



JOHN MOORE HERITAGE SERVICES

AN ARCHAEOLOGICAL EXCAVATION

AT

LAND AT HEATH LIVERIES, BROWSTON LANE,

BELTON WITH BROWSTON, NORFOLK

NGR TG 49653 01888

OCTOBER 2020

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SUMMARY	<i>I</i>
1 INTRODUCTION	1
1.1 Site Location	1
1.2 Planning Background	1
1.3 Archaeological Background	1
2 AIMS OF THE INVESTIGATION	3
3 STRATEGY	3
3.1 Research Design	3
3.2 Methodology	3
4 RESULTS	4
5 FINDS AND ENVIRONMENTAL REMAINS	10
6 DISCUSSION	16
7 ARCHIVE	17
8 BIBLIOGRAPHY	17
FIGURES AND PLATES	
Figure 1. Site location	2
Figure 2. Ring Ditch Sections	5
Figure 3. Ring Ditch Plan	6
Figure 4. Discrete features	7
Table 1. Flots, Flints and Pottery by context	13
APPENDICES	
Appendix 1. OASIS Report Form	19
Appendix 2 Context Inventory	22

Summary

Excavation of a ring ditch and interior features was undertaken by John Moore Heritage Services in June 2020. Due to lack of datable evidence, 50% of the entire surviving ring ditch was excavated and sampled heavily, which ultimately resulted in 59 retouched flints and 7 poorly preserved fragments of pottery. The flint broadly suggested that the ring ditch might date to the Mesolithic or Earlier Neolithic, while highly fragmented and poorly preserved pottery recovered from samples was broadly dated to the prehistoric, possibly Bronze Age but potentially much earlier.

1 INTRODUCTION

1.1 Site Location (Figure 1)

The development site is located south of Cherry Lane, accessed from Browston Lane, Browston (NGR TG 4963 0186). The underlying geology is Happisburgh Glacigenic Formation – Sand (BGS, Geology of Britain Viewer) and the site is pasture.

1.2 Planning Background

Planning permission has been granted by Great Yarmouth Borough Council for the erection of 1 No. 5 bedroom dwelling at Heath Liveries (Land at) Browston Lane Browston (06/17/0622/F). John Moore Heritage Services (JMHS) were commissioned to undertake this work, and a *Written Scheme of Investigation* (JMHS 2020) was prepared to satisfy the requirements of the brief that was issued by the Historic Environment Officer for Norfolk County Council which stated that:

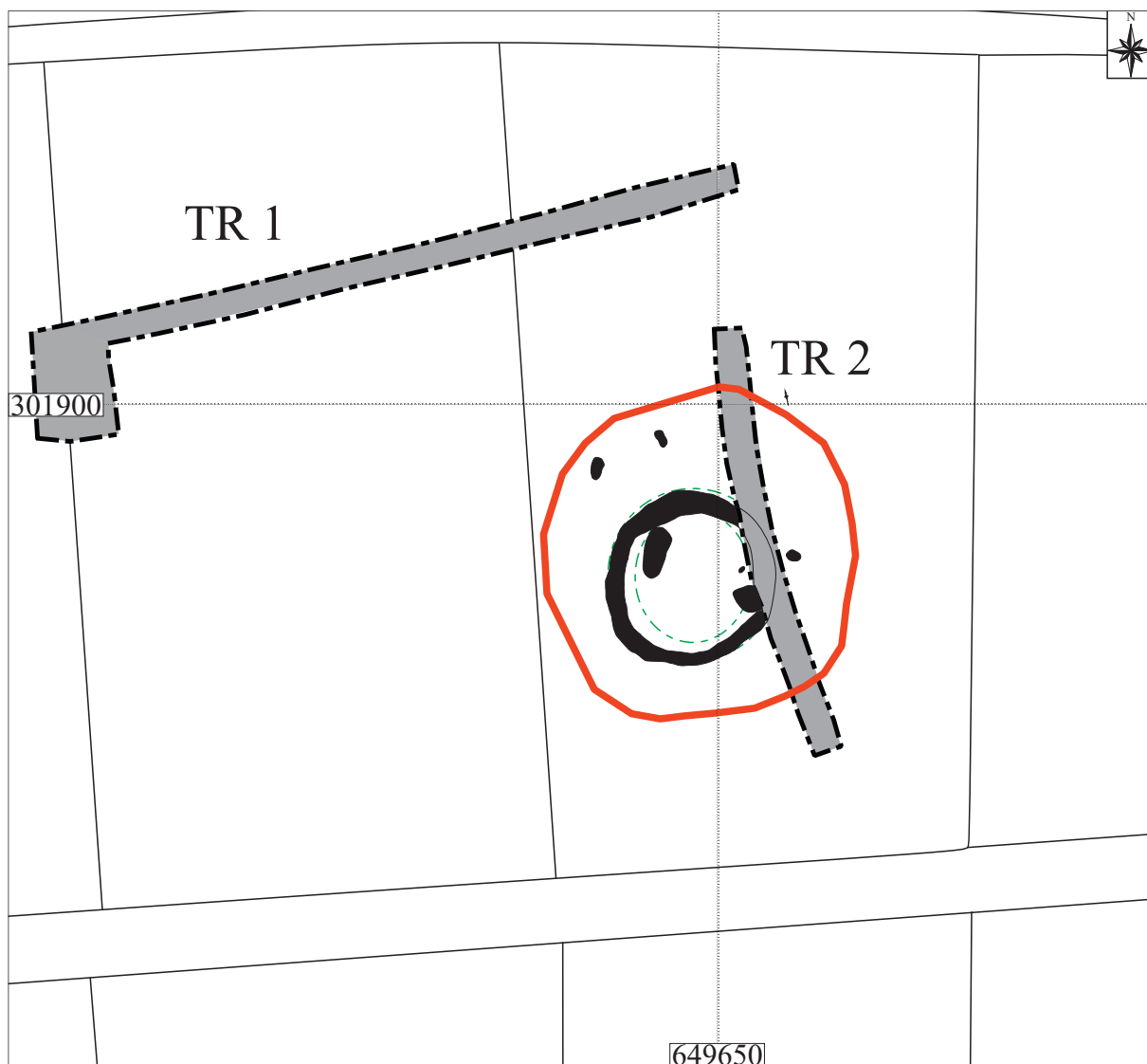
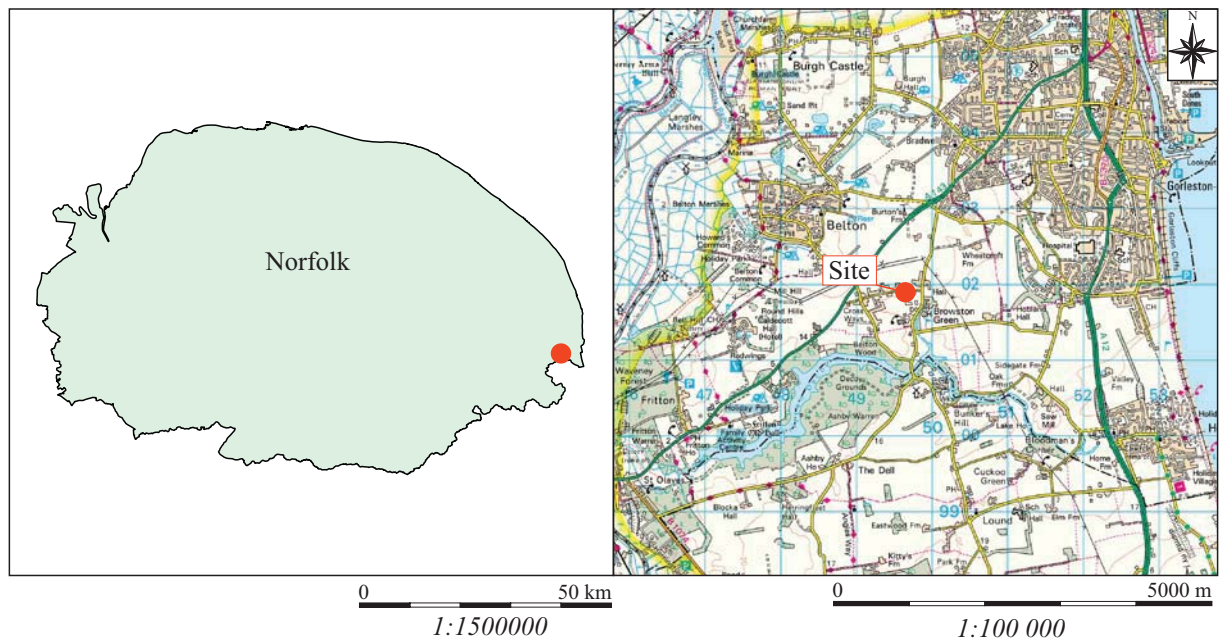
Archaeological Excavation is required to replace by record archaeological features, deposits and structures which may be damaged or destroyed by the proposed development.

This *Written Scheme of Investigation* (WSI) proposed the methodology by which the archaeological investigations were to be carried out.

1.3 Archaeological Background

Within the site lies the cropmark of a ring-ditch identified by aerial photography (NHER 45212). The ring-ditch was thought to be the remains of a Bronze Age round barrow and is approximately 11m in diameter. Part of the eastern edge of the ring-ditch was identified during an archaeological trenching evaluation (Duensing 2017). Here the ditch was identified as being between 1m and 1.3m wide and between 0.55m and 0.65m deep. Two pits were also identified north of the ring-ditch; none of these features produced any finds except for one flint flake from the ring-ditch and a further one recovered from the fill of a pit. A further undated pit was identified to the SSE of the ring-ditch.

Another cropmark of a ring-ditch (NHER 45211) lies just to the west of the proposed development area. This is larger at 27.5m in diameter. Other known archaeological remains in the area are detailed in the evaluation report (Duensing 2017).



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Key Site boundary Previous evaluation trenches Archaeological features

0 25 m

1:500

Figure 1: Site location

2 AIMS OF THE INVESTIGATION

The aims of the investigation as laid out in the WSI were:

- To carry out an area excavation of part of the development area to investigate the monument found during the evaluation.
- To sample excavate and record all archaeological remains revealed.
- To sample excavate sufficient of the features to be able to demonstrate their date satisfactorily.
- To sample excavate sufficient features to be able to demonstrate the stratigraphic relationships on the site along with character, function and status of the monument.
- To identify the nature, date and extent of the features found during the excavation.
- To produce a report on the findings including placing them in the context of the wider landscape.

3 STRATEGY

3.1 Research Design

In accordance with WSI (JMHS 2020) approved by Historic Environment Officer for Norfolk County Council, JMHS carried out the archaeological excavation of the development area. Site procedures for the investigation and recording of potential archaeological deposits and features were defined in the WSI (JMHS 2020).

3.2 Methodology

The archaeological investigation at Heath Liveries, Browston Lane, Belton with Browston (NGR TG 4963 0186), was undertaken 1 June – 5 June 2020. The area previously agreed upon, comprising a 20m diameter centred on the above NGR point (see Fig 1), was stripped of the topsoil down to within 0.3m of the previously established archaeological horizon prior to the start of works. The remaining overburden was then removed under constant monitoring by the archaeological project leader with a 1.6m wide, toothless bucket until the ring ditch was fully exposed. At that time the archaeological features were cleaned by hand, photos taken and a site grid established, in accordance with the WSI (JMHS 2020).

The monument was then 50% sampled by the excavation of 1m sections across the ring ditch, and section photos and drawings of each segment were recorded. All non-structural pits and postholes were also excavated to achieve a 50% sample of the deposits. For palaeoenvironmental research, different sampling strategies were entertained. Ultimately, due to the dearth of datable material, it was agreed in writing with the Historic Environment Officer, Steve Hickling, to sample 25% of the interventions with bulk samples, in addition to any deposits that produced finds or carbonised remains. This was in accordance with provision 3.19 in the WSI stating that, “Other bulk samples for small animal bones and other small artefacts may be taken from appropriate deposits depending on the aims of the project.”

Finally, a post excavation plan showing the features and interventions along with grid references was provided for sign off of the area in advance of written confirmation by Norfolk County Council Environment Service.

4 RESULTS

4.1 Field Results

All features were assigned with individual context number. Context numbers with no brackets indicate feature cuts, numbers in the round brackets () show feature fills or deposits of material and numbers in bold indicate any form of masonry.

During the archaeological investigations the ring ditch, Group 1000, and six discrete archaeological features were exposed cutting into the natural geology, (1589) (see Fig. 2-4). This natural geology was largely clayey sand, but especially to the norther extent of the ditch, it became a considerably compact, concretised gravel. Over all, the fills were highly diffused and highly similar in colour and composition. The most notable exception was when natural gravel or sands appeared as lenses which were thought to represent episodes of flooding or other rapid infilling of the sandy or silty geology over what was thought to be the open surface at the time of the event. Similarly, the upper deposit, which was a more compact and lighter material, was seen to extend across the entire surface of the ring ditch (GR1001) and was interpreted as a layer formed after truncation, likely associated with ploughing.

A full context inventory with individual soil descriptions and measurements can be found in Appendix 2.

4.2 Bronze Age Ring Ditch

The ring ditch, Gr1000, was excavated with 12 interventions of 1m length, which in addition to the 8m portion which was 100% excavated during the evaluation resulted in an excavated sample of just over 53% of the ring ditch 1000. The plan of the ring ditch 1000 (Fig 3) shows the distribution of the interventions and the location of the evaluation trench. The sections for the ring ditch GR1000 (Fig 2) indicates that there was ploughing truncation across the top of the ring ditch seen in the subsequent deposit formation of (GR1001), and what was initially thought to be evidence of a partial recut on the norther aspect of the ditch, seen in S.102, S.109, and less convincingly so in S.106, S.114. These were noted to in all instances be demarcated by the appearance of a redeposited natural lenses of sedimentation (as noted above) which appears to interrupt the natural fall of earlier deposits. This interpretation has been largely rejected due to the limited area of its occurrence, as it is only seen to appear convincingly on the norther part of the ditch in two interventions, and the irregular nature of the supposed recut. The current interpretation is that the initial silting was from the internal side of the ring ditch, comprised of an initial rapid deposition of one or two deposits, followed by material from the external side. Then there was a period of stabilisation of the ditch followed by gradual silting and then the final surviving fill. The asymmetrical build-up in this locus may have been due to the varying geology and subsequent drainage resulting from a more compact gravel geology in the north of the ditch rather than the sandy geology for the rest of the ditch.

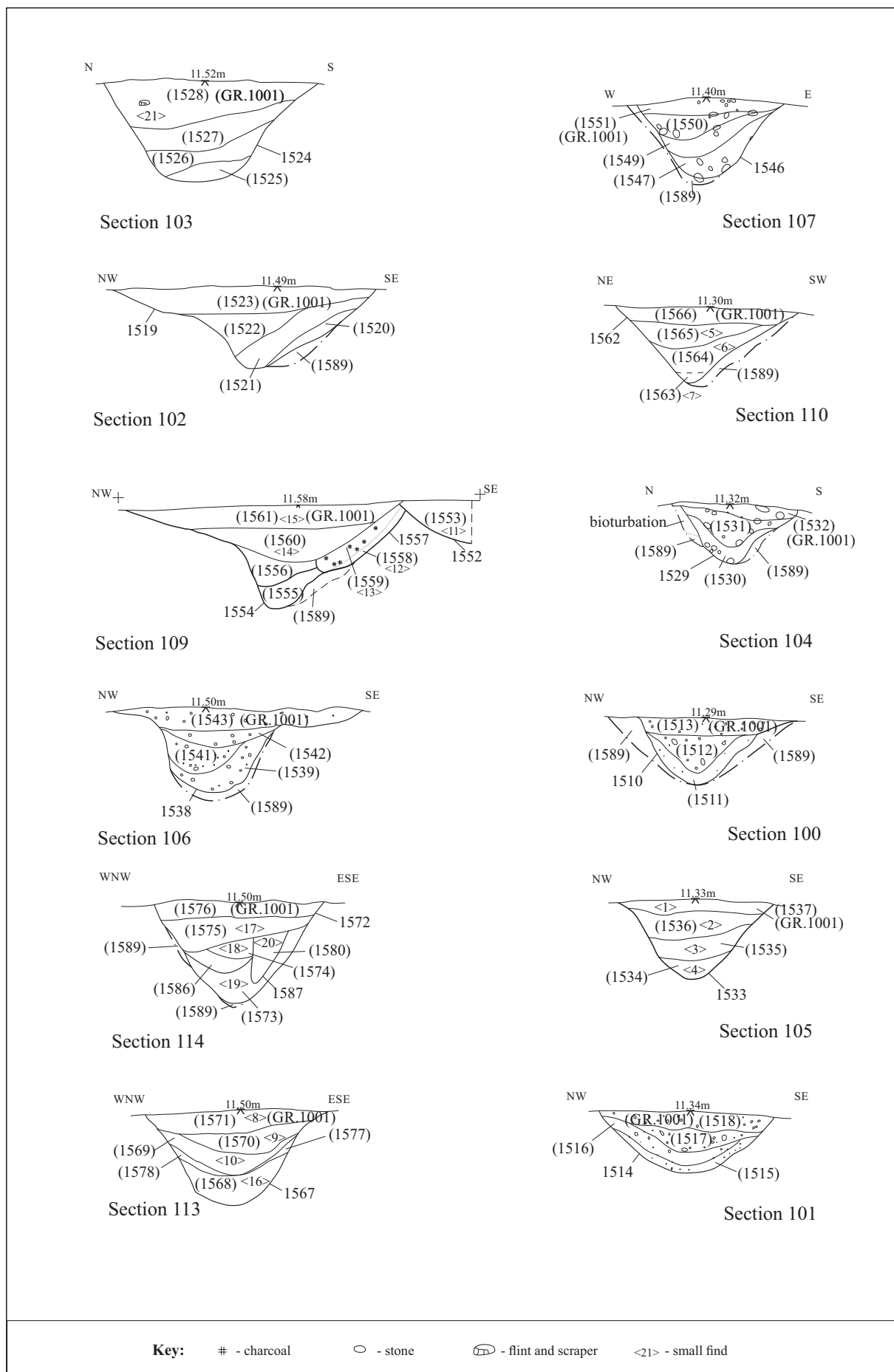


Figure 2: Ring Ditch Sections

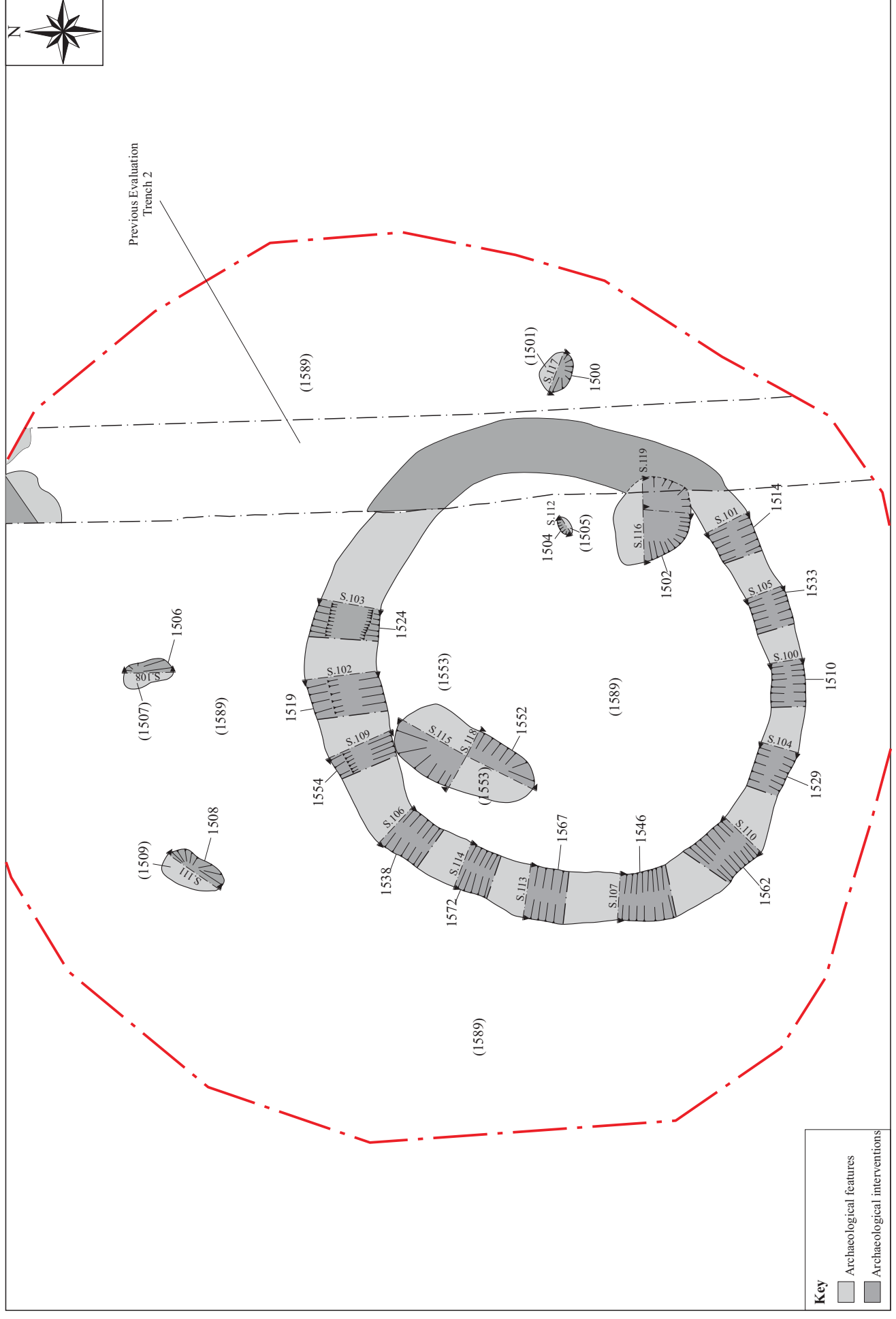


Figure 3: Site Plan



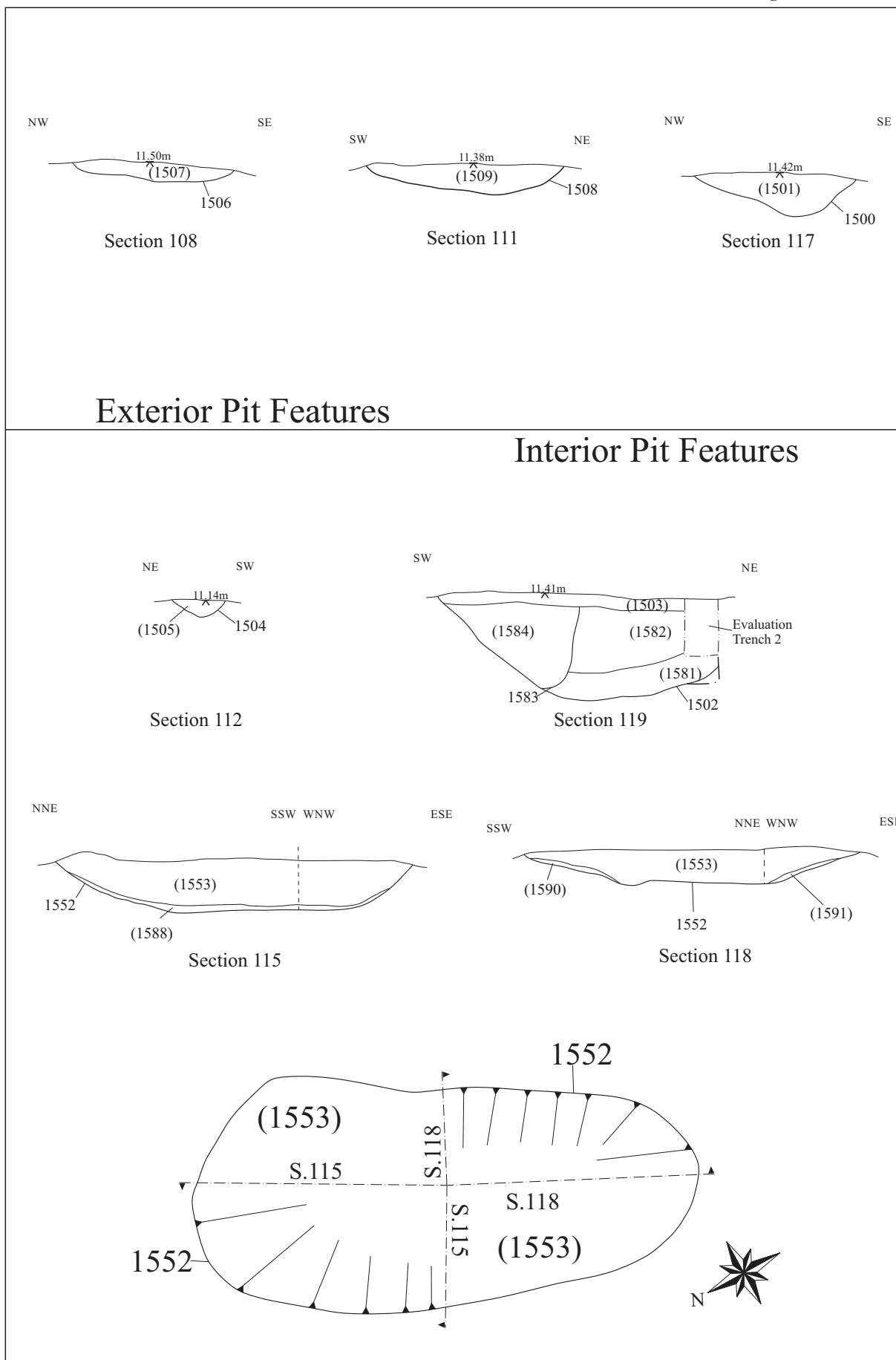


Figure 4: Sections of pit features, with detail plan of pit 1552

0 2 m

The sections of the interventions indicate that there was not a substantial mound associated with the ditch as there is not a great amount of erosion slumping in the lower deposits. The slight build-up that is noticeable would indicate a modest central mound. This could be partially explained by the sandy geology, as it certainly would prove difficult to construct any stable earthen prominence.

Samples were taken from six of the twelve interventions in an effort to maximise the potential for recovering datable material, particularly with the hope that some might be suitable for C14 dating. Unfortunately, none of the residues produced material suitable for testing. Three to five samples were taken from each intervention corresponding to S.105, S.109, S.110, S.113, and S.114, and one sample taken from S.103 where a flint scraper was recovered in Gr1001, archaic plough soil, fill (1528).

Allowing for variation in sedimentary deposition, the ring ditch showed evidence of four main deposits consistently across all the interventions. The total finds recovered from all of these deposits combined were as follows (individual context provenance can be seen in Table 1):

- GR1001 (archaic plough soil) = 1 scraper, 1 blade-like flake and 2 sieved chips, fired clay crumbs weighing 3g.
- Latest ditch fill = 4 flakes, 1 blade, 2 blade-like flakes, 1 bladelet, 13 sieved chips, 1 burnt unworked flint and fired clay crumbs weighing 3g.
- Middle ditch fill* = 2 flakes, 3 sieved chips, 1 burnt unworked flint and 2 fragments of pottery with crushed flint temper weighing 1g.
- Earliest ditch fill = 8 flakes, 1 blade-like flake, 6 sieved chips, and fired clay crumbs weighing 2g.

*There was a retouched blade which came from what appears to be animal burrowing (1580) seen in S.114 which was likely intrusive from the middle deposit of the ditch.

The only other finds were 2 flakes, a blade-like flake, 3 sieved chips and fired clay crumbs weighing only 1g recovered from the main fill (1553) of the interior pit, 1552.

4.3 Undated discrete features

There were 5 pits and one possible posthole which were excavated in association with the ring ditch. The excavated features were overall remarkably devoid of diagnostic material. As such, these excavated archaeological features remain undated, save by association with ring ditch.

The two larger pit features, 1552 and 1502, were located on the internal surface of the ring ditch (see Fig 3) measuring 4.1m X 1.9m (with a 0.44m depth) and 2.2m X >2.2m (with 0.7m depth), respectively. Pit 1502 appears to have had a smaller pit recut within it, 1583 (see Fig 4). All three discrete pit features found on the external surface of the ring ditch were comprised of a single cut and fill, all appeared to have been rapidly and intentionally backfilled after initial excavation due to the lack of primary fill in such loose, sandy geology (Fig 4). It should be noted that one small pit had been found to the south in the previous evaluation Tr3 and two small pits found to the north in Tr2 (Duensing 2017).

Evaluation Trench 2

Trench 2 was 30m long by 1.8m wide and had a slight curvature (see Fig. 1). The sandy natural was encountered at 0.79m below the original ground level the natural gravels were of varying depths depending on location and were seen to overlie the sandy natural at a depth of around 0.65-0.75m below ground level (and was the limit of excavation). Cut into the gravel natural there were three features: the ring ditch and two pits.

The ring ditch was the most prominent of these three features, measuring 9m in length within the trench and was 1.1 - 1.29m in width. Two sections were placed within the ring ditch to characterize the feature. After recording these interventions, the full section exposed in Tr2 was excavated. Within the two recorded interventions, there were four fills observed in section, very similar to what was observed in S.101 and S.105 on the south and S.103 to the north (see Fig 2 and Fig 3). The earliest fill observed was a primary fill formed as the newly cut ditch was stabilizing, and was comprised of a friable, mid to light brown silty sand and was 0.1m thick. The fill above this was a secondary fill from the natural and gradual infill of the ditch over the period of use. This was a friable, mid brownish yellow silty sand and was 0.25m thick. The next fill above this was a friable, mid yellowish brown silty clay and was 0.1m thick. The most recent fill was a friable, mid to light brown silty sand and was 0.3m thick. There was a fifth fill in the southernmost intervention, which can now be explained with the knowledge that the edge of pit 1502 would have only just been caught in the upper fills.

Two Pits

The other features were in the northern part of Trench 2 and were almost entirely lost to ground reduction at the time of the excavation. They were two similarly shaped, ovoid pits which each had one fill which was a firm, mid reddish brown, silty sand, and were just under 1m wide and just over 3.5m long, both with a max depth of 0.36-0.38m thick.

The archaeological features in this trench were largely devoid of any artefacts. Even after the ditch was 95% excavated with the objective to find datable material, all that was recovered was one secondary flint flake from the uppermost fill.

5 FINDS AND ENVIRONMENTAL REMAINS

5.1 Prehistoric Pottery by *Dr David Mullin*

A total of four sherds and a number of crumbs of fired clay were recovered from ten contexts (see Table 1). The total weight of all of the material was 10g. Sherds are small, rolled and in poor condition.

The extremely small sherd size made any attempt at identifying fabrics very difficult. With such small fragments it is not possible to be certain if the fabric is representative of the vessel from which it was derived and the low number of sherds means that the pottery cannot be used to date any of the features from which it was recovered.

The only piece of pottery within which it was possible to identify any inclusions was from context 1574. This was a flint-tempered fabric which is certainly prehistoric and potentially Bronze Age, but it is difficult to be certain from such a small sherd.

Another sherd had micaceous surfaces and may also have been prehistoric, but this is far from certain.

The fired clay is all so small and fragmentary that it is impossible to say anything meaningful about.

5.2 Lithics by *Rebecca Devabey*

Introduction

A total of 59 pieces of worked flint and two pieces of burnt unworked flint (weighing 11g) were recovered from the archaeological intervention at Heath Liveries, Browston (Table 1). The flint was recovered from 22 contexts with less than 10 pieces per context. Most of the flint, 49 pieces, were found as residues in environmental samples, and, of these pieces, 33 are chips. The assemblage is tentatively dated to the Mesolithic or Earlier Neolithic on the basis of technologically characteristics seen on the debitage.

Methodology

The worked flint was catalogued according to a standard debitage, core or tool type. Information about burning, breaks, condition, raw material and technology was recorded and, where possible, dating was attempted. In addition, burnt unworked flint was quantified by count and weight. Flint recovered from soil samples was recorded in the same way.

Technology and dating

Unretouched debitage dominates the assemblage (57 pieces, 97%). The presence of blades, blade-like flakes and bladelets (30% of the flake to blade ratio), and dorsal blade scars being seen on both the blades, blade-like flakes and a flake, suggests a deliberate focus on blade production, which is usually associated with Mesolithic or Earlier Neolithic industries. Of particular note, is a long blade from context (1553). It measures 84mm long, 17mm wide and has a triangular cross section with a dorsal ridge. It exhibits potential macroscopic usewear on the lateral edges. The high number of chips, including 33 from sieving residues, indicates knapping took place at the site.

Retouched tools include an end and side scraper and a retouched blade. The scraper, from context (1528), is made on a secondary removal with a cortical butt and a plunging termination. It has minimal direct retouch on the distal end and right lateral edge. The scraper is not chronologically diagnostic. The retouched blade, from context (1580), is crudely worked. It has bifacial retouch which thins the distal end and forms a potential tang. Abrupt direct retouch on the proximal end forms a point. Incipient cones of percussion above the secondary retouch show a lack of skill in its creation. The piece, which measures 53mm long and 16mm wide, is roughly reminiscent of a shouldered point. This type of tool is usually associated with final upper Palaeolithic assemblages; however, the crude and potentially unfinished nature of this piece leads to only a tentative identification.

Condition

The condition of the assemblage is good. Excluding chips, 15 pieces are in a fresh condition and 10 pieces have just slight post-depositional damage, most frequently seen on vulnerable unretouched edges, and in some case reminiscent of notches caused by ploughing or tools. The amount of surface alteration is minimal with the majority of the assemblage remaining uncorticated. A light cortication was present on just three pieces. Just seven pieces, including three chips, are broken and one chip is burnt.

Raw material

Both chalk and gravel derived flints are present in the assemblage. The gravel derived flints, which generally have a thin and abraded cortex, are likely to be locally sourced from river or beach deposits. The chalk derived flints, which are identified by a thick white cortex, are likely to have been brought in from the chalk quarries to the west of Norfolk.

Discussion and recommendations

The technological appearance of the worked flint from Browston suggests that the material dates from the Mesolithic or Earlier Neolithic. However, without the presence of chronologically diagnostic tool types, this cannot be more confidently confirmed. The relatively small size of the assemblage, which includes a large proportion of chips limits the potential for additional analysis. Further work is not required.

5.3 Palaeo-environmental Remains

Introduction

Palaeoenvironmental assessment was undertaken on flots recovered from bulk sediment samples taken from 21 archaeological contexts. These archaeological contexts were predominantly the sedimentary fills of ring ditches alongside recut ditch recut fills. The fill (1553) of a single pit [1552] was also sampled alongside the fill (1580) of a possible stakehole [1587] within a ring ditch [1572].

Methods

The flots were weighed and scanned using a low-power binocular microscope (x40) in order to separate out charcoal and archaeobotanical macrofossils.

Botanical macrofossil identification was undertaken using a low-power binocular microscope (x40). Botanical macrofossil identification utilised plates and guides from

Martin and Barkley (2000) and Cappers et al. (2006), as well as comparison with a modern reference collection. Plant nomenclature follows Stace (1997). Cereal identification utilised the guide by Jacomet (2006). The presence of uncharred organic material was noted and the quantity estimated as a proportion of the processed flots. As no evidence for waterlogging was present any non-charred organic remains are viewed as being modern intrusions. Charcoal with a size of >2mm was fractured to obtain clean sections on the tangential, transverse, and radial planes. These could then be identified using a high-power Leica GXML3030 binocular microscope (up to x600). Species identification was undertaken using plates and guides from Scoch et al. (2004) as well as comparison with a modern reference collection.

Results

Table 1 details the remains which were recovered from palaeoenvironmental bulk samples. Flots were small; with charred remains generally present though in small quantities, and highly fragmented and in poor condition. Modern, uncharred material was quite common, with rootlets a frequently occurrence alongside seeds from recent plant growth. The ever-ubiquitous goosefoot (*Chenopodium album*) seeds were a common occurrence, alongside smaller numbers of ivy-leaved speedwell (*Veronica hederifolia*), knotweed (*Persicaria* sp.) and nettle (*Urtica dioica*) seeds.

Although charred remains were predominantly restricted to small numbers of highly fragmented individuals, the fills (1558, 1559 and 1560) of ring ditch recut [1557] and the upper fill (1561) of ring ditch [1554] were less fragmented and of larger sizes and quantity. The fragments which were above two millimetres in size could be identified as all being oak (*Quercus* sp.). These fragments were all oak heartwood (as indicated by the presence of tyloses alongside a lack of ring-curvature) of mature oak trees. The smaller fragments within these charcoal assemblages are also viewed as likely being oak, due to their tenancy to thinly fragment in the typical oak fashion. Oak is a wood which has a wide variety of uses, from construction to firewood; with it being ideal for the latter due to burning at high temperatures for extended periods of time. The purpose for the apparent selection of oak here cannot be speculated on due to a lack of evidence suggesting any specific activity utilising oak wood. A single poorly-preserved wheat (*Triticum* sp.) grain was recovered from the upper fill (1537) of ring ditch [1533]. Due to the erosion it cannot be identified to the species level and may well be residual due to it being a badly eroded single individual within a ditch fill.

Radiocarbon dating is not recommended on any material recovered from these bulk sampled fills. Mature oak wood can come from trees which can be hundreds of years old, therefore, dating the charcoal would include a large 'in-built' radiocarbon age (Schiffer, 1986), whereas the wheat grain is viewed as potentially being residual.

Table 1. Contents of environmental flots, flints and pottery recovered from archaeological bulk samples by context, italics indicates contexts with notable finds.

Context No.	Sample No.	Description	Enviros			Flint									Pottery					
			Flot Weight (g)	Uncharred flot	Charred flot	Special	Flake	Blade	Blade-like flake	Bladulet	Sieved chips	End & side scraper	Retouched blade	Total	Burnt unworked	Burnt unworked (g)	Count	Weight (g)	Description	
1521		Second fill of ring ditch [1519]	0			1										1		0	0	
1523		Archaic plough GR1001	0				1		1							2		0	0	
1527		Fill of re-cut of ring ditch 1594	0			1										1		0	0	
1528	21	Upper fill of ring ditch [1524]	1.2	40%	60% of flot small (<2mm) charcoal fragments					1						1		0	0	
1534	4	Basal fill of ring ditch [1533]	1.6	20%	80% of flot small (<2mm) charcoal fragments- Resembles oak	5	1									9		0	0	
1535	3	Fill of ring ditch [1533]	1.4	40%	60% of flot small (<2mm) charcoal fragments													0	0	
1536	2	Fill of ring ditch [1533]	0.8	40%	60% of flot small (<2mm) charcoal fragments									4		6		0	1	fired clay crumbs
1537	1	Upper fill of ring ditch [1533]	4.1	75%	25% of flot small (<2mm) charcoal fragments; 1 wheat (Triticum sp.) grain				wheat					1		1		0	2	fired clay crumbs
1542		Fill of re-cut of ring ditch [1540]	0			1										1	1	0	0	
1550		Fill of re-cut of ring ditch [1548]	0				1									1		0	0	

1553	11	Upper fill of large pit [1552]	3.2	90%	10% of flint small (<2mm) charcoal fragments	2	1				3					0	1	fired clay crumbs
1558	12	Basal fill of re-cut [1557] into ring ditch [1554]	2.4	10%	60% of flint small (<2mm) charcoal fragments; 30% of flint moderate (<2mm) charcoal fragments- 4 identifiable fragments oak											1	1	
1559	13	Fill of re-cut [1557] into ring ditch [1554]	6.3	10%	50% of flint small (<2mm) charcoal fragments; 20% of flint moderate (2-10mm) charcoal fragments- 5 identifiable fragments oak; 20% of flint large (>10mm) charcoal fragments- 3 identifiable fragments oak						2					1	1	Micaceous surfaces.
1560	14	Fill of re-cut [1557] into ring ditch [1554]	15.2	10%	40% of flint small (<2mm) charcoal fragments; 30% of flint moderate (2-10mm) charcoal fragments- 7 identifiable fragments oak; 20% of flint large (>10mm) charcoal fragments- 3 identifiable fragments oak											0	0	
1561	15	Upper fill of ring ditch [1554]	6.4	40%	50% of flint small (<2mm) charcoal fragments; 10% of flint moderate (<2mm) charcoal fragments- 2 identifiable fragments oak						1					1	0.9	fired clay
1563	7	Basal fill of ring ditch [1562]	0.09	-	100% of flint small (<2mm) charcoal fragments	1										0	2	fired clay crumbs
1564	6	Fill of ring ditch [1562]	0.8	40%	60% of flint small (<2mm) charcoal fragments						2					0	0	
1565	5	Fill of ring ditch [1562]	0.4	20%	80% of flint small (<2mm) charcoal fragments						1					0	0	

1568	Basal fill of ring ditch [1567]	0.2	-	100% of flot small (<2mm) charcoal fragments	1														1	0	0	
1569	Fill of re-cut [1579] of ring ditch [1567]	0.8	20%	80% of flot small (<2mm) charcoal fragments	1															0	0	
1570	Fill of re-cut [1579] of ring ditch [1567]	0.8		100% of flot small (<2mm) charcoal fragments	1					5										1	0.9	fired clay
1571	Upper fill of re-cut [1579] of ring ditch [1567]	1.6	60%	40% of flot small (<2mm) charcoal fragments																0	0	
1573	Basal fill of ring ditch [1572]	0.4	98%	2% of flot small (<2mm) charcoal fragments	1					1										0	0	
<i>1574</i>	<i>Fill of re-cut [1585] of ring ditch [1572]</i>	<i>0.1</i>	<i>90%</i>	<i>10% of flot small (<2mm) charcoal fragments</i>						<i>1</i>										<i>2</i>	<i>1</i>	<i>Reduced fabric and inclusions of crushed flint.</i>
1575	Fill of re-cut [1585] of ring ditch [1572]	0.3	90%	10% of flot small (<2mm) charcoal fragments	1					3										1	0.9	
<i>1580</i>	<i>Fill of possible stakehole [1587] within ring ditch [1572]</i>	<i>0.2</i>	<i>100%</i>																	<i>0</i>	<i>0</i>	
Total		48.3			16	2	4	1	1	34	1	1	1	59	2	1	1	1	7	11.7		

5.4 Intrusive finds

Glass

A single fragment of flat glass, weighing 0.4g and probably originating from a modern windowpane, was recovered through sorting the heavy residue of sample <1>, collected from deposit (1537), which was the interface between modern plough and the upper most deposit of the ring ditch.

Modern pottery

Two fragments of 19th-20th century whiteware were found in the heavy residue of samples <1> and <2>.

The example recovered from sample <1>, collected from deposit (1537), weighed less than 0.1g and was identified as blue and white under glaze transfer printed ware. The second item, weighing 0.2g, was found in the heavy residue of sample <2>, collected from deposit (1536); it was identified as modern refined whiteware.

Both of these contexts were physically touching the interface between modern plough and the upper most deposit of the ring ditch. As such, the material was most likely dragged down during machine stripping the upper layers of ploughed material. They were discarded.

6 DISCUSSION

The excavation and sampling of the ring ditch and associated features has determined that it appears to be of early prehistoric date. Based on the lack of charred plant remains and very limited number of associated finds, it is difficult to be able to provide a secure date or even refine more definitely the main period of construction and use of the monument. Unfortunately, despite heavy sampling, none produced material suitable for radiocarbon testing.

The idea as conjured by the flint analysis that this site might have been in use during the late Mesolithic and early Neolithic period is intriguing due to the relative lack of understanding about the transition between the two cultures. However, limitations in the material record are unable to afford us this insight. The only remotely diagnostic material recovered were flints. These suggested a deliberate focus on blade production usually associated with Mesolithic or Earlier Neolithic industries. Of particular note, was a long blade from fill (1553) within a large pit on the internal NW surface of the ditch. Another blade-like flake was recovered from the basal fill (1534) of the ring ditch within intervention 1533. Most other flints were recovered from upper fills of the ditch, so have a greater likelihood of being residual. It is not uncommon for latent Mesolithic or early Neolithic flints, which were in the archaic topsoil, to become incorporated accidentally within the fills of various features surrounding and within the ring ditch.

That said, a number of new insights have been added to our understanding of this ring ditch through this work. Possibly most worthy of note is that there was no associated burial or burials. However, this does not rule out the possibility of a funerary function, as there are plenty of examples where the burials have been lost from erosion and ploughing (Barclay & Halpin 1997; Lawson et al. 1981; Wymer 1996). Furthermore, the internal pits could have contained human remains that the acidic nature of the

geology may have destroyed, as the notable lack of bone on site could suggest. Some research has even suggested that monuments were sometimes constructed as performative rites for those whose remains may not have been present for the ceremony. With its small diameter, there was also the possibility of it having been a roundhouse, albeit unlikely. However, the excavation demonstrated that the depth of preservation of the remains of the ring ditch would help to further rule this out as a viable interpretation.

Examples of ring ditches of similar size and absence of material have been found in the surrounding area (Lawson et al. 1981; Wymer 1996: 26-27, 54-57) and have been tentatively regarded as prehistoric features, likely late Neolithic or early Bronze Age. The ring-ditch at Heath Liveries, Belton and Browston will ultimately have to be added to this unsatisfying category.

7 ARCHIVE

Archive Contents

The archive consists of the following:

Paper record

The project brief
Written scheme of investigation
The project report
The primary site record

Physical record

Finds
Environmental remains

The archive currently is maintained by John Moore Heritage Services and will be transferred to the Norfolk Museums Service with the accession number NWHCM 2020.134.

8 BIBLIOGRAPHY

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APPENDIX 1: OASIS FORM

OASIS DATA COLLECTION FORM: England

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OASIS ID: johnmoor1-403163

Project details

Project name	LAND AT HEATH LIVERIES, BROWSTON LANE, BELTON WITH BROWSTON
Short description of the project	Excavation of a ring ditch and interior features was undertaken by John Moore Heritage Services in June 2020. Due to lack of datable evidence, 50% of the entire surviving ring ditch was excavated and sampled heavily which ultimately resulted in 59 retouched flints which suggest that the material dates from the Mesolithic or Earlier Neolithic. However, highly fragmented and poorly preserved pottery recovered from samples was broadly dated to the Bronze Age.
Project dates	Start: 01-06-2020 End: 05-06-2020
Previous/future work	Yes / No
Any associated project reference codes	johnmoor1-303004 - OASIS form ID
Any associated project reference codes	3922 - Contracting Unit No.
Any associated project reference codes	NWHCM:2020.134 - Museum accession ID
Any associated project reference codes	ENF148507 - HER event no.
Any associated project reference codes	06/17/0622/F - Planning Application No.
Any associated project reference codes	NHER 45212 - Related HER No.
Any associated project reference codes	NHER 45211 - Related HER No.
Type of project	Field evaluation
Site status	None
Current Land use	Other 15 - Other
Monument type	RING DITCH Bronze Age
Monument type	PIT Uncertain
Monument type	POST HOLE Uncertain
Significant Finds	FLINT Mesolithic

Significant Finds	FLINT Early Neolithic
Significant Finds	SHERD Bronze Age
Methods & techniques	""Sample Trenches"" , ""Targeted Trenches""
Development type	Rural residential
Prompt	National Planning Policy Framework - NPPF
Position in the planning process	Not known / Not recorded

Project location

Country	England
Site location	NORFOLK GREAT YARMOUTH BELTON WITH BROWSTON Land at Heath Liveries, Browston Lane
Postcode	NR31 9DN
Study area	20 Square metres
Site coordinates	TG 49653 01888 52.556867733215 1.683482852435 52 33 24 N 001 41 00 E Point
Height OD / Depth	Min: 0.12m Max: 0.84m

Project creators

Name of Organisation	John Moore Heritage Services
Project brief originator	Norfolk Historic Environment Service
Project design originator	John Moore
Project director/manager	John Moore
Project supervisor	Stephanie Duensing
Type of sponsor/funding body	Client

Project archives

Physical Archive recipient	Norfolk Museums Service
Physical Archive ID	NWHCM:2020.134
Physical Contents	"Ceramics","Environmental","Leather","Worked stone/lithics"
Digital Archive recipient	Norfolk Museums Service
Digital Archive ID	NWHCM:2020.134
Digital Contents	"Ceramics","Environmental","Stratigraphic","Worked stone/lithics","other"
Digital Media available	"GIS","Images raster / digital photography","Images vector","Spreadsheets","Text"
Paper Archive recipient	Norfolk Museums Service
Paper Archive ID	NWHCM:2020.134
Paper Contents	"Ceramics","Environmental","Stratigraphic","Worked stone/lithics","other"
Paper Media available	"Context sheet","Drawing","Miscellaneous Material","Photograph","Plan","Report","Section"

**Project
bibliography 1**

Publication type	Grey literature (unpublished document/manuscript)
Title	AN ARCHAEOLOGICAL EXCAVATION AT LAND AT HEATH LIVERIES, BROWSTON LANE, BELTON WITH BROWSTON, NORFOLK
Author(s)/Editor(s)	Duensing, S.
Author(s)/Editor(s)	Moore, J.
Other bibliographic details	JMHS report no.3922
Date	2020
Issuer or publisher	John Moore Heritage Services
Place of issue or publication	Boarstall
Description	30 A4 pages pdf
Entered by	Simona Denis (admin@jmheritageservices.co.uk)
Entered on	20 October 2020

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APPENDIX 2: CONTEXT INVENTORY

Context	Type	Description	Depth	Width	Length	Finds	Interpretation	Date
Ring Ditch 1000								
1510	Cut	Curvilinear	0.48m	1.1m	>1.2m	na	Ring ditch GR1000	unk
1511	Fill	Mid-light greyish brown silty sand	0.08m	0.78m	>1.2m	na	Lowest fill of ring ditch 1510	unk
1512	Fill	Mid-light brown silty sand	0.28m	0.68m	>1.2m	na	Fill of ring ditch 1510	unk
1513	Fill	Mid-light greyish brown sandy clay	0.14m	1.1m	>1.2m	na	Archaic ploughsoil GR1001	unk
1514	Cut	Curvilinear	0.42m	1.26m	>1m	na	Ring ditch GR1000	unk
1515	Fill	Mid-light yellowish brown silty sand	0.07m	1m	>1m	na	Fill of ring ditch 1514	unk
1516	Fill	Mid-light brown silty sand	0.1m	1m	>1m	na	Fill of ring ditch 1514	unk
1517	Fill	Mid-light yellowish brown silty sand	0.18m	0.92m	>1m	na	Fill of ring ditch 1514	unk
1518	Fill	Mid-light greyish brown sandy clay	0.12m	1.22m	>1m	na	Archaic ploughsoil GR1001	unk
1519	Cut	Curvilinear	0.59m	1.88m	>1m	na	Ring ditch GR1000	unk
1520	Fill	Light brownish white clayey sand	0.28m	0.32m	>1m	na	Fill of ring ditch 1519	unk
1521	Fill	Mid-purpleish brown silty sand	0.2m	0.36m	>1m	1 flake, flint	Fill of ring ditch 1519	unk
1522	Fill	Light orangish brown	0.25m	0.4m	>1m	na	Fill of re-cut of ring ditch 1593	unk
1523	Fill	Mid greyish brown silty sand	0.26m	1.88m	>1m	1 ?blade	Archaic ploughsoil GR1001	unk
1524	Cut	Curvilinear	0.84m	1.65m	>1m	na	Ring ditch GR1000	unk
1525	Fill	Light yellowish brown silty sand	0.14m	1.32m	>1m	na	Fill of ring ditch 1524	unk
1526	Fill	Light yellowish grey silty sand	0.2m	0.9m	>1m	na	Fill of ring ditch 1524	unk
1527	Fill	Mottled light yellowish grey with light grey streaks	0.25m	0.68m	>1m	1 flake, flint	Fill of re-cut of ring ditch 1594	unk

1528	Fill	Light brown clayey sand	0.4m	1.65	> 1m	1 scraper, flint	Fill of re-cut of ring ditch 1594, Archaic ploughsoil GR1001	prehistoric
1529	Cut	Curvilinear	0.4m	0.9m	> 1.3m	na	Ring ditch GR1000	unk
1530	Fill	Mid-light greyish brown silty sand	0.1m	0.6m	> 1.3m	na	Fill of ring ditch 1529	unk
1531	Fill	Mid-light yellowish brown silty sand	0.22m	0.8m	> 1.3m	na	Fill of ring ditch 1529	unk
1532	Fill	Mid-light greyish brown sandy clay	0.1m	0.9m	> 1.3m	na	Archaic ploughsoil GR1001	unk
1533	Cut	Curvilinear	0.66m	1.2m	> 1m	na	Ring ditch GR1000	unk
1534	Fill	Mid-light yellowish brown silty sand	0.25m	0.5m	> 1m	5 flakes, 1 ?blade, flint; fired clay ?oak	Fill of ring ditch 1533	unk
1535	Fill	Mid-light brown silty sand	0.19m	0.72m	> 1m	na	Fill of ring ditch 1533	unk
1536	Fill	Mid-light yellowish brown silty sand	0.22m	1m	> 1m	2 ?blade, flint	Fill of ring ditch 1533	unk
1537	Fill	Mid-light greyish brown sandy clay	0.12m	1.2m	> 1m	1 flint, fired clay, ?wheat	Fill of ring ditch 1533, archaic plough soil	unk
1538	Cut	Curvilinear	0.6m	1.8m	> 1m	na	Ring ditch GR1000	unk
1539	Fill	Mid greyish brown silty sand	0.3m	0.6m	> 1m	na	Fill of ring ditch 1538	unk
1540	Voided Re-cut	voided	VOID	VOID	VOID	VOID	Voided in post-ex	unk
1541	Fill	Mid-reddish yellow gravelly sand	0.2m	0.5m	> 1m	na	Fill of re-cut of ring ditch 1540	unk
1542	Fill	Mid-dark greyish brown	0.12m	0.82m	> 1m	1 flake, 1 burnt flint	Fill of re-cut of ring ditch 1540	unk
1543	Fill	Light brownish grey sandy clay	0.18m	1.8m	> 1m	na	Fill of re-cut of ring ditch 1540	unk
1544	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID
1545	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID
1546	Cut	Curvilinear	0.6m	1.05m	> 1.3m	na	Ring ditch GR1000	unk
1547	Fill	Mid-light yellowish brown silty sand	0.2m	0.7m	> 1.3m	na	Fill of ring ditch 1546	unk

	Voided Re-cut	voided		VOID	VOID	VOID	VOID	VOID	VOID		VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID	VOID						
1548			voided																							unk	
1549	Fill	Mid-light brown silty sand		0.12m	0.8m	>1.3m	na	na	na																	unk	
1550	Fill	Mid-light yellowish brown silty sand		0.18m	0.75m	>1.3m	?blade, flint																			unk	
1551	Fill	Mid-light greyish brown sandy clay		0.12m	1.05m	>1.3m	na	na	na																	unk	
1554	Cut	Curvilinear		0.34m	1.1m	>0.8m	na	na	na																	unk	
1555	Fill	Mid-light brown silty sand		0.18m	0.3m	>0.8m	na	na	na																	unk	
1556	Fill	Mid-light brown silty sand		0.2m	0.44m	>0.8m	na	na	na																	unk	
1557	Cut	Re-cut pit		0.26m	0.3m	>0.8m	na	na	na																	unk	
1558	Fill	Mid-light brown silty sand		0.06m	0.06m	>0.8m	1 pottery	1 pottery	1 pottery																	Prehistoric, possible BA?	
1559	Fill	Mid-light brown silty sand		0.16m	0.22m	>0.8m	1 pottery; 2 flint	1 pottery; 2 flint	1 pottery; 2 flint																	Prehistoric, possible BA?	
1560	Fill	Mid-light brown silty sand		0.22m	1.17m	>0.8m	na	na	na																	unk	
1561	Fill	Mid-light brown silty sand		0.18m	2m	>0.8m	1 flint; fired clay	1 flint; fired clay	1 flint; fired clay																	unk	
1562	Cut	Curvilinear		0.52m	1.3m	>1.1m	na	na	na																	unk	
1563	Fill	Mid-light brown silty sand		0.06m	0.22m	>1.1m	1 flake, flint; fired clay crumbs	1 flake, flint; fired clay crumbs	1 flake, flint; fired clay crumbs																		unk
1564	Fill	Mid-light brown silty sand		0.2m	0.9m	>1.1m	flint	flint	flint																	unk	
1565	Fill	Mid-light yellowish brown silty sand		0.18m	0.92m	>1.1m	1 bladelet, flint	1 bladelet, flint	1 bladelet, flint																		unk
1566	Fill	Mid-light greyish brown sandy clay		0.1m	1.3m	>1.1m	na	na	na																		unk
1567	Cut	Curvilinear		0.68m	1.3m	>1m	na	na	na																		unk
1568	Fill	Mid-light greysih brown silty sand		0.2m	0.74m	>1m	1 flake, flint	1 flake, flint	1 flake, flint																		unk
1569	Fill	Mid-light greysih brown silty sand		0.16m	1m	>1m	1 flake, flint	1 flake, flint	1 flake, flint																		unk

1570	Fill	mid-light brown with grey mottling silty sand	0.18m	0.94m	>1m	1 flake, flint; fired clay	Fill of re-cut of ring ditch 1579	unk
1571	Fill	Mid-light greyish brown sandy clay	0.17m	1.3m	>1m	na	Fill of re-cut of ring ditch 1579, archaic ploughsoil, GR1001	unk
1572	Cut	Curvilinear	0.73m	1.2m	>0.9m	na	Ring ditch GR1000	unk
1573	Fill	Light yellowish brown sand	0.58m	0.8m	>0.9m	1 flake, flint	Fill of ring ditch 1572	unk
1574	Fill	Dark greyish brown sandy clay	0.14m	0.34m	>0.9m	2 pot frags, reduced fabric and inclusions of crushed flint.	Fill of re-cut of ring ditch 1585	Prehistoric, possible BA?
1575	Fill	Light greyish brown silty sand	0.24m	1.06m	>0.9m	1 pottery; 1 flake, flint	Fill of re-cut of ring ditch 1585	Prehistoric, possible BA?
1576	Fill	Mid-light greyish brown sandy clay	0.14m	1.2m	>0.9m	na	Fill of re-cut of ring ditch 1585	unk
1577	Fill	Light yellowish brown sand	0.1m	0.4m	>1m	na	Fill of re-cut of ring ditch 1579	unk
1578	Fill	Light yellowish brown sand	0.05m	0.42m	>1m	na	Fill of re-cut of ring ditch 1579	unk
1579	Voided Re-cut	Voided	VOID	VOID	VOID	VOID	Voided in post-ex	unk
1580	Fill	Dark greyish brown sandy clay	0.35m	0.28m	unk	1 retouched blade, flint	Fill of bioturbation or possible stakehole 1587	unk
1585	Voided Re-cut	Voided	VOID	VOID	VOID	VOID	Voided in post-ex	unk
1586	Fill	Light brown orange clayey sand	0.13m	0.5m	>1m	na	Fill of re-cut of ring ditch 1585	unk
1587	Cut	Sub-circular	0.35m	0.28m	>1m	na	Bioturbation or possible stakehole	unk
1593	Voided Re-cut	Voided	VOID	VOID	VOID	VOID	Voided in post-ex	unk
1594	Voided Re-cut	Voided	VOID	VOID	VOID	VOID	Voided in post-ex	VOID
Pit 1500								
1500	Cut	Ovoid	0.3m	0.8m	1.12m	na	Cut for small pit	unk
1501	Fill	Mid-light greyish brown sandy clay	0.3m	0.8m	1.12m	na	Single fill of pit 1500	unk

Pit 1502										
1502	Cut	Sub-circular	0.7m	2.2m	>2.2m	na	Cut of large pit	unk		
1503	Fill	Mid-light greyish brown sandy clay	0.1m	2.2m	>2.2m	na	A capping or levelling layer over both pit 1502 and recut 1583	unk		
1581	Fill	Mid-light brown sandy clay	0.26m	>1.38m	>2.2m	na	Lowest fill of pit 1502	unk		
1582	Fill	Mid-light yellowish brown sandy clay	0.48m	>0.94m	>2.2m	na	Upper fill of pit 1502	unk		
1583	Cut	sub-circular	0.68m	1.08m	unk	na	Re-cut of pit 1502	unk		
1584	Fill	Mid greyish brown sandy silt	0.68m	1.08m	unk	na	Single fill of re-cut of pit 1583	unk		
Pit 1504										
1504	Cut	Sub-circular	0.14m	0.33m	0.44m	na	Posthole	unk		
1505	Fill	Mid-light greyish brown sandy clay	0.14m	0.44m	0.44m	na	Fill of p/h 1504	unk		
Pit 1506										
1506	Cut	Ovoid	0.12m	0.6m	1.28m	na	Pit	unk		
1507	Fill	Mid-light greyish brown sandy clay	0.12m	0.6m	1.28m	na	Fill of pit 1506	unk		
Pit 1508										
1508	Cut	Ovoid	0.26m	0.9m	1.6m	na	Pit	unk		
1509	Fill	Mid-light greyish brown sandy clay	0.26m	0.9m	1.6m	na	Fill of pit 1508	unk		
Pit 1552										
1552	Cut	Ovoid	0.44m	1.9m	4.1m	na	Pit	unk		
1553	Fill	Mid-light greyish brown sandy clay	0.38m		4.1m	2 flakes, 1 blade, flint; fired clay	Fill of pit 1552	unk		

1588	Fill	Mid-light greyish brown sand	0.06m	unk	1.86m	na	Fill of pit 1552	unk
1590	Fill	Mid-light greyish brown sand	0.04m	unk	0.6m	na	Fill of pit 1552	unk
1591	Fill	Mid-light greyish brown sand	0.04m	unk	0.56m	na	Fill of pit 1552	unk
General Deposits								
1589	Deposit	Mid reddish yellow gravelly sand	na	na	na	na	Natural	unk
1592	Deposit	Mid greyish brown silty clay	na	na	na	na	Subsoil	unk