

ARCHAEOLOGICAL
SERVICES
DURHAM UNIVERSITY

on behalf of
BAM Construction Ltd

Ingleby Manor Free School
Stockton-on-Tees
Teesside

post-excavation assessment

report 4032
February 2016

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1. Summary

The project

- 1.1 This report is an assessment of the results of 5 archaeological trenches and an area of excavation conducted in advance of a development at Ingleby Manor, Stockton on Tees. The works were commissioned by BAM Construction Ltd and conducted by Archaeological Services Durham University.

Results

- 1.2 The archaeological work has established the presence of a small group of early Neolithic features, located in the northern and western areas of the site. A small but regionally significant assemblage of early Neolithic pottery was associated with these features, along with several flint artefacts. These came from several pits and postholes, many of which exhibited evidence of burning *in situ*; palaeoenvironmental evidence for this was also obtained.
- 1.3 A Bronze Age barrow was identified, with associated pits. This activity was located in the north-west half of the excavation area. The barrow and associated features found during the present works may be part of a wider ritual landscape. The results of the flint assessment suggest that this activity may have been early Bronze Age in date.
- 1.4 The results of the palaeoenvironmental assessment indicate there was also Iron Age/Romano-British activity on site. This can be related to the gullies on site, indicating the presence of a late prehistoric or Romano-British field system. Several pits and postholes were also assigned to this period. It is likely that there is a contemporary settlement or farmstead in the near vicinity.
- 1.5 An assemblage of early Neolithic and early Bronze Age pot sherds and flint was recovered from the archaeological features. A single sherd of Roman pottery and one of Iron Age/Romano-British pottery were also recovered. Other finds include burnt bone and later iron objects.
- 1.6 Palaeoenvironmental evidence comprised abundant charred hazel nutshell remains and charred remains of apple, hawthorn and sloe, which are typically of Neolithic or Bronze Age origin. Deposits of this nature have been associated with domestic and ritual activity. Evidence suggests the cultivation of spelt wheat and barley occurred at the site, and the presence of spelt wheat chaff suggests the local production of this cereal crop. The use of spelt wheat and barley is commonly associated with Iron Age and Roman occupation sites in England. Charred plant debris comprising rhizomes, tubers, heather twigs and grassland seeds frequently occurred in small quantities. The combined presence of these remains often occurs on sites from the later prehistoric and Romano-British periods in North-East England.

Recommendations

- 1.7 As a significant archaeological resource was uncovered by the excavation, full analysis of the data and its publication is recommended. An Updated Project Design has been included as Appendix 3, which lists the tasks to be undertaken to achieve this.

2. Project background

Location (Figure 1)

- 2.1 The site is located to the south-west of Little Maltby Farm, in the parish of Stainton and Thornton, Teesside (NGR centre: NZ 4521 1284). At the time of the excavation the site was surrounded by fields of pasture, with the farm of Little Maltby to the north-east. To the south was the A1044 (Low Lane), and to the west was the southern extent of Ingleby Barwick.

Development proposal

- 2.2 The development proposal is for a secondary school and playing fields.

Objective

- 2.3 The objective of the scheme of works was to identify, excavate and record significant archaeological features within the area in advance of development.
- 2.4 The regional research framework (Petts & Gerrard 2006) contains an agenda for archaeological research in the region, which is incorporated into regional planning policy implementation with respect to archaeology. In this instance, the scheme of works was designed to address Agenda Items NBii (Neolithic settlement chronology); Lii Late Bronze Age and Iron Age settlement) and Riv (Roman native and civilian life).

Specification

- 2.5 The works have been undertaken in accordance with a Written Scheme of Investigation provided by Archaeological Services Durham University (reference DS14.400rev2) and approved by the planning authority.

Dates

- 2.6 Fieldwork was undertaken between 12th January and 16th March 2015. This report was prepared for February 2016.

Personnel

- 2.7 Fieldwork was conducted by Matthew Claydon, Jonathan Dye, Tessi Loeffelmann, Alan Rae, Jenny Richards, Beverley Still, Rebekah Watson, Dr Dave Webster, Ben Westwood, Hannah Woodrow and Jamie Armstrong (supervisor). This report was prepared by Jamie Armstrong, with illustrations by David Graham. Sample processing was undertaken by Dr Magdolna Szilágyi, Janet Beveridge, Hannah Woodrow and Tessi Loeffelmann. Specialist reporting was conducted by Dr Helen Drinkall (lithics), Dr Rob Young (pottery), Vicky Garlick (Conservation) Jenny Jones (other artefacts) and Lorne Elliott and Dr Charlotte O'Brien (palaeoenvironmental). The Project Manager was Daniel Still.

Archive/OASIS

- 2.8 The site code is **IMF15**, for Ingleby Manor Free School 2015. The residues were discarded following examination. The flots and charred plant remains will be retained at Archaeological Services Durham University. The remaining archive is currently held by Archaeological Services Durham University and will be transferred to Tees Archaeology in due course. Archaeological Services Durham University is registered with the **Online Access to the Index of archaeological investigationS** project (**OASIS**). The OASIS ID number for this project is **archaeol3-242366**.

3. Landuse, topography and geology

- 3.1 At the time of the fieldwork, the development area comprised a field of rough pasture, used for grazing horses.
- 3.2 The survey area was predominantly level with a mean elevation of approximately 29m OD. The western boundary of the site follows the Bassleton Beck.
- 3.3 The underlying solid geology of the area comprises Permian and Triassic strata of the Sherwood Sandstone Group, which are overlain by Devensian glaciolacustrine and glaciofluvial deposits of diamicton till.

4. Historical and archaeological background

Previous archaeological works

- 4.1 An archaeological desk-based assessment has been conducted for the site (Archaeological Services 2012a); the results of that assessment are summarised here.
- 4.2 In 1997 an archaeological evaluation was conducted across the development area (Archaeological Services 1997a & 1997b). Twenty-two trial trenches were excavated to inform on the possible nature and extent of any archaeological deposits that may survive on the site.
- 4.3 A Neolithic or Bronze Age cremation urn was identified. A ditch, gully and a small 'bowl furnace' type oven were also recorded, all possibly Neolithic in date. A series of occupation deposits consisting of bands of clay, charcoal, silt and sand were also identified, also possibly Neolithic in date.
- 4.4 Following the desk-based assessment for the site in 2012, a geophysical survey of the school site and the fields to the north and east was conducted (Archaeological Services 2014a and b). Probable soil-filled ditches, pits and post-holes were identified, which could reflect the features of possible Neolithic date identified during previous archaeological works. Part of a possible circular enclosure and soil-filled pits and post-holes were identified in the field to the north. Former field boundaries were identified in the development area and the field to the north. Traces of former ploughing were identified in the development area and in the fields to the north and east.

The prehistoric and Roman periods (up to 5th century AD)

- 4.5 The development area lies within a region of high archaeological potential relating to the Neolithic and Bronze Age. Excavations at Low Lane produced an assemblage of 50 pieces of flint of probable Neolithic date.
- 4.6 Just over 1km west of the development area further Neolithic/Bronze Age activity has been recorded at Ingleby Barwick. Excavations here recorded a large scatter of worked flints and debitage along with a Bronze Age pot sherd (Adams and Carne 1995). No evidence for Roman activity was identified. Excavations c.600m to the south-west of the site at Windmill Fields found a small Bronze Age cemetery with at least two high status burials (Annis 1997). Over 2.5km to the north is the site of Quarry Farm, where at least seven late Neolithic/early Bronze Age vessels were recovered, along with a Neolithic axe and a Bronze Age punch. These were

associated with a small group of features (Carne and Willis, 2013, 21-8). A Roman villa was later established on the site. Extensive evidence for Roman-British enclosures and settlement has been found along the line of Low Lane.

The medieval and post-medieval periods (5th century to 1899)

- 4.7 Early medieval burials were found in advance of the construction of a school next to Low Lane to the south-west of the site. There is no evidence for settlement on the site, which was probably exploited for agriculture in these periods.

The modern period (1900 to present)

- 4.8 The site has remained in use for agricultural purposes during the modern period.

5. The excavation

Introduction (Figure 2)

- 5.1 Initial work involved the excavation of five trenches to determine the extent of archaeological deposits in the north and south-east areas of the development area. This was followed by an archaeological excavation of the footprint of the school (approximately 0.92 hectares).

Trench 1 (Figure 3)

- 5.2 This trench was 20m by 2m, and was located in the northern part of the development area. Natural subsoil, a mixture of orange gravelly-clay and orangey-brown clay [2], was identified at a depth of 0.3m. Overlying this was a brown clayey sandy-silt topsoil [1: 0.3m thick]. No archaeological features were identified and no artefacts recovered.

Trench 2 (Figure 3)

- 5.3 This trench was 60m by 2m, and was located in the northern part of the development area. Natural subsoil, a mixture of orange gravelly-clay and orangey-brown clay [2], was identified at a depth of 0.3m. Towards the centre of the trench this was cut by a north-south gully [F4: over 1.8m by 0.5m, 0.08m deep]. This was filled with a grey-brown crumbly clayey sandy-silt [3]. Overlying this was a brown clayey sandy-silt topsoil [1: 0.3m thick]. A single fragment of post-medieval pottery was recovered from the topsoil.

Trench 3 (Figure 3)

- 5.4 This trench was 60m by 2m, and was located in the northern area of the development area. Natural subsoil, a mixture of brown gravelly sandy-clay and orangey-brown clay [2], was identified at a depth of 0.3-0.5m. Cut into this towards the north-west end of the trench was a shallow sub-rounded pit [F12: 0.9m by 1.0m, 0.05m deep]. This was filled with a soft grey sticky clayey sandy-silt [11]. Overlying this was a brown sandy-clay subsoil [30: up to 0.2m thick], which was in turn overlain by a brown clayey sandy-silt topsoil [1: 0.3m thick]. No artefacts were recovered.

Trench 4

- 5.5 This trench was 20m by 2m, and was located in the southern area of the development area across a broad curvilinear geophysical anomaly. Natural subsoil, an orangey-yellow gravelly sandy-clay [2], was identified at a depth of 0.3m. Cutting

through this was a palaeochannel. Overlying this was a brown clayey sandy-silt topsoil [1: 0.3m thick]. No archaeological features were identified and no artefacts recovered.

Trench 5

- 5.6 This trench was 60m by 2m, and was located in the southern area of the development area across a curvilinear geophysical anomaly. Natural subsoil, a mixture of brown gravelly sandy-clay and orangey-brown clay [2], was identified at a depth of 0.3-0.5m. Overlying this was a brown sandy-clay subsoil [30: up to 0.2m thick], which was in turn overlain by a brown clayey sandy-silt topsoil [1: 0.3m thick]. No archaeological features were identified and no artefacts recovered.

Area 6 (Figures 3 and 4)

- 5.7 This was the area of the excavation. At its furthest extents it measured 115m by 115m. The area was located over the footprint of the school building, and the geophysical survey had established the presence of numerous linear anomalies with the potential to be part of a field system. Several of the trenches from the 1997 evaluation (Archaeological Services 1997b) had been located within this area (Trenches 17-21). These had identified prehistoric activity including a ditch, pits and stakeholes.

Glacial subsoil

- 5.8 The underlying glacial subsoil [2=90=108=113=118=126=146=154=157] was quite variable. It comprised areas of reddy-brown clay, grey clay, light yellow soft sandy-clay, and one area of dark brown sandy gravel which contained naturally-occurring fragments of flint.

Barrow (Figures 4 and 6)

- 5.9 The most significant feature encountered was a Bronze Age barrow [F65: 18.5m by 21m internally]. This comprised a ring ditch, mound material and internal pits and post-holes. The barrow was situated on a slight rise in the ground, which proved to be the western end of a slight ridge of reddy-brown clay. This geological feature had been adapted to create the barrow.

Ring ditch

- 5.10 The northern side of this ditch had previously been excavated in 1997, where it had been interpreted as an enclosure ditch (Archaeological Services 1997b, 5-6). The excavation revealed it was a ring ditch constructed around a near-circular mound. Eight sections were excavated through it. The cut of the ditch [F63=F81=F91=F97=F107=F112=F135=F151: 0.27-0.44m deep, 0.3m average; Figure 7] had a shallow V-shaped profile, mainly with a flattened base. Its width was variable, being fairly consistent around its eastern, southern and western sides (between 1.8m and 2.6m, with an average of 2.2m), but at its northern side it narrowed significantly to 1.12m. This may have been the result of horizontal truncation.

Barrow mound

- 5.11 The material removed during the creation of the ditch was piled into the centre to create a mound [72=92=143=147=158: no more than 0.1m thick]. In the 1997 evaluation this material was interpreted as occupation deposits (Archaeological Services 1997, 6). Only a thin remnant of this material survived, presumably because it has been truncated by recent ploughing. The soil cover at the top of the barrow

was much less than across the rest of the site (as little as 0.1m thick), which indicates how little protection it had. At its highest point the barrow mound stood at 29.74m OD, while its lowest point was the outer edge of the southern side of the ditch, which was at 29.06m OD. The maximum height for the mound was therefore approximately 0.7m, although the mean height was approximately 0.35m. Flint was recovered from this deposit, along with nine sherds of Bronze Age pottery and some fragments of burnt bone.

Ring ditch fills

- 5.12 The ring ditch was initially filled with a thin silting layer which was only identified in the south-east section. This was a very dark grey firm and sticky clayey-silt [111: over 1m by 0.43m, 0.03m thick]. Overlying this and extending all around the barrow ditch was a light grey friable silty-sand [62=80=89=96=106=110=148=153: 0.1-0.15m thick]. Over this was a largely consistent layer of grey firm clayey silty-sand with frequent inclusions of charcoal fragments [61=79=219=95=105=137=220: 0.05m thick]: two sherds of prehistoric pottery and some fragments of fired clay were recovered. It is possible that this is a phase connected with many of the burnt internal features of the barrow (below, paragraphs 5.14-18). The uppermost fill of the barrow ditch may have been the result of gradual infilling after abandonment rather than a deliberate backfilling event. This was a greyish-brown sticky clayey sandy-silt with rare charcoal fragment inclusions [60=77=88=94=104=109=136=152: 0.15-0.4m thick]: four fragments of Bronze Age pottery were recovered from this. Two flint tools were also found in this deposit. The first is probably early Neolithic (and therefore probably residual) in date, although it could belong to the later Neolithic or early Bronze Age. The second was a scraper of the Neolithic or early Bronze Age date. This sequence of deposits broadly corresponds with those found during the 1997 evaluation.

Internal barrow features

- 5.13 There were a variety of internal barrow features, many of which were found to cut the mound material. It is likely that these relate to two separate phases of activity, but further analysis of the finds, palaeoenvironmental remains and radiocarbon dating is needed to confirm this.

Burnt pits or postholes

- 5.14 A small group of features which showed evidence of having been burned *in situ* were encountered: these were all located within the north-west half of the barrow. All were reasonably small (up to 0.5m) and circular or sub-circular in shape. The near-total removal of the barrow mound material prior to the excavation made it impossible to determine how deep these features originally were, but it seems likely that they were originally deeper than was identified, and that they were either postholes or small pits. It is likely that they formed part of one or more wooden structures over the barrow, although it is possible they relate to a series of cremations or a single burning event. At least one of these has the potential to be early Neolithic in date, which would mean it is possible that they all pre-date the barrow.
- 5.15 A small circular pit [F70=F87: 0.6m in diameter, 0.25m deep; Figure 8] was located 5.8m north of the centre of the barrow: this was previously partially excavated in the 1997 evaluation, when it was interpreted as an oven feature (Archaeological Services 1997b, 6). The lowest layer within the pit was a firm silty-clay discoloured

red by heating [86: 0.5m in diameter, 0.05m thick]: this may be the underlying glacial subsoil. Over this was a thick layer of ash and charcoal [85: 0.15m thick; fragments of fired clay and a fire-cracked blade and chip were recovered from this deposit. The blade is possibly early Neolithic in date (see paragraph 6.25). Above this was a light grey-brown firm sandy-silt with inclusions of flecks of charcoal [84: 0.45m by 0.5m, 0.05m thick]: a large burnt flint scraper or retouched knife was found in this deposit.

- 5.16 An oval posthole with a rounded base [F71=F121: 0.5m by 0.4m, 0.09m deep] was located 2.7m north-west of the centre of the barrow: this had been truncated on its southern edge. It was filled with a very dark brown friable sandy-silt with frequent charcoal inclusions [120]: this contained fragments of fired clay. A small round posthole [F130: 0.2m by 0.18m, 0.21m deep] was located 2.6m north-east of the centre of the barrow. This had vertical sides and a flat base. It was filled with a light greyish soft silty-sand with heavy concentrations of charcoal [129]: there was no discolouration of the surrounding glacial subsoil, suggesting that this may not have been burnt *in situ*. A shallow oval pit or posthole [F132: 0.5m by 0.29m, 0.06m] was located 8.7m north of the centre of the barrow: this had a rounded base. It was filled with a greyish-brown silty-sand with fairly frequent inclusions of charcoal flecks [131]: this also exhibited no signs of having been burnt *in situ*. Two sherds of prehistoric pottery and a further 8 fragments of prehistoric fired clay were found: one of the sherds of pottery was possibly from the early Neolithic vessel recovered from context 17.
- 5.17 A sub-oval feature [F150: 0.25m by 0.12m, 0.03m deep] was located 8.8m north-east of the centre of the barrow. Despite its shallow depth this was a well-defined feature with a concave base, and was filled with charcoal [149]. This was interpreted as a small hollow, but it is possible that it was the truncated remains of a larger pit or posthole. 2.3m to the west of the centre of the barrow was a shallow sub-oval pit or posthole [F139: 0.26m in diameter, 0.04m deep]. This was filled with a dark brown sandy-clay with frequent charcoal inclusions [138].
- 5.18 A shallow sub-rounded pit [F221: 0.7m by 0.75m, 0.05m deep] was located 6.5m west of the centre of the barrow. This was filled with a dark brown silty-sand with charcoal inclusions [140] from which a fragment of prehistoric pottery was recovered. The final burnt feature was 6.15m south-west of the centre of the barrow and was a sub-oval pit [F142: 0.93m by 0.6m, 0.05m]. This was filled with a greyish-brown clayey sandy-silt with inclusions of charcoal [141].

Other pits or postholes

- 5.19 A smaller number of pits which exhibited no evidence of burning were also identified. Four of these were large all within the south-east quadrant of the barrow. There were a further two small postholes associated with these pits, and a final posthole located in the north-east quadrant.
- 5.20 A large shallow sub-square pit [F75: 1.77m by 1.45m, 0.07m deep] was located 5.3m east of the centre of the barrow: this had a broadly flat base. It was filled with mottled yellow and grey firm sandy-clay [76], which contained fragments of burnt bone.

- 5.21 Two square postholes with vertical sides were located 6.8m south-east of the centre of the barrow. The southern one [F119: 0.34m by 0.3m, 0.1m deep] was filled with a greyish-brown firm clayey sandy-silt [117], which contained some fragments of burnt bone, although it is possible that this was redeposited mound material. 0.25m to the north-west was the second posthole [F116: 0.19m wide, at least 0.12m deep]. It was filled with a mottled grey and yellow clayey-sand [115]. This was cut by a small sub-square pit [F223: 0.45m wide, 0.12m deep]. This was filled with a mottled grey and yellow clayey-sand [222: 0.25m wide, 0.09m thick], which was in turn overlain by a grey-brown clayey sandy-silt [114: 0.1m thick]: this contained fragments of burnt bone. This was in turn cut by one of two large shallow pits which were previously excavated in the 1997 evaluation (Archaeological Services 1997b, 6). These were sub-rectangular in shape and on a north-east/south-west alignment. The one cutting context 114 [F207=F217: 1.8m by 0.75m, 0.06m deep] had a very shallow profile. This was filled with a grey-brown firm clayey sandy-silt [206=216]. Immediately north-east of this was a slightly larger pit [F128: 2.5m by 1.14m, 0.09m deep] which had a flattened base. In the base of this feature was a small posthole [F134], filled with brown sandy clayey-silt [133]. The pit was filled with brown sandy clayey-silt [127]: some fragments of burnt bone and flint was recovered from this deposit.
- 5.22 A fourth pit [F67: 2.1m by 1.6m, 0.2m deep; Figure 9] was located 6.4m from the centre of the barrow. This was irregular in shape and had a slightly sloping base. It was mainly filled with a brown sandy-silt [78], which contained a medieval or later horseshoe nail, indicating it is a later intrusion. Along the northern edge of the pit was a lens of redeposited glacial subsoil [93: 0.45m by 0.5m, 0.07m thick]. This was overlain by a further deposit of brown sandy-silt [218].
- 5.23 A small posthole [F103:0.35m by 0.25m, 0.02m deep] was located within the north-east quadrant of the barrow, 2.7m from the centre. This had vertical edges and a flat base. It was filled with grey-brown sandy-silt [102].

Features outside the barrow

- 5.24 A series of gullies divided up the landscape, and numerous pits were also recorded, many of which contained pottery and charcoal.
- 5.25 A small spread of dark grey clayey sandy-silt [35: 1.55m by 0.36m, 0.05m thick] was identified 17.6m west of the barrow.

Gullies

- 5.26 10 gullies were identified in the excavation area, together with a further gully in trench 2 (above, paragraph 5.3), indicating that an extensive field system had been present across the development area. Four of the gullies in the north part of the site appeared to converge outside the area of excavation, as did two to the south-east; it was not therefore possible to establish a stratigraphic relationship between them. The palaeoenvironmental evidence indicates that all of the gullies belong to the Iron Age or Romano-British period. Many of the pits also belong to this period of activity.
- 5.27 Three of the gullies were 'anchored' on either side of the barrow, none of them crossing into the central mound area. This would indicate that they were dug while the barrow survived extant. On the eastern side of the barrow was a curvilinear gully which had a broadly north-north-east / south-south-west orientation

[F58=F66=F99=F155: over 19m by 0.5m, 0.19m deep]. The southern end of the gully extended into the east side of the barrow ditch [F65], but the fills of the two features were too alike to determine the relationship between them. The gully was filled with a dark brown clayey sandy-silt [57=98=156]: fragments of fired clay were found in this deposit. On the western side of the barrow were two parallel gullies with broadly west-north-west / east-south-east alignments: both turned towards the barrow, the southern one being more pronounced, and both terminating just before they reached the barrow ditch. The southern gully [F23=F190=F195: over 31m by 35m, 0.07m] became more shallow as it extended eastwards, and terminated 0.75m from the barrow ditch. It was filled with a dark grey clayey sandy-silt [22=191=196]: fragments of fired clay were found in this deposit. The other gully [F34=F162=F179: over 28.3m long by 0.35m, 0.12m deep] was approximately 3.5m to the north and also became shallower as it extended eastwards, terminating 0.25m from the barrow ditch. This cut deposit 35, and was also filled with a dark grey sandy-silt [33=161=180].

- 5.28 These three gullies may have formed an enclosure with a fourth east-west linear gully present in the northern end of the site [F25=F164=F173=F174: over 52.56m by 0.55m, 0.15m deep]. This was filled with a grey silty sandy-clay [24=163=172=175]. This gully extended beyond the limit of excavation, but 36m to the east two further linear gullies were identified on a north-west / south-east alignment: it is unclear which one, if either, was a continuation of gully F25. The northernmost gully [F159=F201: over 17.65m by 0.55m, 0.2m deep] had a similar profile. It was initially filled with a grey-brown clayey sandy-silt [203: 0.15m thick], overlain by filled with dark brown clayey sandy-silt [160=202: up to 0.2m thick] from which a sherd of prehistoric pottery was recovered. The southern gully [F168=F183: 22.8m by 0.32m, 0.14m; Figure 10] was narrower and lay 2.15m to the south. It was filled with a grey-brown clayey-silt [169=184].
- 5.29 An east-west slightly curvilinear gully was identified to the north-west of the barrow [F37: over 10.7m by 0.55m, 0.08m deep]. The gully appeared to terminate at its eastern end, although it was shallow and may simply have been truncated. The slight curving of the gully may indicate a connection with the two gullies 21.7m to the south (F23 and F34); alternatively it lies 10.9m south of gully F25, and may be parallel with this. It was filled with a dark grey clayey sandy-silt [36].
- 5.30 Three further gullies were located in the south-east part of the development area. Two were on identical north-north-west / south-south-east alignments, the third being on an east-west alignment. The full extent of the northernmost gully [F74=F200=F208: 16.55m by 0.37m, 0.31m deep] was established. This was filled with a grey-brown sandy-silt [73=199=209]. 1.8m to the south of the southern end of the gully was the northern terminal of a second gully [F210=F212: over 2.8m by 0.3m, 0.2m deep]. It was filled with a greyish-brown silty-sand [211=213].
- 5.31 20m south-west of these gullies was the western terminal of an east-west gully [F205: over 5.3m by 0.55m, 0.06m deep]. This was filled with a dark brown sandy-silt [204].

Pits and other features

- 5.32 A series of pits, some of them intercutting, were found outside the barrow during the strip and record. These were mainly concentrated to the north and west of the barrow, with only two pits located elsewhere.
- 5.33 A complex sequence of intercutting pits and short sections of gullies was identified 9.8m to the north of the barrow. The earliest features were three gullies. One [F45: over 0.5m by 0.26m, 0.17m] was on the west side of the group of features and had the appearance of a short section of east-west gully which terminated at the west end. It was filled with a light grey silty-sand [44: 0.15m thick], overlain by an orangey-brown sandy-clay [43: 0.08m]. This feature was not entirely convincing as one edge could not be defined at all. At the northern end of the group of features was a second gully aligned north-south [F47: over 1.35m by 0.35m, 0.06m deep]. It was filled with a mottled yellow and grey soft clayey sandy-silt [46]. Between these two gullies was a third aligned east-west [F49: 0.4m by 0.2m, 0.07m deep]. This was filled with mottled grey and orange soft clayey sandy-silt. No physical relationship between the three could be established. Contexts 43 and 48 were overlain by a mottled yellow and grey clayey sandy-silt [52: 0.9m by 0.6m, 0.06m thick]. This was cut by a sub-rounded pit [F18: 0.97m by 0.96m, 0.25m deep]. The primary fill of the pit was a light grey soft silty-sandy with frequent flecks of charcoal [17: 0.25m thick]: 45 fragments of early Neolithic carinated bowl/Grimston Ware tradition pottery was found within this deposit, along with fragments of burnt bone. Above this was a friable grey silty-sand with frequent flecks of charcoal [21: 0.25m by 0.35m, 0.02m thick]: this deposit was localised within the area of the pottery, suggesting that it has the potential to be the original fill of the vessel: two further sherds of prehistoric pottery were found within this deposit. Overlying this was a mottled yellow slightly clayey silt-sand with rare charcoal inclusions [16: 0.7m by 0.6m, 0.16m thick]. This uppermost fill was cut by a short north-south gully [F20: 12.7m by 0.42m, 0.1m deep]. This was filled with a mottled grey silty-sand with charcoal inclusions [19]: a Neolithic backed flint blade was recovered from this deposit. To the north-east of these features contexts 46 and 48 were cut by a sub-rectangular pit [F13: 1.7m by 1.27m, 0.29m deep; Figure 11]. This was filled with an initial deposit of light grey soft silty-sand with rare charcoal inclusions [15: 0.12m thick]. Over this was a dark grey soft slightly clayey sandy-silt with frequent fragments of charcoal [14: 0.14m thick]: a sherd of prehistoric pottery was recovered, as well as an early Neolithic serrated flint flake. Two similar pits belong to the Bronze Age period, and may indicate continuity of practice (below, paragraphs 5.38-9).
- 5.34 6m north of the barrow was a sub-oval pit with vertical sides and a flat base [F54: 0.62m by 0.47m, 0.17m]. This was filled with a dark grey firm sandy clayey-silt with frequent charcoal fragments [53]: fragments of fired clay were found in this deposit. Some medium-sized angular stones were also present and may have served as packing stones, although the pit was too shallow to serve as a posthole.
- 3.35 11.9m north-west of the barrow was a broadly sub-rectangular pit [F56: 1.5m by 1.0m, 0.2m deep; Figure 12]. This was filled with a mottled grey sandy clayey-silt with rare flecks of charcoal [55].
- 5.36 20m north-west of the barrow was an oval pit [F28: 1.45m by 1.3m, 0.18m deep]. This was filled with a primary deposit of light yellow and grey clay with rare charcoal flecks [27: 0.11m thick]. Over this was a brown slightly silty gravelly-sand [29: 0.03m

- thick]. Over this was a dark grey silty-sand with occasional inclusions of charcoal flecks [26: 0.07m thick].
- 5.37 Immediately west of the barrow was the cut for a round pit [F68=F125: 0.6m in diameter, 0.12m deep], with regular sides and a flat base. It was filled with a dark grey clayey silt with inclusions of charcoal fragments [124]. Two more round pits were found in close proximity 8.1m west of the barrow. The eastern pit [F188: 0.3m in diameter, 0.1m deep], was filled with greyish-brown sandy-silt with fairly frequent inclusions of charcoal fragments [189]. Immediately west of this was a slightly larger pit [F185: 0.45m in diameter, 0.2m deep]. It was filled with a greyish-brown sandy-silt with occasional inclusions of charcoal fragments [186]: this contained fragments of fired clay. A further 16.5m west of the barrow was a sub-square pit [F40: 0.54m by 0.5m, 0.16m deep]. This was filled with a grey-brown slightly gritty sandy-clay [39].
- 5.38 18.4m south-west of the barrow was a small group of pits. The southernmost pit [F167: 1.34m by 1.07m, 0.22m deep] was sub-round in shape with regular sides and a flat base. This was initially filled with a grey silty-clay with inclusions of fairly frequent charcoal fragments [192: 0.85m by 0.8m, 0.03m thick]: this contained fragments of fired clay. Overlying this and filling the pit was an orangey greyish-brown sandy clayey-silt [166: 0.17m thick]. Overlying this at the south-east end of the pit was a light yellowish greyish-brown coarse sandy clayey-silt [176: 0.65m by 0.47m, 0.12m thick]. 0.1m to the north-west was a shallow linear pit or possible gully [F178: 0.87m by 0.82m, 0.17m deep] with regular sides and a concave base. It was filled with a mottled orangey greyish-brown coarse sandy clayey-silt [177]. At its north-west end this was cut by a further sub-oval pit [F165: 12.68m by 0.89m, 0.19m deep; Figure 13] with regular sides and a concave base. It was filled with a light grey silty-sand [59] which contained 50 fragments of Bronze Age pottery. A Mesolithic or Neolithic flint awl or piercer was also found, but is likely to be a residual artefact (below, paragraph 5.41).
- 5.39 8.5m to the south was a sub-rectangular pit [F42: 2.1m by 1.1m, 0.13m deep]. This was filled with an initial deposit of light grey friable silty-sand with rare charcoal flecks [41: 0.09m thick]. Over this was a dark grey friable sandy-silt with frequent charcoal flecks [38: 1.9m by 0.8m, 0.05m thick]. One sherd of prehistoric pottery was recovered from this deposit. This pit and F165 were very similar in appearance to the early Neolithic pits F13 and F18 (above, paragraph 5.33), leading to an initial assumption that they were part of the same phase.
- 5.40 Between these pits and about 22m south-west of the barrow was a possible stakehole with vertical sides and a flat base [F32: 0.06m in diameter, 0.07m deep]. This was filled with a grey sandy-silt [31]. This was found in an area where several further stakeholes had been identified during the 1997 evaluation (Archaeological Services 1997, 6), and on this basis a careful clean of the wider area was undertaken. Several further potential stakeholes were found but excavation demonstrated that these were in fact root holes. Furthermore, the glacial subsoil in this area was a soft sand which was susceptible to rooting, indicating that it is likely that all of the potential stakeholes, including F32, are in fact root holes.
- 5.41 Two further potential Neolithic features were found around 35m to the south-west: both were heavily truncated by later activity (above, paragraph 5.38). A small

rounded pit or posthole with a concave base [F198: 0.18m in diameter, 0.04m deep] was filled with a grey silty-sand [197]: a flint blade was found in this deposit. Immediately to the south was a larger broadly rectangular pit with an irregular base which resembled a series of intercutting postholes [F194: 1m by 0.42m, up to 0.17m deep; Figure 8]. It was filled with a orangey-grey silty-clay [193], which contained a Neolithic endscraper.

- 5.42 2.3m south of the barrow was a sub-oval pit [F171: 0.85m by 0.34m, 0.1m deep]. This had slightly irregular sides and concave base. It was filled with a dark grey clayey sandy-silt [170].
- 5.43 North of the junction between the barrow ditch and gully F58 was a potential circular posthole [F101: 0.32m in diameter, 0.08m deep]. This was filled with a dark brown clayey sandy-silt [100].
- 5.44 32.5m east of the barrow was a round pit [F51: 0.8m in diameter. 0.26m deep]. This was filled with a mottled grey-brown sandy-clay with inclusions of charcoal and burnt bone [50].
- 5.45 40m south-east of the barrow as a round pit with regular sides and a concave base [F215: 1.5m by 1.6m, 0.12m deep]. It was filled with a dark brown sandy-silt [214].
- 5.46 Immediately to the north-east of the barrow was a spread of dark brown slightly clayey sandy-silt [64: approximately 5m in diameter, 0.02m thick], from which was recovered a sherd of Iron Age /Romano-British pottery. During cleaning of the barrow a fragment of Roman grey ware was recovered. This was found at the interface between the subsoil and the glacial subsoil and has not been linked to any feature. These two finds suggest some form of activity around the barrow at this time. The only other features encountered during the course of the excavations were late post-medieval or modern field drains.
- 5.47 Overlying the features was a brown sandy-clay subsoil [30: up to 0.2m thick], which was in turn overlain by a brown clayey sandy-silt topsoil [1: 0.3m thick]. This was cut by modern test pits [F69; 82/F83].

6. The artefacts

Pottery assessment

Summary

- 6.1 Excavations yielded a total of 130 sherds of pottery weighing some 369g. This total probably represents a minimum number of 18 vessels from stratified archaeological contexts, though it must be noted that nearly all of the pottery recovered is in the form of very small fragments, making fabric and vessel form identifications difficult. Because of this, it has only been possible to assign 16 vessels to specific fabric groups. Twenty one fragments of fired clay (possibly daub) were also recorded, weighing 36g.
- 6.2 The majority of the identified vessels would seem to be of general prehistoric date, though two possible Earlier Neolithic vessels and 7 possible Beakers were identified. One Iron Age/Romano-British basal sherd, one Roman rim sherd and one Post-Medieval sherd were also identified. Table 1.2 summarizes these data.

Results

Fabric

- 6.3 All sherds were examined under a X10 magnifying hand lens. Nine potential fabric groups were identified within the total pottery sample. These are listed in Table 1.3. Fabrics are varied and two vessels have clearly been smoothed on the internal surface only, while two have been smoothed and wiped on both surfaces. Sherd cores are nearly all reduced and appear black/grey/brown in colour. External and internal surfaces are irregularly oxidised red/orange/brown/buff brown in colour. The main difference between fabrics lies in the nature and character of the inclusions.

Observations

- 6.4 Two Early Neolithic vessels were recorded from context [17], the fill of pit [F18]. Both belong within the Carinated Bowl/ Grimston Ware Tradition of Early Neolithic ceramics and are rare occurrences of this form in the north-east region, south of Northumberland. Comparanda could be sought among recently recorded Early Neolithic ceramic assemblages from the Milfield Basin in Northumberland (Miket et al, 2008; Millson et al, 2011)
- 6.5 The remains of 7 possible Beaker vessels were identified: Pots 8, 10, 12, 13, 15, 16 and 17. Of these, Pots 10, 12, 13, 15 and 16 were undecorated and were identified on the basis of fabric type.
- 6.6 Pot 16 is represented by a single sherd which may exhibit decoration relating to classic Beaker zonal patterning. However, the nature of the fragment means that it has been impossible to suggest any parallels from the north-east region.
- 6.7 Pot 8, however, can be related to the All Over Cord (AOC) Decorated series of Beakers (Clarke, 1970, 52-68). AOC Beakers are rare in the northern region and in 1970 Clarke could only document 24 locations in Durham, Cumbria, Northumberland and Yorkshire which had produced one or more of these Beaker types (1970, 528-529). AOC Beaker pottery has been recorded from the Ingleby area in previous excavations at Quarry Farm (Young 2008, 36-38).
- 6.8 A single Iron Age/Romano British sherd (Pot 9), a single Roman sherd (Pot 1) and a fragment of post-medieval pottery (Pot 2) were also recorded.

Recommendation

- 6.9 Clearly, this small assemblage is of particular regional importance, given the presence of rare Early Neolithic material from this part of the north-east of England, and further detailed research is recommended.
- 6.10 More research in relation to comparanda for the recovered material is recommended to assist in the overall contextualization of the pottery assemblage and aid in dating the material.
- 6.11 Further detailed research is recommended to be undertaken on the fabric types to identify the nature and source of the inclusions used in the assemblage, and to test the efficacy of the fabric groups as identified.

- 6.12 Closer examination of details of fabric and rim form of the Early Neolithic pottery is recommended - this may well help with understanding the broader chronology of the material.
- 6.13 Full publication report of the ceramic assemblage should consider any other dating evidence available from the site (e.g. absolute dating) in order to arrive at firmer conclusions on the likely date range of the assemblage.
- 6.14 The Early Neolithic pottery, the AOC Beaker sherds, the IA/RB base sherd and the Roman sherd are recommended for illustration.

Fired clay assessment

Results

- 6.15 Small fragments of fired clay (58g wt total) came from the samples from 9 pit [53, 85, 120, 186, 192], gully [57, 191] and barrow ditch [79] fill contexts. These are too small and abraded to be identified as being the remains of pottery or of fired clay/daub.

Recommendation

- 6.16 No further work is recommended.

Bone assessment

Results

- 6.17 A quantity of very small fragments of calcined bone (<10g total wt) were hand-recovered or came from the samples from 7 contexts [17, 50, 76, 114, 117, 127, and 158]. Given the presence of a barrow on site, it could be that these are of human origin. However, no features could be identified to confirm this (Dr A Caffell, pers. comm.). Likewise, the material could not be definitively identified as being of animal origin (Dr C Armstrong, pers. comm.). Thus, the fragments must remain indeterminate.

Recommendation

- 6.18 No further work is recommended.

Lithics assessment

Summary

- 6.19 The assemblage consists of 205 artefacts, however a large number are of natural origin. The worked element comprises flakes, blades, cores, knapping waste fragments, tools and chips. The presence of cores, chips and worked fragments indicates a manufacture component alongside activities associated with tool use. The date of the artefacts points to a period of occupation spanning the Neolithic to the early Bronze Age.

Results

- 6.20 The breakdown of the assemblage by context and type is detailed in Table 1.4. There are 205 pieces in total, however just over half of these were unworked and of natural origin (n=117). For the sake of completeness, the natural fragments have been included, as have those contexts which only produced natural unworked pieces. These were contexts [29, 33, 89, 92, 136, 137, 143, 153, 175, 184 and 214]. The worked assemblage is made up of flakes, blades, cores, knapping waste fragments, tools and chips.

- 6.21 A large number of unstratified flint pieces were recovered during the excavation. Of these, 31 are natural, which includes a number of small finds (SF1, SF5, SF6, SF8, SF9, SF24, SF26, SF29, SF31). The remaining unstratified artefacts comprise three worked fragments (SF16, SF20, SF25), four flakes (including SF21, SF22, SF23), a blade (SF33) and a chip. A small core (SF19) was also recovered. Whilst this displays a number of natural surfaces, there are three removals from two opposing platforms. The material is a coarser grained chert. Another core (SF35) shows signs of battering, with multiple platforms and signs of eight removals from all directions. A number of pieces were fire-cracked, including two flakes (SF22, SF23).
- 6.22 The fire-cracked remains of a scraper came from the topsoil [1], along with natural, unworked pieces. The dorsal and ventral surfaces of the scraper are badly damaged by heating. However, the visible section of ventral surface is flat and the dorsal section of this edge displays semi-invasive retouch along the distal end, which also extends down the right edge. This would be compatible with a Neolithic date, although given the extensive damage this cannot be stated with certainty.
- 6.23 Two artefacts were recovered from glacial subsoil features, and these are grouped together below. These included a flake fragment from [7] which was introduced by bioturbation, and a natural unworked quartz pebble and a flake (SF39) from [181]: this was heavily disturbed by root action and so the artefact was also intrusive.
- 6.24 Pit fills also accounted for a number of artefacts. These included two flakes from [50] and [127] SF34, a worked fragment [117], six chips from contexts [53, 78, 114, 127, 177, 170] and two blades [149] SF36 and [76], which was fire cracked. In addition, a serrated flake on red flint came from [14]. The serrations are present along the left dorsal edge and the piece displays damage to the internal structure of the material as a result of heating. The form is comparable to those of early Neolithic serrated flakes. An additional two flakes were recovered from the sample from [14], one of which also shows signs of fire-cracking. A finely crafted thin, pointed blade, which may have been used as an awl or piercer, came from [59]. Judging by the fine manufacture this could be dated to the Mesolithic or Neolithic periods. The sample taken from this deposit also produced a chip and two flakes, one of which was fire-damaged. Also found were a thin, finely made brown blade [197] and an endscraper from [193]. This latter artefact was manufactured on coarser grained light brown chert with black banding, and displays semi-invasive retouch on the distal end. The form and soft hammer butt suggests a likely Neolithic date.
- 6.25 Two of the pits contained flint artefacts spread throughout the infilling deposits. The upper fill [16] of pit [F18] produced a single quartz flake, with two chips from the middle fill [21] and a chip and broken blade from the basal layer [17]. Pit [F87] produced a fire-cracked artefact from upper fill [84]. There is evidence of retouch along the unbroken edge, the form of which suggests a fragment of a large scraper or retouched knife. Unfortunately the damage precludes a more secure identification. The main charcoal fill of this pit [85] produced a fire-cracked blade and chip. The blade is finely made and although the tip is partly broken it appears to be pointed, and could conceivably have been used as a borer or awl. There is edge damage along the left dorsal side forming a slight saw toothed edge. There is also a silvery colour, possibly remnant of a polish, on the underside of the ventral along the same edge. The form would not look out of place in an early Neolithic context.

- 6.26 Another nine flints were recovered from gully fills. These included the tip of what appears to be a backed blade with a triangular cross-section from [19]. Steep retouch is present on the right side, opposite the unretouched edge and it most likely dates to the early Neolithic. The piece is on coarse-grained grey chert with cream inclusions. Context [73] contained two artefacts. The first is a grey patinated flake with >75% cortex present on the dorsal surface. The second is a retouched, fire-cracked flake. The ventral has been destroyed by fire-damage but flat, semi-invasive retouch can be seen along the dorsal edge of the hinge termination. It appears to have originally been manufactured on red flint. A further five chips from [22, 48, 98] and a flint fragment from [98] also originated from gully fills.
- 6.27 Deposits containing flint artefacts were associated with the barrow. Barrow ditch [F65] contained a number of artefacts within its upper fill. Two flint pieces came from [60]. SF12 upon inspection is not worked and of natural origin, but SF13 is a fragment of a flake displaying evidence of fire-cracking. Context [77] contained a worked fragment and two chips. A fragment of a core which showed six previous removals was also recovered from this context. There was also a small retouched tool, with steep retouch on the proximal end and down the left side, forming a side and end scraper. The unretouched side provides a possible thumb hold. It most likely dates to the early Neolithic, however derivation from the later Neolithic or early Bronze Age is also a possibility. A flake, 3 chips and a spall came from [80]. Context [94] also contained one hand recovered flake and one from the sample, both displaying cortex on their dorsal surfaces. The upper fill of the same barrow ditch [104] contained a scraper with wide cortical butt demonstrating signs of hard hammer percussion. Steep semi-invasive retouch is present approximately around 50% of the circumference. It is most likely of Neolithic or early Bronze Age date. Two worked fragments and a number of natural, unworked pieces were recovered from [106]. The context sample produced a red flint chip and broken flake on a black grey coarser grained chert. A fire-cracked cortical flint fragment was also present [152], however the damage is too great to be able to determine whether the piece is humanly worked or not. To the north-east of the ditch was a spread of soil [64] which contained SF15 and 37. SF15 is of natural origin and not worked, whilst SF37 is flake fragment on reddish grey flint.
- 6.28 Context [158], a remnant of barrow mound material, produced 17 artefacts, and 32 natural fragments, three of which displayed evidence of fire-cracking. The artefacts include a worked fragment, three chips, three blades (including two from SF44), six flakes (including SF40), a notched blade (SF41) and notched flake. A retouched flake was also recovered with steep, semi-invasive retouch on the ventral right side. SF48, a pebble core, has a worn surface with eight removals from a single platform, mostly in the form of blades. The glossy nature of the surface further indicates significant post-depositional movement. Fire cracked pieces from this context included a chip, a blade and two flakes. In addition a burnt deposit [141] on top of the barrow mound contained a flint chip.

Discussion

- 6.29 The presence of flint chips alongside waste fragments and flakes suggest that part of the focus of activity was on manufacture. The presence of four cores also corroborates this. The assemblage is made up predominantly of flint but with a small number of pieces manufactured on coarser grained chert material such as SF19 (core) and the endscraper from [193]. There was also a single quartz flake recovered

from [16]. The majority of the material is grey flint with a small number of artefacts on a reddish brown coloured material including the serrated flake from [14] and a chip from [53].

6.30 In terms of the condition of the assemblage, many pieces are in fresh or mint condition; however a few display glossy surfaces and evidence of rolling such as SF48, the pebble core from [158]. In addition, some contexts contained evidence of fire-cracked artefacts; these were [1, 14, 59, 60, 73, 76, 84, 152, 158 and 176].

6.31 The assemblage appears to contain a spread of material dating to between the Neolithic and early Bronze Age. Contexts associated with the barrow produced two Neolithic or Early Bronze Age scrapers from [77] and [104]. An early component is seen in gully fill [19] with the early Neolithic backed blade tip, and in pit fill [14] with the serrated flake. In addition, notched pieces on fine blades like SF41 from [158] are more common in later Neolithic and early Bronze Age contexts, although they can also be present in early Neolithic assemblages.

Recommendation

6.32 It is recommended that a full catalogue of the worked material is made, alongside a technological and typological analysis in order to gain a clearer insight into the nature of the assemblage. Illustration of the serrated flake and a selection of the scrapers is also recommended.

Iron objects assessment

Results

6.33 Two iron objects were recovered. A highly corroded, though probably complete, bent nail, SF45, came from context [78], the primary fill of pit [F67]. This small nail is c.30mm long in its bent and corroded state, and the X-radiograph suggests it may be a round-headed horseshoe nail, which could be medieval in date.

6.34 The other piece is a fragment of post-medieval, fullered horseshoe, which was found unstratified.

Recommendation

6.35 No further work is recommended.

Conservation assessment

Results

6.36 The two iron artefacts were X-radiographed to assist with identification. Both were found to be highly corroded, with no surface detail visible. The nail SF45 was found to be stable, but the horseshoe showed signs of surface spalling. The ironwork should be stored in an airtight container at a stable temperature and below 20% relative humidity (RH), to inhibit further corrosion. The RH should be controlled by active silica gel, which is regularly monitored and regenerated as necessary.

7. The palaeoenvironmental evidence

Methods

7.1 A palaeoenvironmental assessment was carried out on 96 bulk samples, taken from deposits associated with a Bronze Age barrow, and ditches, gullies, postholes and pits provisionally dating from the Neolithic through to the late Iron Age or possibly

Roman periods. The samples were manually floated and sieved through a 500µm mesh. The residues were examined for shells, fruitstones, nutshells, charcoal, small bones, pottery, flint, glass and industrial residues, and were scanned using a magnet for ferrous fragments. The flots were examined at up to x60 magnification using a Leica MZ7.5 stereomicroscope for waterlogged and charred botanical remains. Identification of these was undertaken by comparison with modern reference material held in the Palaeoenvironmental Laboratory at Archaeological Services Durham University. Plant nomenclature follows Stace (1997). Habitat classifications follow Preston *et al.* (2002).

- 7.2 Selected charcoal fragments were identified, in order to provide material suitable for radiocarbon dating. The transverse, radial and tangential sections were examined at up to x600 magnification using a Leica DMLM microscope. Identifications were assisted by the descriptions of Schweingruber (1990) and Hather (2000), and modern reference material held in the Palaeoenvironmental Laboratory at Archaeological Services Durham University.
- 7.3 The works were undertaken in accordance with the palaeoenvironmental research aims and objectives outlined in the regional archaeological research framework and resource agendas (Petts & Gerrard 2006; Hall & Huntley 2007; Huntley 2010).

Results

- 7.4 Finds recovered from the bulk samples included fragments of fired clay, daub, pot, flint, fire-cracked stones and small fragments of indeterminate calcined bone. The samples produced small to moderate-sized flots, predominantly comprising modern roots, which probably reflect the shallow nature of many of the features. Charcoal quantities ranged from rare to abundant, whereas clinker/cinder and coal deposits were negligible. Charcoal remains were often poorly preserved with abundant mineral inclusions. Selected fragments of charcoal were identified as oak, alder, hazel, ash, lime, cherries (Blackthorn, wild plum, bird and wild cherry), Salicaceae (willow/poplar) and Maloideae (which includes hawthorn, apple and rowan).
- 7.5 Low to moderate numbers of charred plant macrofossils were often recorded in the samples. Identified charred plant remains predominantly comprised hazel nutshell fragments. These were particularly common in deposits associated with the barrow and in pit groups outside of the barrow. One of these pits [F18] contained fragments of Neolithic pottery. Charred apple pips/endocarp fragments and/or fruitstones of sloe and hawthorn occurred in several pit deposits. Additional charred plant macrofossil remains recovered from the site included cereal crops (wheat/barley), and plants typical of various habitats such as arable (brome), damp grassy heathland (sedges, heath-grass, sheep's sorrel, false oat-grass, heather and buttercup) and ruderal (cleavers, ribwort plantain, redshank and dock). Low numbers of charred small indeterminate (grass-type) rhizomes were also frequently recorded.
- 7.6 Poor condition and the low numbers of wheat and barley grains prevented further species identification, although diagnostic chaff (glume bases) of spelt wheat (*Triticum spelta*), occurred in nine contexts confirming the presence of this cereal.
- 7.7 Material for radiocarbon dating is available for most of the samples, although some of this material may be unsuitable due to long-lived species or insufficient weight of carbon due to mineral inclusions. The results are presented in Table 1.5.

Discussion

- 7.8 Archaeological deposits comprising abundant charred hazel nutshell fragments or the charred remains of apple, hawthorn and sloe, are typically of Neolithic or Bronze Age origin (Greig 1991; Hall & Huntley 2007) and can reflect both domestic and ritual activity. Deposits with a predominance for these charred remains included [14], [15], [17], [38], [59], [60], [61], [62], [76], [79], [84], [85], [86], [95], [108], [117], [143], [149], [158], [166], [176] and [193]. These remains were noted in deposits associated with the barrow and from pit groups outside of the barrow. Pit groups of this nature have been identified as earth ovens or hearths associated with domestic activity (Archaeological Services 2011; 2013).
- 7.9 The results suggest the cultivation of spelt wheat and barley occurred at the site, and the presence of spelt wheat chaff suggests the local production of this cereal crop. The use of spelt wheat and barley is commonly associated with Iron Age and Roman occupation sites in England (Greig 1991; Hall & Huntley 2007). Evidence for spelt wheat was mainly noted in gully fills and included [3], [22], [36], [98], [104], [124], [186], [202] and [203].
- 7.10 Charred plant debris comprising rhizomes, tubers, heather twigs, weed seeds and various grass caryopses frequently occurred in small quantities. This material may represent the remains of gathered hay for fodder or bedding, or probably represents the remnants of burnt turves (Hall 2003), used as fuel or for construction purposes such as earth ovens. The combined presence of these remains often occurs on sites from the later prehistoric and Romano-British periods in North-East England. Deposits with these remains included [3], [22], [48], [53], [57], [98], [124] and [186].

Recommendations

- 7.11 Deposits of Neolithic and Bronze Age origin remain a very high priority for study as evidence is patchy, both spatially and with regard to site type (Hall & Huntley 2007). Iron Age and rural Romano-British occupation sites are also highlighted for ongoing study (*Ibid.*). In accordance with the palaeoenvironmental research aims and objectives outlined in the regional research framework (Petts & Gerrard 2006), a number of key research priorities could be addressed from updated results provided by further analysis of targeted charcoal and charred plant macrofossil assemblages. These results could be incorporated with existing data for the site. In this instance, the archaeological resource addresses a number of agenda items, specifically Items NBi; Neolithic and Early Bronze Age settlement, NBiii; Monumentality; lii Late Bronze Age and Iron Age settlement, lix Burials, SEii Palaeoenvironmental evidence and AG13 Charcoal analysis.

8. The archaeological resource

- 8.1 The archaeological work has established the presence of a small group of early Neolithic features, located in the northern and western areas of the site. A small but regionally significant assemblage of early Neolithic pottery was associated with these features, along with several flint artefacts. These came from several pits and postholes, many of which exhibited evidence of burning *in situ*; palaeoenvironmental evidence for this was also obtained. It is presently unclear whether this relates to domestic or ritual activity.

- 8.2 A Bronze Age barrow was identified, with associated pits. This activity was located in the north-west half of the excavation area. The presence of a pit and gully in the trenches indicates that there is the potential for further such features to the north-east. The results of the 1997 evaluation also indicate that there is the potential for further ritual Bronze Age activity in this area: this is based on the discovery of a prehistoric vessel containing cremated bone in test pit 12. Its position “...on a natural rise...” indicates the potential for a second barrow to be located in this area (Archaeological Services 1997, 5), although it should be noted that while the natural rise had been artificially enhanced no ditch was identified around the mound (*Ibid.*). Nevertheless it seems likely that the barrow and associated features found during the present works are part of a wider ritual landscape. The results of the flint analysis suggest that this activity may have been early Bronze Age in date.
- 8.3 The results of the palaeoenvironmental assessment indicate there was also Iron Age/Romano-British activity on site. This can be related to the gullies on site, indicating the presence of a late Prehistoric or Romano-British field system. Several pits and postholes also belong to this period. It is likely that there is a contemporary settlement or farmstead in the near vicinity.
- 8.4 An assemblage of prehistoric pot sherds and flint was recovered from the archaeological features, indicating that many are likely to date from the early Neolithic and early Bronze Age. A single sherd of Roman pottery and one of Iron Age/Romano-British was also recovered, indicating the presence of Romano-British activity. Other finds include burnt bone and later iron objects.
- 8.5 Archaeological deposits comprising abundant charred hazel nutshell remains and charred remains of apple, hawthorn and sloe are typically of Neolithic or Bronze Age origin. Deposits of this nature have been associated with domestic and ritual activity. Evidence suggests the cultivation of spelt wheat and barley occurred at the site, and the presence of spelt wheat chaff suggests the local production of this cereal crop. The use of spelt wheat and barley is commonly associated with Iron Age and Roman occupation sites in England. Charred plant debris comprising rhizomes, tubers, heather twigs and grassland seeds frequently occurred in small quantities. The combined presence of these remains often occurs on sites from the later prehistoric and Romano-British periods in North-East England.
- 8.6 The regional research framework (Petts & Gerrard 2006) contains an agenda for archaeological research in the region, which is incorporated into regional planning policy implementation with respect to archaeology. In this instance, the archaeological resource addresses Agenda Items NBiii (Neolithic and early Bronze Age monumentality). The Ingleby Manor site can be added to a small group of other Neolithic and Bronze Age monuments which have been discovered in Ingleby Barwick recent years. Further analysis of the site within its Neolithic and Bronze Age context will help understand how these monuments functioned.

9. Recommendations

- 9.1 As a significant archaeological resource was uncovered by the excavation, full analysis of the data and its publication is recommended. An Updated Project Design has been included as Appendix 3, which lists the tasks to be undertaken to achieve this.

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Appendix 1: Data tables

Table 1.1: Context data

The * symbols in the columns at the right indicate the presence of artefacts of the following types: P pottery, FC fired clay, B bone, M metals, F flint, I industrial residues, C ceramic building material, O other materials.

No	Area	Description	P	FC	B	M	F	I	O
1	All	Topsoil	*				*		
2	All	Glacial subsoil							
3	2	Fill of gully F4							
F4	2	Cut for gully							
5	3	Glacial subsoil feature							
6	3	Glacial subsoil feature							
7	3	Glacial subsoil feature					*		
8	3	Glacial subsoil feature							
9	3	Glacial subsoil feature							
10	3	Glacial subsoil feature							
11	3	Cut for pit F12							
F12	3	Fill of pit							
F13	6	Cut for pit							
14	6	Upper charcoal fill of pit F13	*				*		
15	6	Lower fill of pit F13							
16	6	Upper fill of pit F18					*		*
17	6	Lower fill of pit F18	*		*		*		
F18	6	Cut for pit							
19	6	Fill of gully F20					*		
F20	6	Cut for gully							
21	6	Middle fill of pit F18	*				*		
22	6	Fill of gully F23					*		
F23	6	Cut for gully							
24	6	Fill of gully F25							
F25	6	Cut for gully							
26	6	Upper fill of pit F28							
27	6	Lower fill of pit F28							
F28	6	Cut for pit							
29	6	Fill of pit F28							
30	6	Subsoil							
31	6	Fill of stakehole F32							
F32	6	Cut for possible stakehole							
33	6	Fill of gully F34							
F34	6	Cut for gully F34							
35	6	Spread							
36	6	Fill of gully F37							
F37	6	Cut for gully							
38	6	Upper fill of pit F42	*						
39	6	Fill of pit F40							
F40	6	Cut for pit							
41	6	Lower fill of pit F42							
F42	6	Cut for pit							
43	6	Fill of gully F45							
44	6	Fill of gully F45							
F45	6	Cut for gully							
46	6	Fill of gully F47							
F47	6	Cut for gully							
48	6	Fill of gully F49					*		

No	Area	Description	P	FC	B	M	F	I	O
F49	6	Cut for gully							
50	6	Fill of pit F51			•		•		
F51	6	Cut for pit							
52	6	Spread							
53	6	Fill of pit F54		•			•		
F54	6	Cut for pit							
55	6	Fill of pit/tree bole F56							
F56	6	Cut for pit/tree bole							
57	6	Fill of gully F58		•					
F58	6	Cut for gully							
59	6	Fill of pit F165	•				•		
60	6	Upper fill of barrow ditch F63					•		
61	6	Middle charcoal fill of barrow ditch F63							
62	6	Lower fill of barrow ditch F63							
F63	6	Cut for barrow ditch: part of F65							
64	6	Spread of soil NE of cut for barrow ditch	•				•		
F65	6	Barrow							
F66	6	Cut for gully: same as F58							
F67	6	Cut for pit: possible grave cut							
F68	6	Cut for pit							
F69	6	Test pit 16							
F70	6	Cut for pit: part of F65							
F71	6	Cut for pit: part of F65							
72	6	Barrow mound material: part of F65	•						
73	6	Fill of gully F74					•		
F74	6	Cut for gully							
F75	6	Cut for pit: possible grave cut							
76	6	Fill of pit F75: possible grave fill	•		•		•		
77	6	Upper fill of barrow ditch F81: same as 60	•				•		
78	6	Primary fill of pit: possible grave cut				•	•		
79	6	Middle charcoal fill of barrow ditch F81: same as 61		•					
80	6	Lower fill of barrow ditch F81: same as 62					•		
F81	6	Cut for barrow ditch: same as F63							
82	6	Fill of F83: modern intrusion							
F83	6	Cut for modern intrusion							
84	6	Upper fill of pit F87					•		
85	6	Main charcoal fill of pit F87		•			•		
86	6	Fill of pit F87							
F87	6	Cut for pit: same as F70							
88	6	Upper fill of ditch F91: same as 60							
89	6	Lower fill of barrow ditch F91: same as 62							
90	6	Glacial subsoil							
F91	6	Cut for barrow ditch: same as F63							
92	6	Barrow mound material NE quadrant: same as 72							
93	6	Fill of pit F67							
94	6	Upper fill of barrow ditch F97=F65					•		
95	6	Middle charcoal fill of barrow ditch F97: same as 61	•						
96	6	Lower fill of barrow ditch F97: same as 62							
F97	6	Cut for barrow ditch: same as F63							
98	6	Fill of gully F99: same as 57							
F99	6	Cut for gully: same as F58							
100	6	Fill of pit F101							
F101	6	Cut for pit							

No	Area	Description	P	FC	B	M	F	I	O
102	6	Fill of pit/posthole F101							
F103	6	Cut of pit/posthole: part of F65							
104	6	Upper fill of barrow ditch F107: same as 60					•		
105	6	Middle charcoal fill of barrow ditch F107: same as 61							
106	6	Lower fill of barrow ditch F107: same as 62					•		
F107	6	Cut for barrow ditch: same as F63							
108	6	Glacial subsoil							
109	6	Upper fill of barrow ditch F112: same as 60							
110	6	Lower fill of barrow ditch F112: same as 62							
111	6	Primary fill of barrow ditch F112							
F112	6	Cut for barrow ditch: same as F63							
113	6	Glacial subsoil							
114	6	Upper fill of pit F223			•		•		
115	6	Fill of posthole F116							
F116	6	Cut of posthole: part of F65							
117	6	Fill of pit F119			•		•		
118	6	Glacial subsoil							
F119	6	Cut for pit: part of F65							
120	6	Fill of pit F121: same as F71		•					
F121	6	Cut of pit: part of F65							
F122	6	Glacial subsoil feature							
123	6	Glacial subsoil feature							
124	6	Fill of pit F125							
F125	6	Cut for pit							
126	6	Glacial subsoil							
127	6	Fill of pit F128: possible grave cut			•		•	•	
F128	6	Cut for pit: possible grave cut							
129	6	Fill of posthole F130							
F130	6	Cut of posthole: part of F65							
131	6	Fill of pit F132	•						
F132	6	Cut of posthole F65							
133	6	Glacial subsoil feature							
134	6	Glacial subsoil feature							
F135	6	Cut for barrow ditch: same as F63. Part of F65							
136	6	Upper fill of barrow ditch F135=F65							
137	6	Lower fill of barrow ditch F135=F65							
138	6	Fill of pit/posthole F139							
F139	6	Cut of pit/posthole: part of F65							
140	6	Fill of pit/posthole F221	•						
141	6	Fill of pit F142: part of F65					•		
F142	6	Cut of pit: part of F65							
143	6	Barrow mound material: same as 72							
144	6	Glacial subsoil feature							
145	6	Glacial subsoil feature							
146	6	Glacial subsoil							
147	6	Barrow mound material: same as 72							
148	6	Fill of ditch F135							
149	6	Fill of pit F150					•		
F150	6	Cut for pit							
F151	6	Cut for barrow ditch							
152	6	Upper fill of barrow ditch F151: same as 60					•		
153	6	Lower fill of barrow ditch F151: same as 62							
154	6	Glacial subsoil							

No	Area	Description	P	FC	B	M	F	I	O
F155	6	Cut for gully: same as F58							
156	6	Fill of gully F155: same as 57							
157	6	Glacial subsoil							
158	6	Barrow mound material, SW quadrant: same as 72	•		•		•		
F159	6	Cut for gully							
160	6	Fill of gully F159							
161	6	Fill of gully F162							
F162	6	Cut for gully							
163	6	Fill of gully F16 4							
F164	6	Cut for gully							
F165	6	Cut for pit							
166	6	Main fill of pit F167							
F167	6	Cut for pit							
F168	6	Cut for gully							
169	6	Fill of gully F168							
170	6	Fill of pit F171					•		
F171	6	Cut for pit							
172	6	Fill of gully F173							
F173	6	Cut for gully							
F174	6	Cut for gully							
175	6	Fill of gully F174							
176	6	Upper fill of pit F167					•		
177	6	Fill of gully F178					•		
F178	6	Cut for gully							
F179	6	Cut for gully							
180	6	Fill of gully F179							
181	6	Glacial subsoil feature					•		
F182	6	Glacial subsoil feature							
F183	6	Cut for gully							
184	6	Fill of gully F183							
F185	6	Cut of pit							
186	6	Fill of pit F185		•					
187	6	Glacial subsoil feature							
F188	6	Cut for pit							
189	6	Fill of pit							
F190	6	Cut for gully							
191	6	Fill of gully F190		•					
192	6	Primary fill of pit F167		•					
193	6	Glacial subsoil feature					•		
F194	6	Glacial subsoil feature							
F195	6	Glacial subsoil feature							
196	6	Fill of gully F195							
197	6	Glacial subsoil feature					•		
198	6	Glacial subsoil feature							
199	6	Fill of gully F200: same as 73							
F200	6	Cut for gully: same as F74							
F201	6	Cut for gully							
202	6	Upper fill of gully F201	•						
203	6	Lower fill of gully F201							
204	6	Fill of gully F205							
F205	6	Cut for gully							
206	6	Fill of pit F207							
F207	6	Cut for pit							

No	Area	Description	P	FC	B	M	F	I	O
F208	6	Cut for gully: same as 73							
209	6	Fill of gully F208: same as F74							
F210	6	Cut for gully							
211	6	Fill of gully F210							
F212	6	Cut for gully							
213	6	Fill of gully F212							
214	6	Fill of pit F215					•		
F215	6	Cut for pit							
216	6	Fill of pit F217: same as 206							
F217	6	Cut for pit: same as F207							
218	6	Upper fill of pit F67							
219	6	Charcoal fill of ditch F91: same as 61							
220	6	Charcoal fill of ditch F151: same as 61							
F221	6	Cut of pit: part of F65							
222	6	Fill of pit F223							
F223	6	Cut for pit: part of F65							

Table 1.2: Ceramic types by context

Context	SF no	Given Pot no	Type	Sherd no's	Weight (g)	No of Rims	Rim diam (cm).
U/S	17	1	Roman Grey Ware	1	13	1	18-21
1		2	Post Medieval	1	1	-	-
14		3	Prehistoric	1	1	-	-
17	2	4	Earlier Neolithic, Carinated Bowl/Grimston Ware Trad.	28	195	1	34
17	2	5	Earlier Neolithic, Carinated Bowl/Grimston Ware Trad.	4	9	1	Not possible to assess.
17		4	Earlier Neolithic, Carinated Bowl/Grimston Ware Trad.	13	11	-	-
21		6	Prehistoric	2	3	-	-
38	4	7	Prehistoric	1	1	-	1-
59	11	8	AOC Beaker	8	20	1	Not possible to assess.
59		8	AOC Beaker	42	41	2	Not possible to assess.
64	14	9	Iron Age/RB	1	28	-	-
72	18	10	Beaker	3	4	-	-
76		11	Prehistoric	1	1	-	-
77	27	12	Beaker	2	4	1	Not possible to assess
77		13	Beaker	2	2	-	-
95		14	Prehistoric	2	4	-	-
131		Indet.	Prehistoric fired clay Possibly pottery	8	5	-	-
131		Two sherds one possibly from POT 4	Prehistoric/Early Neolithic	2	1	-	-
140		Indet.	Prehistoric	1	2	-	-
158	38	15	Beaker	4	4	-	-
158	42	16	Beaker	1	2	-	-
158	43	17	Beaker	1	6	-	-
202		18	Prehistoric	1	1	-	-

Key:

AOC : All Over Cord decorated

Indet: Indeterminate

RB : Romano British

Trad: Tradition

Table 1.3 Fabric types

Fabric No.	Fabric Description	No of vessels
1	Wheel thrown, fine, grey, hard fired, with no obvious inclusions. Roman	1
2	Brick red, fine, hard-fired, almost vitrified. No obvious inclusions. Post-Med.	1
3	Light orange fabric with quartz sand, small angular black grits (?feldspar) and some angular ? calcite inclusions.	2
4	Large angular white and grey quartz grits, small black angular grits, quartz sand and some mica fragments.	2
5	Small crushed grey quartz inclusions with small black, crushed, grits and quartz sand	1
6	Almost laminar structure with small rounded crushed stone inclusions	1
7	Small rounded sandstone fragments, small, crushed, black stone grits, some small grog fragments and fine quartz sand.	6
8	Laminar structure. Small, well sorted, crushed, grey and black, angular and rounded, stone fragments, and small quartz grits.	1
9	Rounded sandstone inclusions and some quartz sand.	1
	Total	16

Table 1.4: Typological composition of the lithics assemblage by context

Contexts in bold denote those with fire damaged pieces

* indicates contexts which only contained natural unworked pieces.

Context	Flakes	Blades	Cores	Fragments	Tools	Chips	Natural	Quartz artefacts	Spall	Total
u/s	2	1	2	3		1	31			40
1					1		3			4
7	1									1
14	2				1					3
16							4	1		5
17		1		2		1	2			6
19					1					1
21						2	1			3
22						2	6			8
29*							2			2
33*							1			1
48						1				1
50	1						1			2
53						1	1			2
59	2				1	1	1			5
60	1						1			2
64	1						1			2
73	1				1					2
76		1								1
77			1	1	1	2	1			6
78						1	2			3
80	1					1			1	3
84					1					1
85					1					1
89*							1			1
92*							1			1
94	2									2
98				1		2				3
104	1				1	1				3
106				2			4			6
114						1	1			2
117				1						1
127	1					1	2			4
136*							1			1
137*							1			1
143*							2			2
141						1				1

Context	Flakes	Blades	Cores	Fragments	Tools	Chips	Natural	Quartz artefacts	Spall	Total
146						2	1			3
149		1								1
152							1			1
153*							1			1
158	6	3	1	1	3	3	32			49
170						1				1
175*							1			1
176							2			2
177						1				1
181	1							1		2
184*							1			1
193					1					1
197	1									1
214*							7			7
Totals	24	7	4	11	13	26	117	2	1	205

Table 1.5: Data from palaeoenvironmental assessment

Sample	1	4	5	6	7	8	9	10	11	12
Context	3	11	14	15	17	17	21	16	22	26
Feature number	4	12	13	13	18	18	18	18	23	28
Feature	G	P	P	P	P	P	P	P	G	P
<i>Material available for radiocarbon dating</i>	(✓)	✓	✓	✓	✓	✓	✓	✓	✓	(✓)
<i>Volume processed (l)</i>	18	20	14	19	29	5	3	11	14	22
<i>Volume of flot (ml)</i>	100	20	200	100	150	30	100	50	30	100
<i>Residue contents</i>										
Bone (calcined)	indet frags	-	-	-	-	-	(+)	-	-	-
Charcoal		-	+	+++	++	++	+	++	+	+
Cracked stones (burnt)		-	-	+	-	-	-	-	-	-
Daub		-	-	-	-	-	-	-	-	-
Fired clay		-	-	-	-	-	-	-	-	-
Flint (number of fragments)		-	-	2	-	5	-	2	-	2
Pottery (number of fragments)		-	-	1	-	-	23	2	-	-
Quartz pebble		2	-	-	-	1	-	-	-	-
<i>Flot matrix</i>										
Bark (charred)		-	-	-	-	-	-	-	-	-
Charcoal		+	++	+++	++	++	+	+++	+	+
Clinker / cinder		-	+	-	-	-	-	-	-	-
Coal / coal shale		-	-	-	+	-	-	-	(+)	(+)
Earthworm egg case		-	-	-	+	-	-	-	-	+
Heather twigs (charred)		-	-	-	-	-	-	-	-	-
Monocot stems (charred)		-	-	+	-	-	-	-	-	-
Pre-Quaternary fossil		-	-	-	-	-	-	-	-	-
Roots (modern)		+++	++	++	++	++	+	-	++	+
Tuber / rhizome (charred)		+	+	-	-	(+)	-	-	+	(+)
Uncharred seeds		+	+	-	-	(+)	-	-	(+)	(+)
Vegetative material (charred)		-	-	-	-	-	-	-	-	-
<i>Charred remains (total count)</i>										
(a) <i>Bromus</i> sp (Bromes)	caryopsis	1	-	-	-	-	-	-	-	-
(c) <i>Cerealia</i> indeterminate	grain	-	-	-	-	-	-	-	1	-
(c) <i>Hordeum</i> sp (Barley species)	grain	1	-	-	-	-	-	-	-	-
(c) <i>Triticum spelta</i> (Spelt Wheat)	glume base	3	-	-	-	-	-	-	1	-
(c) <i>Triticum</i> sp (Wheat species)	grain	-	2	-	-	-	-	-	1	-
(g) <i>Arrhenatherum elatius</i> ssp <i>bulbosum</i> (False Oat-grass)	tuber	1	-	-	-	-	-	-	-	-
(g) cf. <i>Conopodium majus</i> (cf. Pignut)	tuber	1	-	-	-	-	-	-	-	-
(h) <i>Danthonia decumbens</i> (Heath-grass)	caryopsis	-	-	-	-	-	-	-	2	-
(h) <i>Rumex acetosella</i> (Sheep's Sorrel)	nutlet	-	-	-	-	-	-	-	-	-
(r) <i>Galium aparine</i> (Cleavers)	seed	-	-	1	-	-	-	-	-	-
(r) <i>Persicaria maculosa</i> (Redshank)	nutlet	-	-	-	-	-	-	-	-	-
(r) <i>Plantago lanceolata</i> (Ribwort Plantain)	seed	1	-	-	-	-	-	-	-	-
(t) <i>Corylus avellana</i> (Hazel)	nutshell frag.	-	-	189	3	1	-	-	-	-
(t) cf. <i>Corylus avellana</i> (Hazel)	nutshell frag.	-	-	-	-	-	-	-	-	-
(t) <i>Crataegus monogyna</i> (Hawthorn)	fruitstone	-	-	-	-	-	-	-	-	-
(t) <i>Malus sylvestris</i> (Crab Apple)	pip	-	-	6	-	-	-	-	-	-
(t) <i>Malus sylvestris</i> (Crab Apple)	endocarp frag.	-	-	5	-	-	-	-	-	-
(t) <i>Prunus spinosa</i> (Sloe)	fruitstone	-	-	1	-	-	-	-	-	-
(w) <i>Carex</i> sp (Sedges)	trigonous nutlet	-	-	1	-	-	-	-	-	-
(w) Cyperaceae undiff. (Sedge family)	nutlet	-	-	-	-	-	-	-	-	-
(x) Poaceae undiff. (Grass family)	<1mm caryopsis	-	-	-	-	-	-	-	-	-
(x) Poaceae undiff. (Grass family)	>1mm caryopsis	1	1	-	-	-	-	-	-	-
(x) <i>Ranunculus</i> subgenus <i>Ranunculus</i> (Buttercup)	achene	2	-	-	-	-	-	-	2	-
(x) <i>Rumex</i> sp (Docks)	nutlet	-	-	-	-	-	-	-	-	-
(x) <i>Vicia</i> sp (Vetches)	seed	-	-	-	-	-	-	-	-	1
<i>Identified charcoal (✓ presence)</i>										
<i>Alnus glutinosa</i> (Alder)		-	-	-	-	✓	-	-	✓	✓
<i>Alnus glutinosa</i> / <i>Corylus avellana</i> (Alder / Hazel)		-	-	-	-	-	-	-	-	-
<i>Corylus avellana</i> (Hazel)		✓	-	✓	✓	-	✓	✓	✓	✓
<i>Fraxinus excelsior</i> (Ash)		-	-	-	-	-	-	-	-	-
Maloideae (Apple, hawthorn, whitebeams)		-	-	-	✓	✓	✓	✓	-	-
<i>Prunus</i> sp (Cherries)		-	✓	-	-	-	-	-	-	-
<i>Quercus</i> sp (Oaks)		✓	✓	✓	✓	✓	✓	✓	✓	✓
Salicaceae (Willow family)		-	-	-	-	-	-	-	-	-
<i>Tilia</i> sp (Lime)		-	-	-	-	-	-	-	-	-

[a-arable; c-cultivated; g-grassland; h-heathland; r-ruderal; t-tree/shrub; w-wet/damp ground; x-wide niche.

B-barrow; D-ditch; DP-deposit; G-gully; P-pit; PH-posthole; S-stakehole. (+): trace; +: rare; ++: occasional; +++: common; ++++: abundant.

(✓) may be unsuitable for dating due to size or species]

Sample	12	13	14	15	16	17	18	19	20	21
Context	26	27	31	39	38	41	50	19	43	44
Feature number	28	28		40	42	42	51	20	45	45
Feature	P	P	S?	P	P	P	P	G	G	G
<i>Material available for radiocarbon dating</i>	(✓)	-	-	-	✓	✓	(✓)	(✓)	(✓)	(✓)
<i>Volume processed (l)</i>	22	10	0.1	14	11	23	17.5	4	6.5	5
<i>Volume of flot (ml)</i>	100	20	1	10	100	60	60	10	10	5
Residue contents										
Bone (calcined)		indet frags	-	-	-	-	+	-	-	-
Charcoal	+	-	(+)	-	++	++	++	+++	(+)	+
Cracked stones (burnt)	-	-	-	-	-	-	-	-	-	-
Daub	-	-	-	-	-	-	-	-	-	-
Fired clay	-	-	-	-	-	-	-	-	-	-
Flint (number of fragments)	-	-	-	-	-	-	-	1	-	-
Pottery (number of fragments)	-	-	-	-	-	-	-	-	-	-
Quartz pebble	-	-	-	1	-	2	-	-	-	-
Flot matrix										
Bark (charred)	-	-	-	-	-	-	-	-	-	-
Charcoal	+	(+)	(+)	-	+++	++	++	+	+	+
Clinker / cinder	-	(+)	-	-	-	(+)	-	-	-	-
Coal / coal shale	(+)	-	-	+	-	-	(+)	-	+	-
Earthworm egg case	-	-	-	-	-	-	-	-	-	-
Heather twigs (charred)	-	-	-	-	-	-	-	-	-	-
Monocot stems (charred)	-	-	-	-	-	-	-	-	-	-
Pre-Quaternary fossil	-	-	-	-	-	-	-	-	-	-
Roots (modern)	+++	+	-	+	-	++	+	+	++	+
Tuber / rhizome (charred)	(+)	-	-	(+)	(+)	+	(+)	+	-	-
Uncharred seeds	(+)	(+)	-	-	(+)	+	-	-	-	-
Vegetative material (charred)	-	-	-	-	-	-	-	-	-	(+)
Charred remains (total count)										
(a) <i>Bromus</i> sp (Bromes)		caryopsis	-	-	-	-	-	-	-	-
(c) <i>Cerealia</i> indeterminate		grain	-	-	-	-	-	-	-	-
(c) <i>Hordeum</i> sp (Barley species)		grain	-	-	-	-	-	-	-	-
(c) <i>Triticum spelta</i> (Spelt Wheat)		glume base	-	-	-	-	-	-	-	-
(c) <i>Triticum</i> sp (Wheat species)		grain	-	-	-	-	-	-	-	-
(g) <i>Arrhenatherum elatius</i> ssp <i>bulbosum</i> (False Oat-grass)		tuber	-	-	-	-	-	-	-	-
(g) cf. <i>Conopodium majus</i> (cf. Pignut)		tuber	-	-	-	-	-	-	-	-
(h) <i>Danthonia decumbens</i> (Heath-grass)		caryopsis	-	-	-	-	-	-	-	-
(h) <i>Rumex acetosella</i> (Sheep's Sorrel)		nutlet	-	-	-	-	-	-	-	-
(r) <i>Galium aparine</i> (Cleavers)		seed	-	-	-	-	-	-	-	-
(r) <i>Persicaria maculosa</i> (Redshank)		nutlet	-	-	2	-	-	-	-	-
(r) <i>Plantago lanceolata</i> (Ribwort Plantain)		seed	-	-	-	-	-	-	-	-
(t) <i>Corylus avellana</i> (Hazel)		nutshell frag.	-	-	-	-	-	-	-	-
(t) cf. <i>Corylus avellana</i> (Hazel)		nutshell frag.	-	-	1	-	-	-	-	-
(t) <i>Crataegus monogyna</i> (Hawthorn)		fruitstone	-	-	-	-	-	-	-	-
(t) <i>Malus sylvestris</i> (Crab Apple)		pip	-	-	-	-	-	-	-	-
(t) <i>Malus sylvestris</i> (Crab Apple)		endocarp frag.	-	-	-	-	-	-	-	-
(t) <i>Prunus spinosa</i> (Sloe)		fruitstone	-	-	-	-	-	-	-	-
(w) <i>Carex</i> sp (Sedges)		trigonous nutlet	-	-	-	-	-	-	-	-
(w) Cyperaceae undiff. (Sedge family)		nutlet	-	-	-	-	-	-	-	-
(x) Poaceae undiff. (Grass family)		<1mm caryopsis	-	-	-	-	-	-	-	-
(x) Poaceae undiff. (Grass family)		>1mm caryopsis	-	-	-	-	-	-	-	-
(x) <i>Ranunculus</i> subgenus <i>Ranunculus</i> (Buttercup)		achene	-	-	-	-	-	-	-	-
(x) <i>Rumex</i> sp (Docks)		nutlet	-	-	-	-	-	-	-	-
(x) <i>Vicia</i> sp (Vetches)		seed	1	-	-	-	-	-	-	-
Identified charcoal (✓ presence)										
<i>Alnus glutinosa</i> (Alder)	✓	-	-	-	✓	-	-	-	-	-
<i>Alnus glutinosa</i> / <i>Corylus avellana</i> (Alder / Hazel)	✓	-	-	-	-	✓	-	-	-	-
<i>Corylus avellana</i> (Hazel)	✓	-	-	-	-	✓	-	-	-	-
<i>Fraxinus excelsior</i> (Ash)	-	-	-	-	-	-	-	-	-	-
Maloideae (Apple, hawthorn, whitebeams)	-	-	-	-	-	-	-	-	-	-
<i>Prunus</i> sp (Cherries)	-	-	-	-	-	-	-	-	-	-
<i>Quercus</i> sp (Oaks)	-	-	✓	-	✓	✓	✓	✓	✓	✓
Salicaceae (Willow family)	-	-	-	-	-	-	-	-	-	-
<i>Tilia</i> sp (Lime)	-	-	-	-	✓	-	-	-	-	-

[a-arable; c-cultivated; g-grassland; h-heathland; r-ruderal; t-tree/shrub; w-wet/damp ground; x-wide niche.

B-barrow; D-ditch; DP-deposit; G-gully; P-pit; PH-posthole; S-stakehole. (+): trace; +: rare; ++: occasional; +++: common; ++++: abundant.

(✓) may be unsuitable for dating due to size or species]

Sample	22	23	24	25	26	27	28	29	30	31
Context	46	48	52	53	55	57	59	60	61	62
Feature number	47	49	18	54		58	165	65	65	65
Feature	G	G	P	P	P	G	P	D	D	D
<i>Material available for radiocarbon dating</i>	-	(✓)	(✓)	✓	✓	✓	✓	✓	✓	✓
<i>Volume processed (l)</i>	10	7	8.5	22	20.5	15	25	16	18.5	17
<i>Volume of flot (ml)</i>	20	40	50	100	100	50	50	200	800	200
Residue contents										
Bone (calcined)		indet frags	-	-	-	-	-	-	-	-
Charcoal	-	+	+	+++	+	++	+++	+++	+++	+++
Cracked stones (burnt)	-	-	-	-	-	-	-	-	-	-
Daub	-	-	-	-	-	-	-	-	-	-
Fired clay	-	-	-	(+)	(+)	(+)	-	-	-	-
Flint (number of fragments)	-	1	-	1	-	-	5	-	1	-
Pottery (number of fragments)	-	-	-	-	-	-	41	-	-	-
Quartz pebble	-	-	-	3	-	-	5	-	-	-
Flot matrix										
Bark (charred)	-	-	-	-	-	-	-	-	-	-
Charcoal	-	+	+	+++	+	+	++	++	+++	++
Clinker / cinder	-	-	-	-	-	-	-	-	-	-
Coal / coal shale	-	+	(+)	-	(+)	(+)	(+)	-	-	-
Earthworm egg case	-	-	-	-	-	+	-	-	-	-
Heather twigs (charred)	-	-	-	-	-	-	-	-	-	-
Monocot stems (charred)	-	-	-	-	-	-	-	-	-	-
Pre-Quaternary fossil	-	-	-	-	-	-	-	-	-	-
Roots (modern)	++	+	++	++	+++	++	++	+++	+	+++
Tuber / rhizome (charred)	+	+	(+)	++	(+)	++	-	-	-	(+)
Uncharred seeds	(+)	(+)	-	(+)	(+)	(+)	+	-	-	-
Vegetative material (charred)	-	-	-	-	-	-	-	-	-	-
Charred remains (total count)										
(a) <i>Bromus</i> sp (Bromes)										
(c) <i>Cerealia</i> indeterminate				1	-	-	-	-	-	-
(c) <i>Hordeum</i> sp (Barley species)				-	-	-	-	-	-	-
(c) <i>Triticum spelta</i> (Spelt Wheat)				-	-	-	-	-	-	-
(c) <i>Triticum</i> sp (Wheat species)				-	-	-	-	-	-	-
(g) <i>Arrhenatherum elatius</i> ssp <i>bulbosum</i> (False Oat-grass)				1	-	-	-	-	-	-
(g) cf. <i>Conopodium majus</i> (cf. Pignut)				1	-	-	-	-	-	-
(h) <i>Danthonia decumbens</i> (Heath-grass)		1		1		1				
(h) <i>Rumex acetosella</i> (Sheep's Sorrel)				-	-	-	-	-	-	-
(r) <i>Galium aparine</i> (Cleavers)				-	-	-	-	-	-	-
(r) <i>Persicaria maculosa</i> (Redshank)				-	-	-	-	-	-	-
(r) <i>Plantago lanceolata</i> (Ribwort Plantain)				-	1	1				
(t) <i>Corylus avellana</i> (Hazel)				-	1	-	71	3	1	1
(t) cf. <i>Corylus avellana</i> (Hazel)				-	-	-	-	-	-	-
(t) <i>Crataegus monogyna</i> (Hawthorn)				-	-	-	1	-	-	-
(t) <i>Malus sylvestris</i> (Crab Apple)				-	-	-	-	-	-	-
(t) <i>Malus sylvestris</i> (Crab Apple)				-	-	-	-	-	-	-
(t) <i>Prunus spinosa</i> (Sloe)				-	-	-	-	-	-	-
(w) <i>Carex</i> sp (Sedges)				-	-	1	-	-	-	-
(w) Cyperaceae undiff. (Sedge family)				-	-	-	-	-	-	-
(x) Poaceae undiff. (Grass family)				-	1	-	-	-	-	-
(x) Poaceae undiff. (Grass family)	1			-	-	-	-	-	-	-
(x) <i>Ranunculus</i> subgenus <i>Ranunculus</i> (Buttercup)				-	-	-	-	-	-	-
(x) <i>Rumex</i> sp (Docks)				-	1	-	-	-	-	-
(x) <i>Vicia</i> sp (Vetches)				1	-	-	-	-	-	-
Identified charcoal (✓ presence)										
<i>Alnus glutinosa</i> (Alder)	-	-	-	✓	-	-	-	-	✓	✓
<i>Alnus glutinosa</i> / <i>Corylus avellana</i> (Alder / Hazel)	-	-	-	✓	-	-	-	-	✓	✓
<i>Corylus avellana</i> (Hazel)	-	-	-	✓	-	✓	-	✓	✓	✓
<i>Fraxinus excelsior</i> (Ash)	-	-	-	-	-	-	✓	-	-	-
Maloideae (Apple, hawthorn, whitebeams)	-	-	-	-	-	-	-	-	-	-
<i>Prunus</i> sp (Cherries)	-	-	-	-	-	-	-	-	-	-
<i>Quercus</i> sp (Oaks)	-	✓	✓	✓	✓	✓	✓	✓	✓	✓
Salicaceae (Willow family)	-	-	-	✓	-	-	-	-	-	-
<i>Tilia</i> sp (Lime)	-	-	-	-	-	-	-	-	-	-

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(✓) may be unsuitable for dating due to size or species]

Sample	32	33	34	35	36	37	38	39	40	41
Context	73	76	78	84	85	86	77	79	80	94
Feature number	74	75	67	87	87	87	81	81	81	97
Feature	G	P	P	P	P	P	D	D	D	D
<i>Material available for radiocarbon dating</i>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<i>Volume processed (l)</i>	11	14	12	4	18.5	6	17	18	17	20
<i>Volume of flot (ml)</i>	30	400	200	250	900	150	300	600	150	300
Residue contents										
Bone (calcined)		indet frags	-	+	-	-	-	-	-	(+)
Charcoal	-	+	-	+	-	-	+	+	(+)	+++
Cracked stones (burnt)	-	-	-	-	+++	-	-	-	-	-
Daub	-	-	-	-	-	-	-	-	-	-
Fired clay	-	-	-	-	+	(+)	-	+	-	-
Flint (number of fragments)	-	2	-	-	-	-	4	-	3	1
Pottery (number of fragments)	-	2	-	-	-	-	2	-	-	-
Quartz pebble	-	-	-	-	-	-	-	-	-	-
Flot matrix										
Bark (charred)	-	-	-	-	-	-	-	-	-	-
Charcoal	++	++	+	+++	++++	+++	++	+++	++	+++
Clinker / cinder	-	-	-	-	-	-	-	-	-	-
Coal / coal shale	-	-	-	-	-	-	-	-	-	-
Earthworm egg case	-	-	-	-	-	-	-	-	-	-
Heather twigs (charred)	-	-	-	-	-	-	-	-	-	-
Monocot stems (charred)	-	-	-	-	-	-	-	-	-	-
Pre-Quaternary fossil	-	-	-	-	-	-	-	-	-	-
Roots (modern)	++	+++	+++	++	++	++	+++	++	++	++
Tuber / rhizome (charred)	-	-	-	-	-	-	+	-	-	-
Uncharred seeds	(+)	-	-	-	-	-	-	-	-	-
Vegetative material (charred)	-	-	-	-	-	-	-	-	-	-
Charred remains (total count)										
(a) <i>Bromus</i> sp (Bromes)										
(c) <i>Cerealia</i> indeterminate										
(c) <i>Hordeum</i> sp (Barley species)										
(c) <i>Triticum spelta</i> (Spelt Wheat)										
(c) <i>Triticum</i> sp (Wheat species)										
(g) <i>Arrhenatherum elatius</i> ssp <i>bulbosum</i> (False Oat-grass)										
(g) cf. <i>Conopodium majus</i> (cf. Pignut)										
(h) <i>Danthonia decumbens</i> (Heath-grass)										
(h) <i>Rumex acetosella</i> (Sheep's Sorrel)										
(r) <i>Galium aparine</i> (Cleavers)	1									
(r) <i>Persicaria maculosa</i> (Redshank)										
(r) <i>Plantago lanceolata</i> (Ribwort Plantain)										
(t) <i>Corylus avellana</i> (Hazel)		1		6	16	5		1		
(t) cf. <i>Corylus avellana</i> (Hazel)										
(t) <i>Crataegus monogyna</i> (Hawthorn)										
(t) <i>Malus sylvestris</i> (Crab Apple)										
(t) <i>Malus sylvestris</i> (Crab Apple)										
(t) <i>Prunus spinosa</i> (Sloe)										
(w) <i>Carex</i> sp (Sedges)										
(w) Cyperaceae undiff. (Sedge family)										
(x) Poaceae undiff. (Grass family)										
(x) Poaceae undiff. (Grass family)										
(x) <i>Ranunculus</i> subgenus <i>Ranunculus</i> (Buttercup)										
(x) <i>Rumex</i> sp (Docks)										
(x) <i>Vicia</i> sp (Vetches)										
Identified charcoal (✓ presence)										
<i>Alnus glutinosa</i> (Alder)	-	✓	✓	✓	✓	✓	✓	-	-	-
<i>Alnus glutinosa</i> / <i>Corylus avellana</i> (Alder / Hazel)	-	-	-	-	-	-	-	-	-	-
<i>Corylus avellana</i> (Hazel)	✓	-	-	✓	✓	✓	✓	✓	✓	✓
<i>Fraxinus excelsior</i> (Ash)	-	-	-	✓	✓	-	-	-	-	-
Maloideae (Apple, hawthorn, whitebeams)	-	-	-	-	-	-	-	-	-	-
<i>Prunus</i> sp (Cherries)	-	-	-	-	✓	-	✓	-	✓	✓
<i>Quercus</i> sp (Oaks)	✓	✓	-	-	-	-	-	✓	✓	✓
Salicaceae (Willow family)	✓	-	-	-	-	-	-	-	-	-
<i>Tilia</i> sp (Lime)	-	-	-	-	-	-	-	-	-	-

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(✓) may be unsuitable for dating due to size or species]

Sample	42	43	44	45	46	47	48	49	50	51
Context	95	96	98	100	102	104	105	106	108	110
Feature number	97	97	99	101	103	107	107	107	107	112
Feature	D	D	G	P	P	D	D	D	D	D
<i>Material available for radiocarbon dating</i>	✓	✓	✓	✓	-	✓	✓	✓	✓	✓
<i>Volume processed (l)</i>	19	17.5	16	8	1	15.5	5	11	13	17
<i>Volume of flot (ml)</i>	900	150	200	50	20	100	70	100	60	200
Residue contents										
Bone (calcined) indet frags	-	-	-	-	-	-	-	-	-	-
Charcoal	+++	++	-	++	-	++	++	++	++	+++
Cracked stones (burnt)	-	-	-	-	-	-	-	-	-	-
Daub	-	-	-	-	-	-	-	-	-	-
Fired clay	-	-	-	-	-	-	-	-	-	-
Flint (number of fragments)	-	-	3	-	-	2	-	-	-	-
Pottery (number of fragments)	2	-	-	-	-	-	-	-	-	-
Quartz pebble	2	-	1	1	-	-	-	-	-	-
Flot matrix										
Bark (charred)	-	-	-	-	-	-	-	-	-	+
Charcoal	++++	++	++	++	+	++	++	++	++	+++
Clinker / cinder	-	-	-	-	-	-	-	-	-	-
Coal / coal shale	-	-	-	-	-	+	+	-	+	-
Earthworm egg case	-	-	-	+	-	-	-	-	-	-
Heather twigs (charred)	-	-	+	-	-	-	-	-	-	-
Monocot stems (charred)	-	-	-	-	-	-	-	-	-	-
Pre-Quaternary fossil	-	-	-	-	-	-	-	-	-	-
Roots (modern)	++	++	+++	++	++	++	++	++	++	++
Tuber / rhizome (charred)	-	+	++	(+)	-	++	-	++	-	+
Uncharred seeds	-	-	-	-	(+)	-	-	-	-	-
Vegetative material (charred)	-	-	-	-	-	-	-	-	-	-
Charred remains (total count)										
(a) <i>Bromus</i> sp (Bromes) caryopsis	-	-	1	-	-	-	-	-	-	-
(c) Cerealia indeterminate grain	-	-	-	-	-	-	-	-	-	-
(c) <i>Hordeum</i> sp (Barley species) grain	-	-	-	-	-	-	-	-	-	-
(c) <i>Triticum spelta</i> (Spelt Wheat) glume base	-	-	2	-	-	1	-	-	-	-
(c) <i>Triticum</i> sp (Wheat species) grain	-	-	1	-	-	-	-	-	-	-
(g) <i>Arrhenatherum elatius</i> ssp <i>bulbosum</i> (False Oat-grass) tuber	-	1	-	-	-	-	-	-	-	-
(g) cf. <i>Conopodium majus</i> (cf. Pignut) tuber	-	-	-	-	-	-	-	-	-	-
(h) <i>Danthonia decumbens</i> (Heath-grass) caryopsis	-	-	-	-	-	-	-	-	-	-
(h) <i>Rumex acetosella</i> (Sheep's Sorrel) nutlet	-	-	-	-	-	-	-	-	-	-
(r) <i>Galium aparine</i> (Cleavers) seed	-	-	-	-	-	-	-	-	-	-
(r) <i>Persicaria maculosa</i> (Redshank) nutlet	-	-	-	-	-	-	-	-	-	-
(r) <i>Plantago lanceolata</i> (Ribwort Plantain) seed	-	-	-	-	-	-	-	-	-	-
(t) <i>Corylus avellana</i> (Hazel) nutshell frag.	3	-	2	-	-	-	-	-	1	-
(t) cf. <i>Corylus avellana</i> (Hazel) nutshell frag.	-	-	-	-	-	-	-	-	-	-
(t) <i>Crataegus monogyna</i> (Hawthorn) fruitstone	-	-	-	-	-	-	-	-	-	-
(t) <i>Malus sylvestris</i> (Crab Apple) pip	-	-	-	-	-	-	-	-	-	-
(t) <i>Malus sylvestris</i> (Crab Apple) endocarp frag.	-	-	-	-	-	-	-	-	-	-
(t) <i>Prunus spinosa</i> (Sloe) fruitstone	-	-	-	-	-	-	-	-	-	-
(w) <i>Carex</i> sp (Sedges) trigonous nutlet	-	-	-	-	-	-	-	-	-	-
(w) Cyperaceae undiff. (Sedge family) nutlet	-	-	-	-	-	-	-	-	-	-
(x) Poaceae undiff. (Grass family) <1mm caryopsis	-	-	-	-	-	-	-	-	-	-
(x) Poaceae undiff. (Grass family) >1mm caryopsis	-	-	-	-	-	1	-	-	-	-
(x) <i>Ranunculus</i> subgenus <i>Ranunculus</i> (Buttercup) achene	-	-	-	-	-	-	-	-	-	-
(x) <i>Rumex</i> sp (Docks) nutlet	-	-	-	-	-	-	-	-	-	-
(x) <i>Vicia</i> sp (Vetches) seed	-	-	-	-	-	-	-	-	-	-
Identified charcoal (✓ presence)										
<i>Alnus glutinosa</i> (Alder)	-	-	-	✓	-	✓	-	-	-	✓
<i>Alnus glutinosa</i> / <i>Corylus avellana</i> (Alder / Hazel)	-	-	-	✓	-	-	-	-	-	-
<i>Corylus avellana</i> (Hazel)	✓	-	✓	✓	-	-	✓	✓	✓	-
<i>Fraxinus excelsior</i> (Ash)	-	-	-	✓	-	-	-	-	-	-
Maloideae (Apple, hawthorn, whitebeams)	-	(✓)	-	-	-	-	-	✓	-	-
<i>Prunus</i> sp (Cherries)	-	✓	-	-	-	-	-	-	-	-
<i>Quercus</i> sp (Oaks)	✓	-	Y	-	✓	✓	✓	✓	-	✓
Salicaceae (Willow family)	-	-	-	-	-	✓	-	-	-	-
<i>Tilia</i> sp (Lime)	-	-	-	-	-	-	-	-	-	-

[a-arable; c-cultivated; g-grassland; h-heathland; r-ruderal; t-tree/shrub; w-wet/damp ground; x-wide niche.

B-barrow; D-ditch; DP-deposit; G-gully; P-pit; PH-posthole; S-stakehole. (+): trace; +: rare; ++: occasional; +++: common; ++++: abundant.

(✓) may be unsuitable for dating due to size or species]

Sample	52	53	54	55	56	57	58	59	60	61
Context	111	113	114	115	117	120	123	124	126	127
Feature number	112	107	116	116	119	121	122	125	81	128
Feature	D	D	P	P	P	P	PH	P	D	P
<i>Material available for radiocarbon dating</i>	(✓)	(✓)	✓	(✓)	(✓)	✓	✓	✓	(✓)	✓
<i>Volume processed (l)</i>	8	5.5	17	0.5	11	10	6	19	15.5	10
<i>Volume of flot (ml)</i>	100	20	400	10	250	300	200	200	150	150
Residue contents										
Bone (calcined)		indet frags	-	-	(+)	-	-	-	-	-
Charcoal	-	++	+	-	-	-	-	++	-	-
Cracked stones (burnt)	-	-	-	-	-	-	-	-	-	-
Daub	-	-	-	-	-	-	-	+	-	-
Fired clay	-	-	-	-	-	+	-	(+)	-	-
Flint (number of fragments)	-	-	1	-	1	-	-	-	-	-
Pottery (number of fragments)	-	-	-	-	-	-	-	-	-	-
Quartz pebble	-	-	-	-	-	-	-	-	1	-
Flot matrix										
Bark (charred)	-	-	-	-	-	-	-	-	-	-
Charcoal	++	+	++	+	+	+++	+	++	(+)	+
Clinker / cinder	-	-	-	-	-	-	-	-	-	-
Coal / coal shale	-	+	-	-	-	-	-	-	+	-
Earthworm egg case	-	-	-	-	-	-	-	-	+	-
Heather twigs (charred)	-	-	-	-	-	-	-	-	-	-
Monocot stems (charred)	-	-	-	-	-	-	-	++	-	-
Pre-Quaternary fossil	-	-	-	-	-	-	-	-	-	-
Roots (modern)	++	++	+++	+	+++	++	+++	++	+++	++
Tuber / rhizome (charred)	+	-	-	-	-	-	-	+++	(+)	+
Uncharred seeds	-	-	(+)	-	-	-	-	(+)	(+)	(+)
Vegetative material (charred)	-	-	-	-	-	-	-	-	-	-
Charred remains (total count)										
(a) <i>Bromus</i> sp (Bromes)		caryopsis	-	-	-	-	-	-	-	-
(c) <i>Cerealia</i> indeterminate		grain	-	-	-	-	-	-	-	-
(c) <i>Hordeum</i> sp (Barley species)		grain	-	-	-	-	-	-	-	-
(c) <i>Triticum spelta</i> (Spelt Wheat)		glume base	-	-	-	-	-	3	-	-
(c) <i>Triticum</i> sp (Wheat species)		grain	-	-	-	-	-	-	-	-
(g) <i>Arrhenatherum elatius</i> ssp <i>bulbosum</i> (False Oat-grass)		tuber	-	-	-	-	-	1	-	-
(g) cf. <i>Conopodium majus</i> (cf. Pignut)		tuber	-	-	-	-	-	-	-	-
(h) <i>Danthonia decumbens</i> (Heath-grass)		caryopsis	-	-	-	-	-	2	-	-
(h) <i>Rumex acetosella</i> (Sheep's Sorrel)		nutlet	-	-	-	-	-	-	-	-
(r) <i>Galium aparine</i> (Cleavers)		seed	-	-	-	-	-	-	-	-
(r) <i>Persicaria maculosa</i> (Redshank)		nutlet	-	-	-	-	-	1	-	-
(r) <i>Plantago lanceolata</i> (Ribwort Plantain)		seed	-	-	-	1	-	-	-	-
(t) <i>Corylus avellana</i> (Hazel)		nutshell frag.	-	-	1	-	-	3	-	1
(t) cf. <i>Corylus avellana</i> (Hazel)		nutshell frag.	-	-	-	-	-	-	-	-
(t) <i>Crataegus monogyna</i> (Hawthorn)		fruitstone	-	-	-	-	-	-	-	-
(t) <i>Malus sylvestris</i> (Crab Apple)		pip	-	-	-	-	-	-	-	-
(t) <i>Malus sylvestris</i> (Crab Apple)		endocarp frag.	-	-	-	-	-	-	-	-
(t) <i>Prunus spinosa</i> (Sloe)		fruitstone	-	-	-	-	-	-	-	-
(w) <i>Carex</i> sp (Sedges)		trigonous nutlet	-	-	-	-	-	-	-	-
(w) Cyperaceae undiff. (Sedge family)		nutlet	-	-	-	-	-	1	-	-
(x) Poaceae undiff. (Grass family)		<1mm caryopsis	-	-	-	-	-	-	-	-
(x) Poaceae undiff. (Grass family)		>1mm caryopsis	-	-	-	-	-	-	-	-
(x) <i>Ranunculus</i> subgenus <i>Ranunculus</i> (Buttercup)		achene	-	-	-	-	-	1	-	-
(x) <i>Rumex</i> sp (Docks)		nutlet	-	-	-	-	-	-	-	-
(x) <i>Vicia</i> sp (Vetches)		seed	-	-	-	-	-	-	-	-
Identified charcoal (✓ presence)										
<i>Alnus glutinosa</i> (Alder)	-	-	-	✓	-	-	-	-	-	-
<i>Alnus glutinosa</i> / <i>Corylus avellana</i> (Alder / Hazel)	-	-	-	-	-	-	-	-	-	-
<i>Corylus avellana</i> (Hazel)	-	-	✓	-	-	✓	✓	✓	✓	-
<i>Fraxinus excelsior</i> (Ash)	-	-	-	-	-	-	-	-	-	-
Maloideae (Apple, hawthorn, whitebeams)	-	-	-	-	-	-	-	-	-	✓
<i>Prunus</i> sp (Cherries)	-	-	-	-	-	-	-	-	-	-
<i>Quercus</i> sp (Oaks)	✓	✓	✓	-	✓	✓	-	✓	-	-
Salicaceae (Willow family)	-	-	-	-	-	-	-	-	-	-
<i>Tilia</i> sp (Lime)	-	-	-	-	-	-	-	-	-	-

[a-arable; c-cultivated; g-grassland; h-heathland; r-ruderal; t-tree/shrub; w-wet/damp ground; x-wide niche.

B-barrow; D-ditch; DP-deposit; G-gully; P-pit; PH-posthole; S-stakehole. (+): trace; +: rare; ++: occasional; +++: common; ++++: abundant.

(✓) may be unsuitable for dating due to size or species]

Sample	62	63	64	65	66	67	68	69	70	71
Context	129	131	133	136	137	138	140	141	146	145
Feature number	130	132	134	135	135	139	-	-	107	144
Feature	PH	PH	PH	D	D	P	DP	DP	D	PH
<i>Material available for radiocarbon dating</i>	✓	✓	(✓)	✓	(✓)	✓	✓	✓	✓	✓
<i>Volume processed (l)</i>	5	7	0.3	14	12	0.5	5	5	13	15
<i>Volume of flot (ml)</i>	300	60	2	50	100	40	10	30	30	30
Residue contents										
Bone (calcined)	indet frags									
Charcoal	++	+	-	-	+	-	-	++	+	+
Cracked stones (burnt)	-	-	-	-	-	-	-	-	-	-
Daub	-	-	-	-	-	-	-	-	-	-
Fired clay	-	+	-	-	-	(+)	(+)	(+)	-	-
Flint (number of fragments)	-	-	-	-	-	-	-	1	3	-
Pottery (number of fragments)	-	2	-	-	-	-	-	-	-	-
Quartz pebble	-	-	-	-	-	-	-	-	-	-
Flot matrix										
Bark (charred)	-	-	-	-	-	-	-	-	-	-
Charcoal	+++	++	(+)	+	++	+	+	+	+	+
Clinker / cinder	-	-	-	-	-	-	-	-	-	-
Coal / coal shale	-	-	-	-	(+)	-	(+)	-	-	(+)
Earthworm egg case	-	-	-	-	-	-	-	-	-	-
Heather twigs (charred)	-	-	-	-	-	-	-	-	-	-
Monocot stems (charred)	-	-	-	-	-	-	-	-	-	-
Pre-Quaternary fossil	-	-	-	-	(+)	-	-	-	-	-
Roots (modern)	+	+	(+)	++	++	+	+	++	++	++
Tuber / rhizome (charred)	-	-	-	+	(+)	-	(+)	-	++	+
Uncharred seeds	-	-	-	(+)	(+)	-	-	(+)	(+)	(+)
Vegetative material (charred)	-	-	-	-	-	-	-	-	-	-
Charred remains (total count)										
(a) <i>Bromus</i> sp (Bromes)	caryopsis									
(c) <i>Cerealia</i> indeterminate	grain									
(c) <i>Hordeum</i> sp (Barley species)	grain									
(c) <i>Triticum spelta</i> (Spelt Wheat)	glume base									
(c) <i>Triticum</i> sp (Wheat species)	grain									
(g) <i>Arrhenatherum elatius</i> ssp <i>bulbosum</i> (False Oat-grass)	tuber									
(g) cf. <i>Conopodium majus</i> (cf. Pignut)	tuber									
(h) <i>Danthonia decumbens</i> (Heath-grass)	caryopsis									
(h) <i>Rumex acetosella</i> (Sheep's Sorrel)	nutlet									
(r) <i>Galium aparine</i> (Cleavers)	seed									
(r) <i>Persicaria maculosa</i> (Redshank)	nutlet									
(r) <i>Plantago lanceolata</i> (Ribwort Plantain)	seed									
(t) <i>Corylus avellana</i> (Hazel)	nutshell frag.									
(t) cf. <i>Corylus avellana</i> (Hazel)	nutshell frag.									
(t) <i>Crataegus monogyna</i> (Hawthorn)	fruitstone									
(t) <i>Malus sylvestris</i> (Crab Apple)	pip									
(t) <i>Malus sylvestris</i> (Crab Apple)	endocarp frag.									
(t) <i>Prunus spinosa</i> (Sloe)	fruitstone									
(w) <i>Carex</i> sp (Sedges)	trigonous nutlet									
(w) Cyperaceae undiff. (Sedge family)	nutlet									
(x) Poaceae undiff. (Grass family)	<1mm caryopsis									
(x) Poaceae undiff. (Grass family)	>1mm caryopsis									
(x) <i>Ranunculus</i> subgenus <i>Ranunculus</i> (Buttercup)	achene									
(x) <i>Rumex</i> sp (Dock)	nutlet									
(x) <i>Vicia</i> sp (Vetches)	seed									
Identified charcoal (✓ presence)										
<i>Alnus glutinosa</i> (Alder)	-	-	-	✓	✓	-	✓	-	-	✓
<i>Alnus glutinosa</i> / <i>Corylus avellana</i> (Alder / Hazel)	-	-	-	-	-	-	-	-	-	-
<i>Corylus avellana</i> (Hazel)	-	✓	-	-	✓	✓	✓	✓	✓	✓
<i>Fraxinus excelsior</i> (Ash)	-	-	-	-	-	-	✓	-	-	-
Maloideae (Apple, hawthorn, whitebeams)	-	-	-	✓	-	-	-	-	-	-
<i>Prunus</i> sp (Cherries)	-	-	-	-	-	-	-	-	-	-
<i>Quercus</i> sp (Oaks)	✓	✓	✓	✓	✓	-	-	✓	-	-
Salicaceae (Willow family)	-	-	-	-	-	-	-	-	-	-
<i>Tilia</i> sp (Lime)	-	✓	-	-	-	-	-	-	-	-

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B-barrow; D-ditch; DP-deposit; G-gully; P-pit; PH-posthole; S-stakehole. (+): trace; +: rare; ++: occasional; +++: common; ++++: abundant.

(✓) may be unsuitable for dating due to size or species]

Sample	72	73	74	75	76	77	78	79	80	81
Context	147	143	149	153	154	156	158	160	161	170
Feature number	-	-	150	151	107	155	-	159	162	171
Feature	DP	B	P	D	D	G	B	G	G	P
<i>Material available for radiocarbon dating</i>	✓	✓	✓	✓	✓	(✓)	✓	-	✓	(✓)
<i>Volume processed (l)</i>	11	18	11	13	16	13	14	8.5	17	10
<i>Volume of flot (ml)</i>	60	100	300	150	100	20	300	30	300	50
Residue contents										
Bone (calcined)	indet frags									
Charcoal	+	-	-	+++	-	-	(+)	-	+	(+)
Cracked stones (burnt)	-	-	-	-	-	-	-	-	-	-
Daub	-	-	-	-	-	-	-	-	-	-
Fired clay	-	-	-	-	-	-	-	-	-	-
Flint (number of fragments)	-	1	3	1	-	-	2	-	-	1
Pottery (number of fragments)	-	-	-	-	-	-	-	-	-	-
Quartz pebble	-	-	3	-	-	-	-	-	1	-
Flot matrix										
Bark (charred)	-	-	-	-	-	-	-	-	-	-
Charcoal	++	+	++	+++	-	+	++	(+)	+	(+)
Clinker / cinder	-	-	-	-	-	-	-	-	-	-
Coal / coal shale	(+)	+	-	-	+	-	-	-	+	(+)
Earthworm egg case	+	+	-	-	-	+	-	-	-	+
Heather twigs (charred)	-	-	-	-	-	-	-	-	-	-
Monocot stems (charred)	-	-	-	-	-	-	-	-	-	-
Pre-Quaternary fossil	-	-	-	-	-	-	-	-	-	-
Roots (modern)	+++	+	+++	++	++	+	+++	+	+++	++
Tuber / rhizome (charred)	(+)	-	-	(+)	-	(+)	(+)	+	(+)	(+)
Uncharred seeds	-	(+)	-	(+)	(+)	(+)	-	-	+	(+)
Vegetative material (charred)	-	-	-	-	-	-	-	-	-	-
Charred remains (total count)										
(a) <i>Bromus</i> sp (Bromes)	caryopsis									
(c) <i>Cerealia</i> indeterminate	grain									
(c) <i>Hordeum</i> sp (Barley species)	grain									
(c) <i>Triticum spelta</i> (Spelt Wheat)	glume base									
(c) <i>Triticum</i> sp (Wheat species)	grain									
(g) <i>Arrhenatherum elatius</i> ssp <i>bulbosum</i> (False Oat-grass)	tuber									
(g) cf. <i>Conopodium majus</i> (cf. Pignut)	tuber									
(h) <i>Danthonia decumbens</i> (Heath-grass)	caryopsis									
(h) <i>Rumex acetosella</i> (Sheep's Sorrel)	nutlet									
(r) <i>Galium aparine</i> (Cleavers)	seed									
(r) <i>Persicaria maculosa</i> (Redshank)	nutlet									
(r) <i>Plantago lanceolata</i> (Ribwort Plantain)	seed									
(t) <i>Corylus avellana</i> (Hazel)	nutshell frag.									
(t) cf. <i>Corylus avellana</i> (Hazel)	nutshell frag.									
(t) <i>Crataegus monogyna</i> (Hawthorn)	fruitstone									
(t) <i>Malus sylvestris</i> (Crab Apple)	pip									
(t) <i>Malus sylvestris</i> (Crab Apple)	endocarp frag.									
(t) <i>Prunus spinosa</i> (Sloe)	fruitstone									
(w) <i>Carex</i> sp (Sedges)	trigonous nutlet									
(w) Cyperaceae undiff. (Sedge family)	nutlet									
(x) Poaceae undiff. (Grass family)	<1mm caryopsis									
(x) Poaceae undiff. (Grass family)	>1mm caryopsis									
(x) <i>Ranunculus</i> subgenus <i>Ranunculus</i> (Buttercup)	achene									
(x) <i>Rumex</i> sp (Docks)	nutlet									
(x) <i>Vicia</i> sp (Vetches)	seed									
Identified charcoal (✓ presence)										
<i>Alnus glutinosa</i> (Alder)	✓	-	-	-	-	-	✓	-	✓	-
<i>Alnus glutinosa</i> / <i>Corylus avellana</i> (Alder / Hazel)	-	-	-	-	-	-	-	-	-	-
<i>Corylus avellana</i> (Hazel)	-	✓	✓	✓	✓	✓	-	-	✓	-
<i>Fraxinus excelsior</i> (Ash)	-	✓	-	-	✓	✓	✓	-	-	✓
Maloideae (Apple, hawthorn, whitebeams)	-	-	-	-	-	-	✓	-	-	-
<i>Prunus</i> sp (Cherries)	-	✓	-	✓	-	-	-	-	-	-
<i>Quercus</i> sp (Oaks)	✓	✓	-	✓	-	-	✓	✓	-	-
Salicaceae (Willow family)	-	-	-	✓	-	-	-	-	-	-
<i>Tilia</i> sp (Lime)	-	-	-	-	-	-	-	-	-	-

[a-arable; c-cultivated; g-grassland; h-heathland; r-ruderal; t-tree/shrub; w-wet/damp ground; x-wide niche.

B-barrow; D-ditch; DP-deposit; G-gully; P-pit; PH-posthole; S-stakehole. (+): trace; +: rare; ++: occasional; +++: common; ++++: abundant.

(✓) may be unsuitable for dating due to size or species]

Sample	82	83	84	85	86	87	89	90	91	92
Context	166	175	176	177	184	186	189	192	193	197
Feature number	167	174	167	178	183	185	188	167	197	198
Feature	P	G	P	P	G	P	P	P	P?	PH
<i>Material available for radiocarbon dating</i>	✓	(✓)	✓	(✓)	✓	✓	✓	✓	✓	✓
<i>Volume processed (l)</i>	19	14	14	6	8	11	6.7	16	13	1.5
<i>Volume of flot (ml)</i>	80	50	50	30	40	150	250	350	40	10
Residue contents										
Bone (calcined)							(+)			
Charcoal	++	-	+++	++	+	+	+++	+++	+++	+
Cracked stones (burnt)	-	-	-	-	-	-	-	-	-	-
Daub	-	-	-	-	-	-	-	-	-	-
Fired clay	-	-	(+)	-	-	++	+	++	-	-
Flint (number of fragments)	-	-	2	1	1	-	-	-	1	1
Pottery (number of fragments)	-	-	3	-	1	-	-	-	6	-
Quartz pebble	1	-	-	1	-	-	-	-	-	-
Flot matrix										
Bark (charred)	-	-	-	-	-	-	-	-	-	-
Charcoal	-	-	+	++	+	+++	+++	+++	++	+
Clinker / cinder	-	-	-	-	-	-	-	-	-	-
Coal / coal shale	(+)	-	-	+	-	-	-	-	(+)	-
Earthworm egg case	+	-	-	-	-	-	-	-	-	-
Heather twigs (charred)	-	-	-	-	-	-	-	-	-	-
Monocot stems (charred)	-	-	-	-	-	-	-	-	-	-
Pre-Quaternary fossil	-	-	-	-	-	-	-	-	-	-
Roots (modern)	++	++	++	++	++	++	++	++	+	+
Tuber / rhizome (charred)	-	+	-	-	++	+	-	-	-	-
Uncharred seeds	-	-	-	-	-	-	-	-	-	-
Vegetative material (charred)	-	-	-	-	-	-	-	-	-	-
Charred remains (total count)										
(a) <i>Bromus</i> sp (Bromes)						1	-	-	-	-
(c) <i>Cerealia</i> indeterminate						1	-	-	-	-
(c) <i>Hordeum</i> sp (Barley species)						-	-	-	-	-
(c) <i>Triticum spelta</i> (Spelt Wheat)						1	-	-	-	-
(c) <i>Triticum</i> sp (Wheat species)						-	-	-	-	-
(g) <i>Arrhenatherum elatius</i> ssp <i>bulbosum</i> (False Oat-grass)		1				-	-	-	-	-
(g) cf. <i>Conopodium majus</i> (cf. Pignut)						-	-	-	-	-
(h) <i>Danthonia decumbens</i> (Heath-grass)						-	-	-	-	-
(h) <i>Rumex acetosella</i> (Sheep's Sorrel)						-	-	-	-	-
(r) <i>Galium aparine</i> (Cleavers)						-	-	-	-	-
(r) <i>Persicaria maculosa</i> (Redshank)						-	-	-	-	-
(r) <i>Plantago lanceolata</i> (Ribwort Plantain)					1	-	-	-	-	-
(t) <i>Corylus avellana</i> (Hazel)	6		11			1	-	-	18	
(t) cf. <i>Corylus avellana</i> (Hazel)						-	-	-	-	-
(t) <i>Crataegus monogyna</i> (Hawthorn)	1					-	-	-	-	-
(t) <i>Malus sylvestris</i> (Crab Apple)						-	-	-	-	-
(t) <i>Malus sylvestris</i> (Crab Apple)						-	-	-	-	-
(t) <i>Prunus spinosa</i> (Sloe)						-	-	-	-	-
(w) <i>Carex</i> sp (Sedges)						-	-	-	-	-
(w) Cyperaceae undiff. (Sedge family)						-	-	-	-	-
(x) Poaceae undiff. (Grass family)						-	-	-	-	-
(x) Poaceae undiff. (Grass family)						1	-	-	-	-
(x) <i>Ranunculus</i> subgenus <i>Ranunculus</i> (Buttercup)						-	-	-	-	-
(x) <i>Rumex</i> sp (Dock)						-	-	-	-	-
(x) <i>Vicia</i> sp (Vetches)						-	-	-	-	-
Identified charcoal (✓ presence)										
<i>Alnus glutinosa</i> (Alder)	-	-	-	-	-	✓	-	✓	-	-
<i>Alnus glutinosa</i> / <i>Corylus avellana</i> (Alder / Hazel)	-	-	-	-	✓	-	-	✓	✓	✓
<i>Corylus avellana</i> (Hazel)	✓	-	✓	✓	-	-	✓	✓	✓	✓
<i>Fraxinus excelsior</i> (Ash)	-	-	✓	-	✓	-	-	-	-	-
Maloideae (Apple, hawthorn, whitebeams)	-	-	-	-	-	✓	-	✓	-	-
<i>Prunus</i> sp (Cherries)	-	-	-	-	-	-	-	✓	-	✓
<i>Quercus</i> sp (Oaks)	✓	-	✓	✓	-	✓	✓	✓	✓	-
Salicaceae (Willow family)	-	-	-	-	-	-	-	-	-	-
<i>Tilia</i> sp (Lime)	-	-	-	-	-	-	-	-	-	-

[a-arable; c-cultivated; g-grassland; h-heathland; r-ruderal; t-tree/shrub; w-wet/damp ground; x-wide niche.

B-barrow; D-ditch; DP-deposit; G-gully; P-pit; PH-posthole; S-stakehole. (+): trace; +: rare; ++: occasional; +++: common; ++++: abundant.

(✓) may be unsuitable for dating due to size or species]

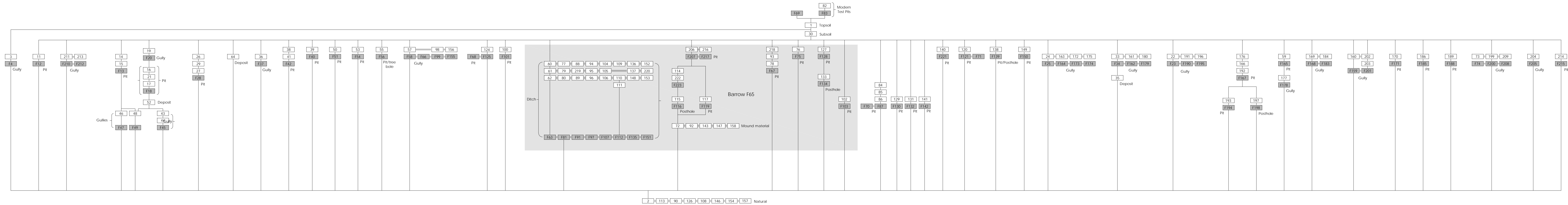
Sample	93	94	95	96	97	98	99
Context	199	202	203	204	213	36	214
Feature number	200	201	201	205	212	37	215
Feature	G	G	G	G	G	G	P
<i>Material available for radiocarbon dating</i>	(✓)	(✓)	(✓)	-	✓	✓	-
<i>Volume processed (l)</i>	16	6.5	7	7	7.5	15	18
<i>Volume of flot (ml)</i>	150	20	30	50	50	100	100
Residue contents							
Bone (calcined)	indet frags	-	-	(+)	-	-	-
Charcoal		+	+	+	(+)	+	-
Cracked stones (burnt)		-	-	-	-	-	+
Daub		-	-	-	-	-	-
Fired clay		-	-	-	-	-	-
Flint (number of fragments)		-	-	-	-	-	-
Pottery (number of fragments)		-	1	-	-	-	-
Quartz pebble		-	-	-	-	-	-
Flot matrix							
Bark (charred)		-	-	-	-	-	-
Charcoal		++	(+)	(+)	-	++	+
Clinker / cinder		-	-	-	-	+	-
Coal / coal shale		-	-	-	+	+	-
Earthworm egg case		-	-	-	-	-	-
Heather twigs (charred)		-	-	-	-	-	-
Monocot stems (charred)		-	-	-	-	-	-
Pre-Quaternary fossil		-	-	-	-	-	-
Roots (modern)		++	++	++	++	++	++
Tuber / rhizome (charred)		(+)	+	++	+	+	++
Uncharred seeds		+	-	-	-	-	-
Vegetative material (charred)		-	-	-	-	-	-
Charred remains (total count)							
(a) <i>Bromus</i> sp (Bromes)	caryopsis	-	-	-	-	-	-
(c) <i>Cerealia</i> indeterminate	grain	-	-	-	-	-	-
(c) <i>Hordeum</i> sp (Barley species)	grain	-	-	-	-	1	-
(c) <i>Triticum spelta</i> (Spelt Wheat)	glume base	-	1	1	-	1	-
(c) <i>Triticum</i> sp (Wheat species)	grain	-	-	-	-	-	-
(g) <i>Arrhenatherum elatius</i> ssp <i>bulbosum</i> (False Oat-grass)	tuber	-	-	-	-	-	-
(g) cf. <i>Conopodium majus</i> (cf. Pignut)	tuber	-	-	-	-	1	-
(h) <i>Danthonia decumbens</i> (Heath-grass)	caryopsis	-	-	-	-	-	-
(h) <i>Rumex acetosella</i> (Sheep's Sorrel)	nutlet	-	-	-	1	-	-
(r) <i>Galium aparine</i> (Cleavers)	seed	1	-	-	-	-	-
(r) <i>Persicaria maculosa</i> (Redshank)	nutlet	-	-	-	-	-	-
(r) <i>Plantago lanceolata</i> (Ribwort Plantain)	seed	-	-	-	-	-	-
(t) <i>Corylus avellana</i> (Hazel)	nutshell frag.	-	-	-	-	-	-
(t) cf. <i>Corylus avellana</i> (Hazel)	nutshell frag.	-	-	-	-	-	-
(t) <i>Crataegus monogyna</i> (Hawthorn)	fruitstone	-	-	-	-	-	-
(t) <i>Malus sylvestris</i> (Crab Apple)	pip	-	-	-	-	-	-
(t) <i>Malus sylvestris</i> (Crab Apple)	endocarp frag.	-	-	-	-	-	-
(t) <i>Prunus spinosa</i> (Sloe)	fruitstone	-	-	-	-	-	-
(w) <i>Carex</i> sp (Sedges)	trigonus nutlet	-	-	-	-	-	-
(w) Cyperaceae undiff. (Sedge family)	nutlet	-	-	-	-	-	-
(x) Poaceae undiff. (Grass family)	<1mm caryopsis	-	-	-	-	-	-
(x) Poaceae undiff. (Grass family)	>1mm caryopsis	-	-	-	-	-	1
(x) <i>Ranunculus</i> subgenus <i>Ranunculus</i> (Buttercup)	achene	-	-	1	-	-	1
(x) <i>Rumex</i> sp (Docks)	nutlet	-	-	-	-	-	-
(x) <i>Vicia</i> sp (Vetches)	seed	-	-	-	-	-	-
Identified charcoal (✓ presence)							
<i>Alnus glutinosa</i> (Alder)		-	-	-	-	-	-
<i>Alnus glutinosa</i> / <i>Corylus avellana</i> (Alder / Hazel)		✓	-	-	-	-	-
<i>Corylus avellana</i> (Hazel)		-	✓	-	-	-	-
<i>Fraxinus excelsior</i> (Ash)		-	-	-	-	✓	-
Maloideae (Apple, hawthorn, whitebeams)		-	-	-	-	-	-
<i>Prunus</i> sp (Cherries)		-	-	-	-	-	-
<i>Quercus</i> sp (Oaks)		✓	✓	✓	-	✓	✓
Salicaceae (Willow family)		-	-	-	-	-	-
<i>Tilia</i> sp (Lime)		-	-	-	-	-	-

[a-arable; c-cultivated; g-grassland; h-heathland; r-ruderal; t-tree/shrub; w-wet/damp ground; x-wide niche.

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(✓) may be unsuitable for dating due to size or species]

Appendix 2: Stratigraphic matrix



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Appendix 3: Updated Project Design

Project management

1. The project manager will be responsible for the management and coordination of the timetable, personnel, and resources, and for quality control.

Ceramic assemblage

2. Full analysis of the prehistoric ceramic assemblage including:
 - Research in relation to comparanda for the recovered material to assist in the overall contextualization of the pottery assemblage and aid in dating the material
 - Further detailed research to be undertaken on the fabric types to identify the nature and source of the inclusions used in the assemblage, and to test the efficacy of the fabric groups as identified
 - Closer examination of details of fabric and rim form of the Early Neolithic pottery
 - Full publication report of the ceramic assemblage should consider any other dating evidence available from the site in order to arrive at firmer conclusions on the likely date range of the assemblage.

Lithics

3. Full analysis of the lithics assemblage including, a full catalogue of the worked material, alongside a technological and typological analysis in order to gain a clearer insight into the nature of the assemblage

Palaeoenvironmental analysis

4. Full analysis of the plant macrofossils, including targeted charcoal and charred plant macrofossil assemblages.

Radio-carbon (AMS) dating

5. Eight features have been selected as suitable candidates for radio-carbon (AMS) dating. Substitutes may be used where sample dating fails:
 - Context 111 (sample 52) – primary fill of barrow ditch F63
 - Context 61 Sample 30) – charcoal fill of barrow ditch F63
 - Context 17 (sample 7)– fill of early Neolithic pit F18
 - Context 131 (sample 63) – fill of possible early Neolithic pit F132
 - Context 59 (sample 28) – fill of pit F165
 - Context 22 (sample 11) – fill of gully F23
 - Context 184 (sample 86) – fill of gully F183
 - Context 186 (sample 87) – fill of pit F185

Artefact illustration

6. Selected pottery sherds will be illustrated, including the Early Neolithic pottery, the AOC Beaker sherds, the IA/RB base sherd and the Roman sherd.
7. The serrated flake and a selection of the scrapers will be drawn.

Digitising

8. Selected plans and sections from the site archive will be digitised.

Excavation graphics

9. Phased plans and section drawings will be prepared for the full analysis report.

Report preparation

10. Phased data structure incorporating the results of the evaluation and excavation will be written and integrated with the illustrations.
11. Preparation of report, including collation of specialist reports and illustrations.
12. Integration of specialist reports into data structure.
13. Research into relevant parallels for the data and analysis of the data will be conducted in accordance with defined research objectives.
14. A synthesis of the site will be prepared, bringing together all the results of the excavations.
15. The report will be edited by the Project Manager.
16. Full analysis report production.

Publication

17. Preparation of text for publication.
18. Reformatting of illustrations for publication.
19. Editing of publication text by the Project Manager.
20. Submission of publication report to the editor of the Durham Archaeological Journal or other appropriate publication.
21. Revision of text / illustrations following referee's comments

Archive

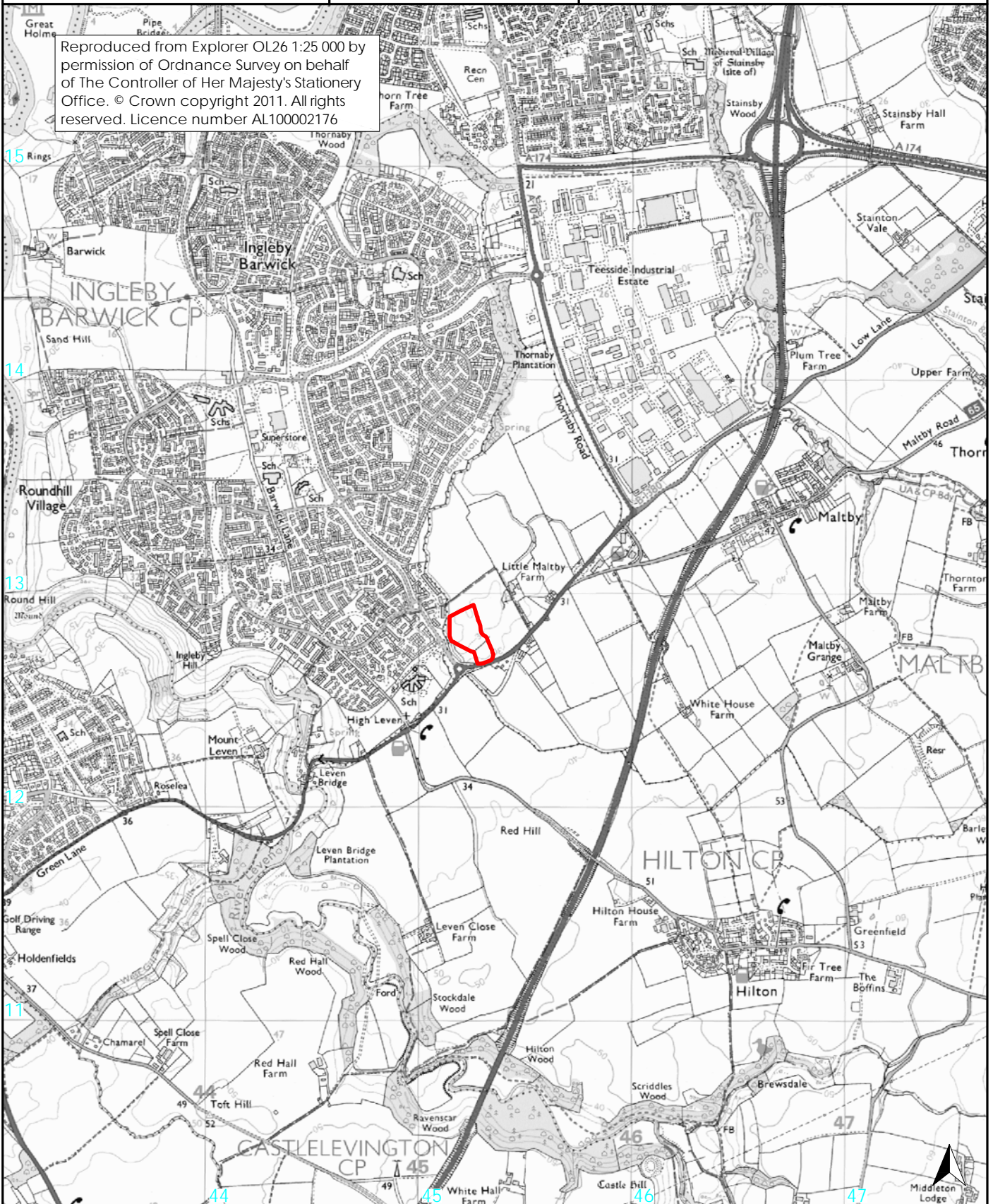
22. Preparation of the project archive.
23. Transfer of the site archive to Tees Archaeology.
24. Transportation of artefacts between specialists.

Programme

25. The works can be completed within 9 months of commission.

Figure 1: Site location

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 site location

0 1km
scale 1:25 000 for A4 plot

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Teesside

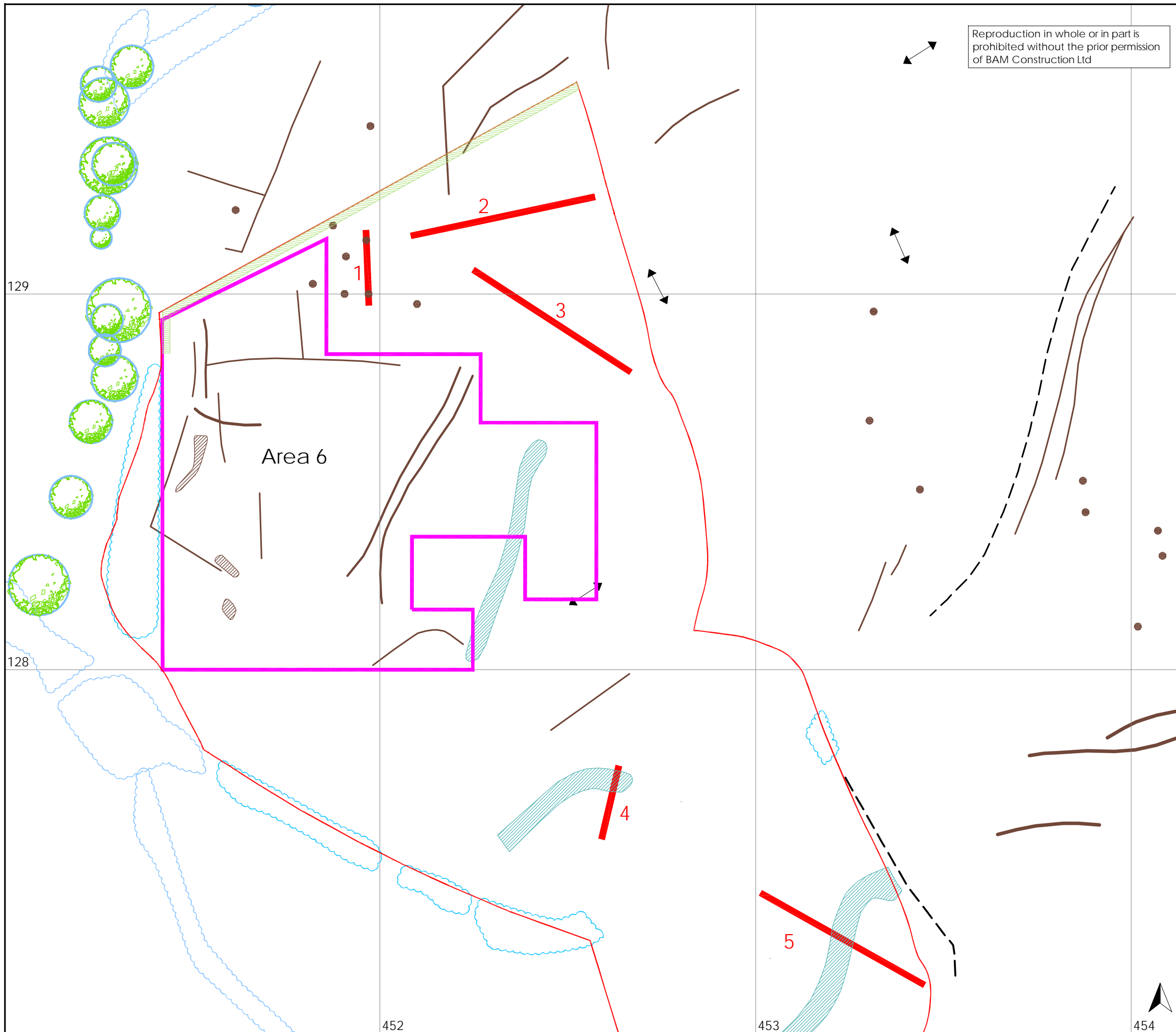
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Figure 2: Trench locations

0 50m
scale 1:1000 for A3 plot

- trench
- area of strip, record and sample
- geophysical survey interpretation
 - soil-filled feature
 - possible geological feature
 - former ploughing
 - former field boundary

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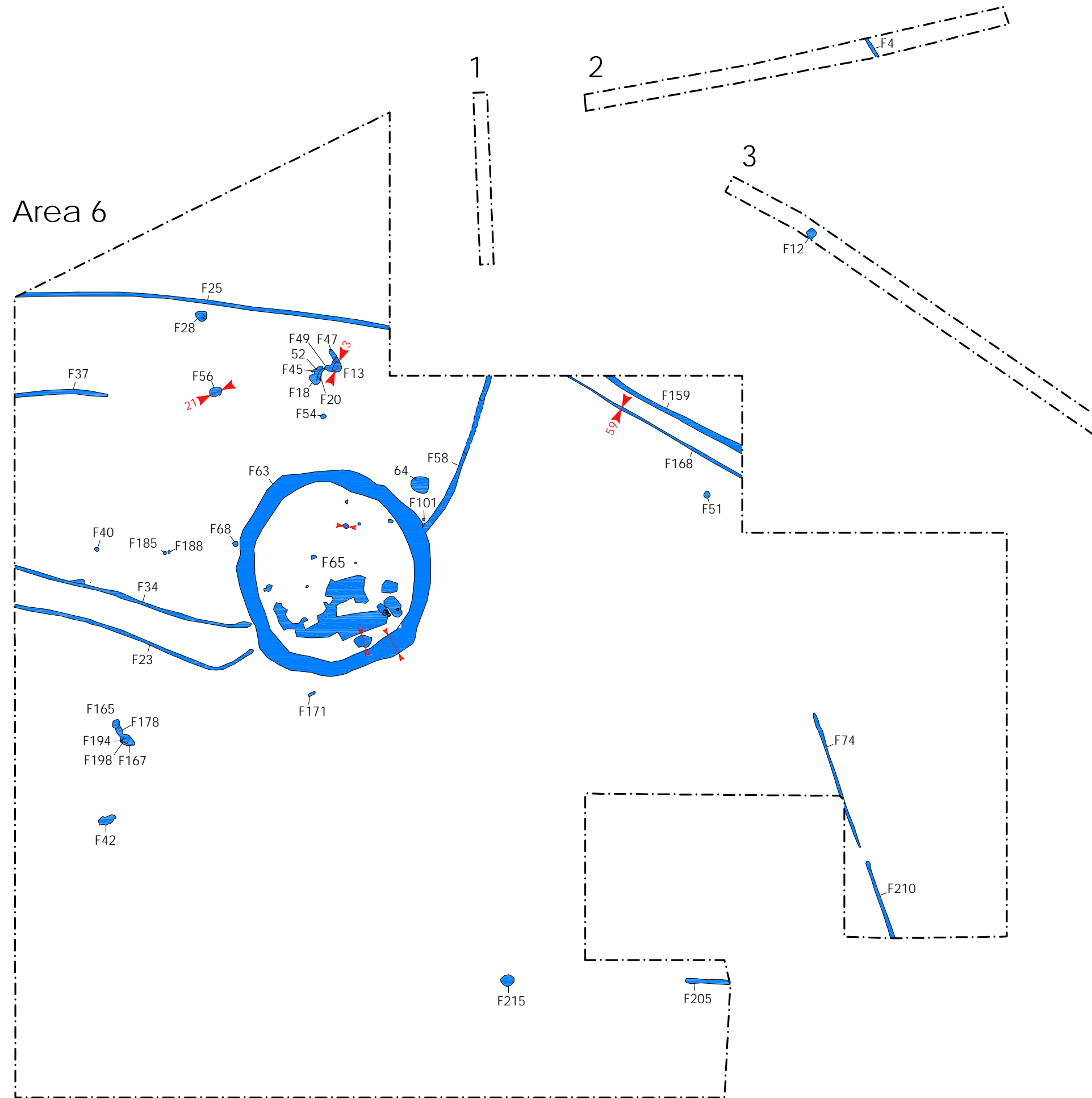
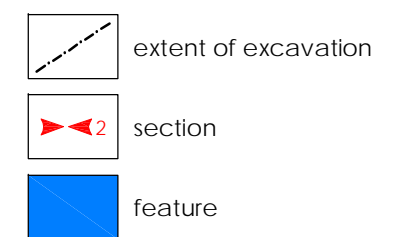


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Figure 3: Plan of main features

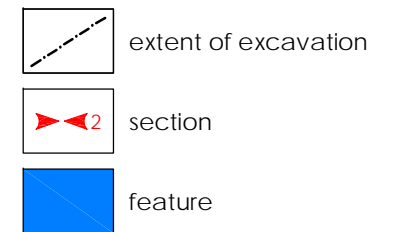
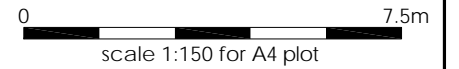


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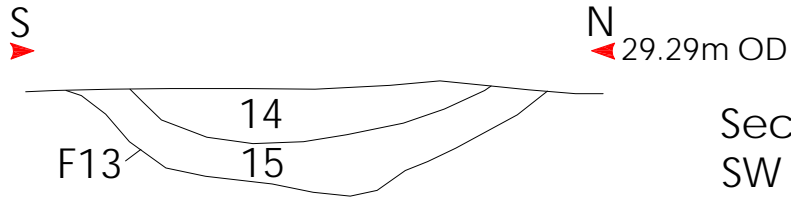
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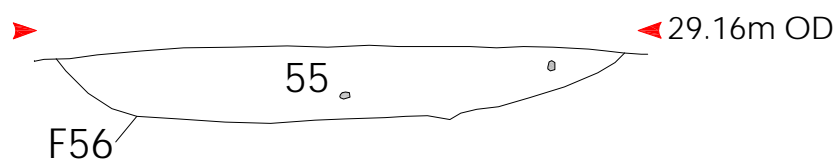
Figure 4: Plan of F65



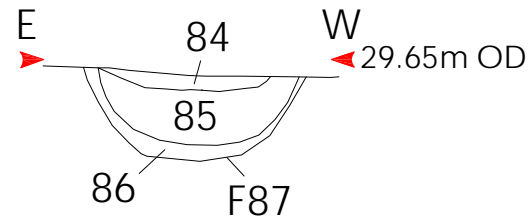
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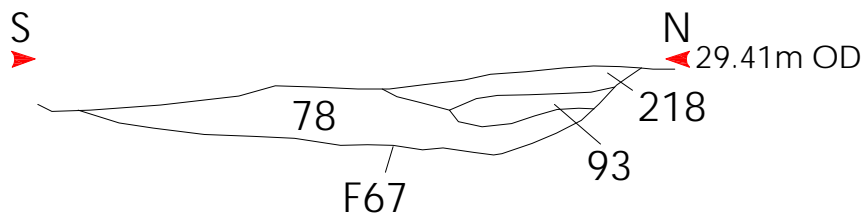
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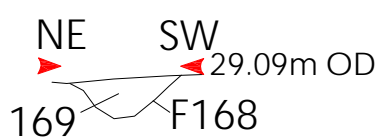
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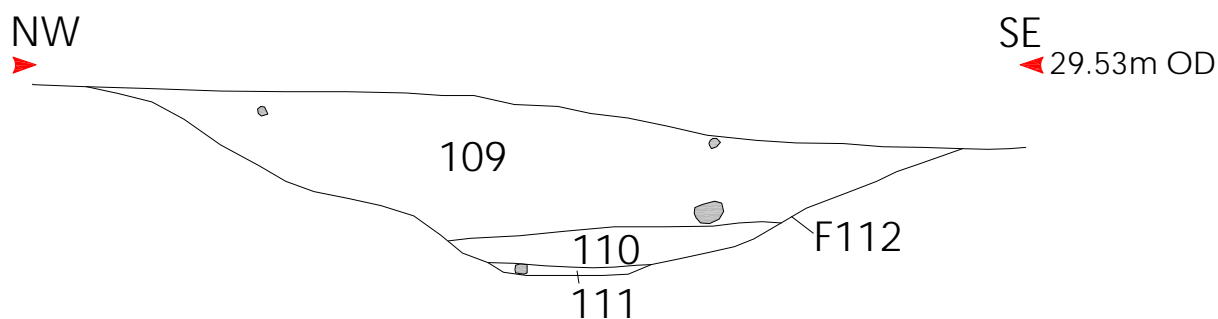
Section 29



Section 59



Section 33



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Figure 5: Sections

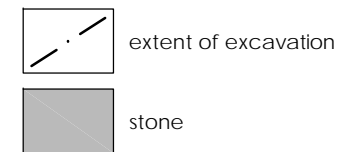
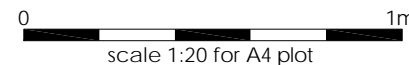




Figure 6: Bronze Age barrow F65 (ditch highlighted in red), looking north-east



Figure 7: Bronze Age barrow ditch F112, looking north-east



Figure 8: Early Neolithic pit F194, looking north



Figure 9: Medieval or post-medieval pit F67, looking west

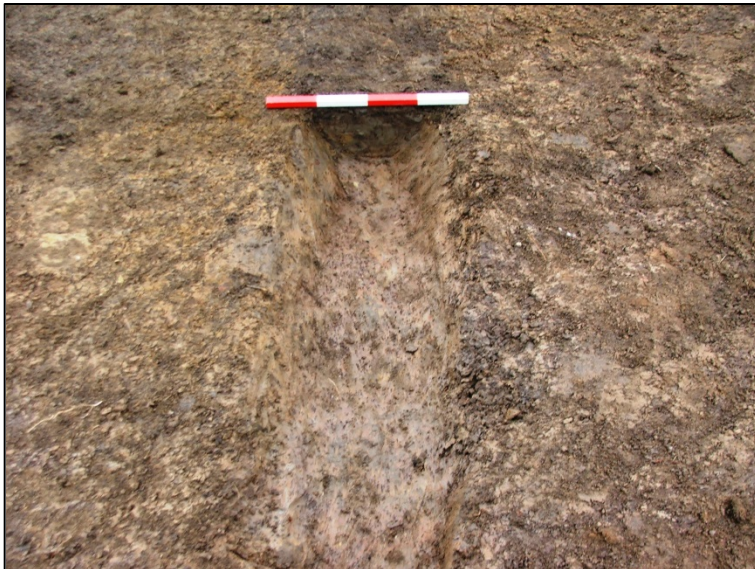


Figure 10: Gully F168, looking south-east



Figure 11: Early Neolithic burnt pit F13, looking west



Figure 12: Pit F56, looking north-west



Figure 13: Bronze Age pit F165, looking south-east



Figure 14: Early Neolithic burnt pit F70, looking south