.13-0.47m deep F. 20073 (20386) firm blue/grey silty clay with occasional gravel inclusions

(20416) friable brown/grey silt with occasional charcoal and gravel inclusions

[20387] steep concave sides with concave base

[20417] moderate concave sides with concave base

(20460) firm blue/grey silty clay with occasional gravel inclusions

[20461] moderate concave sides with concave to flat base

(20488) firm blue grey silty clay with occasional gravel inclusions

[20489] moderately steep concave and convex sides with sharp concave base

(20548) mid grey clayey silt with frequent gravel inclusions

[20544] moderately steep concave and convex sides with concave base

(20622) mid grey clayey silt with occasional charcoal and frequent gravel inclusions

(20623) pale grey silty sand with frequent gravel inclusions

(20624) grey/orange gravel

[20625] moderately steep concave sides with concave base

F. 20075 a NW-SE linear 7.55m x 0.47-0.61m wide and 0.14-0.16m deep

(20438) Firm mid grey sandy silty clay with occasional charcoal, gravel and iron pan inclusions

[20439] moderately shallow with gradual sides and sharp concave base

(20440) firm mid grey/brown sandy silt with occasional charcoal and gravel inclusions

[20441] moderate concave sides with concave base

(20671) firm mid grey/brown sandy silt with occasional charcoal and gravel inclusions

[20672] moderately steep concave sides with concave base

F. 20076 a NW-SE linear 2.65m x 0.60m wide and 0.29m deep

(20442) firm mid grey brown sandy silt with occasional charcoal and gravel inclusions

[20443] moderately steep straight sides with sharp concave base

F. 20077 a NW-SE linear 6.90m x 1.30-1.66m wide and 0.40-0.55m deep

(20444) mid grey/mottled orange/red silty clay with occasional gravel inclusions

(20445) mid blue/grey fine silty clay with occasional gravel inclusions

(20446) grey/blue sandy clay with occasional gravel inclusions

(20447) light grey silty gravel

(20448) mid orange coarse silty sand

[20449] gently gradual convex sides with a flat base

(20594) friable mid yellow/orange/brown silty sand with moderate gravel inclusions

(20595) mottled orange/grey sand with occasional charcoal inclusions

[20596] moderate convex sides with flat base

(20626) yellow/grey/orange sandy silt with occasional gravel and iron pan inclusions

(20627) grey/red sandy clay with occasional gravel and frequent iron pan inclusions

[20628] moderately steep sides with flat base

F. 20079 a NW-SE linear 5.25m x 1.10m wide and 0.60m deep

(20450) mid grey coarse silty sand with occasional gravel and frequent iron pan inclusions

(20451) light grey silty sand with mottled red/brown patches and occasional gravel inclusions

(20452) compact bright orange iron pan

(20453) light grey silty gravel

(20454) firm mid grey clay with occasional charcoal and iron pan inclusions [20455] moderate sides with straight to convex sides and uneven concave base F. 20080 a NW-SE linear 16.00m x 0.74-0.85m wide and 0.15-0.29m deep (20456) firm mid brown sandy silt with occasional gravel inclusions [20457] moderately steep concave sides with concave base (20458) firm mid brown sandy silt with occasional gravel inclusions [20459] gradual straight to concave sides with concave base (20629) orange sandy silt with moderate iron pan inclusions (20631) light grey/brown sandy silt with occasional gravel inclusions (20630) light yellow sandy silt with occasional iron pan inclusions (20669) firm mid grey sandy silt with occasional charcoal and gravel inclusions [20670] gradual concave sides with concave base F. 20081 an E-W linear 22.75m x 0.52-0.66m wide and 0.08-0.13m deep (20486) firm mid grey/brown sandy silt with occasional gravel inclusions [20487] gradual concave sides with concave base (20602) firm mid brown clay silt with occasional iron pan inclusions [20603] gradual concave sides with concave base F. 20082 a NW-SE linear 13.20m x 0.37m wide and 0.24m deep (20430) firm mid brown/grey sandy silt with occasional gravel inclusions [20431] moderately steep concave sides with concave base (20432) firm mid grey/brown sandy silt with occasional charcoal, gravel and iron pan inclusions [20433] steep straight to concave sides with sharp concave base (20492) firm light grey sandy clayey silt [20493] moderately steep concave sides with concave base F. 20101 a NE-SW linear 0.50-0.57m wide and 0.52-0.54m deep (20646) grey clayey sandy silt with moderate gravel inclusions (20647) orange/grey clayey silt with frequent gravel inclusions [20648] moderately steep sides with concave base (20660) orange gravel re-deposit (20661) mid grey sandy clayey silt with occasional gravel inclusions (20662) mid grey sandy clayey silt with moderate gravel inclusions (20663) compact orange gravel re-deposit with small grey silt patches (20664) orange/grey clayey silt with moderate gravel inclusions (20665) grey clayey sandy silt with moderate gravel inclusions [20666] moderately steep sides with concave base a NE-SW linear 5.30m x 0.50-1.08m wide and 0.51-0.53m deep F. 20102 (20642) mid grey clayey silt with occasional charcoal and iron pan and moderate gravel inclusions (20643) mid grey sandy clayey silt with moderate gravel inclusions (20644) orange gravel slump

[20645] moderately steep concave sides with concave base

(20656) mid grey clayey silt with occasional charcoal and iron pan and moderate gravel inclusions (20657) mid grey sandy clayey silt with occasional gravel inclusions (20658) orange gravel slump [20659] moderately steep concave sides with concave base F. 20103 a NW-SE linear 4.00m x 0.25-0.30m wide and 0.40-0.80m deep (20667) loose light to mid green/grey sand with occasional gravel inclusions [20668] truncated sides with concave base F. 20105 a N-S segmented linear 1.60m x 0.30m wide and 0.16m deep (20704) loose mid orange/brown mottled silty sand with occasional gravel inclusions (20705) loose mid grey silty sand with occasional gravel inclusions [20709] moderate to steep convex/straight sides with concave base F. 20111 a NW-SE linear 45m x 1.04m wide and 0.24m deep (20725) firm mid orange/brown/grey sandy silt with occasional charcoal and gravel [20726] moderately steep concave sides with slightly uneven flat base (20733) firm mid orange/brown/grey sandy silt with occasional charcoal and gravel [20734] moderately steep concave sides with slightly uneven flat base F. 20112 a NE-SW linear 3.85m x 0.60m wide and 0.14m deep (20727) firm mid orange/brown/grey sandy silt with occasional charcoal and gravel [20728] gradual concave sides with concave base F. 20113 a NE-SW linear 66.55m x 1.25m wide and 0.33m deep (20729) firm mid grey/brown/orange sandy silt with occasional charcoal and occasional to moderate gravel inclusions [20730] moderately steep concave sides with concave base F. 20114 a NE-SW linear 15.50m x 1.28m wide and 0.24m deep (20731) firm mid grey/brown/orange sandy silt with occasional charcoal and occasional to moderate gravel inclusions [20732] gradual concave sides with concave base F. 20115 a NE-SW linear 71.90m x 1.23m wide and 0.34m deep (20735) firm mid grey/brown/orange sandy silt with occasional gravel and iron pan inclusions [20736] moderately steep concave sides with concave base F. 20120 a NE-SW linear 10.65m x 1.06m wide and 0.21m deep (20746) firm mid grey/brown/orange sandy silt with occasional gravel inclusions

[20747] moderate gradual concave sides and flat base

F. 20121 a NE-SW linear 62.60m x 1.26m wide and 0.20m deep (20748) firm mid grey/brown/orange sandy silt with occasional gravel inclusions [20749] moderately concave sides with uneven flat base a NE-SW linear 64.05m x 1.42m wide and 0.32m deep F. 20122 (20750) firm mid grey/brown/orange sandy silt with occasional gravel inclusions [20751] moderate concave sides with flat base F. 20123 a NW-SE linear 99.25m x 1.40m wide and 0.21m deep (20752) compact mid grey/brown clay with occasional gravel and iron pan inclusions [20753] moderate sloping sides with flat base F. 20124 a NE-SW linear 18.50m x 0.42-0.71m wide and 0.14-0.42m deep (20754) compact mid grey/brown clay with occasional gravel and moderate iron pan inclusions [20755] steep sides with flat base (20766) firm mid brown/grey sandy silt with occasional gravel inclusions [20767] gradual sloping concave sides with flat to concave base F. 20125 a NW-SE linear 26.00m x 0.72-0.77m wide and 0.33-0.38m deep (20756) firm friable light grey/orange sandy silt with occasional charcoal and moderate gravel inclusions (20757) friable brown/orange/light grey sandy silt with frequent gravel inclusions [20758] steep straight to convex sides with concave base (20768) pale to mid grey/brown sandy silt with occasional charcoal and gravel inclusions [20769] moderately steep straight sides with sharp concave base F. 20129 a NW-SE linear 59.00m x 1.00-1.55mm wide and 0.36-0.48m deep (20770) firm light brown clayey silt with occasional gravel and iron pan inclusions (20771) firm mid grey silty clay with occasional gravel and iron pan inclusions [20772] moderately steep convex sides with flat base (20780) friable mid brown sandy silt with occasional gravel and frequent iron pan inclusions (20781) friable light brown grey sandy silt with occasional gravel inclusions (20782) light grey/brown silty sand with occasional gravel inclusions (20783) friable mid grey/brown silt with moderate gravel inclusions [20784] moderately steep straight sides with concave base (20790) friable mid brown sandy silt with occasional charcoal, gravel and iron pan inclusions (20791) friable mid grey sandy silt with occasional charcoal and gravel inclusions [20792] moderately steep concave sides with flat base (20793) friable mid grey/brown sandy silt occasional gravel and moderate iron pan (20794) friable mid grey/brown clayey silt with moderate gravel and iron pan inclusions (20795) friable dark grey/brown sandy silt with occasional charcoal and gravel

[20796] moderately steep straight to concave sides with concave base

(20797) firm light brown/grey silty clay with occasional gravel and iron pan inclusions

(20798) firm mid grey silty clay with occasional gravel and iron pan inclusions

[20799] moderately steep convex sides with flat base

(20802) firm mid brown/grey silty clay with occasional charcoal and moderate gravel inclusions

[20803] moderately steep convex sides with flat base

F. 20130 a NE-SW linear 26.00m x 0.46-1.24m wide and 0.19-0.32m deep

(20773) firm light brown/grey silty clay with occasional gravel and iron pan inclusions

[20774] moderately sloping sides with flat base

(20811) firm mid grey/brown silty sand with occasional charcoal and frequent gravel inclusions

[20812] gradual sloping concave sides with concave base

(20813) firm mid grey/brown/reddish silty clay with frequent charcoal and gravel inclusions

[20814] moderately steep concave sides with uneven to flat base

(20853) firm to loose mid brown/grey sandy silt with occasional to moderate gravel inclusions

[20854] moderately steep concave sides with concave base

(20900) pale yellow/orange sand with occasional gravel and moderate iron pan inclusions

(20901) soft mid grey/brown sandy silt with occasional gravel inclusions [20902] steep straight sides with flat base

(20903) mid brown/grey clayey silt with occasional gravel inclusions

(20904) soft mid grey/brown sandy silt with occasional gravel inclusions

[20905] steep straight sides with flat base

F. 20132/20160 a NE-SW linear 27.90m x 0.41-1.12m wide and 0.20-0.31m deep

(20777) friable mid brown sandy silt with occasional gravel and frequent iron pan inclusions

(20778) friable light brown grey sandy silt with occasional gravel inclusions [20770] moderately steep straight sides with concave base

(20800) soft mid brown/grey sandy clayey silt with moderate charcoal and gravel inclusions

[20801] moderately steep straight sides with flat base

(20804) soft mid brown/grey sandy clayey silt with moderate charcoal and gravel inclusions

[20805] moderately steep straight sides with flat base

(21018) loose mid brown/grey sandy clay with moderate charcoal and frequent gravel inclusions

[21019] shallow moderately concave sides with flat base

(21020) loose mid brown/grey sandy clay with moderate charcoal and frequent gravel inclusions

[21021] shallow moderately concave sides with flat base

(21058) friable mid grey silt with occasional gravel and moderate iron pan inclusions [21059] moderately steep concave sides and flat base

(21086) firm mid grey/brown silty clay with occasional charcoal and gravel inclusions

[21087] moderate sloping concave sides with flat base

F. 20133 a NW-SE linear 10.00m x 0.82-0.89m wide and 0.18-0.26m deep

(20785) firm mid to dark grey/brown sandy silt with occasional charcoal and gravel inclusions

(20786) firm pale grey/brown sandy silt with occasional gravel inclusions

[20789] moderately steep concave sides with concave base

(20827) firm mid to dark grey/brown sandy silt with occasional charcoal, gravel and iron pan inclusions

[20828] gradual sloping concave sides with flat to concave base

F. 20134 a NW-SE linear 39.00m x 0.40-0.90m wide and 0.11-0.22m deep

(20787) firm pale brown/grey sandy silt with occasional gravel inclusions

[20788] gradual sloping concave sides with concave base

(20829) firm pale brown/grey sandy silt with occasional gravel and iron pan inclusions

[20830] gradual sloping concave sides with concave base

(20831) firm pale brown/grey sandy silt with occasional gravel and iron pan inclusions

[20832] gradual sloping concave sides with flat to concave base

(20833) firm mid brown/grey sandy silt with occasional gravel and iron pan inclusions

[20834] gradual sloping straight to concave sides with rounded concave base

(20851) firm pale to mid grey/brown sandy silt with occasional charcoal and gravel inclusions

[20852] gradual sloping concave sides with flat to concave base

(21100) firm mid brown/grey clay silt with occasional gravel inclusions

[21101] moderately sloping concave sides with flat to concave base

F. 20141 a NW-SE linear 18.50m x 0.42-0.90m wide and 0.22-0.29m deep

(20872) firm mid brown sandy silt with occasional charcoal and gravel inclusions

(20873) firm orange/brown re-deposited natural

(20874) firm mid brown sandy silt with occasional charcoal and gravel inclusions

(20875) firm mid grey/brown sandy silt with occasional gravel and moderate charcoal inclusions

[20876] moderately steep convex sides with uneven flat base

(20893) firm mid grey sandy silt with occasional gravel and iron pan inclusions

(20894) firm mid brown/orange sandy silt with moderate gravel inclusions

[20895] moderately steep concave and convex sides with concave base

(20896) firm mid grey sandy silt with occasional gravel inclusions

[20897] moderately steep concave and convex sides with sharp concave base

(21050) firm mid brown/grey sandy silt with occasional gravel inclusions

[21051] moderate convex sides with flat base

F. 20142 a NW-SE segmented linear 3.30m x 0.2-0.33m wide and 0.08-0.14m deep

and iron pan inclusions [20878] gradual sloping straight sides with concave base (20879) compact mid grey/brown sandy clay silt with occasional charcoal, gravel and iron pan inclusions [20880] shallow straight sides with concave base F. 20145 a NW-SE segmented linear 1.63m x 0.24m wide and 0.05m deep (20885) compact mid brown/grey sandy clayey silt with occasional charcoal, gravel and iron pan inclusions [20886] shallow straight sides with concave base F. 20148 a NW-SE segmented linear 1.00m x 0.30m wide and 0.08m deep (20891) mid grey/brown sandy clayey silt with occasional charcoal, gravel and iron pan inclusions [20892] shallow straight sides with concave base F. 20151 a NW-SE and NE-SW linear 31.00m x 0.20-0.35m wide and 0.07-0.19m deep (20941) firm mid grey sandy silt with occasional gravel inclusions [20942] moderate to steep straight to concave sides with sharp concave base (20945) firm mid grey sandy silt with occasional gravel inclusions [20946] moderate concave sides with sharp concave base (20947) firm mid grey sandy silt with occasional gravel inclusions [20948] moderate concave sides with concave base (20949) firm mid grey sandy silt with occasional gravel inclusions [20950] gradual sloping concave sides with concave base (21084) firm mid grey sandy silt with frequent gravel inclusions [21085] gradual sloping convex sides with flat base (21122) loose mid grey sandy silt [21123] shallow moderately steep sloping sides with flat base (21129) soft mid brown silt with occasional gravel inclusions [21130] steep straight to concave sides with concave base (21133) soft mid brown silt with occasional gravel inclusions [21134] steep concave sides with sharp concave base (21139) soft mid brown silt with occasional gravel inclusions [21140] steep concave sides with concave base F. 20155 a NW-SE linear 4.70m x 0.95m wide and 0.20m deep (20996) not recorded (20997) not recorded [20998] moderately steep straight sides with flat base F. 20156 a NW-SE linear 13.50m x 2.72m wide and 0.57-0.63m deep (20999) compact dark grey/black clay with occasional gravel inclusions (21000) not recorded

(20877) compact mid grey/brown sandy clayey silt with occasional charcoal, gravel

(21002) friable pale grey sandy silt with occasional gravel and frequent iron pan inclusions

(21003) friable mid grey silty sand with occasional charcoal and moderate gravel inclusions

[21004] moderately steep uneven convex sides with uneven concave base

(21005) fine mid grey silty clay with occasional iron pan and moderate gravel inclusions

(21006) friable pale grey silty sand and brown sand with occasional charcoal and iron pan and frequent gravel inclusions

[21010] moderately steep uneven convex sides with uneven concave base

F. 20158 a NE-SW linear 5.85m x 0.80-1.07m wide and 0.21-0.24m deep

(21013) firm mid grey sandy silt and dark brown sandy clay with occasional iron pan inclusions

[21014] moderately sloping straight to concave sides with flat base

(21096) firm mid grey sandy silt with occasional gravel and iron pan inclusions

[21097] gradual sloping convex sides with uneven concave base

(21127) moderately compact mid grey sandy silt with occasional gravel and iron pan inclusions

[21128] gradual sloping convex sides with flat base

F. 20159 a NE-SW and NW-SE linear 23.20m x 0.41-0.70m wide and 0.18-0.49m deep

(21015) firm dark grey sandy silt with occasional charcoal and gravel inclusions (21016) firm mid grey/light brown silty gravel

(21029) soft dark brown/grey silty clay with frequent charcoal and gravel inclusions [21030] moderate straight to concave sides with flat base

(21031) friable mid grey and red/brown sandy silt with occasional white and dark grey silt with occasional gravel and moderate charcoal inclusions

(21032) friable light grey/brown sandy silt with occasional gravel inclusions

(21033) friable pale grey and red/brown silty sand with moderate gravel inclusions

(21034/21035) friable red/brown and pale yellow sand with occasional gravel inclusions

[21036] moderately steep concave and convex sides with flat base

(21052) firm mid yellow/brown/grey sandy clayey silt with frequent gravel inclusions

[21053] steep straight sides with concave base

(21060) friable mid grey brown clayey silt occasional gravel and moderate iron pan inclusions

(21061) soft mid grey clayey silt with occasional gravel and iron pan inclusions

(21062) friable mid grey sandy silt with occasional gravel and frequent iron pan inclusions

(21063) friable mid grey sand with occasional gravel inclusions

[21064] moderately steep straight sides with uneven flat base

(21065) soft dark grey clayey silt with occasional gravel and moderate charcoal and iron pan inclusions

(21066) soft dark grey clayey silt and pale grey/mid yellow sandy silt with occasional gravel and moderate charcoal and iron pan inclusions

(21067) soft mid grey/brown clayey silt with occasional gravel inclusions

(21068) soft pale grey/brown sandy clay with occasional gravel inclusions

(21069) soft pale grey/brown sandy clay with occasional charcoal and gravel inclusions

(21088) firm dark grey/black sandy silt with occasional gravel and moderate charcoal inclusions

(21089) firm mid grey/brown sandy silt with occasional charcoal and moderate gravel inclusions

[21090] moderate to steep convex to straight sides and flat base

### F. 20163 a NW-SE linear 12.00m x 0.58-1.27m wide and 0.20-0.45m deep

(21024) soft mid grey/brown and orange/brown sandy silty clay with frequent gravel inclusions

(21022) soft dark brown/grey/black silty clay with moderate gravel and frequent charcoal inclusions

[21025] moderately straight to concave sides with flat base

(21037) compact mid brown/grey silty clay with occasional charcoal and moderate gravel inclusions

[21038] moderately steep straight to concave sides with concave base

(21091) firm brown/grey/orange sandy silt with occasional charcoal and gravel inclusions

(21092) firm pale to mid grey sandy silt with occasional charcoal and occasional to moderate gravel inclusions

[21093] moderate sloping concave sides with flat base

# F. 20165 an NE-SW and NW-SE C shaped linear 43.75m x 0.48-1.16m wide and 0.23-0.47m deep

(21043) firm mid grey sandy silt with occasional iron pan and moderate gravel inclusions

[21044] steep convex sides with flat base

(21048) firm mid grey sandy silt with occasional gravel inclusions

[21049] steep vertical convex sides with flat base

(21080) firm grey/brown sandy silt with occasional gravel inclusions

(21082) firm mid grey silty clay with occasional gravel inclusions

[21081] steep convex sides with flat base

(21119) firm mid grey/brown sandy silt with occasional charcoal and frequent gravel inclusions

(21120) loose mid grey silty sand with occasional gravel inclusions

[21121] steep to vertical/concave sides with concave base

(21119) moderately compact mid grey/brown sandy silt with occasional charcoal and frequent gravel inclusions

(21120) loose mid grey silty sand with occasional gravel inclusions

[21121] steep near vertical to concave sides with concave base

(21124) moderately compact mid grey/brown silty sand with occasional charcoal and moderate gravel inclusions

(21125) moderately compact mid grey/red/orange/brown silty sand with occasional charcoal and frequent gravel inclusions

[21126] moderately steep straight sides with sharp concave base

(21135) soft mid grey/brown clayey silt and mid orange sand with occasional

charcoal, gravel and iron pan inclusions

(21136) soft mid mottled grey/brown sandy silt with occasional gravel inclusions (21137) soft friable mid grey/brown silty sand and mid yellow/orange sand with occasional gravel inclusions

[21138] steep concave sides and concave base

(21141) soft mid grey/brown clayey silt and mid orange sand with occasional charcoal, gravel and iron pan inclusions

(21142) soft mid mottled grey/brown sandy silt with occasional gravel inclusions (21143) soft friable mid grey/brown silty sand and mid yellow/orange sand with occasional gravel inclusions

[21144] moderately steep concave sides and concave base

F. 20172 a NW-SE linear 1.15m x 0.30m wide and 0.03m deep

(21094) loose mid grey sandy silt with frequent gravel inclusions [21095] gradual sloping convex sides with flat base

#### Pits and Postholes

F. 20042

F. 20006	(20015) firm dark grey/brown sandy silt with occasional flecks of charcoal (20016) light grey sandy silt with occasional gravel inclusions (20017) compact orange/brown silty sand with frequent gravel and iron pan inclusions [20018] an oval pit 1.66m x 0.88m and 0.38m deep with steep sides and concave base
F. 20007	(20031) firm mid grey/orange sandy silt (20032) friable mid orange/brown sandy silt with frequent gravel inclusions [20033] oval pit 1.35m x 0.89m and 0.29m deep with steep sides and flat base
F. 20025	(20088) firm mottled orange/purple/brown sandy silt [20089] oval pit with moderate sides with concave base
F. 20027	(20094) firm mid brown silty sand with moderate gravel inclusions [20095] rounded rectangular pit (within F. 20026) 0.99m x 0.62m and 0.16m deep with moderately straight sides and flat base
F. 20034	(20143) firm dark grey sandy silt with frequent charcoal inclusions [20144] oval pit $0.75 \mathrm{m} \times 0.60 \mathrm{m}$ and $0.15 \mathrm{m}$ deep with moderate to steep sides and flat base
F. 20036	(20153/20157/20167/20168) firm mottled mid brown/orange/grey sandy silt with occasional charcoal and frequent gravel inclusions (20154/20158/20169/20170) soft dark grey/black silt with frequent charcoal, cremated bone and ash inclusions (20155/20159/20171/20172) friable mid orange/yellow sandy gravel (20156/20160/20174/20173) soft mid grey/black silt with frequent cremated bone and charcoal inclusions (20175) soft grey/black silt with frequent cremated bone and charcoal inclusions [20161] sub-oval pit 0.96m x 0.87m and 0.59m deep with steep straight to concave sides and flat to concave base
F. 20040	(20384) firm greenish/grey sandy silt [20385] circular pit $3.50 \mathrm{m} \times 3.00 \mathrm{m}$ and $0.20 \mathrm{m}$ deep with moderately steep concave sides and flattish base
F. 20041	(20214) firm dark grey/brown sandy silt with occasional gravel inclusions [20215] sub-circular pit 1.20m x 0.90m and 0.15m deep with steep sides and flat base
E 20042	(20255)

(20255) compact mottled light brown/grey/orange sandy silt with occasional charcoal

charcoal inclusions (20258) firm mottled brown/grey/orange sandy silt with occasional gravel and charcoal inclusions (20724) firm dark grey/black sandy silt with frequent charcoal inclusions (20259) orange/red/brown gravely silt with mid brown/grey sandy silt and occasional charcoal inclusions (20260) firm mid to dark brown/grey sandy silt with occasional to moderate charcoal and occasional gravel inclusions (20275) compact orange/brown gravely silt (20261) firm yellow/brown/grey sandy silt with occasional charcoal and gravel (20262) friable black silt with frequent charcoal and burnt bone inclusions (20263) friable white/grey ashy silt with frequent burnt bone (20276) firm light to mid green/grey/brown sandy silt with occasional charcoal and moderate gravel inclusions (20277) mid grey/orange/brown gravely clay/silt with occasional charcoal inclusions (20283) friable dark brown/black silt with occasional gravel and organic remains [20284] sub-oval pit 2.63m x 3.60m and 0.79m deep with moderate concave and convex sides and concave base F. 20046 (20210) firm light mottled grey/brown/orange sandy clay with occasional gravel and charcoal inclusions (20211) firm mottled mid grey/brown sandy clay with frequent charcoal inclusions and concentration of burnt bone and clay (20212) firm mottled light grey/brown/orange sandy clay with occasional gravel and charcoal inclusions (20221) firm mid grey sandy clay with occasional charcoal and degraded clay inclusions [20213] sub-oval pit 1.65m x 0.75m with steep concave sides and concave base F. 20048 (20222) firm grey/brown sandy silt with occasional gravel inclusions [20223] circular posthole 0.35m x 0.35m and 0.12m deep with steep sides and concave base F. 20049 (20024) firm mid brown sandy silt with moderate gravel inclusions [20025] circular posthole 0.35m x 0.30m and 0.10m deep with steep sides and concave base F.20050 (20026) firm mid brown sandy silt with occasional gravel and moderate charcoal inclusions [20027] circular posthole 0.40m x 0.35m and 0.15m deep with steep sides and concave base F. 20051 (20228) firm mid orange/grey sandy silt with occasional gravel inclusions [20229] sub-circular pit 3.25m x 3.35m wide and 0.33m deep with gradual concave sides and concave to flat base F. 20052 (20230) compact mid orange/brown sandy silt with moderate gravel inclusions [20231] sub-circular pit 0.65m x 0.50m and 0.13m deep with gradual sides and concave base F. 20053 (20232) compact mid orange/brown sandy silt with moderate gravel inclusions [20233] circular pit 0.32m x 0.30m and 0.11m deep with moderate sides and flat to F. 20054 (20234) firm mid orange/grey sandy silt with occasional gravel inclusions [20235] circular pit 1.10m x 1.00m and 0.12m deep with gradual sides and flat base F. 20055 (20236) firm mid orange/grey sandy silt with moderate gravel inclusions

(20256) firm mid to dark grey sandy silt with occasional burnt stone and moderate

and moderate gravel inclusions

[20237] circular pit 0.66m x 0.20m+ and 0.15m deep with gradual sides and concave base

F. 20056 (20238) firm bark brown sandy silt with occasional gravel and moderate charcoal inclusions

[20239] circular posthole  $0.35m \times 0.35m$  and 0.06m deep with steep sides and concave base

F. 20057 (20240) firm dark brown sandy silt with occasional gravel, burnt bone and moderate charcoal inclusions

(20241) firm light brown sandy silt with occasional charcoal and gravel inclusions (20242) natural gravel deposit

[20243] sub-rectangular pit 1.10m x 0.90m and 0.30m deep with vertical sides and flat base

F. 20058 (20285) firm mid brown silty sand with occasional charcoal and moderate gravel inclusions

(20286) firm brown/grey silty sand with occasional gravel and moderate charcoal and iron pan inclusions

(20287) firm grey sandy silt with occasional charcoal, iron pan and moderate gravel inclusions

(20244) firm grey/black sandy clay with moderate gravel and charcoal inclusions

(20245) loose red brown silt with occasional organic inclusions

(20294) firm mid yellow/grey clay with occasional charcoal and moderate gravel inclusions

(20341) loose red/orange sand with frequent iron pan staining

(20342) firm mottled orange/grey clayey sand with occasional gravel inclusions

(20343) loose red/orange sand with frequent iron pan staining

(20288) firm mid grey sandy clay with moderate gravel inclusions and iron pan staining

(20254) moist dark brown/black clayey silt with frequent organic inclusions

(20289) firm mid yellow/orange sand with occasional gravel inclusions

(20264) moist dark blue/black clay with frequent organic inclusions

(20290) moist mottled grey/orange/yellow sandy clay

(20291) soft dark grey/black clay with moderate iron staining

(20292) redeposited natural?

(20293) soft mottled grey/orange sandy clay with organic inclusions

(20333) yellow coarse sand with frequent gravel inclusions

(20334) yellow/orange coarse sand with moderate gravel inclusions

(20335) mid yellow/grey sandy clay with occasional gravel inclusions

(20336) mid orange/yellow sand

(20337) soft grey sandy clay with occasional gravel inclusions and moderate iron pan staining

(20338) mid yellow/orange sand

(20339) soft yellow/grey sand with moderate gravel inclusions

(20340) mid orange/red sand

[20344] circular pit 3.30m x 3.42m and 1.16m deep with moderate to steep sides and flat base

F. 20060 (20246) firm mid grey/brown sandy silt with occasional gravel inclusions

[20247] sub-circular pit 1.47m x 1.40m and 0.31m deep with steep sides and flat base

F. 20061 (20248) firm mid brown sandy silt with occasional gravel inclusions

(20249) orange gravel with iron pan

(20250) mid grey sandy silt with occasional gravel inclusions

(20251) orange gravel with occasional iron pan inclusions

(20252) pale grey sandy silt with occasional gravel inclusions

[20253] circular pit 1.40m x 1.40m and 0.56m deep with steep sides and concave

base

#### F. 20064

(20297) mid orange/grey sandy silt with occasional charcoal and gravel inclusions

(20298) mid orange grey sandy silt with frequent gravel and iron pan inclusions

(20299) compact mid orange/grey clayey silt with occasional charcoal and moderate gravel inclusions

(20300) mid orange/grey sandy silt with occasional charcoal, iron pan and moderate gravel inclusions

(20301) mid orange/grey sandy clay with occasional charcoal and gravel inclusions

(20302) dark grey clayey silt

(20303) pale grey/orange sand with frequent gravel inclusions

(20304) mid grey silty sand with frequent organic inclusions

(20305) pale grey/orange re-deposited gravel

[20306] sub-oval pit  $1.63 \text{m} \times 2.10 \text{m}$  and 0.81 m deep with steep gradual sides with flat base

#### F. 20065

(20307) orange re-deposited sandy gravel

(20308) compact mid orange/brown sandy silt with frequent gravel and iron pan inclusions

(20309) orange re-deposited gravely sand

(20310) mid orange/grey clayey silt with occasional charcoal and gravel inclusions

(20311) compact re-deposited orange sand

(20312) compact dark grey clay with frequent organic inclusions

(20313) compact mid brown sand

(20376) compact orange re-deposited sand

(20377) mid grey silty sand with frequent organic inclusions

(20378) Pale grey/orange re-deposited sand and gravel

[20314] sub-oval pit 4.10m x 3.30m and 1.16m deep with steep convex sides with flat base

#### F. 20074

(20388) firm light grey/orange sandy gravely silt

(20389) firm orange/grey gravely sandy silt with occasional charcoal inclusions

(20390) firm orange/brown sandy gravel

(20391) firm light to mid grey silty clay with occasional patches brown sandy gravel

(20392) compact orange/brown sandy gravel with occasional patches of firm light grey silty clay

(20393) compact light grey silty clayey gravel with occasional charcoal inclusions

(20394) compact light grey silty clayey gravel with occasional charcoal inclusions

(20395) light to mid grey sandy gravely silt

(20396) compact mid grey silty clay with occasional gravel inclusions

(20397) firm mid to dark grey sandy gravely silt

(20398) bright brown/orange silty sand

(20399) firm light to mid grey silty clay with occasional gravel inclusions

(20400) compact dark brown silt with frequent organic material and occasional gravel inclusions

(20402) firm green/yellow/orange/grey silty sandy gravel

(20401) orange/grey silty sandy clay with occasional gravel inclusions

(20403) compact green/blue/orange/light brown silty sand

(20404) compact light grey silty sand

(20405) bright brown/orange silty sand

(20406) firm light grey/brown sandy silt

(20407) light to mid grey sandy gravely silt

(20408) firm green/yellow/orange/grev silty sandy gravel

(20409) compact light brown sandy gravel

[20410] circular pit 3.78m x 3,70m and 1.21m deep with moderately steep uneven concave sides and concave base, steep sides drop in centre

# F. 20078

(20525) light to mid brown/grey silty sand with orange mottled patches and moderate

gravel inclusions

(20476) compact orange re-deposited natural with frequent grey/orange silty sand and occasional gravel inclusions

(20475) mid grey silty clay with moderate iron pan inclusions

(20479) firm light to mid grey silty clay with occasional gravel inclusions

(20526) light grey silt clay with frequent gravel inclusions

(20527) light to mid grey/orange silty clay with occasional black organic and moderate gravel inclusions

(20480) dark grey clay with frequent organic and occasional gravel inclusions

(20474) light to mid mottled yellow/grey silty sand with moderate gravel inclusions

(20494) black very rich organic silty clay

(20483) light green/grey silty sand with moderate gravel inclusions

(20530) fine yellow sand with occasional orange mottling

(20531) mid grey silty sand with occasional gravel inclusions

(20532) mid orange silty sand with

(20533) light grey/yellow coarse silty sand with occasional gravel inclusions

(20534) dark grey clayey silt with frequent gravel inclusions

(20538) light orange/yellow coarse silty sand with occasional gravel and iron pan inclusions

(20482) dark blue/grey clayey silt with frequent gravel inclusions

(20535) mid grey coarse clayey silt with moderate gravel and frequent iron pan inclusions

(20536) light yellow/grey silty sand with moderate gravel inclusions

(20537) mid grey coarse sand with moderate gravel inclusions

(20528) light to mid grey silty clay with occasional iron pan and moderate gravel inclusions

(20484) mid grey/brown sandy silt with occasional gravel inclusions

(20471) light yellow/grey silty sand with moderate gravel and iron pan inclusions

(20473) compact dark brown/red iron pan

(20477) light to mid grey silty sand and mottled orange patches with moderate gravel inclusions

(20478) dark grey/black silty clay with frequent organic material and moderate gravel inclusions

[20485] sub-oval pit 4.00+m x 6.50m wide and 1.30m deep with steep convex sides and uneven concave base

F. 20085 (20523) firm orange/grey clayey silt

[20524] a circular pit  $0.95 \,\mathrm{m} \times 0.83 \,\mathrm{m}$  and  $0.18 \,\mathrm{m}$  deep with gradual concave sides and concave base

F. 20086 (20539) firm orange/grey clayey silt

(20540) firm grey/orange/brown sandy clayey silt

(20541) firm grey/orange/brown sandy silty fine gravel

[20542] a sub-circular pit 1.20m x 1.25m and 0.37m deep with moderately steep concave sides and concave base

F. 20087 (20545) firm light blue/grey clayey silt

[20546] a sub-circular pit with moderately steep straight sides and uneven flat base

F. 20088 (20547) firm grey/orange/brown clayey silt

(20548) compact orange/brown sandy silt with moderate iron pan inclusions

[20549] a sub-circular pit with steep straight sides and concave base

F. 20089 (20550) firm light grey clayey silt

[20551] a sub-circular pit with moderately steep straight sides and uneven flat base

F. 20090 (20552) firm mid brown/grey clayey silt

[20553] a sub-circular pit with gradual concave sides and concave base

F. 20091 (20564) grey/brown sandy silt with occasional gravel inclusions

	(20565) mid grey/brown sandy silt with moderate gravel inclusions (20566) mid orange/brown sandy silt with moderate gravel inclusions (20567) mid orange/brown sandy silt with occasional gravel inclusions (20568) brown/orange silty sand with moderate gravel inclusions (20569) grey/brown sandy silt with occasional gravel inclusions (20570) grey/brown sandy silt with gravel trickles (20571) grey/brown silty sand with occasional gravel inclusions (20572) orange/brown silty sand with moderate gravel inclusions (20573) orange iron pan deposit (20574) brown/grey sandy silt with occasional gravel inclusions (20575) orange/brown gravel silt (20576) orange/grey sandy silt with moderate gravel inclusions (20577) brown/grey sandy silt with occasional gravel inclusions (20577) brown/grey slightly sandy silt with occasional gravel inclusions (20579) dark brown slightly sandy silt with occasional gravel inclusions (20579) dark grey/brown slightly sandy silt with occasional gravel inclusions (20581) pale brown sand with gravel slump (20582) mid brown sandy silt (20583) mid brown sandy silt with occasional gravel inclusions (20586) dark grey gravel (20585) mid brown sandy silt with occasional gravel inclusions (20587) dark grey sandy silt with occasional organic and gravel inclusions (20587) dark grey sandy silt with occasional organic and gravel inclusions (20589) brown/orange gravel slump (20590) light grey gravel (20591) dark brown gravel slump (20592) green/grey stained gravel [20593] an oval pit 4.40m x 2.40m and 1.05m deep with steep to vertical sides to north and more gradual to south with concave base
F. 20092	(20562) grey/orange/brown silty clay [20563] small circular pit $0.60 \text{m} \times 0.60 \text{m}$ and $0.14 \text{m}$ deep with steep sides and concave base
F. 20093	(20608) firm pale grey/brown sandy silt with occasional gravel inclusions [20609] a circular posthole $0.35 \mathrm{m} \times 0.36 \mathrm{m}$ and $0.11 \mathrm{m}$ deep with moderate concave sides and concave base
F. 20094	(20610) firm pale grey/brown sandy silt with occasional gravel inclusions [20611] a sub-oval posthole $0.45 \mathrm{m} \times 0.34 \mathrm{m}$ and $0.09 \mathrm{m}$ deep with gradual concave sides and concave base
F. 20095	(20610) firm pale grey/brown sandy silt with occasional gravel inclusions [20612] a sub-oval posthole $0.45 \mathrm{m} \times 0.34 \mathrm{m}$ and $0.09 \mathrm{m}$ deep with gradual concave sides and concave base
F. 20096	(20613) firm pale grey/brown sandy silt with occasional gravel inclusions [20614] a circular posthole $0.37m \times 0.31m$ and $0.15m$ deep with steep concave sides and concave base
F. 20097	(20615) firm pale grey/brown sandy silt with occasional to moderate gravel inclusions [20616] a sub-oval posthole $0.30  \mathrm{m} \times 0.45  \mathrm{m}$ and $0.12  \mathrm{m}$ deep with gradual concave sides and flat to concave base
F. 20098	(20615) firm pale grey/brown sandy silt with occasional to moderate gravel inclusions [20617] a sub-circular posthole 0.28m x 0.30m and 0119m deep with moderately steep concave sides and flat to concave base

F. 20099	(20618) firm pale grey/brown sandy silt with occasional gravel inclusions [20619] a circular posthole $0.20m \times 0.20m$ and $0.12m$ deep with steep straight to concave sides and concave base
F. 20100	(20620) firm pale grey/brown sandy silt with occasional gravel inclusions [20621] a circular posthole $0.29m \times 0.35m$ and $0.12m$ deep with steep straight to concave side and concave base
F. 20104	(20704) loose mid orange/brown mottled silty sand with occasional gravel inclusions (20705) loose mid grey silty sand with occasional gravel inclusions (20706) loose grey silty gravel [20707] a circular pit 0.80m x 0.80m and 0.30m deep with moderate concave sides with concave base
F. 20106	(20710) loose mid grey silty sand with occasional gravel and iron pan inclusions (20711) firm mid brown/orange silty gravel with iron pan inclusions [20712] a circular pit 0.50m x 0.50m and 0.16m deep with moderate sides and concave base
F. 20107	(20715) mid yellow/grey fine mottled silty sand with occasional gravel inclusions [20716] a sub-circular pit $0.55 \mathrm{m} \times 0.75 \mathrm{m}$ and $0.19 \mathrm{m}$ deep with moderate concave sides and concave base
F. 20108	(20719) light grey/blue fine silt with orange mottling (20720) light to mid orange/brown silty sand with occasional gravel inclusions (20721) & (20722) firm mid brown/orange silty gravel with iron pan inclusions [20723] a sub-oval pit 1.80m x 1.45m and 0.53m deep with moderate concave sides and flat base
F. 20109	(20717) mid brown/grey silty sand with occasional gravel and iron pan inclusions [20718] a sub-oval pit $2.75 \mathrm{m}$ x $1.60 \mathrm{m}$ and $0.15 \mathrm{m}$ deep with shallow convex sides and uneven/flat base
F. 20116	(20737) firm brown/grey sandy silt with occasional gravel inclusions [20738] an oval posthole $0.30 \text{m} \times 0.24 \text{m}$ and $0.15 \text{m}$ deep with steep straight sides and concave base
F. 20117	(20739) soft to firm brown/grey sandy silt with occasional gravel inclusions [20740] a circular posthole $0.35 \mathrm{m} \times 0.32 \mathrm{m}$ and $0.18 \mathrm{m}$ deep with vertical straight to concave sides with concave base
F. 20118	(20741) soft to firm brown/grey sandy silt with occasional gravel inclusions [20742] a circular posthole $0.30 \mathrm{m} \times 0.25 \mathrm{m}$ and $0.15 \mathrm{m}$ deep with steep straight sides and concave base
F. 20119	(20743) soft to firm brown/grey sandy silt with occasional gravel inclusions (20744) soft brown sandy silt with frequent organic and occasional gravel inclusions [20745] a circular posthole 0.45m x 0.44m and 0.50m deep with vertical straight sides and tapered base
F. 20126	(20759) firm light grey/orange silty clay with occasional gravel and iron pan and moderate charcoal inclusions [20760] oval pit 0.65m x 0.5m and 0.08m deep with gradual sides and flat base
F. 20127	(20761) friable mid yellow sand with occasional gravel and frequent iron pan Inclusions (20762) friable mid brown sandy silt with occasional gravel and iron pan inclusions [20763] circular pit 0.77m x 0.75m and 0.20m deep with vertical straight sides with flat/slightly concave base

F. 20128 (20764) soft mid grey/brown sandy silt with occasional gravel inclusions [20765] oval pit 0.74m x 0.35m and 0.10m deep with steep straight sides and concave base

F. 20131 (20775) friable mid brown silt with occasional gravel and iron pan inclusions [20776] an oval pit 1.10m x 0.70m and 0.16m deep with concave sides and flat base

F. 20137 (20824) firm mid grey/red/brown clayey silt with occasional charcoal and gravel inclusions

(20825) firm mid grey/brown clayey silt with occasional charcoal and gravel inclusions

[20826] a circular pit 1.60m x 1.58m and 0.27m deep with gradual sloping uneven concave sides and concave base

F. 20138 (20806/20840) firm pale to mid brown sandy clayey silt with occasional gravel inclusions

(20807/20841) firm greasy mid brown/grey and orange/brown mottling sandy silt with occasional to moderate gravel inclusions

(20808/20842) firm mid brown/grey sandy silt with occasional charcoal and iron pan and moderate gravel inclusions

(20843) friable pale yellow/grey/brown silty sand with moderate gravel inclusions (20809/20844) firm greasy pale brown/grey with frequent rusty orange mottling silty sand with occasional patches grey sandy clay with occasional iron pan and moderate gravel inclusions and includes a fine yellow/orange stained sand/grit lens

(20810) firm to friable pale grey silty sand with frequent gravel inclusions

(20847) firm pale to mid brown/grey with brown/orange mottling sandy silt with occasional gravel and frequent charcoal inclusions

(20835/20845) firm greasy mid to dark brown clay silt with occasional twigs and brushwood and occasional to moderate gravel inclusions

(20846) firm sticky mid to dark grey and pale yellow/grey and brown/red mottling clayey sandy silt and silty sands with occasional organic and frequent gravel inclusions

(20836/20856) firm mid olive/brown/grey silty clay with occasional gravel inclusions (20850) firm sticky greasy dark grey/black silty clay with occasional organic and gravel inclusions

(20837) firm to compact mottled brown/orange with grey lenses silty sand with moderate gravel inclusions including 'tip lines'

(20838/20838) firm to compact brown/orange silty sand with occasional pale grey/olive/blue mottling and iron pan lenses with occasional organic material and frequent gravel inclusions

(20858) firm pale brown silty clayey sand with frequent gravel inclusions

(20859) soft sticky and greasy mid brown silty clay with occasional gravel inclusions

(20848) firm sticky pale grey/brown sandy clay with moderate gravel inclusions

(20849) firm to compact pale to mid brown/orange silty sand with moderate gravel inclusions

[20839] an irregular lozenge/oval shaped pit 7.50m+ x 4.40m and 1.16m deep with very steep and undercut sides to the north with gradual sloping 'access ramp' to the south with concave to flat base

F. 20136 (20815) mid mottled grey/red silty clay with occasional charcoal and gravel Inclusions

(20816) compact light grey clay with occasional gravel inclusions

(20817) firm mottled mid grey/red silty clay with gravel inclusions

(20818) compact mid grey clay with occasional red/orange mottling with occasional chalk, charcoal and gravel inclusions

(20819) green/yellow silty clay with orange mottling and occasional charcoal and gravel inclusions

(20820) compact mid grey clay with occasional charcoal and gravel inclusions (20821) moist sticky black clay with occasional charcoal, organic remains and gravel

inclusions (20822) firm dark red/grey clay with occasional charcoal, organic and gravel inclusions (20855) sticky dark grey organic clay with occasional charcoal and gravel inclusions [20823] a sub-circular pit 2.25m x 2.34m and 1.26m deep with gradual sloping sides at top, sharp vertical hole through iron pan then widening to form bell shaped pit/well with undercutting vertical sides and flat to concave uneven base F. 20140 (20860) firm light grey silty clay and red/brown sandy clay with occasional charcoal and gravel inclusions (20861) firm mid grey silty clay and brown sandy clay with occasional charcoal and gravel inclusions (20862) moderately compact mid grey/light brown silty clay and light brown sandy clay with occasional charcoal and gravel inclusions (20863) moderately compact light brown/yellow sandy clay (20864) loose mid grey brown clayey sand with occasional charcoal and frequent gravel inclusions (20865) moderately compact red/brown gravely sand (20866) firm mid to dark grey silty clay with frequent charcoal inclusions (20867) firm dark grey/black organic silt with frequent charcoal inclusions (20868) loose mid grey/light brown clayey sand with frequent gravel inclusions (20869) loose light brown silty sand with frequent gravel inclusions (21045) loose light brown silty sand with moderate gravel inclusions (21046) loose light grey/yellow sandy gravel (21047) mixed small and large fragile wood, twigs and branches [21044] a circular pit/well 2.10m x 2.10m and 1.00m deep with steep concave sides and flat to concave base F. 20143 (20881) moderately compact mid grey/brown sandy clayey silt with occasional charcoal, gravel and iron pan inclusions [20882] a circular posthole 0.30m x 0.30m and 0.07m deep with shallow straight sides with concave base F. 20144 (20883) moderately compact mid brown/grey sandy clavey silt with occasional charcoal, gravel and iron pan inclusions [20884] a sub-circular pit 0.50m x 0.35m and 0.06m deep with shallow straight sides with concave base F. 20146 (20887) compact mid grey/brown sandy clayey silt with occasional charcoal, gravel and iron pan inclusions [20888] a circular posthole 0.26m x 0.22m and 0.06m deep with shallow straight sides and concave base F. 20147 (20889) compact mid grey/brown sandy clayey silt with occasional charcoal, gravel and iron pan inclusions [20890] a sub-circular posthole 0.60m x 0.50m and 0.16m deep with shallow straight sides and concave base F.20149 (20898) loose mid grey/brown sandy silt with occasional gravel inclusions [20899] a sub-circular posthole 0.23m x 0.18m and 0.07m deep with steep straight sides with concave base

(20910) pale grey sandy silt with occasional gravel and iron pan inclusions

(20906) soft mid brown/grey clayey silt with occasional gravel and frequent iron pan

(20907) mid brown/grey silty clay with occasional gravel and frequent iron pan

(20908) dark brown/black clayey silt with occasional gravel inclusions (20909) soft mid grey/brown clayey silt with occasional gravel and iron pan

F. 20150

inclusions

inclusions

(20911) mid grey/brown clayey silt with occasional charcoal and gravel inclusions (20912) soft pale grey clayey sand with occasional gravel and frequent iron pan inclusions

(20913) soft friable mid grey sandy clay with occasional gravel inclusions

(20914) fine soft dark brown/orange silt with patches light yellow/brown/grey clay with occasional gravel and moderate organic inclusions

(20915) soft pale yellow/brown and mid blue/grey clay

(20916) firm dark brown silty sand with occasional iron pan and moderate gravel inclusions

(20917) fine soft dark brown/orange silt with patches light yellow/brown/grey clay with occasional gravel and moderate organic inclusions

(20918) dark brown/black clayey silt with occasional gravel inclusions

(20919) soft pale yellow/brown and blue/grey clay with occasional gravel inclusions

(20920) soft pale yellow/brown clay with frequent iron pan inclusions

(20921) fine mid orange/brown sandy clay with occasional gravel inclusions

(20922) dark brown/black clayey silt with occasional gravel inclusions

(20923) soft mid grey/brown clayey silt with occasional charcoal and gravel inclusions

(20924) soft pale yellow/brown and blue/grey clay with occasional gravel inclusions

(20925) soft dark grey/brown silty clay with occasional organic and gravel inclusions

(20926) fine soft orange/brown clayey sand with occasional gravel inclusions

(20927) soft pale yellow/brown clay with frequent iron pan inclusions

(20928) fine soft mid grey sandy silt with occasional gravel and iron pan inclusions

(20929) soft pale yellow/brown and blue/grey clay with frequent iron pan inclusions

(20930) dark brown/black clayey silt with occasional gravel inclusions

(20931) fine friable pale yellow/grey sand with occasional gravel inclusions

(20932) fine friable pale yellow/grey sand with moderate gravel inclusions

(20933) fine soft pale blue/grey/brown mottled clay

(20934) soft sticky mid grey/brown clay with moderate organic inclusions

(20935) soft mid grey/yellow clayey sand and blue/grey clay with moderate gravel inclusions

(20936) soft friable pale yellow sand and pale grey clayey sand with moderate gravel inclusions

(20937) dark brown/black clayey silt with occasional gravel and moderate organic inclusions

(20938) soft mid grey/brown silty clay with moderate organic inclusions

(20939) fine friable grey/white and yellow sand with moderate gravel inclusions

(20940) fine soft dark grey/brown sandy clay with occasional charcoal and gravel inclusions

(20951) soft mid grey clayey silt with occasional gravel inclusions

(20952) fine friable mid grey and yellow/brown silty sand

(20953) fine friable mid yellow/brown sand and mid blue/grey clay with occasional gravel inclusions

[20954] circular pit/well 3.75m x 3.70m and 1.25m deep with moderate steep concave and convex sides, more gradual slope to the south with flat to concave base

F. 20152 (20943) loose mid grey/brown sandy silt with occasional gravel inclusions [20944] a circular posthole 0.16m x 0.14m and 0.07m deep with moderate straight sides and concave base

F. 20153 (20956) firm mid to pale brown/grey and brown/orange sandy silt with moderate gravel inclusions

(20957) firm brown/orange silty sand and pale grey sandy clayey silt with frequent gravel inclusions

(20958) firm dark grey/brown and brown/orange/olive/grey lenses silty sand and lenses of clayey sandy silt with occasional organic and frequent gravel inclusions (20959) firm sticky dark grey/brown silty clay with occasional organic and gravel inclusions and large limestone architectural fragments

(20960) firm/friable pale olive/grey silty sand with frequent gravel inclusions (20994) yellow gravely sand

(2095) fine compact dark brown/grey silty sand [20961] a sub-circular pit 7.00m x 7.25m and 1.18m deep with gradual to steep convex sides more sloping to the east and more vertical to the west with flat base

F. 20154 (20962) firm mid brown/grey sandy clayey silt and orange/brown sand with occasional charcoal and frequent gravel and iron pan inclusions (20963) friable dark brown/orange silty sand with frequent gravel and iron pan

inclusions (20964) firm mid brown/blue/grey sandy clayey silt and orange/brown sand with

frequent gravel and iron pan inclusions

(20965) compact mid grey/brown clay with moderate charcoal and gravel inclusions (20966) compact light green/brown/grey silty clay with moderate gravel inclusions

(20967) soft dark blue/black organic silty clay with occasional twigs

(20968) compact light green/brown/grey silty clay with moderate gravel inclusions (20969) soft mid orange/brown silty clay and mid orange sandy clay with moderate gravel inclusions

(20970) soft mid blue/grey sandy silty clay and mid orange sandy gravel with occasional charcoal and frequent gravel inclusions

(20971) soft dark blue/black organic silty clay with occasional twigs

(20972) compact mid brown/grey clay with moderate gravel inclusions

(20973) soft dark blue/black organic silty clay with occasional small twigs

(20974) soft mid blue/grey sandy silty clay and mid orange sandy gravel with occasional charcoal and frequent gravel inclusions

(20975) soft mid brown/grey silty clay with moderate gravel inclusions

(20976) soft mid orange sandy clayey silt with moderate gravel inclusions

(20977) soft dark blue/black organic silty clay with occasional small twigs

(20978) soft mid brown/grey silty clay with moderate gravel inclusions

(20797) soft mid blue/grey/brown/orange silty clay with moderate gravel inclusions

(20980) soft dark blue/black organic silty clay with occasional small twigs

(20981) soft mid blue/grey/brown/orange silty clay with moderate gravel inclusions

(20982) friable mid brown/orange sandy silty gravel

(20983) soft mid brown/grey/orange clay with frequent gravel inclusions

(20984) soft mid blue/grey/brown/orange silty clay with moderate gravel inclusions

(20985) soft mid grey/brown and brown/orange sandy silty clay with occasional charcoal and frequent gravel inclusions

(20986) friable mid orange/brown gravel

(20987) friable mid brown/grey silty sandy gravel

(20988) friable mid orange/brown gravel

(20989) friable mid orange/brown gravel

(20990) soft dark blue/black organic silty clay with occasional small twigs

(20991) soft mid blue/grey sandy silty clay and mid orange sandy gravel with occasional charcoal and frequent gravel inclusions

(20992) friable light brown/grey silty sandy gravel

[20993] an oval pit/well 3.23m x 2.32m and 1.49m deep with steep concave and convex sides and flat base

F. 20161 (21039) compact mid brown/grey silty clay with occasional charcoal and moderate gravel inclusions

(21040) soft mid yellow/brown silty clay with moderate gravel inclusions

[21041] a sub-circular posthole  $0.45 \,\mathrm{m} \times 0.35 \,\mathrm{m}$  and  $0.27 \,\mathrm{m}$  deep with vertical straight sides and concave base

F. 20164 (21026) soft mid brown/grey sandy silty clay with occasional charcoal and moderate gravel inclusions

(21027) soft mid yellow/grey/brown silty sand with moderate gravel inclusions [21028] a sub-circular posthole 0.45m x 0.40m and 0.17m deep with moderately steep straight to concave sides with concave base

F. 20166 (21054) firm mid brown/grey sandy silt with moderate gravel inclusions (21055) firm mid grey sandy silt with occasional charcoal and frequent gravel inclusions (21056) loose light grey/white gravely sand

[21057] a oval pit 2.50m x 1.70m and 0.61m deep with moderate straight sides and concave base

F. 20167 (21073) firm mid brown grey sandy clayey silt with frequent gravel inclusions (21074) compact mid brown silty sand with occasional iron pan and frequent gravel inclusions

(21075) friable mid yellow/orange silty sand and soft mid yellow/grey silt with frequent gravel inclusions

(21076) soft mid grey sandy silt with occasional charcoal and frequent gravel inclusions

[21077] an oval pit  $2.00 \text{m} \times 1.30 \text{m}$  and 0.55 m deep with steep straight sides and concave base

- F. 20169 (21078) compact mid grey/brown sandy silt with moderate gravel inclusions [21079] a rounded-rectangular pit 1.00m+ x 0.80m and 0.45m deep with steep straight sides and flat base
- F. 20171 (21098) firm mid grey silty clay with occasional gravel inclusions [21099] circular posthole 0.45m x 0.45m and 0.15m deep with moderately steep concave sides with concave base
- F. 20168 (21071) friable mid brown/grey sandy silt with occasional charcoal and moderate gravel inclusions [21072] an oval pit 1.60m x 1.30m and 0.11m deep gradual concave sides and flat base
- F. 20173 (21102) firm to compact mid brown/grey/orange silty clay with occasional charcoal and gravel inclusions
  - (21103) firm mid to dark grey sandy silt with moderate charcoal and occasional gravel inclusions
  - (21104) firm light grey/brown clay with occasional charcoal and gravel inclusions (21105) soft mid to dark grey sandy silt and orange clay with occasional gravel and moderate charcoal inclusions
  - (21106) firm mixed orange/brown natural and grey/green sandy silt with occasional charcoal and gravel inclusions
  - (21107) firm mid brown/grey sandy silt with occasional charcoal and gravel inclusions
  - (21108) firm mixed orange/brown/grey sandy silty clay with occasional charcoal and occasional to moderate gravel inclusions
  - (21109) re-deposited natural with orange/brown/yellow gravely sandy silty clay
  - (21110) firm mixed mid grey/brown sandy silty clay with occasional charcoal and gravel inclusions
  - (21111) soft bands of charcoal, ash, green clay and mid grey sandy silt
  - (21112) firm mid brown/grey silty clay
  - (21113) soft mid to dark grey sandy silt with moderate charcoal and organic inclusions
  - (21114) soft moist black organic charcoal rich silt
  - (21115) friable mottled dark grey/brown/orange sandy silt with frequent gravel inclusions
  - (21116) soft compact brown/green organic layer
  - (21117) firm mid to orange/brown/grey/green sandy silty clay with occasional to moderate charcoal and gravel inclusions
  - (21147) firm mid to dark grey/green sandy silt with occasional charcoal and gravel inclusions
  - [21118] sub-circular pit 3.40m x 3.75m and 1.22m deep with moderately steep

concave sides with convex undercutting on east side and flat base

F. 20174 (21131) soft mid yellow/brown and dark grey clayey silt with occasional gravel Inclusions

[21132] a sub-oval pit/treethrow  $0.44 \,\mathrm{m} \times 0.45 \,\mathrm{m}$  and  $0.23 \,\mathrm{m}$  deep with moderately steep concave sides and uneven concave base

F. 20175 (21145) friable mid grey/brown silt with occasional charcoal and gravel inclusions [21146] a sub-oval treethrow/burrow 1.14m x 0.70m and 0.14m deep with straight to concave sides and uneven base