



global environmental solutions

Sillenhurst Moated Site and Fishpond, Woore, Shropshire
Scheduled Monument No. 32304

Archaeological Investigation Report
SLR Ref: 410.04169.00001

November 2013



CONTENTS

1.0	INTRODUCTION.....	1
2.0	SITE DESCRIPTION.....	2
3.0	AIMS AND METHODOLOGY	4
4.0	RESULTS	5
4.1	Topographic Survey.....	5
4.2	Trenching	7
5.0	THE ENVIRONMENTAL SAMPLES	21
6.0	THE FINDS	27
7.0	DISCUSSION.....	30
8.0	CONCLUSION	33
9.0	CLOSURE.....	34

FIGURES

Figure 1:	Site location	2
Figure 2:	1880 Ordnance Survey map (1:2,500).....	3
Figure 3:	Location of unauthorised drainage ditch	3
Figure 4:	View south along western moat arm	6
Figure 5:	View south across waterlogged and trampled central area of fish pond, towards western moat arm.....	6
Figure 6:	Trench location plan.....	7
Figure 7:	Plan of Trench 1	8
Figure 8:	Trench 1, north east facing section	8
Figure 9:	Trench 1, view to west of basal moat fill	9
Figure 10:	Trench 1 facing north showing drain cut through moat fill	10
Figure 11:	Plan of Trench 2.....	11
Figure 12:	Trench 2 south west facing section	11
Figure 13:	Trench 2 west facing section.....	12
Figure 14:	Trench 2 facing south	13
Figure 15:	Plan of Trench 3.....	14
Figure 16:	Trench 3 west facing section.....	14
Figure 17:	Trench 3 facing north	15
Figure 18:	Trench 3 west facing section.....	16
Figure 19:	Plan of Trench 4.....	17
Figure 20:	Trench 4 east facing section	17
Figure 21:	Trench 4 facing north	19
Figure 22:	Detail of pond fill (44), Trench 4 east facing section	20
Figure 23:	Context 10. Pottery and ceramic building material	28
Figure 24:	Context 20. Ceramic building material	29
Figure 25:	Context 35. Animal bone and pottery	29

APPENDICES

Appendix A	Schedule Description
Appendix B	Topographical Survey Drawings
Appendix C	Palaeoenvironmental Assessment Report
Appendix D	Archive Details

Status of report Final

Author Laurence Hayes BA, MIfA
Date 15th November 2013
Reviewed Tim Malim BA MIfA FSA (SLR)
Date 25th November 2013
Comments Edited typographic errors, comments on discussion and finds sections.
Revisions 26th November 2013
Reviewed Bill Klemperer (English Heritage)
Date 28th November 2013
Comments No changes

The SLR staff involved in the implementation of this project are:

Laurence Hayes BA MIfA	Associate	Author
Lee Meaden	Associate	Land Surveyor
Tim Malim BA MIfA FSA	Technical Director	Quality Assurance

Acknowledgements

SLR is grateful for the assistance and support of Mrs Penny Friend in the preparation and execution of the fieldwork. The site work was undertaken by Laurence Hayes, Lee Meaden and Gerry Martin (GMA Ltd). The palaeoenvironmental assessment was carried out by John Carrott of Palaeoecology Research Services Ltd. The work was monitored by Bill Klemperer and Alison Macdonald for English Heritage.

1.0 INTRODUCTION

This report describes the results of a programme of archaeological work which has been carried out at Sillenhurst¹ Moated Site, near Woore, Shropshire. It has been prepared by SLR Consulting Ltd on behalf of Mr E and Mrs P Friend of Bridgemere Farm, Nantwich, Cheshire.

Sillenhurst Moated Site is a scheduled monument designated under the Ancient Monuments and Archaeological areas Act 1979. The monument (Heritage List Entry Number 1017005) is located at NGR SJ 72495 42740, west of Syllenhurst Farm and to the north west of Woore. The monument comprises the earthwork and remains of a medieval moated site, with ditches on the west, south and east sides of a central island, and an associated fishpond to the north. The monument description (included as Appendix A) states that the monument is designated because of its good state of preservation, potential for sub-surface remains of structures and activity within the moated platform and the potential for artefacts and organic remains within the moat and fishpond. The artefactual and organic remains have the potential to yield important information about the local environment, land use, subsistence regimes and social status of the inhabitants of the site during the medieval period.

In December 2011 a drainage ditch was excavated along the line of the western arm of the moat and through the fishpond to the north. Anecdotally the ditch measured approximately 2m in depth and ran for 115m through the scheduled area. The work was carried out without scheduled monument consent.

Accordingly a brief was issued by English Heritage (Bill Klemperer, 24th April 2012) outlining a programme of archaeological investigation required to investigate the impact of these unauthorised works on the monument.

A written scheme of investigation was prepared by SLR ("WSI", SLR Consulting June 2012) which set out the methodology for investigation. The WSI was approved by English Heritage and scheduled monument consent obtained to carry out works on the monument in accordance with the proposed methodology (Ref: S00045602).

The fieldwork was carried out between 26th April and 2nd May 2013.

SLR Consulting is a Registered Organisation with the Institute for Archaeologists (IfA), an audited status which ensures all work is carried out in accordance with the highest standards of the profession. The archaeological work has been carried out in accordance with the IfA's *Standard and Guidance for Archaeological Field Evaluation* (2008).

¹ Sillenhurst is the given spelling in the list entry description for the monument, and has been used throughout this report. It is acknowledged that the adjacent farm and OS mapping use the spelling "Syllenhurst".

2.0 SITE DESCRIPTION

The scheduled monument is located approximately 0.5km north west of Woore, Shropshire, and 50m west of Syllenhurst Farm at NGR 372495 342740 (Figure 1). The monument occupies an area of 1.12 hectares and lies within agricultural land ('Moat Field') north of Audlem Road, under pasture at the time of the site works. The surrounding landscape is gently undulating, between 137 and 140m AOD, and at the crest of a north facing ridge which allows very extensive northward views across the Cheshire Plain. The local geology comprises Devensian Till overlying Mudstone of the Sidmouth Mudstone formation.

The monument comprises a deeply cut moat (up to 3.5m deep relative to the adjacent ground surface) surrounding the west and south sides of a central island, with a wide depression to the north representing the site of a former fish pond. The eastern arm of the moat is largely infilled and lies partially within an adjacent field to the east. The monument is now surrounded by mature broad-leaved trees.

Historically the moat and pond was fed with water from the south via a leat into its south west corner. The water course is visible on 19th century OS mapping of the site (1st edition 1880 Ordnance Survey map 1:2500, Figure 2) and survives as a shallow ditch, but it does not form part of the scheduled monument due to its alteration in subsequent periods. A pre-existing ceramic drain through the western arm of the moat carried water from the leat and moat northwards. The unauthorised drainage ditch runs along the western arm of the moat and crosses the fishpond earthwork to the north (Figure 3).

Figure 1: Site location

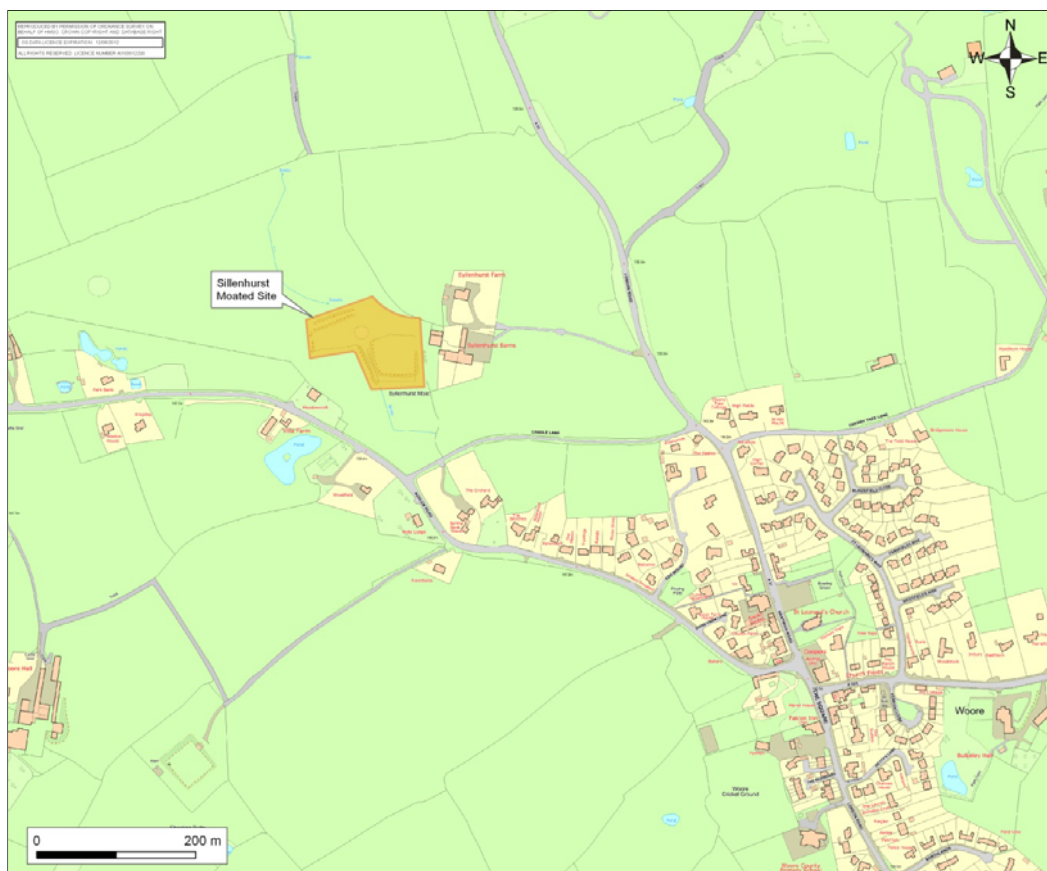


Figure 2: 1880 Ordnance Survey map (1:2,500)

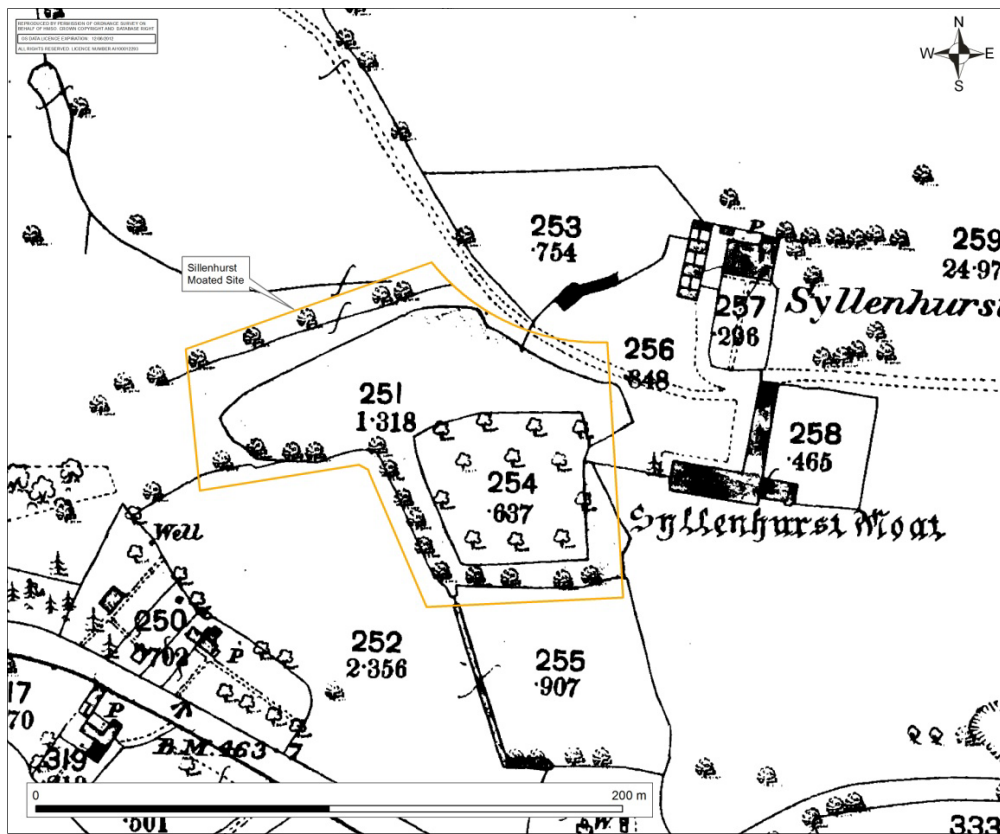
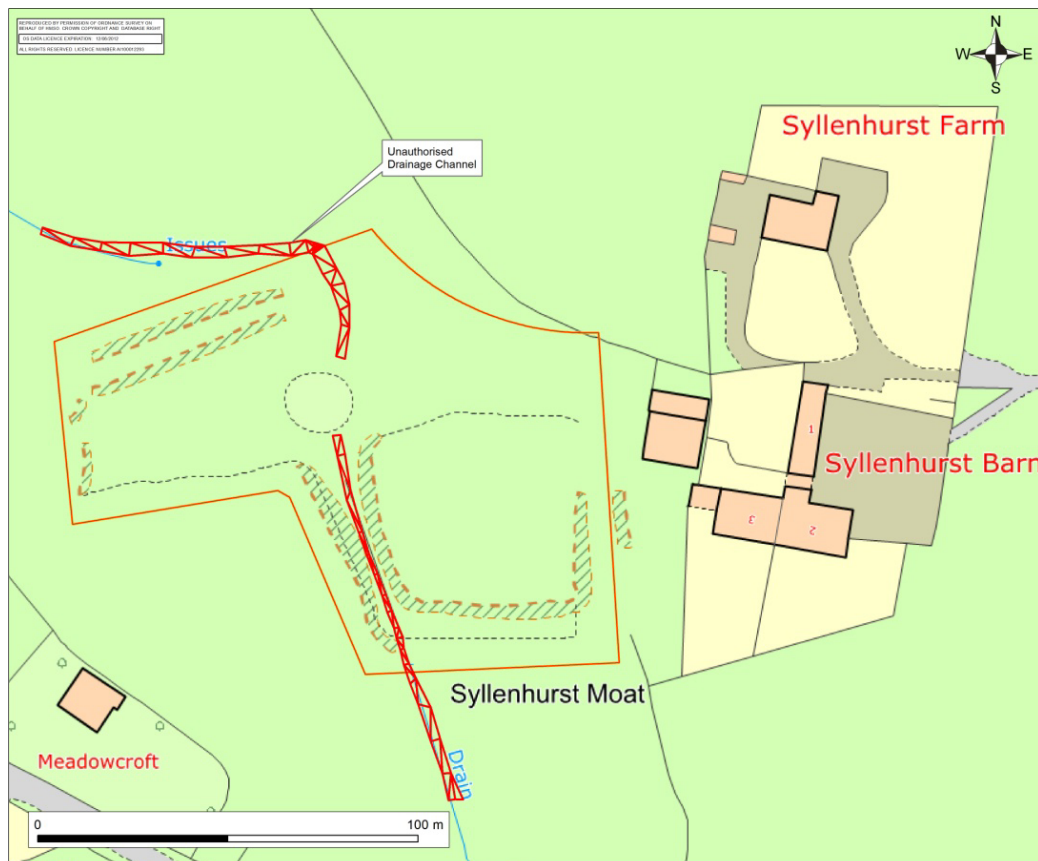


Figure 3: Location of unauthorised drainage ditch



3.0 AIMS AND METHODOLOGY

The aim of the investigation was to undertake an archaeological assessment and recording programme to assess the quality, nature, depth and extent of archaeology affected by the unauthorised drainage trench, and to assess the impact that the works had upon the site.

The specific objectives were:

- To undertake a topographical survey showing the location of the unauthorised trench in relation to the overall layout of the monument;
- To excavate four archaeological trenches across the line of the unauthorised trench, two within the western moat ditch and two within the fishpond area;
- To record the exposed stratigraphic sequence and establish the depth of the archaeology at each point;
- To assess the impact of the unauthorised trench on this sequence;
- To sample (where possible) suitable deposits for palaeoenvironmental analysis (including to establish fish management techniques, broader medieval economy and nature of the western moat ditch fill);
- To prepare an illustrated report describing the results of the work; and
- To submit an ordered archive to the nominated repository.

The fieldwork was executed between 26 April 2013 and 2nd May 2013.

The topographic survey was undertaken using a Leica GPS1200 system using real time corrections via the ordnance survey “smartnet” correction service (accuracy of $\pm 15\text{mm}$) and a Leica TS15 imaging total station with an accuracy of $\pm 2\text{mm}$ over 100m. The total station was used to survey areas within and surrounding the moat where the presence of tree cover impeded use of GPS.

The excavation of the trenches was timed to allow standing water within the monument to dissipate following the wet summer and winter of 2012/13. At the time of the excavation the ground within the moat was soft but largely free from standing water. Exceptions included the southern end of the western arm of the moat, with water ingress occurring in the deeper sections of Trench 1, and within the base of the fishpond. In the case of the fish pond the area of standing mud and water dictated the location of trenches 3 and 4. The need to amend the proposed locations of these trenches was reported to English Heritage and agreed prior to excavation.

A 5 ton tracked excavator was used to open the trenches rather than a wheeled JCB 3CX due to the soft ground experienced within the moat.

In undertaking the post excavation assessment and analysis of the site records, the research objectives stated in the WSI have been adhered to. These have included an attempt to establish evidence for food production and consumption at the site, living conditions and social status, the health and welfare of the site’s occupants, land use and management, resource exploitation, the wider rural economy and the chronology of the site’s use and abandonment. These themes are discussed in more detail in Section 7 (Discussion) below.

4.0 RESULTS

4.1 Topographic Survey

The topographic survey (included as a series of figures in Appendix B, and digitally on the enclosed CD) has confirmed the alignment of the drainage trench through the scheduled area of the moat and fishpond.

The trench enters the southern limit of the scheduled area at NGR 372514, 342675 and runs on a north/north west alignment over a distance of 64.8m along the base of the western arm of the moat to the point at which the moat widens out into the fishpond at NGR 372495, 342737. The trench then diverts northwards and runs on an approximate north-south alignment over a distance of 32m to NGR 372498, 342769. The trench then runs to the north west, exiting the monument 19.2m to the north west at NGR 372490, 342786. Beyond the northern limit of the monument the drain connects to a concrete inspection chamber at NGR 372489, 342787 before continuing westwards to join an existing water channel.

The total length of the drain through the monument is 116m. The excavation of four trenches along its length has confirmed that the drain was excavated by machine equipped with a bucket 0.9m in width. Through the western arm of the moat the new drain directly replaced an existing ceramic drain, however Trench 3 at the northern limit of the moat's western arm demonstrated that the cut for the drain had been widened, leaving the ceramic drain *in situ* and diverting the new drain to the north.

The monument itself comprises a central platform measuring 46.4m north-south and 49.5m east-west (within the surveyed area- the monument extends further east into a neighbouring field which was not the subject of this study). The surface of the platform is highest in the north west corner at 138.74m AOD, gradually sloping down to 138.19m AOD in the south west corner and 138.02m AOD in the south east corner.

The moat is partially in-filled around the south east corner of the platform, the top of the fill recorded at 137.50m AOD and extending east of a point at NGR 372547, 342685. The base of the southern arm of the moat was recorded at between 135.88m AOD and 136.12m AOD, approximately 2.07m lower than the platform to the north and 1.73m lower than the land to the south. Compared with the western arm of the moat the base of the southern arm is flat and relatively wide (around 5.3m), the width of the moat from the top of slope being 11.6m.

By contrast the western arm of the moat is approximately 15-16m wide measured from the top of slope, and between 2.7m deep (southern end) and 3.75m deep (northern end), narrowing to a base that is barely 2.5m wide. This may suggest historic erosion of the moat sides, possibly exacerbated by the presence of large deciduous trees rooted into the moat sides, though these are likely to have subsequently aided its stabilisation. Some damage to the moat sides due to livestock movement, particularly around the north west corner of the platform, was noted, and animal burrows were observed in the western side of the moat.

The western arm of the moat opens out at its northern end into the fishpond. This is a roughly rectilinear area measuring 118m east-west and 52m north-south oriented west/south west to east/north east. The base of the pond measures 95m x 30m and dips towards the centre from around 136.75m AOD at the perimeter to 135.5m AOD in the centre. The lowest point of the pond base could not be surveyed due to the presence of standing water. The southern pond sides are steeply sloping and around 2.5m in height. The eastern and western sides are more gently sloping, while the northern is demarcated by a well-defined embankment standing at 137.5m AOD. Damage to the pond area includes the loss of the

northern embankment towards its eastern end associated with drainage works, and the base of the pond has been disturbed by trample from cattle movement.

Figure 4: View south along western moat arm



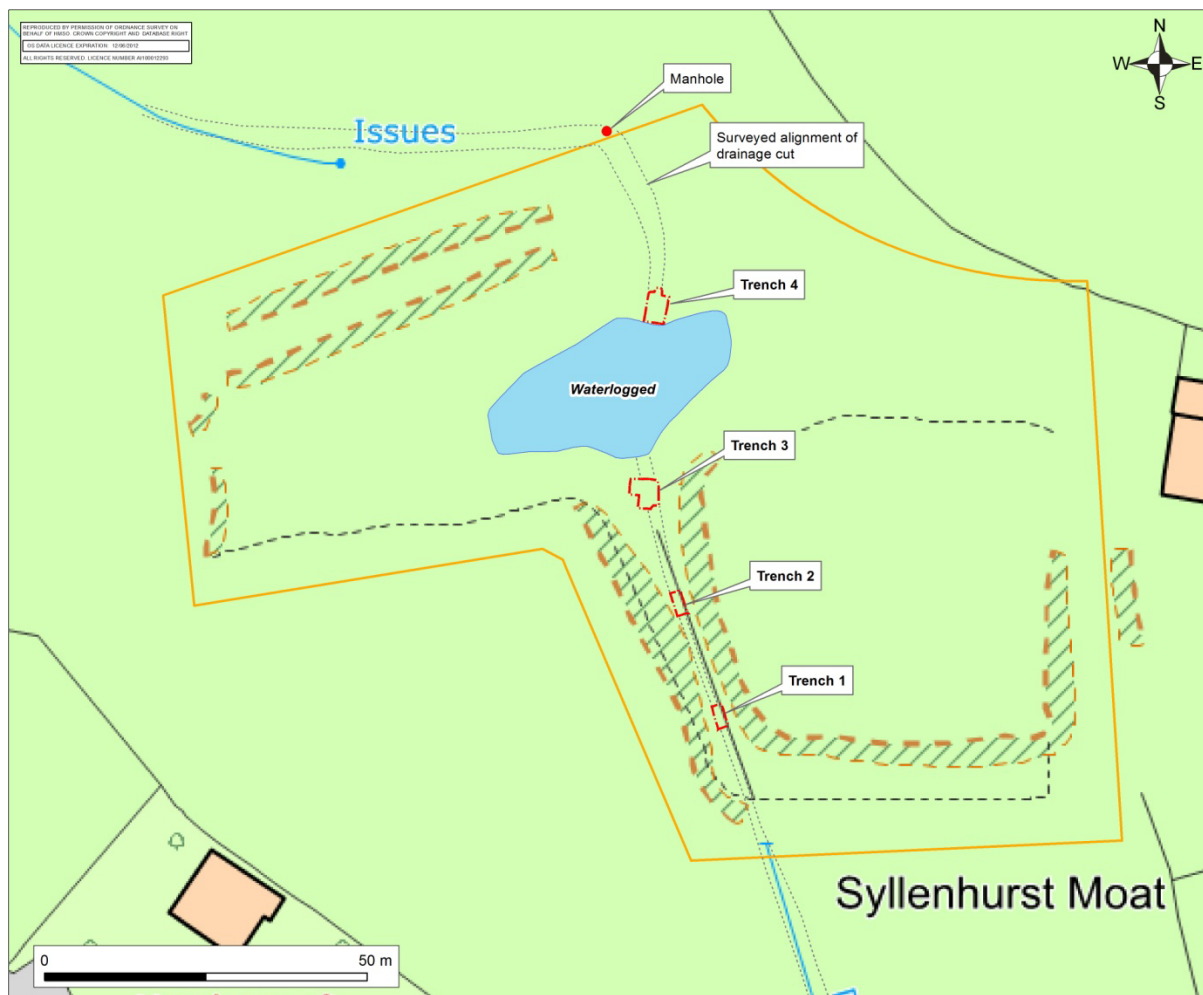
Figure 5: View south across waterlogged and trampled central area of fish pond, towards western moat arm



4.2 Trenching

Four trenches were excavated along the line of the drainage ditch as indicated in Figure 6. The detailed results from each trench are described below.

Figure 6: Trench location plan



4.2.1 Trench 1

Summary

Trench 1 was excavated towards the southern end of the western moat arm. The trench extended between NGRs 372507, 342695 and 372506, 342698, and measured 3.6m x 1.56m in plan oriented north/north west to south/south east.

The existing ground level stood at approximately 136.30m AOD, and was very soft, containing root disturbance and leaf litter from the adjacent trees, and had been heavily trampled by cattle moving along the base of the moat. The trench was excavated to a maximum depth of 0.74m, equating to a basal depth of 135.56m AOD.

Figure 7: Plan of Trench 1

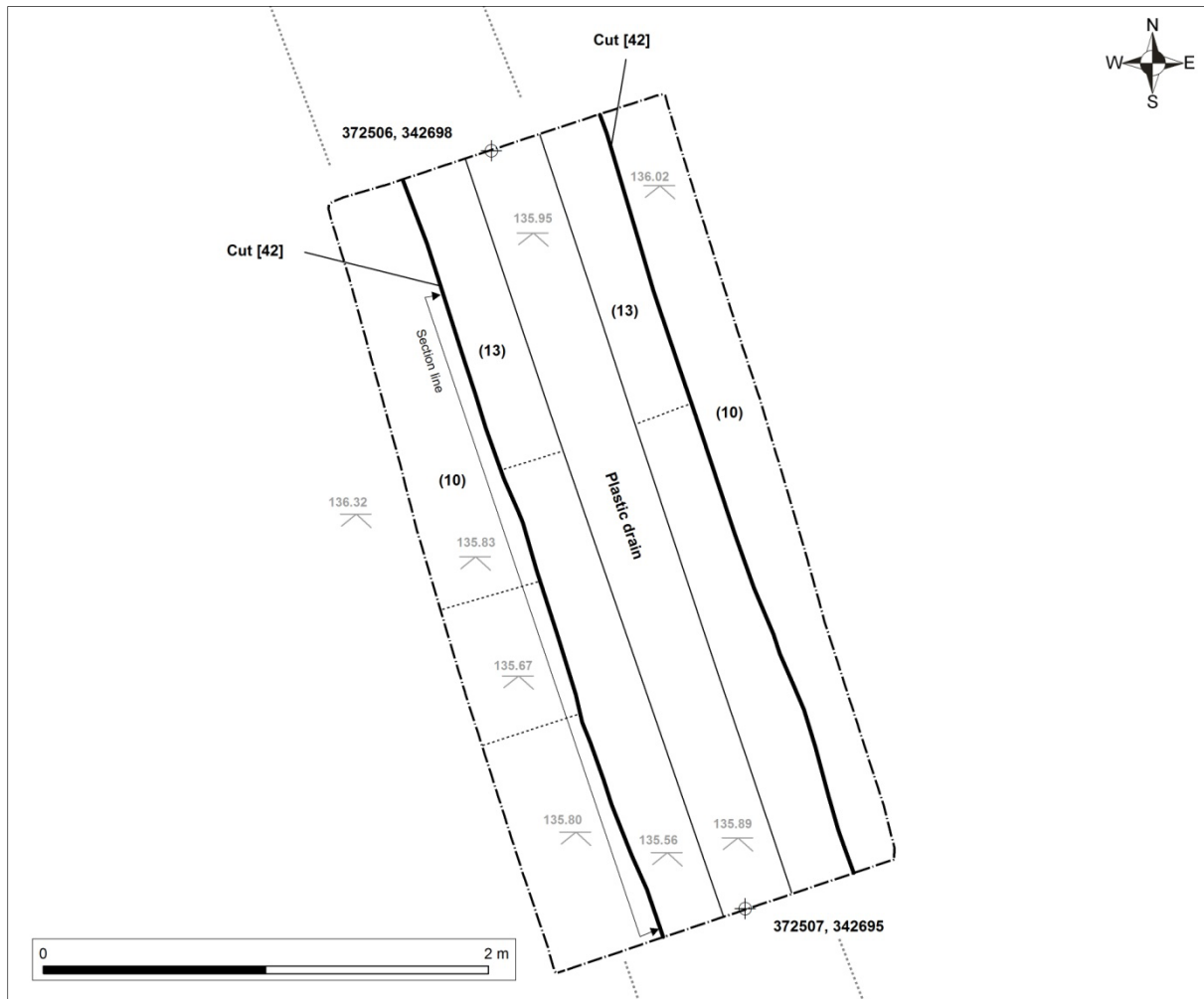
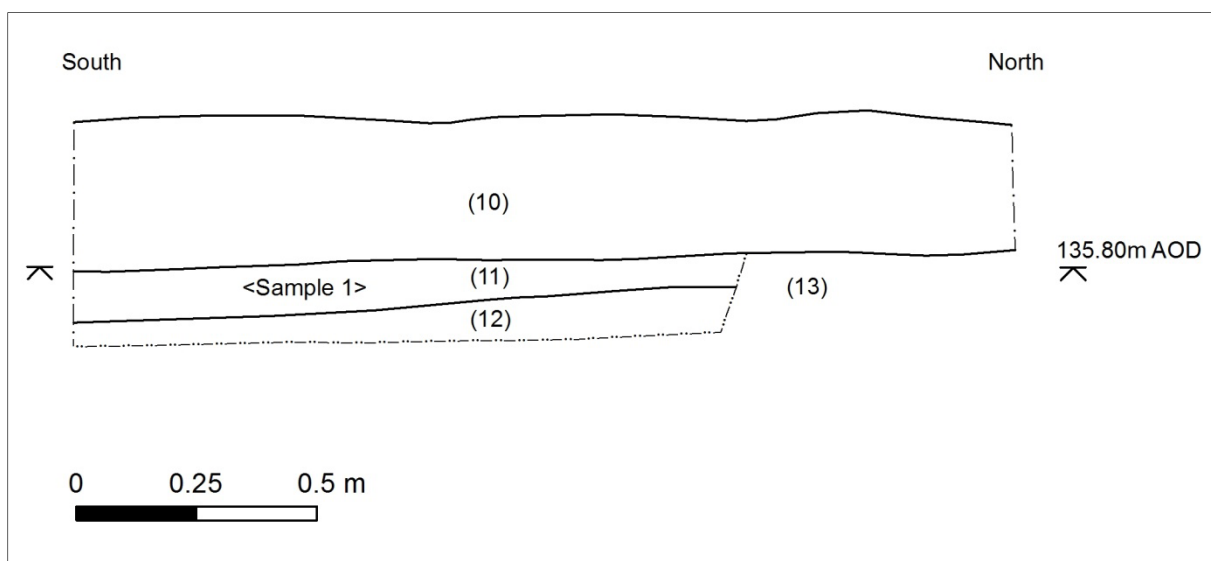


Figure 8: Trench 1, north east facing section



Description

In the base of the trench the natural slightly clayey sand was noted at a depth of 135.62m AOD (Context 12). This material was sealed by a deposit of dark grey/brown clayey silt (Context 10) interpreted as the basal fill of the moat. This layer was up to 0.16m thick and contained frequent twig, branch and root fragments, and had a strong organic odour. A sample of this deposit was recovered for palaeoenvironmental analysis (Sample 1).

Context 10 merged into an overlying grey/brown silty clay (Context 11) which is interpreted as the heavily trampled upper fill of the moat, 0.5m thick. The layer was very wet and contained frequent inclusions of wood and leaf matter. Two fragments of ceramic building material were recovered from the interface between Contexts 10 and 11.

The fills of the moat had been cut by the machine excavated drainage trench [42], which was 0.9m wide and 0.76m deep with vertical sides. A plastic drain 0.3m in diameter had been laid within the cut (upper surface standing at between 135.89-135.95m AOD) and the cut then backfilled with a mixed dark brown organic clayey silt and red sand (Context 13).

Figure 9: Trench 1, view to west of basal moat fill



Figure 10: Trench 1 facing north showing drain cut through moat fill



4.2.2 Trench 2

Summary

Trench 2 was excavated towards the centre of the western moat arm. The trench extended between NGRs 372501, 342712 and 372500, 342716, and measured 3.7m x 1.6m in plan oriented north/north west to south/south east.

The existing ground level stood at around 135.82m AOD, and was heavily disturbed by root action from the adjacent trees and trample by cattle. The trench was excavated to a maximum depth of 135.28m AOD.

Figure 11: Plan of Trench 2

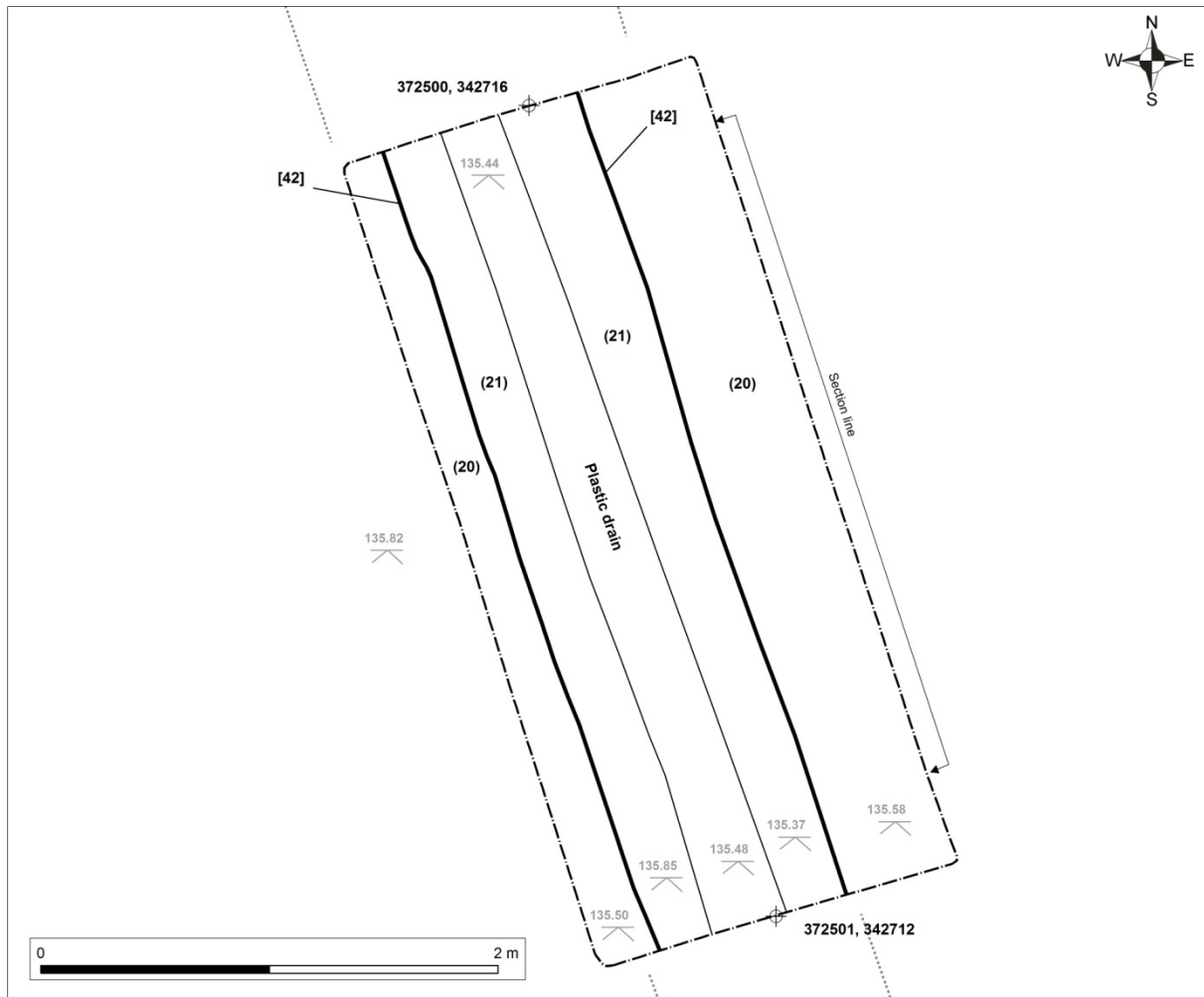
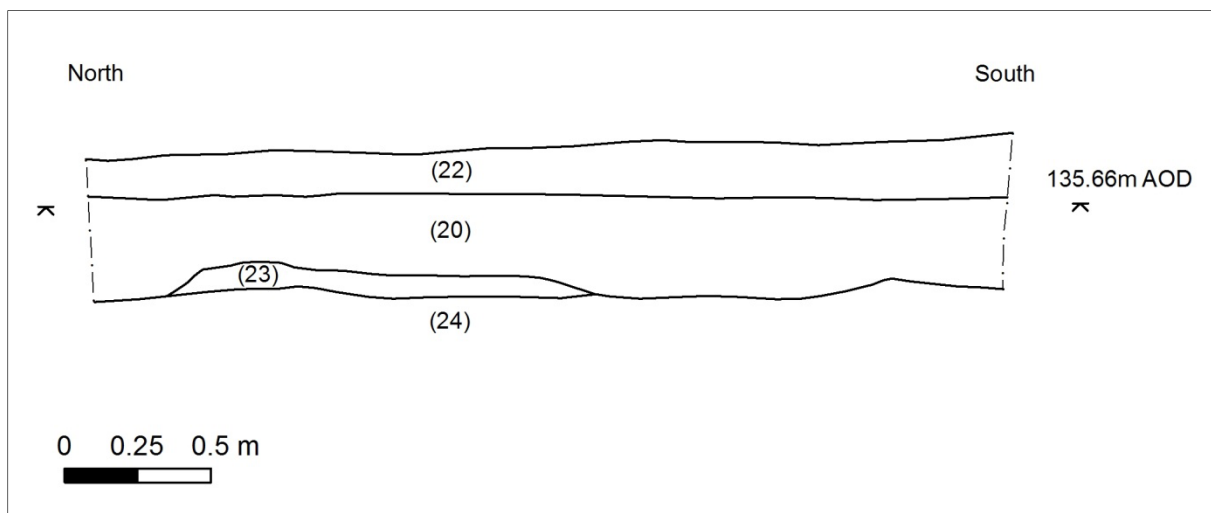


Figure 12: Trench 2 south west facing section



Description

The natural geology, comprising stiff boulder clay (Context 24), was encountered in the base of the trench at a depth of 0.5m below the existing ground level- 135.28m AOD. On the

eastern side of the trench the natural clay was sealed by a thin deposit of redeposited clay 0.08m deep (Context 23) which has been interpreted as slipped material from the eastern side of the moat. This was overlain by a layer of dark brown organic clayey silt 0.32m thick (Context 20), representing the basal fill of the moat. This layer contained intrusive roots and occasional fragments of ceramic building material (see Section 6 below). A sample of this deposit was recovered for palaeoenvironmental analysis (Sample 2).

Context 20 merged into an overlying dark brown clayey silt (Context 22) which is interpreted as the heavily trampled upper fill of the moat, 0.22m thick.

The fills of the moat had been cut by the machine excavated drainage trench [42], aligned north west to south east. The cut was 0.9m wide and 0.7m deep with vertical sides. A plastic drain 0.3m in diameter had been laid within the cut (upper surface standing at between 135.48-135.44m AOD) and the cut then backfilled with a mixed dark brown organic clayey silt and red sand blinding (Context 21).

Figure 13: Trench 2 west facing section



Figure 14: Trench 2 facing south



4.2.3 Trench 3

Summary

Trench 3 was excavated towards the northern end of the western moat arm and at the southern edge of the fish pond area. The trench extended between NGRs 372496, 342729 and 372497, 342733, and measured 4.4m x 4.5m in plan oriented north-south.

The existing ground level stood at approximately 135.61m AOD, and had been heavily trampled by cattle. The trench was excavated to a maximum depth of 0.46m, equating to 135.15m AOD.

Figure 15: Plan of Trench 3

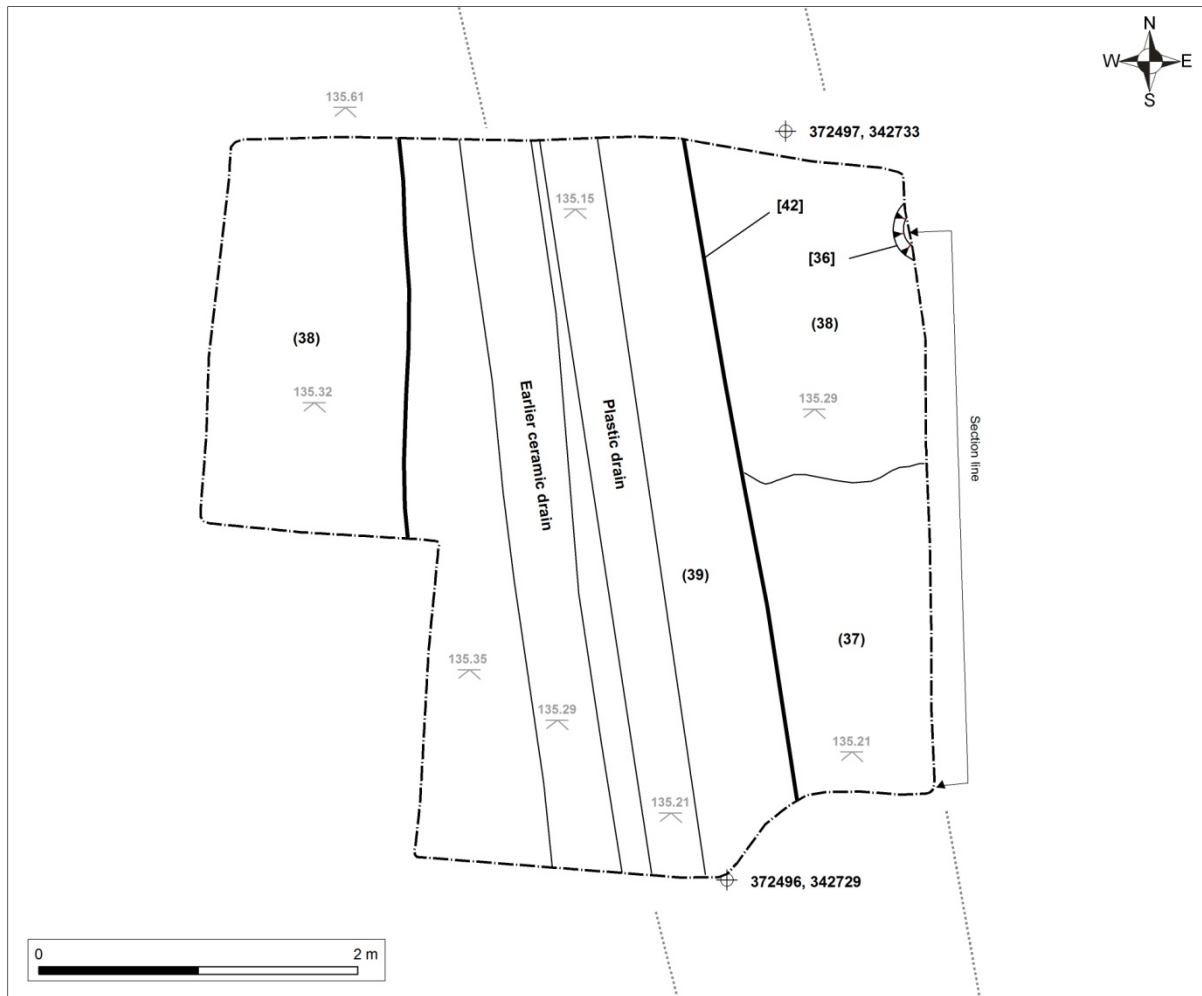
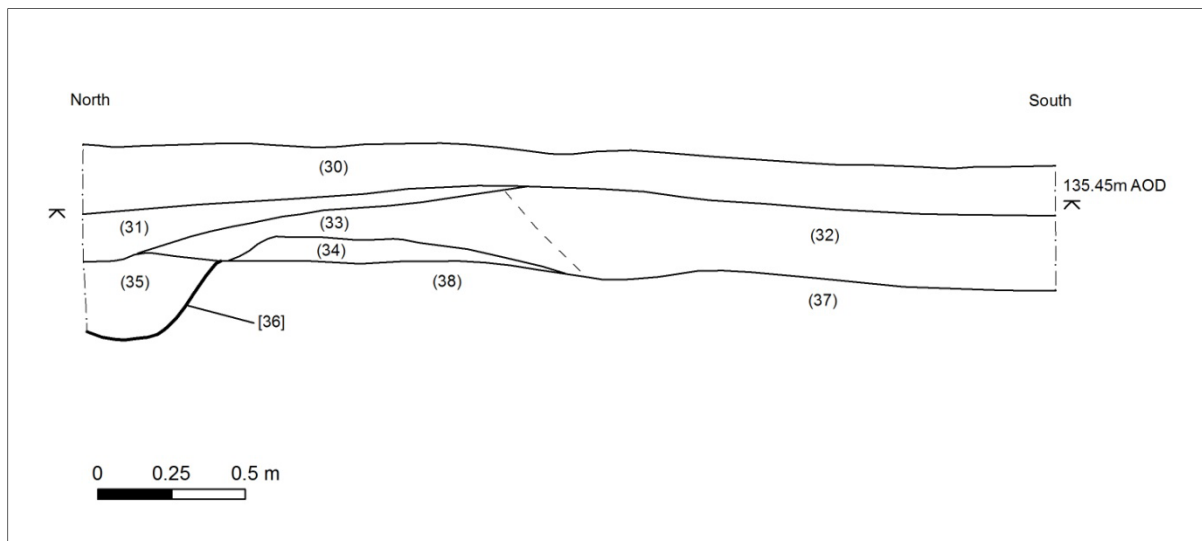


Figure 16: Trench 3 west facing section



Description

The natural geology was encountered in the base of the trench comprising pinkish, firm boulder clay (Context 37) with an entrained band of coarse sand and gravel (Context 34=38). The upper surface of the natural geology stood at between 135.21 and 135.29m AOD.

Towards the north east corner of the trench was a circular cut (context [36]), assumed to be either a removed post setting or an animal burrow. The feature cut into the underlying natural sand and was 0.36m in diameter with steep sides. The maximum exposed depth was 0.28m, though the feature extended beyond the eastern limit of the trench and was therefore not fully exposed. The fill (Context 35) was a dark grey silty clay from which animal bone and a single pottery fragment were found, though these were noted to be stratigraphically insecure (see Section 6 below).

On the eastern side of the trench these features were sealed by a horizon of dark grey-brown clayey silt up to 0.24m thick with occasional red brick inclusions, recorded as Contexts 32 and 33. Context 33 was overlain to the north by a grey/buff sandy horizon (31).

A trampled and homogenised dark brown topsoil (Context 30) covered the trench to a depth of 0.22m. This had been cut through by the machine-excavated drainage trench [42]. The cut was wider than seen in Trenches 1 or 2 (up to 2.08m), as it had exposed an earlier ceramic drain on the western side, and had apparently been widened to allow the new plastic drain to be laid to the east. The cut extended below the level of the adjacent natural sand, and had vertical sides. The base was not exposed due to the incursion of water from wet ground to the north of the trench. The drain had then been backfilled with mixed clay, sand and brown clayey silt (Context 39).

Figure 17: Trench 3 facing north



Figure 18: Trench 3 west facing section



4.2.4 Trench 4

Summary

Trench 4 was excavated towards the centre of the fishpond. The trench extended between NGRs 372496, 342757 and 372497, 342763, and measured 5.4m x 3.2m in plan oriented north/north east to south/south west.

The existing ground level stood at around 135.68m AOD, immediately to the north of an area of boggy waterlogged ground and trample from cattle movement. The trench was excavated to a depth of up to 1.21m, equating to 134.47m AOD.

Figure 19: Plan of Trench 4

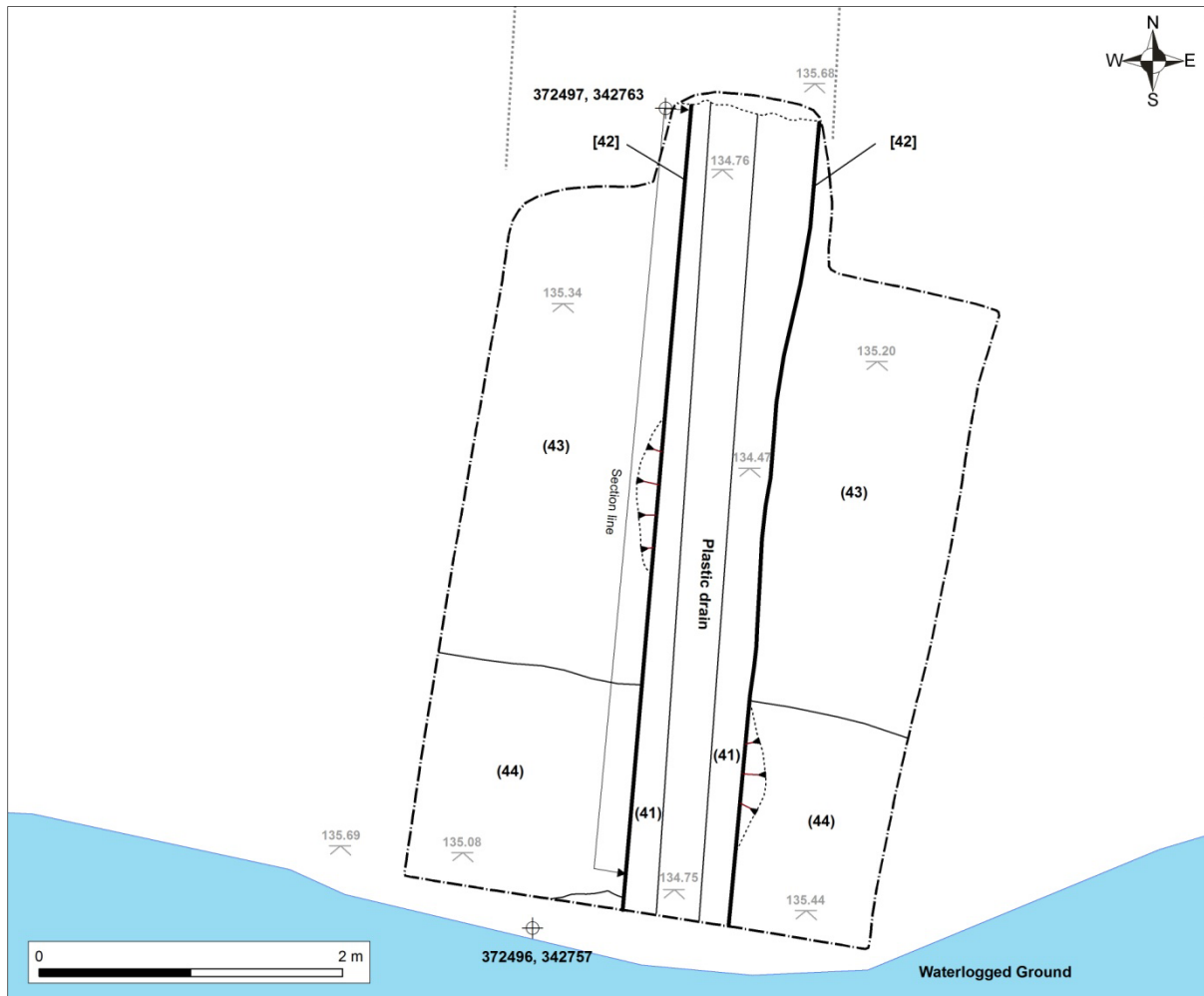
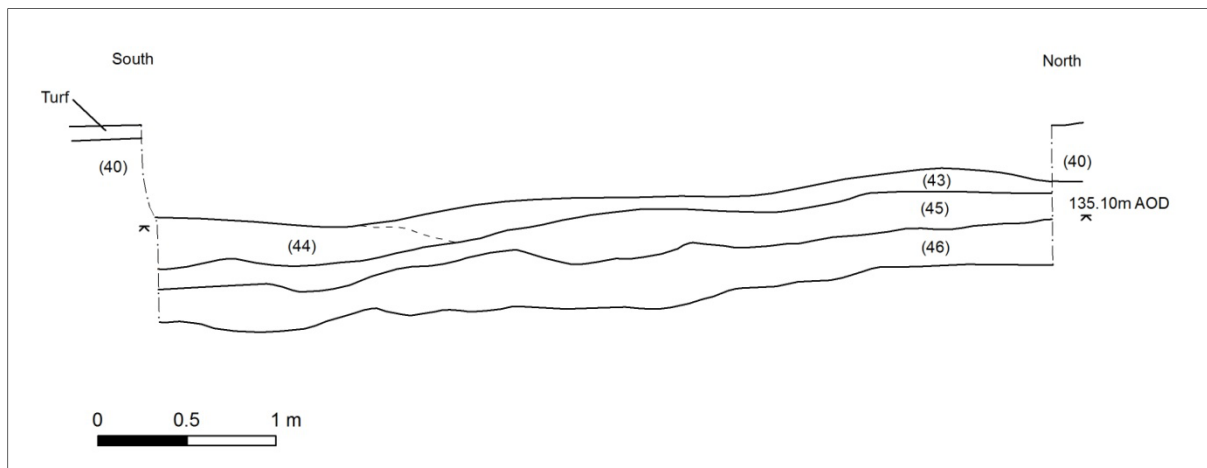


Figure 20: Trench 4 east facing section



Description

The natural geology in this trench comprised orange/pink boulder clay (Context 46) and overlying clayey sand (45). The upper surface of the geology was recorded at a height of between 135.2m AOD at the northern end, dipping to 134.72m AOD at the southern end (i.e.

falling towards the centre of the fish pond). This may reflect the original excavated level of the pond base.

The natural geology was overlain at the southern end of the trench by a layer of friable, dark grey clayey silt (Context 44) up to 0.22m thick. Interpreted as a fill of the pond, this layer contained no artefacts and was not obviously waterlogged or rich in organic content, though the greyish appearance may reflect gleying of sediment at an earlier date. A sample was obtained for palaeoenvironmental analysis (Sample 3). Context 44 was partially overlain to the north by a second fill of light grey silt (Context 43) up to 0.15m thick.

The lower fills were sealed by a modern deposit of redeposited boulder clay and earth containing frequent inclusions of tarmac and brick rubble 0.5m thick (context 40) with a thin covering of trampled topsoil and turf.

The cut for the modern drain (context [42]) ran through the trench on a north-south alignment and was 0.7-0.85m wide with vertical sides. The cut truncated the fills of the pond and passed into the underlying natural clay, excavated to a depth of 134.47m AOD. The plastic drain was laid in the base of the cut (level on the upper surface of 134.75m AOD) and backfilled with redeposited clay and earth (Context 41). The backfill of the drain contained fragments of broken ceramic pipe suggesting the new drain followed the old alignment at this location.

Figure 21: Trench 4 facing north



Figure 22: Detail of pond fill (44), Trench 4 east facing section



5.0 THE ENVIRONMENTAL SAMPLES

John Carrott, Palaeoecology Research Services Ltd (original report reproduced in Appendix C).

5.1 Introduction

Ten litre subsamples from three bulk sediment samples ('GBA'/'BS' *sensu* Dobney *et al.* 1992), representing basal fills of the moat (in Test Pits 1 and 2) and of the fishpond (in Test Pit 4), were submitted to Palaeoecology Research Services Limited, Kingston upon Hull, for an assessment of their bioarchaeological potential.

5.2 Methods

The subsamples were inspected and their lithologies recorded, using a standard *pro forma*. Barring a small quantity of sediment for microfossil examination (see below), each of the subsamples submitted was processed in its entirety for the recovery of plant and invertebrate macrofossils, broadly following the techniques of Kenward *et al.* (1980).

All three of the resultant washovers contained biological remains preserved by waterlogging and were kept wet for examination for macrofossils using a low-power microscope (x7 to x45 magnification). The corresponding residues were primarily mineral in nature and were dried and weighed prior to the sorting and recording of their components. Both the washovers and the residues were separated into fractions (using 2 mm, 4 mm and 10 mm sieves) to facilitate recording where necessary.

The washovers were scanned until no new remains were observed and a sense of the abundance of each taxon or component (relative to the processed fraction as a whole) was achieved. All of the components were recorded using a five-point semi-quantitative scale (1 – few/rare, up to 3 individuals/items or a trace level component of the whole; 2 – some/present, 4 to 20 items or a minor component; 3 – many/common, 21 to 50 or a significant component; 4 – very many/abundant, 51 to 200 or a major component; and 5 – super-abundant, over 200 items/individuals or a dominant component of the whole).

The abundance of recovered organic and other remains within the sediment as a whole may be judged by comparing the washover volumes and the quantities of remains recovered from the residues with the size of the processed sediment subsamples.

The less than 2 mm fractions of each residue were not sorted but were scanned for magnetic material.

Macrofossil remains were identified by comparison with modern reference material (where possible), and the use of published works (e.g. Cappers *et al.* 2006 for plant remains; Lindroth 1974 and Harde 1984 for basic/preliminary identification of beetles). Remains were identified to the lowest taxon necessary to achieve the aims of the project. Nomenclature for plant remains follows Stace (1997) and insects follow Kloet and Hincks (1964-77).

Microfossil 'squash' subsamples (of ~5 ml) were taken from each of the deposits. These were examined using the 'squash' technique of Dainton (1992), originally designed specifically to assess the content of eggs of intestinal parasitic nematodes; however, this method routinely reveals the presence of other microfossils, such as pollen and diatoms, which were the primary focus of the investigations here. The assessment slides were scanned at x150 magnification and at x600 where necessary.

During recording, consideration was given to the suitability of macrofossil remains for submission for radiocarbon dating by standard radiometric technique or accelerator mass spectrometry (AMS).

5.3 Results

The results of the assessment are presented below in context number order. Archaeological information, provided by the excavator, is given in square brackets. A brief summary of the processing method and an estimate of the remaining volume of unprocessed sediment follows (in round brackets) after the sample numbers.

5.3.1 Context 10

[Test Pit 1. Base of the moat at its southern end, containing frequent wood and twig fragments. The deposit was 0.16m thick overlying sandy natural. It was sealed by a similar deposit (Context 11) 0.5m thick which had been heavily trampled by cattle]

Sample 1/T (10.8 kg/~10 litres sieved to 300 microns with washover and microfossil 'squash'; 40+ litres of unprocessed sediment remains with the excavator)

Just moist, mid to dark grey-brown (with some patches of light to mid and mid brown), crumbly to unconsolidated (working soft), sandy silt (slightly clay in places). Stones (6 to 20 mm) and ?acorn fragments were present and wood and twig fragments were common to abundant.

The washover from this sample was very large (~4 litres) and approximately one-quarter was divided into fractions (see Methods) for examination for the assessment. Most of the remains in the two larger fractions (i.e. >4 mm) were waterlogged twigs with bark (abundance score 5) representing up to 15 years of wood growth but there were also some fragments of older wood (age indeterminate; abundance score 2), fragments of acorn (*Quercus*) pericarp (abundance score 1) and cupules ('cups'; abundance score 3) and whole immature acorns (abundance score 2). The two finer fractions (i.e. those >300 µm and <4 mm) were dominated by indeterminate plant detritus (abundance score 5), with the coarser of the two (2 to 4 mm) being predominantly 'woody' fragments. Leaf fragments and 'skeletons' were common (abundance score 3) in both finer fractions and each also gave some records of earthworm egg capsules (abundance score 3) and insect cuticle (including beetle sclerite) fragments (abundance score 5 in the finest fraction and 2 in the 2 to 4 mm fraction where all the records were of beetle remains). Remains of 'seeds' (or similar structures) were common but relatively few (abundance score 3) given the quantity of plant material recovered and none were readily identifiable as their condition was rather poor (surfaces eroded). Some had split open revealing the endosperm and a subset of these were even more clearly of very recent origin as they had sprouted. Most of the insect remains (abundance score 5) were heavily fragmented and indeterminate or only identifiable as non-diagnostic beetle sclerites (e.g. legs and abdominal segments) or fragments thereof (abundance score 4). Identifiable beetle remains in the finest washover fraction included heads, wing cases (elytra) and pronota (combined abundance score 3) and represented rove beetles (Staphylinidae), a small water scavenger beetle (Hydrophilidae; probably *Cercyon analis* (Paykull) or *Megasternum obscurum* (Marsham)) and adult woodworm (*Anobium punctatum* (Degeer)), together with other taxa which could not be identified within the constraints of an assessment but would be identifiable to further study. All of the indentified (at least in part) beetle remains noted in the 2 to 4 mm fraction were of ground beetle(s) (Carabidae), again including heads, pronota and elytral fragments. Other invertebrate remains noted in the finest fraction were some (abundance score 2) mites (Acarina) and there was also a little sand (abundance score 2).

The residue fraction (dry weight 1442.9 g) was mostly sand (1082.4 g), with stones (to 41 mm) and occasional small (to 3 mm) sediment concretions (?heat-affected; not sorted). A single sherd of possible pottery (to 15 mm; 0.6 g – unidentified) was recovered and there was a trace of spheroid hammerscale (less than ten individual items; <0.1 g).

The 'squash' subsample was mostly organic detritus and approximately one-third inorganic. Identifiable microfossil remains were relatively few but included some diatoms (of at least three forms – variably preserved with some in good condition and others broken – perhaps indicating aquatic deposition at some point) and a few pollen grains/spores and fungal spores. There were also some remains of ?soil-dwelling nematodes (all of which were dead). No eggs of intestinal parasites were seen.

5.3.2 Context 20

[Test Pit 2. Base of the moat, with some intrusive roots and occasional fragments of red brick/tile. The deposit was 0.32m deep overlying the natural boulder clay, overlain by Context 22, a trampled upper fill 0.22m deep]

Sample 2/T (13.35 kg/~10 litres sieved to 300 microns with washover and microfossil 'squash'; 40+ litres of unprocessed sediment remains with the excavator)

Moist, mid purple-ish grey-brown, crumbly (working soft and slightly plastic), sandy clay silt, with some light to mid brown patches of more or less 'pure' clay. Stones (2 to 60 mm), flecks of charcoal and/or black ash and modern root and rootlet were present.

The washover from this sample was quite large (~500 ml) and was divided into fractions (see Methods) for examination for the assessment. The two larger fractions (>10 mm and 4-10 mm) were both predominantly of woody root and finer root material (abundance score 5), with occasional (abundance score 2) fragments of waterlogged wood and bark (to 37 mm and 50 mm, respectively). The 2 to 4 mm fraction was also dominated by similar material (abundance scores as above) but there were also abundant (abundance score 4) elder (*Sambucus nigra* L.) fruits, some other 'seeds' (abundance score 2), leaf fragments (abundance score 2), small lumps of undisaggregated sediment (to 3 mm; abundance score 2), fine indeterminate charcoal (to 3 mm; abundance score 3) and coal (to 4 mm; abundance score 3). Invertebrate remains in this fraction comprised occasional earthworm egg capsules and indeterminate insect cuticle fragments (both abundance score 2), together with a few (abundance score 1) cladoceran (including *Daphnia*) ephippia (water flea 'resting eggs'). The finest washover fraction was mostly indeterminate plant detritus (abundance score 5), with a range of other components similar to that recorded from the 2 to 4 mm fraction also present. Elder fruits were common (abundance score 3) and there were some other 'seeds' (abundance score 2) including a few orache/goosefoot (*Atriplex/Chenopodium*; abundance score 1), together with occasional leaf fragments (abundance score 1). Invertebrate remains, including cladoceran ephippia (again including *Daphnia*; abundance score 3) and beetle sclerites and sclerite fragments (abundance score 4), were numerous but most of the latter were indeterminate or of non-diagnostic beetle body parts (e.g. mandibles and legs; abundance score 3); there were also some earthworm egg capsules (abundance score 2). Identifiable beetle remains included elytra and pronota of *Helophorus ?flavipes* (Fabricius) and *Cercyon analis* (abundance scores 2 and 1, respectively), together with a few weevil (Curculionidae) elytra (abundance score 1); at least two other taxa would be identifiable to more detailed study. Other components noted were very fine coal (abundance score 3) and charcoal (abundance score 2), with a little undisaggregated sediment (to 1 mm; abundance score 2) and sand (abundance score 2).

The residue fraction (dry weight 3346.6 g) was mostly sand (1836.6 g) and stones (to 52 mm; ~1510 g), with some brick/tile (to 54 mm; 134.0 g – of the four largest pieces three were

water-rolled and one not, indicating some intrusion or mixing in the deposit, and the material appeared to be of very late medieval to post-medieval date; S. Tibbles, of JT Ceramic Building Materials, pers. comm.), ?slag (to 53 mm; 76.7 g), cinder (to 17 mm; 7.7 g), coal (to 27 mm; 3.7 g) and charcoal (to 18 mm; 0.9 g – silted and indeterminate). A single sherd of pottery (to 13 mm; 0.6 g) with a black glaze on both faces was recovered; late black ware of post-medieval date (S. Tibbles pers. comm.). There were also additional traces of fine (less than 4 mm) coal, charcoal and brick/tile which were not sorted from the residue. There was a little fine (less than 2 mm) magnetic material (0.7 g) but this was mostly heat-affected sand and sediment concretions with a little slag.

The 'squash' subsample was approximately equal parts organic detritus and inorganic, with a few pollen grains/spores. No eggs of intestinal parasites were recorded.

5.3.3 Context 44

[Test Pit 4. Base of the fishpond area. The deposit was 0.22m deep and contained occasional pebbles, it was described as gleyed by the excavator. The layer overlay natural boulder clay, and was sealed by an apparent dump of modern brick rubble (perhaps an attempt to stabilise the wet ground)]

Sample 3/T (11.4 kg/~10 litres sieved to 300 microns with washover and microfossil 'squash'; 40+ litres of unprocessed sediment remains with the excavator)

Just moist, mid brown to mid grey-brown to mid grey (with some patches of light to mid brown), slightly silty clay, with localised sandy areas and some patches of more or less 'pure' clay. Stones (2 to 20 mm) were present.

The relatively small washover (~120 ml) was mostly fine plant detritus (abundance score 5) but there were also abundant plant and invertebrate macrofossil remains. Identifiable (at least in part) plant remains included rush (*Juncus*) capsules (abundance score 5), sedge (*Carex*) nutlets (abundance score 3), grass (Poaceae) caryopses probably a *Glyceria* species (abundance score 3), chickweed/stitchwort (*Stellaria* sp.) seeds (abundance score 3), stinging nettle (*Urtica dioica* L.) achenes (abundance score 5; some of these were sprouting), dock (*Rumex* sp.) achenes (abundance score 2), elder fruit fragments (abundance score 2) and some other 'seeds' which could not be identified for this assessment but would probably be identifiable to more detailed study. Invertebrate remains were also abundant, with cladoceran (including *Daphnia*) ephippia particularly so (abundance score 5). Other invertebrate remains (abundance score 4) were mostly unidentified beetle sclerite fragments or more complete non-diagnostic body parts such as legs but there were occasional more 'useful' macrofossils including *Cercyon analis* elytra and weevil (cf. *Otiorhynchus* sp.) pronota. There were also occasional statoblasts (abundance score 2) of the freshwater invertebrate *Cristatella mucedo* (sometimes known as a 'moss animal'). Other components noted included coal, cinder and charcoal (all to 2 mm and with abundance scores of 2) and small lumps of undisaggregated sediment (to 3 mm; abundance score 3).

The residue fraction (dry weight 1626.3 g) was mostly sand (1234.1 g), with some stones (to 47 mm; ~390 g) and occasional sediment concretions (to 10 mm), and traces of fine (less than 4 mm) coal and indeterminate charcoal which were not sorted from the residue. The minute quantity of magnetic material recovered (<0.1 g) comprised just three spheroids of hammerscale (to 1 mm).

The 'squash' subsample was approximately equal parts organic detritus and inorganic, with some pollen grains/spores (including two well preserved *Polypodium* (fern) spores and a poorly preserved possible alder (?*Alnus*) pollen grain) and a few poorly preserved (eroded)

diatoms (all of which appeared to be of the same form). No eggs of intestinal parasites were seen.

5.4 Discussion and statement of potential

Although waterlogged macrofossil remains were recovered from all three of the assessed deposits, the preservation of the material and the character of the assemblages recovered suggested that these were of recent origin and unrelated to the medieval moat and fishpond. This impression was particularly strong for the assemblages recovered from Context 44 (Test Pit 4; base of fishpond area) which were dominated by plant remains of emergent vegetation (e.g. rushes) and rough/disturbed ground (e.g. stinging nettle; some of which had sprouted and were clearly 'modern') and invertebrate remains indicative of temporary freshwater (abundant cladoceran ehippia); the overall bias being towards saturated/flooded ground. Test Pit 4 was located at the northern margin of an area recorded by the excavator as 'flooded/marshy ground' and the remains recovered were consistent with expansion and contraction of this area (probably seasonally) rather than the permanent freshwater of a fishpond. The presence of *Cristatella mucedo* statoblasts in this context suggests that the deposit formed in the autumn as these structures are produced as the colonies degenerate at this time of year; they remain dormant over winter and hatch in late spring growing through the summer to form new long gelatinous colonies in slow-moving water.

Similar assemblages were recovered from Context 20 (Test Pit 2; base of the moat) but here the balance of the plant and invertebrate assemblages was in favour of indicators of rough/disturbed ground (e.g. abundant elder fruits) with rather lesser numbers of remains suggesting temporary inundation (i.e. cladoceran ehippia). This fits well with the location of Test Pit 2 approximately 21 metres to the south of the current southerly extent of the flooded/marshy area (approximately 40 metres south of Test Pit 4) and its slightly higher elevation (approximately 0.25 metres). Here again, the remains recovered appear to reflect intermittent flooding rather than permanent freshwater which might be expected (though with less certainty than in a fishpond) within a moat and a recent date of deposition is likely.

At the location of Test Pit 1, a further 15 metres south-south-east of Test Pit 2 (following the moat) and elevated by an additional 0.40 metres (approximately), the macrofossil assemblages from the sample from Context 10 (base of the moat at its southern end) showed no indications of seasonal flooding. Twigs and bark dominated the plant assemblage and appreciable numbers of acorns were represented. All of these remains probably derive from the (oak) trees which currently surround the former moat (L. Hayes pers. comm.). This deposit also contained indeterminate 'seeds' which had split to reveal the endosperm, some of which had sprouted and were, as also noted for Context 44 (see above), clearly 'modern'.

Microfossil remains in Context 20 were too few to be of any interpretative value and those from Contexts 10 and 44 were also rather limited, although both of these deposits did contain some diatoms providing supporting evidence for aquatic deposition in the latter and the only possible evidence of water within the former moat from Context 10.

Trace levels of probable fuel waste (charcoal and coal) and artefactual waste material (e.g. hammerscale and/or slag, pottery, brick/tile) were present in each of the deposits but insufficient to imply any significant human activity in the immediate vicinity.

Overall, the assemblages of biological remains recovered from the assessed samples (and general lack of remains indicative of human activity) suggest recent material deposited in an area prone to seasonal flooding rather than within the medieval fishpond and moat during their use; these features presumably having largely infilled previously leaving only the present day flooded/marshy ground in the area of the fishpond.

Each of the three deposits yielded sufficient suitable waterlogged plant material for radiocarbon dating (via AMS) should this be considered desirable.

5.5 Recommendations

Although moderate to large quantities of waterlogged plant and invertebrate remains were recovered from each of the assessed contexts, the assemblages are considered to have been deposited very recently rather than preserved within the medieval fishpond and moat. However, it would, perhaps, be worthwhile to undertake at least one radiocarbon date on material from the samples to confirm (or refute) this conclusion.

No further study is warranted unless the recovered assemblages can be shown to relate to fills of the medieval features contemporary with their use.

5.6 Retention and disposal

If the deposits are accepted to be of recent date (or shown to be by radiocarbon dating or other means) then all of the recovered remains and retained sediment may be discarded.

5.7 Archive

All material is currently stored by Palaeoecology Research Services (Unit 4, National Industrial Estate, Bontoft Avenue, Kingston upon Hull), pending return to the excavator or permission to discard, along with paper and electronic records pertaining to the work described here.

6.0 THE FINDS

A small assemblage of artefacts was recovered during the course of the investigation. These are summarised in Table 1 below.

Table 1: Summary of the finds

Context	Material	Weight	Notes
10	Ceramic Building Material	34g	Single fragment of abraded/reworked tile in a high-fired coarse sand tempered fabric, 12-14mm thick.
10	Pottery	2g	Single body sherd of wheel-thrown vessel. Red slip decorated on one side, missing opposing surface.
20	Ceramic Building Material	319g	Four fragments of abraded/reworked tile, three in a medium-fired fine sand tempered fabric (23mm thick), and one in a high-fired, coarse sand tempered fabric (12mm thick).
35	Pottery	14g	Rim sherd from wheel-thrown vessel. Dark red-brown glazed interior surface, red slip coated exterior.
35	Animal Bone	20g	Burnt cattle metacarpal (proximal end).

6.1 Ceramic building material

Fragments of tile in two distinct fabrics have been identified: a high-fired coarse sand tempered fabric containing burnt-out voids (?calcareous inclusions), and a fine sand tempered, medium-fired fabric.

The coarse fabric was noted in single fragments from context 10 (Trench 1) and 20 (Trench 2), with broadly uniform thickness between 12mm and 14mm. The notable similarity of the fabric and surface finish of the material in these two test pits suggests it is likely to have derived from the same source.

Three fragments of tile in the fine fabric were all located within context 20 (Trench 2). The tile was 23mm thick and heavily eroded/reworked.

The condition and characteristics of the material recovered in context 20 is reflected by the material observed in the residue from Sample 2 (also context 20), in which intrusion or mixing of the deposit with evidence of water rolling was noted.

In isolation the ceramic building material is not closely datable, however the condition and characteristics of manufacture alongside pottery recovered from the same contexts may tentatively indicate a late medieval or early post medieval date range.

6.2 Pottery

Two sherds of early post medieval red ware pottery were recovered from context 10 (Trench 1) and context 35 (Trench 3). These were both well fired wheel-thrown vessels decorated on one side with red slip. The sherd from context 10 was heavily abraded with one missing surface and was not diagnostic of form, however the sherd from context 35, while also heavily abraded, can be identified as the rim of a bowl or dish with an internal dark red/brown glaze. Typologically these domestic vessels are dated to the late medieval or very early post medieval period, commonly attributed to the late-15th to 16th century.

6.3 Animal Bone

A single fragment of cattle metacarpal was recovered from context 35 in Trench 3. The bone was broken and abraded with no evidence of gnawing or butchery marks, however the exterior colouration suggests partial (lower temperature) fire damage.

6.4 Discussion

The small artefact assemblage is of limited interpretive value. Both the pottery and animal bone reflect the deposition of domestic waste from elsewhere on the site. The pottery tentatively suggests a date range spanning the 15th-16th century, and by association a similar date may be inferred for the ceramic building material, though the condition of the artefacts may indicate secondary deposition within the moat at a later date. The late medieval - early post medieval date range of this material corroborates that of the small artefactual assemblage recovered from the environmental samples which included very late medieval-post medieval brick/tile and post medieval pottery.

This material provides some indication of activity adjacent to the moat, most likely within the platform area, but does not contribute to an understanding of the use of the moat or fishpond and is of little further interpretive value to the site. Evidence for smithing (hammerscale and slag) was recovered in too small a quantity from the environmental samples to infer activity in close proximity to the site. No further analysis is deemed to be warranted on the artefact remains.

Figure 23: Context 10. Pottery and ceramic building material



Figure 24: Context 20. Ceramic building material



Figure 25: Context 35. Animal bone and pottery



7.0 DISCUSSION

7.1 Overview of the drainage trench

The drain comprises a machine-cut trench 0.9m wide and between 0.7- 0.76m deep. In all locations investigated, the drainage trench has truncated the fills of the moat and fishpond down to the base of the respective features and then continued into the underlying natural geology.

Within the cut the drain comprises lengths of ridged black plastic ducting 0.3m in diameter.

At the southern point of investigation (Trench 1) the level on top of the plastic drain is 135.95m AOD, around 0.37m below the adjacent ground surface. At the northern end the level on top of the drain is 134.76m AOD, indicating the drain falls in level 1.19m over a distance of 70m between the measured spot heights.

7.2 Nature of the moat and fishpond fills

Along the base of the moat a disturbed upper fill of trampled mud (incorporating modern debris from the adjacent trees) was observed. This deposit is associated with the current use of the field within which the monument stands as pasture for cattle. The trampled deposit varied in thickness between 0.5m at the southern end of the moat (Trench 1) and 0.22m in Trenches 2 and 3.

In Trench 4 towards the northern side of the fishpond a dump of modern material 0.5m thick containing tarmac and rubble sealed the basal pond fills, with a thin trampled topsoil and turf overlying.

The basal fill of the moat in Trenches 1 and 2 appeared homogenous, and was recorded as a single deposit with no visible stratigraphic variation. Palaeoenvironmental assessment indicates that these deposits (contexts 10 and 20) contain plant remains of recent origin, and environmental indicators reflecting seasonal inundation rather than the presence of permanent freshwater, which correlates with the currently observed pattern of seasonal waterlogging. Modern seeds and plant remains suggests that disturbance through bioturbation and trample is deeper than obviously visible to the naked eye. There were no clear indicators of historic land use or activity within the sampled deposits, though sparse artefact remains within these contexts do indicate the presence of dumped or reworked domestic waste and building material, presumably derived from the adjacent platform. There is also a trace of hammer scale and possible slag represented in the environmental samples which may reflect smithing being undertaken locally.

The thin basal fill in Trench 3 was not sampled though yielded pottery of similar date to that observed in Trench 1 and a fragment of cattle bone, suggesting a similar depositional environment to that recorded in Trenches 1 and 2.

The basal fill of the fishpond in Trench 4 was described as having a gleyed appearance, and although not visibly rich in organic material, assessment of Sample 3 showed that it contained plant remains reflecting emergent vegetation such as rushes, and plants typical of rough/disturbed ground including modern nettle, alongside freshwater invertebrates. The assessment indicates therefore that this deposit is both 'modern' and biased towards flooded/marshy ground.

7.3 Condition of the monument

The approximate overall depth of deposits recorded within the four trenches was 0.66m in Trench 1, 0.5m in Trench 2, 0.41m in Trench 3 and 0.5-0.7m in Trench 4.

The base of the monument has suffered from trample caused by a combination of seasonal waterlogging and cattle movements along the moat arms and base of the fish pond. In all trenches an upper layer of trampled and disturbed ground was visible to the naked eye, but assessment of samples taken from the lower fills indicates that this disturbance extended to the base of the monument, indicating recent deposition and reworking.

Trench 4 contained evidence for deposition of modern building material and spoil across the base of the pond, perhaps to stabilise the ground.

The depth of the drainage trench is such that the deposit sequence within the moat and fishpond has been truncated through to the underlying natural geology. It is noted however that, with the exception of the deviation seen in Trench 3, the new drain follows the existing line of a former ceramic drain which is likely to have caused similar depth of truncation.

Although it falls outside the remit of the investigation work undertaken as part of this exercise, it was noted that the condition of the monument has suffered to an extent along the banks of the platform and western moat arm through livestock slipping up and down the banks pulling earth away from the tree roots, and through animal burrowing between tree roots.

7.4 Heritage significance

The schedule description for Sillenhurst Moated Site notes:

"...the artefacts and organic remains surviving in the moat will provide valuable information about the occupation and social status of the inhabitants. Organic remains surviving in the moat will also provide information about the changes to the local environment and use of the land. The association of the moated site and the fishpond is important in providing further evidence about the economy and lifestyle of the occupants during the medieval period."

Overall it appears that the deposits adjacent to the drainage trench and those which have been removed by its excavation do not contain significant organic remains, vertebrate or artefact assemblages. The shallow depth of the deposits, their seasonal waterlogging and trample/disturbance by cattle, as well as the incursion of roots and vegetation matter from the surrounding mature trees are likely to have contributed to the systematic erosion and bioturbation of the earlier fills of these features.

The absence of such deposits or artefacts does not preclude the existence of better preserved deposits elsewhere within the monument, particularly away from the principal area of cattle activity and vegetation cover on the periphery of the fishpond or within the eastern arm of the moat.

The excavation results suggest that there has been little or no reduction to the heritage significance of the monument resulting from the insertion of the unauthorised drainage trench compared with its pre-existing condition. It is considered unlikely that the drain (which acts as a duct to carry water from the leat to the south of the monument through to its northern limit, rather than a field drain) will affect the seasonal inundation and drying of the ground at the base of the moat and fishpond. The continued erosion of the earthwork and disturbance of basal deposits is likely occur as long as there are cattle movements across the scheduled area.

It is noted that samples suitable for radiocarbon dating have been retained from the environmental samples, and English Heritage may consider whether it is worthwhile analysing these as part of its internal dating programme.

8.0 CONCLUSION

The investigation into the effects of an unauthorised drainage trench through the scheduled Sillenhurst Moated Site has shown that there is unlikely to have been an appreciable reduction in the monument's heritage significance. Although the schedule description includes reference to potential organic remains and artefacts within the moat and fishpond, assessment of samples from the base of the three trenches has indicated that this is not the case, with modern disturbance extending to the base of the feature. It is acknowledged however that the condition of the deposits within the moat and fishpond may vary in other parts of the monument.

The investigation proceeded in accordance with the proposed methodology and within the terms of scheduled monument consent granted for the works. As well as identifying the characteristics of the moat and fishpond deposits, the precise location and form of the drainage trench has been determined and mapped for future reference.

9.0 CLOSURE

This report has been prepared by SLR Consulting Limited with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of Mr E and Mrs P Friend of Bridgemere Farm, Nantwich; no warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of the work.

Appendix A

Schedule Description

List Entry Summary

This monument is scheduled under the Ancient Monuments and Archaeological Areas Act 1979 as amended as it appears to the Secretary of State to be of national importance. This entry is a copy, the original is held by the Department for Culture, Media and Sport.

Name: Sillenhurst moated site and fishpond

List Entry Number: 1017005

Location

The monument may lie within the boundary of more than one authority.

County:

District: Shropshire

District Type: Unitary Authority

Parish: Woore

National Park: Not applicable to this List entry.

Grade: Not applicable to this List entry.

Date first scheduled: 27-Sep-1999

Date of most recent amendment: Not applicable to this List entry.

Legacy System Information

The contents of this record have been generated from a legacy data system.

Legacy System: RSM

UID: 32304

Asset Groupings

This List entry does not comprise part of an Asset Grouping. Asset Groupings are not part of the official record but are added later for information.

List Entry Description

Summary of Monument

Legacy Record - This information may be included in the List Entry Details.

Reasons for Designation

Around 6,000 moated sites are known in England. They consist of wide ditches, often or seasonally water-filled, partly or completely enclosing one or more islands of dry ground on which stood domestic or religious buildings. In some cases the islands were used for horticulture. The majority of moated sites served as prestigious aristocratic and seigneurial residences with the provision of a moat intended as a status symbol rather than a practical military defence. The peak period during which moated sites were built was between about 1250 and 1350 and by far the greatest concentration lies in central and eastern parts of England. However, moated sites were built throughout the medieval period, are widely scattered throughout England and exhibit a high level of diversity in their forms and sizes. They form a significant class of medieval monument and are important for the understanding of the distribution of wealth and status in the countryside. Many examples provide conditions favourable to the survival of organic remains.

Sillenhurst moated site and the adjoining fishpond survive well despite some modification to the water management system. The moated island will retain structural and artefactual evidence of the buildings that once stood on the site, which together with the artefacts and organic remains surviving in the moat will provide valuable information about the occupation and social status of the inhabitants. Organic remains surviving in the moat will also provide information about the changes to the local environment and use of the land. The association of the moated site and the fishpond is important in providing further evidence about the economy and lifestyle of the occupants during the medieval period. The size of this pond would suggest that its principal use was for storing fish before being transported to local markets.

History

Legacy Record - This information may be included in the List Entry Details.

Details

The monument includes the earthwork and buried remains of a medieval moated site and associated fishpond, situated in an area of undulating land. The moated site occupies a prominent position with extensive views to the north. The rectangular moated island, which has maximum dimensions of 50m north-south by 54m east-west, was originally surrounded by a moat on its western, southern and eastern sides, and was bounded by a fishpond on its northern side. The remains of a brick-built structure was found on the island at the end of the 19th century. There are now no visible traces of any buildings, although fragments of brick and tile can be seen embedded in the sides of the moat. The southern moat arm still retains water. It is 12m wide and 1.5m deep, and is bounded on the southern (outer side) by a bank 9m wide and 0.4m high. Much of

the eastern arm has been infilled with modern building rubble, but survives as a buried feature. A causeway to the island separated the northern part of this ditch from the adjacent fishpond. The western arm ranges in depth from 1.5m to 2.5m and is between 13m and 19m wide.

The fishpond, which has been drained, is triangular in shape (about 35m north-south by 150m east-west) and would have been used for breeding and storing fish to provide a sustainable supply of food. It was created by digging into the sloping ground and dumping the spoil to the north in order to form a dam, 15m wide and 1m high. The dam sits at the top of a steep north east facing slope. It is about 95m long, but drainage works during the 20th century have substantially reduced its height at the eastern end. The steep scarp which defines the southern side of the fishpond also defines the northern side of the moated island, and is between 1.5m and 2m in height. The western side of the pond is defined by a scarp 0.8m high.

Water to supply the moat and the fishpond came from the higher ground to the south through a channel, or leat, that joined the moat at its south western corner. This channel has been recut and forms part of the modern drainage system, and is not therefore included in the scheduling. The modern drainage channel cuts through the base of western arm of the moat and connects with drains in the eastern part of the pond.

The electricity poles are excluded from the scheduling, although the ground beneath them is included.

MAP EXTRACT

The site of the monument is shown on the attached map extract.

It includes a 2 metre boundary around the archaeological features, considered to be essential for the monument's support and preservation.

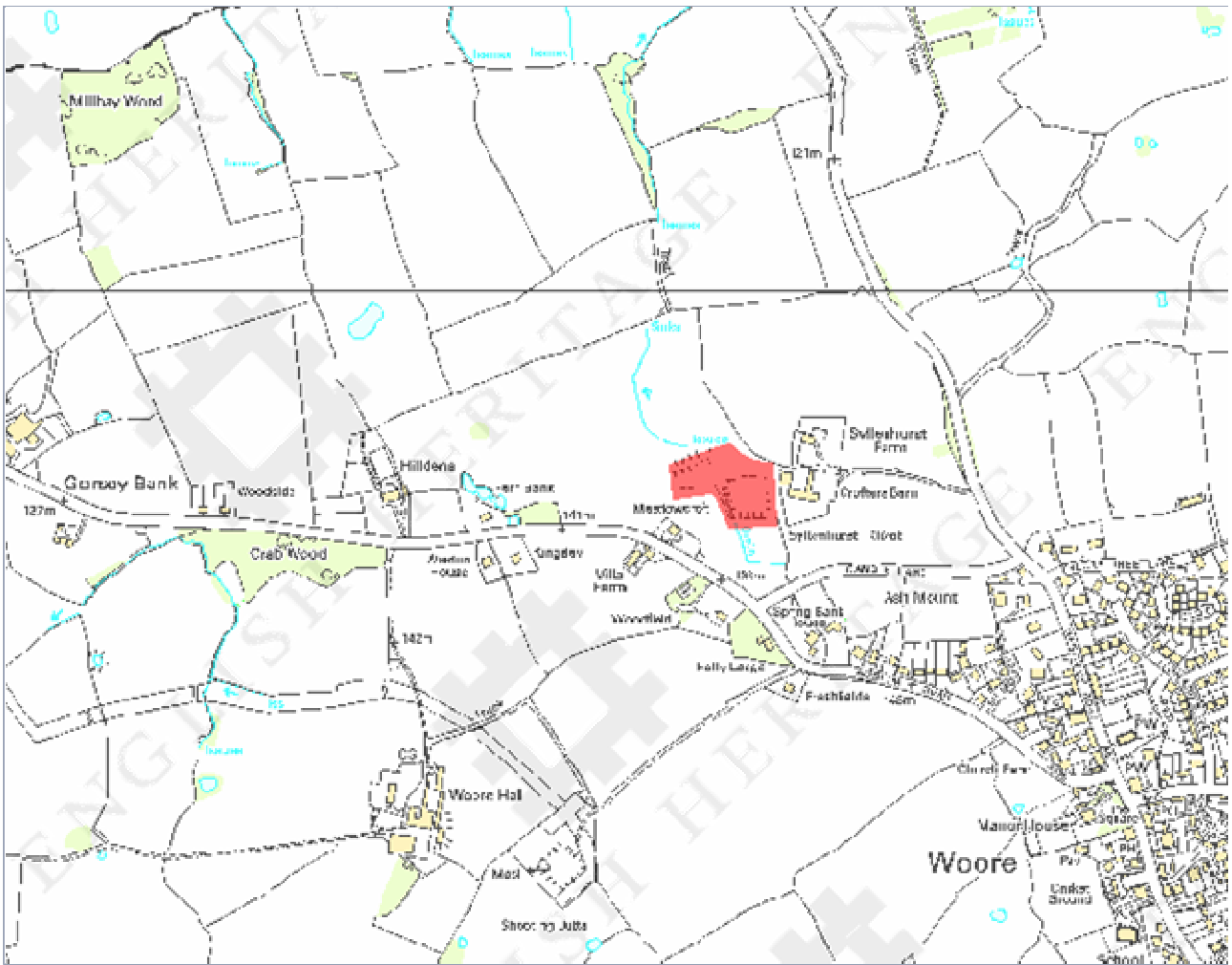
Selected Sources

Legacy Record - This information may be included in the List Entry Details.

Map

National Grid Reference: **SJ 72495 42740**

The below map is for quick reference purposes only and may not be to scale. For a copy of the full scale map, please see the attached PDF - [1017005.pdf](#)

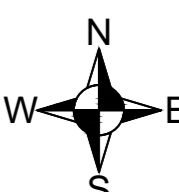


© Crown Copyright and database right 2012. All rights reserved. Ordnance Survey
Licence number 100019088.

© British Crown and SeaZone Solutions Limited 2012. All rights reserved. Licence
number 102006.006.

This copy shows the entry on 12-Jun-2012 at 11:33:42.

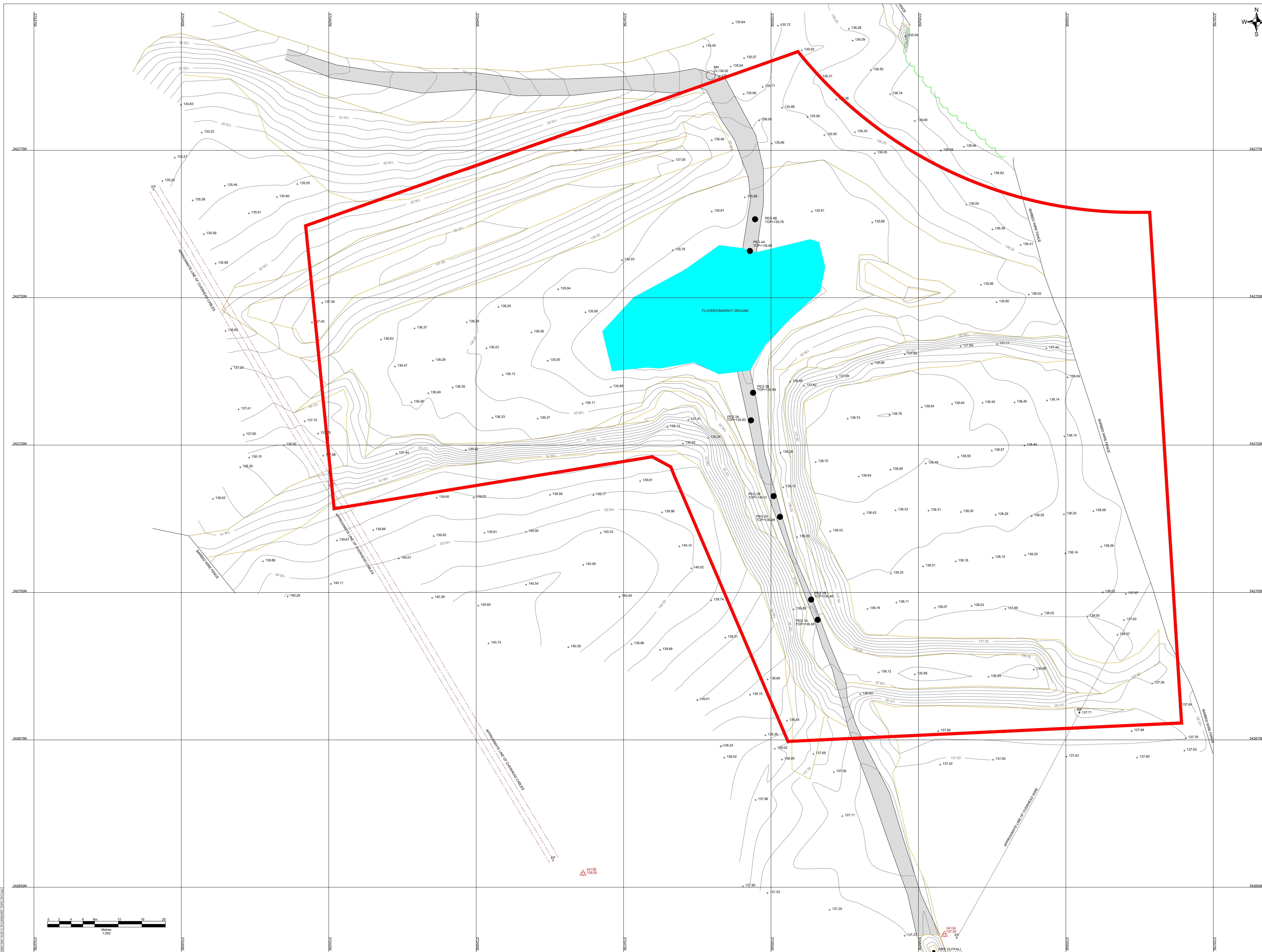
Appendix B
Topographical Survey Drawings



- NOTES**
1. SURVEY CARRIED OUT BY SLR CONSULTING LTD ON THE 20th APRIL 2013.
 2. THIS PLAN IS ORIENTATED TO ORDNANCE SURVEY NATIONAL GRID PLAN AND HEIGHT DATUM DERIVED FROM THE ORDNANCE SURVEY ACTIVE NETWORK (OSTN02.OSGB36).
 3. FOR DRAWING CLARITY, NO TREES OR VEGETATION ARE SHOWN ON THIS DRAWING.
 4. CONTOURS ARE PLOTTED AT 0.25m INTERVALS.

- LEGEND**
- EDGE OF VEGETATION
 - SPOT LEVEL
 - SURVEY CONTROL STATION WITH ID & LEVEL
 - OVERHEAD CABLES / WIRES
 - FENCE
 - SURFACE INDICATION OF TRENCH
 - FLOODED OR MARSH
 - BOUNDARY OF ANCIENT MONUMENT

- SURVEY ABBREVIATIONS (where used)**
- BOL Bolt
 - BS Bus Stop
 - BT Telecommunications Inspection Cover
 - CATV Cable Television Cover
 - CL Cover Level
 - CP Cover Pipe
 - DR Drain
 - EP Electricity Pole
 - ER Earth Rod
 - FH Fire Hydrant
 - FP Flagpole
 - G Gully
 - GV Gas Valve
 - IC Inspection Cover
 - KO Kerb Outlet
 - LB Letter Box
 - LP Lamp Post
 - MH Manhole
 - NP Name Plate
 - LB Letter Box
 - PM Parking Meter
 - PS Post
 - RE Road Sign
 - RS Road Sign
 - S.R.R. Street Roadside Ramp
 - ST Stop Tap
 - SV Street Valve
 - TL Traffic Light
 - TPS Telegraph Pole
 - T.P.S. Traffic Paving Slabs
 - VV Vent Pipe
 - WM Water Meter
 - WO Water Outlet



Revision	By	Chk'd By	Date	Comments
0	RLM	VSQ	05/13	

ASPECT HOUSE
 ASPECT BUSINESS PARK
 BENHURST ROAD
 NOTTINGHAM, Notts. NG6 9BN
 T: 0115 82 62 00
 F: 0115 82 62 01
 www.slrcad.co.uk

Site: SYLLENHURST MOAT
 WOORE
 Project: SYLLENHURST MOAT
 TOPOGRAPHICAL SURVEY
 Drawing Title: **TOPOGRAPHICAL SURVEY OF SYLLENHURST MOAT WOORE**
 Scale: 1:200 @ A0
 Date: MAY 2013
 Drawing Number: **001**
 Revision: **0**

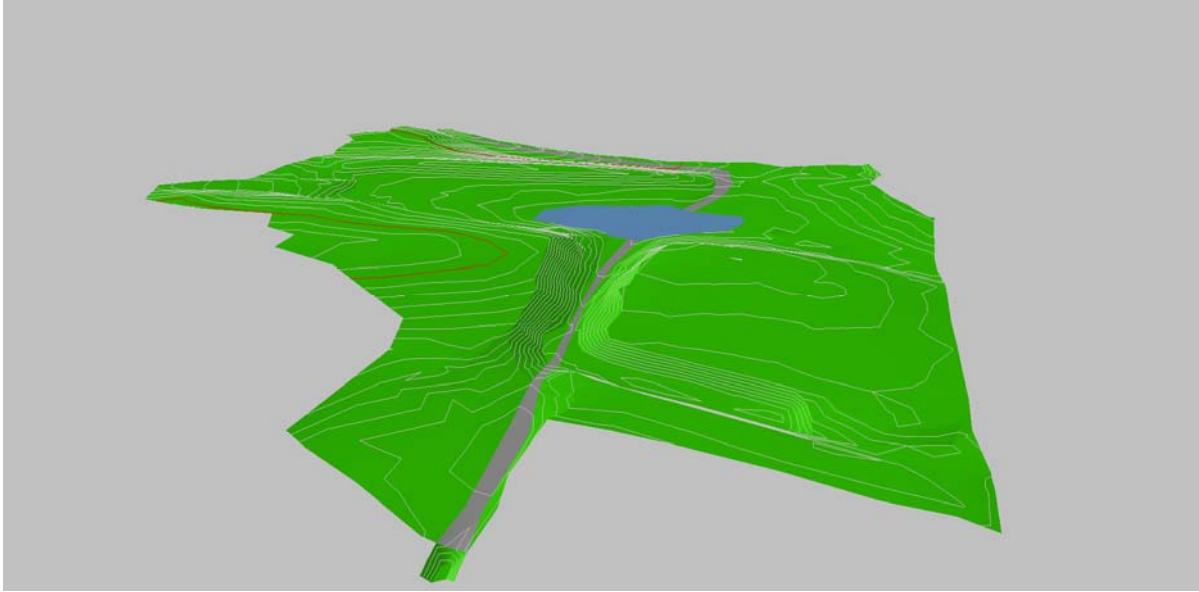


Plate 1: 3D rendering of Sillenhurst Moated Site facing north west along western moat arm. Unauthorised drainage trench is shaded grey.

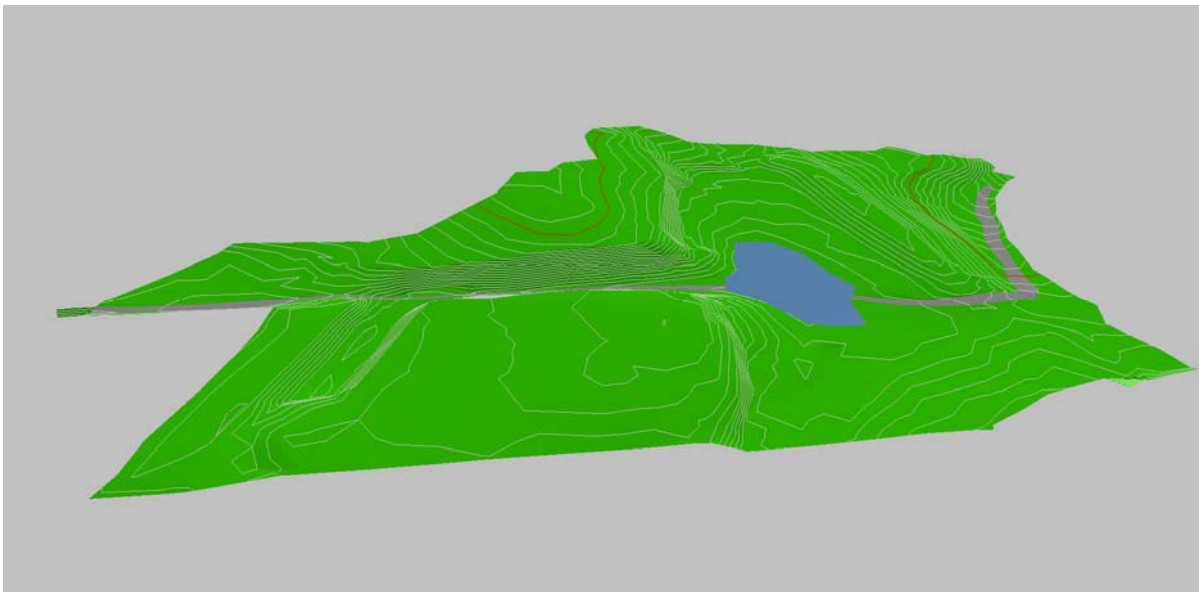


Plate 2: 3D rendering facing south west across fishpond.

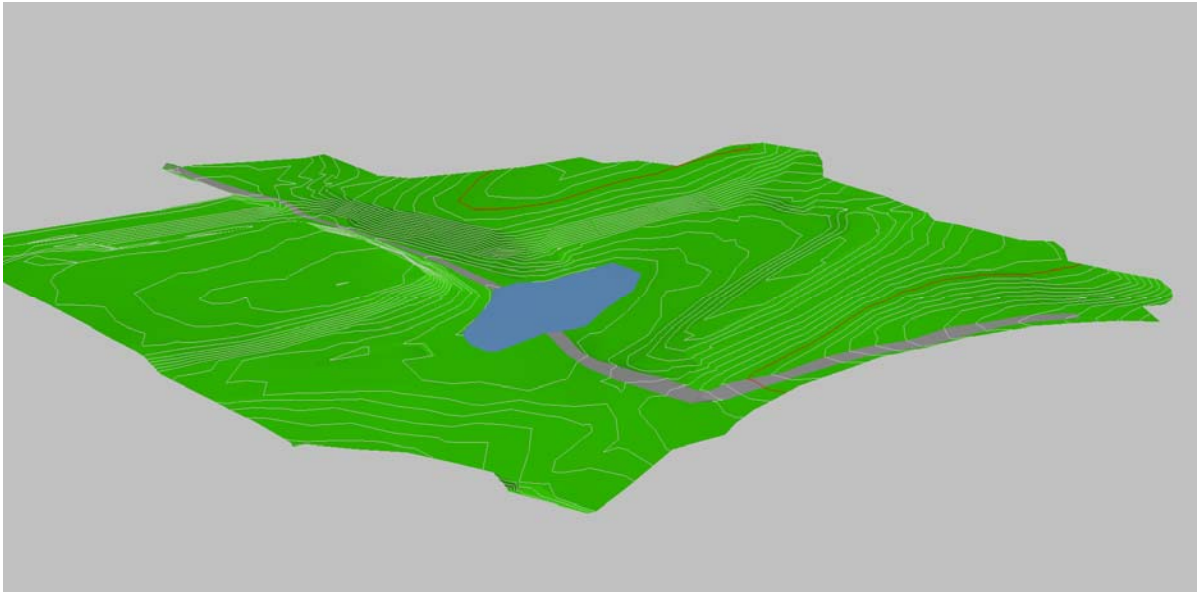


Plate 3: 3D rendering facing south-south west across fishpond.

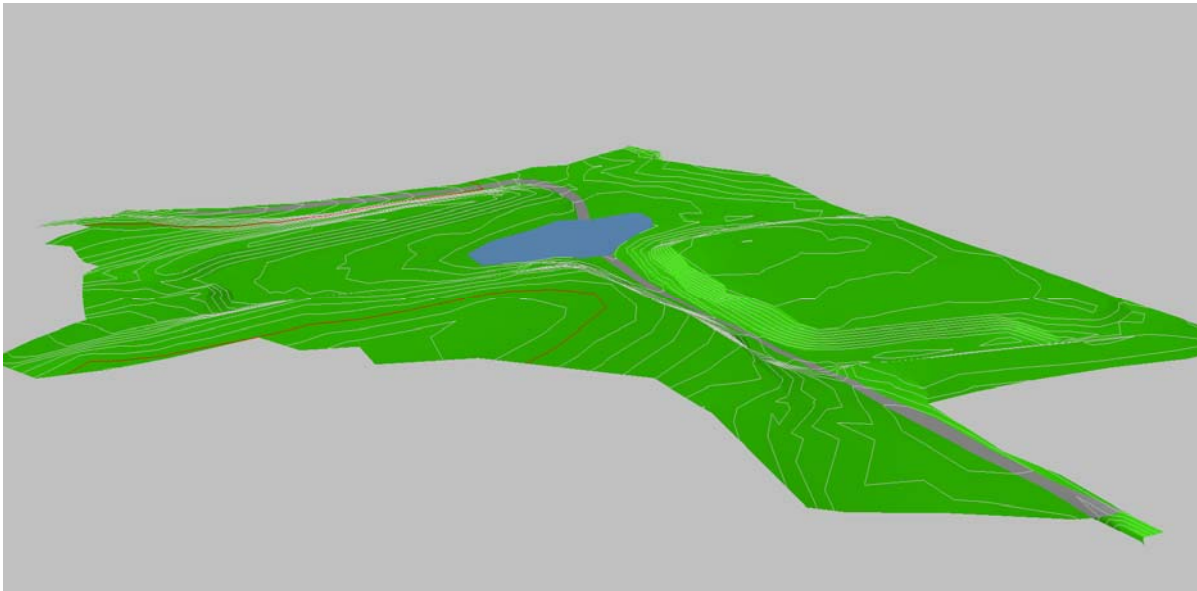


Plate 4: 3D rendering facing north.

Appendix C

Palaeoenvironmental Assessment Report

Palaeoecology Research Services

**Assessment of biological remains from three
sediment samples recovered during an
archaeological investigation at Sillenhurst
Moated Site, near Woore, Shropshire
(site code: SIL13)**

PRS 2013/30

Assessment of biological remains from three sediment samples recovered during an archaeological investigation at Sillenhurst Moated Site, near Woore, Shropshire (site code: SIL13)

by

John Carrott

Summary

Three sediment samples recovered during an archaeological investigation at Sillenhurst Moated Site, near Woore, Shropshire, were submitted for an assessment of their bioarchaeological potential. Sillenhurst Moated Site is a scheduled monument comprising the earthwork and remains of a medieval moated site, with ditches on the west, south and east sides of a central island, and an associated fishpond to the north. In December 2011 a drainage ditch was excavated along the line of the western arm of the moat and through the fishpond to the north. The work was carried out without scheduled monument consent and a brief was prepared by English Heritage outlining a programme of archaeological investigation required to investigate the impact of these works on the monument. SLR Consulting Ltd were commissioned to undertake this investigation and carried out a topographical survey to show the line of the drainage ditch and excavated four small test pits, recovering a single sample from three of these (all bar Test Pit 3) – one from the fishpond area and two from the moat.

Each of the samples yielded assemblages of waterlogged plant and invertebrate remains. However, the assemblages of biological remains recovered (and general lack of remains indicative of human activity) suggested recent material deposited in an area prone to seasonal flooding rather than within the medieval fishpond and moat during their use; these features presumably having largely infilled previously leaving only the present day flooded/marshy ground in the area of the fishpond. Each of the three deposits yielded sufficient suitable waterlogged plant material for radiocarbon dating (via AMS) and it would, perhaps, be worthwhile to undertake at least one radiocarbon date to confirm (or refute) this conclusion.

No further study is warranted unless the recovered assemblages can be shown to relate to fills of the medieval features contemporary with their use.

KEYWORDS: SILLENHURST MOATED SITE; NEAR WOORE; SHROPSHIRE; ASSESSMENT; MEDIEVAL; PLANT REMAINS; INVERTEBRATE REMAINS; CLADOCERAN (INCLUDING *DAPHNIA*) EPHIPPIA; BEETLES; *CRISTATELLA MUCEDO* STATOBLASTS

Contact address for author:

Palaeoecology Research Services Ltd
Unit 4 National Industrial Estate
Bontoft Avenue
Kingston upon Hull
HU5 4HF

Prepared for:

SLR Consulting Ltd
Suite 9, Beech House
Padgate Business Park
Warrington
WA1 4JN

2 October 2013

Assessment of biological remains from three sediment samples recovered during an archaeological investigation at Sillenhurst Moated Site, near Woore, Shropshire (site code: SIL13)

Introduction

An archaeological investigation was undertaken by SLR Consulting Ltd at Sillenhurst Moated Site, near Woore, Shropshire (NGR SJ 72495 42740), during 2013.

Sillenhurst Moated Site is a scheduled monument (former monument number 32304 and current Heritage List Entry Number 1017005), located west of Syllenhurst Farm and to the north-west of Woore. The monument comprises the earthwork and remains of a medieval moated site, with ditches on the west, south and east sides of a central island, and an associated fishpond to the north.

In December 2011 a drainage ditch was excavated along the line of the western arm of the moat and through the fishpond to the north. The work was carried out without scheduled monument consent and a brief was prepared by English Heritage outlining a programme of archaeological investigation required to investigate the impact of these works on the monument.

SLR Consulting Ltd were commissioned to undertake this work and carried out a topographical survey to show the line of the drainage ditch and excavated four small test pits, recovering a single sample from three of these (all but Test Pit 3).

Ten litre subsamples from three bulk sediment samples ('GBA'/'BS' *sensu* Dobney *et al.* 1992), representing basal fills of the moat (in Test Pits 1 and 2) and of the fishpond (in Test Pit 4), were submitted to Palaeoecology Research Services Limited, Kingston upon Hull, for an assessment of their bioarchaeological potential.

Methods

The subsamples were inspected and their lithologies recorded, using a standard *pro forma*. Barring a small quantity of sediment for microfossil examination (see below), each of the subsamples submitted was processed in its entirety for the recovery of plant and invertebrate macrofossils, broadly following the techniques of Kenward *et al.* (1980).

All three of the resultant washovers contained biological remains preserved by waterlogging and were kept wet for examination for macrofossils using a low-power microscope (x7 to x45 magnification). The corresponding residues were primarily mineral in nature and were dried and weighed prior to the sorting and recording of their components. Both the washovers and the residues were separated into fractions (using 2 mm, 4 mm and 10 mm sieves) to facilitate recording where necessary.

The washovers were scanned until no new remains were observed and a sense of the abundance of each taxon or component (relative to the processed fraction as a whole) was achieved. All of the components were recorded using a five-point semi-quantitative scale (1 – few/rare, up to 3 individuals/items or a trace level component of the whole; 2 – some/present, 4 to 20 items or a minor component; 3 – many/common, 21 to 50 or a significant component; 4 – very many/abundant, 51 to 200 or a major component; and 5 – super-abundant, over 200 items/individuals or a dominant component of the whole).

The abundance of recovered organic and other remains within the sediment as a whole

may be judged by comparing the washover volumes and the quantities of remains recovered from the residues with the size of the processed sediment subsamples.

The less than 2 mm fractions of each residue were not sorted but were scanned for magnetic material.

Macrofossil remains were identified by comparison with modern reference material (where possible), and the use of published works (e.g. Cappers *et al.* 2006 for plant remains; Lindroth 1974 and Harde 1984 for basic/preliminary identification of beetles). Remains were identified to the lowest taxon necessary to achieve the aims of the project. Nomenclature for plant remains follows Stace (1997) and insects follow Kloet and Hincks (1964-77).

Microfossil 'squash' subsamples (of ~5 ml) were taken from each of the deposits. These were examined using the 'squash' technique of Dainton (1992), originally designed specifically to assess the content of eggs of intestinal parasitic nematodes; however, this method routinely reveals the presence of other microfossils, such as pollen and diatoms, which were the primary focus of the investigations here. The assessment slides were scanned at x150 magnification and at x600 where necessary.

During recording, consideration was given to the suitability of macrofossil remains for submission for radiocarbon dating by standard radiometric technique or accelerator mass spectrometry (AMS).

Results

The results of the assessment are presented below in context number order. Archaeological information, provided by the excavator, is given in square brackets. A brief summary of the processing method and an estimate of the remaining volume of

unprocessed sediment follows (in round brackets) after the sample numbers.

Context 10 [Test Pit 1. Base of the moat at its southern end, containing frequent wood and twig fragments. The deposit was 0.16m thick overlying sandy natural. It was sealed by a similar deposit (Context 11) 0.5m thick which had been heavily trampled by cattle]
Sample 1/T (10.8 kg/~10 litres sieved to 300 microns with washover and microfossil 'squash'; 40+ litres of unprocessed sediment remains with the excavator)

Just moist, mid to dark grey-brown (with some patches of light to mid and mid brown), crumbly to unconsolidated (working soft), sandy silt (slightly clay in places). Stones (6 to 20 mm) and ?acorn fragments were present and wood and twig fragments were common to abundant.

The washover from this sample was very large (~4 litres) and approximately one-quarter was divided into fractions (see Methods) for examination for the assessment. Most of the remains in the two larger fractions (i.e. >4 mm) were waterlogged twigs with bark (abundance score 5) representing up to 15 years of wood growth but there were also some fragments of older wood (age indeterminate; abundance score 2), fragments of acorn (*Quercus*) pericarp (abundance score 1) and cupules ('cups'; abundance score 3) and whole immature acorns (abundance score 2). The two finer fractions (i.e. those >300 µm and <4 mm) were dominated by indeterminate plant detritus (abundance score 5), with the coarser of the two (2 to 4 mm) being predominantly 'woody' fragments. Leaf fragments and 'skeletons' were common (abundance score 3) in both finer fractions and each also gave some records of earthworm egg capsules (abundance score 3) and insect cuticle (including beetle sclerite) fragments (abundance score 5 in the finest fraction and 2 in the 2 to 4 mm fraction where all the records were of beetle remains). Remains of 'seeds' (or similar structures) were common but relatively few (abundance score 3) given the quantity of plant material recovered and none were readily identifiable as their condition was rather poor (surfaces eroded). Some had split open revealing the endosperm and a subset of these were even more clearly of very recent origin as they had sprouted. Most of the insect remains (abundance score 5) were heavily fragmented and indeterminate or only identifiable as non-diagnostic beetle sclerites (e.g. legs and abdominal segments) or fragments thereof (abundance score 4). Identifiable beetle remains in the finest washover fraction included heads, wing cases (elytra) and pronota (combined abundance score 3) and represented rove beetles (Staphylinidae), a small water scavenger beetle (Hydrophilidae; probably *Cercyon analis* (Paykull) or *Megasternum obscurum* (Marsham)) and adult woodworm (*Anobium punctatum* (Degeer)), together with other taxa which

could not be identified within the constraints of an assessment but would be identifiable to further study. All of the identified (at least in part) beetle remains noted in the 2 to 4 mm fraction were of ground beetle(s) (Carabidae), again including heads, pronota and elytral fragments. Other invertebrate remains noted in the finest fraction were some (abundance score 2) mites (Acarina) and there was also a little sand (abundance score 2).

The residue fraction (dry weight 1442.9 g) was mostly sand (1082.4 g), with stones (to 41 mm) and occasional small (to 3 mm) sediment concretions (?heat-affected; not sorted). A single sherd of possible pottery (to 15 mm; 0.6 g – unidentified) was recovered and there was a trace of spheroid hammerstone (less than ten individual items; <0.1 g).

The 'squash' subsample was mostly organic detritus and approximately one-third inorganic. Identifiable microfossil remains were relatively few but included some diatoms (of at least three forms – variably preserved with some in good condition and others broken – perhaps indicating aquatic deposition at some point) and a few pollen grains/spores and fungal spores. There were also some remains of ?soil-dwelling nematodes (all of which were dead). No eggs of intestinal parasites were seen.

Context 20 [Test Pit 2. Base of the moat, with some intrusive roots and occasional fragments of red brick/tile. The deposit was 0.32m deep overlying the natural boulder clay, overlain by Context 22, a trampled upper fill 0.22m deep]

Sample 2/T (13.35 kg/~10 litres sieved to 300 microns with washover and microfossil 'squash'; 40+ litres of unprocessed sediment remains with the excavator)

Moist, mid purple-ish grey-brown, crumbly (working soft and slightly plastic), sandy clay silt, with some light to mid brown patches of more or less 'pure' clay. Stones (2 to 60 mm), flecks of charcoal and/or black ash and modern root and rootlet were present.

The washover from this sample was quite large (~500 ml) and was divided into fractions (see Methods) for examination for the assessment. The two larger fractions (>10 mm and 4-10 mm) were both predominantly of woody root and finer root material (abundance score 5), with occasional (abundance score 2) fragments of waterlogged wood and bark (to 37 mm and 50 mm, respectively). The 2 to 4 mm fraction was also dominated by similar material (abundance scores as above) but there were also abundant (abundance score 4) elder (*Sambucus nigra* L.) fruits, some other 'seeds' (abundance score 2), leaf fragments (abundance score 2), small lumps of undisaggregated sediment (to 3 mm; abundance score

2), fine indeterminate charcoal (to 3 mm; abundance score 3) and coal (to 4 mm; abundance score 3). Invertebrate remains in this fraction comprised occasional earthworm egg capsules and indeterminate insect cuticle fragments (both abundance score 2), together with a few (abundance score 1) cladoceran (including *Daphnia*) ephippia (water flea 'resting eggs'). The finest washover fraction was mostly indeterminate plant detritus (abundance score 5), with a range of other components similar to that recorded from the 2 to 4 mm fraction also present. Elder fruits were common (abundance score 3) and there were some other 'seeds' (abundance score 2) including a few orache/goosefoot (*Atriplex/Chenopodium*; abundance score 1), together with occasional leaf fragments (abundance score 1). Invertebrate remains, including cladoceran ephippia (again including *Daphnia*; abundance score 3) and beetle sclerites and sclerite fragments (abundance score 4), were numerous but most of the latter were indeterminate or of non-diagnostic beetle body parts (e.g. mandibles and legs; abundance score 3); there were also some earthworm egg capsules (abundance score 2). Identifiable beetle remains included elytra and pronota of *Helophorus ?flavipes* (Fabricius) and *Cercyon analis* (abundance scores 2 and 1, respectively), together with a few weevil (Curculionidae) elytra (abundance score 1); at least two other taxa would be identifiable to more detailed study. Other components noted were very fine coal (abundance score 3) and charcoal (abundance score 2), with a little undisaggregated sediment (to 1 mm; abundance score 2) and sand (abundance score 2).

The residue fraction (dry weight 3346.6 g) was mostly sand (1836.6 g) and stones (to 52 mm; ~1510 g), with some brick/tile (to 54 mm; 134.0 g – of the four largest pieces three were water-rolled and one not, indicating some intrusion or mixing in the deposit, and the material appeared to be of very late medieval to post-medieval date; S. Tibbles, of JT Ceramic Building Materials, pers. comm.), ?slag (to 53 mm; 76.7 g), cinder (to 17 mm; 7.7 g), coal (to 27 mm; 3.7 g) and charcoal (to 18 mm; 0.9 g – silted and indeterminate). A single sherd of pottery (to 13 mm; 0.6 g) with a black glaze on both faces was recovered; late black ware of post-medieval date (S. Tibbles pers. comm.). There were also additional traces of fine (less than 4 mm) coal, charcoal and brick/tile which were not sorted from the residue. There was a little fine (less than 2 mm) magnetic material (0.7 g) but this was mostly heat-affected sand and sediment concretions with a little slag.

The 'squash' subsample was approximately equal parts organic detritus and inorganic, with a few pollen grains/spores. No eggs of intestinal parasites were recorded.

Context 44 [Test Pit 4. Base of the fishpond area. The deposit was 0.22m deep and contained occasional pebbles, it was described as gleyed by the excavator. The layer overlay natural boulder clay, and was sealed by an apparent dump of modern brick rubble (perhaps an attempt to stabilise the wet ground)]

Sample 3/T (11.4 kg/~10 litres sieved to 300 microns with washover and microfossil ‘squash’; 40+ litres of unprocessed sediment remains with the excavator)

Just moist, mid brown to mid grey-brown to mid grey (with some patches of light to mid brown), slightly silty clay, with localised sandy areas and some patches of more or less ‘pure’ clay. Stones (2 to 20 mm) were present.

The relatively small washover (~120 ml) was mostly fine plant detritus (abundance score 5) but there were also abundant plant and invertebrate macrofossil remains. Identifiable (at least in part) plant remains included rush (*Juncus*) capsules (abundance score 5), sedge (*Carex*) nutlets (abundance score 3), grass (Poaceae) caryopses probably a *Glyceria* species (abundance score 3), chickweed/stitchwort (*Stellaria* sp.) seeds (abundance score 3), stinging nettle (*Urtica dioica* L.) achenes (abundance score 5; some of these were sprouting), dock (*Rumex* sp.) achenes (abundance score 2), elder fruit fragments (abundance score 2) and some other ‘seeds’ which could not be identified for this assessment but would probably be identifiable to more detailed study. Invertebrate remains were also abundant, with cladoceran (including *Daphnia*) ephippia particularly so (abundance score 5). Other invertebrate remains (abundance score 4) were mostly unidentified beetle sclerite fragments or more complete non-diagnostic body parts such as legs but there were occasional more ‘useful’ macrofossils including *Cercyon analis* elytra and weevil (cf. *Otiorhynchus* sp.) pronota. There were also occasional statoblasts (abundance score 2) of the freshwater invertebrate *Cristatella mucedo* (sometimes known as a ‘moss animal’). Other components noted included coal, cinder and charcoal (all to 2 mm and with abundance scores of 2) and small lumps of undisaggregated sediment (to 3 mm; abundance score 3).

The residue fraction (dry weight 1626.3 g) was mostly sand (1234.1 g), with some stones (to 47 mm; ~390 g) and occasional sediment concretions (to 10 mm), and traces of fine (less than 4 mm) coal and indeterminate charcoal which were not sorted from the residue. The minute quantity of magnetic material recovered (<0.1 g) comprised just three spheroids of hammerscale (to 1 mm).

The ‘squash’ subsample was approximately equal parts organic detritus and inorganic, with some pollen grains/spores (including two well preserved *Polypodium* (fern) spores and a poorly preserved

possible alder (?*Alnus*) pollen grain) and a few poorly preserved (eroded) diatoms (all of which appeared to be of the same form). No eggs of intestinal parasites were seen.

Discussion and statement of potential

Although waterlogged macrofossil remains were recovered from all three of the assessed deposits, the preservation of the material and the character of the assemblages recovered suggested that these were of recent origin and unrelated to the medieval moat and fishpond. This impression was particularly strong for the assemblages recovered from Context 44 (Test Pit 4; base of fishpond area) which were dominated by plant remains of emergent vegetation (e.g. rushes) and rough/disturbed ground (e.g. stinging nettle; some of which had sprouted and were clearly ‘modern’) and invertebrate remains indicative of temporary freshwater (abundant cladoceran ephippia); the overall bias being towards saturated/flooded ground. Test Pit 4 was located at the northern margin of an area recorded by the excavator as ‘flooded/marshy ground’ and the remains recovered were consistent with expansion and contraction of this area (probably seasonally) rather than the permanent freshwater of a fishpond. The presence of *Cristatella mucedo* statoblasts in this context suggests that the deposit formed in the autumn as these structures are produced as the colonies degenerate at this time of year; they remain dormant over winter and hatch in late spring growing through the summer to form new long gelatinous colonies in slow-moving water.

Similar assemblages were recovered from Context 20 (Test Pit 2; base of the moat) but here the balance of the plant and invertebrate assemblages was in favour of indicators of rough/disturbed ground (e.g. abundant elder fruits) with rather lesser numbers of remains suggesting temporary inundation (i.e. cladoceran ephippia). This fits well with the location of Test Pit 2 approximately 25

metres to the south of the current southerly extent of the flooded/marshy area (approximately 40 metres south of Test Pit 1) and it's slightly higher elevation (approximately 0.25 metres). Here again, the remains recovered appear to reflect intermittent flooding rather than permanent freshwater which might be expected (though with less certainty than in a fishpond) within a moat and a recent date of deposition is likely.

At the location of Test Pit 1, a further 20 metres of so south-south-east of Test Pit 2 (following the moat) and elevated by an additional 0.40 metres (approximately), the macrofossil assemblages from the sample from Context 10 (base of the moat at its southern end) showed no indications of seasonal flooding. Twigs and bark dominated the plant assemblage and appreciable numbers of acorns were represented. All of these remains probably derive from the (oak) trees which currently surround the former moat (L. Hayes pers. comm.). This deposit also contained indeterminate 'seeds' which had split to reveal the endosperm, some of which had sprouted and were, as also noted for Context 44 (see above), clearly 'modern'.

Microfossil remains in Context 20 were too few to be of any interpretative value and those from Contexts 10 and 44 were also rather limited, although both of these deposits did contain some diatoms providing supporting evidence for aquatic deposition in the latter and the only possible evidence of water within the former moat from Context 10.

Trace levels of probable fuel waste (charcoal and coal) and artefactual waste material (e.g. hammerscale and/or slag, pottery, brick/tile) were present in each of the deposits but insufficient to imply any significant human activity in the immediate vicinity.

Overall, the assemblages of biological remains recovered from the assessed

samples (and general lack of remains indicative of human activity) suggest recent material deposited in an area prone to seasonal flooding rather than within the medieval fishpond and moat during their use; these features presumably having largely infilled previously leaving only the present day flooded/marshy ground in the area of the fishpond.

Each of the three deposits yielded sufficient suitable waterlogged plant material for radiocarbon dating (via AMS) should this be considered desirable.

Recommendations

Although moderate to large quantities of waterlogged plant and invertebrate remains were recovered from each of the assessed contexts, the assemblages are considered to have been deposited very recently rather than preserved within the medieval fishpond and moat. However, it would, perhaps, be worthwhile to undertake at least one radiocarbon date on material from the samples to confirm (or refute) this conclusion.

No further study is warranted unless the recovered assemblages can be shown to relate to fills of the medieval features contemporary with their use.

Retention and disposal

If the deposits are accepted to be of recent date (or shown to be by radiocarbon dating or other means) then all of the recovered remains and retained sediment may be discarded.

Archive

All material is currently stored by Palaeoecology Research Services (Unit 4, National Industrial Estate, Bontoft Avenue,

Kingston upon Hull), pending return to the excavator or permission to discard, along with paper and electronic records pertaining to the work described here.

Acknowledgements

The author is grateful to Laurence Hayes, of SLR Consulting Ltd, for providing the material and the archaeological information, and to Sophie Tibbles, of JT Ceramic Building Materials, for input regarding the brick/tile and pottery recovered from Context 20.

References

- Cappers, R. T. J., Bekker, R. and Jans J. E. A. (2006). *Digitale Zadenatlas van Nederland*. Groningen Archaeological Studies 4. Groningen: Barkhuis Publishing and Groningen University Library.
- Dainton, M. (1992). A quick, semi-quantitative method for recording nematode gut parasite eggs from archaeological deposits. *Circaea, the Journal of the Association for Environmental Archaeology* **9**, 58-63.
- Dobney, K., Hall, A. R., Kenward, H. K. and Milles, A. (1992). A working classification of sample types for environmental archaeology. *Circaea, the Journal of the Association for Environmental Archaeology* **9** (for 1991), 24-6.
- Harde, K. W. (1984). *A field guide in colour to beetles*. London: Octopus Books.
- Kenward, H. K., Hall, A. R. and Jones, A. K. G. (1980). A tested set of techniques for the extraction of plant and animal macrofossils from waterlogged archaeological deposits. *Science and Archaeology* **22**, 3-15.
- Kloet, G. A. and Hincks, W. D. (1964-77). *A checklist of British insects, second edition*. London: Royal Entomological Society.
- Lindroth, C. H. (1974). *Coleoptera: Carabidae. Handbooks for the identification of British insects* **4 (2)**. London: Royal Entomological Society of London.
- Stace, C. (1997). *New flora of the British Isles: 2nd edition*. Cambridge: Cambridge University Press.

Appendix D
Archive Details

The Archive

The archive consists of:

- 1 Trench coordinate sheet
- 1 Topographic Survey (1 sheet A3)
- 1 Copy of list entry description (2 sheets A4)
- 1 Copy of scheduled monument consent (3 sheets A4)
- 2 Photographic Record Sheets
- 4 Trench Summary Sheets
- 1 Context Register Sheet
- 26 Context Record Sheets
- 3 Sample Record Sheets
- 3 Bags of artefacts
- 3 A3 sheets of hand drawn plans and sections
- 1 Bound copy of the written scheme of investigation
- 1 Bound copy of the final excavation report
- 1 Copy sample assessment report (4 sheets A4)
- 1 CD containing Survey Data
- 1 CD containing site photographs

All primary records and finds are currently kept at:

SLR Consulting Ltd, Suite 9 Beech House, Padgated Business Park, Green Lane Warrington WA1 4JN.

The destination of the project archive is:

Shropshire Museums Service, Ludlow Museum Resource Centre, Corve St, Ludlow, Shropshire SY8 2PG

SLR Project Reference Code: SIL13 (410.04169.00001)

OASIS ID - slrconsu1-166494



global environmental solutions

AYLESBURY

7 Wornal Park, Menmarsh Road,
Worminghall, Aylesbury,
Buckinghamshire HP18 9PH
T: +44 (0)1844 337380

BELFAST

24 Ballynahinch Street, Hillsborough,
Co. Down, BT26 6AW Northern Ireland
T: +44 (0)28 9268 9036

BRADFORD-ON-AVON

Treenwood House, Rowden Lane,
Bradford-on-Avon, Wiltshire BA15 2AU
T: +44 (0)1225 309400

BRISTOL

Langford Lodge, 109 Pembroke Road,
Clifton, Bristol BS8 3EU
T: +44 (0)117 9064280

CAMBRIDGE

8 Stow Court, Stow-cum-Quy,
Cambridge CB25 9AS
T: + 44 (0)1223 813805

CARDIFF

Fulmar House, Beignon Close, Ocean
Way, Cardiff CF24 5HF
T: +44 (0)29 20491010

CHELMSFORD

Unit 77, Waterhouse Business Centre,
2 Cromar Way, Chelmsford, Essex
CM1 2QE
T: +44 (0)1245 392170

DUBLIN

7 Dundrum Business Park, Windy
Arbour, Dundrum, Dublin 14 Ireland
T: + 353 (0)1 2964667

EDINBURGH

No. 4 The Roundal, Roddinglaw
Business Park, Gogar, Edinburgh
EH12 9DB
T: +44 (0)131 3356830

EXETER

69 Polsloe Road, Exeter EX1 2NF
T: + 44 (0)1392 490152

FARNBOROUGH

The Pavilion, 2 Sherborne Road, South
Farnborough, Hampshire GU14 6JT
T: +44 (0)1252 515682

GLASGOW

4 Woodside Place, Charing Cross,
Glasgow G3 7QF
T: +44 (0)141 3535037

HUDDERSFIELD

Westleigh House, Wakefield Road,
Denby Dale, Huddersfield HD8 8QJ
T: +44 (0)1484 860521

LEEDS

Suite 1, Jason House, Kerry Hill,
Horsforth, Leeds LS18 4JR
T: +44 (0)113 2580650

MAIDSTONE

19 Hollingworth Court, Turkey Mill,
Maidstone, Kent ME14 5PP
T: +44 (0)1622 609242

NEWCASTLE UPON TYNE

Sailors Bethel, Horatio Street,
Newcastle-upon-Tyne NE1 2PE
T: +44 (0)191 2611966

NOTTINGHAM

Aspect House, Aspect Business Park,
Bennerley Road, Nottingham NG6 8WR
T: +44 (0)115 9647280

ST. ALBAN'S

White House Farm Barns, Gaddesden
Row, Hertfordshire HP2 6HG
T: +44 (0)1582 840471

SHEFFIELD

STEP Business Centre, Wortley Road,
Deepcar, Sheffield S36 2UH
T: +44 (0)114 2903628

SHREWSBURY

Mytton Mill, Forton Heath, Montford
Bridge, Shrewsbury SY4 1HA
T: +44 (0)1743 850170

STAFFORD

8 Parker Court, Staffordshire Technology
Park, Beaconside, Stafford ST18 0WP
T: +44 (0)1785 253331

WARRINGTON

Suite 9 Beech House, Padgate Business
Park, Green Lane, Warrington WA1 4JN
T: +44 (0)1925 827218

WORCESTER

Suite 5, Brindley Court, Gresley Road,
Shire Business Park, Worcester
WR4 9FD
T: +44 (0)1905 751310



Energy



Waste
Management



Planning &
Development



Industry



Mining
& Minerals



Infrastructure