

# Archaeological excavation, evaluation and monitoring at Colchester Northern Gateway Sports Hub, Plots 2-3, east of Colchester Park and Ride, Mile End, Colchester, Essex, CO4 5JA

July 2018 – June 2019



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**commissioned by Colchester Borough Council**

NGR: TL 99878 29486 (centre)

Planning ref.: n/a

CAT project ref.: 18/06m

CHER code: ECC4241

Colchester Museum accession code COLEM: 2017.152

OASIS ref.: colchest3-321034



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**CAT Report 1479**

September 2020

**Archaeological excavation, evaluation and monitoring at:**  
Colchester Northern Gateway Sports Hub Plots 2-3,  
east of Colchester Park and Ride, Mile End, Colchester,  
Essex, CO4 5JA  
CAT Report 1479

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**Version:**

V1, 17th September 2020

V2, 30th September 2020

**Checked by / Approved by:**

Philip Crummy, Director of Archaeology



**Colchester Archaeological Trust**

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## 1 Summary

*Between July 2018 and June 2019, Stage II archaeological investigations were carried out at Colchester Northern Gateway Sports Hub Plots 2-3, Colchester, Essex, in advance of development works. The investigations consisted of an evaluation (120 trial-trenches), excavation and monitoring. Stage I evaluation in 2017 had previously identified 24 charcoal-rich pits thought to relate to charcoal production, a small number of undated pits and tree-throws, post-medieval gunflints from the ploughsoil, and modern field boundary ditches.*

*Stage II archaeological investigations revealed a further 132 charcoal-rich pits, seventeen of which were dated through either associated finds or radiocarbon dating, with dates ranging from the Middle Iron Age through to the post-medieval period. Three Late Iron Age hearths/cooking pits were also excavated along with 45 pits, nine pits/postholes, five postholes, five pit/tree-throws, five tree-throws and two pit/natural features. Only one pit and one posthole could be dated, both were modern. Modern field boundary ditches were planned but not excavated, and another nine post-medieval gunflints were recovered from the ploughsoil.*

*A detailed search of archaeological investigations close to the development site since 2001 has revealed a further 137 charcoal-rich pits from 14 different projects, taking the total to 269. Although only 38 of the 269 charcoal-rich pits could be dated these features appear to fall into three phases:*

- *Phase 1: Early Iron Age to early Roman period (to 1st century AD);*
- *Phase 2: late Anglo-Saxon to medieval period (10th to 14th centuries);*
- *Phase 3: post-medieval period (16th century onwards).*

*The charcoal-rich pits from Phases 1 and 2 most likely represent evidence for charcoal production in northern Colchester. The Phase 3 features could be associated with the scatter of gunflints and are possibly the remains of military campfires.*

## 2 Introduction (Fig 1)

This is the report for a Stage II archaeological excavation, evaluation and monitoring at Colchester Northern Gateway Sports Hub Plots 2-3, Colchester, Essex which was carried out from 17th July 2018 to the 3rd June 2019. The archaeological investigations were commissioned by Colchester Borough Council in advance of the development of Colchester Northern Gateway Sports Hub Plots 2-3 and following a Stage I evaluation which had revealed significant archaeological remains. All work was carried out by Colchester Archaeological Trust (CAT).

The A12 runs along the southern edge of the development site with farmland to the north. Plot 2 covers an area of 8.4ha centred on NGR TL 9969 2965 and Plot 3 22.7ha centred on NGR TL 9982 2937. Both plots had previously been under cultivation with Plot 2 located to the north of Salary Brook and Plot 3 to the south. Recent developments to the south and east of the development site include the Northern Approach Road, Colchester Community Stadium and Cuckoo Farm Park and Ride.

As the site lies within an area highlighted by the CHER as having a high potential for archaeological deposits, an archaeological condition was recommended by Jess Tipper, Colchester Borough Council Archaeological Advisor (CBCAA). This recommendation was for an archaeological excavation, additional evaluation and monitoring and was based on the guidance given in the *National Planning Policy Framework* (MHCLG 2018).

All archaeological work was carried out in accordance with the *Brief for Archaeological Excavation (strip, map and record)*, written by Jess Tipper CBCAA (2018) and detailing the required archaeological work. A written scheme of investigation (WSI) was prepared by CAT in response to the brief and agreed with CBCAA (CAT 2018a).

The Stage II archaeological excavation of Excavation Area 1 (see results section) was carried out first between 17th July and 9th September 2018. The original scheme was to strip, map and

record the entire area, but this was revised after discussions between the CBCAA, the client and CAT after the stripping of Area 1 revealed only a low density of scattered, similar pits. The WSI was updated in response to these changes (CAT 2018b), and was agreed with CBCAA, to include an additional 5% evaluation, the excavation of smaller and more localised areas around significant pits uncovered during the evaluation, and a phase of monitoring and recording. The stage II evaluation and excavation of the other areas took place concurrently between 17th September and 15th November 2018. Monitoring was carried out from 10th May to 3rd June 2019.

In addition to the brief and two WSIs, all fieldwork and reporting was done in accordance with English Heritage's *Management of Research Projects in the Historic Environment (MoRPHE)* (English Heritage 2006), and with *Standards for field archaeology in the East of England (EAA 14 and 24)*. This report mirrors standards and practices contained in the Institute for Archaeologists' *Standard and guidance for archaeological field evaluation (ClfA 2014a)*, *Standard and guidance for archaeological excavation (ClfA 2014b)* and *Standard and guidance for an archaeological watching brief (ClfA 2014c)*, as well as the *ClfA Code of Conduct (ClfA 2014d)* and *Standard and guidance for the collection, documentation, conservation and research of archaeological materials (ClfA 2014e)*.

### 3 Archaeological and historical background

The following archaeological background draws on reports prepared for previous archaeological investigations on the development site (CAT Report 1219; Finch 2007) and the Colchester Archaeological Trust report archive. The proposed development site is also located in an area of archaeological interest, as recorded in the Colchester Historic Environment Record, which can be accessed via Colchester Heritage Explorer ([www.colchesterheritage.co.uk](http://www.colchesterheritage.co.uk)).

The British Geological Survey 1:50,000 scale geological mapping indicates that the superficial geology of the site comprises deposits of cover sands (previously mapped as Kesgrave and Lowestoft Formations). The underlying bedrock geology of London Clay outcrops at the surface at some locations, for example along the route of the Salary Brook where a shallow valley has incised through the superficial deposits. The cover sand deposits are described as “sand and silt, commonly wind-blown (aeolian)”, of the Quaternary Period.

A desk-based assessment (DBA) for the scheme, carried out by Archaeology South East in 2015, concluded that there was a generally low potential for archaeological remains to be present. It identified little evidence of prehistoric activity with a slightly increased potential for evidence relating to the Romano-British period. There also appeared to be little evidence of medieval activity, with post-medieval remains represented by the existing field systems. Many of the linear cropmarks evident in the area were likely to be related to these post-medieval field systems, representing evidence for agricultural land-use during this period. The DBA did, however, identify numerous ‘fire pits’ of Iron Age, Romano-British and later date that had been identified by previous archaeological investigations in the area.

Following the DBA, a geophysical survey (fluxgate gradiometry) was carried out by Stratascan (2016) of Plots 2, 3, 4 and 11 in order to further investigate the potential for below-ground archaeological remains in these areas. The results of the survey for Plots 2 and 3 showed little evidence for archaeological activity aside from a number of known historic field boundaries (which were later confirmed by the 2017 evaluation (CAT Report 1219)).

In late 2017 a large-scale archaeological evaluation was carried out by Colchester Archaeological Trust (CAT) over Plots 2 and 3, consisting of 120 trenches at 50m long by 2m wide (CAT Report 1219) (see Fig 2). The most significant archaeological remains were 24 charcoal-rich pits relating to charcoal production. These were sub-round or sub-oval charcoal-rich features with occasional evidence of *in situ* burning. Dating evidence was mostly lacking but two of the pits contained finds dated to the Roman and post-Roman periods. Radiocarbon dates obtained from charcoal samples in a further two pits dated to the Middle Iron Age and late Anglo-Saxon/early Medieval period. Together with another 77 charcoal-rich pits known from

previous archaeological investigations, they indicate that charcoal production was occurring in this part of northern Colchester from the Early Iron Age through to the medieval period.

The evaluation also revealed residual prehistoric worked flints, a small number of undated pits and tree-throws, and post-medieval gunflints from the ploughsoil. Modern field boundary ditches traced on old OS maps dating from the late 19th century to the late 1990s were also present, along with associated agricultural features such as land drains and plough scars.

#### **4 Aims**

To excavate and record all archaeological features to be destroyed by the development, paying particular attention to the presence of further examples of charcoal-rich pits to determine their form, function and date.

#### **5 Methodology**

All archaeological works were carried out in accordance with the Written Scheme of Investigation (WSI) (CAT 2018a-b) and instructions from AECOM Infrastructure and Environment UK Limited.

For a full detailed methodology see the WSI (CAT 2018a-b).

#### **6 Results** (Figs 2-18; Photographs 1-28)

All groundworks were carried out by a mechanical excavator under the supervision and to the satisfaction of a CAT archaeologist. All features were excavated by CAT archaeologists.

Approximately 0.28-0.48m of modern ploughsoil (L1) was machined away onto natural sandy-clay (L2). All archaeological features were cut into L2 and sealed by L1. Modern land drains and plough scars cut natural (L2) across the development site, and had in some cases significantly truncated the archaeological features with only shallow remains surviving.

Context numbers for the Stage II investigations carried on sequentially from the Stage I evaluation. See Appendix 1 for a full list of all contexts from Stage I and Stage II.

This section has been sub-divided into evaluation, excavation and monitoring to aid dissemination of the results. However, the Area 1 excavation was carried out first, then the evaluation and excavation of all other areas ran concurrently, followed by the monitoring (see Section 2 for further details).

##### **6.1 Evaluation** (Figs 3-7, 16-18; Photographs 1-7)

In addition to the 120 trial-trenches excavated as part of the Stage I evaluation (CAT Report 1219), a further 139 trenches (T121-T259) were excavated in Stage II. The trenches were all 30m long by 1.8m wide.

There were no archaeological remains in 102 of the trenches (T122, T123, T126, T127 (natural linear F204), T131, T135, T136, T138-T146, T148, T150-T155, T157, T158, T160, T162, T164, T166-T174, T176-T179, T182, T184, T186-T189, T191-T201, T204-T207, T209, T211-T221, T223, T226, T228, T230-T235, T237-T239, T243-T247, T249-T259).

Modern field boundary ditches were the only remains present in nine trenches: ditch F100 in T241 and T242 (number reused from the Stage I evaluation); ditches F106 and F112 in T248 (numbers reused from the Stage I evaluation); ditch F165 in T190, T222 and F229; ditch F273 in T202 and T203; and ditch F285 in T224. Most of the ditches were planned but not excavated.

Significant archaeological remains were found in 26 trenches.

There were 15 charcoal-rich pits in 15 trenches (F201, F202, F203, F211, F216, F217, F219, F236, F248, F272, F274, F275, F276, F277, F286, F287). Posthole F212 was cut into the side of charcoal-rich pit F211 in T133 (Photograph 1). Only two of the charcoal-rich pits produced finds. A small fragment of decorated clay pipe stem was recovered from the environmental sample of F216 and a small fragment of iron came from F272, but the fragment of iron is likely to be intrusive as it was found close to the cut for a land drain running through the feature. At the end of the evaluation all of the charcoal-rich pits were fully excavated for finds retrieval but no further finds were recovered. A sample of charcoal from pit F274 was submitted to SUERC Radiocarbon Laboratory, see Section 6.4.1 for results.

In addition to the charcoal-rich pits, there were 17 undated features and a natural linear in 14 trenches. The undated features included 13 pits (F205, F206, F208, F209, F210, F215, F218, F220, F233, F249, F250, F251, F252), two postholes (F208, F213) and two pit/natural features (F221, F222a). There were no finds in any of these features, but a fragment of oak post from posthole F213 may suggest that this feature was relatively modern.

## 6.2 Excavation (Figs 8-11, 16-18; Photographs 8-25)

The excavation consisted of:

- Three large excavation areas called Excavation Area 1, 2 and 3;
- Eight small excavation areas, each 20m by 20m, called Excavation Area A, B, C, D, E, F, G and H; and
- Extensions to evaluation trenches T137 and T143, both also 20m by 20m, to investigate the area surrounding two large charcoal-rich pits.

### Excavation Area 1

Excavation Area 1 was 4.56ha and produced 82 archaeological features.

There were 50 charcoal-rich pits (F119-F122, F125, F128-F129, F133, F136-F137, F140-F146, F150-F154, F156, F158, F161, F164, F166-F167, F170-F171, F173-F174, F178, F182-F184, F186-F188, F190-F200), with posthole F155 located within charcoal-rich pit F154. There were no finds in any of the charcoal-rich pits, but samples of charcoal from features F122, F158 and F190 were submitted to SUERC Radiocarbon Laboratory, see Section 6.4.1 for results.

Two features (F148 and F149) have been identified as probable hearths/cooking pits rather than charcoal-rich pits, even though they contained common charcoal fragments scattered throughout their fill and were slightly scorched on the base (Photographs 9-10). Both were generally smaller than the charcoal-rich pits with F148 (0.57m long, 0.47m wide and 0.1m deep) producing 20 sherds of fragmentary and burnt Late Iron Age pottery and F149 (0.45m diameter and 0.04m) 67 fragments of burnt mammal bone, one of which was identified as pig. Finds from the charcoal-rich pits are exceedingly rare and the burnt nature of the pottery and bone suggest that these represent the remains of domestic cooking fires.

A sample of charcoal from hearth/cooking pit F148 was submitted to SUERC Radiocarbon Laboratory to confirm the pottery dating evidence, and a sample of burnt bone was submitted from hearth/cooking pit F149 to determine if it was contemporary with F148.

**Hearth/cooking pit F148:** A sample of cherry/plum/sloe charcoal was submitted for radiocarbon dating at SUERC Radiocarbon Laboratory (SUERC-93870 (GU55660); see Appendix 3). A 2-sigma calibrated date (at 95.4% confidence) of 179 to 40 calBC was produced and, along with the pottery dating evidence, confirms that the hearth/cooking pit dated to the Late Iron Age.

**Hearth/cooking pit F149:** A sample of burnt bone was submitted for radiocarbon dating at SUERC Radiocarbon Laboratory (SUERC-93871 (GU55661); see Appendix 3). A 2-sigma calibrated date (at 95.4% confidence) of 164 calBC to 16 calAD was produced. On the basis of the 2-sigma calibrated date (at 95.4% confidence), there is an 85.3% chance that the date lies between 121 calBC and 16 calAD. Therefore, hearth/cooking pit F149 is of Mid to Late Iron Age date and is likely to be broadly contemporary with F148.



Twenty-five undated features included 15 pits (F123, F124, F130, F135, F138, F139, F159, F160, F162, F163, F177, F179, F180, F181, F189), four tree-throws (F126, F127, F172, F175), four pits/postholes (F131, F132, F147, F176) and two pit/tree-throws (F134, F185). Another feature (F157) was represented by a thin smear of charcoal on the surface of the natural, and it was not possible to identify it any further. Only one find was recovered from any of these features, a small iron disc from pit F138 that could be of post-medieval/modern agricultural origin.

Five modern field boundary ditches were planned but not excavated. Three were given numbers during this current stage of the evaluation: F165 (numbered F72, F86, F115, F116 and F117 during the Stage I evaluation); F168 (also numbered F43); and F169 (also numbered F71). The other two ditches were not given new numbers but reused numbers from the Stage I evaluation, they were ditch F89/F106/F118 and ditch F96/F100.

### **Excavation Area 2**

Excavation Area 2 was 0.69h and produced 15 features. There were eight charcoal-rich pits (F234, F236, F238, F240, F242, F244, F246, F247), none of which produced any finds.

The only feature from Excavation Area 2 to produce any dating evidence was F235 (1.15m diameter by 0.07m deep), which contained seven sherds of Late Iron Age pottery. Given the evidence from F148 and F149 in Excavation Area 1 (see above) and despite being of similar size, shape and form to the other charcoal-rich pits, F235 is possibly another example of a hearth/cooking pit.

**Hearth/cooking pit F235:** A sample of cherry/plum/sloe charcoal was submitted for radiocarbon dating at SUERC Radiocarbon Laboratory (SUERC-93874 (GU55664); see Appendix 3). A 2-sigma calibrated date (at 95.4% confidence) of 92 calBC to 55 calAD was produced. However, on the basis of the 2-sigma calibrated date (at 95.4% confidence), there is a 90.2% chance that the date lies between 62 calBC and 55 calAD. This date confirms the pottery dating evidence, and places hearth/cooking pit F235 within the Late Iron Age period, making it broadly contemporary with similar features F148 and F149.

Six undated features included three pits (F233, F239, F245) and three pits/postholes (F237, F241, F243). There were no finds in any of these features.

Modern field boundary ditch F165 was planned but not excavated.

### **Excavation Area 3**

Excavation Area 3 was 0.92h and contained 10 features. There were eight charcoal-rich pits (F223, F225-F228, F230-F232) and two pits (F222b, F229). There were no finds in any of these features.

Modern field boundary ditch F96/F100 (numbers reused from the Stage I evaluation) was planned but not excavated. It gradually petered out within the excavation area.

### **Excavation Area A**

There was a single charcoal-rich pit (F253) and undated pit (F256), neither of which produced any finds. A natural linear (F255) was also present.

### **Excavation Area B**

There were two undated pits (F257, F258), neither of which produced any finds.

### **Excavation Area C**

Six undated features included three pits (F259, F260, F265), two pits/postholes (F266, F267) and a tree-throw (F268), none of which produced any finds. Two modern field boundary ditches (F10 with recut F9, numbers reused from the Stage I evaluation) were planned but not excavated.

### **Excavation Area D**

There were three charcoal-rich pits (F279, F280, F281), a pit/posthole (F287) and a pit (F272), none of which produced any finds.

### **Excavation Area E**

There was one charcoal-rich pit (F284) and one pit (F283), neither of which produced any finds.

### **Excavation Areas F and G**

There were no archaeological remains in these areas.

### **Excavation Areas H**

Modern field boundary ditch F105 (number reused from the Stage I evaluation) cut across the area. It was not excavated.

### **Extension to T137**

There were three charcoal-rich pits (F261, F263, F264) and a posthole (F262), none of which produced any finds.

### **Extension to T183**

There were three charcoal-rich pits (F269, F270, F271), none of which produced any finds.

## **6.3 Monitoring (Figs 12-13, 16-18; Photographs 26-28)**

CAT archaeologists monitored all groundworks, and excavated and recorded all features uncovered during the latter phases of the development. Although context numbering carries on sequentially from the earlier phases of Stage I and Stage II investigations, all the contexts from this phase of monitoring were prefixed 'WB'.

A total of 57 features were excavated during Stage II monitoring. There were 40 charcoal-rich pits (WBF288-WBF296, WBF298-WBF301, WBF303, WBF305-WBF306, WBF308-WBF309, WBF316-WBF317, WBF319-WBF329, WBF331-WBF334, WBF336-WBF338, WBF340, WBF344). Environmental samples produced a very small quantity of finds from nine of the charcoal-rich pits:

- WBF289: fragment of clay pipe stem (0.6g);
- WBF290: fragments of clay pipe stem (2g), medieval/post-medieval brick (1g) and coal/coke (0.5g);
- WBF292: fragment of peg-tile (3g);
- WBF320: fragments of peg-tile (1g) and clay pipe stem (0.1g);
- WBF326: fragment of animal bone (not burnt);
- WBF327: bird bone fragments (not burnt);
- WBF331: fragment of animal bone (not burnt) and coal/coke (0.2g);
- WBF332: fragment of coal/coke (0.1g);
- WBF336: three fragments of animal bone F336 (one only burnt)

Samples of charcoal from pits WBF290, WBF306, WBF320 and WBF332 were submitted to SUERC Radiocarbon Laboratory, see Section 6.4.1 for results.

Eight undated features included four pits (WBF307, WBF310, WBF330, WBF339), three pit/tree-throws (WBF341-WBF343) and a posthole (WBF304), none of which produced finds. A modern pit (WBF335) was also excavated. Seven features (WBF297, WBF302, WBF311, WBF312, WBF313, WBF314, WBF315, WBF318) were badly truncated when plant was driven over them and they were not deemed suitable for excavation. All appeared as smears of charcoal but as they could not be excavated they could not be identified further.

## 6.4 Summary of results (Figs 14-15)

### 6.4.1 The charcoal-rich pits (Fig 14)

In total 132 features were identified as charcoal-rich pits during the Stage II investigations. As defined here a charcoal-rich pit is a bowl-shaped sub-round or sub-oval feature with sloping sides and a flat base. The charcoal-rich fill is predominantly oak, occasionally including beech, with other short-lived species such as cherry/plum/sloe, alder and hazel in much small quantities and probably used as kindling (see Charcoal Analysis below). Over three-quarters of the charcoal-rich pits (75.8%) had scorched sides and/or bases, from either *in situ* burning or the deposition of hot, charred material. Less than a quarter (24.2%) showed no evidence of *in situ* burning.

The sub-round features ranged in diameter from 0.53m to 1.8m (averaging 0.94m) and the sub-oval features ranged from 0.6m by 0.53m to 1.7m by 1.05m (averaging 0.93m by 0.73m). Depths varied from between 0.02m and 0.33m (averaging 0.12m) showing that many of the pits had been severely truncated by ploughing with only the base surviving.

During the Stage I evaluation three types of charcoal-rich pit were identified (CAT Report 1219). Type 1 pits consisted of a single fill of dense charcoal or less frequently of rare charcoal flecks. Type 2 pits had two distinct fills, a grey silty-clay with occasional to rich charcoal inclusions which sealed a layer of charcoal in the base of the feature. Type 3 pits consisted of backfilled natural clay with sparse charcoal inclusions sealing the scorched sides and base of the pit, sometimes with a charcoal lens on the side/base of the pit.

However, analysis of the charcoal-rich pits from the Stage II investigations has proved that placing the pits within these three types was subjective, particularly when trying to categorise the shallow/truncated features and to distinguish between Types 2 and 3, and did not necessarily provide a true reflection of the broad range of charcoal-rich pits found on the site. Instead a description of the fill of each charcoal-rich pit is provided in Appendix 2, which shows that the features consist of either one or two distinct fills but have a wide variation beyond this broad categorisation.

A full catalogue of all the Stage II charcoal-rich pits can be found in Appendix 2 (along with the Stage I catalogue for reference).

Despite the term 'charcoal-rich pit' being applied to all 132 features, the quantity of charcoal between features varied considerably. Of the 76 charcoal-rich pits sampled: 32 (42%) produced between 1-100g of charcoal (the lowest being 4g); 30 (39%) produced between 101-500g of charcoal; eight (10%) produced between 500g-1kg of charcoal; and seven (9%) produced between 1kg and 9.5kg of charcoal (the highest being 9.41kg). Unsurprisingly, the pits with the lowest quantity of charcoal were some of the shallowest and the largest pits did invariably contain the highest quantities of charcoal, but this did not always follow with some of the larger pits also producing under 100g.

It is possible that the charcoal in the shallowest pits represents accidental inclusion in the backfill, but 20 (62.5%) of the 32 pits producing 1-100g of charcoal did have evidence of *in situ* burning. In total 77% of the pits producing 101-500g of charcoal showed *in situ* burning, 100% of the 501-1kg pits, and 67% (4 out of 6) of the pits producing over 1kg. In fact, the largest pit (F216) in terms of size (1.8m diameter by 0.31m deep) and charcoal (9.41kg) showed no evidence of *in situ* burning in the base or the sides of the feature.

The 12 pits which showed no evidence of scorching and also contained under 100g of charcoal, were classified as 'charcoal-rich' based on their size and shape when compared to the other pits, and many had a dark 'charcoal-fill' even though there were few charcoal fragments left within them to collect. It is however, possible, that some or all of these features are simply large pits which happen to include charcoal in the backfill.

Two (1.5%) of the charcoal-rich pits appeared to be associated with a single posthole and only ten (7.6%) contained finds. Very small fragments of medieval/post-medieval ceramic building material and post-medieval clay pipe were retrieved from the environmental samples of F216, WBF289, WBF290, WBF292 and WBF322, and fragments of coal/coke from WBF290, WBF331 and WBF332 are likely to be related to the burning process. Small fragments of animal bone also came from the environmental samples of WBF326, WBF327, WBF331 and WBF336, but as only one of the fragments (from WBF336) showed any signs of burning they are perhaps intrusive in these contexts.

Due to the high proportion of oak charcoal from these features, fragments of charcoal from shorter-lived species suitable for radiocarbon dating was only identified in thirteen samples (see Section 8.2). Nine of the thirteen samples which were submitted to SUERC Radiocarbon Laboratory.

**Charcoal-rich pit F122:** A sample of carbonised oak twig was submitted for radiocarbon dating at SUERC Radiocarbon Laboratory (SUERC-93869 (GU55659); see Appendix 3). A 2-sigma calibrated date (at 95.4% confidence) of 1040 to 1210 calAD was produced. Pit F122 therefore dates from the late Anglo-Saxon to the early medieval period.

**Charcoal-rich pit F158:** A sample of cherry/plum/sloe charcoal was submitted for radiocarbon dating at SUERC Radiocarbon Laboratory (SUERC-93872 (GU55662); see Appendix 3). A 2-sigma calibrated date (at 95.4% confidence) of 20 to 130 calAD was produced. Pit F158 therefore dates from the Late Iron Age to the early Roman period.

**Charcoal-rich pit F190:** A sample of cherry/plum/sloe charcoal was submitted for radiocarbon dating at SUERC Radiocarbon Laboratory (SUERC-93873 (GU55663); see Appendix 3). A 2-sigma calibrated date (at 95.4% confidence) of 1166 to 1261 calAD was produced. Pit F190 therefore dates to the early medieval period.

**Charcoal-rich pit F240:** A sample of cherry/plum/sloe charcoal was submitted for radiocarbon dating at SUERC Radiocarbon Laboratory (SUERC-93878 (GU55665); see Appendix 3). A 2-sigma calibrated date (at 95.4% confidence) of 899 to 1021 calAD was produced. However, on the basis of the 2-sigma calibrated date (at 95.4% confidence), there is an 80.8% chance that the date lies between 946 to 1021 calAD. Pit F240 therefore dates to the late Anglo-Saxon period.

**Charcoal-rich pit F274:** A sample of hazel charcoal was submitted for radiocarbon dating at SUERC Radiocarbon Laboratory (SUERC-93879 (GU55666); see Appendix 3). A 2-sigma calibrated date (at 95.4% confidence) of 89 calBC to 58 calAD was produced. On the basis of the 2-sigma calibrated date (at 95.4% confidence), there is a 93.2% chance that the date lies between 56 calBC and 58 calAD. Pit F274 therefore dates from the Late Iron Age to the earliest Roman period.

**Charcoal-rich pit WBF290:** A sample of cherry/plum/sloe charcoal was submitted for radiocarbon dating at SUERC Radiocarbon Laboratory (SUERC-93880 (GU55667); see Appendix 3). A 2-sigma calibrated date (at 95.4% confidence) of 1044 to 1219 calAD was produced. The radiocarbon dating therefore suggests that pit WBF290 dates to the early medieval period. This is at odds with the fragments of medieval/post-medieval brick and post-medieval clay pipe from the feature, as the clay pipe dates from the late 16th-century onwards (see discussion in Section 9).

**Charcoal-rich pit WBF306:** A sample of hazel charcoal was submitted for radiocarbon dating at SUERC Radiocarbon Laboratory (SUERC-93881 (GU55668); see Appendix 3). A 2-sigma calibrated date (at 95.4% confidence) of 38 calBC to 120 calAD was produced. However, on the basis of the 2-sigma calibrated date (at 95.4% confidence), there is a 92.6% chance that the date lies between 38 calBC and 87 calAD. Pit WBF306 therefore likely dates from the Late Iron Age to the early Roman period.

**Charcoal-rich pit WBF320:** A sample of cherry/plum/sloe charcoal was submitted for radiocarbon dating at SUERC Radiocarbon Laboratory (SUERC-93882 (GU55669); see Appendix 3). A 2-sigma calibrated date (at 95.4% confidence) of 1051 to 1252 calAD was produced. The radiocarbon dating therefore suggests that pit WBF320 dates from the late Anglo-Saxon to the early medieval period. This is at odds with the fragments of medieval/post-medieval peg-tile and post-medieval clay pipe from the feature, as the clay pipe dates from the late 16th-century onwards (see discussion in Section 9).

**Charcoal-rich pit WBF332:** A sample of cherry/plum/sloe charcoal was submitted for radiocarbon dating at SUERC Radiocarbon Laboratory (SUERC-93883 (GU55670); see Appendix 3). A 2-sigma calibrated date (at 95.4% confidence) of 1039 to 1206 calAD was produced. The pit therefore dates from the late Anglo-Saxon to the early medieval period.

For a discussion of the dating evidence see Section 9.

Plans of the charcoal-rich pits within the development site show that they are largely concentrated within the central section of Plot 3 with less further to the north in Plot 2. Within this broad concentration there does not appear to be any specific clusters of activity. However, as we cannot date most of the features, we are unable to map any period-specific clusters that may actually exist.

#### 6.4.2 Other features (Fig 14)

The most significant features on the development site, aside from the charcoal-rich pits, were hearths/cooking pits F148 and F149, and possible hearth/cooking pit F235. Pit F148 contained a quantity of burnt Late Iron Age pottery, pit F149 a quantity of burnt bone, and pit F235 sherds of unburnt Late Iron Age pottery. Samples submitted for radiocarbon dating from F148 and F235 both confirmed the pottery-dating evidence and placed each feature within the Late Iron Age. The sample of burnt bone submitted for radiocarbon dating from F149 indicates that this feature is likely to be broadly contemporary. Furthermore, the Radiocarbon dates from charcoal-rich pits F158, F274 and WBF306 also date from the Late Iron Age to the early Roman period, and together with the hearth/cooking pits indicate a distinct period of activity on the development site.

Of the remaining features there were 45 pits, nine pits/postholes, five postholes (not including those associated with the charcoal-rich pits), five pit/tree-throws, five tree-throws and two pit/natural features. All of the features are undated except for modern pit WBF335. The only features to produce finds were modern pit WBF335 and an undated iron disc also came from pit F138. Environmental samples were taken from 13 of these features, five of which were void of identifiable remains. Oak charcoal was recovered from all of the remaining eight features, with small fragments of cherry/plum/sloe, hazel and ash also present, suggesting that they were dug at a similar time to the charcoal-rich pits as similar deposits had become incorporated into their fills. In fact, many of these undated features included charcoal in their backfill. The remains of an oak post from posthole F213 might suggest that this feature is relatively modern.

#### 6.4.3 Field boundary ditches (Fig 15)

All of the field boundary ditches (FBD) on the 1st edition OS map of 1875 were recorded during the Stage I and II investigations. See Fig 15 for locations.

**FBD1:** formed of ditches F1 and F2 (T1 and T4).

**FBD2:** formed of ditch F10 and recut F9 (T15 and Excavation Area C).

**FBD3:** boundary still exists so was not excavated as part of the Stage I or II investigations.

**FBD4:** formed of ditches F72, F84, F115, F116, F117 and F165 (T60, T64, T65, T66, T69, T222, T229, and Excavation Areas 1 and 3). The ditch appears to have been recut at least twice. To the west as F71 and F169 (T60 and Excavation Area 1) and to the east as F43 and F168 (T69 and Excavation Area 1)

**FBD5:** formed of ditches F39, F56 and F273 (T41, T48, T202 and T203).

**FBD6:** formed of ditches F89, F106 and F118 (T79, T96, T104 and Excavation Area 1). The ditch appears to have been recut at the eastern end of the development site formed of ditch F112 (T104 and T248).

**FBD7:** formed of ditches F75, F96 and F100 (T63, T81, T110, and Excavation Areas 1 and 3).

**FBD8:** formed of ditches F78, F91 and F285 (T66, T74 and T224).

**FBD9:** formed of ditch F105 (T110 and Excavation Area H).

**FBD10:** a possible tenth field boundary ditch was recorded in the Stage I evaluation as ditches F49 and F61 (T46 and T54), but no trace of this ditch was recorded during the Stage II evaluation or in Excavation Area 2.

It is also worth noting that Stage I evaluation ditch F90 (T98) was not seen in Excavation Area 1 and was probably a natural feature. Furthermore, Stage I ditches F20/F114 (T17 and T22), F40 (T41), F58 (T51), F77 and F80 (T67), and F79 (T66) were not encountered during any of the Stage II investigations so it has not been possible to further define these features. It is possible that some were actually elongated pits or natural features.



**Photograph 1** Evaluation: Charcoal-rich pit F211 with posthole F212 (incorrectly labelled in photograph), looking west.



**Photograph 2** Evaluation: Charcoal-rich pit F216, looking south



**Photograph 3** Evaluation: Charcoal-rich pit F274, looking northwest



**Photograph 4** Evaluation: T132, looking east





**Photograph 5** Evaluation: T180, looking west



**Photograph 6** Evaluation: T225 looking east



**Photograph 7** Evaluation: T253 looking north



**Photograph 8** Excavation: Charcoal-rich pits F121 and F122, looking north



**Photograph 9** Excavation: Hearth/cooking pit F148, looking south



**Photograph 10** Excavation: Hearth/cooking pit F149, looking north



**Photograph 11** Excavation: Charcoal-rich pit F158, pre-excavation, looking south



**Photograph 12** Excavation: Charcoal-rich pit F158, mid-excavation, looking southwest



**Photograph 13** Excavation: Charcoal-rich pit F158, post-excavation, looking west



**Photograph 14** Excavation: Charcoal-rich pit F188, pre-excavation, looking south



**Photograph 15** Excavation: Charcoal-rich pit F188, mid-excavation, looking south



**Photograph 16** Excavation: Charcoal-rich pit F188, post-excavation, looking south



**Photograph 17** Excavation: Charcoal-rich pit F190, pre-excavation, looking south



**Photograph 18** Excavation: Charcoal-rich pit F190, mid-excavation, looking south



**Photograph 19** Excavation: Charcoal-rich pit F190, post-excavation, looking south



**Photograph 20** Excavation: Charcoal-rich pit F231, looking north



**Photograph 21** Excavation: Charcoal-rich pit F253, looking south



**Photograph 22** Excavation: Area 1 general shot, looking south



**Photograph 23** Excavation: Area A general shot, looking west





**Photograph 24** Excavation: Area C general shot, looking southwest



**Photograph 25** Excavation: Extension to T183, charcoal-rich pit F271, looking north



**Photograph 26** Monitoring: Charcoal-rich pit WBF288, looking north



**Photograph 27** Monitoring: Charcoal-rich pit WBF290, looking north



**Photograph 28** Monitoring: Charcoal-rich pit WBF344, looking north

## 7 Finds

### 7.1 Ceramic finds

*by Matthew Loughton*

A small quantity of pottery and ceramic building material (henceforth CBM) was recovered from six features. This totalled 55 sherds with a weight of 2,317g.

Hearth/cooking pit F148 (finds nos. 111 and 112): Eighteen sherds of possible Late Iron Age grog-tempered pottery (GTW) with a weight of 34g. This material is burnt and very fragmented with a mean sherd weight of only 2g.

Field boundary ditch F168 (finds no. 123): Twenty-six sherds of modern English stoneware (fabric 45M) with a weight of 224g, dating to the 19th and early 20th century (*CAR 7*).

Hearth/cooking pit F235 (finds no. 151): Seven sherds of Late Iron Age grog-tempered pottery with a weight of 104g. These sherds could be from a storage vessel.

Charcoal-rich pit WBF290 (finds no. 178): Very small fragment of medieval/post-medieval brick (1g).

Charcoal-rich pit WBF292 (finds no. 180): Very small fragment of medieval/post-medieval peg-tile (3g).

Charcoal-rich pit WBF320 (finds no. 191): Very small fragment of medieval/post-medieval peg-tile (1g).

Finally, a complete horseshoe field drain pierced with six small holes (diameter c 10mm) was recovered from Excavation Area C (finds no. 167). This can be dated from the late 18th to the 19th century (McComish 2015, 44).

## 7.2 Small finds, clay pipe and coal/coke

by Laura Pooley

### Small finds

An iron disc (SF1) and small fragment (SF2) were recovered from undated pit F138 and undated charcoal-rich pit F272 respectively, although as SF2 was found close to where a land drain had cut through F272 it is likely that this fragment is intrusive.

**SF1** F138, finds no. 119, undated pit. Flat iron disc, slightly irregular in shape, with a central hole (c 7.4mm in diameter). Possibly of post-medieval/modern date and of agricultural origin. Length: 71.8mm; width: 66.6mm; thickness: 11.9mm; weight: 50.1g.

**SF2** F272, finds no. 172, undated charcoal-rich pit. Small unidentifiable fragment of iron. Length: 22.3g; width: 18.7g; thickness: 11.7g; weight: 5.6g.

### Clay tobacco pipes

Six small fragments of clay tobacco pipe stem (5.4g) were recovered from charcoal-rich pits F216, WBF289, WBF290 and WBF320. Clay tobacco pipes in Colchester date from the late 16th century onwards (CAR 5).

Context	Finds no.	Description
F216	175	Fragment of plain clay pipe stem with raised ridge near to what would have been the base of the bowl, the other side of this ridge is decorated with beaded triangles in a geometric pattern, 2.7g. Similar to an example in CAR 5, ref. 2983.
WBF289	177 (from soil sample)	Fragment of clay pipe stem, 0.6g.
WBF290	178 (from soil sample)	Fragment of clay pipe stem, 2.0g.
WBF320	191 (from soil sample)	Three tiny slivers of pipe clay, probably from a clay pipe stem, <0.1g.

**Table 1** Clay pipe fragments listed by context

### Coal/coke

Five small fragments of coal/coke (0.8g) were recovered from the environmental samples taken from charcoal-rich pits WBF290, WBF331 and WBF332.

Context	Finds no.	Description
WBF290	178 (from soil sample)	Three small fragments of coal/coke, 0.5g.
WBF331	200 (from soil sample)	Small fragment of coal/coke, 0.2g.
WBF332	201 (from soil sample)	Small fragment of coal/coke, 0.1g.

**Table 2** Coal/coke fragments listed by context

## 7.3 Worked flints (Figs 19-20)

by Adam Wightman

### Introduction

Fifteen worked flints were recovered from the ploughsoil (L1) during the excavation of Areas 1, 2 and 3 (find no 133), the second phase of evaluation and excavation of areas A-H (find no 176) and during the subsequent archaeological monitoring (finds no WB206).

### Results

Six flint flakes are likely to date to the prehistoric period (Table 3). One is retouched on one lateral edge and another has a retouched notch. Two others exhibit evidence of use-wear/edge damage, although as they were collected from the ploughsoil the damage is probably post-depositional. There are no typologically diagnostic tool types in the prehistoric flint assemblage.

Context	Finds no.	Artefact type	Cortex %	Soft/hard hammer	Modification
L1 (found near excavation Area 3)	133	flake	0		use-wear/edge damage
L1 (found near Excavation Area D)	176	?flake	0		
L1 (surface finds from across the site)	WB206G	flake	0	hard	
		flake (retouched)	10	hard	
		flake (notch)	0	hard	
		flake	5	hard	use-wear/edge damage

**Table 3** Prehistoric worked flints recovered from the ploughsoil

In addition to the prehistoric flints, nine post-medieval gunflints were collected during the Stage II works. Combined with the five gunflints which were collected from the same field during the trial-trenching evaluation (CAT Report 1219), this means that a total of fourteen gunflints have been recovered from this field during recent archaeological investigations.

All fourteen are rectangular gunflints made by segmenting parallel-sided blades (Ballin 2012). The heel (rear end), the leading edge (the front of the gunflint which creates the spark by hitting the 'frizzen' or steel) and the lateral sides of the gunflints are all bevelled and have been modified by retouch. On six of the gunflints a slight bevel has been retouched on the lower face of the leading edge to strengthen it. The leading edges of all of the gunflints are damaged as a result of striking the steel indicating that all of the flints have been fired in guns.

The technique of creating a bevel at both the heel and the leading edge leaves two arrises and a 'plateau' on the upper face of the gunflint. These double-backed gunflints or 'blade gunflints with two dorsal arrises' (Type 3 of De Lotbiniere's basic four-type gunflint typology (1984, 206)) could be turned around and the heel used as a new leading edge (Ballin 2012). However, none of these gunflints have retouch on the lower face of the heel and only one gunflint exhibits any damage on the heel edge (WB206 C). Although it is possible that the damage to the heel edge may have been caused by striking, it is also possible that the damage is post-depositional, as similar damage was also noted on the corner of the leading edge of gunflint WB206 D. Double-backed gunflints were created in huge numbers in Brandon in Suffolk and were considered to be the highest quality gunflint (known as 'bests') that were produced by the Brandon knappers (Skertchley 1879). Their production began c 1790, roughly ten years after the blade technique was introduced to Britain (De Lotbiniere 1977, 41). It is probable that all the gunflints recovered during the fieldwork were made in Brandon.

The gunflints recovered during Stage II investigations are all very similar in size (see Table 4). By comparison with the standardised gunflint sizes recorded by Skertchley in 1879 (pg 48-51), it is clear that all of the flints would have been used in muskets (length 33mm, width 28mm, thickness 10mm).

The gunflints were all recovered from an area 300m x 250m in size in the western half of the southern field (Fig 20). The grouping of the gunflints may be significant as none were found in either the northern field or from the eastern half of the southern field despite considerable fieldwork taking place in these areas. However, caution should be exercised as the flints could have moved a considerable distance from their original place of deposition during many years of ploughing and a number of biases will have affected the collection of surface finds across the site.

This raises the question, why were fourteen musket gunflints found in relatively close proximity to one another in this part of northern Colchester? It seems likely that muskets were being fired in this location and that the gunflints were discarded and replaced once they were spent. However, no musket balls were found whilst metal detecting the site, either during the evaluation or the monitoring phase. Although the occasional gunflint has been found on sites around Colchester by the same excavation team (for example 1km to the south-west, see CAT Report 1140), in this authors experience they are usually isolated finds of gunflints which have

been discarded during hunting trips. Indeed the gunflint from the above site is likely to have come from a single or double barrelled sporting gun which fired multiple lead shots referred to as 'drop-shot' or 'hail-shot' that is ideal for hunting. It seems unlikely that a musket, which was significantly heavier and commonly only fired one lead shot, would have been used for hunting. Moreover, gunflints are believed to have had a lifespan of around 20 rounds (Kenmotsu 1990), which would mean that the gunflints from this site represent around 280 shots being fired. It is hard to imagine that this many shots in one area could be ascribable to hunting. The relatively short lifespan of a gunflint would explain why you might get a concentration of gunflints in one area, but you would need a reason for such a high number of shots to be being taken. One possible explanation could be target practice, which if associated with a nearby military encampment in the late 18th/early 19th century could be related to training for the Napoleonic wars.

Context	Length (mm)	Width (mm)	Thickness (mm)	Raw material
Stage I evaluation				
L1 T39 (101)	34	27	10	dark grey/black flint
L1 T56 (101)	33	28	10	dark grey/black flint
L1 T62 (101)	33	27	12	mid/light grey flint
L1 T63 (101)	32	28	9	dark grey/black flint
L1 T64 (101)	33	28	10	dark grey/black flint
Stage II investigations				
L1 (176) (Fig 19.1-2) (found near Excavation Area D)	35	28	10	mottled grey flint
	30	31	9	dark grey/black flint
L1 (WB206A) (Fig 19.3)	35	31	10	dark grey/black flint
L1 (WB206B) (Fig 19.4)	35	28	11	dark grey/black flint
L1 (WB206C) (Fig 19.5)	30	30	8	dark grey/black flint
L1 (WB206D) (Fig 19.6)	31	28	10	light/mid grey flint
L1 (WB206E) (Fig 19.7)	33	32	10	dark grey/black flint
L1 (WB206Fa) (Fig 19.8)	31	28	11	mottled grey flint
L1 (WB206Fb) (Fig 19.9)	36	30	7	dark grey/black flint

**Table 4** Dimensions and raw materials of the fourteen gunflints.

## Conclusion

Only a small number of prehistoric flints were recovered during the monitoring, but combined with the flints from the evaluation phase, these provide evidence for limited prehistoric activity in the area from at least the Early Neolithic period (and possibly the Mesolithic) to the Bronze Age. The recovery of fourteen musket gunflints suggest that muskets were being fired on the site sometime in the late 18th or 19th century and the unusually high quantity would suggest that they are probably associated with military activity of some kind, most likely firing practice.

## 7.4 Animal bone by Alec Wade

Stage II archaeological investigations produced 13 pieces of small mammal and bird bone weighing a total of less than 4g. All the material derived from environmental samples taken from charcoal-rich fire pits, none of which could be closely dated.

The only species that could be identified in the assemblage was hare (or possibly rabbit?). A single bone was recovered from the fill of charcoal rich pit WBF336 though given its very small size (just a few millimetres long) it is possibly intrusive.

Context	Finds no.	Quantity	Comments
WBF326	196	1	Unidentified fragment.
WBF327	195	8	Bird bone fragments including vertebrae and rib pieces, not closely identifiable.
WBF331	200	1	Unidentified fragment of small mammal bone.
WBF336	204	3	Two unidentified fragments (one of which has been blackened by burning) and a 2nd phalange from a small mammal, likely hare ( <i>Lepus europaeus</i> ).

**Table 5** Animal bone listed by context

## 7.5 Burnt bone by Julie Curl

A single bag of burnt bone was submitted for recording and analysis from F149 (finds no. 117) to determine if it was of human or animal origin. The assemblage amounted to 67 elements totalling 33g which had been heavily burnt, leaving it fully oxidised and a white colour. Some cracking and warping was noted on the largest fragments. The greatest length of the largest piece of bone measured 29.5mm and fragmentation overall was heavy with only eight pieces measuring 10mm or more (Table 6).

>10mm	2-9mm	<1mm
8	59	0

**Table 6** Quantification of burnt bone by fragment size count.

When compared to a variety of burnt bone reference materials examination of the assemblage revealed only one fragment with diagnostic features, which was identified as part of a pig/boar radius. Other fragments could only be identified as mammal bone.

This is a very small sample of burnt bone with the only identifiable piece being animal. It is likely that the pig bone was from food waste burnt in either a domestic, cooking or even industrial use fire; such bone may be left in the fire for sometime and resulting in fully oxidised remains.

## 8 Charcoal analysis

### 8.1 A note on the charcoal analysis

As part of the Stage II archaeological investigations, environmental samples were taken from 93 features, these were 76 charcoal-rich pits and 17 other features (pits and postholes). All of the samples (totalling 1865 litres of soil) were processed by Colchester Archaeological Trust using a Siraf-type floatation device.

Where exceptionally large quantities of charcoal were produced, it was agreed with Lisa Gray that the charcoal should be passed through a 4mm sieve by CAT staff and that only these larger fragments would be sent for further analysis. During this process CAT staff were required to check through all the remains less than <4mm in size for assemblages of charred seeds, grains and chaff. No assemblages were present, although there is a high degree of probability that isolated examples would have been missed. In fact none of the samples produced significant assemblages of charred seeds, grains or chaff, with only rare isolated examples noted. This is in keeping with the findings from the Stage I evaluation where the number of charred seeds, grains and chaff worked out as less than one item per litre (Gray 2018).

In her assessment of the charred seeds, grains and chaff from the Stage I evaluation, Lisa Gray noted that it was 'unwise to give too much significance to isolated finds of poorly preserved charred plant remains', as studies have shown these durable plant remains can be moved between contexts by human action and bioturbation (Grey 2018). However, three of these isolated charred seed/grains were sent for radiocarbon dating to test if they could be used to

date the features they were recovered from (CAT Report 1219). One sample failed, one produced a date post-AD 1950 and the last date ranged from the late 17th-early 20th century. So, at least one of the charred remains from these features was deemed intrusive, possibly two (although the late 17th to early 20th century date could be contemporary with a post-medieval phase of activity on the site), suggesting that little significant information could be achieved from any assessment/analysis of isolated charred plant remains recovered from the site.

## 8.2 Charcoal analysis

by Lisa Gray, MSc MA ACIfA Archaeobotanist

### Identification and Recording

Eighty-five samples sent for analysis identifiable charcoal. Charcoal fragments larger than 4mm Ø in size were separated and, where possible, one hundred fragments were randomly selected for identification using a riffle box. Identification was attempted using epi-luminating microscopy. It is difficult to make identifications of charcoal fragments that are smaller than 4mm Ø in size because the diagnostic features necessary for identification may not be visible in such small fragments (Asouti 2006, 31; Smart & Hoffman, 1988, 178-179). Fragments smaller than this size were scanned to find any twigs or smaller roundwood fragments. When fragments have been broken to reveal anatomical features, they have been wrapped in foil to keep those fragments intact so they can be counted. Charcoal identifications were made using modern reference slides (author's own) and anatomical guides (Hather 2000; Schoch *et al.* 2004).

### Results

Of the 93 samples selected for charcoal analysis samples 52 (pit F138), 69 (pit F205), 70 (pit F206), 71 (pit F207), 72 (pit F209), 74a (posthole F213) and 75 (pit F215) contained charcoal fragments too small to identify and sample 91 was missing.

Fragments of oak (*Quercus* sp.) charcoal were present in every sample and most were stem wood charcoal. Sample 43 (F138) contained fragments that may be oak branch-wood and sample 38 (F122) and 96 (F269) each contained a fragment of oak twig. Sample 74b (F213) produced a large fragment of wooden post identified as oak (*Quercus* sp.).

The next most frequently occurring charcoal type were fragments of cherry/plum/sloe (*Prunus* sp.). These were found in sixteen samples. Fragments of cherry/plum twig were found in sample 62 (F190) and 119 (WBF327).

Twelve samples contained fragments of beech (*Fagus sylvatica* L.). Seven samples contained fragments of hazel (*Corylus avellana* L.) and four samples contained fragments of ash (*Fraxinus excelsior* L.). Sample 99 (F271) contained a fragment of apple/pear (Maloideae) charcoal and sample 97 (F270) two fragments of yew (*Taxus baccata* L.).

It is not possible to identify oak or cherry/plum wood beyond genus from microscopic wood anatomy alone (Hather, 2000, 11-12). No charcoal fragments still had bark attached so it was not possible to identify sapwood.

### Discussion

The analysis of charcoal from Stage I evaluation revealed charcoal assemblages dominated by oak fragments with fragments of beech, cherry/plum/sloe and alder (*Alnus glutinosa* L.) present in lower numbers (Gray 2018). This current phase of charcoal analysis is very similar, with oak fragments being the dominant charcoal type and shorter-lived species (cherry/plum/sloe and hazel) being kindling for the charcoal clamps. The current interpretation for the use of the charcoal-rich pits on this site is that they are the remnants of localised production of charcoal (CAT Report 1219, 28-32). Most of the charcoal in these features is oak and beech wood, both wood taxa represented in the charcoal have uses as fuel and craft woods. Well-seasoned oak burns slowly giving off a '...good lasting heat...' and well-seasoned beech also burns well but not as well as oak (Skellern 2000). It is possible that bundles of wood and woody stems from trees and shrubs, such as hazel and cherry/plum were gathered to produce extreme heat and



high flames over a short time (Marguerie & Hunot 2007, 1425).

The following features contain charcoal from short-lived trees and oak branch-wood and twigs that may be suitable for radiocarbon dating:

F122 <38>  
F129 <39>  
F138 <43>  
F140 <45>  
F148 <46>  
F158 <54>  
F190 <62>  
F235 <82>  
F240 <86>  
F248 <90>  
F274 <99>  
WBF290 <102>  
WBF306 <111>  
WBF320 <115>  
WBF332 <125>  
WBF336 <128>

Sample No.	Find No.	Details	<i>Corylus avellana</i> L.	<i>Fagus sylvatica</i> L.	<i>Fraxinus excelsior</i> L.	Maloiidae	<i>Prunus</i> sp.	cf. <i>Prunus</i> sp.	<i>Prunus</i> sp. twig	<i>Quercus</i> sp.	<i>Quercus</i> sp. (possible branch wood)	<i>Quercus</i> sp. twig	<i>Taxus baccata</i> L.	Indet. Hardwood	Indet. Plant tissue
37	102	F125, lower fill	-	-	-	-	-	-	-	93	-	-	-	4	-
38	103	F122, mid to lower fill	-	3	-	-	-	-	-	95	-	1	-	-	-
39	104	F129, lower fill	-	-	-	-	4	-	-	75	-	-	-	1	-
40	105	F130, pit, lower fill	-	-	-	-	-	-	-	23	-	-	-	-	-
41	106	F128	-	-	1	-	-	-	-	95	-	-	-	1	-
42	107	F133, lower fill	11	1	-	-	-	-	-	75	-	-	-	1	2
43	108	F138, pit	13	-	-	-	1	-	-	38	54	-	-	-	-
44	109	F142, lower fill	-	-	-	-	-	-	-	83	-	-	-	-	1
45	110	F140	-	-	-	-	-	1	-	99	-	-	-	-	-
46	111	F148, hearth/cooking pit	-	-	-	-	32	-	-	64	-	-	-	-	-
47	113	F150	-	-	-	-	-	-	-	88	-	-	-	-	-
48	114	F143, lower fill	-	-	-	-	-	-	-	90	-	-	-	-	-
49	115	F144, lower fill	-	-	-	-	-	-	-	93	-	-	-	-	-
50	116	F149, hearth/cooking pit	-	-	-	-	-	-	-	96	-	-	-	-	-
51	118	F151	-	-	-	-	-	-	-	56	-	-	-	-	-
53	121	F161	-	-	-	-	-	-	-	99	-	-	-	-	-
54	122	F158, pit, lower fill	-	7	-	-	2	-	-	90	-	-	-	-	-
55	124	F170	-	-	-	-	-	-	-	91	-	-	-	-	-
56	125	F178	-	-	-	-	-	-	-	87	-	-	-	-	1
57	126	F182	-	-	-	-	-	-	-	86	-	-	-	-	-
58	127	F183	-	-	-	-	-	-	-	79	-	-	-	-	-
59	128	F186	-	2	-	-	-	-	-	87	-	-	-	-	-
60	129	F187, lower fill	-	-	-	-	-	-	-	100	-	-	-	-	-
61	130	F188	-	-	-	-	-	-	-	86	-	-	-	-	1
62	131	F190	-	-	-	-	-	-	3	93	-	-	-	-	-
63	132	F196	-	-	-	-	-	-	-	99	-	-	-	-	-
64	134	F197	-	-	-	-	-	-	-	89	-	-	-	-	-
65	135a	F200	-	-	-	-	-	-	-	100	-	-	-	-	-
66	135b	F201, mid fill	-	-	-	-	-	-	-	51	-	-	-	-	-
67	136	F202, mid fill	-	-	-	-	-	-	-	21	-	-	-	-	-
68	137	F203, mid fill	-	-	-	-	-	-	-	100	-	-	-	-	-
74a	142	F213, posthole	-	-	1	-	-	-	-	5	-	-	-	-	-
74b	143	F213, posthole	-	-	-	-	-	-	-	1	-	-	-	-	-
76	145	F216	-	-	-	-	-	-	-	100	-	-	-	-	-
77	146	F217	-	-	-	-	-	-	-	46	-	-	-	-	-
78	147	F218, pit	-	-	-	-	1	-	-	60	-	-	-	-	-
79	148	F219	-	-	-	-	-	-	-	97	-	-	-	-	-
80	149	F232	-	-	2	-	-	-	-	98	-	-	-	-	-
81	150	F234	-	2	-	-	-	-	-	80	-	-	-	1	-
82	152	F235, hearth/cooking pit	-	-	-	-	1	-	-	66	-	-	-	-	-
83	153	F237, pit/posthole	-	-	-	-	-	-	-	17	-	-	-	-	-
84	154	F238	-	-	-	-	-	-	-	21	-	-	-	-	-
85	155	F239, pit	3	-	6	-	-	-	-	22	-	-	-	-	-

Sample No.	Find No.	Details	<i>Corylus avellana</i> L.	<i>Fagus sylvatica</i> L.	<i>Fraxinus excelsior</i> L.	Maloidae	<i>Prunus</i> sp.	cf. <i>Prunus</i> sp.	<i>Prunus</i> sp. twig	<i>Quercus</i> sp.	<i>Quercus</i> sp. (possible branch wood)	<i>Quercus</i> sp. twig	<i>Taxus baccata</i> L.	Indet. Hardwood	Indet. Plant tissue
86	156	F240, mid fill	-	-	-	-	2	-	-	68	-	-	-	1	-
87	157	F244, lower fill	-	-	-	-	-	-	-	100	-	-	-	-	-
88	158	F247	-	-	-	-	-	-	-	100	-	-	-	-	-
89	159	F246, lower fill	-	1	-	-	-	-	-	86	-	-	-	1	-
90	160	F248, lower fill	-	1	-	-	1	-	-	87	-	-	-	-	-
92	164	F261	-	-	-	-	-	-	-	95	-	-	-	-	-
93	165	F264	2	1	-	-	-	-	-	74	-	-	-	-	1
94	166	F263	-	-	-	-	-	-	-	69	-	-	-	-	-
95	168	F216	-	-	-	-	-	-	-	100	-	-	-	-	-
96	169	F269	-	-	-	-	-	-	-	97	-	1	-	-	-
97	170	F270	-	1	-	-	-	-	-	37	-	-	2	2	4
98	171	F271	-	-	-	-	-	-	-	100	-	-	-	-	-
99	173	F274	4	-	-	1	10	-	-	79	-	-	-	-	1
100	174	F275	-	-	-	-	-	-	-	94	-	-	-	-	-
101	177	WBF289	-	-	-	-	-	-	-	95	-	-	-	-	-
102	178	WBF290	-	-	-	-	1	-	-	90	-	-	-	-	-
103	179	WBF291	-	-	-	-	-	-	-	100	-	-	-	-	-
104	180	WBF292	-	-	-	-	-	-	-	12	-	-	-	-	-
105	181	WBF295	-	1	-	-	-	-	-	9	-	-	-	-	1
106	182	WBF296	-	-	-	-	-	-	-	48	-	-	-	-	-
107	183	WBF299	-	-	-	-	-	-	-	100	-	-	-	-	-
108	184	WBF300	-	3	-	-	-	-	-	46	-	-	-	-	3
109	185	WBF304, posthole	-	-	-	-	-	-	-	12	-	-	-	-	-
110	186	WBF305	-	-	-	-	-	-	-	10	-	-	-	-	-
111	187	WBF306	1	-	-	-	1	-	-	84	-	-	-	-	-
112	188	WBF308	-	2	-	-	-	-	-	98	-	-	-	-	-
113	189	WBF316	-	-	-	-	-	-	-	68	-	-	-	-	-
114	190	WBF317	1	-	-	-	-	-	-	48	-	-	-	-	3
115	191	WBF320	-	-	-	-	1	-	-	58	-	-	-	-	-
116	192	WBF322	-	-	-	-	-	-	-	85	-	-	-	-	-
117	193	WBF324	-	-	-	-	-	-	-	12	-	-	-	-	-
118	194	WBF325	-	-	-	-	-	-	-	78	-	-	-	-	-
119	195	WBF327	-	-	-	-	-	-	2	64	-	-	-	-	4
120	196	WBF326	-	-	-	-	-	-	-	10	-	-	-	-	-
121	197	WBF328	-	-	-	-	-	-	-	89	-	-	-	-	3
122	198	WBF329	-	-	-	-	-	-	-	12	-	-	-	-	-
123	199	WBF330, pit	-	-	-	-	-	-	-	44	-	-	-	-	-
124	200	WBF331	-	-	-	-	-	-	-	39	-	-	-	-	-
125	201	WBF332, mid to lower fill	-	-	-	-	1	-	-	76	-	-	-	-	-
126	202	WBF333, upper to mid fill	-	-	-	-	-	-	-	18	-	-	-	-	-
127	203	WBF334, mid to lower fill	-	-	-	-	-	-	-	66	-	-	-	-	-
128	204	WBF336	-	-	-	-	1	-	-	28	-	-	-	-	-
129	205	WBF344	-	-	-	-	-	-	-	28	-	-	-	-	-

**Table 7** Charcoal identifications (all charcoal-rich pits unless otherwise stated)

## 9 Discussion (Figs 21-22)

This discussion incorporates the findings of both the Stage I evaluation and the Stage II investigations.

### 9.1 Prehistoric

Twenty-six prehistoric worked flints were recovered from Stage I and Stage II investigations, indicating small-scale activity on the development site from the Early Neolithic (possibly the Mesolithic) through to the Bronze Age. All but one were from later-dated contexts. A flint blade of Mesolithic or Early Neolithic date from a tree-throw could be contemporary with the feature, but is perhaps also residual.

### 9.2 Charcoal-rich pits

#### **Summary of the Stage I and II investigations** (Fig 21)

In total, 156 charcoal-rich pits have been excavated on the development site during the Stage I and II investigations. These pits are all of a similar size, shape and profile, contain high concentrations of oak charcoal, and usually include evidence of *in situ* burning, or at least hot materials being deposited within the pit with sufficient heat to scorch the base.

Only fourteen (9%) of the charcoal-rich pits produced finds.

**F7:** Roman pottery, mid to late 1st century (83 sherds at 348g).

**F12:** fragment of peg-tile, medieval/post-medieval (14th century onwards)

**F13:** heat-altered (burnt) flint, undated

**F38:** fragments of abraded fired clay, undated.

**F216:** fragment of clay tobacco pipe stem, 16th century onwards

**WBF289:** fragment of clay tobacco pipe stem, 16th century onwards

**WBF290:** fragments of clay pipe stem, medieval/post-medieval brick and fragment coal/coke, 16th century onwards

**WBF292:** fragment of peg-tile, medieval/post-medieval (14th century onwards)

**WBF320:** fragments of peg-tile and clay pipe stem, 16th century onwards

**WBF326:** fragment of animal bone, undated

**WBF327:** fragments of bird bone, undated

**WBF331:** fragments of animal bone and coal/coke, undated

**WBF332:** fragment of coal/coke, undated

**WBF336:** fragments of animal bone, undated

Twelve of the charcoal-rich pits have also been radiocarbon dated. Charcoal from these pits produced dates from the Middle Iron Age, Late Iron Age, Late Iron Age to Early Roman, late Anglo-Saxon, late Anglo-Saxon to early medieval, early medieval and post-medieval periods. During the Stage I evaluation the radiocarbon date from F111 was considered to be possibly intrusive as it came from an isolated charred grain that produced a post-medieval to modern date. However, the discovery of fragments of clay pipe in four of the charcoal-rich pits from Stage II (which date from the late 16th century onwards) may suggest that the date could be contemporary with the pit and it has been included here.

**F3:** 2-sigma calibrated date (at 95.4% confidence) of 1025-1157 calAD (late Anglo-Saxon to early medieval).

**F32:** 2-sigma calibrated date (at 95.4% confidence) of 362-183 calBC (Middle Iron Age).

**F111:** 2-sigma calibrated date (at 95.4% confidence) of 1689-1926 (post-medieval to modern).

**F122:** 2-sigma calibrated date (at 95.4% confidence) of 1040-1210 calAD (late Anglo-Saxon to early medieval).

**F158:** 2-sigma calibrated date (at 95.4% confidence) of 20-130 calAD (Late Iron Age to early Roman).

**F190:** 2-sigma calibrated date (at 95.4% confidence) of 1166-1261 calAD (early medieval).

**F240:** 2-sigma calibrated date (at 95.4% confidence) of 899-1021 calAD with an 80.8% probability within this range of a date of 946-1021 calAD (late Anglo-Saxon).

**F274:** 2-sigma calibrated date (at 95.4% confidence) of 89 calBC to 58 calAD with a 93.2% probability within this range of a date of 56 calBC-58 calAD (Late Iron Age to early Roman).

**WBF290:** 2-sigma calibrated date (at 95.4% confidence) of 1044-1219 calAD (late Anglo-Saxon to early medieval); but medieval/post-medieval brick and clay pipe from the fill.

**WBF306:** 2-sigma calibrated date (at 95.4% confidence) of 38 calBC-120 calAD with a 92.6% probability within this range of a date of 38 calBC-87 calAD (Late Iron Age to early Roman).

**WBF320:** 2-sigma calibrated date (at 95.4% confidence) of 1051 to 1252 calAD (late Anglo-Saxon to early medieval); but medieval/post-medieval peg-tile and clay pipe from the fill.

**WBF332:** 2-sigma calibrated date (at 95.4% confidence) of 1039 to 1206 calAD (late Anglo-Saxon to early medieval).

Therefore, in total only 17 (11%) out of the 156 charcoal-rich pits excavated during Stage I and II investigations could be dated. Trying to distinguish site-wide trends from only 11% of the features is difficult but, by combining the results of the finds and radiocarbon dating three distinct phases of charcoal-rich pit seem to emerge.

- Phase 1: Late Iron Age to Early Roman period (1st century BC to 1st century AD).
- Phase 2: Late Anglo-Saxon to early medieval period (10th to 13th centuries).
- Phase 3: post-medieval period.

Interpreting the results of the finds and radiocarbon dating from WBF290 and WBF320 is not so straight-forward. The early medieval radiocarbon dates from WBF290 and WBF320 are consistent with the radiocarbon dates from four other features, but fragments of medieval/post-medieval CBM and post-medieval clay pipe stem came from both features. As all of the monitoring features were subjected to plant being run across the site, there is a chance that these later-dated finds were intrusive. However, this chance would seem low, and finds that would appear to post-date Phase 2 were found in another four features, showing some activity on the development site in this later period. It is also possible that, as only one piece of charcoal from both features was suitable for radiocarbon dating (ie they were not oak), that this material was residual. Unfortunately, as the precise location of the finds or pieces of suitable charcoal within the feature is unknown, it is not possible to suggest which might be more stratigraphically secure. Neither explanation is entirely satisfactory, but as no other material suitable for radiocarbon dating came from either feature, the result cannot be tested. Therefore, both features have been tentatively placed within the post-medieval period, but it is possible that they actually belong to Phase 2.

Information from the 17 dated charcoal-rich pits regarding fill type, the presence or absence of *in situ* burning and the quantity of charcoal present was looked at to see if there were any characteristics between features of a certain date that might help to phase the undated features (Table 8). However, each of the three phases produced charcoal-rich pits with both one and two fills, pits that showed evidence of *in situ* burning and those that did not, and quantities of charcoal ranging from less than 100g to over 1kg.

MIA to Early Roman	Late Anglo-Saxon to early medieval	Post-medieval (includes those with medieval/post-medieval CBM which could not be closely-dated)
1 fill; no burning; medium quantity of charcoal	2 fills; burning; low quantity	2 fills; no burning, large quantity
2 fills; ?burning; small quantity	2 fills; no burning; 1,012g	2 fills; burning; large quantity
2 fills; burning, 1,890g	2 fills; burning; 3,106g	1 fill; no burning; over 9kg
2 fills; burning; 284g	1 fill; no burning; 78g	2 fills; burning; 186g
1 fill; burning; 42g	2 fills; burning; 262g	1 fill; no burning; 114g
		1 fill; no burning; 4g
		2 fills; burning; 52g

**Table 8** Dated charcoal-rich pits listing fill types, presence or absence of burning and quantity of charcoal

There are very few features associated with the charcoal-rich pits, such as boundaries or structural remains, or finds of a structural and/or domestic nature. The only features recorded during the Stage I and II investigations that can be positively associated are two undated postholes (within undated charcoal-rich pits F154 and F211), and two hearths/cooking pits and one possible hearth/cooking pit that date to the Late Iron Age and are contemporary with the earliest phase of charcoal-rich pits. This might suggest that associated activity is of a temporary nature, possibly seasonal. Although, it is also possible that any associated activity may have had little impact on the ground and has since been lost to ploughing.

#### **Charcoal-rich pits from other projects 2001-2019** (Fig 22)

Investigation of the literature has shown that, between 2001 and 2019, a further 137 charcoal-rich pits have been excavated during 14 archaeological investigations across northern Colchester, recorded from an area measuring 2km east to west by 4.5km north to south. The locations of these charcoal-rich pits are plotted on Fig 22. Although there appears to be a concentration of these pits in the area immediately to the north and south of the A12, especially between Boxted Road and Severalls Lane, this distribution simply reflects where archaeological investigations have taken place rather than revealing any particular clusters of activity.

As with the examples from Stage I and II investigations at Northern Gateway, the additional 137 charcoal-rich pits were relatively shallow, round or oval pits, containing charcoal-rich fills and occasional evidence of *in situ* burning. Only one of the pits showed evidence of associated activity in the form of a posthole in the base of the feature (Dyson 2015) and only one possible hearth/cooking pit was identified (CAT Report 1337, F42 which in the current authors opinion is not a charcoal-rich pit as suggested in the report). However, the identification of a further six charcoal-rich pits containing unburnt Iron Age or early Roman pottery may suggest that F235 is not a hearth/cooking pit like F148 and F149, but one of only a few charcoal-rich pits that included pottery in its backfill.

Dating evidence was also lacking, with only 14 of the charcoal-rich pits containing datable finds. Pottery sherds from the Late Bronze Age/Early Iron Age, Early to Middle Iron Age, Late Iron Age, 1st century AD, early Medieval (late 12th to 14th/15th centuries) and post-medieval periods were recorded, along with a fragment of medieval/post-medieval CBM and two fragments of heat-affected Roman glass.

Samples of charcoal from an additional seven charcoal-rich pits have also been sent for radiocarbon dating. This has produced results dating to the Early Iron Age, Middle Iron Age (x3), Late Iron Age, Late Iron Age/early Roman and early medieval periods.

The results of these 14 investigations are summarised in Table 9 below.

Project	Description
CAT: Northern Approach Road, evaluation 2001 (CAT Report 159)	<b>Description:</b> Twelve pits with charcoal-rich fill, three of which showed evidence of <i>in situ</i> burning with a further four showing discolouration which may have been caused by burning. <b>Dating:</b> No dating evidence.
Pre-Construct Archaeology: Cuckoo Farm, the Flakt Woods project, evaluation 2004 (Mattinson 2004)	<b>Description:</b> One pit with a charcoal-rich fill (no mention of any <i>in situ</i> burning). <b>Dating:</b> No dating evidence.
CAT: Northern Growth Area Urban Extension (NGAUE), evaluation 2011 (CAT Report 627)	<b>Description:</b> Twelve pits with a charcoal-rich fill (no mention of any <i>in situ</i> burning). <b>Dating:</b> Two contained pottery of a medieval date; 1) one potsherd, 8g, late 12th to 14th century; and 2) one potsherd, sooted, 4g, 13th to 14th century.
CAT: Northern Approach Road, monitoring 2013 (CAT Report 728)	<b>Description:</b> Eight pits with charcoal-rich fills (no mention of any <i>in situ</i> burning). <b>Dating:</b> No dating evidence.
Archaeology South-East: Cuckoo Farm Park and Ride, evaluation and excavation 2015 (Dyson 2015)	<b>Description:</b> Thirty pits all with charcoal-rich fills and evidence of <i>in situ</i> burning. <b>Dating:</b> Two of the pits contained pottery sherds from 1st century AD vessels. Two samples of charcoal from a third pit produced calibrated C14 dates of 50BC-AD65 and 170BC-AD5 at 95.4% probability, placing the feature in the Late Iron Age to early Roman period.
Archaeology South-East: Severalls School, Via Urbis Romanae, evaluation 2015 (Wroe-Brown 2015)	<b>Description:</b> One possible pit with a charcoal-rich fill (half sectioned only). <b>Dating:</b> No dating evidence.
Cambridge Archaeology Unit: Severalls Hospital evaluation 2016 (Brittain 2016)	<b>Description:</b> Seven pits with charcoal-rich fills, two with evidence on <i>in situ</i> burning. <b>Dating:</b> Charcoal from one of the pits produced a calibrated C14 date of 350-60 BC at 95.4% probability, with a 68% probably within this range of 200-120 BC, placing the feature in the Middle Iron Age
Pre-Construct Archaeology: Severalls Hospital, evaluation and excavation 2017 (House 2017)	<b>Description:</b> Six pits all with charcoal-rich fills. <b>Dating:</b> Four were radiocarbon dated and produced dates for the Early Iron Age, Middle Iron Age, Late Iron Age and early medieval periods. 1) calibrated C14 date of 797-545 BC at 95.4% probability, with a 44.8% probability within this range of 650-545 BC date, placing the feature in the Early Iron Age. 2) calibrated C14 date of 394-208 BC at 95.4% probability, with a 63.2% probability within this range of 317-208 BC date, placing the feature in the Middle Iron Age. 3) calibrated C14 date of 160BC-50AD at 95.4% probability, with an 88.8% probability within this range of 116BC-30AD date, placing the feature in the Late Iron Age. 4) calibrated C14 date of 997-1155 AD at 95.4% probability, with a 53.2% probability within this range of a 1065-1155 AD date, placing the feature in the early medieval period.
CAT: Cambian Fairview, Boxted Road, evaluation 2017 (CAT Report 1095)	<b>Description:</b> One pit with charcoal-rich fill and <i>in situ</i> burning. <b>Dating:</b> Charcoal from this feature produced a calibrated C14 date of 350-203 BC at a 95.4% probability, placing the feature in the Middle Iron Age.
CAT: Colchester North (formerly NGAUE) Area 1 excavation 2017 (CAT Report 1140)	<b>Description:</b> One pit with charcoal-rich fills. <b>Dating:</b> Undated.
Britannia Archaeology: Lodge Farm Great Horkelesley, evaluation 2018 (Baker 2018)	<b>Description:</b> Four pits with charcoal-rich fills, one with evidence of <i>in situ</i> burning. <b>Dating:</b> One of the pits contained pottery sherds of possible Late Bronze Age to Early Iron Age date.

<p>CAT: Lodge Farm Great Horkesley, excavation 2018 (CAT Report 1337)</p>	<p><b>Description:</b> 41 pits with charcoal-rich fills, 15 with evidence of <i>in situ</i> burning, although some of these are small when compared to other examples.  <b>Dating:</b> Six produced dating evidence.                      1) Sherds of Early to Middle Iron Age pottery (a second pit with Early to Middle Iron Age pottery and moderate quantities of charred wheat and rye is probably a hearth/cooking pit).                      2-4) Sherds of early Medieval pottery (mid 12th to late 14th century).                      5) A fragment of medieval/post-medieval CBM.                      6) A sherd of post-medieval pottery (late 15th-19th century)</p>
<p>Durham University: Colchester Northern Gateway South Phase 1, evaluation 2019 (Watson &amp; Swan 2019)</p>	<p><b>Description:</b> Eleven pits with charcoal-rich fills, two with evidence of <i>in situ</i> burning.  <b>Dating:</b> Three pits produced dating evidence.                      1) Sherds of Late Iron Age pottery                      2) Sherds of prehistoric pottery                      3) Two fragments of heat-affected Roman glass.</p>
<p>CAT: Colchester Northern Gateway South Phase 1, strip, map and excavate 2019 (CAT Report 1544, forthcoming)</p>	<p><b>Description:</b> Two pits with charcoal-rich fills, two with evidence of <i>in situ</i> burning.  <b>Dating:</b> No dating evidence (environmental analysis not completed so it is uncertain if any samples will be sent for radiocarbon dating)</p>

**Table 9** Previous archaeological investigations in northern Colchester where charcoal-rich pits have been excavated.

Analysis of all 269 charcoal-rich pits from the available literature and the Stage I and II investigations on Plots 2-3 has revealed that only 38 of the pits have been dated (by either associated finds or radiocarbon dating). Eighteen (47%) of the dated charcoal-rich pits range from the Early Iron Age through to the early Roman period (1st century AD). Eleven (29%) date from the Late Anglo-Saxon period through to the early medieval (roughly 10th to the 14th centuries), and nine (24%) date to the later medieval/post-medieval period.

Therefore, three phases of charcoal-rich pit suggested above need to be refined slightly:

- Phase 1: Early Iron Age to early Roman period (1st century AD);
- Phase 2: late Anglo-Saxon to early medieval period (10th to 14th centuries);
- Phase 3: post-medieval period (16th century onwards).

Interestingly, at least four hearths/cooking pits (from current Stage II works and the excavation at Lodge Farm) can also be placed within Phase 1.

### **Possible interpretations**

Previous theories as to the origin and function of these charcoal-rich pits concluded that they were associated with military encampments from the 19th century/First World War (for which there has been no dating evidence) (Mattinson 2004; CAT Report 728) and that they were associated with medieval tree-clearance (CAT Report 627). More recently they have been interpreted as being connected to charcoal production (Dyson 2015; House 2017).

Experimental archaeology shows the processes involved in charcoal production (for example, see You Tube clips <https://www.youtube.com/watch?v=Z0HW4qk8dv4> and <https://www.youtube.com/watch?v=GzLvqCTvQQY>). First the area is cleared of vegetation, and dried wood collected and cut to size. A small shallow pit is dug and a central post positioned in the pit. Larger pieces of wood are then stacked around this post with smaller pieces of wood around the edges. The whole lot is covered in kindling then mud to create a domed structure. The top of the dome is left open to vent smoke, and air holes made around the base to let combustion air in. The mound is set alight from the top with hot coals, the fire burning back down the heap against the draft. As the fire progresses, first the air vents then finally the top vent is plugged. When the fire goes out and the mound cooled, it can be opened and the charcoal inside collected. As so much of the process occurred above ground, and would have been removed soon after the event, it is unsurprising that all that is left behind is the original shallow pit.



The introduction of hot coals from the top of the dome and the spread of heat downwards may explain why some of the pits showed no evidence of *in situ* burning, especially if any failed to produce the necessary heat through poor technique or perhaps other factors like poor weather conditions. However, there is a possibility that at least some of the pits may actually have been dug to generate material (mud) to cover the clamp, and the subsequent infilling of these pits with waste charcoal may have simply been a matter of convenience, again providing a possible explanation as to why some of these features show no evidence of *in situ* burning and small quantities of charcoal. Similarly, if most of the charcoal was collected and removed from the site, all that would remain would be the waste charcoal, which would explain the huge variety in quantities of charcoal recorded.

Similar charcoal-rich pits, dating primarily to the Saxon period, have been identified in Suffolk at Ipswich (Clover 2013), in Cambridgeshire at Wittering and Parnwell, in Norfolk at Mayton Wood and Mousehold Heath, and further afield at Bestwall Quarry in Dorset (Webley 2007; House 2017). These have also been interpreted as charcoal production sites, and have sometimes been associated with iron working features. In 2012 archaeological investigations at Eversley Quarry in Berkshire produced similar pits dated to the mid-late Iron Age and medieval period (11th to 13th centuries) (Hardy 2012). Work in 2013 at the University of Kent, Canterbury also revealed fire pits and charcoal pits associated with an early to middle Iron Age settlement that 'likely formed multiple small scale industries centred on charcoal production and possible food preparation/smoking' (accessed 16.1.2018: <http://www.canterburytrust.co.uk/news-2/projectdiaries/turing-college-university-of-kent/>).

The charcoal production pits from these sites share a number of common features with the examples from northern Colchester, including: similar size, shape and profile (although some variations occur); the presence of burning, occasionally with *in situ* burning or at least hot materials being deposited within the pit with sufficient heat to scorch the base; preferred use of oak; lack of finds; and a sporadic distribution across the landscape (House 2017).

It is likely the sporadic nature of the distribution relates to the targeting of dense woodland and the use of existing clearings within that woodland. This would explain why little other evidence (features or finds) has been found associated with the charcoal-rich pits across northern Colchester although, if this were a seasonal activity, the charcoal burners probably lived in the woods in temporary accommodation, especially as each charcoal clamp would have been monitored for a number of days during its burn. The discovery of only four hearths/cooking pits and a scant number of finds from across the projects certainly reflects the temporary and impermanent nature of this activity.

Records show that by the 11th century much of this area of northern Colchester was woodland, divided into Kingswood Forest and Cestrewald, but by the 13th century large-scale woodland clearance had begun (BHO, 'Lexden Hundred'). It was this clearance that eventually led to the creation of the heathland of later centuries; the development site being located on the southern edge of Boxted Heath (BHO, 'Boxted: Introduction' and 'Great Horkeley: Economic History'). Therefore, the presence of charcoal-rich pits across this area of northern Colchester would suggest that ancient woodlands were being exploited for charcoal production as far back as the Early Iron Age, presumably for localised use. Charcoal was very important for ancient metalworkers as it is one of the best fuels available for smelting iron ore as it had a high carbon content, no sulphur, a high calorific value, was readily available and easy to produce (Clere 1981, 49).

Given the dating of a second phase of charcoal-rich pit in the Late Anglo-Saxon to early medieval period, another potential interpretation for the charcoal-rich pits deserves mention. There is a possibility that these pits are evidence of woodland clearance and tree-stumps being burnt *in situ*. The timing of this second phase of charcoal-rich pit would certainly fit with documentary sources pertaining to woodland clearance by the 13th century. Only 15 tree-throws and 13 pit/tree-throws were excavated on the development site during the Stage I and II works, so unless the tree-stumps were left in the ground to rot they were not being pulled out in any great numbers at this time.

Modern techniques of stump-burning involves drilling holes into the stump, covering it in charcoal and more wood (and sometimes kerosene), setting it on fire and repeating the process until the stump has been burnt away. A process which leaves a hole in the ground with evidence of *in situ* burning and a charcoal/ash fill. However, it is unlikely that burnt-out tree-stumps would produce such regular bowl-shaped features as has been recorded here and, at no point during any of the Stage I or Stage II investigations, or in the 14 other project reports, is there mention of burnt-out tree-roots extending into the ground around the pits.

Following the clearance of the Kingswood and Cestrewald, the development site was located on the southern edge of Boxted Heath. Fourteen gunflints of late 18th- or 19th-century date could be evidence of military training and target practice on the heath, and this might account for the very small quantities of clay tobacco pipe found in four of the charcoal-rich pits. If the clay tobacco pipes are not intrusive in these contexts, then it is possible that these pits are actually the remains of military camp fires. Certainly, by this post-medieval period it is unlikely that there was a significant number of trees remaining for these pits to be interpreted as either charcoal-clamps or woodland clearance.

### 9.3 Post-medieval/modern

Boxted Heath was not enclosed until 1815 and was in a high state of cultivation by 1848 (BHO, 'Boxted: Economic History'). This would explain the apparent absence of activity on the development site until the late 19th century when field boundary ditches appear. Old OS maps dating back to 1875 show that the development site was originally parcelled into at least twelve fields/part-fields (Fig 15). The OS maps show that gradually these boundaries were removed, expanding the area of each field, until the present layout which dates from the late 1990s. Numerous modern drainage ditches and land drains have been laid out across the site to aid agriculture, with many of the disused field boundary ditches having been laid with land drains before being backfilled. Intensive farming is also indicated by the presence of plough scarring across the development site.

## 10 Acknowledgements

CAT thanks Colchester Borough Council for commissioning and funding the work. The project was managed by C Lister, fieldwork was carried out by Sarah Carter, Ziya Eksen, Emily Harris, Elliott Hicks, Ben Holloway, Chris Lister, Robin Mathieson, Nick Pryke, Nigel Rayner, Adam Tuffey, Alec Wade and Adam Wightman. Figures are by R Mathieson, L Pooley and E Holloway. The project was monitored for Colchester Borough Council by Jess Tipper and for AECOM by Emma Clifford.

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CAT	2018b	<i>Written Scheme of Investigation (WSI) for archaeological excavation (strip, map and record) at Colchester Northern Gateway Sports Hub, Plots 2-3, east of Colchester Park and Ride, Mile End, Colchester, Essex, CO4 5JA &amp; addendum for additional 5% evaluation and continuous monitoring and recording</i>
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CAT Report 627	2012	<i>An archaeological evaluation by fieldwalking, geophysical survey and trial-trenching at the Northern Growth Area Urban Extension (NGAUE), Colchester, Essex: September-December 2011</i>
CAT Report 728	2014	<i>Archaeological monitoring at Northern Approach Road Phase III, Colchester, Essex: September-November 2013</i>
CAT Report 1095	2017	<i>Iron Age pit and modern drains and ditches: archaeological evaluation on land south of Cambian Fairview, Boxted Road, Colchester, Essex, CO4 5HF: April 2017</i>
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CIfA	2014b	<i>Standard and Guidance for archaeological excavation</i>
CIfA	2014c	<i>Standard and guidance for an archaeological watching brief</i>
CIfA	2014d	<i>Code of Conduct</i>
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Canterbury Archaeological Trust: <http://www.canterburytrust.co.uk/news-2/projectdiaries/turing-college-university-of-kent/>

## 12 Abbreviations and glossary

Anglo-Saxon	period from c 500 – 1066
Bronze Age	period from c 2500 – 700 BC
CAT	Colchester Archaeological Trust
CBC	Colchester Borough Council

CBCAA	Colchester Borough Council Archaeological Advisor
CBCPS	Colchester Borough Council Planning Services
CHER	Colchester Historic Environment Record
CIfA	Chartered Institute for Archaeologists
context	a single unit of excavation, which is often referred to numerically, and can be any feature, layer or find.
feature (F)	an identifiable thing like a pit, a wall, a drain: can contain 'contexts'
Iron Age	period from 700 BC to Roman invasion of AD 43
Iron Age (Early)	Early Iron Age, period from c 600 – 400BC
Iron Age (Middle)	Middle Iron Age, period from c 400 – 100BC
Iron Age (Late)	Late Iron Age (LIA), period from c 100 – 50 BC to Roman invasion of AD 43
layer (L)	distinct or distinguishable deposit (layer) of material
medieval	period from AD 1066 to c 1500
Mesolithic	period from c 10,000 – 4000BC
modern	period from c AD 1800 to the present
natural	geological deposit undisturbed by human activity
Neolithic	period from c 4000 – 2500 BC
Neolithic (Early-Middle)	Early-Middle Neolithic, period from c 4000 – 2900 BC
Neolithic (Late)	Late Neolithic, period from c 2900 – 2500 BC
NGR	National Grid Reference
OASIS	Online Access to the Index of Archaeological Investigations, <a href="http://oasis.ac.uk/pages/wiki/Main">http://oasis.ac.uk/pages/wiki/Main</a>
post-medieval	period from c AD 1500 to c 1800
prehistoric	pre-Roman
residual	something out of its original context, eg a Roman coin in a modern pit
Roman	the period from AD 43 to c AD 410
section	(abbreviation sx or Sx) vertical slice through feature/s or layer/s
wsj	written scheme of investigation

### 13 Contents of archive

**Finds:** three boxes (all of the finds from charcoal-rich pits, all of the worked flint and a sample of the environmental remains have been kept; all others discarded)

#### **Paper record**

One A4 document wallet containing:

The report (CAT Report 1479)

CBCPS brief, CAT written scheme of investigation

Original site records (context/finds sheets, sections and plans)

Site digital photographic archive and log

#### **Digital record**

The report (CAT Report 1479)

CBCPS brief, CAT written scheme of investigation

Graphic files

Photographs, photographic archive and log

Survey data

### 14 Archive deposition

The paper and digital archive is currently held by the Colchester Archaeological Trust at Roman Circus House, Roman Circus Walk, Colchester, Essex CO2 7GZ, but will be permanently deposited with Colchester Museum under accession code: COLEM 2017.152.

**Distribution list:**

Colchester Borough Council  
Jess Tipper, Colchester Borough Council Planning Services  
AECOM Infrastructure & Environment UK Limited  
Essex Historic Environment Record



**Colchester Archaeological Trust**

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Checked by: Philip Crummy

Date: 16.9.2020

## Appendix 1 Context lists

Finds no. column: F=finds, S=environmental sample

### Stage I evaluation

Trench no.	Context no.	Finds no.	Context type	Description	Date
All	L1	F: 41 (surface)	Plough soil	Soft, moist, medium grey clayey-silt with 5% stone	Modern
All	L2	-	Natural	Firm, moist, medium orange/grey/white sandy-clay with 5% gravel	Post-glacial
T15	L3	-	Natural	Friable, moist, medium to dark red/brown silty-clay, <40% gravel and <10% stone	Post-glacial
T52	L4	-	Levelling	Friable, moist, medium orange/grey/brown silty-clay	?Post-medieval / modern
T52	L5	-	Silting	Firm, moist, light grey clay	Undated
T52	L6	-	?River sediment	Medium brown sandy-silt with occasional rounded and smooth stone	Undated
T1	F1	F: 1	Field boundary ditch (FBD1)	Shallow ditch, possibly a drainage ditch seen on old OS maps. Friable, dry, medium grey/brown silty-clay with <2% stone.	Modern
T3	F2	-	Field boundary ditch (FBD1)	Firm, dry, medium grey/brown silty-clay with <14% stone	Modern
T8	F3	S: 2, 20, 21	Charcoal-rich pit	Charcoal-rich pit, scorched. Upper fill: Soft to friable, light grey clayey-silt, occasional charcoal, <3% stone. Lower fill: Thin layer of charcoal in base of pit.	Late Anglo-Saxon /early Medieval (1025-1157 AD)
T11	F4	S: 22	Posthole	Soft, medium to dark grey clayey-silt with <10% charcoal fleck inclusions and <1% stone	Undated
T11	F5	-	Pit/tree-throw	Soft to friable, medium to dark grey/brown clayey-silt with <2% charcoal fleck inclusions and <5% stone	Undated
T12	F6	S: 3, 26, 27, 28	Charcoal-rich pit	Charcoal-rich pit, no evidence of scorching. Soft to friable, moist, dark grey/black clayey-silt with >80% charcoal fleck inclusions and >15% stone.	Undated
T16	F7	F: 4 S: 8	Charcoal-rich pit	Charcoal-rich pit, scorched. Friable, moist, dark black clayey-silt with >80% charcoal fleck inclusions and <10% stone.	Early Roman (mid-late 1st century)
T16	F8	-	Posthole	Firm, moist, medium grey/brown silty-clay	Undated
T15	F9	-	Field boundary ditch (FBD2)	Friable, moist to wet, medium to dark brown silt with <10% gravel and <15% stone	Modern
T15	F10	F: 13 S: 56	Field boundary ditch (FBD2)	Friable, dry to moist, medium orange/grey silty-sand with <10% gravel and <15% stone	Modern
T19	F11	S: 32 F: 33	Small pit	Friable, medium to dark grey/brown/black clayey-silt with <4% charcoal fleck inclusions and <7% stone	Post-medieval/ modern
T19	F12	S: 5, 30, 31 F: 34	Charcoal-rich pit	Charcoal-rich pit, scorched. Upper fill: Soft to friable, light grey clayey-silt, occasional charcoal, <3% stone. Lower fill: Dense lens of charcoal in base of pit.	Medieval to post-medieval/ modern

T23	F13	S: 6, 29 F: 35	Charcoal-rich pit	Charcoal-rich pit, scorched. Upper fill: Friable, dry, medium grey/black clayey-silt, charcoal rich, <1% gravel, <5% stone. Lower fill: Dense lens of charcoal in base of pit.	Undated
T23	F14	-	Pit	Friable, dry to moist, medium grey/brown clayey-silt with <7% stone	Undated
T23	F15	-	Tree-throw	Friable to firm, dry, medium grey/brown clayey-silt with <10% stone	Undated
T14	F16	S: 16, 23	Charcoal-rich pit	Charcoal-rich pit, no evidence of scorching. Upper fill: Soft to friable, light grey clayey-silt, occasional charcoal, 5% stone. Lower fill: Dense lens of charcoal in base of pit.	Undated
T14	F17	S: 17	Pit/tree-throw	Soft, moist, medium grey/brown/black silty-clay with charcoal fleck inclusions	Undated
T14	F18	S: 18, 24, 25	Charcoal-rich pit	Charcoal-rich pit, no evidence of scorching. Upper fill: Soft, moist, medium grey/brown clayey-silt, occasional charcoal. Lower fill: Thin lens of charcoal in base of pit.	Undated
T14	F19	-	Posthole	Soft, moist, medium grey/brown silty-clay with rare charcoal fleck inclusions	Undated
T17	F20	F: 19	Ditch (drainage)	Firm, moist, medium orange/grey mottled silty-clay with occasional charcoal fleck inclusions	Modern
T18	F21	-	Pit	Soft, moist, medium grey/brown silty-clay with rare charcoal and daub fleck inclusions	Undated
T18	F22	-	Pit	Soft, moist, light grey silty-clay with rare charcoal fleck inclusions	Undated
T18	F23	-	Pit / tree-throw	Soft, moist light grey silty-clay with rare charcoal fleck inclusions	Undated
T18	F24	-	Pit	Soft, moist, medium grey/brown silty-clay with rare charcoal fleck inclusions	Undated
T26	F25	-	Natural feature	Firm, moist, medium grey/brown silty-clay	Post-glacial
T24	F26	-	Natural feature	Soft to friable, dry to moist, medium grey/brown clayey-silt with <2% stone	Post-glacial
T24	F27	-	Plough scar	Firm, dry medium brown silty-clay with <7% stone	Modern
T25	F28	S: 7	Charcoal-rich pit	Charcoal-rich pit, no evidence of scorching. Upper fill: Friable, medium grey/brown clayey-silt, occasional charcoal. Lower fill: Thin lens of charcoal in base of pit.	Undated
T22	F29	-	Pit	Friable, dry, medium grey/brown/orange silty-clay with <8% charcoal fleck inclusions and <7% stone	Undated
T28	F30	F: 9	Ditch (drainage)	Soft, moist, medium grey/brown silty-clay with charcoal fleck inclusions	Modern
T30	F31	-	Ditch (drainage)	Friable, dry to moist, medium grey/brown silty-sand with <10% gravel and <10% stone, fragments of land drain not retained	Modern
T39	F32	S: 10, 44	Charcoal-rich pit	Charcoal-rich pit, possible scorching. Upper fill: Firm, dry, medium grey/black clayey-silt, occasional charcoal. Lower fill: Firm, dry, medium grey/black clayey-silt, with slightly more charcoal.	Middle Iron Age (362-183 BC)
T26	F33	S: 6, 11	Pit/tree-throw	Firm, moist, medium grey/brown silty-clay with	Undated



				frequent charcoal fleck inclusions	
T26	F34	F: 12	Pit	Firm, dry to moist, light orange/grey mottled clayey-silt with <10% stone	Post-medieval/modern
T42	F35	-	Natural linear	Soft, moist, very light grey silty-clay	Post-glacial
T45	F36	S: 36, 43	Charcoal-rich pit	Charcoal-rich pit, possible scorching. Firm, dry, medium grey/black silty-clay with frequent charcoal	Undated
T46	F37	-	Natural gully	Firm, dry, light to medium grey silty-clay with 3% stone	Post-glacial
T44	F38	F: 37 S: 38, 39, 40, 63, 64, 65	Charcoal-rich pit	Charcoal-rich pit, no evidence of scorching. Upper fill: Soft, moist, medium to dark grey/black silty-clay, occasional charcoal. Lower fill: Dense lens of charcoal in base of pit.	Undated
T41	F39	-	Field boundary ditch (FBD5)	Soft, dry to moist, medium to dark grey/brown silt with <2% stone.	Modern
T41	F40	-	Gully (drainage)	Soft, dry to moist, grey/brown silt with <1% stone.	Modern
T41	F41	-	Pit / tree-throw	Soft, light grey silty-clay with 5% gravel	Undated
T41	F42	-	Natural gully	Soft, dry, light grey silty-clay with <1% stone	Post-glacial
T69	F43	-	Field boundary ditch (FBD4 recut)	Firm, dry, medium grey silty-clay with 2% stone	Modern
T61	F44	-	Tree-throw	Firm, moist, light orange/grey mottled silty-clay	Undated
T61	F45	-	Tree-throw	Friable, dry, medium grey/brown/orange mottled clayey-silt with <20% stone	Undated
T37	F46	-	Pit	Firm, dry to moist, light orange/grey mottled silty-clay with occasional charcoal flecks.	Undated
T57	F47	F: 14	Tree-throw	Soft, moist, light grey sandy-silt with occasional charcoal fleck inclusions and rare stone	Mesolithic or early Neolithic
T57	F48	-	Tree-throw	Soft, moist, light grey sandy-silt with occasional charcoal fleck inclusions and occasional stone	Undated
T46	F49	F: 15	Field boundary ditch (FBD10)	Firm, dry, medium grey/brown silty-clay with 1% stone	Modern
T57	F50	S: 47, 52	Charcoal-rich pit	Charcoal-rich pit, scorched. Soft, moist, medium grey/brown silty-sandy clay with rare stone, occasional charcoal flecks in fill and thin patches of charcoal around edges of pit.	Undated
T57	F51	S: 48, 51	Charcoal-rich pit	Charcoal-rich pit, scorched. Soft, moist, light grey silty-sandy clay with rare stone, occasional charcoal flecks in fill	Undated
T47	F52	-	Pit / tree throw	Firm, dry, light to medium grey silty-clay with 2% stone	Undated
T37	F53	-	Pit	Firm, dry to moist, medium orange/grey mottled silty-clay with occasional charcoal fleck inclusions and 1% gravel	Undated
T37	F54	-	Pit	Firm, dry to moist, medium orange/grey mottled silty-clay with occasional charcoal fleck inclusions	Undated
T57	F55	-	Tree-throw	Soft, moist, light yellow/grey sandy-silty-clay with rare charcoal fleck inclusions and rare stone	Undated

T48	F56	-	Field boundary ditch (FBD5)	Soft, moist, medium grey/brown/beige sandy-silty-clay, modern CBM not retained	Modern
T51	F57	-	Pit/tree-throw	Firm, dry, medium grey silty-clay with rare charcoal fleck inclusions and 1% gravel	Undated
T51	F58	S: 53, 54	Ditch	Firm, dry, medium grey/brown silty-clay with charcoal fleck inclusions and 1% stone	Undated
T59	F59	S: 45, 46, 55	Charcoal-rich pit	Charcoal-rich pit, scorched. Upper fill: Soft, moist, medium to dark grey/black silty-clay, occasional charcoal. Lower fill: Dense lens of charcoal in base of pit.	Undated
T59	F60	-	Pit	Firm, moist, medium orange/grey mottled silty-clay with occasional charcoal fleck inclusions	Undated
T54	F61	F: 57	Field boundary ditch (FBD10)	Soft medium grey/brown sandy-silty-clay with 2% stone	Modern
T54	F62	S: 58	Elongated pit	Soft, medium to dark grey/black silty-clay with abundant charcoal fleck inclusions and >1% stone.	Undated
T54	F63	S: 59	Posthole	Soft, moist, dark grey/black silty-clay with frequent charcoal fleck inclusions and stone	Undated
T54	F64	-	Pit	Soft, medium to dark grey/black silty-clay with frequent charcoal inclusions and <1% stone	Undated
T54	F65	S: 60	Pit	Soft, medium to dark grey silty-clay with occasional to frequent charcoal fleck inclusions and <1% stone	Undated
T70	F66	S: 61	?Posthole	Firm, medium grey silty-clay with charcoal fleck inclusions and 1% stone	?Modern
T70	F67	S: 62	?Posthole	Firm, dry, dark grey/black silty-clay with charcoal fleck inclusions and 1% stone	?Modern
T76	F68	-	Natural	Firm, moist, light orange/grey mottled silty-clay	Post-glacial
T71	F69	-	Natural or tree-throw	Firm, dry, light grey silt with 3% stone	Post-glacial or Undated
T83	F70	S: 66	Charcoal-rich pit	Charcoal-rich pit, scorched. Soft to friable, moist, medium grey/brown silty-clay with occasional charcoal flecks in fill.	Undated
T60	F71	-	Field boundary ditch (FBD4 recut)	Friable, moist, grey/brown silty-clay with charcoal fleck inclusions	Modern
T60	F72	F: 42	Field boundary ditch (FBD4)	Soft, moist, medium to dark yellow/orange/grey/brown/black sandy-silty-clay	Modern
T62	F73	-	Natural gully	Friable, dry, medium grey/brown clayey-silt with <5% stone	Post-glacial
T63	F74	-	Pit	Soft to friable, medium grey clayey-silt with >60% charcoal fleck inclusions and <10% stone	Undated
T63	F75	-	Field boundary ditch (FBD7)	Soft, grey/brown clayey-silt with <2% gravel and <5% stone	Modern
T65	F76	S: 76	Charcoal-rich pit	Charcoal-rich pit, scorched. Friable to firm, dry, medium grey/yellow/orange/brown clayey-silt with occasional charcoal flecks in fill and slightly dense patches on charcoal in base.	Undated
T67	F77	F: 50	?Ditch	Friable, dry, medium brown clayey-silt	Modern
T66	F78	F: 71,	Field boundary	Soft, moist, medium to dark orange/grey/brown	Modern

		73, 78	ditch (FBD8)	sandy-silty-clay with rare charcoal fleck inclusions and 1%	
T66	F79	F: 72	Ditch	Moist, medium slightly-sandy silty-clay with rare charcoal fleck inclusions and 1% stone	Modern
T67	F80	-	Ditch	Soft, moist, medium grey/brown silty-clay with charcoal fleck inclusions and >5% gravel	Undated
T83	F81	-	Tree-throw	Soft, moist, light yellow/grey mottled silt with rare stone	Undated
T83	F82	-	Tree-throw	Soft, moist, light to medium grey/brown clayey-silt with rare stone	Undated
T72	F83	-	Natural linear	Soft, moist, medium yellow/grey mottled silty-clay	Post-glacial
T64	F84	F: 67	Field boundary ditch (FBD4)	Soft, moist, medium yellow/grey/brown/black silty-clay	Modern
T78	F85	-	Tree-throw	Firm, moist, medium grey silty-clay with frequent charcoal fleck inclusions	Undated
T79	F86	-	Natural silt patch	Firm, moist, light grey silt	Post-glacial
T81	F87	S: 68, 69, 77, 78	Charcoal-rich pit	Charcoal-rich pit, scorched. Soft, moist, light grey/brown silty-clay with occasional charcoal in fill.	Undated
T91	F88	-	Elongated pit	Soft, mottled medium orange/grey/brown silty-clay	Undated
T96	F89	F: 70	Field boundary ditch (FBD6)	Soft, medium grey/brown silty-clay, <1% stone.	Modern
T98	F90	-	Natural	Soft, moist, grey slightly sandy-silty clay, <1% stone	Post-glacial
T74	F91	-	Field boundary ditch (FBD8)	Friable, dry, medium grey/brown silty-clay, with <10% stone	Modern
T72	F92	-	Pit	Soft, moist, light grey silty-clay	Undated
T82	F93	S: 74, 80	Charcoal-rich pit	Charcoal-rich pit, scorched. Upper fill: Friable, dark grey/brown silty-clay, occasional charcoal. Lower fill: Dense lens of charcoal in base of pit.	Undated
T96	F94	-	Tree-throw	Soft, moist, light grey silty-clay with rare charcoal fleck inclusions and rare stone	Undated
T80	F95	S: 75	Charcoal-rich pit	Charcoal-rich pit, no evidence of scorching. Loose, moist, dark brown/black silty-clay with >80% charcoal	Undated
T81	F96	-	Field boundary ditch (FBD7)	Not excavated	Modern
T94	F97	S: 79	Pit/tree-throw	Friable, wet, medium to dark grey silty-clay with >20% charcoal fleck inclusions	Undated
T98	F98	-	Natural	Friable, moist, medium mottled orange/grey silty-clay	Post-glacial
T108	F99	S: 81, 86, 87	Charcoal-rich pit	Charcoal-rich pit, scorched. Soft, moist, light grey/black sandy-silty clay, charcoal rich	Undated
T110	F100	F: 83	Field boundary ditch (FBD7)	Loose, soft, moist, medium grey/brown/black silty-clay with charcoal and brick inclusions, <10% stone	Modern
T98	F101	-	Natural	Soft, medium orange/grey silty-clay, <1% stone	Post-glacial

T108	F102	S: 82	Charcoal-rich pit	Charcoal-rich pit, scorched. Soft, moist, light grey/brown/black silty-clay with occasional charcoal in fill and slightly denser patches of charcoal in the base.	Undated
T108	F103	S: 91, 99	Charcoal-rich pit	Charcoal-rich pit, no evidence of scorching. Soft, medium to dark grey silty-clay, occasional charcoal	Undated
T110	F104	-	Pit	Soft, moist, medium grey silty-clay.	Modern
T110	F105	F: 92, 93	Field boundary ditch (FBD9)	Soft, moist, grey/black silty-clay with charcoal, CBM and modern debris included in fill	Modern
T104	F106	-	Field boundary ditch (FBD6)	Soft, moist, dark yellow silty-clay with rare flecks of charcoal and CBM	Modern
T111	F107	S: 84	Pit / agricultural scar	Soft, moist, medium grey/brown silty-clay with frequent charcoal and daub flecks	?Modern
T110	F108	S: 97	?Posthole	Soft, light to medium orange/grey silty-clay	Undated
T110	F109	S: 96	?Posthole	Soft, moist, medium to dark grey silty-clay with frequent charcoal	Undated
T110	F110	F: 94 S: 95	?Pit	Soft, medium to dark grey silty-clay with frequent charcoal, <1% stone	Undated
T104	F111	S: 85, 100	Charcoal-rich pit	Charcoal-rich pit, scorched. Upper fill: Friable, moist, medium grey/black silty-clay, occasional charcoal. Lower fill: Dense lens of charcoal in base of pit.	?Post-medieval (AD 1689-1926)
T104	F112	-	Field boundary ditch (FBD6 recut)	Soft, moist, medium grey/brown silty-clay with charcoal fleck inclusions, >10% stone	Modern
T113	F113	S: 88, 98	Charcoal-rich pit	Charcoal-rich pit, scorched. Upper fill: Soft, light-medium grey/black silty-clay, occasional charcoal. Lower fill: Thin lens of charcoal in base of pit.	Undated
T22	F114	-	Ditch (drainage)	Not excavated	Modern
T69	F115	-	Field boundary ditch (FBD4)	Not excavated	Modern
T65	F116	-	Field boundary ditch (FBD4)	Not excavated	Modern
T66	F117	-	Field boundary ditch (FBD4)	Not excavated	Modern
T79	F118	-	Field boundary ditch (FBD6)	Not excavated	Modern

### **Stage II investigations**

<b>Location</b>	<b>Context no.</b>	<b>Finds no.</b>	<b>Context type</b>	<b>Description</b>	<b>Date</b>
All	L1	F:133, 167, 206	Plough soil	Soft, moist, medium grey clayey-silt with 5% stone	Modern
All	L2	-	Natural	Firm, moist, medium orange/grey/white sandy-clay with 5% gravel	Post-glacial
Area 1	F119	-	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal lens and a scorched base	Undated

Area 1	F120	-	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal lens and a scorched base	Undated
Area 1	F121	-	Charcoal-rich pit	Firm, dry, light grey and black silty clay with thin layer of charcoal on surface and occasional charcoal flecks in fill	Undated
Area 1	F122	S:103<38>	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal lens	Late Anglo-Saxon /early Medieval (AD 1040-1210)
Area 1	F123	-	Pit	Firm, dry, light grey and black silty clay with charcoal flecks	Undated
Area 1	F124	-	Pit	Firm, dry, light grey and black silty clay with charcoal flecks	Undated
Area 1	F125	S:102<37>	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal lens and a scorched base	Undated
Area 1	F126	-	?Tree-throw	Firm, dry, light grey and black silty clay with charcoal flecks and flecks of daub/fired clay	Undated
Area 1	F127	-	?Tree-throw	Firm, dry, light grey and black silty clay with charcoal flecks. Burnt stones not retained for post-excavation analysis.	Undated
Area 1	F128	S:106<41>	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks and a scorched base. Burnt stones not retained for post-excavation analysis.	Undated
Area 1	F129	S:104<39>	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks and a scorched base	Undated
Area 1	F130	S:105<40>	Pit	Firm, dry, light grey and black silty clay with charcoal flecks and a scorched base	Undated
Area 1	F131	-	Small pit/posthole	Firm, dry, light grey and black silty clay with charcoal flecks	Undated
Area 1	F132	-	Small pit/posthole	Firm, dry, light grey and black silty clay with rare charcoal flecks	Undated
Area 1	F133	S:107<42>	Charcoal-rich pit	Firm, dry, light grey and black silty clay with a scorched base. Burnt stones not retained for post-excavation analysis.	Undated
Area 1	F134	-	Pit/tree-throw	Firm, dry, light grey and black silty clay with charcoal flecks	Undated
Area 1	F135	-	Pit	Firm, dry, light grey and black silty clay with charcoal lens at top of feature	Undated
Area 1	F136	-	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks and a scorched base	Undated
Area 1	F137	-	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks and a scorched base	Undated
Area 1	F138	F:119 S:108<43> S:120<52>	Pit	Firm, dry, light grey and black silty clay with charcoal flecks	Undated
Area 1	F139	-	Pit	Firm, dry, light grey and black silty clay with charcoal flecks	Undated
Area 1	F140	S:110<45>	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks	Undated
Area 1	F141	-	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks and a scorched base	Undated

Area 1	F142	S:109<44>	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks and a scorched base	Undated
Area 1	F143	S:114<48>	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks and a scorched base	Undated
Area 1	F144	S:115<49>	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks	Undated
Area 1	F145	-	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks and a scorched base	Undated
Area 1	F146	-	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks and a scorched base	Undated
Area 1	F147	-	Pit/posthole	Firm, dry, light grey and black silty clay with charcoal flecks	Undated
Area 1	F148	S:111<46> F:111, 112	Hearth/ cooking pit	Firm, dry, light grey and black silty clay with charcoal flecks	Late Iron Age
Area 1	F149	S:116<50> F:117	Hearth/ cooking pit	Firm, dry, light grey and black silty clay with charcoal flecks	Late Iron Age (164-16BC)
Area 1	F150	S:113<47>	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks	Undated
Area 1	F151	S:118<51>	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks and a scorched base	Undated
Area 1	F152	-	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks and a scorched base	Undated
Area 1	F153	-	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks	Undated
Area 1	F154	-	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks and a scorched base	Undated
Area 1	F155	-	Posthole (associated with F154)	Firm, dry, light grey and black silty clay with charcoal flecks	Undated
Area 1	F156	-	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks	Undated
Area 1	F157	-	Possible pit/ charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks. Not excavated as was just a surface smear.	Undated
Area 1	F158	S:122<54>	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks and a scorched base	Late Iron Age/ early Roman (AD 20-130)
Area 1	F159	-	Pit	Firm, dry, light grey and black silty clay with charcoal flecks	Undated
Area 1	F160	-	Pit	Firm, dry, light grey and black silty clay with charcoal flecks	Undated
Area 1	F161	S:121<53>	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks and a scorched base	Undated
Area 1	F162	-	Pit	Firm, dry, light grey and black silty clay	Undated
Area 1	F163	-	Pit	Firm, dry, light grey and black silty clay with charcoal flecks	Undated
Area 1	F164	-	Charcoal-rich pit	Firm, dry, light grey and black silty clay with charcoal flecks and a scorched base	Undated
Area 1	F165	-	Field boundary ditch (FBD3)	Firm, dry, dark grey/brown loam with charcoal and brick inclusions. Post-medieval/modern finds present but not retained for post-excavation analysis.	Modern

Area 1	F166	-	Charcoal-rich pit	Firm, dry medium grey/brown silty-sand with charcoal flecks and occasional stones	Undated
Area 1	F167	-	Charcoal-rich pit	Hard, dry light orange/grey/brown with occasional charcoal flecks, <1% stones and dense charcoal lower fill	Undated
Area 1	F168	F:123	Field boundary ditch (FBD3 recut)	Not excavated, surface was a hard, dry medium yellow/grey/brown sandy-silt	Modern, 19th to early 20th century
Area 1	F169	-	Field boundary ditch (FBD3 recut)	Not excavated, surface was a hard, dry dark grey sandy-silt with common stones	Modern
Area 1	F170	S:124<55>	Charcoal-rich pit	Firm, dry dark grey/brown/black sandy-silt with charcoal flecks and rare stones	Undated
Area 1	F171	-	Charcoal-rich pit	Firm, dry light grey/brown sandy-clay with charcoal flecks and <8% stones	Undated
Area 1	F172	-	Tree-throw	Hard, dry light grey silt with occasional charcoal flecks and <1% stones	Undated
Area 1	F173	-	Charcoal-rich pit	Firm, dry medium grey/brown/black sandy-clay with charcoal flecks and <10% stones	Undated
Area 1	F174	-	Charcoal-rich pit	Hard, dry light grey/brown silty-clay with frequent charcoal flecks and <1% stones	Undated
Area 1	F175	-	Tree-throw	Hard, dry light/dark yellow/grey/brown silty-clay with rare charcoal flecks and <1% stones	Undated
Area 1	F176	-	Posthole	Firm, dry light grey/brown sandy-clay with charcoal rich fill and <2% stones	Undated
Area 1	F177	-	Pit	Hard, dry light orange/grey silt with rare to very occasional charcoal flecks and <1% stones	Undated
Area 1	F178	S:125<56>	Charcoal-rich pit	Firm, dry medium grey/black silt with charcoal flecks	Undated
Area 1	F179		Pit	Hard, dry medium grey/brown sandy-silt with charcoal flecks and common stones	Undated
Area 1	F180		Pit	Hard, dry light grey silt with frequent charcoal flecks	Undated
Area 1	F181		Pit	Hard, dry light yellow/brown sandy-silt with charcoal flecks and rare stones	Undated
Area 1	F182	S:126<57>	Charcoal-rich pit	Firm, moist medium/dark grey/black sandy-silt with common charcoal flecks and rare stones	Undated
Area 1	F183	S:127<58>	Charcoal-rich pit	Firm, dry medium/dark grey/brown silt with charcoal flecks	Undated
Area 1	F184	-	Charcoal-rich pit	Soft, dry light grey/brown sandy-silt with charcoal flecks and occasional stones	Undated
Area 1	F185	-	Pit/tree-throw	Friable/firm, moist dark grey/brown/black clayey-silt with >15% charcoal flecks and <4% stones	Undated
Area 1	F186	S:128<59>	Charcoal-rich pit	Firm, dry dark grey/black silty-clay with charcoal flecks	Undated
Area 1	F187	S:129<60>	Charcoal-rich pit	Upper fill: soft, wet medium grey silty-clay with frequent charcoal flecks; middle	Undated

				fill: hard, dry light grey silty-clay with frequent charcoal flecks; lower fill: dark black charcoal-rich silty-clay	
Area 1	F188	S:130<61>	Charcoal-rich pit	Soft, moist light yellow/brown/black sandy-silt with charcoal flecks and rare stones	Undated
Area 1	F189	-	Pit	Firm, dry light grey/brown sandy-silt with charcoal flecks and <2% stones	Undated
Area 1	F190	S:131<62>	Charcoal-rich pit	Upper fill: light grey/brown sandy-silt with occasional charcoal flecks; lower fill: black charcoal-rich sandy-silt	Early medieval (AD 1166-1261)
Area 1	F191	-	Charcoal-rich pit	Firm, dry light grey/black sandy-silt with charcoal flecks and rare stones	Undated
Area 1	F192	-	Charcoal-rich pit	Firm, dry light yellow/brown sandy-silty-clay with charcoal flecks and occasional stones	Undated
Area 1	F193	-	Charcoal-rich pit	Firm, moist light yellow/brown sandy-silty-clay with charcoal flecks	Undated
Area 1	F194	-	Charcoal-rich pit	Firm, dry medium grey/brown sandy-silt with charcoal flecks and rare stones	Undated
Area 1	F195	-	Charcoal-rich pit	Hard, dry light grey/brown sandy-silt with charcoal flecks and frequent stones	Undated
Area 1	F196	S:132<63>	Charcoal-rich pit	Friable, dry dark grey/brown/black sandy-silt with charcoal flecks and rare stones	Undated
Area 1	F197	S:134<64>	Charcoal-rich pit	Friable, dry light grey/black sandy-silt with charcoal flecks and occasional stones	Undated
Area 1	F198	-	Charcoal-rich pit	Light/dark grey/black sandy-silt with charcoal flecks	Undated
Area 1	F199	-	Charcoal-rich pit	Firm, dry light grey/black sandy-silt with charcoal flecks and rare stones	Undated
Area 1	F200	S:135a<65>	Charcoal-rich pit	Friable, dry light grey/black sandy-silt with charcoal flecks	Undated
T212	F201	S:135b<66>	Charcoal-rich pit	Charcoal-rich pit, scorched. Mottled with dry, medium grey silty sand fill	Undated
T125	F202	S:136<67>	Charcoal-rich pit	Charcoal-rich pit. Some of L1 fill is pressed into feature. Friable, medium grey, silty clay	Undated
T124	F203	S:137<68>	Charcoal-rich pit	Firm, moist, Medium grey/brown silty clay. With charcoal inclusions.	Undated
T127	F204	-	Natural linear	Firm, moist, light grey silt fill	Post-glacial
T128	F205	S:138<69>	Pit	Firm, moist, medium grey/brown silty clay with charcoal inclusion flecks	Undated
T129	F206	S:139<70>	Pit	Firm, moist, medium grey/brown silty clay with charcoal inclusion flecks	Undated
T129	F207	S:140<71>	Pit	Firm, moist, medium grey/brown silty clay with charcoal inclusion flecks	Undated
T129	F208	-	Posthole	Firm, moist, medium grey/brown silty clay with charcoal inclusion flecks	Undated
T130	F209	S:141<72>	Pit	Firm, moist, medium grey/brown silty clay with charcoal inclusion flecks	Undated



T132	F210	-	Pit	Firm, moist, medium grey/brown silty clay	Undated
T135	F211	S:142<73>	Charcoal-rich pit	Firm, moist, medium grey/brown silty clay with charcoal inclusion flecks	Undated
T133	F212	-	Posthole (associated with F211)	Firm, moist, medium grey/brown silty clay with charcoal inclusion flecks	Undated
T133	F213	S:143<74a> S:163<74b>	Posthole	Firm, moist, medium grey/brown silty clay with charcoal inclusion flecks	Undated
T134	F214	-	Natural linear	Firm, moist, light grey silt	Post-glacial
T134	F215	S:144<75>	Pit	Firm, moist, medium grey/brown silty clay with charcoal inclusion flecks	Undated
T183	F216	S:145<76> S:168<95> F:175	Charcoal-rich pit	Loose, dry, almost 100% charcoal fill with some large pieces.	Post-medieval
T180	F217	S:146<77>	Charcoal-rich pit	Firm, dry, light grey silty clay with charcoal inclusion flecks	Undated
T175	F218	S:147<78>	Pit	Firm, dry, dark grey silty clay with charcoal inclusion flecks	Undated
T137	F219	S:148<79>	Charcoal-rich pit	Firm, dry, light grey silty clay with charcoal inclusion flecks	Undated
T161	F220	-	Pit	Friable/firm, slightly moist, medium/dark grey silty clay	Undated
T159	F221	-	Pit/natural	Firm, dry, light grey silty clay leached fill	Post-glacial
T149	F222a	-	Pit/natural	Firm, dry, light grey silty clay	Post-glacial
Area 3	F222b	-	Pit	Hard, dry, dark grey/black silty clay with charcoal inclusions	Undated
Area 3	F223	-	Charcoal-rich pit	Hard, dry, dark grey/black silty clay with charcoal inclusions	Undated
-	F224	-	VOID	-	-
Area 3	F225	-	Charcoal-rich pit	Hard, dry, light/medium grey silt with charcoal inclusion flecks	Undated
Area 3	F226	-	Charcoal-rich pit	Hard, dry, dark grey/black silty clay with charcoal inclusions and evidence of scorching	Undated
Area 3	F227	-	Charcoal-rich pit	Hard, dry, dark grey/black silty clay with charcoal inclusions and evidence of scorching	Undated
Area 3	F228	-	Charcoal-rich pit	Firm, dry, medium grey/black silty clay with charcoal	Undated
Area 3	F229	-	Pit	Firm, dry, medium grey/black silty clay with charcoal	Undated
Area 3	F230	-	Charcoal-rich pit	Firm, dry, medium grey/black silty clay with charcoal	Undated
Area 3	F231	-	Charcoal-rich pit	Hard, dry, light grey silt with charcoal flecks	Undated
Area 3	F232	S:149<80>	Charcoal-rich pit	Loose yet firm, dry, dark grey/black silty clay. Charcoal rich	Undated
Area 2	F233	-	Pit	Firm, dry, medium grey silty with charcoal	Undated
Area 2	F234	S:150<81>	Charcoal-rich pit	Firm, dry, medium grey/black silty clay	Undated

				with charcoal flecks	
Area 2	F235	S:152<82> F:151	Hearth/cooking pit	Firm, dry, medium grey/black silty clay with charcoal flecks	Late Iron Age
Area 2	F236	-	Charcoal-rich pit	Firm, dry, medium grey silty clay with charcoal flecks	Undated
Area 2	F237	S:153<83>	Pit/posthole	Firm, dry, medium grey silty clay with charcoal flecks	Undated
Area 2	F238	S:154<84>	Charcoal-rich pit	Firm, dry, medium grey silty clay with charcoal flecks	Undated
Area 2	F239	S:155<85>	Pit	Firm, dry, medium grey silty clay with charcoal flecks	Undated
Area 2	F240	S:156<86>	Charcoal-rich pit	Firm, dry, light grey/brown silty clay with charcoal flecks	Late Anglo-Saxon (AD 899-1021)
Area 2	F241	-	Pit/posthole	Firm, dry, medium grey silty clay with charcoal flecks	Undated
Area 2	F242	-	Charcoal-rich pit	Firm, dry, medium grey silty clay with charcoal flecks	Undated
Area 2	F243	-	Pit/posthole (could be natural)	Firm, dry, medium grey silty clay with charcoal flecks	Undated
Area 2	F244	S:157<87>	Charcoal-rich pit	Firm, dry, medium grey silty clay with charcoal flecks	Undated
Area 2	F245	-	Pit	Firm, dry, medium grey silty clay with common charcoal flecks	Undated
Area 2	F246	S:159<89>	Charcoal-rich pit	Firm, dry, medium grey silty clay with charcoal flecks	Undated
Area 2	F247	S:158<88>	Charcoal-rich pit	Firm, dry, medium grey silty clay with charcoal flecks	Undated
T147	F248	S:160<90>	Charcoal-rich pit	Firm, moist, medium grey/brown silty clay with charcoal flecks	Undated
T147	F249	-	Pit	Firm, dry, medium grey, silty clay	Undated
T156	F250	-	Pit	Firm, dry, medium grey, silty clay	Undated
T163	F251	-	Pit	Firm, moist, medium grey/brown, silty clay	Undated
T163	F252	-	Pit	Friable, moist, medium grey, silty clay	Undated
Area A	F253	S:161<91> (lost)	Charcoal-rich pit	Firm, dry. Light grey silty clay with charcoal inclusions.	Undated
-	F254	-	VOID	-	-
Area A	F255	-	Natural	Firm, dry, very light grey silt leached	Post-glacial
Area A	F256	-	Pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
Area B	F257	-	Pit	Firm, dry, medium grey, silty clay	Undated
Area B	F258	S:162<lost>	Pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
Area C	F259	-	Pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
Area C	F260	-	Pit	Firm, dry, medium grey, silty clay	Undated
Ext. of T137	F261	S:164<92>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
Ext. of	F262	-	Posthole	Firm, dry, medium grey, silty clay with	Undated

T137				charcoal flecks and a scorched base	
Ext. of T137	F263	S:166<94>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
Ext. of T137	F264	S:165<93>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
Area C	F265	-	Pit	Firm, dry, medium grey, silty clay	Undated
Area C	F266	-	Pit/posthole	Firm, dry, medium grey, silty clay	Undated
Area C	F267	-	Pit/posthole	Firm, dry, medium grey, silty clay	Undated
Area C	F268	-	Tree-throw	Firm, dry, medium grey, silty clay with ash	Undated
Ext. of T183	F269	S:169<96>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
Ext. of T183	F270	S:170<97>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
Ext. of T183	F271	S:171<98>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
T165	F272	F:172	Charcoal-rich pit	Hard, moist, medium grey/brown silty clay with charcoal flecks	Undated
T203	F273	-	Field boundary ditch (FBD5)	Not excavated, seen in previous evaluation	Modern
T210	F274	S:173<99>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Late Iron Age/ early Roman (89 BC-AD 58)
T208	F275	S:174<100>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
T225	F276	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
T227	F277	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
Area D	F278	-	Pit/posthole	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
Area D	F279	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
Area D	F280	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
Area D	F281	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
Area D	F282	-	Pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
Area E	F283	-	Pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
Area E	F284	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
T224	F285	-	Field boundary ditch (FBD8)	Not excavated	Modern
T236	F286	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
T240	F287	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
WB	WBF288	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with	Undated

S field				charcoal flecks	
WB S field	WBF289	S:177<101>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Post-medieval
WB S field	WBF290	S:178<102>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Post-medieval
WB S field	WBF291	S:179<103>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
WB S field	WBF292	S:180<104>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Medieval/ post-medieval
WB S field	WBF293	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
WB S field	WBF294	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
WB S field	WBF295	S:181<105>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
WB S field	WBF296	S:182<106>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
WB S field	WBF297	-	Unidentified	Firm, dry, medium grey, silty clay with charcoal flecks – NOT EXCAVATED	Undated
WB S field	WBF298	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
WB S field	WBF299	S:183<107>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
WB S field	WBF300	S:184<108>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
WB S field	WBF301	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
WB S field	WBF302	-	Unidentified	Firm, dry, medium grey, silty clay with charcoal flecks – NOT EXCAVATED	Undated
WB S field	WBF303	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
WB S field	WBF304	S:185<109>	Posthole	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
WB S field	WBF305	S:186<110>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
WB S field	WBF306	S:187<111>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Late Iron Age/ early Roman (38 BC-AD 120)
WB S field	WBF307	-	Pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
WB S field	WBF308	S:188<112>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
WB S field	WBF309	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
WB N field	WBF310	-	Pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
WB N field	WBF311	-	Unidentified	Firm, dry, dark grey/black, silty clay – NOT EXCAVATED	Undated
WB N field	WBF312	-	Unidentified	Firm, dry, medium grey, silty clay with charcoal flecks – NOT EXCAVATED	Undated
WB	WBF313	-	Unidentified	Firm, dry, medium grey, silty clay with	Undated

N field				charcoal flecks – NOT EXCAVATED	
WB N field	WBF314	-	Unidentified	Firm, dry, medium grey, silty clay with charcoal flecks – NOT EXCAVATED	Undated
WB N field	WBF315	-	Unidentified	Firm, dry, medium grey, silty clay with charcoal flecks – NOT EXCAVATED	Undated
WB S field	WBF316	S:189<113>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
WB S field	WBF317	S:190<114>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
WB S field	WBF318	-	Unidentified	Firm, dry, medium grey, silty clay with charcoal flecks – NOT EXCAVATED	Undated
WB S field	WBF319	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
WB S field	WBF320	S:191<115>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Post-medieval
WB S field	WBF321	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
WB S field	WBF322	S:192<116>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal rich	Undated
WB S field	WBF323	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
WB S field	WBF324	S:193<117>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
WB S field	WBF325	S:194<118>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal rich	Undated
WB S field	WBF326	S:196<120>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
WB S field	WBF327	S:195<119>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
WB S field	WBF328	S:197<121>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
WB S field	WBF329	S:198<122>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
WB S field	WBF330	S:199<123>	Pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
WB S field	WBF331	S:200<124>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
WB S field	WBF332	S:201<125>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Late Anglo-Saxon /early Medieval (AD 1039-1206)
WB S field	WBF333	S:202<126>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated
WB S field	WBF334	S:203<127>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
WB S field	WBF335	-	Pit	Firm, dry, medium grey, silty clay with charcoal flecks. Modern brick present but not retained for post-excavation analysis.	Modern
WB S field	WBF336	S:204<128>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and a scorched base	Undated

WB S field	WBF337	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
WB N field	WBF338	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
WB N field	WBF339	-	Pit	Firm, dry, medium grey, silty clay	Undated
WB N field	WBF340	-	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks and organic fill	Undated
WB N field	WBF341	-	Pit/tree-throw	Firm, dry, medium grey, silty clay	Undated
WB N field	WBF342	-	Pit/tree-throw	Firm, dry, medium/light grey, sandy fill	Undated
WB N field	WBF343	-	Pit/tree-throw	Firm, dry, medium grey, silty clay	Undated
WB N field	WBF344	S:205<129>	Charcoal-rich pit	Firm, dry, medium grey, silty clay with charcoal flecks	Undated
South field	U/S	176	Unstratified	-	-

## Appendix 2 Catalogue of charcoal-rich pits from Stage I and Stage II

Context	Size and shape	Pit-types	Scorching?	Other notes
<b>Colchester Northern Gateway Sports Hub Plots 2-3, Stage I evaluation</b>				
F3 (T8)	Sub-round, flat irregular base c 1m diameter 0.14m deep	Two distinct fills: a) light grey clayey-silt with occasional charcoal b) thin but continuous lens of charcoal in the base	Partial scorched base and sides which was reddened and baked firm	<b>Radiocarbon date:</b> calibrated C14 date (at 95.4% confidence) of 1025 to 1157 AD (late Anglo-Saxon/early medieval)
F6 (T12)	Sub-oval c 1m by 0.8m 0.22m deep	Dark grey/black clayey-silt with dense charcoal scattered throughout fill	No scorching	Disturbed by ploughing on upper edge
F7 (T16)	Sub-oval, flat base c 1m by 0.7m 0.04m deep	Dark black clayey-silt with dense charcoal scattered through fill but very few larger fragments	Scorched base which was burnt dark orange and baked firm	<b>Finds:</b> Roman pottery (mid-late 1st century) was recovered from the southern half of the feature.
F12 (T19)	Sub-oval c 1m by 0.77m 0.21m deep	Two distinct fills: a) charcoal rich clayey-silt but less than fill b b) dense lens of charcoal in the base	No scorching	<b>Finds:</b> A single fragment of peg-tile from the lower fill dates this feature from the medieval to the post-medieval/ modern period
F13 (T23)	Sub-round, flat irregular base c 1.2m diameter 0.13m deep	Two distinct fills: a) charcoal rich clayey-silt but less than fill b b) dense lens of charcoal in the base	Scorched base slightly reddened and baked firm	<b>Finds:</b> A piece of undated heat altered flint was recovered from the pit.
F16 (T14)	Sub-round, flat base c 0.82m diameter 0.12m deep	Two distinct fills: a) light grey clayey-silt with occasional charcoal b) thick patch of charcoal in the base	No scorching	Significant disturbance by ploughing and a land drain.
F18 (T14)	Sub-round c 0.48m diameter 0.1m deep	Two distinct fills: a) light grey clayey-silt with occasional charcoal b) thin lens of charcoal in the base	No scorching	
F28 (T25)	Sub-round, flat base c 0.77m diameter 0.08m deep	Two distinct fills: a) charcoal rich clayey-silt but less than fill b b) thin lens of charcoal in the base	No scorching	
F32 (T39)	Sub-oval c 0.70m by 0.48m 0.04m deep	Two distinct fills: a) light grey clayey-silt with occasional charcoal b) patchy charcoal in the base	Very slight, possible, scorching on base (but could be dark patches of natural)	<b>Radiocarbon date:</b> calibrated C14 date (at 95.4% confidence) of 362 to 183 BC (Middle Iron Age)
F36 (T45)	Sub-oval, flat irregular base c 0.82m by 0.63m 0.04m deep	Medium grey/black silty-clay with dense charcoal scattered through fill but very few larger fragments	Little evidence of <i>in situ</i> scorching apart from one reddened flint pressed into natural	
F38 (T44)	Sub-oval, irregular base c 1.1 by 0.82m 0.16m deep	Two distinct fills: a) charcoal rich clayey-silt but less than fill b b) dense lens of charcoal in the base	No scorching	<b>Finds:</b> Nine small pieces (18g) of undated burnt clay were recovered from the pit.
F50 (T57)	Sub-oval	Medium grey/brown silty-sandy clay with small	Slightly scorched base and edges	Minor disturbance by land drains

	c 0.8m by 0.7m 0.1m deep	patches of charcoal in backfilled natural, especially around edges	which were a dark reddish-orange and baked firm	
F51 (T57)	Sub-round c 0.93m diameter 0.15m deep	Light grey silty-sandy clay with small patches of charcoal in backfilled natural	Scorched base which was a dark reddish-brown and baked firm	Heavily truncated by land drains and ploughing
F59 (T59)	Sub-round c 0.9m diameter 0.13m deep	Two distinct fills: a) charcoal rich clayey-silt but less than fill b b) dense lens of charcoal in the base	Scorched partial edges and patches of base which were reddish-orange and baked firm	Edge disturbed by land drain/plough
F70 (T83)	Sub-oval c 0.8m by 0.64m 0.06m deep	Medium grey/brown silty-clay with small patches of charcoal in backfilled natural	Partial scorched base which was a dark reddish-brown and baked firm	Disturbed by ploughing on edges
F76 (T65)	Sub-oval c 1.5m by 1.18m 0.2m deep	Medium grey/yellow/ orange/brown clayey-silt with small patches of charcoal in backfilled natural and a slightly thicker lens of charcoal in the base	Scorched base and sides which was reddened/reddish-orange and baked firm	Disturbed by ploughing on very top of pit
F87 (T81)	Sub-round, flat base c 0.97m diameter 0.1m deep	Light grey/brown silty-clay with small patches of charcoal in backfilled natural	Scorched base and partial sides which were reddened and baked firm	
F93 (T82)	Sub-round c 1.2m diameter 0.26m deep	Two distinct fills: a) charcoal rich clayey-silt but less than fill b b) dense lens of charcoal in the base	Scorched base and sides which was reddened and baked firm	
F95 (T80)	Sub-oval c 0.82m by 0.75m 0.08m deep	Dark brown/black silty-clay with dense charcoal scattered throughout fill	No scorching	
F99 (T108)	Sub-oval c 0.86m by 0.7m 0.1m deep	Light grey/black sandy-silty clay with occasional charcoal scattered through fill	Low level of scorching on base and sides, which were slightly reddened and firm	Disturbed by plough
F102 (T108)	Sub-round c 0.55m diameter 0.06m deep	Two distinct fills: a) charcoal rich clayey-silt but less than fill b b) dense lens of charcoal in the base	Scorched base and sides which was reddened and baked firm	
F103 (T108)	Sub-oval c 0.83m by 0.64m 0.05m deep	Medium to dark grey silty-clay with occasional charcoal scattered through fill	No scorching	
F111 (T104)	Sub-oval c 1.1m by 1m 0.15m deep	Two distinct fills: a) charcoal rich clayey-silt but less than fill b b) dense lens of charcoal in the base	Scorched base and sides which was reddened and baked firm	<b>Radiocarbon date:</b> calibrated C14 date (at 95.4% confidence) of 1689 to 1926 (post-medieval)
F113 (T113)	Sub-round c 0.66m diameter 0.05m deep	Two distinct fills: a) light grey clayey-silt with occasional charcoal b) thin layer of charcoal on one side	Scorched base and sides which was a reddish-orange and baked firm	



Colchester Northern Gateway Sports Hub, Plots 2-3 Stage II investigations				
F119 (Area 1)	Sub-oval 0.94m long, 0.62m wide 0.16m deep	Two distinct fills: a) light grey silty-clay with occasional charcoal b) thin layer of charcoal in the base	Dense scorching across base and sides	Truncated by ploughing
F120 (Area 1)	Sub-oval 0.65m long, 0.59m wide 0.05m deep	Two distinct fills: a) light grey/brown silty-clay with occasional charcoal b) thin layer of charcoal in the base	Slight scorching of base and sides, inconsistent and localised	
F121 (Area 1)	Sub-oval 1.08m long, 0.94m wide 0.1m deep	Medium grey silty-clay with charcoal concentrated on the surface of the pit and rare flecks scattered throughout fill	No scorching	
F122 (Area 1)	Sub-oval 1.13m long, 0.95m wide 0.12m deep	Two distinct fills: a) light/medium grey silty-clay with occasional charcoal b) layer of charcoal in the base and sides	No scorching	Sample 38: 1,012g charcoal <b>Radiocarbon date:</b> calibrated C14 date (at 95.4% confidence) of 1040-1210 (late Anglo-Saxon-early Medieval)
F125 (Area 1)	Sub-round 1.33m diameter 0.26m deep	Two distinct fills: a) light to medium grey silty-clay with patches of yellowish-orange silty-clay and occasional charcoal b) two layers of charcoal, one extending from middle of the base to the eastern side, the other in the base and sides	Scorched base and sides	Sample 37: 284g charcoal Heat-altered stones not retained (x3)
F128 (Area 1)	Sub-oval 1.00m long, 0.77m wide 0.14m deep	Medium yellow/grey silty-clay with occasional charcoal scattered throughout fill	Slight scorching of base	Sample 41: 376g charcoal Heat-altered stones not retained
F129 (Area 1)	Sub-round 0.95m diameter 0.12m deep	Two distinct fills: a) light grey silty-clay with mottled yellow/brown silty-clay and very occasional charcoal b) thin layer of charcoal in the base and sides	Some scorching of base and sides	Sample 39: 96g charcoal
F133 (Area 1)	Sub-round 1.16m diameter 0.28m deep	Two distinct fills: a) light to medium grey silty-clay with patches of mottled yellow/orange sandy-clay and occasional charcoal b) thin but dense layer of charcoal in the base and sides	Base and sides scorched reddish-orange	Truncated by a land drain Sample 42: 118g charcoal Heat-altered stones not retained
F136 (Area 1)	Sub-round 0.68m wide 0.09m deep	Dark grey/black sandy-silt with common charcoal scattered throughout fill	Base mildly scorched	Heat-altered stones not retained
F137 (Area 1)	Sub-oval 0.95m long, 0.81m wide 0.14m deep	Light grey silty-clay with rare charcoal scattered throughout fill	Scorched base and sides which were reddened and baked firm	

F140 (Area 1)	Sub-round 0.78m diameter 0.1m deep	Dark grey/black sandy-silt with common charcoal scattered throughout fill	Some very slight scorching on base	Truncated by plough scar Sample 45: 744g charcoal
F141 (Area 1)	Sub-oval 1.07m long, 0.9m wide 0.07m deep	Two distinct fills: a) light/medium grey silty-clay with occasional charcoal b) thin layer of charcoal in the base and sides	Some scorching to middle of base and southern edge	
F142 (Area 1)	Sub-round 0.78m wide 0.1m deep	Two distinct fills: a) light grey silty-clay with occasional charcoal b) thin layer of charcoal in the base and sides, becoming thicker towards the eastern edge of the feature	Some scorching on base and sides	Sample 44: 208g charcoal
F143 (Area 1)	Sub-round 0.7m diameter 0.09m deep	Two distinct fills: a) light/medium grey silty-clay with occasional charcoal b) thin layer of charcoal in the base	Scorched base and sides	Sample 48: 112g charcoal
F144 (Area 1)	Sub-oval 0.94m long, 0.77m wide 0.04m deep	Two distinct fills: a) light/medium grey silty-clay with occasional charcoal b) very thin layer of charcoal in the base	Scorched base and sides	Sample 49: 126g charcoal
F145 (Area 1)	Sub-oval 1.06m long, 0.87m wide 0.16m deep	Mottled light and dark silty-clay with common charcoal scattered throughout and some charcoal in the base of the pit	Some very slight scorching of base	
F146 (Area 1)	Sub-oval 0.84m long, 0.5m wide 0.07m deep	Medium grey/brown sandy-silt with occasional charcoal scattered throughout fill	Base slightly scorched a dark reddish-brown	
F150 (Area 1)	Sub-round 0.88m diameter 0.11m deep	Two distinct fills: a) light yellow/grey silty-clay with occasional charcoal b) thin layer of charcoal in the base	No scorching	Truncated by plough scar Sample 47: 102g charcoal
F151 (Area 1)	Sub-oval 0.89m long, 0.79m wide 0.08m deep	Mottled light yellow/grey sandy-silt with rare charcoal scattered throughout fill	Some minor scorching on base	Sample 51: 38g charcoal
F152 (Area 1)	Sub-oval 0.96m long, 0.54m wide 0.03m deep	Light to medium brownish-grey silty-clay with rare charcoal scattered throughout fill	Some scorching along the northwestern edge of feature	
F153 (Area 1)	Sub-oval 1.3m long, 0.62m wide 0.27m deep	Light grey sandy-silt with rare charcoal scattered throughout fill	No scorching	
F154	Sub-oval	Light grey silty-clay with rare charcoal scattered	Orange scorching in base	Associated with posthole F155

(Area 1)	0.66m long, 0.58m wide 0.05m deep	throughout fill		
F156 (Area 1)	Sub-oval 0.86m long, 0.75m wide 0.08m deep	Two distinct fills: a) light grey/brown silty-clay with occasional charcoal b) layer of charcoal concentrated around sides	No scorching on base or sides but some isolated patches of scorched clay in the fill	Truncated by a land drain
F158 (Area 1)	Sub-round 1.45m wide 0.19m deep	Two distinct fills: a) light yellowish-/brownish-grey silty-clay with occasional charcoal b) dense layer of charcoal in the base	Scorched base and sides	Sample 54: 1,890g charcoal <b>Radiocarbon date:</b> calibrated C14 date (at 95.4% confidence) of 20 to 130 AD (Late Iron Age-Roman)
F161 (Area 1)	Sub-round 1.3m diameter 0.16m deep	Two distinct fills: a) light yellowish-brown sandy-silt (possibly ploughsoil remnant) b) dark grey/black sandy-silt with abundant charcoal scattered throughout fill	Base scorched a dark orange-red	Sample 53: 856g charcoal
F164 (Area 1)	Sub-round 0.78m wide, 0.62m wide 0.03m deep	Light grey sandy-silt with rare charcoal scattered throughout fill	Partial scorching of base	
F166 (Area 1)	Sub-oval 0.73m long, 0.46m wide 0.05m deep	Medium grey/brown silty-clay with rare charcoal scattered throughout fill	Partial scorching of base and sides	Truncated by plough scars
F167 (Area 1)	Sub-round 0.98m diameter 0.1m deep	Two distinct fills: a) light grey silty-clay mottled with small patches of yellowish-grey silty-clay and occasional charcoal b) dense layer of charcoal on one side of base	Partial scorching of base and sides	
F170 (Area 1)	Sub-oval 0.8m long, 0.71m wide 0.07m deep	Dark grey/brown/black sandy-silt with frequent charcoal scattered throughout fill	Partial scorching of base	Sample 55: 504g charcoal
F171 (Area 1)	Sub-round 0.8m wide 0.12m deep	Two distinct fills: a) light grey/brown sandy-clay with occasional charcoal b) dense layer of charcoal in the base	Partial scorching of base	
F173 (Area 1)	Sub-round 0.7m diameter 0.1m deep	Medium grey/brown/black silty-clay with rare charcoal scattered throughout fill and occasional red/orange flecks of fired clay	Partial scorching of base	Truncated by ploughing
F174 (Area 1)	Sub-round 0.98m diameter 0.09m deep	Light grey/brown silty-clay with rare charcoal scattered throughout fill	Scorched base and sides except for western edge	
F178 (Area 1)	Sub-oval 1.7m long, 1.05m wide	Medium grey/black silt with frequent charcoal scattered throughout fill	No scorching	Sample 56: 268g charcoal

	0.11m deep			
F182 (Area 1)	Sub-round 0.77m diameter 0.08m deep	Medium to dark grey/black sandy-silt with frequent charcoal scattered throughout fill	Some very slight scorching of base	Sample 57: 432g charcoal
F183 (Area 1)	Sub-round 1.02m diameter 0.08m deep	Medium to dark grey silt with rare charcoal scattered throughout fill	No scorching, but some flecks of burnt clay scattered in fill	Sample 58: 60g charcoal
F184 (Area 1)	Sub-oval 1.3m long, 0.89m wide 0.07m deep	Light grey/brown sandy-silt with rare charcoal scattered throughout fill	Scorching of base in two phases showing evidence of possible reuse of pit	Truncated by plough scar
F186 (Area 1)	Sub-round 1.05m diameter 0.12m deep	Dark grey/black silty-clay with frequent charcoal scattered throughout fill	Heavy scorching to base and sides	Sample 59: 990g charcoal
F187 (Area 1)	Sub-round 1.05m diameter 0.25m deep	Two distinct fills: a) light/medium grey silty-clay with charcoal flecking b) thick layer of charcoal in the base	Heavy scorching to base and sides	Sample 60: 574g charcoal
F188 (Area 1)	Sub-round 1.0m diameter 0.13m deep	Two distinct fills: a) light yellow/brown sandy-silt with charcoal flecking b) thick layer of charcoal in the base	Heavy scorching to base and sides	Sample 61: 1,272g charcoal
F190 (Area 1)	Sub-round 1.04m diameter 0.12m deep	Two distinct fills: a) light grey/brown sandy-silt with occasional charcoal b) thick layer of charcoal in the base growing thicker towards western edge of feature	Heavy scorching to base and sides	Sample 62: 3,106g charcoal <b>Radiocarbon date:</b> calibrated C14 date (at 95.4% confidence) of 1166 to 1261 AD (early medieval)
F191 (Area 1)	Sub-round 0.65m diameter 0.09m deep	Two distinct fills: a) light grey sandy-silt b) thick layer of charcoal in the base	Base and sides lightly scorched	
F192 (Area 1)	Sub-round 1.4m diameter 0.34m deep	Two distinct fills: a) light yellow/brown sandy-silty-clay b) layer of charcoal in the base and northern edge	Heavy scorching to base and sides	
F193 (Area 1)	Sub-oval 0.64m long, 0.48m wide 0.04m deep	Light yellow/brown sandy-silty-clay with rare charcoal scattered throughout fill	Partial scorching of base and sides	
F194 (Area 1)	Sub-round 1.10m diameter 0.06m deep	Medium grey/brown sandy-silt with rare charcoal scattered throughout fill	Scorched base	
F195	Sub-round	Light grey/brown sandy-silt with rare charcoal	Scorched base	

(Area 1)	1.15m diameter 0.06m deep	scattered throughout fill		
F196 (Area 1)	Sub-round 0.9m diameter 0.08m deep	Dark grey to black sandy-silt with frequent charcoal scattered throughout fill	Partial scorching of base and sides	Sample 63: 422g charcoal
F197 (Area 1)	Sub-oval 0.86m long, 0.64m wide 0.07m deep	Two distinct fills: a) light grey sandy-silt with occasional charcoal b) dense layer of charcoal in the base	Partial scorching of base and sides	Sample 64: 348g charcoal
F198 (Area 1)	Sub-round 0.74m long, 0.63m wide 0.08m deep	Two distinct fills: a) light grey sandy-silt with occasional charcoal b) dense layer of charcoal in the base	Partial scorching of base	
F199 (Area 1)	Sub-round 0.57m diameter 0.07m deep	Light grey to black sandy-silt with rare charcoal scattered throughout fill	Partial scorching of base and sides	
F200 (Area 1)	Sub-round 0.84m diameter 0.09m deep	Light grey to black sandy-silt with frequent charcoal scattered throughout fill	Scorched base and sides	Truncated by plough scars Sample 65: 846g charcoal
F201 (T121)	Sub-round 0.71m diameter 0.07m deep	Medium grey silty-clay with rare charcoal scattered throughout fill	Partial scorching of base and sides	Sample 66: 40g charcoal
F202 (T125)	Sub-round 0.53m diameter 0.05m deep	Medium grey silty-clay with rare charcoal scattered throughout fill	Partial scorching of base and sides	Sample 67: 16g charcoal
F203 (T124)	Sub-oval 0.9m long, 0.79m wide 0.17m deep	Two distinct fills: a) medium grey/brown silty-clay with occasional charcoal b) thin layer of charcoal in the base	No scorching	Sample 68: 44g charcoal
F211 (T133)	Sub-round 1.4m diameter 0.1m deep	Dark grey/brown silty-clay with very rare charcoal scattered throughout fill	No scorching	Associated with posthole F212 Sample 73: very small bag of charcoal
F216 (T183)	Sub-round 1.8m diameter 0.31m deep	Dark black silt with dense charcoal throughout fill	No scorching	Truncated by a field drain Sample 76 & 95: 3954g & 5454g charcoal Finds 175: fragment of clay pipe stem = post-medieval
F217 (T180)	Sub-round 0.62m diameter 0.08m deep	Light to medium grey silty-clay with rare charcoal scattered throughout fill	No scorching	Sample 77: 36g charcoal
F219 (T137)	Sub-round 1.2m diameter	Two distinct fills: a) light grey silty-clay with occasional charcoal	Some very slight scorching of base and sides	Sample 79: 510g charcoal

	0.13m deep	b) thick layer of charcoal in the base and sides		
F223 (Area 3)	Sub-round 0.62m diameter 0.06m deep	Medium to dark grey/black silty-clay with rare charcoal scattered throughout fill	No scorching	
F225 (Area 3)	Sub-oval 0.73m long, 0.56m wide 0.03m deep	Medium grey silt with rare charcoal scattered throughout fill	Very slight scorching to base	Feature was truncated by ploughing
F226 (Area 3)	Sub-oval 0.78m long, 0.6m wide 0.12m deep	Two distinct fills: a) light grey silty-clay with occasional charcoal b) layer of charcoal in the base	Scorched base and sides	
F227 (Area 3)	Sub-oval 0.9m long, 0.68m wide 0.05m deep	Medium grey/black silty-clay with rare charcoal scattered throughout fill	Scorched base and sides	Feature truncated by ploughing
F228 (Area 3)	Sub-oval 0.81m long, 0.70m wide 0.05m deep	Medium grey/black silt-clay with rare charcoal scattered throughout fill	No scorching	
F230 (Area 3)	Sub-round 0.8m diameter 0.03m deep	Medium grey/black sandy-silt with rare charcoal scattered throughout fill	No scorching	
F231 (Area 3)	Sub-oval 0.97m long, 0.86m wide 0.1m deep	Two distinct fills: a) light grey silt with occasional charcoal b) layer of charcoal in the base	Scorched base and sides	
F232 (Area 3)	Sub-oval 1.2m long, 1.01m wide 0.08m deep	Dark grey/black silty-clay with frequent charcoal scattered throughout fill	Very slight scorching to base	Sample 80: 2112g charcoal
F234 (Area 2)	Sub-round 0.84m diameter 0.04m deep	Dark grey/black silty-clay with rare charcoal scattered throughout fill	Partial scorching of base and sides	Sample 81: 90g charcoal
F236 (Area 2)	Sub-round 0.95m diameter 0.02m deep	Light grey silty-clay with rare charcoal scattered throughout fill	Very slight scorching around outer edge	
F238 (Area 2)	Sub-oval 0.93m long, 0.79m wide 0.08m deep	Light to medium grey silty-clay with rare charcoal scattered throughout fill	No scorching	Sample 84: 20g charcoal
F240 (Area 2)	Sub-oval 0.96m long, 0.87m wide 0.07m deep	Light grey/brown silty-clay with rare charcoal scattered throughout fill	No scorching	Sample 86: 78g charcoal <b>Radiocarbon date:</b> calibrated C14 date (at 95.4% confidence) of 899 to 1021 AD, with an 80.8% probability within this range of 946 to 1021 AD (Late Anglo-Saxon).

F242 (Area 2)	Sub-oval 0.83m long, 0.73m wide 0.07m deep	Two distinct fills: a) medium grey silty-clay with occasional charcoal b) layer of charcoal in the base growing thicker towards eastern edge	No scorching	
F244 (Area 2)	Sub-round 1.2m diameter 0.19m deep	Light grey silty-clay with common charcoal scattered throughout fill and perhaps a slight concentration in the base	Scorched base and sides	Sample 87: 112g charcoal
F246 (Area 2)	Sub-round 1.6m diameter 0.33m deep	Two distinct fills: a) medium grey/brown silty-clay with occasional charcoal b) denser concentration of charcoal in the base	Partial scorching of base and sides	Sample 89: 398g charcoal
F247 (Area 2)	Sub-oval 0.96m long, 0.72m wide 0.15m deep	Medium grey/black silty-clay with abundant charcoal scattered throughout fill	Partial scorching of base and sides	Sample 88: 984g charcoal
F248 (T147)	Sub-oval 0.8m long, 0.61m wide 0.05m deep	Medium grey/brown silty-clay with occasional charcoal scattered throughout fill	No scorching	Feature is truncated by a field drain Sample 90: 104g charcoal
F253 (Area A)	Sub-round 1.35m diameter 0.33m deep	Two distinct fills: a) light grey silty-clay with occasional charcoal b) thick layer of charcoal in the base	Partial scorching of base and sides	Sample 91: 148g charcoal
F261 (T137 extension)	Sub-oval 0.97m long, 0.87m wide 0.08m deep	Two distinct fills: a) medium grey silty-clay with occasional charcoal b) thin layer of charcoal in the base	Partial scorching of base	Sample 92: 78g charcoal
F263 (T137 extension)	Sub-round 0.75m diameter 0.1m deep	Medium to dark grey/brown/black silty-clay with rare charcoal scattered throughout fill and a slight concentration of charcoal on the surface	No scorching	Sample 94: 48g charcoal
F264 (T137 extension)	Sub-round 1.08m diameter 0.2m deep	Two distinct fills: a) light grey silty-clay with occasional charcoal b) layer of charcoal in the base	Partial scorching of base	Sample 93: 68g charcoal
F269 (T183 extension)	Sub-oval 0.93m long, 0.86m wide 0.12m deep	Medium to dark grey/black silty-clay with common charcoal scattered throughout fill	Partial scorching of base	Sample 96: 255g charcoal
F270 (T183 extension)	Sub-oval 0.73m long, 0.64m wide 0.17m deep	Medium grey/brown/black silty-clay with rare charcoal scattered throughout fill	No scorching	Sample 97: 36g charcoal
F271 (T183 extension)	Sub-round 1.3m diameter 0.12m deep	Two distinct fills: a) light grey/brown silty-clay with occasional charcoal fill b) layer of charcoal in the base	Scorched base and sides (except western side)	Sample 98: 186g charcoal

F272 (T165)	Sub-round 0.74m diameter 0.13m deep	Medium grey/brown silty-clay with rare charcoal scattered throughout fill	No scorching	Truncated by a land drain Finds 172: Small fragment of iron
F274 (T210)	Sub-round 1.5m diameter 0.17m deep	Two distinct fills: a) light grey silty-clay with occasional charcoal b) thick layer of charcoal in the base	Some very slight scorching of base	Sample 99: 284g charcoal <b>Radiocarbon date:</b> calibrated C14 date (at 95.4% confidence) of 89 BC to AD 58, with a 93.2% probability within this range of 56 BC to AD 58 (Late Iron Age/earliest Roman)
F275 (T208)	Sub-round 0.73m diameter 0.15m deep	Two distinct fills: a) light/medium grey silty-clay with occasional charcoal b) thick layer of charcoal in the base and sides	Partial scorching of base and sides	Sample 100: 268g charcoal
F276 (T225)	Sub-round 1.25m diameter 0.15m deep	Two distinct fills: a) medium grey/brown silty-clay with occasional charcoal b) layer of charcoal in the base	Some very slight scorching of base	
F277 (T227)	Sub-oval 1.54m long, 1.33m wide 0.17m deep	Two distinct fills: a) very light grey silty-clay with rare charcoal b) thin layer of charcoal in the base	Partial scorching of base	
F279 (Area D)	Sub-round 0.62m diameter 0.09m deep	Medium grey/black silty-clay with common charcoal scattered throughout fill	Partial scorching of base	
F280 (Area D)	Sub-oval 1.1m long, 0.88m wide 0.09m deep	Medium grey silty-clay with rare charcoal scattered throughout fill and slight concentration on surface	No scorching	
F281 (Area D)	Sub-round 0.74m diameter 0.04m deep	Medium grey silty-clay with rare charcoal scattered throughout fill	Some scorched clay in fill	
F284 (Area E)	Sub-round 0.73m diameter 0.1m deep	Two distinct fills: a) medium grey silty-clay with rare charcoal b) layer of charcoal in the base and sides, growing thicker towards northern edge	Partial scorching of base and sides	
F286 (T236)	Sub-round 0.96m diameter 0.18m deep	Two distinct fills: a) light/medium grey silty-clay with charcoal b) thick layer of charcoal in the base and sides	Partial scorching of base and sides	
F287 (T240)	Sub-round 0.95m wide 0.07m deep	Dark grey/black silty-clay with rare charcoal scattered throughout fill	Partial scorching of base and sides	
WBF288	Sub-round 1.29m diameter	Two distinct fills: a) medium grey silty-clay with occasional charcoal	Partial scorching of base and sides	



	0.22m deep	b) layer of charcoal in the base and sides		
WBF289	Sub-round 1.3m diameter 0.2m deep	Two distinct fills: a) medium grey silty-clay with occasional charcoal b) thick layer of charcoal in the base and sides	Very slight scorching	Sample 101: 186g charcoal <b>Finds 177:</b> fragment of clay pipe stem = post-medieval
WBF290	Sub-oval 0.63m long, 0.56m wide 0.08m deep	Medium to dark grey/black silty-clay with occasional charcoal scattered throughout fill	No scorching	Sample 102: 114g charcoal <b>Finds 178:</b> fragments of brick, clay pipe stem & coal/coke = post-medieval <b>Radiocarbon date:</b> calibrated C14 date (at 95.4% confidence) of 1044 to 1219 BC (early medieval)
WBF291	Sub-round 0.77m diameter 0.09m deep	Two distinct fills: fa) medium grey silty-clay with occasional charcoal b) patchy layer of charcoal in the base and sides	Some very slight scorching of base	Sample 103: 62g charcoal
WBF292	Sub-oval 0.78m long, 0.65m wide 0.06m deep	Dark grey/black silty-clay with rare charcoal scattered throughout fill	No scorching	Sample 104: 4g charcoal <b>Finds 180:</b> fragment of medieval/post-medieval peg-tile
WBF293	Sub-round 0.85m diameter 0.12m deep	Dark grey/black silty-clay with rare charcoal scattered throughout fill	No scorching	
WBF294	Sub-round 0.57m diameter 0.03m deep	Dark grey/black silty-clay with common charcoal scattered throughout fill	No scorching	
WBF295	Sub-round 1.24m diameter 0.28m deep	Two distinct fills: a) light/medium grey silty-clay with occasional charcoal b) thin layer of charcoal in the base and sides	Scorched base	Sample 105: 228g charcoal
WBF296	Sub-round 0.56m diameter 0.03m deep	Light grey silty-clay with occasional charcoal scattered throughout fill	Localised scorching on base and sides	Sample 106: 40g charcoal
WBF298	Sub-round 0.68m diameter 0.18m deep	Dark grey/black silty-clay with occasional charcoal scattered throughout fill	No scorching	
WBF299	Sub-round 0.78m diameter 0.16m deep	Medium to dark grey/black silty-clay with occasional charcoal scattered throughout fill	No scorching	Sample 107: 92g charcoal
WBF300	Sub-oval 0.99m long, 0.9m wide 0.09m deep	Two distinct fills: a) dark grey silty-clay with occasional charcoal b) layer of charcoal in the base and sides growing thicker towards the western side	Scorched sides and base	Sample 108: 28g charcoal
WBF301	Sub-round	Two distinct fills:	Slight scorching to base	

	1m diameter 0.21m deep	a) medium grey silty-clay with occasional charcoal b) thick layer of charcoal in the base		
WBF303	Sub-oval 0.56m long, 0.51m wide 0.06m deep	Medium grey/black silty-clay with rare charcoal scattered throughout fill	Partial scorching of base	
WBF305	Sub-round 0.75m diameter 0.06m deep	Medium grey/black silty-clay with rare charcoal scattered throughout fill	Slight scorching of eastern side	Sample 110: 12g charcoal
WBF306	Sub-round 0.79m diameter 0.15m deep	Dark grey/black silty-clay with rare charcoal scattered throughout fill	Partial scorching of base	Sample 111: 42g charcoal <b>Radiocarbon date:</b> calibrated C14 date (at 95.4% confidence) of 38 BC to AD 120, with a 92.6% probability within this range of 38 BC to AD 87 (Late Iron Age/early Roman)
WBF308	Sub-round 0.78m diameter 0.1m deep	Dark grey/black silty-clay with common charcoal scattered throughout fill	Partial scorching of base	Sample 112: 200g charcoal
WBF309	Sub-oval 1.14m long, 0.57m wide 0.15m deep	Dark grey/black silty-clay with common charcoal scattered throughout fill	No scorching	
WBF316	Sub-round 0.97m diameter 0.1m deep	Two distinct fills: a) light/medium grey silty-clay with occasional charcoal b) thin layers of charcoal in the base	Scorched base and sides	Sample 113: 42g charcoal
WBF317	Sub-round 1.23m diameter 0.2m deep	Two distinct fills: a) medium grey silty-clay with common charcoal b) thin layers of charcoal in the base	Scorched base and sides	Sample 114: 108g charcoal
WBF319	Sub-round 0.59m diameter 0.05m deep	Medium to dark grey/black silty-clay with common charcoal scattered throughout fill	Partial scorching of base and sides	
WBF320	Sub-oval 1.53m diameter 0.3m deep	Two distinct fills: a) light/medium grey silty-clay with rare charcoal b) thin layer of charcoal in the base	Partial scorching of base	Truncated by land drain Sample 115: 52g charcoal <b>Find 191:</b> fragments of peg-tile & clay pipe stem = post-medieval <b>Radiocarbon date:</b> calibrated C14 date (at 95.4% confidence) of 1051 to 1252 (early medieval)
WBF321	Sub-oval 0.9m long, 0.43m wide 0.04m deep	Medium grey/black and mottled orange silty-clay with very rare charcoal in fill	Partial scorching of sides with evidence of fired clay in fill	
WBF322	Sub-round 0.73m diameter	Dark black silt with dense charcoal scattered throughout fill	No scorching	Sample 116: 262g charcoal

	0.1m deep			
WBF323	Sub-round 0.53m diameter 0.06m deep	Dark grey/black silty-clay with common charcoal scattered throughout fill	No scorching but evidence of fired clay in fill	
WBF324	Sub-round 0.72m diameter 0.07m deep	Light grey silty-clay with rare charcoal scattered throughout fill	Patchy scorching of sides and base	Sample 117: 14g charcoal
WBF325	Sub-round 0.62m diameter 0.09m deep	Dark black silt with dense charcoal scattered throughout fill	No scorching	Sample 118: 350g charcoal
WBF326	Sub-oval 0.73m long, 0.6m wide 0.08m deep	Medium to dark grey/brown silty-clay with occasional charcoal scattered throughout fill	No scorching	Sample 120: 4g charcoal <b>Finds 196:</b> fragment of animal bone
WBF327	Sub-oval 1.18m long, 0.81m wide 0.1m deep	Two distinct fills: a) medium grey silty-clay with occasional charcoal b) thin layer of charcoal in the base	Partial scorching of base and sides	Sample 119: 58g charcoal <b>Finds 195:</b> fragments of bird bone
WBF328	Sub-round 1.06m diameter 0.08m deep	Two distinct fills: a) medium grey/brown sandy-silty-clay with occasional charcoal b) thick layer of charcoal in the base	Slight scorching of base	Sample 121: 228g charcoal
WBF329	Sub-oval 0.6m long, 0.53m wide 0.06m deep	Dark grey/black silty-clay with dense charcoal scattered throughout fill	Scorched base and sides	Sample 122: 24g charcoal
WBF331	Sub-oval 0.91m long, 0.84m wide 0.17m deep	Medium grey/brown sandy-silty-clay with dense charcoal scattered throughout fill	Perhaps very slight scorching to base	Sample 124: 90g charcoal <b>Finds 200:</b> fragment of animal bone & coal/coke
WBF332	Sub-round 1.05m diameter 0.2m deep	Two distinct fills: a) medium grey/brown sandy-silty-clay with occasional charcoal b) thick layer of charcoal in the base	Partial scorching of base and sides	Sample 125: 334g charcoal <b>Finds 201:</b> fragment of coal/coke <b>Radiocarbon date:</b> calibrated C14 date (at 95.4% confidence) of 1039 to 1206 BC (late Anglo-Saxon to early medieval)
WBF333	Sub-round 0.9m diameter 0.1m deep	Medium grey/brown sandy-silty-clay with rare charcoal scattered throughout fill	Partial scorching of base and sides	Sample 126: 16g charcoal
WBF334	Sub-round 0.76m diameter 0.13m deep	Medium grey/brown sandy-silty-clay with common charcoal scattered throughout fill	Partial scorching of base	Sample 127: 132g charcoal
WBF336	Sub-round 0.64m diameter	Dark grey/black silty-clay with rare charcoal scattered throughout fill	No scorching	Sample 128: 16g charcoal <b>Finds 204:</b> fragments of animal bone

	0.09m deep			
WBF337	Sub-round 0.87m diameter 0.1m deep	Medium grey/black with mottled orange silty-clay and rare charcoal scattered throughout fill with slight concentration on surface	Slight scorching	
WBF338	Sub-round 0.96m diameter 0.11m deep	Medium to dark grey/black silty-clay with common charcoal scattered throughout fill	Partial scorching of base and sides	Truncated by machine activity
WBF340	Sub-round 0.9m diameter 0.21m deep	Medium grey silty-clay with rare charcoal scattered throughout fill	Slight scorching of base	
WBF344	Sub-round 0.79m diameter 0.11m deep	Two distinct fills: a) medium grey sandy-silty-clay with occasional charcoal b) thick layer of charcoal in the base and sides	No scorching	Sample 129: 36g charcoal

*RADIOCARBON DATING CERTIFICATE*

19 August 2020

**Laboratory Code** SUERC-93869 (GU55659)

**Submitter** Laura Pooley  
Colchester Archaeological Trust  
Roman Circus House  
Roman Circus Walk  
Colchester  
Essex CO2 7GZ

**Site Reference** Colchester CNG COLEM:2017.152

**Context Reference** F122 (103)

**Sample Reference** 38

**Material** Charcoal (oak twig)

**$\delta^{13}\text{C}$  relative to VPDB** -24.7 ‰

**Radiocarbon Age BP** 899  $\pm$  26

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

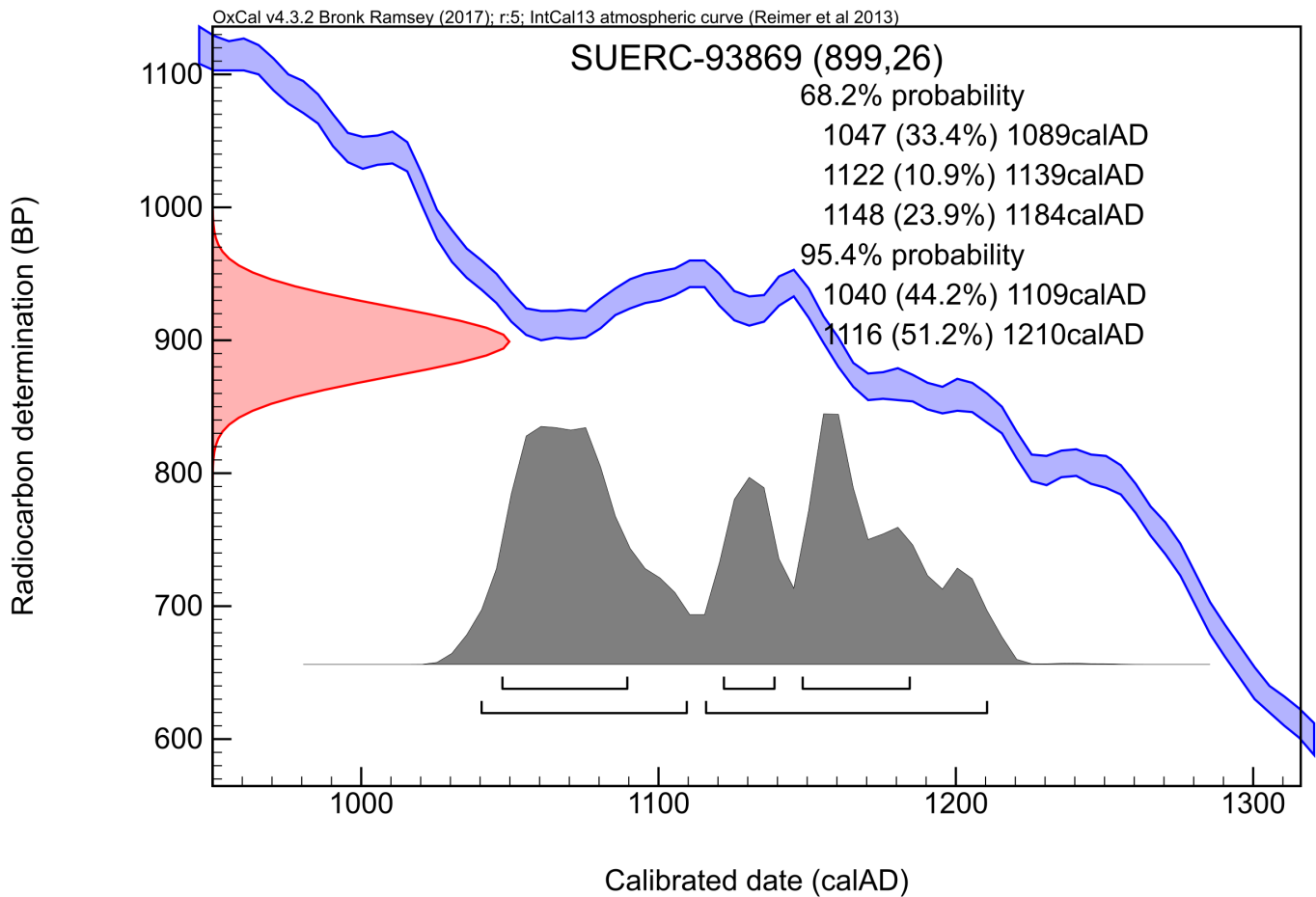
For any queries relating to this certificate, the laboratory can be contacted at [suerc-c14lab@glasgow.ac.uk](mailto:suerc-c14lab@glasgow.ac.uk).

Conventional age and calibration age ranges calculated by :

*E. Dunbar*

Checked and signed off by :

*P. Nayantub*



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.\*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

\* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87

*RADIOCARBON DATING CERTIFICATE*

19 August 2020

**Laboratory Code** SUERC-93870 (GU55660)

**Submitter** Laura Pooley  
Colchester Archaeological Trust  
Roman Circus House  
Roman Circus Walk  
Colchester  
Essex CO2 7GZ

**Site Reference** Colchester CNG COLEM:2017.152

**Context Reference** F148 (111)

**Sample Reference** 46

**Material** Charcoal (cherry/plum/sloe)

**$\delta^{13}\text{C}$  relative to VPDB** -25.0 ‰

**Radiocarbon Age BP** 2081  $\pm$  26

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

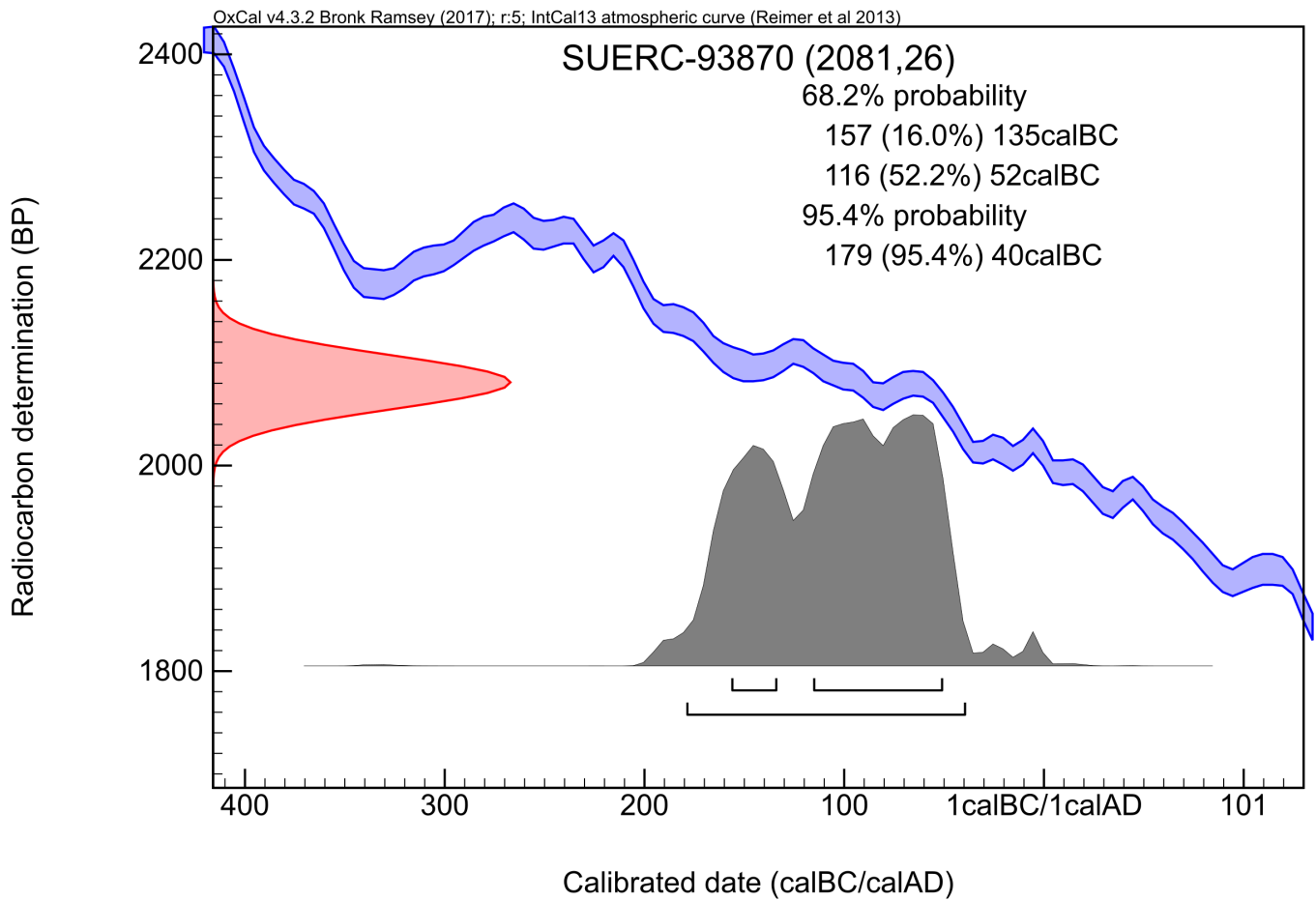
For any queries relating to this certificate, the laboratory can be contacted at [suerc-c14lab@glasgow.ac.uk](mailto:suerc-c14lab@glasgow.ac.uk).

Conventional age and calibration age ranges calculated by :

*E. Dunbar*

Checked and signed off by :

*P. Naynab*



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.\*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

\* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87



*RADIOCARBON DATING CERTIFICATE*

19 August 2020

**Laboratory Code** SUERC-93871 (GU55661)

**Submitter** Laura Pooley  
Colchester Archaeological Trust  
Roman Circus House  
Roman Circus Walk  
Colchester  
Essex CO2 7GZ

**Site Reference** Colchester CNG COLEM:2017.152

**Context Reference** F149 (117)

**Sample Reference** n/a

**Material** Burnt animal bone

**$\delta^{13}\text{C}$  relative to VPDB** -19.8 ‰

**Radiocarbon Age BP** 2050  $\pm$  26

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

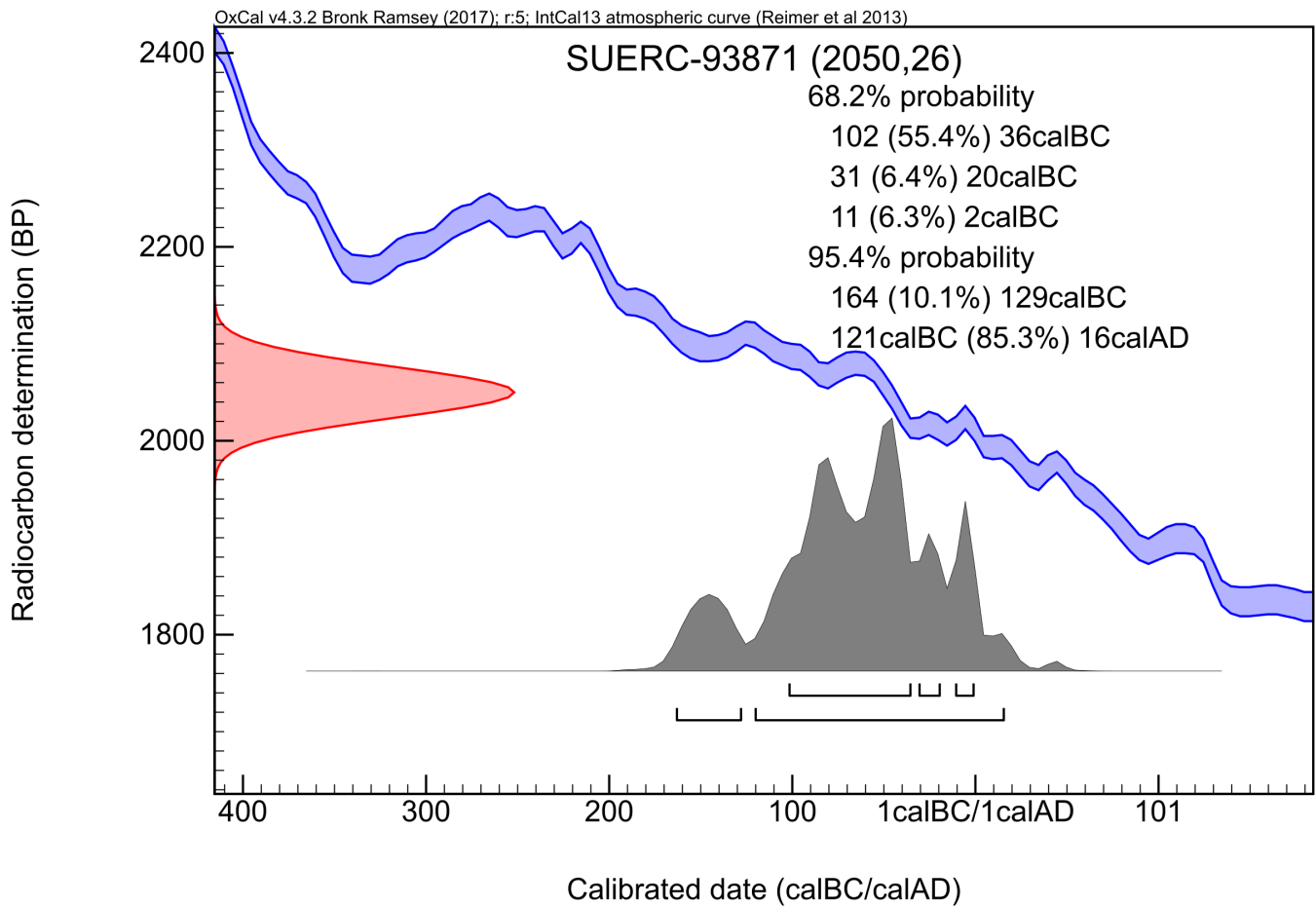
For any queries relating to this certificate, the laboratory can be contacted at [suerc-c14lab@glasgow.ac.uk](mailto:suerc-c14lab@glasgow.ac.uk).

Conventional age and calibration age ranges calculated by :

*E. Dunbar*

Checked and signed off by :

*P. Nayantub*



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.\*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

\* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87

*RADIOCARBON DATING CERTIFICATE*

19 August 2020

**Laboratory Code** SUERC-93872 (GU55662)

**Submitter** Laura Pooley  
Colchester Archaeological Trust  
Roman Circus House  
Roman Circus Walk  
Colchester  
Essex CO2 7GZ

**Site Reference** Colchester CNG COLEM:2017.152

**Context Reference** F158 (122)

**Sample Reference** 54

**Material** Charcoal (cherry/plum/sloe)

**$\delta^{13}\text{C}$  relative to VPDB** -24.7 ‰

**Radiocarbon Age BP** 1927  $\pm$  26

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

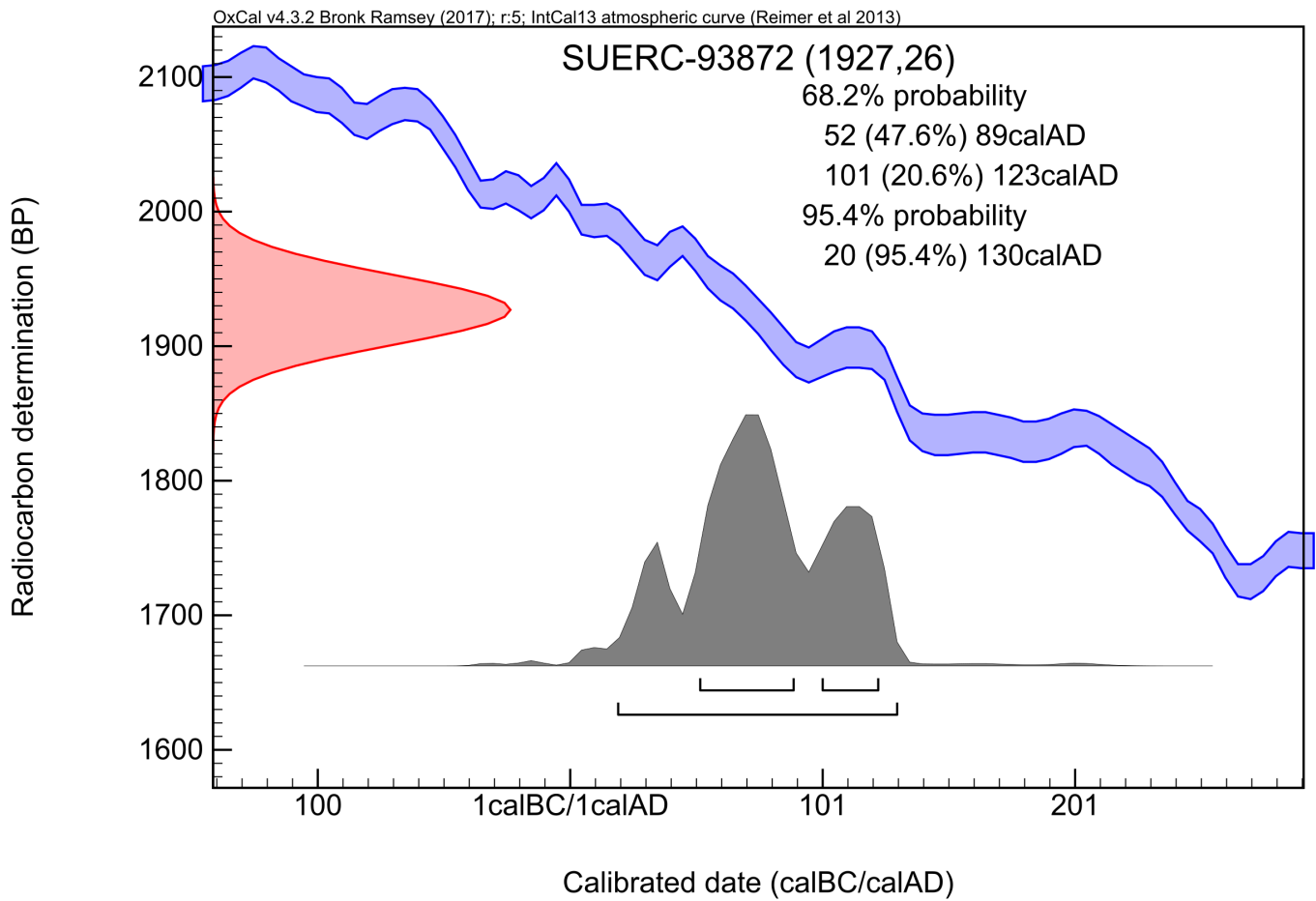
For any queries relating to this certificate, the laboratory can be contacted at [suerc-c14lab@glasgow.ac.uk](mailto:suerc-c14lab@glasgow.ac.uk).

Conventional age and calibration age ranges calculated by :

*E. Dunbar*

Checked and signed off by :

*P. Nayantub*



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.\*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

\* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87

*RADIOCARBON DATING CERTIFICATE*

19 August 2020

**Laboratory Code** SUERC-93873 (GU55663)  
**Submitter** Laura Pooley  
Colchester Archaeological Trust  
Roman Circus House  
Roman Circus Walk  
Colchester  
Essex CO2 7GZ  
**Site Reference** Colchester CNG COLEM:2017.152  
**Context Reference** F190 (131)  
**Sample Reference** 62  
**Material** Charcoal (cherry/plum/sloe twig)  
 **$\delta^{13}\text{C}$  relative to VPDB** -27.2 ‰  
**Radiocarbon Age BP** 827  $\pm$  26

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

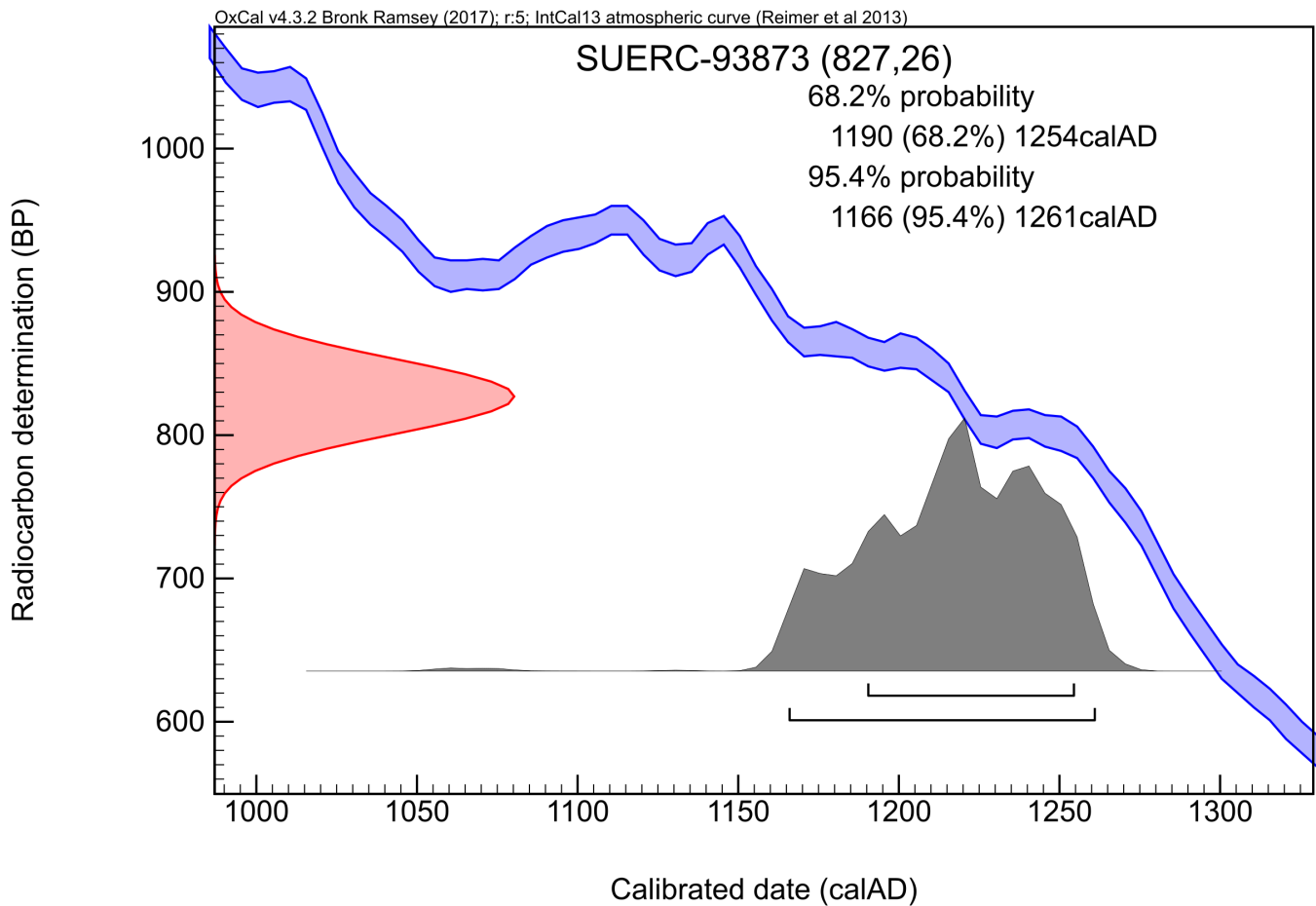
For any queries relating to this certificate, the laboratory can be contacted at [suerc-c14lab@glasgow.ac.uk](mailto:suerc-c14lab@glasgow.ac.uk).

Conventional age and calibration age ranges calculated by :

*E. Dunbar*

Checked and signed off by :

*P. Naynab*



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.\*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

\* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87

*RADIOCARBON DATING CERTIFICATE*

19 August 2020

**Laboratory Code** SUERC-93874 (GU55664)

**Submitter** Laura Pooley  
Colchester Archaeological Trust  
Roman Circus House  
Roman Circus Walk  
Colchester  
Essex CO2 7GZ

**Site Reference** Colchester CNG COLEM:2017.152

**Context Reference** F235 (152)

**Sample Reference** 82

**Material** Charcoal (cherry/plum/sloe)

**$\delta^{13}\text{C}$  relative to VPDB** -23.9 ‰

**Radiocarbon Age BP** 2018  $\pm$  26

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

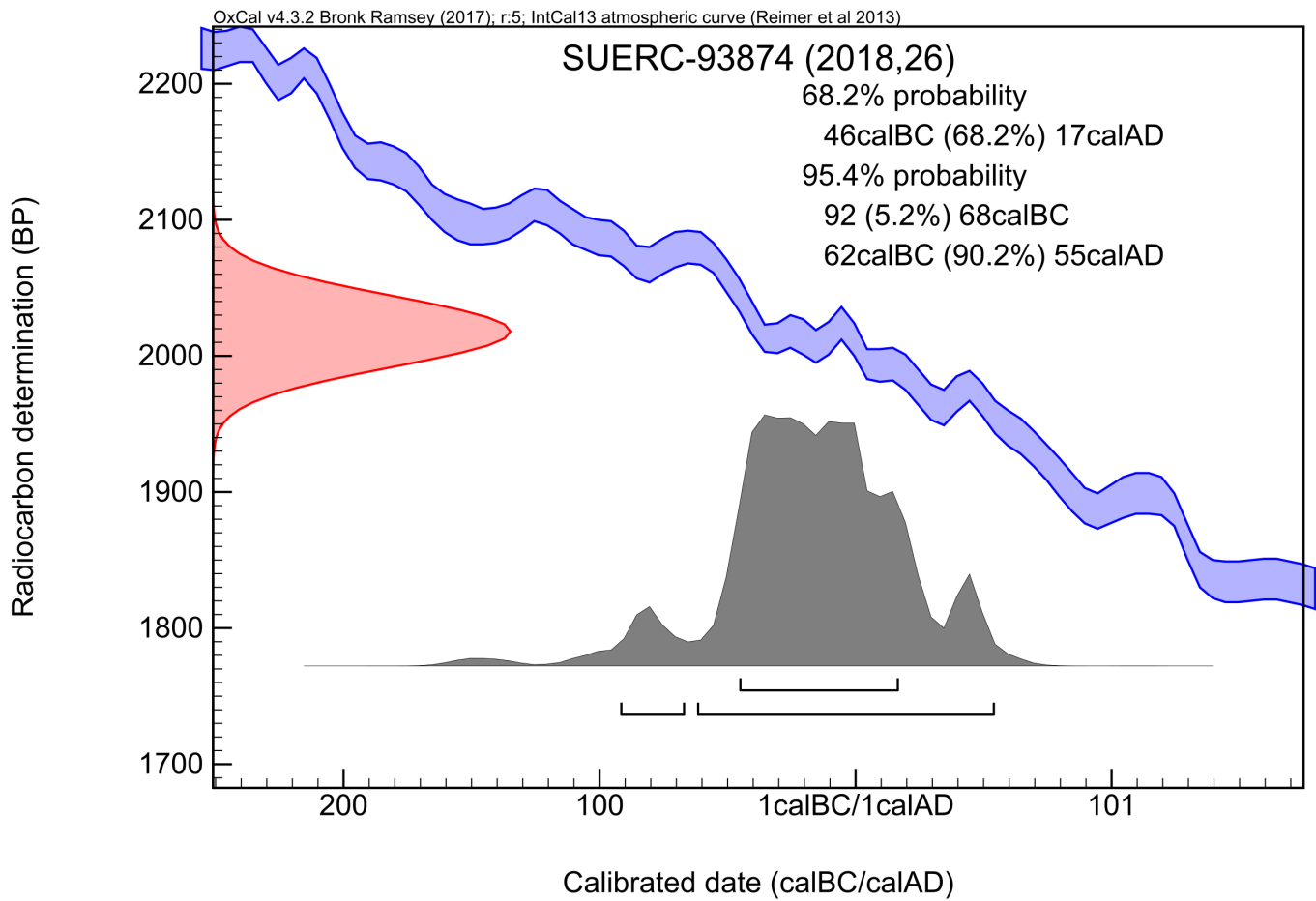
For any queries relating to this certificate, the laboratory can be contacted at [suerc-c14lab@glasgow.ac.uk](mailto:suerc-c14lab@glasgow.ac.uk).

Conventional age and calibration age ranges calculated by :

*E. Dunbar*

Checked and signed off by :

*P. Naynab*



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.\*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

\* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87



*RADIOCARBON DATING CERTIFICATE*

19 August 2020

**Laboratory Code** SUERC-93878 (GU55665)  
**Submitter** Laura Pooley  
Colchester Archaeological Trust  
Roman Circus House  
Roman Circus Walk  
Colchester  
Essex CO2 7GZ  
**Site Reference** Colchester CNG COLEM:2017.152  
**Context Reference** F240 (156)  
**Sample Reference** 86  
**Material** Charcoal (cherry/plum/sloe)  
 **$\delta^{13}\text{C}$  relative to VPDB** -27.5 ‰  
**Radiocarbon Age BP** 1065  $\pm$  26

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

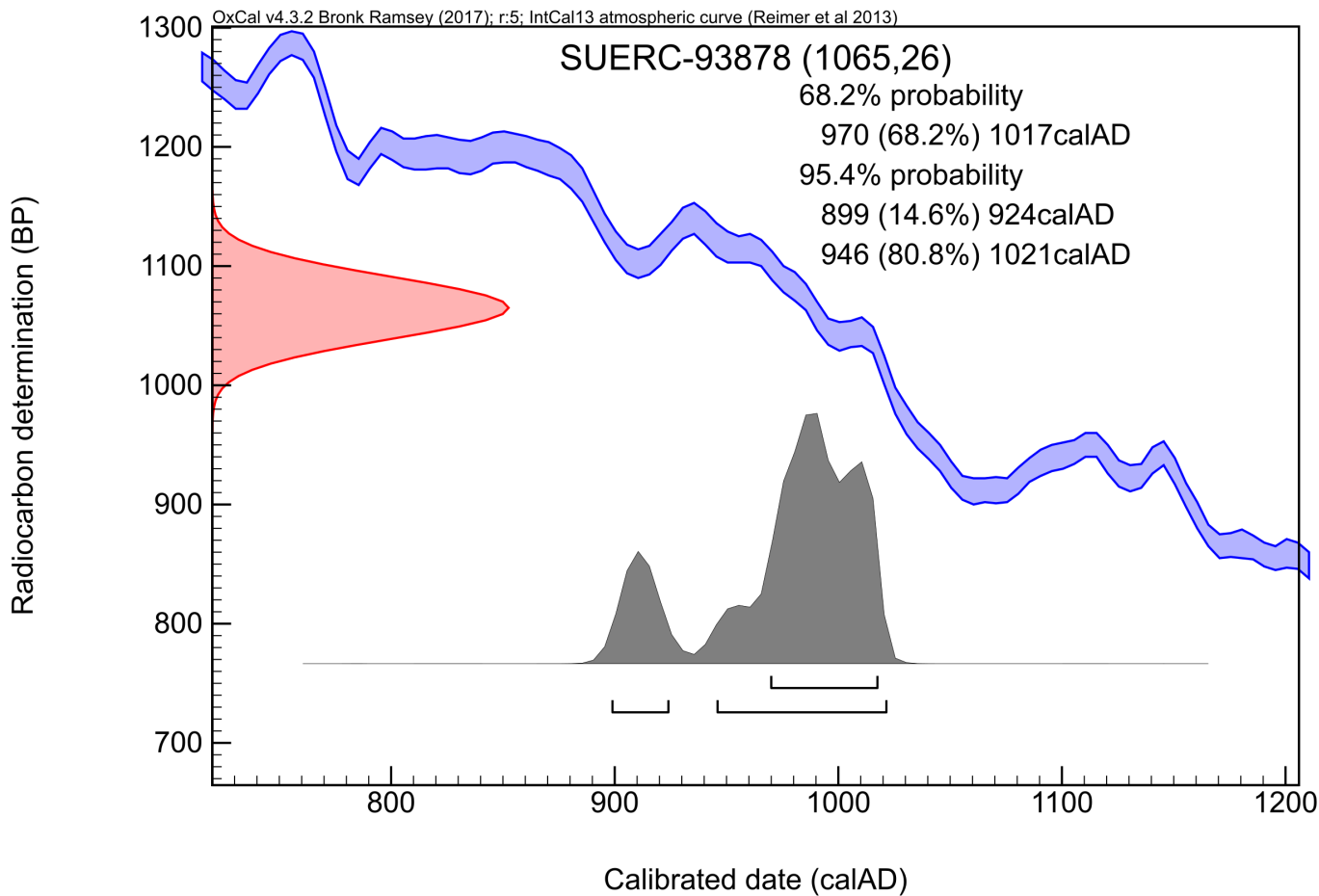
For any queries relating to this certificate, the laboratory can be contacted at [suerc-c14lab@glasgow.ac.uk](mailto:suerc-c14lab@glasgow.ac.uk).

Conventional age and calibration age ranges calculated by :

*E. Dunbar*

Checked and signed off by :

*P. Nayantub*



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.\*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

\* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87

*RADIOCARBON DATING CERTIFICATE*

19 August 2020

**Laboratory Code** SUERC-93879 (GU55666)

**Submitter** Laura Pooley  
Colchester Archaeological Trust  
Roman Circus House  
Roman Circus Walk  
Colchester  
Essex CO2 7GZ

**Site Reference** Colchester CNG COLEM:2017.152

**Context Reference** F274 (173)

**Sample Reference** 99

**Material** Charcoal (hazel)

**$\delta^{13}\text{C}$  relative to VPDB** -25.9 ‰

**Radiocarbon Age BP** 2012  $\pm$  26

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

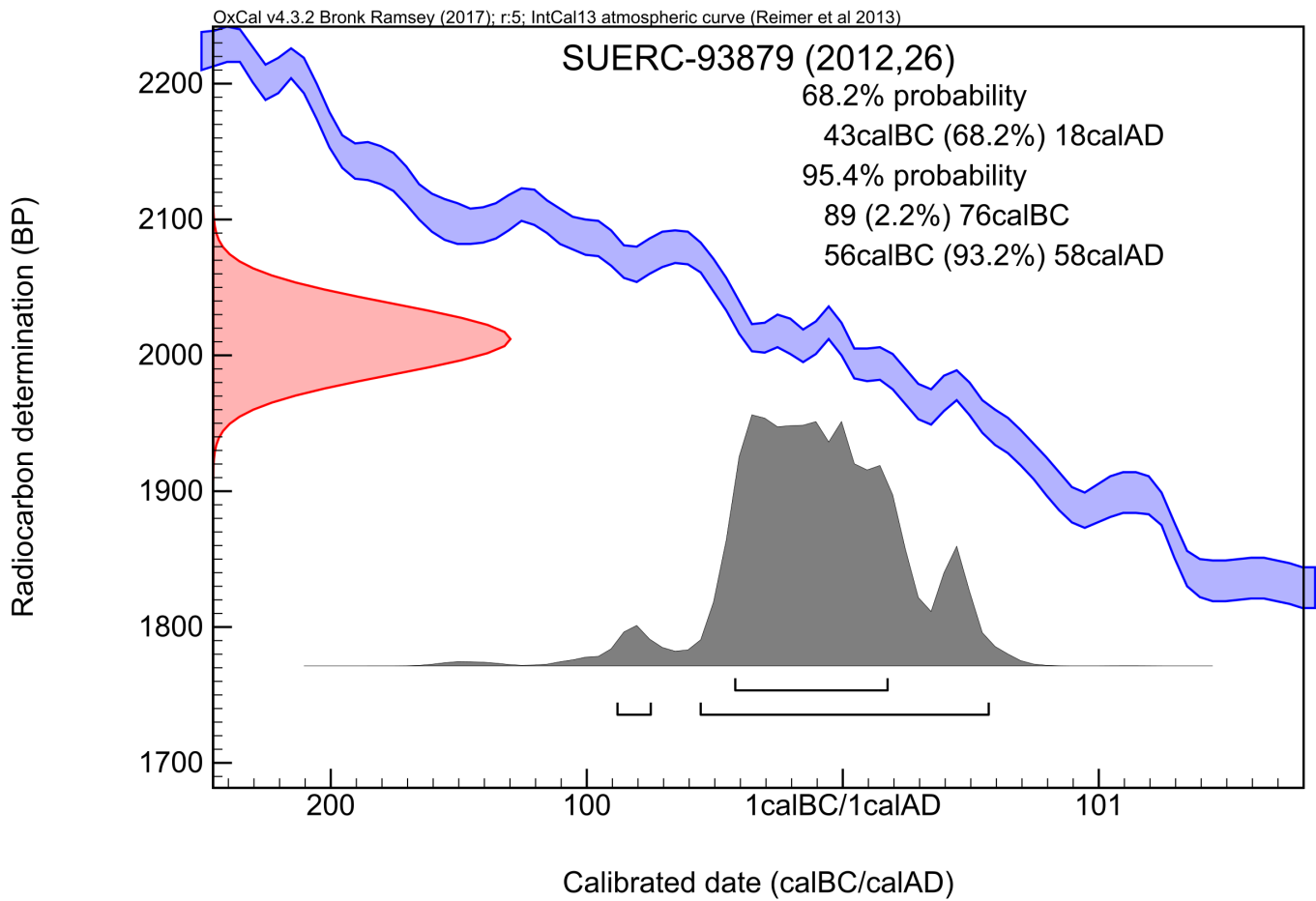
For any queries relating to this certificate, the laboratory can be contacted at [suerc-c14lab@glasgow.ac.uk](mailto:suerc-c14lab@glasgow.ac.uk).

Conventional age and calibration age ranges calculated by :

*E. Dunbar*

Checked and signed off by :

*P. Nayantub*



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.\*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

\* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87

*RADIOCARBON DATING CERTIFICATE*

19 August 2020

**Laboratory Code** SUERC-93880 (GU55667)

**Submitter** Laura Pooley  
Colchester Archaeological Trust  
Roman Circus House  
Roman Circus Walk  
Colchester  
Essex CO2 7GZ

**Site Reference** Colchester CNG COLEM:2017.152

**Context Reference** WBF290 (178)

**Sample Reference** 102

**Material** Charcoal (cherry/plum/sloe)

**$\delta^{13}\text{C}$  relative to VPDB** -23.3 ‰

**Radiocarbon Age BP** 884  $\pm$  26

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

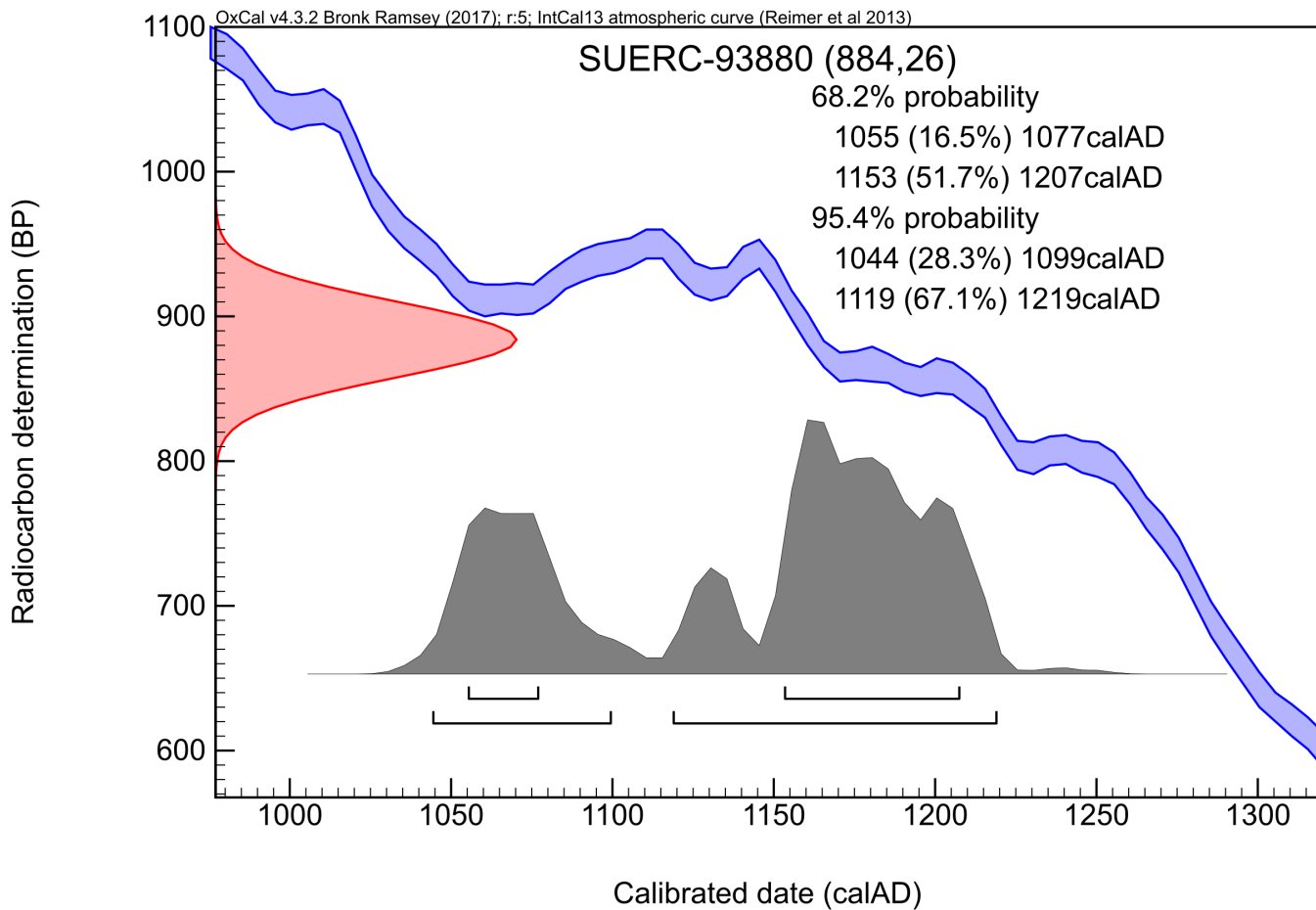
For any queries relating to this certificate, the laboratory can be contacted at [suerc-c14lab@glasgow.ac.uk](mailto:suerc-c14lab@glasgow.ac.uk).

Conventional age and calibration age ranges calculated by :

*E. Dunbar*

Checked and signed off by :

*P. Nayantub*



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.\*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

\* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87

*RADIOCARBON DATING CERTIFICATE*

19 August 2020

**Laboratory Code** SUERC-93881 (GU55668)

**Submitter** Laura Pooley  
Colchester Archaeological Trust  
Roman Circus House  
Roman Circus Walk  
Colchester  
Essex CO2 7GZ

**Site Reference** Colchester CNG COLEM:2017.152

**Context Reference** WBF306 (187)

**Sample Reference** 111

**Material** Charcoal (hazel)

**$\delta^{13}\text{C}$  relative to VPDB** -23.2 ‰

**Radiocarbon Age BP** 1958  $\pm$  26

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

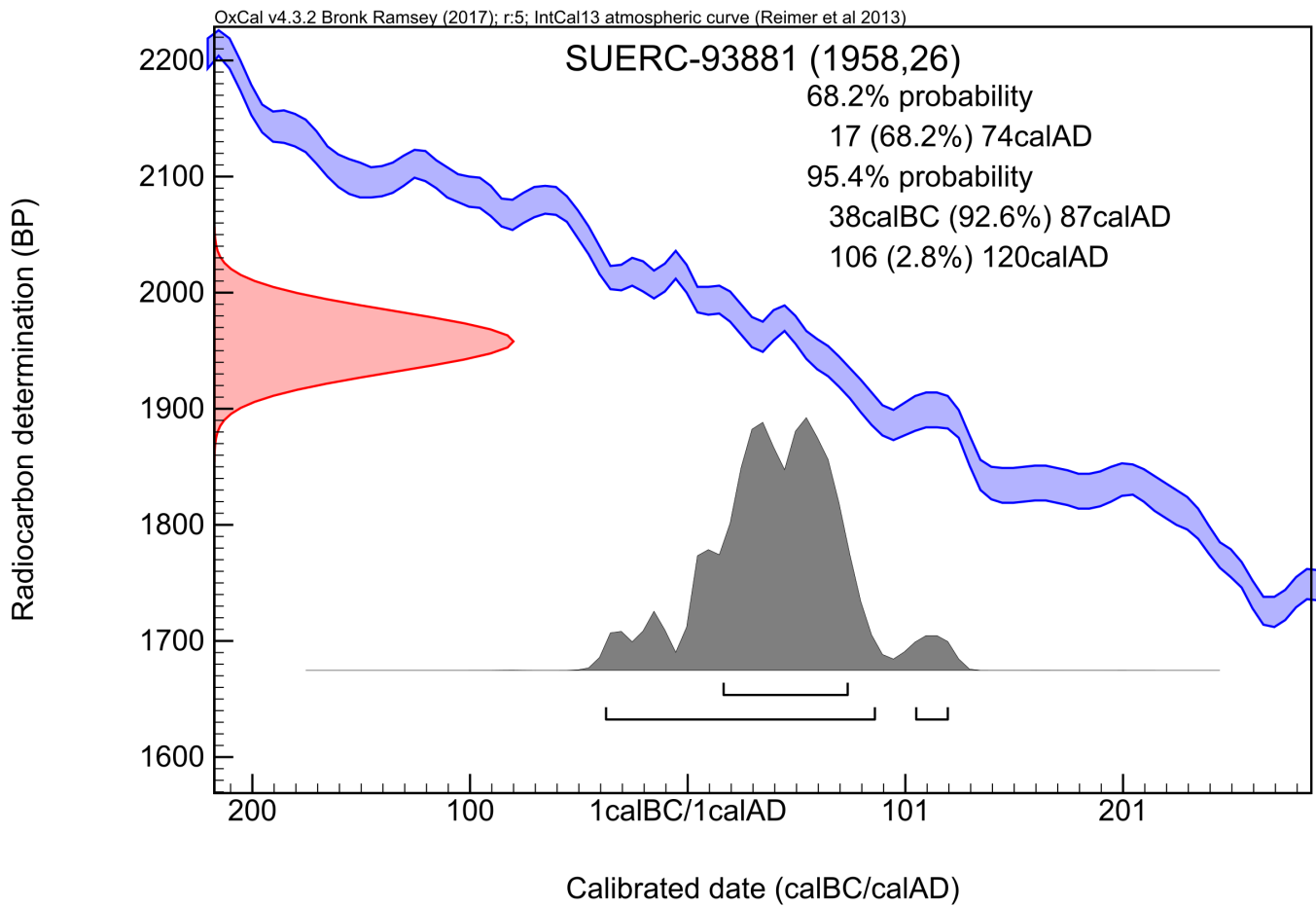
For any queries relating to this certificate, the laboratory can be contacted at [suerc-c14lab@glasgow.ac.uk](mailto:suerc-c14lab@glasgow.ac.uk).

Conventional age and calibration age ranges calculated by :

*E. Dunbar*

Checked and signed off by :

*P. Naynab*



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.\*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

\* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87



*RADIOCARBON DATING CERTIFICATE*

19 August 2020

**Laboratory Code** SUERC-93882 (GU55669)

**Submitter** Laura Pooley  
Colchester Archaeological Trust  
Roman Circus House  
Roman Circus Walk  
Colchester  
Essex CO2 7GZ

**Site Reference** Colchester CNG COLEM:2017.152

**Context Reference** WBF320 (191)

**Sample Reference** 115

**Material** Charcoal (cherry/plum/sloe)

**$\delta^{13}\text{C}$  relative to VPDB** -24.3 ‰

**Radiocarbon Age BP** 861  $\pm$  26

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

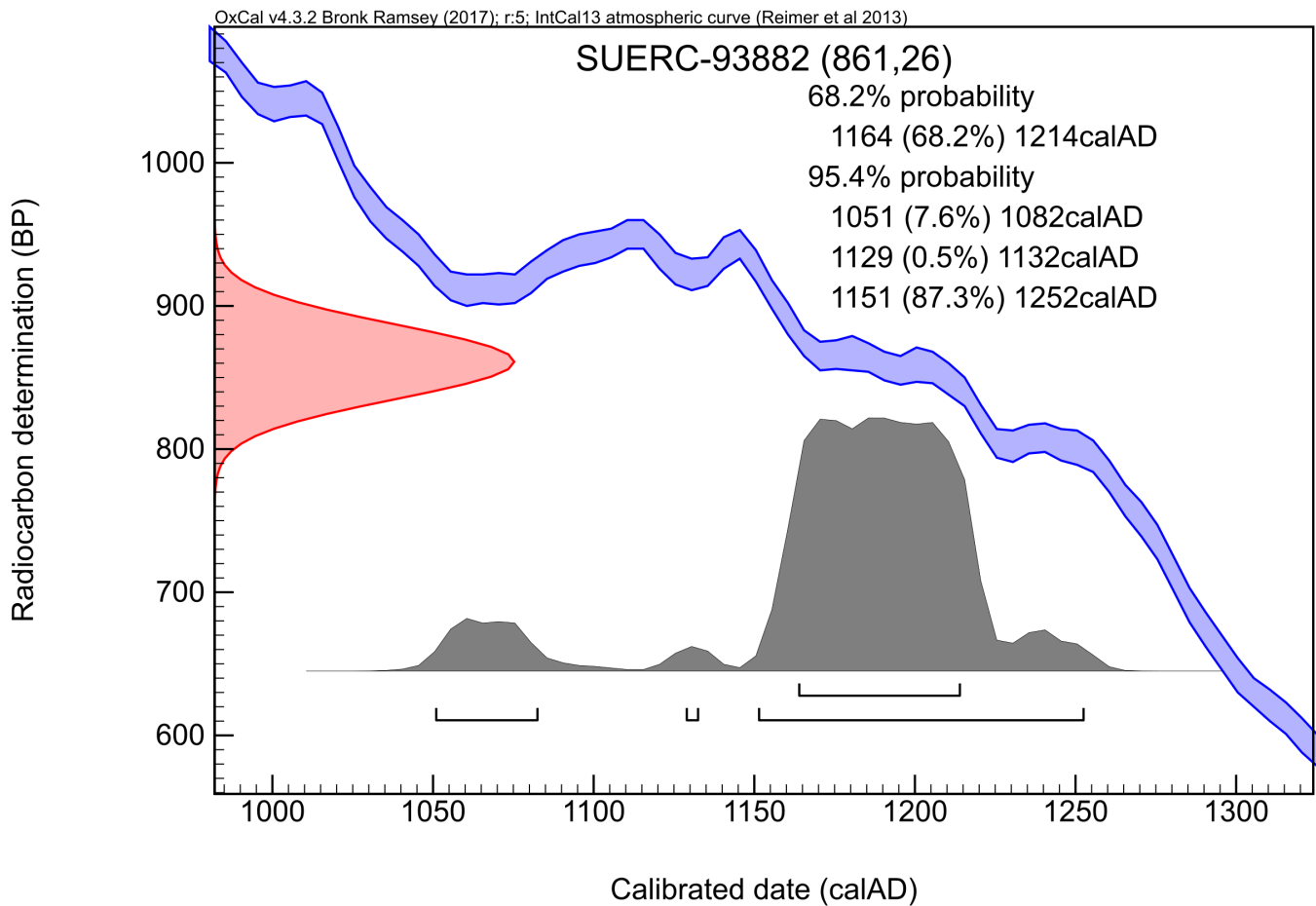
For any queries relating to this certificate, the laboratory can be contacted at [suerc-c14lab@glasgow.ac.uk](mailto:suerc-c14lab@glasgow.ac.uk).

Conventional age and calibration age ranges calculated by :

*E. Dunbar*

Checked and signed off by :

*P. Nayantub*



The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.\*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

\* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87



*RADIOCARBON DATING CERTIFICATE*

19 August 2020

**Laboratory Code** SUERC-93883 (GU55670)

**Submitter** Laura Pooley  
Colchester Archaeological Trust  
Roman Circus House  
Roman Circus Walk  
Colchester  
Essex CO2 7GZ

**Site Reference** Colchester CNG COLEM:2017.152

**Context Reference** WBF332 (201)

**Sample Reference** 125

**Material** Charcoal (cherry/plum/sloe)

**$\delta^{13}\text{C}$  relative to VPDB** -28.3 ‰

**Radiocarbon Age BP** 903  $\pm$  26

**N.B.** The above  $^{14}\text{C}$  age is quoted in conventional years BP (before 1950 AD) and requires calibration to the calendar timescale. The error, expressed at the one sigma level of confidence, includes components from the counting statistics on the sample, modern reference standard and blank and the random machine error.

Samples with a SUERC coding are measured at the Scottish Universities Environmental Research Centre AMS Laboratory and should be quoted as such in any reports within the scientific literature. The laboratory GU coding should also be given in parentheses after the SUERC code.

Detailed descriptions of the methods employed by the SUERC Radiocarbon Laboratory can be found in Dunbar et al. (2016) *Radiocarbon* 58(1) pp.9-23.

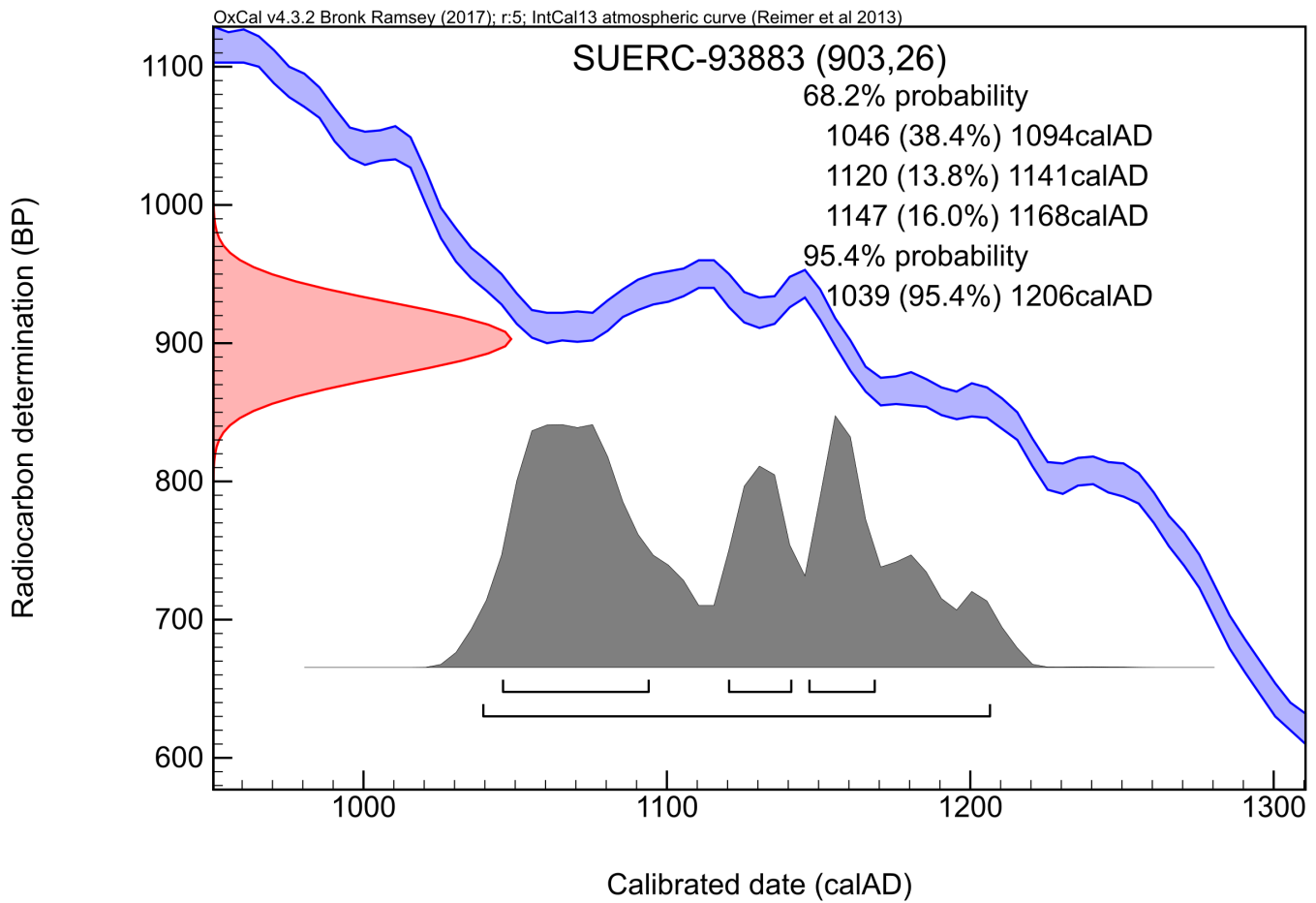
For any queries relating to this certificate, the laboratory can be contacted at [suerc-c14lab@glasgow.ac.uk](mailto:suerc-c14lab@glasgow.ac.uk).

Conventional age and calibration age ranges calculated by :

*E. Dunbar*

Checked and signed off by :

*P. Nayantub*



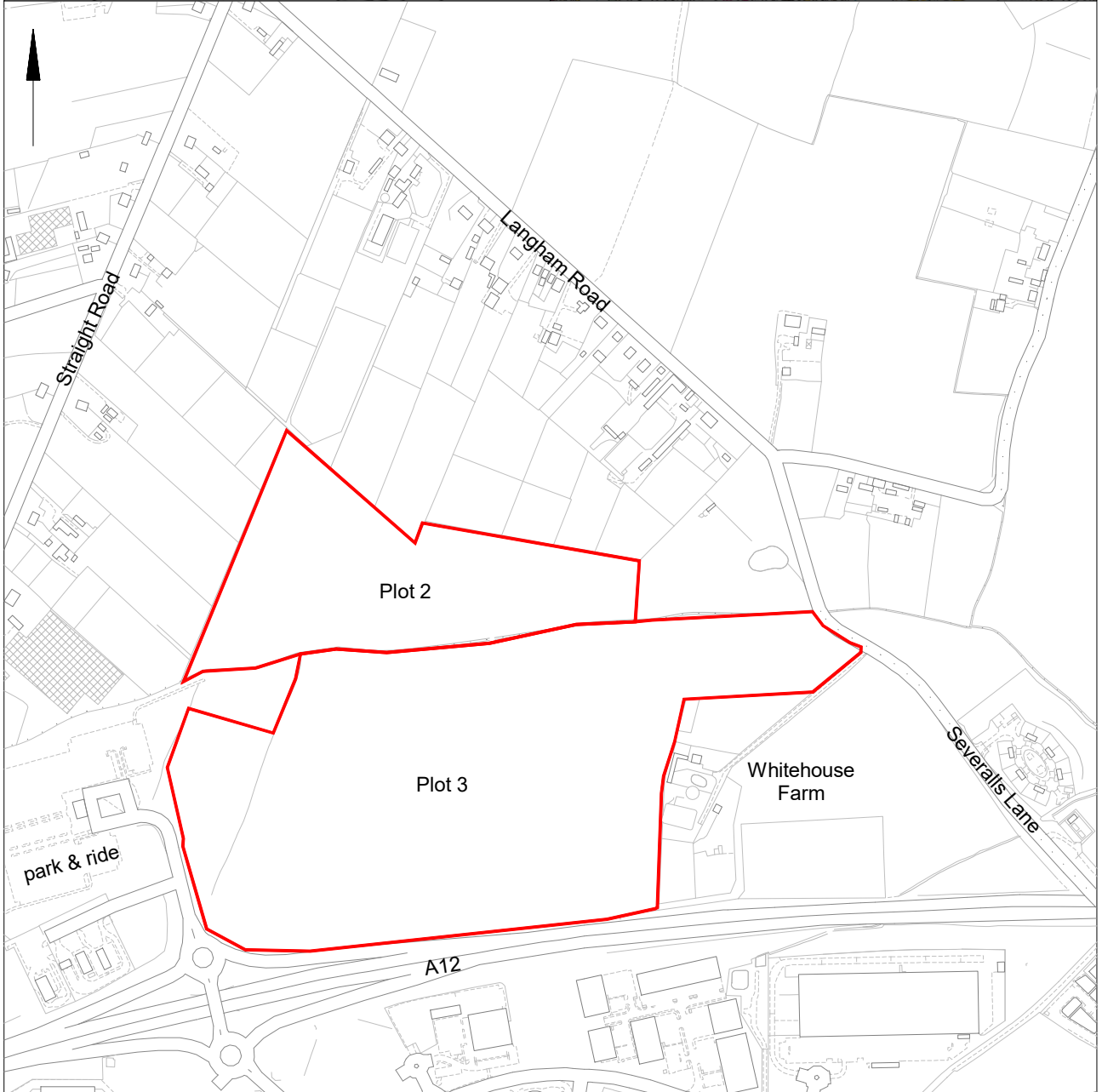
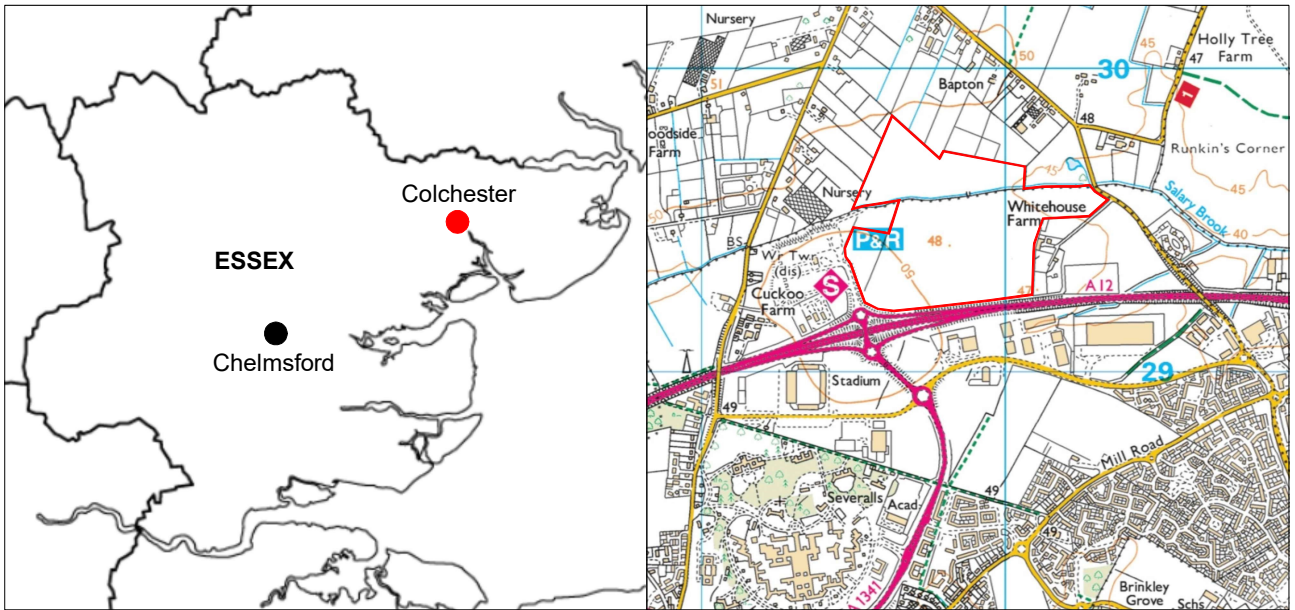
The radiocarbon age given overleaf is calibrated to the calendar timescale using the Oxford Radiocarbon Accelerator Unit calibration program OxCal 4.\*

The above date ranges have been calibrated using the IntCal13 atmospheric calibration curve†

Please contact the laboratory if you wish to discuss this further.

\* Bronk Ramsey (2009) *Radiocarbon* 51(1) pp.337-60

† Reimer et al. (2013) *Radiocarbon* 55(4) pp.1869-87



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Fig 1 Site location



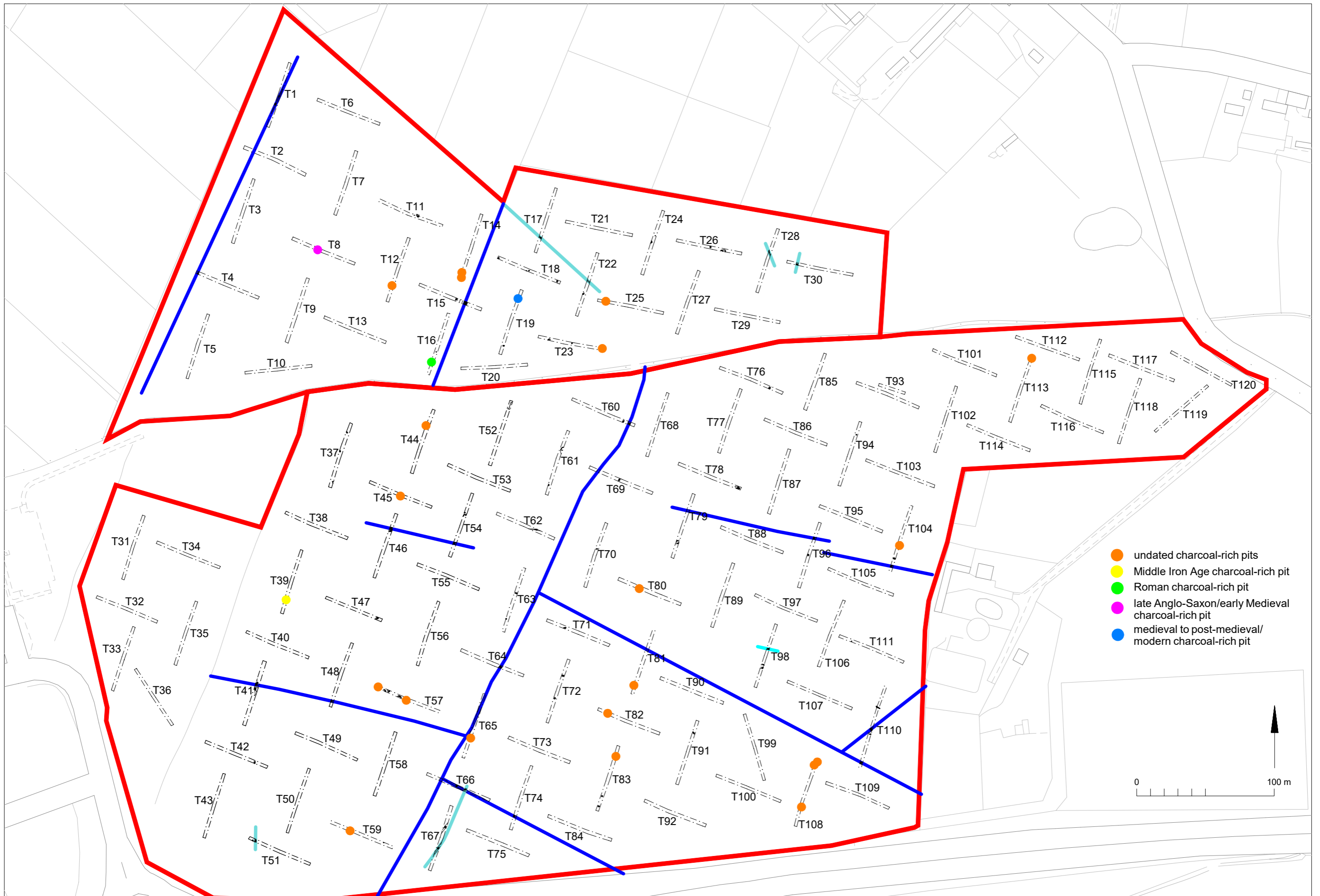


Fig 2 Results of the Stage I evaluation

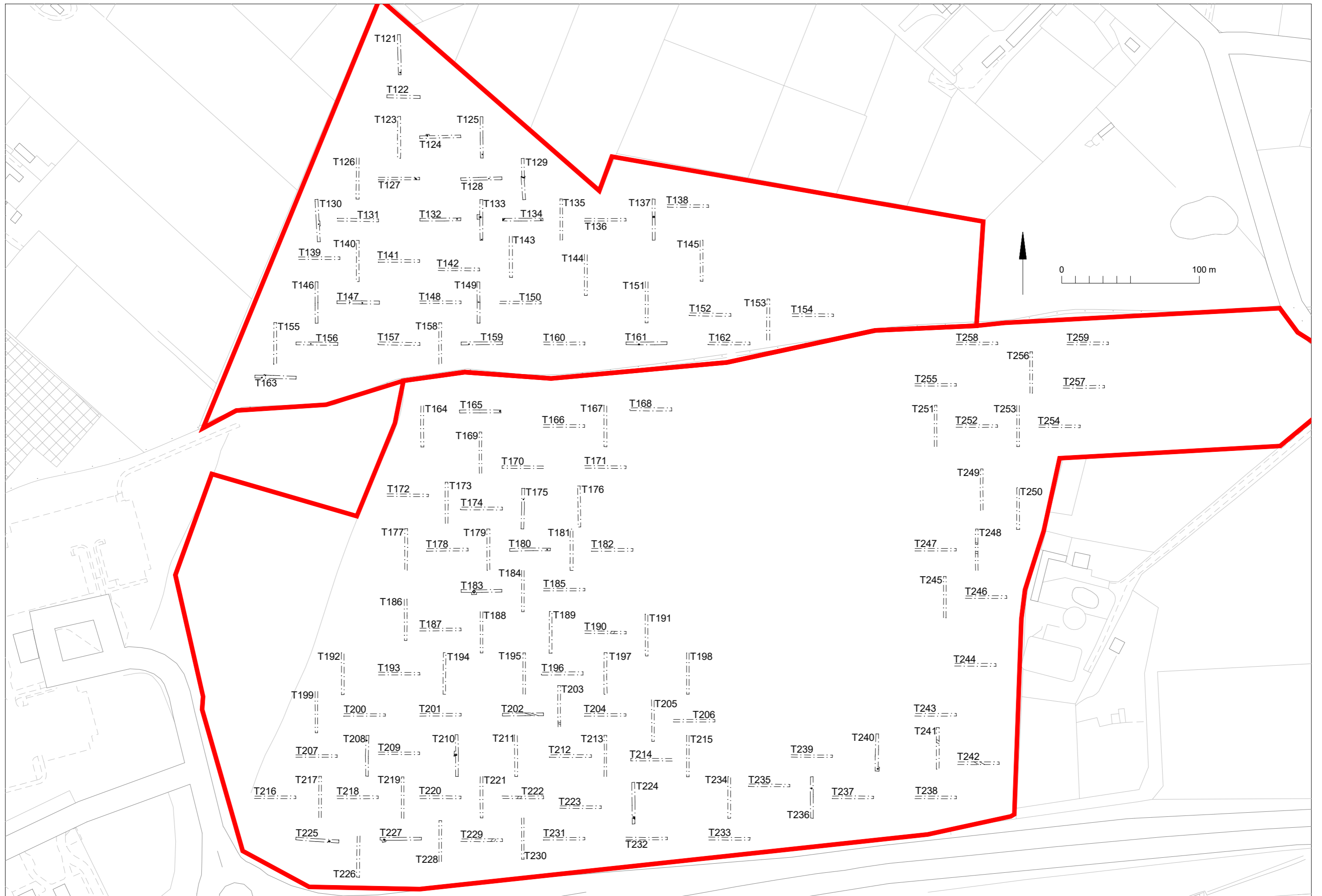


Fig 3 Results of the Stage II evaluation

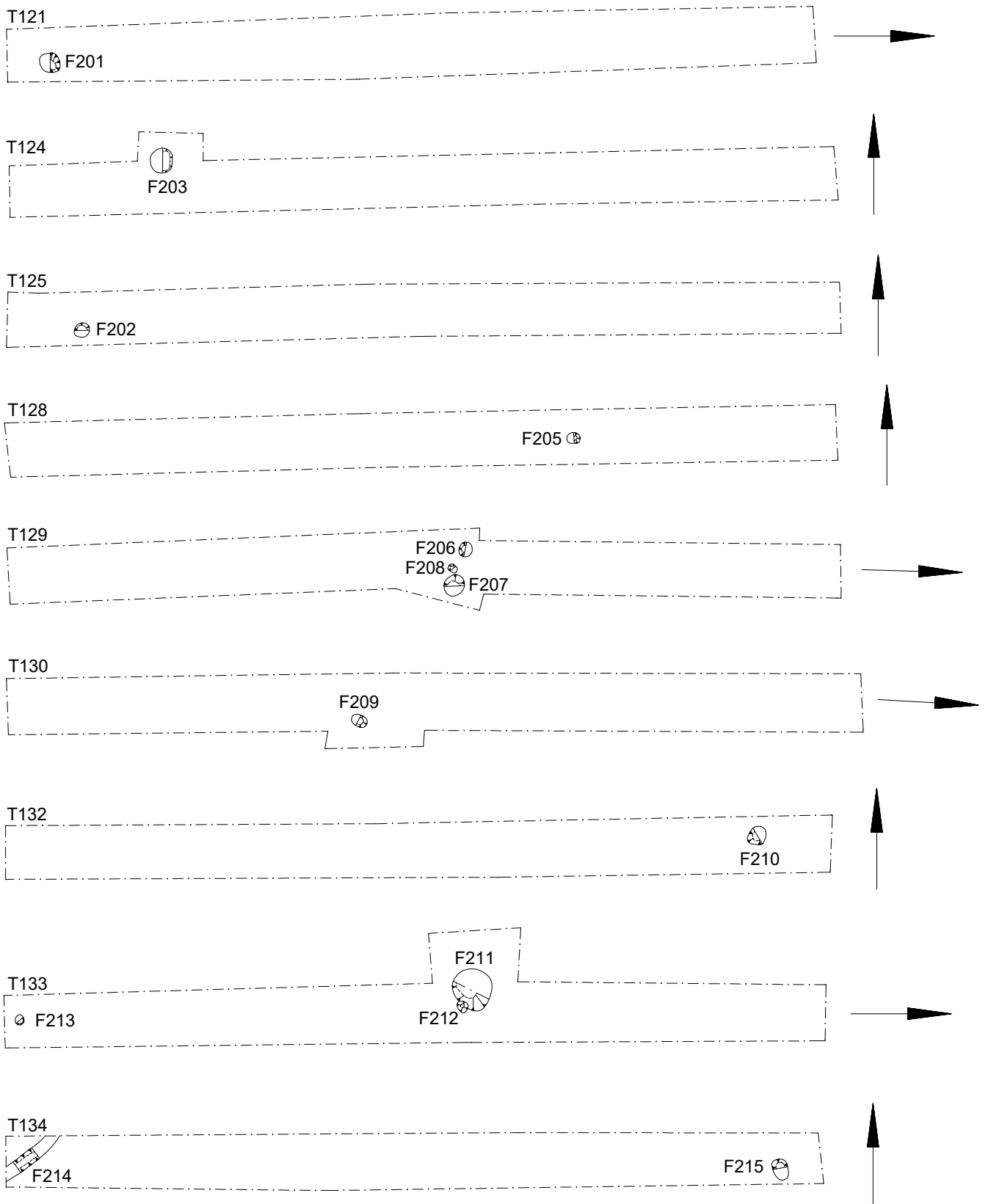


Fig 4 Stage II evaluation trench plans: T121, T124, T125, T128, T129, T130, T132, T133, T134 and T137





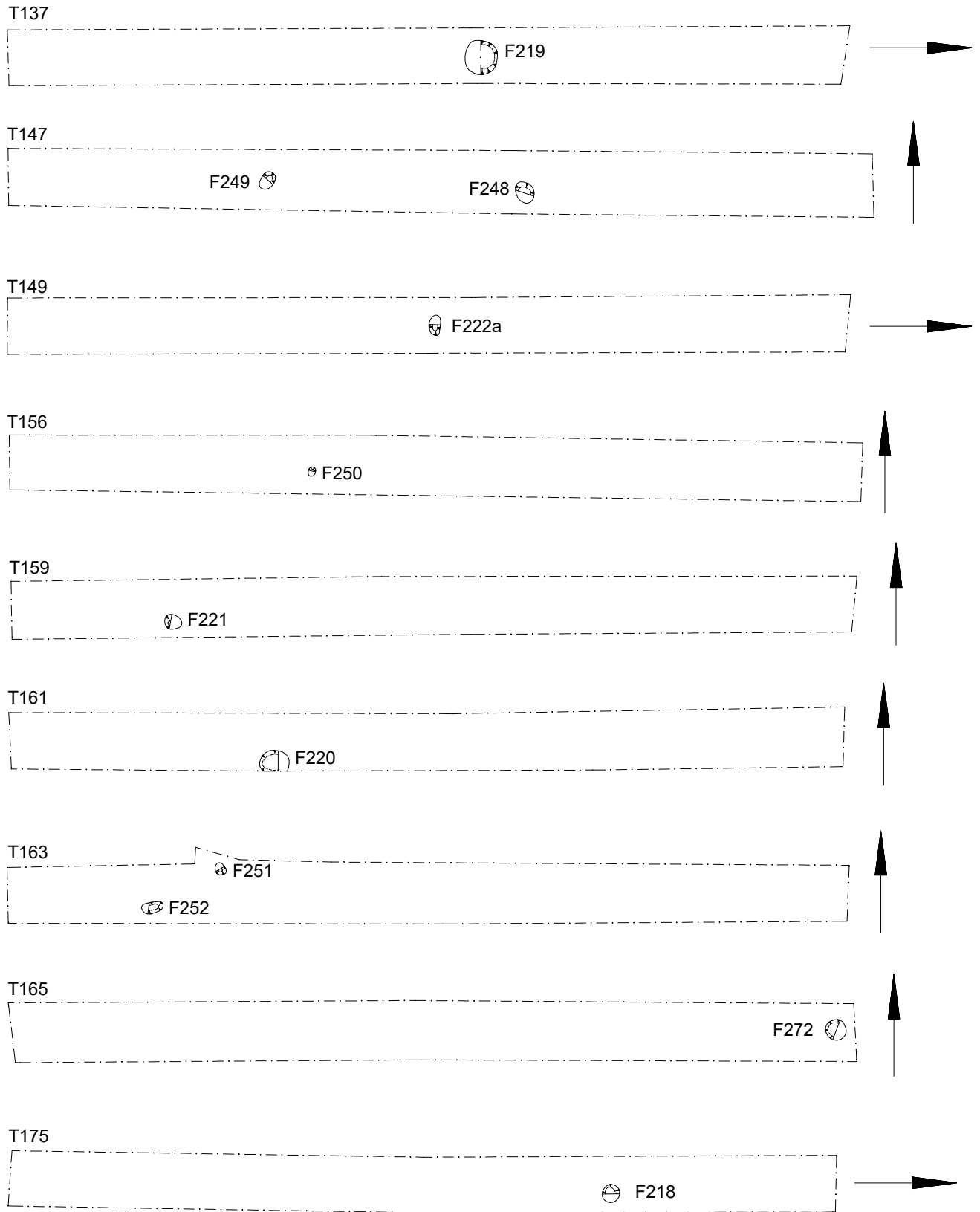


Fig 5 Stage II evaluation trench plans: T147, T149, T156, T159, T161, T163, T165, T175, T180 and T183



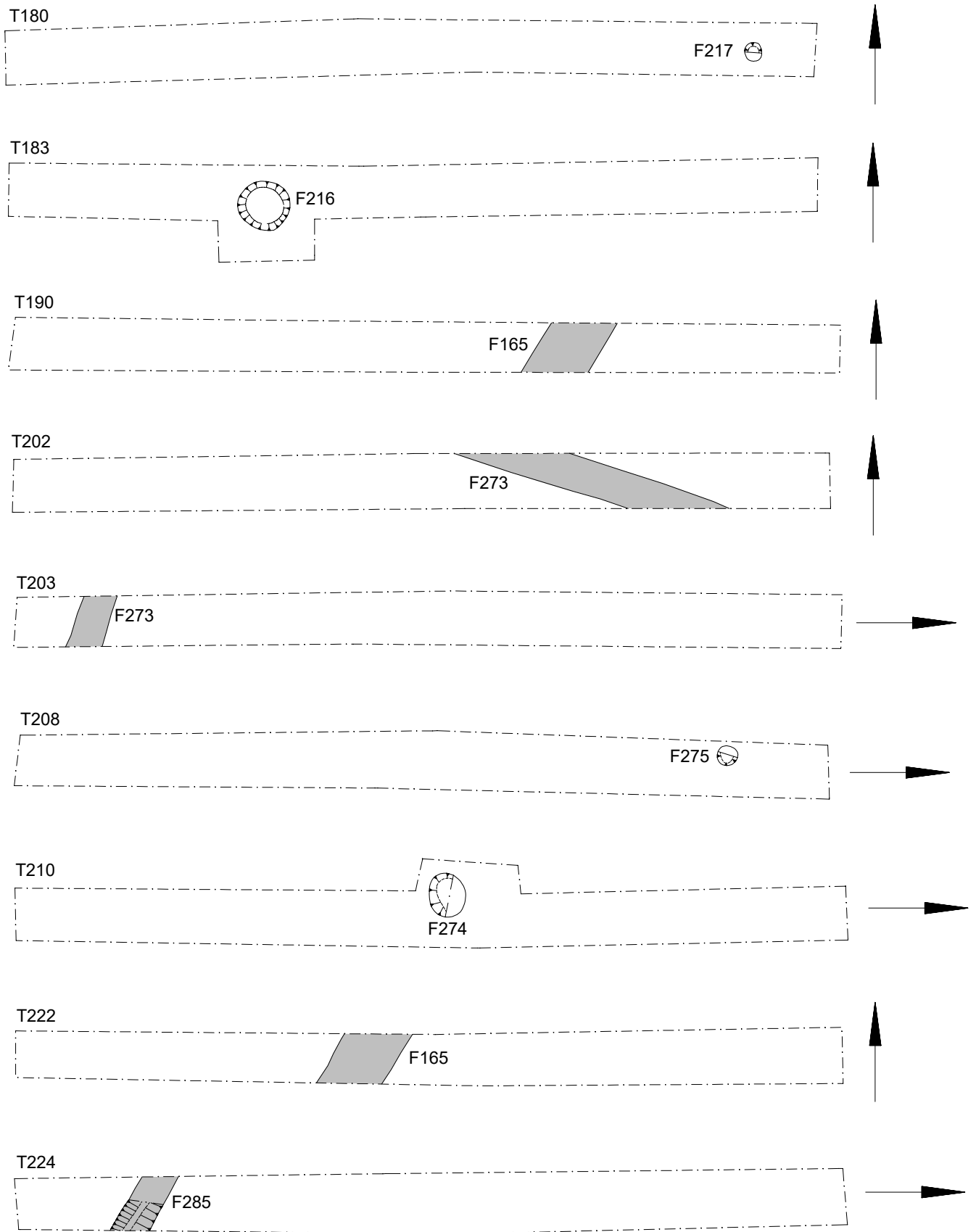


Fig 6 Stage II evaluation trench plans T180, T183, T190, T202, T203, T208, T210, T222 and T224. Modern features shown in grey.



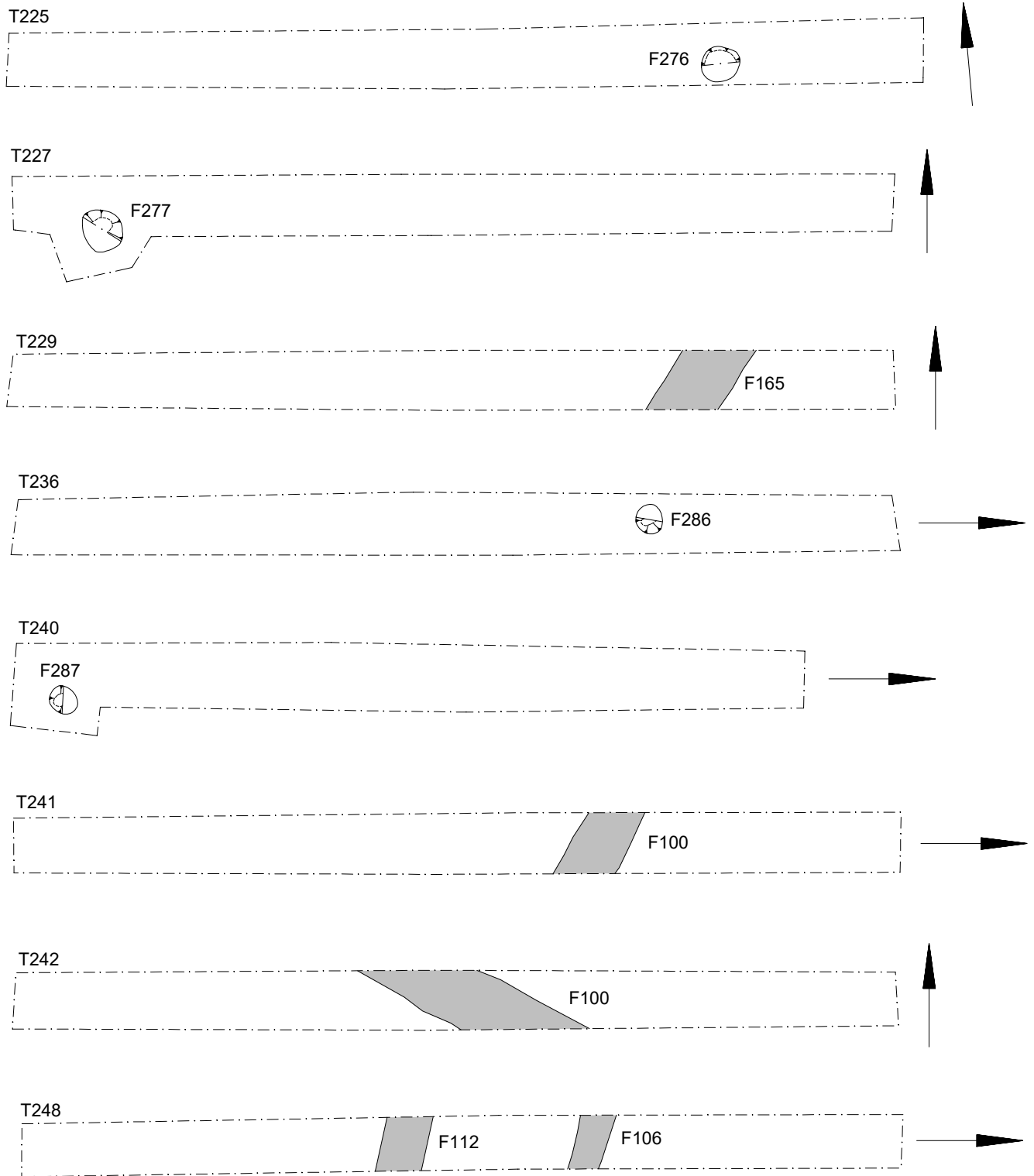


Fig 7 Stage II evaluation trenches: T227, T229, T236, T240, T241, T242 and T248. Modern features shown in grey.



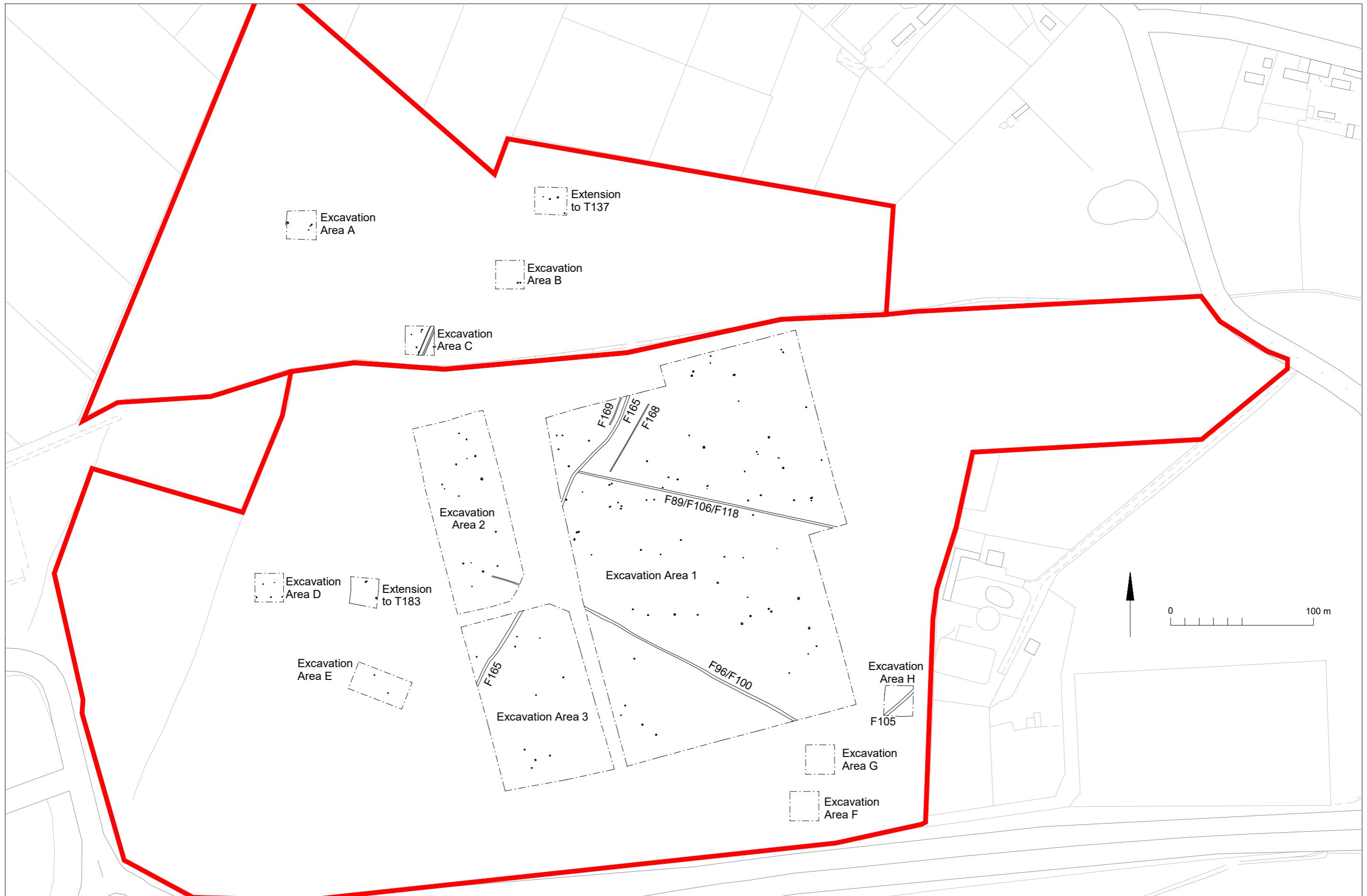


Fig 8 Locations of the Stage II excavation areas

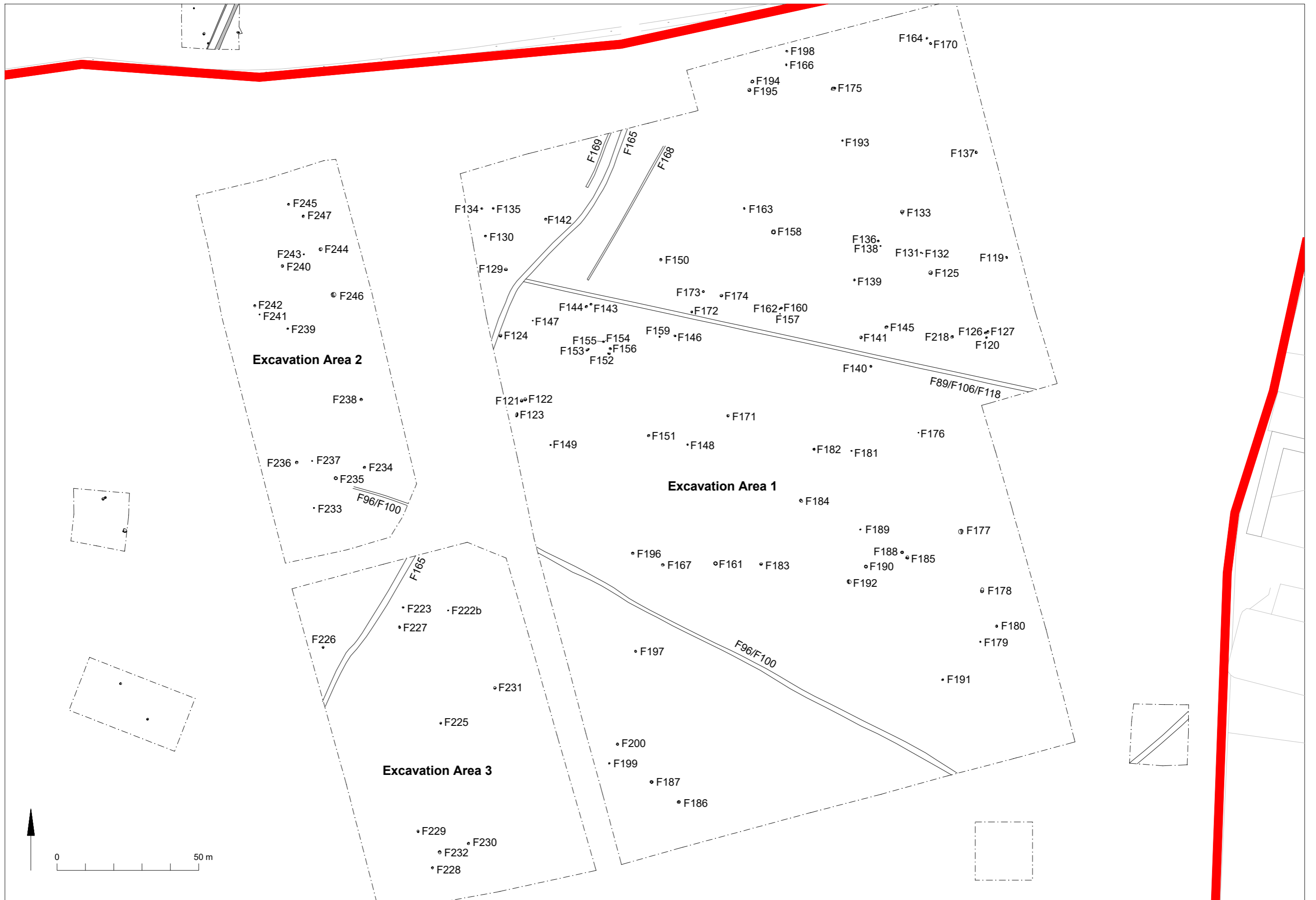


Fig 9 Results of the Stage II excavations: Areas 1, 2 and 3

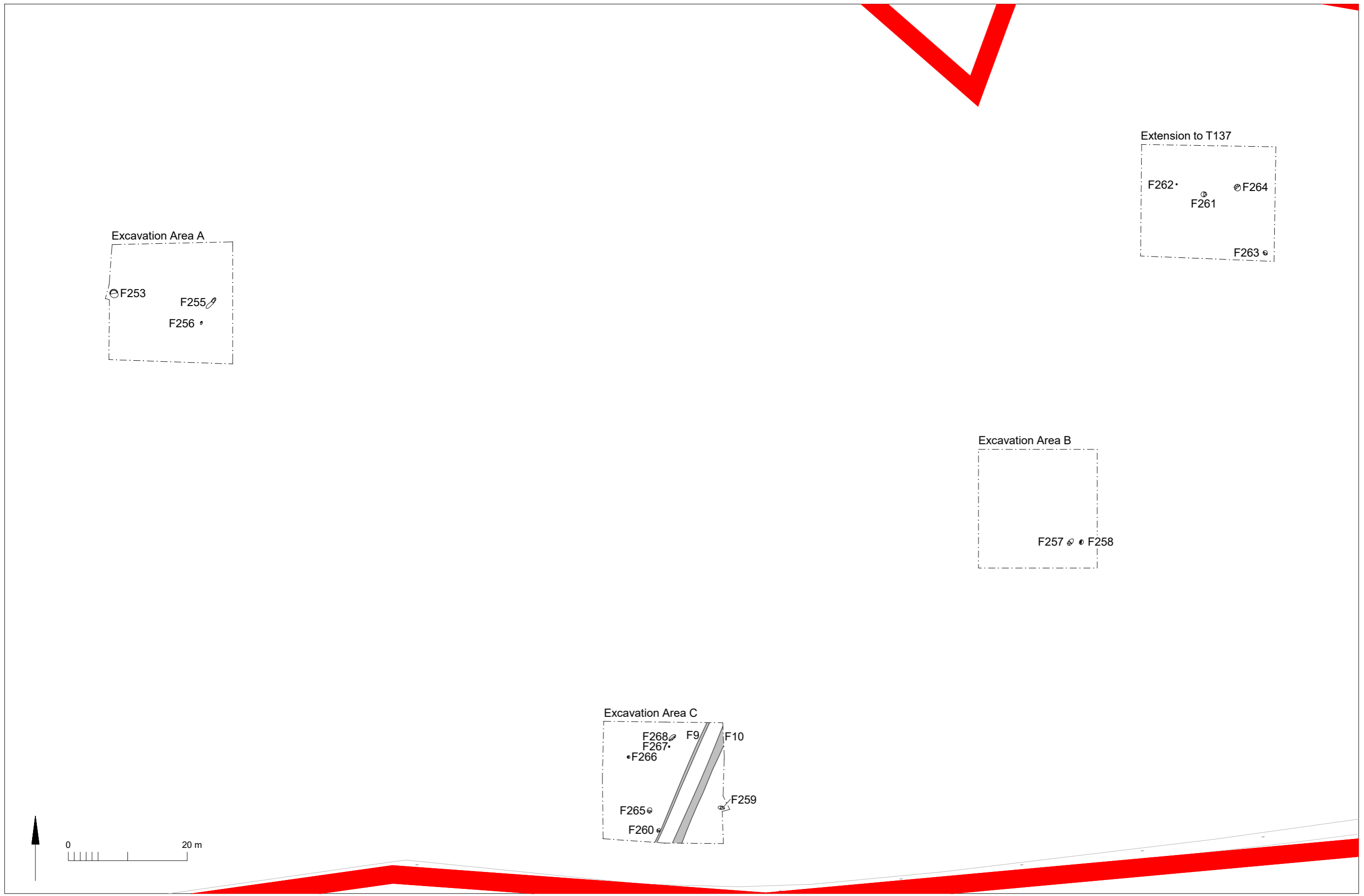


Fig 10 Results of the Stage II excavations: Areas A, B, C and the extension to T137

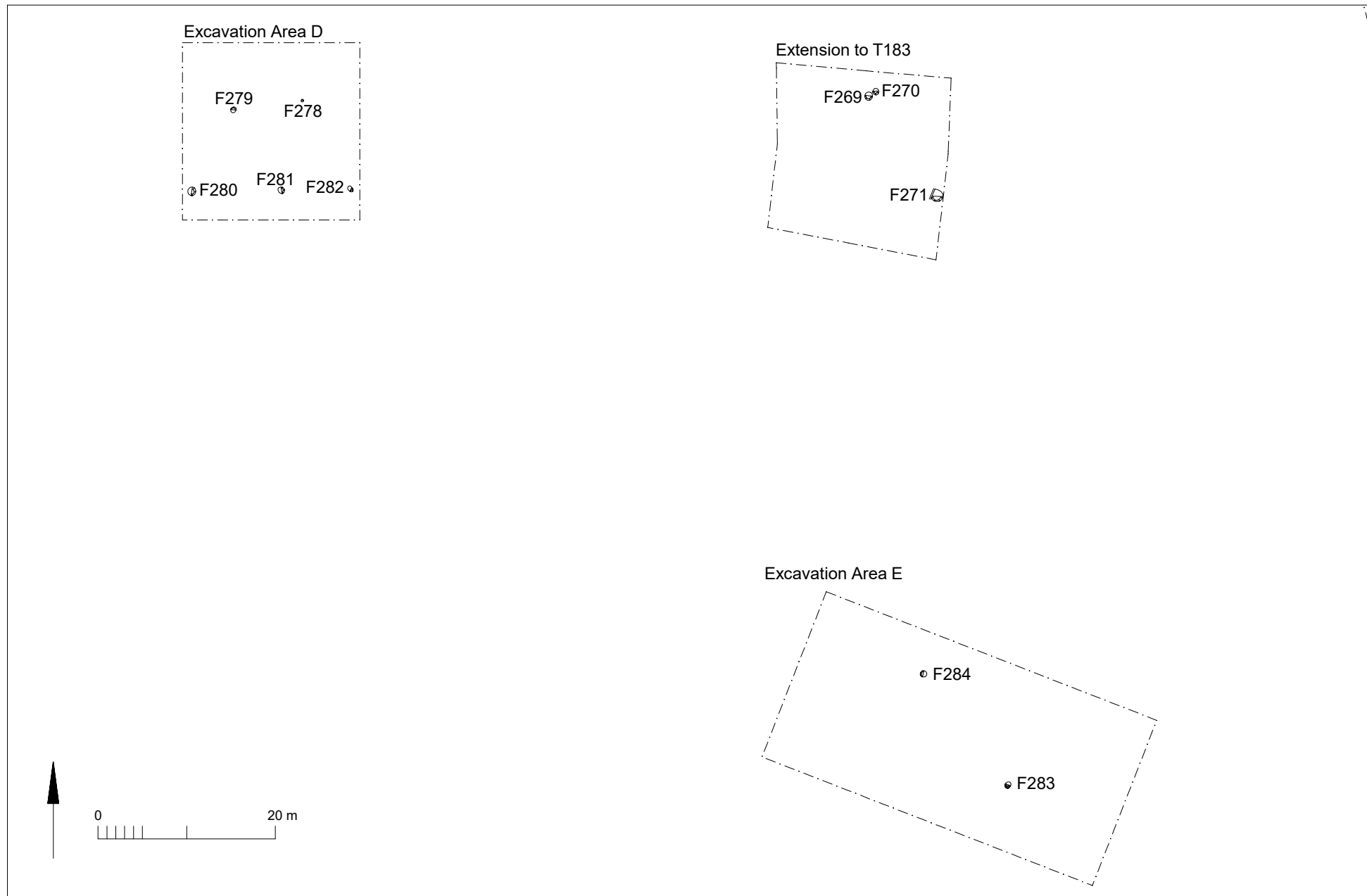


Fig 11 Results of the Stage II excavations: Areas D, E and the extension to T183



Fig 12 Results of the Stage II monitoring: Plot 2.



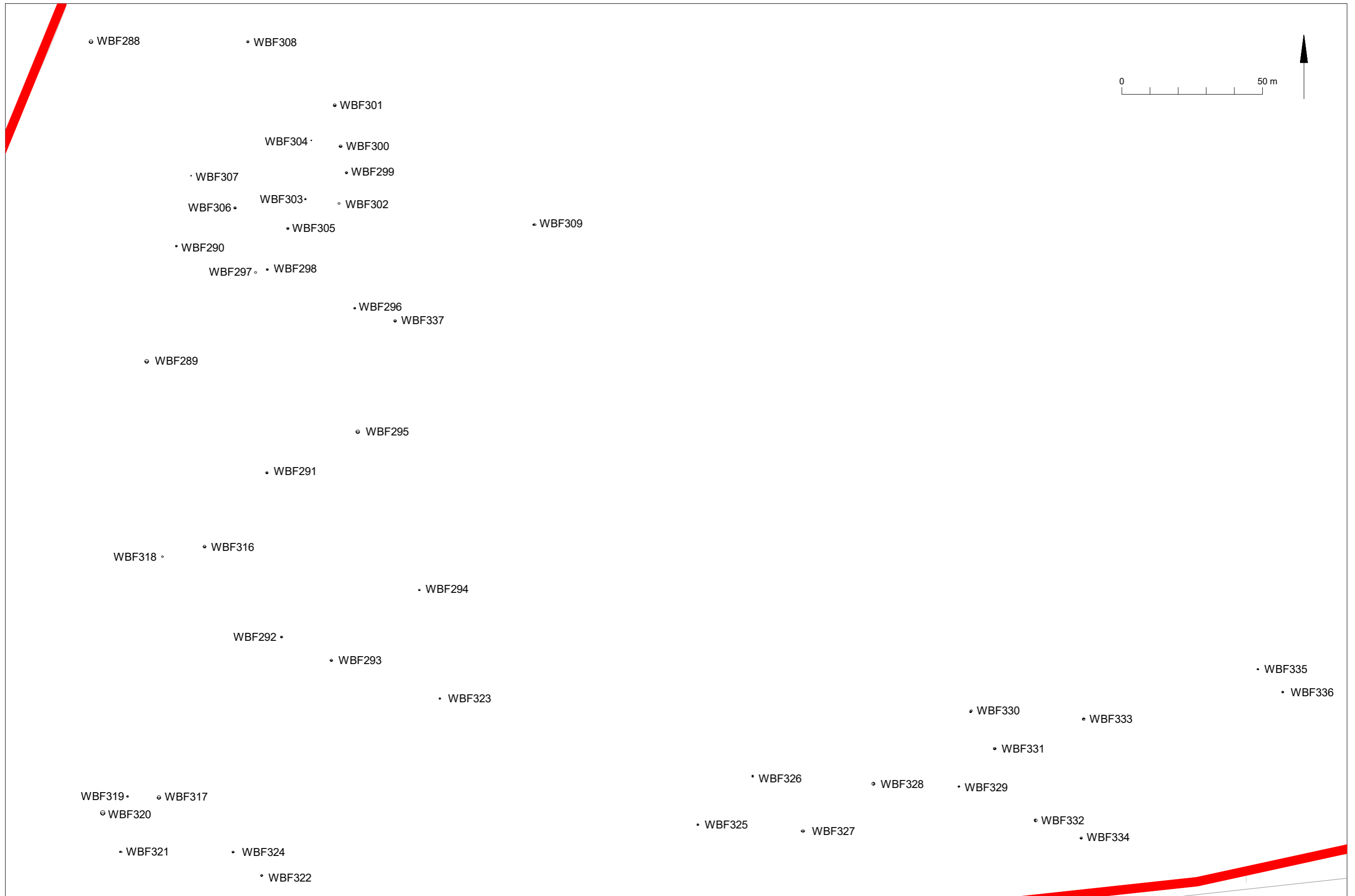


Fig 13 Results of the Stage II monitoring: Plot 3

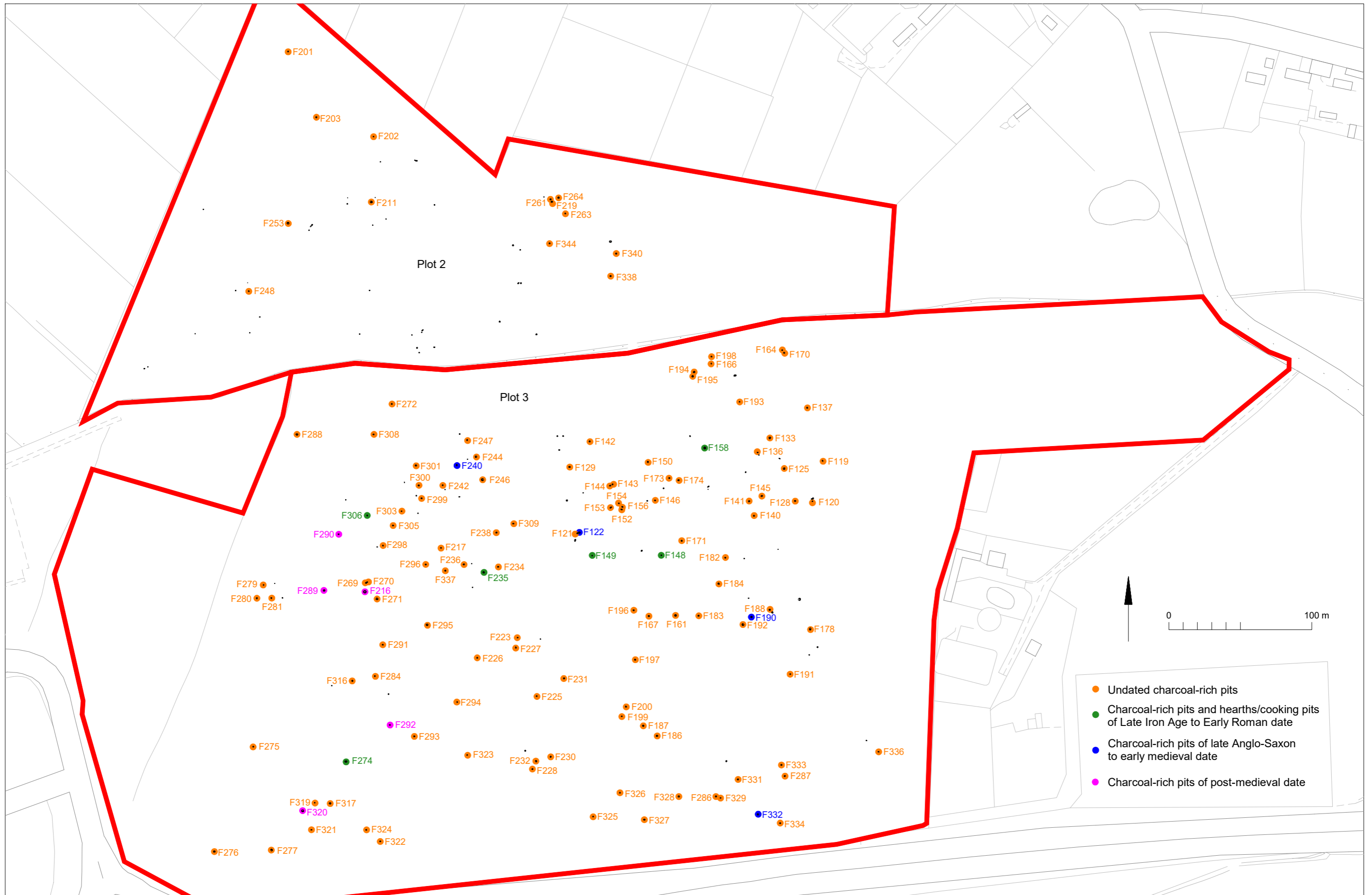


Fig 14 Phased plan showing all charcoal-rich pits and the three Late Iron Age hearths/cooking pits (F148, F149 and F235) from the Stage II investigations. All other features are shown unnumbered, except for the modern field boundaries which have been omitted.

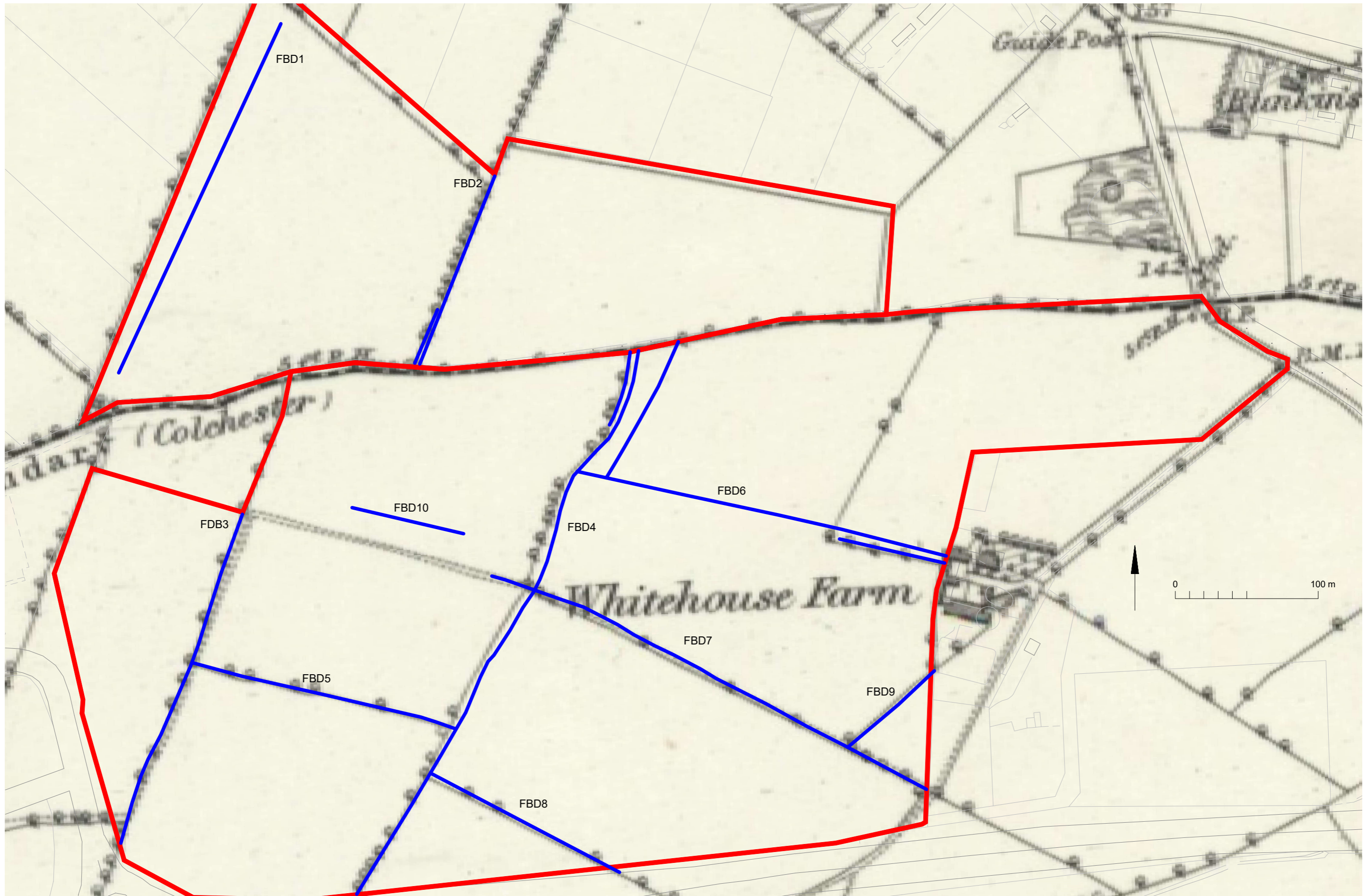


Fig 15 Plan of the development site overlaid onto the 1st edition OS map of 1875.  
The modern field boundary ditches recorded during Stage I and Stage II investigations are highlighted in blue.

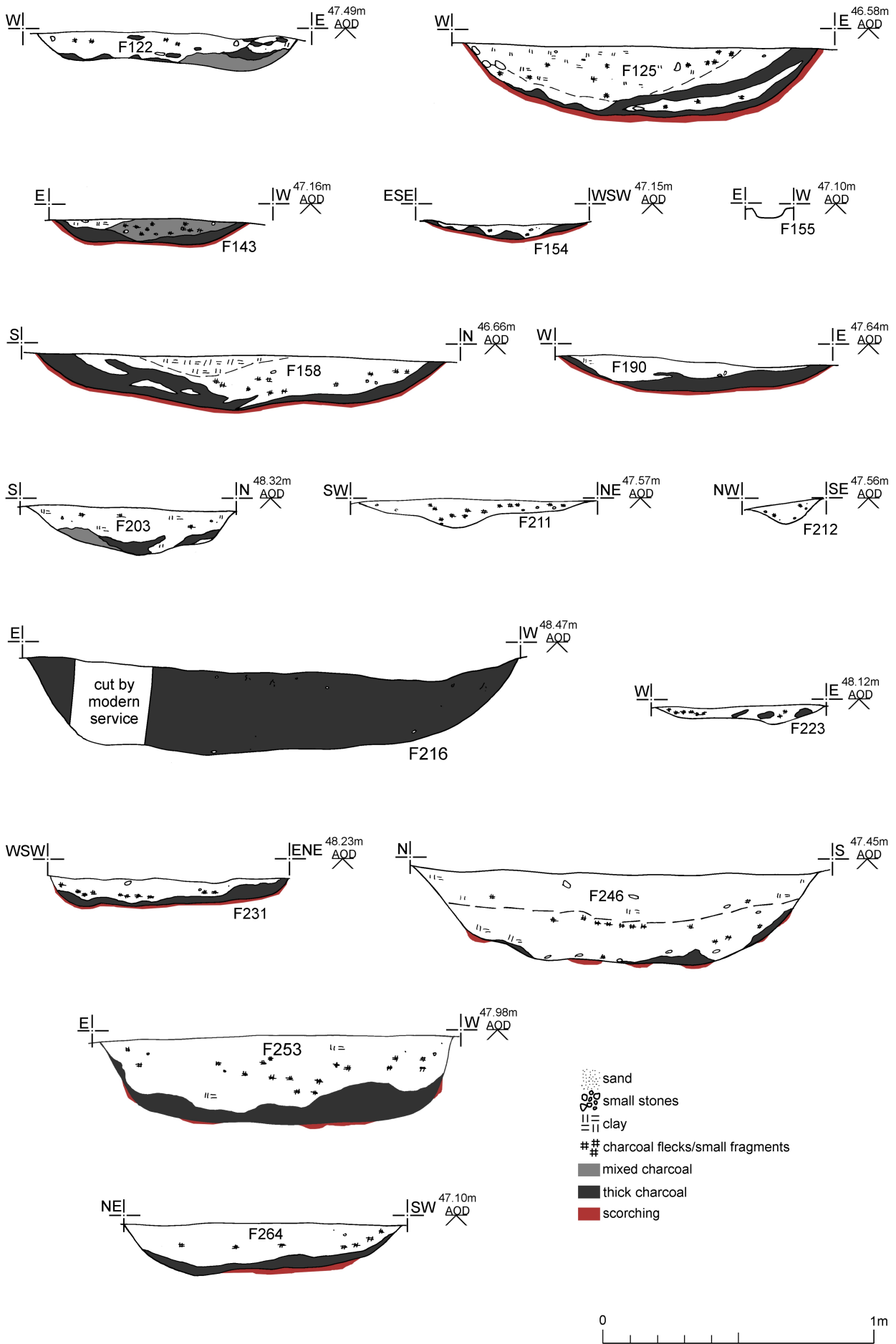


Fig 16 Charcoal-rich pits and associated features.

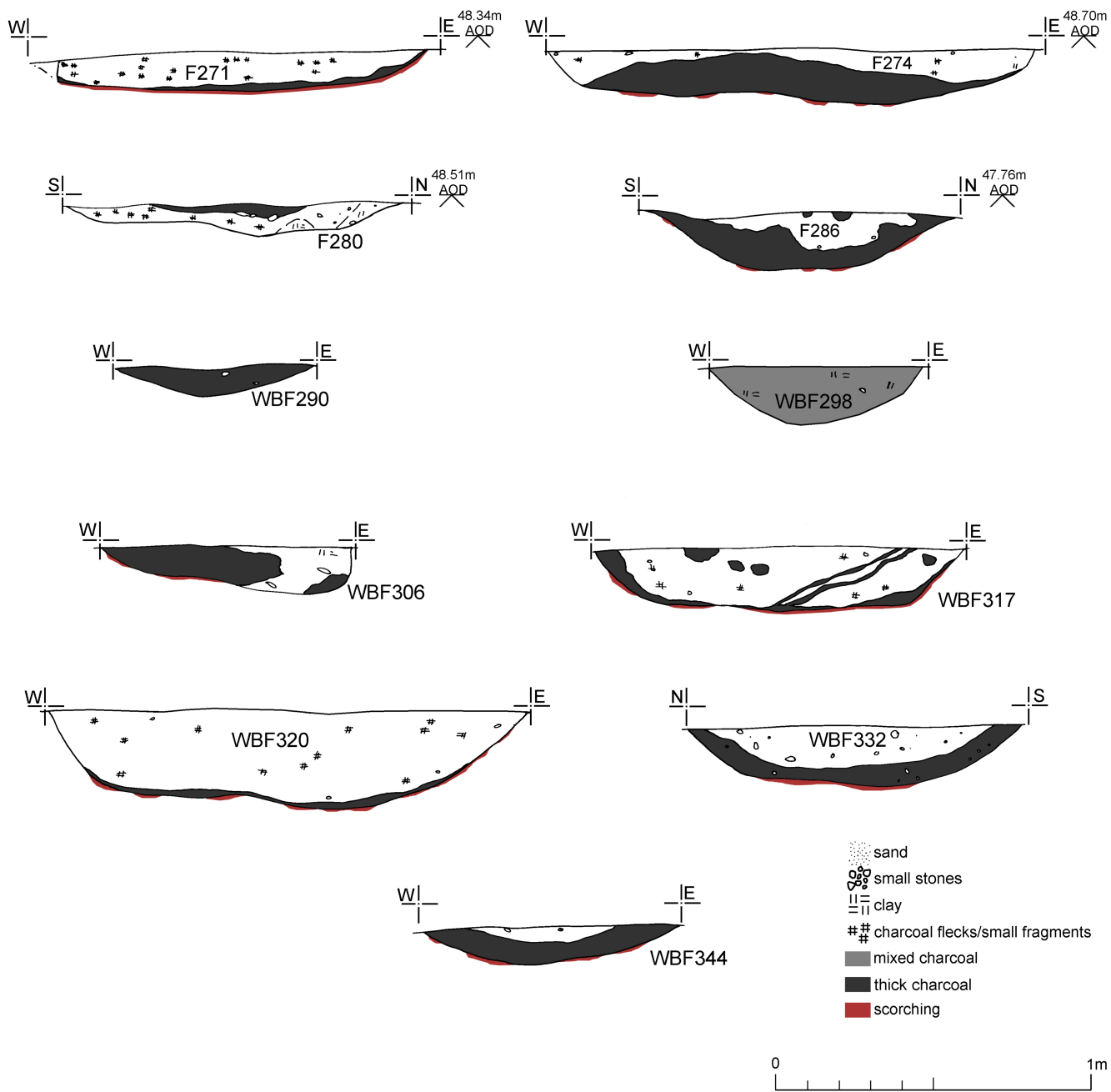


Fig 17 Charcoal-rich pits and associated features.

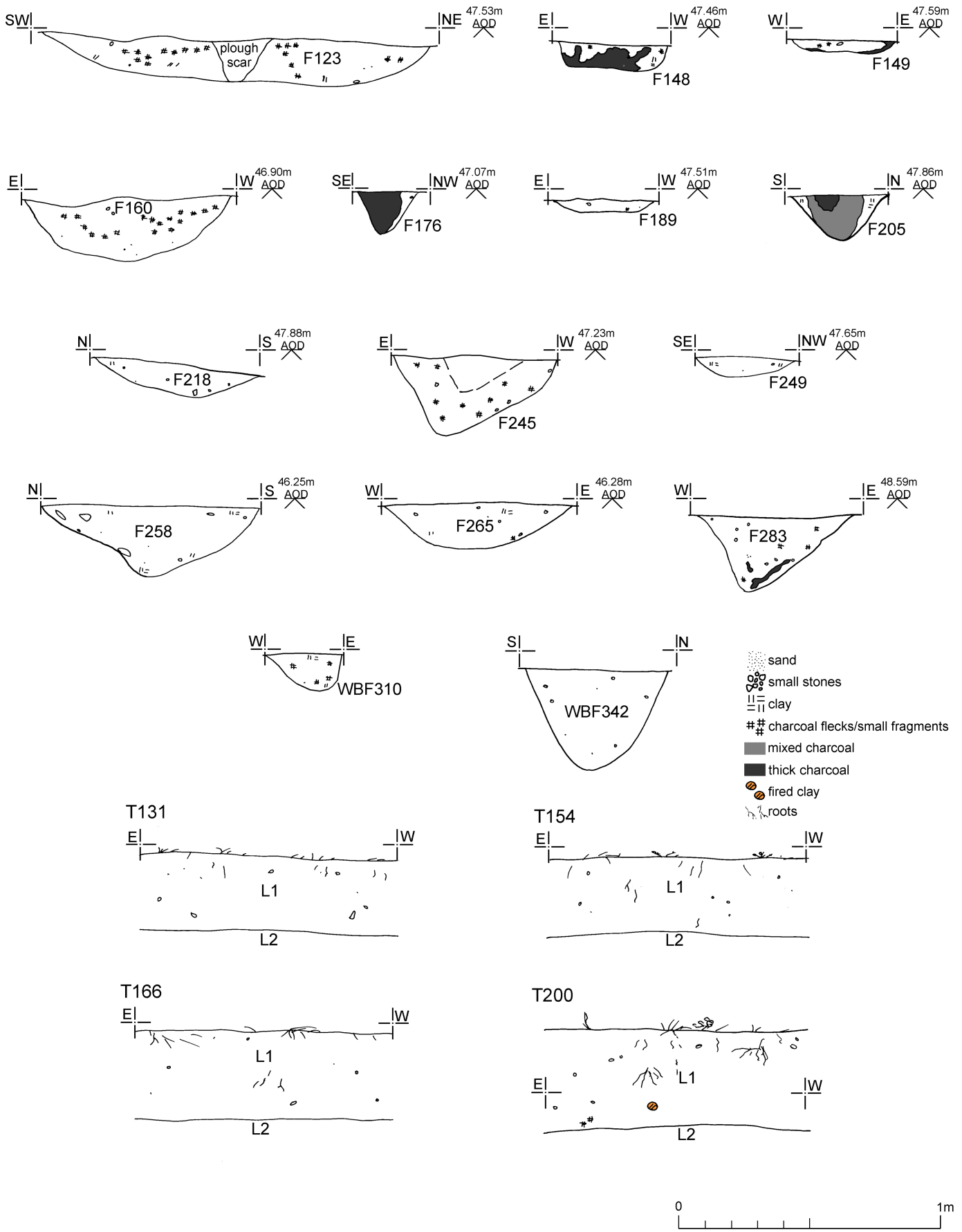


Fig 18 Other features and representative sections.

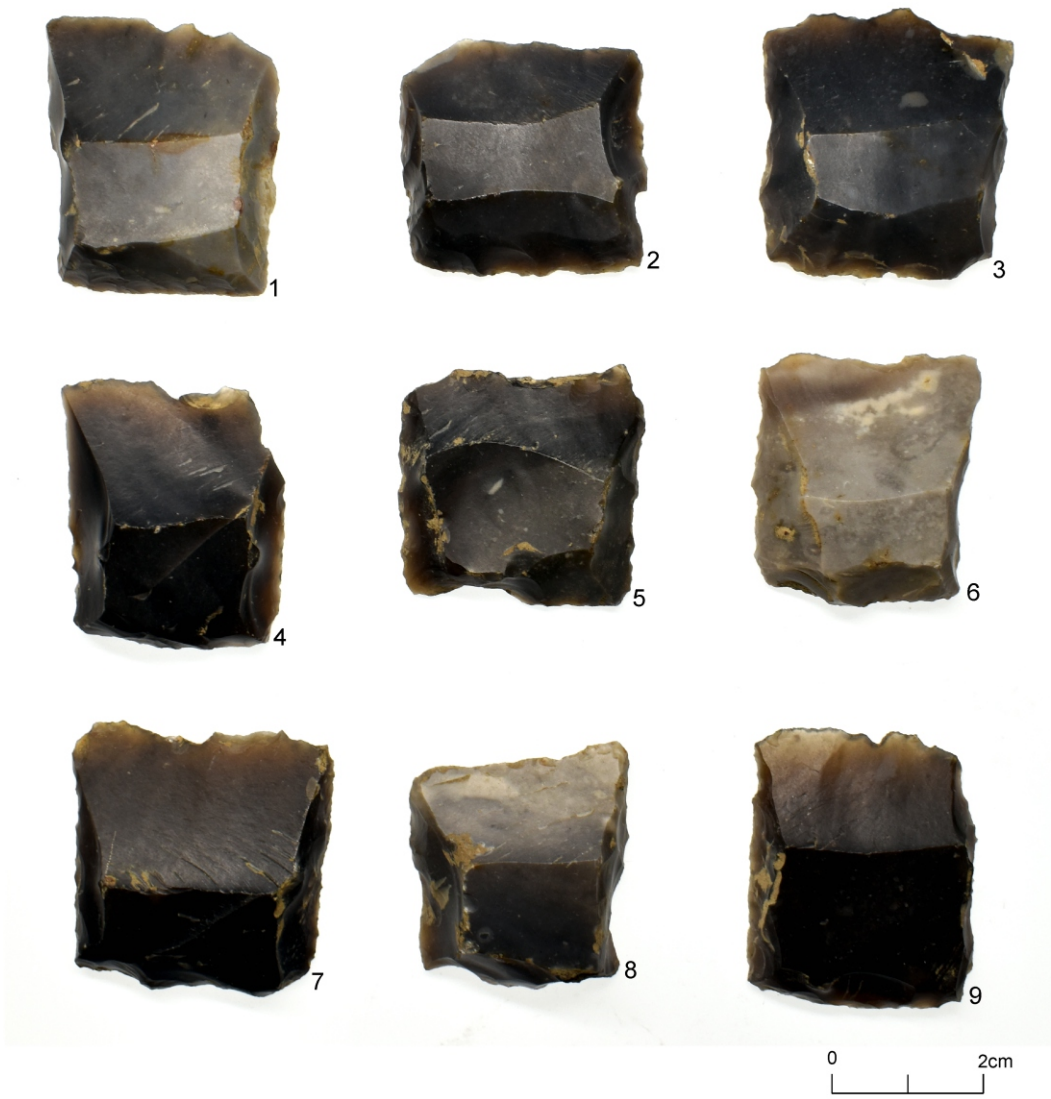


Fig 19 Gunflints.

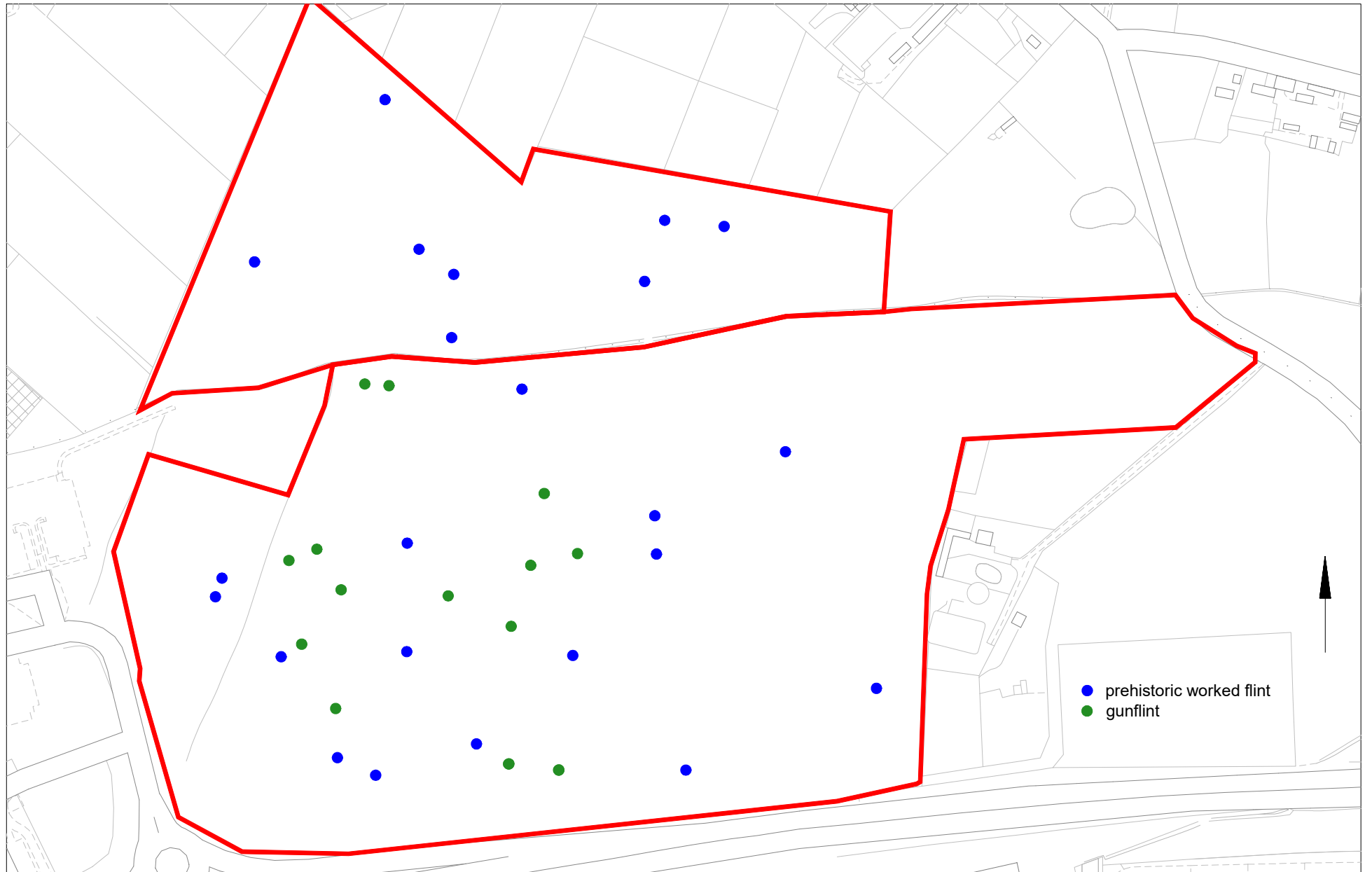


Fig 20 Flint distribution map

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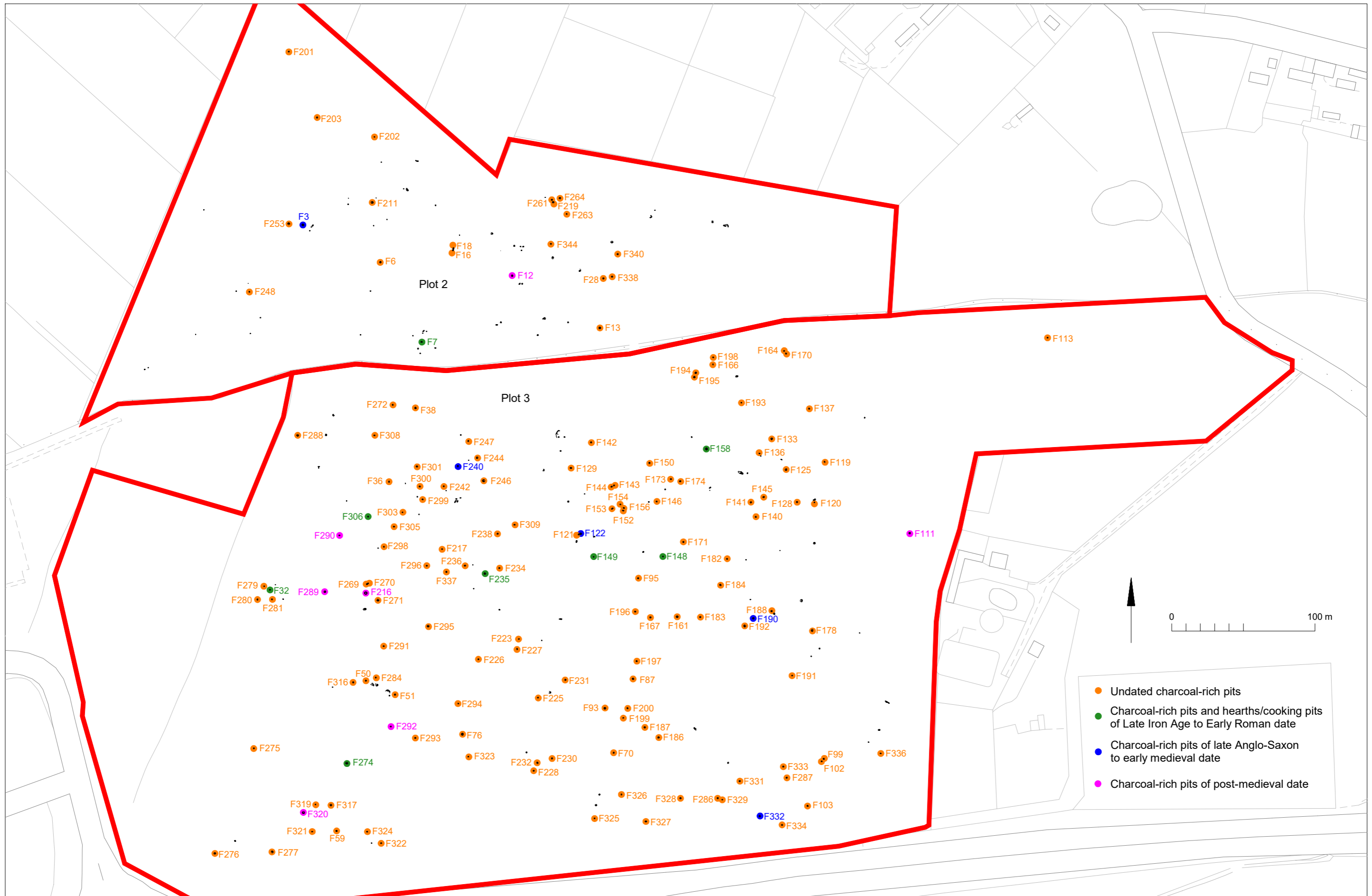
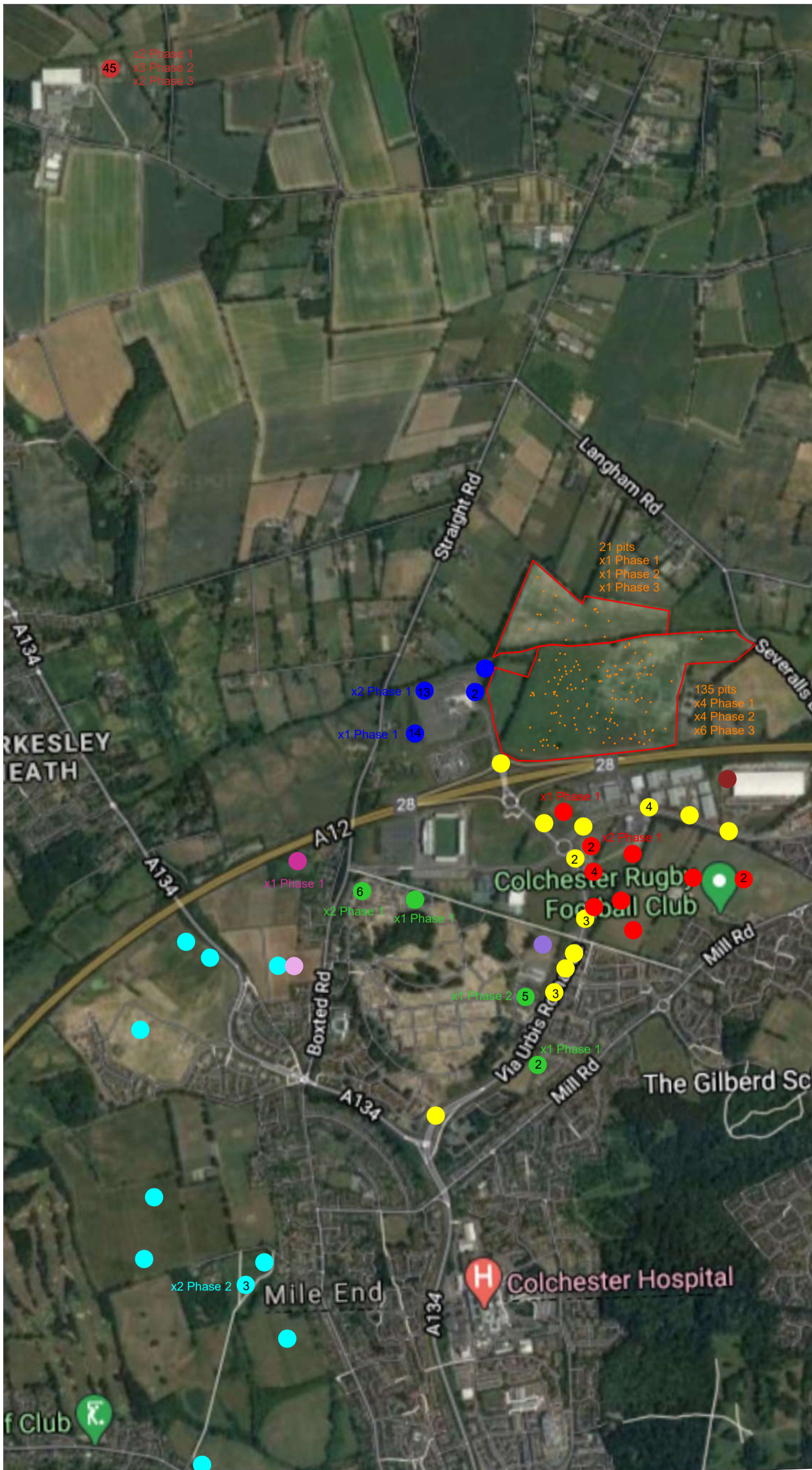


Fig 21 Phased plan showing all charcoal-rich pits and the three Late Iron Age hearths/cooking pits (F148, F149 and F235) from the Stage I and II investigations. All other features are shown unnumbered, except for the modern field boundaries which have been omitted.



- 0 500 m
- Northern Approach Road 2001 & 2013
- Flakt Woods 2004
- NGAUE 2011
- Cuckoo Farm P&R 2015
- Severalls School 2015
- Severalls Hospital 2016 & 2017
- Cambian Fairview 2017
- Colchester North 2017
- Lodge Farm 2018 & 2018
- Colchester Northern Gateway South 2019 & 2020

Fig 22 Distribution map showing the locations of all the charcoal-rich pits recorded in Northern Colchester since 2001. Each circle represents a single charcoal-rich pit unless otherwise stated. Those that have been dated have been assigned to Phase 1, 2 or 3.

Imagery ©2020 Bluesky, Getmapping pl, Infoterra Ltd & Bluesky, Landsat / Copernicus, Maxar Technologies, Map data ©2020

# Essex Historic Environment Record/ Essex Archaeology and History

## Summary sheet

<b>Address:</b> Colchester Northern Gateway Sports Hub, Plots 2-3, east of Colchester Park and Ride, Mile End, Colchester, Essex, CO4 5JA	
<b>Parish:</b> Colchester	<b>District:</b> Colchester
<b>NGR:</b> TL 99878 29486 (centre)	<b>Site code:</b> CAT project ref.: 2018/06m CHER ref: ECC4241 OASIS ref: colchest3-321034
<b>Type of work:</b> Evaluation, excavation & monitoring	<b>Site director/group:</b> Colchester Archaeological Trust
<b>Date of work:</b> 17th July 2018 – 3rd June 2019	<b>Size of area investigated:</b> 31.1ha
<b>Location of curating museum:</b> Colchester museum accession code COLEM: 2017.152	<b>Funding source:</b> Developer
<b>Further seasons anticipated?</b> No	<b>Related CHER numbers:</b> ECC4112
<b>Final report:</b> CAT Report 1479	
<b>Periods represented:</b> Iron Age, Roman, Anglo-Saxon, medieval & post-medieval	
<p><b>Summary of fieldwork results:</b>  <i>Between July 2018 and June 2019, Stage II archaeological investigations were carried out at Colchester Northern Gateway Sports Hub Plots 2-3, Colchester, Essex, in advance of development works. The investigations consisted of an evaluation (120 trial-trenches), excavation and monitoring. Stage I evaluation in 2017 had previously identified 24 charcoal-rich pits thought to relate to charcoal production, a small number of undated pits and tree-throws, post-medieval gunflints from the ploughsoil, and modern field boundary ditches.</i></p> <p><i>Stage II archaeological investigations revealed a further 132 charcoal-rich pits, seventeen of which were dated through either associated finds or radiocarbon dating, with dates ranging from the Middle Iron Age through to the post-medieval period. Three Late Iron Age hearths/cooking pits were also excavated along with 45 pits, nine pits/postholes, five postholes, five pit/tree-throws, five tree-throws and two pit/natural features. Only one pit and one posthole could be dated, both were modern. Modern field boundary ditches were planned but not excavated, and another nine post-medieval gunflints were recovered from the ploughsoil.</i></p> <p><i>A detailed search of archaeological investigations close to the development site since 2001 has revealed a further 137 charcoal-rich pits from 14 different projects, taking the total to 269. Although only 38 of the 269 charcoal-rich pits could be dated these features appear to fall into three phases:</i></p> <ul style="list-style-type: none"> <li><i>• Phase 1: Early Iron Age to early Roman period (to 1st century AD);</i></li> <li><i>• Phase 2: late Anglo-Saxon to medieval period (10th to 14th centuries);</i></li> <li><i>• Phase 3: post-medieval period (16th century onwards).</i></li> </ul>	

*The charcoal-rich pits from Phases 1 and 2 most likely represent evidence for charcoal production in northern Colchester. The Phase 3 features could be associated with the scatter of gunflints and are possibly the remains of military campfires.*

**Previous summaries/reports:** CAT Report 1219

**CBC monitor:** Jess Tipper

**Keywords:** charcoal-rich pit; charcoal production

**Significance:** \*\*

**Author of summary:**  
Laura Pooley

**Date of summary:**  
September 2020

**Written Scheme of Investigation (WSI) for  
archaeological excavation (strip, map and record) at  
Colchester Northern Gateway Sports Hub, Plots 2-3,  
east of Colchester Park and Ride, Mile End,  
Colchester, Essex, CO4 5JA  
&  
addendum for additional 5% evaluation and  
continuous monitoring and recording**

**NGR:** TL 9976 2939 (centre)

**Planning references:** 180438

**Client:** Colchester Borough Council

**Curating museum:** Colchester

**Museum accession code:** [tbc](#)

**CHER number:** ECC4241

**CAT project code:** 18/06m

**OASIS project id:** colchest3-321034

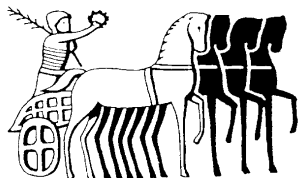
**Site manager:** Chris Lister

**CBC monitor:** Jess Tipper

**This WSI written:** 27.06.2018

**revised:** 03.06.2018

**Addendum:** 29.08.2018



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## Site location and description

The development site is located to the north of Colchester town centre, immediately north of the A12 between Colchester Park and Ride and Whitehouse Farm (Fig 1). Both plots were, until recently, under cultivation with Plot 2 located to the north of Salary Brook and Plot 3 to the south. Site centre is NGR TL 9976 2939.

## Proposed work

The development comprises the construction of the Colchester Northern Gateway Sports Hub. Comprising a 2,425sqm sports centre, a 1,641sqm club house, 12 no. sports pitches (two 3G pitches, seven turf pitches and three mini pitches), a 1.6km cycle track, archery range, recreational areas, 10 no. ancillary storage buildings (totalling 298sqm), and associated earthworks, landscaping, utilities, pumping stations, car parking, access and junction alterations (Fig 2).

## Archaeological background

The following archaeological background draws on reports prepared for previous archaeological investigations on the development site and the Colchester Archaeological Trust report archive.

The proposed development site is located in an area of archaeological interest, recorded in the Colchester Historic Environment Record, which can be accessed via Colchester Heritage Explorer ([www.colchesterheritage.co.uk](http://www.colchesterheritage.co.uk)).

The British Geological Survey 1:50,000 scale geological mapping indicates that the superficial geology of the site comprises deposits of cover sands (previously mapped as Kesgrave and Lowestoft Formations). The underlying bedrock geology of London Clay outcrops at the surface at some locations, for example along the route of the Salary Brook where a shallow valley has incised through the superficial deposits. The cover sand deposits are described as 'sand and silt, commonly wind-blown (aeolian)', of the Quaternary Period.

A desk-based assessment (DBA) for the scheme, carried out by Archaeology South East in 2015, concluded that there was a generally low potential for archaeological remains to be present. It identified little evidence of prehistoric activity with a slightly increased potential for evidence relating to the Romano-British period. There also appeared to be little evidence of medieval activity, with post-medieval remains represented by the existing field systems. Many of the linear cropmarks evident in the area were likely to be related to these post-medieval field systems, representing evidence for agricultural land-use during this period. The DBA did, however, identify numerous 'fire pits' of Iron Age, Romano-British and later date that had been identified by previous archaeological investigations in the area.

Following the DBA, a geophysical survey (fluxgate gradiometry) was carried out by Stratascan (2016) of Plots 2, 3, 4 and 11 in order to further investigate the potential for below-ground archaeological remains in these areas. The results of the survey for Plots 2 and 3 showed little evidence for archaeological activity aside from a number of known historic field boundaries (which were later confirmed by the 2017 evaluation (see below)).

In November-December 2017 a large-scale archaeological evaluation was carried out by Colchester Archaeological Trust (CAT) over Plots 2-3 consisting of 120 trenches at 50m long by 2m wide (CAT Report 1219). The most significant archaeological remains consisted of 24 charcoal-rich pits probably relating to charcoal production. These were sub-round or sub-oval charcoal-rich features with occasional evidence of *in situ* burning. Dating evidence was mostly lacking but two of the pits contained finds dated to the Roman and post-Roman periods. Radiocarbon dates from charcoal in further two pits dated to the Middle Iron Age and late Anglo-Saxon/early Medieval period. Together with another 77 charcoal-rich pits known from previous archaeological investigations (see CAT Report 1219 p28-32 for a full discussion), they indicate that charcoal production was occurring in this part of northern Colchester from the Early Iron Age through to the medieval period. Calculations based on the results of the evaluation would suggest that there are potentially a further 576 charcoal-rich pits located within the Plots 2-3.

Other archaeological remains recorded during the evaluation included residual prehistoric worked flints, a single tree-throw containing a prehistoric worked flint which may or may not be residual, a small number of undated pits and tree throws, and a number of modern field boundary ditches, many of which were visible on old OS maps dating from the late 19th-century to the late 1990s, with associated agricultural features.

## **Planning background**

A planning application (180438) was made to Colchester Borough Council in February 2018 proposing the construction of the Colchester Northern Gateway Sports Hub. Comprising a 2,425sqm sports centre, a 1,641sqm club house, 12 no. sports pitches (two 3G pitches, seven turf pitches and three mini pitches), a 1.6km cycle track, archery range, recreational areas, 10 no. ancillary storage buildings (totalling 298sqm), and associated earthworks, landscaping, utilities, pumping stations, car parking, access and junction alterations.

As the site lies within an area highlighted by the previous archaeological investigations as having a high potential for archaeological deposits, an archaeological condition was recommended by the Colchester Borough Council Archaeological Advisor (CBCAA). The recommended archaeological condition is based on the guidance given in the *National Planning Policy Framework* (DCLG 2012). Details are given in a Project Brief written by CBCAA (CBC 2018).

## **Requirement for work**

The required archaeological work is for archaeological excavation (strip, map and record). Details are given in a Project Brief written by CBCAA (CBC 2018).

Archaeological excavation will take place in the following locations:

- all natural grass pitches (including the mini pitches) and two 3G pitches (and adjacent areas where landscaping is required),
- areas of new buildings (Sports Centre and Rugby Clubhouse), ancillary storage buildings and associated areas of hard landscaping,
- pumping stations and associated works,
- car parking and site access,
- area of the cycle circuit (and associated works)
- construction compounds

A decision about the need for archaeological investigation in areas of woodland planting (primarily in the northern corner of the site) will be made by the CBCAA at a later date, based on the results of the archaeological investigation of the adjacent sports pitches.

As no significant earth-moving operations will take place within the two proposed recreation spaces and in the area of the archery range, no further archaeological investigation will be required in these areas. However, if there are design changes, the CBCAA may decide that archaeological investigation is required.

A staged approach to the archaeological investigation will take place to allow the development to commence following completion of archaeological excavation, and following written sign off (based on regular site inspections) of excavation areas by the CBCAA. There will need to be a carefully coordinated approach so that if development commences of parts of the site before all archaeological excavation has been completed, general building/grounds contractors will be prevented access to/across other parts of the development site still requiring archaeological excavation, in order to ensure damage does not occur to underlying archaeological remains in these areas.

Careful consideration will be given to the locations of topsoil storage/stockpile areas, and dumper runs, and mitigation and/or protection agreed to ensure that any below-ground archaeological remains are not disturbed by this work (ie by deep rutting and by compaction). The topsoil stripping will be carefully monitored by CAT staff to ensure that damage does not result from earthmoving operations.

If unexpected remains are encountered, and/or if there are amendments to the design of the scheme, the CBCAA will be informed immediately. Amendments to the brief and this WSI may be required to ensure adequate provision for archaeological recording. This will be the decision of the CBCAA.

## **Requirement for work – addendum**

In light of the findings from the archaeological excavation of Pitches 3-6, discussions between the CBCAA and the client have resulted in an altered approach to the requirement for work outlined above.

Instead of the full archaeological excavation of the areas noted above, the CBCAA now requires an additional 5% evaluation by trial trenching of the areas that are to be stripped as part of the development, along with localised areas of excavation centred on concentrations of specific features identified in the initial programme of trial trenching undertaken in 2017. This equates to 5% of 153,520m<sup>2</sup> or 139 x 30m by 1.8m wide evaluation trenches and 3,600m<sup>2</sup> of localised excavations (Fig 3). A provision to expand trenches locally in the event of concentrations of new fire pits is also required.

In addition to this second programme of trial trenching, a continuous watching brief is to be maintained during the main groundworks/topsoil stripping with CAT provided the opportunity to excavate and record any archaeological features defined during this phase of the work.

## **Staffing**

The number of field staff for this project is estimated as follows: Sufficient CAT archaeologists to cover all machine-monitoring and excavation requirements for the duration of the groundworks.

In charge of day-to-day site work: A CAT Project Officer (to be determined)

## **General methodology**

All work carried out by CAT will be in accordance with:

- professional standards of the Chartered Institute for Archaeologists, including its *Code of Conduct* (CIfA 2008a-d)
- Standards and Frameworks published by East Anglian Archaeology (Gurney 2003, Medlycott 2011)
- relevant Health & Safety guidelines and requirements (CAT 2018)
- the Project Brief issued by CBCAA (2018)

Professional CAT field archaeologists will undertake all specified archaeological work, for which they will be suitably experienced and qualified.

Notification of the supervisor/project manager's name and the start date for the project will be provided to CBCAA one week before start of work.

Unless it is the responsibility of other site contractors, CAT will study mains service locations and avoid damage to these.

At the start of work (immediately before fieldwork commences) an OASIS online record <http://ads.ahds.ac.uk/project/oasis/> will be initiated and key fields completed on Details, Location and Creators forms. At the end of the project all parts of the OASIS online form will be completed for submission to EHER. This will include an uploaded .PDF version of the entire report.

A project or site code will be sought from the curating museum. This code will be used to identify the project archive when it is deposited at the curating museum.



## **Excavation (strip, map and record) methodology**

There will be continuous on-site attendance by CAT staff to maintain a watch on all contractors' groundworks.

All topsoil removal and ground reduction will be done with a mechanical excavator using a back-acting (toothless) ditching bucket under the supervision and to the satisfaction of a professional archaeologist.

Topsoil will be removed within each area onto the first archaeological horizon or, where archaeological remains are not present, the natural substrate.

Where archaeological horizons are uncovered, time will be allowed for these to be excavated, planned and recorded by hand.

There will be sufficient excavation to give clear evidence for the period, depth and nature of any archaeological deposit.

- Where possible, for linear features 1m wide sections will be excavated across their width to a total of 10% of the overall length. However, it is proposed that the modern field boundary ditches, as identified during the evaluation and present on old OS maps, will not be excavated during this phase of investigation.
- Discrete features such as pits (excluding charcoal-rich pits) will have 50% of their fills excavated.
- Charcoal-rich pits will be 100% excavated.
- Complex archaeological structures such as walls, kilns, ovens or burials will be carefully cleaned, planned and fully recorded, but where possible left *in situ*. Only if it can be demonstrated that the complex structure/feature is likely to be destroyed by groundworks, and only then after discussion with the CBCAA, will it be removed.

Fast hand-excavation techniques involving (for instance) picks, forks and mattocks will not be used on complex stratigraphy.

All features and layers or other significant deposits will be planned, and their profiles or sections recorded. The normal scale will be site plans at 1:20 and sections at 1:10, unless circumstances indicate that other scales would be appropriate.

A metal detector will be used by the attending archaeologist to examine the site, spoil heaps and features, and the finds recovered.

Individual records of excavated contexts, layers, features or deposits will be entered on pro-forma record sheets. Registers will be compiled of finds, small finds and soil samples.

The photographic record will consist of general site shots, and shots of all archaeological features and deposits. A photographic scale (including north arrow) shall be included in the case of detailed photographs. Standard "record" shots of contexts will be taken on a digital camera. A photographic register will accompany the photographic record. This will detail as a minimum feature number, location, and direction of shot.

If exceptional or significant archaeological deposits are encountered CAT will inform CBCAA and these may be reviewed on site.

## **Addendum - Evaluation methodology**

Where appropriate, modern overburden and any topsoil stripping/levelling will be performed using a mechanical excavator equipped with a toothless ditching bucket under the supervision and to the satisfaction of a professional archaeologist. If no archaeologically significant deposits are exposed, machine excavation will continue until natural subsoil is reached.

Where necessary, areas will be cleaned by hand to ensure the visibility of archaeological deposits.

If archaeological features or deposits are uncovered time will be allowed for these to be excavated, planned and recorded.

All features or deposits will be excavated by hand. This includes a 50% sample of discrete features (pits, etc), 10% of linear features (ditches, etc) in 1m wide sections, and 100% of complex structures/features. Complex archaeological structures such as walls, kilns, ovens or burials will be carefully cleaned, planned and fully recorded, but where possible left *in situ*. Only if it can be demonstrated that the complex structure/feature is likely to be destroyed by groundworks will it be removed, or on the rare occasion where full excavation (or exhumation in the case of burials) is necessary to achieve the objectives of the evaluation.

Fast hand-excavation techniques involving (for instance) picks, forks and mattocks will not be used on complex stratigraphy.

A sondage will be excavated in each trench to test the stratigraphy of the site. This will occur in every trench unless it can be demonstrated that a feature excavated within a particular trench has clearly penetrated into natural.

A representative section will be drawn of each trench, to include ground level, the depth of machining within the trench and the depth of any sondages.

A metal detector will be used to examine trenches, contexts and spoil heaps, and the finds recovered.

Individual records of excavated contexts, layers, features or deposits will be entered on pro-forma record sheets. Registers will be compiled of finds, small finds and soil samples.

### **Addendum - Monitoring methodology**

There will be sufficient on-site attendance by CAT staff to maintain a watch on all contractors' ground works to record, excavate or sample (as necessary) any archaeological features or deposits.

If archaeological features or deposits are uncovered, time will be allowed for these to be planned and recorded.

If any features or deposits uncovered are to be destroyed by the proposed development, time will be allowed for these features to be excavated by hand. This includes a 50% sample of discrete features (pits, etc), 10% of linear features (ditches, etc) and 100% of all complex features and burials (see Human Remains policy below).

Fast hand-excavation techniques involving (for instance) picks, forks and mattocks will not be used on complex stratigraphy.

A metal detector will be used to examine spoil heaps, and the finds recovered.

Individual records of excavated contexts, layers, features or deposits will be entered on pro-forma record sheets. Registers will be compiled of finds, small finds and soil samples.

### **Site surveying**

Areas of groundworks and any features will be surveyed by Total Station, unless the particulars of the features indicate that manual planning techniques should be employed. Normal scale for archaeological site plans and sections is 1:20 and 1:10 respectively, unless circumstances indicate that other scales would be more appropriate.

The site grid will be tied into the National Grid. Corners of excavation areas will be located by NGR coordinates.

## Environmental sampling policy

The number and range of samples collected will be adequate to determine the potential of the site, with particular focus on palaeoenvironmental remains including both biological remains (e.g. plants, small vertebrates) and small sized artefacts (e.g. smithing debris). Samples will be collected for potential micromorphical and other pedological sedimentological analysis. Environmental bulk samples will be 40 litres in size (assuming context is large enough).

Sampling strategies will address questions of:

- the range of preservation types (charred, mineral-replaced, waterlogged), and their quality
- concentrations of macro-remains
- differences in remains from undated and dated features
- variation between different feature types and areas of site

CAT has an arrangement with Val Fryer/Lisa Gray whereby any potentially rich environmental layers or features will be appropriately sampled as a matter of course. Trained CAT staff will process the samples (unless complex or otherwise needing specialist processing) and the flots will be sent to VF/LG for reporting.

Should any complex, or otherwise outstanding deposits be encountered, VF/LG will be asked onto site to advise. Waterlogged 'organic' features will always be sampled. In all cases, the advice of VF/LG and/or the Historic England Regional Advisor in Archaeological Science (East of England) on sampling strategies for complex or waterlogged deposits will be followed, including the taking of monolith samples.

A separate sampling strategy will be applied on site in relation to the charcoal-rich pits. A sample of these pits will be environmentally sampled, processed and sent for analysis. If appropriate material has survived, a further sample of this material will be sent for radiocarbon dating.

## Human remains

CAT follows the policy of leaving human remains *in situ* unless there is a clear indication that the remains are in danger of being compromised as a result of their exposure. If circumstances indicated it were prudent or necessary to remove remains from the site during the monitoring, the following criteria would be applied; if it is clear from their position, context, depth, or other factors that the remains are ancient, then normal procedure is to apply to the Department of Justice for a licence to remove them. In that case, conditions laid down by the license will be followed. If it seems that the remains are not ancient, then the coroner, the client, and CBCAA will be informed, and any advice and/or instruction from the coroner will be followed.

## Photographic record

The photographic record will consist of general site shots, and shots of all archaeological features and deposits. A photographic scale (including north arrow) shall be included in the case of detailed photographs. Standard "record" shots of contexts will be taken on a digital camera. A photographic register will accompany the photographic record. This will detail as a minimum feature number, location, and direction of shot.

## Finds

All significant finds will be retained.

All finds, where appropriate, will be washed and marked with site code and context number.

Matthew Loughton (CAT) normally writes our finds reports. Some categories of finds are automatically referred to other CAT specialists:

animal bones (small groups): Alec Wade / Adam Wightman

small finds, metalwork, coins, etc: Laura Pooley

flints: Adam Wightman

or to outside specialists:

animal bones (large groups) and human remains: Julie Curl (*Sylvanus*)  
environmental processing and reporting: Val Fryer / Lisa Gray  
conservation of finds: Laura Ratcliffe (LR Conservation) / staff at Norfolk Museum  
Service Conservation Department

Other specialists whose opinion can be sought on large or complex groups include:

Roman brick/tile: Ernest Black  
Roman glass: Hilary Cool  
Prehistoric pottery: Paul Sealey  
Other: EH Regional Adviser in Archaeological Science (East of England).

All finds of potential treasure will be removed to a safe place, and the coroner informed immediately, in accordance with the rules of the Treasure Act 1996. The definition of treasure is given in pages 3-5 of the Code of Practice of the above act. This refers primarily to gold or silver objects.

Requirements for conservation and storage of finds will be agreed with the appropriate museum prior to the start of work, and confirmed to CBCAA.

### **Interim statements**

An interim statement will be produced for each stage of fieldwork if there are significant breaks (ie two months or more) between each stage of fieldwork.

### **Post-excavation assessment**

Once fieldwork has finished the need for a post-excavation assessment will be discussed and agreed with CBCAA.

If a post-excavation assessment is required by CBCAA, it will be submitted within 2 months of the end of fieldwork, or as quickly as is reasonably practicable and at a time agreed with CBCAA. It will be a clear and concise assessment of the archaeological value and significance of the results, and will identify the research potential in the context of the Regional Research Framework. It will include an Updated Project Design, with a timetable, for analysis, dissemination and archive deposition. Following this, a written statement of progress on post-excavation work – whether assessment, analysis, report writing and publication or archiving – will be submitted at six monthly intervals.

The post-excavation assessment (PXA) and updated project design (UPD) will be prepared in accorded with the principles of *Management of Research Projects in the Historic Environment (MoRPHE)* (English Heritage 2006). The PXA will be a critically assessed audit of the archaeological evidence from the site.

Where archaeological results do not warrant a post-excavation assessment, preparation of the normal site report will begin.

### **Results**

Notification will be given to CBCAA when the fieldwork has been completed.

An appropriate archive will be prepared to minimum acceptable standards outlined in *Management of Research Projects in the Historic Environment (MoRPHE)* (English Heritage 2006).

The report will be submitted within 6 months of the end of fieldwork, with a copy supplied to CBCAA as a PDF.

The report will contain:

- Location plan of the groundworks in relation to the proposed development. At least two corners of the site will be given 10 figure grid references.
- Section/s drawings showing depth of deposits from present ground level with Ordnance Datum, vertical and horizontal scale.

- Archaeological methodology and detailed results including a suitable conclusion and discussion and results referring to Regional Research Frameworks (Medlycott 2011).
- All specialist reports or assessments
- A concise non-technical summary of the project results.

An EHER summary sheet will also be completed within four weeks and supplied to CBCAA.

Results will be published, to at least a summary level (i.e. round-up in *Essex Archaeology & History*) in the year following the archaeological field work. An allowance will be made in the project costs for the report to be published in an adequately peer reviewed journal or monograph series

### **Archive deposition**

It is a policy of Colchester Borough Council that the integrity of the site archive be maintained (i.e. all finds and records should be properly curated by a single organisation), with the archive available for public consultation. To achieve this desired aim it is assumed that the full archive will be deposited in Colchester Museums *unless otherwise agreed in advance*. (A full copy of the archive shall in any case be deposited).

**By accepting this WSI, the client agrees to deposit the archive, including all artefacts, at Colchester & Ipswich Museum.**

The requirements for archive storage will be agreed with the curating museum.

If the finds are to remain with the landowner, a full copy of the archive will be housed with the curating museum.

The archive will be deposited with Colchester & Ipswich Museum within 3 months of the completion of the final publication report, with a summary of the contents of the archive supplied to CBCAA.

### **Monitoring**

CBCAA will be responsible for monitoring progress and standards throughout the project, and will be kept regularly informed during fieldwork, post-excavation and publication stages.

Notification of the start of work will be given to CBCAA ten days in advance of its commencement.

Any variations in this WSI will be agreed with CBCAA prior to them being carried out.

CBCAA will be notified when the fieldwork is complete.

The involvement of CBCAA shall be acknowledged in any report or publication generated by this project.

### **Communications and outreach**

The Colchester Archaeological Trust website ([www.thecolchesterarchaeologist.co.uk](http://www.thecolchesterarchaeologist.co.uk)), Facebook and Twitter accounts (@CATRomanCircus) can be updated regularly with information on current sites. Copies of our reports (grey literature) can be viewed on the website and downloaded for free and staff regularly give lectures to groups, societies and schools (a fee may apply). CAT also works alongside the Colchester Archaeological Group (providing a venue for their lectures and library) and the local Young Archaeologists Club.

CAT archaeologists can be booked for lectures and information on fees can be obtained by contacting the office on 01206 501785.

### **References**

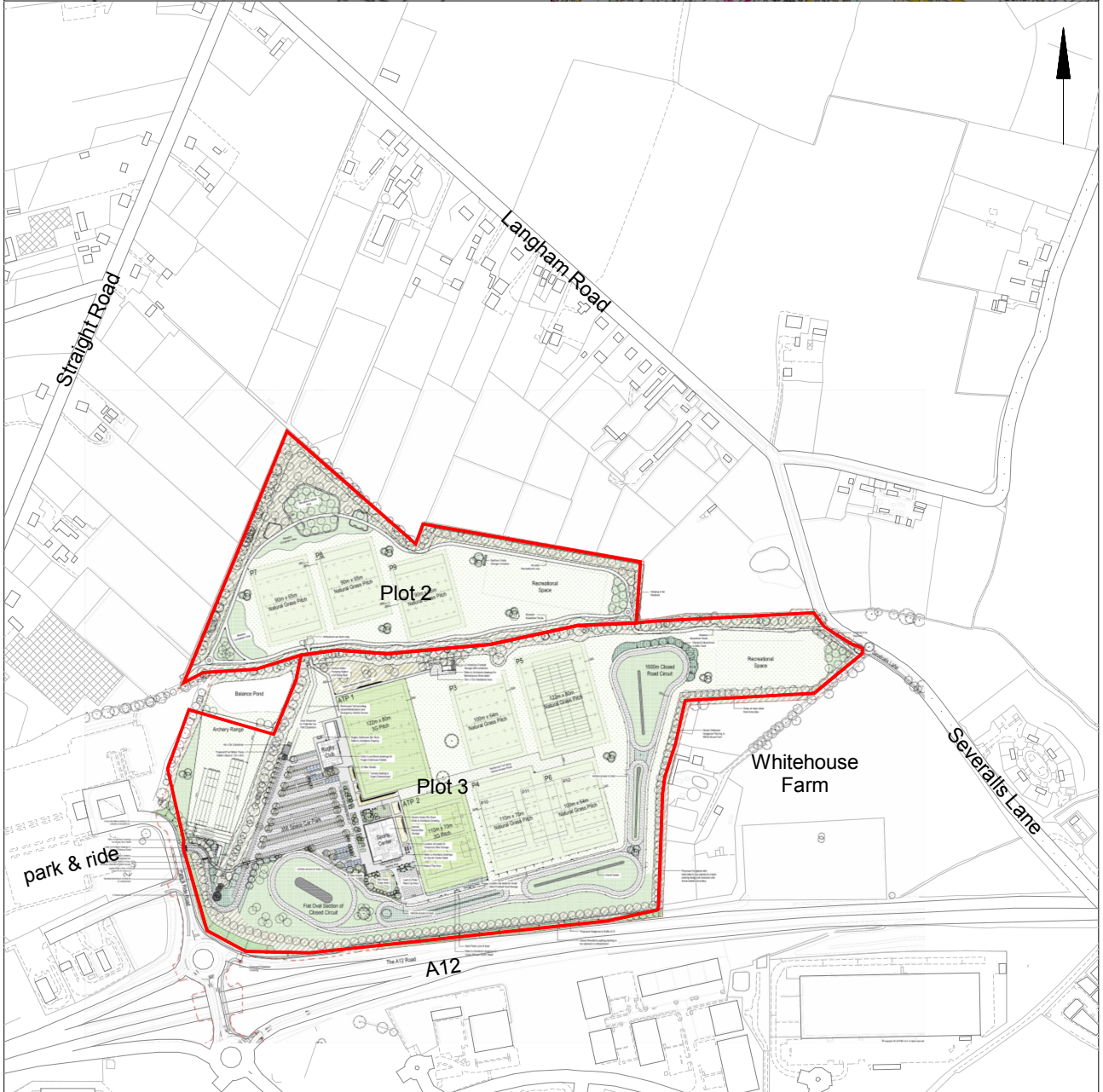
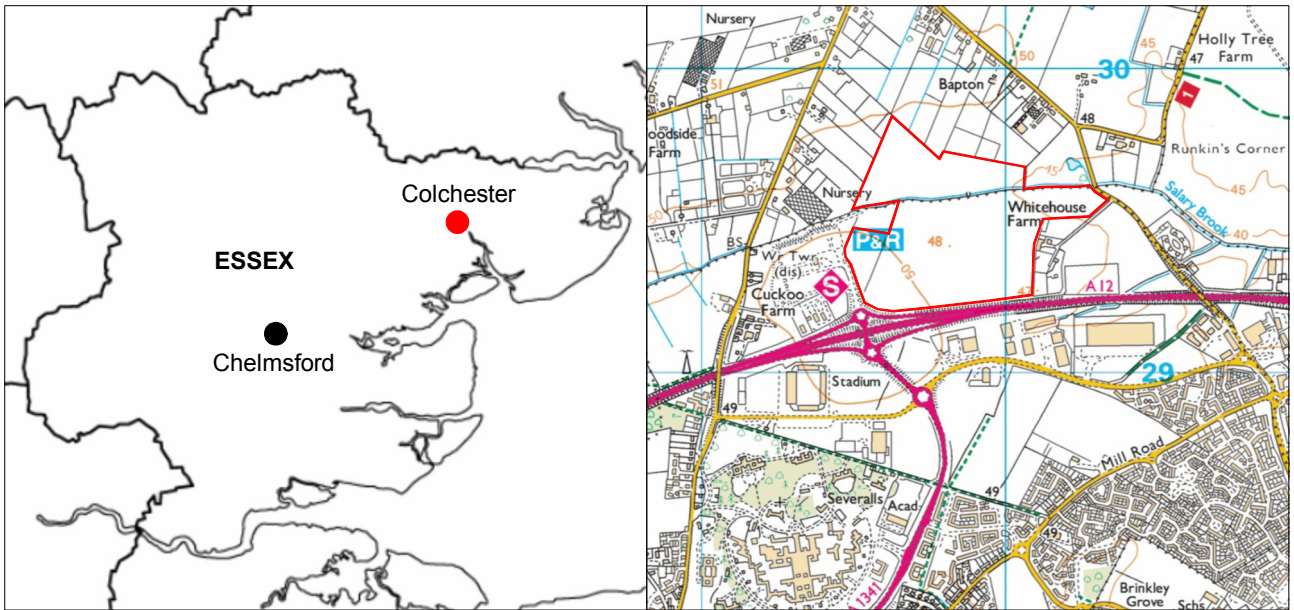
AECOM Infrastructure & Environment UK Limited	2017	<i>Written Scheme of Investigation for trial-trench evaluation, Colchester Northern Gateway Plots 2/3, by N Finch</i>
AECOM Infrastructure & Environment UK Limited	2018	<i>Plots 2/3 – Advanced Pitch Programme, Archaeological Constraints, by E Clifford</i>
Brown, D	2007	<i>Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation</i>
Brown, N and Glazenbrook, J.	2000	<i>Research and Archaeology: a frame work for the Eastern Counties 2 Research agenda and strategy, East Anglian Archaeology, occasional papers 8 (EAA 8)</i>
CAT CAT Report 1219	2018 2018	<i>Health &amp; Safety Policy</i> <i>Archaeological evaluation at Colchester Northern Gateway Sports Hub, Plots 2-3, east of Colchester Park and Ride, Mile End, Colchester, Essex, CO4 5JA: November-December 2017</i>
CBCPS	2018	<i>Brief for archaeological excavation, by Jess Tipper</i>
CIfA	2014a	<i>Standard and Guidance for an archaeological excavation</i>
CIfA	2014b	<i>Standard and Guidance for an archaeological evaluation</i>
CIfA	2014c	<i>Standard and Guidance for an archaeological watching brief</i>
CIfA	2014d	<i>Standard and guidance for the collection, documentation, conservation and research of archaeological materials</i>
DCLG	2012	<i>National Planning Policy Framework</i>
English Heritage	2006	<i>Management of Research Projects in the Historic Environment (MoRPHE)</i>
Gurney, D	2003	<i>Standards for field archaeology in the East of England. East Anglian Archaeology Occasional Papers 14 (EAA 14).</i>
Medlycott, M	2011	<i>Research and archaeology revisited: A revised framework for the East of England. East Anglian Archaeology Occasional Papers 24 (EAA 24)</i>
Stratascan	2016	<i>Stratascan Geophysical Survey Report: Colchester Northern Gateway, Colchester, Essex</i>

L Pooley / C Lister



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Fig 1 Site location.



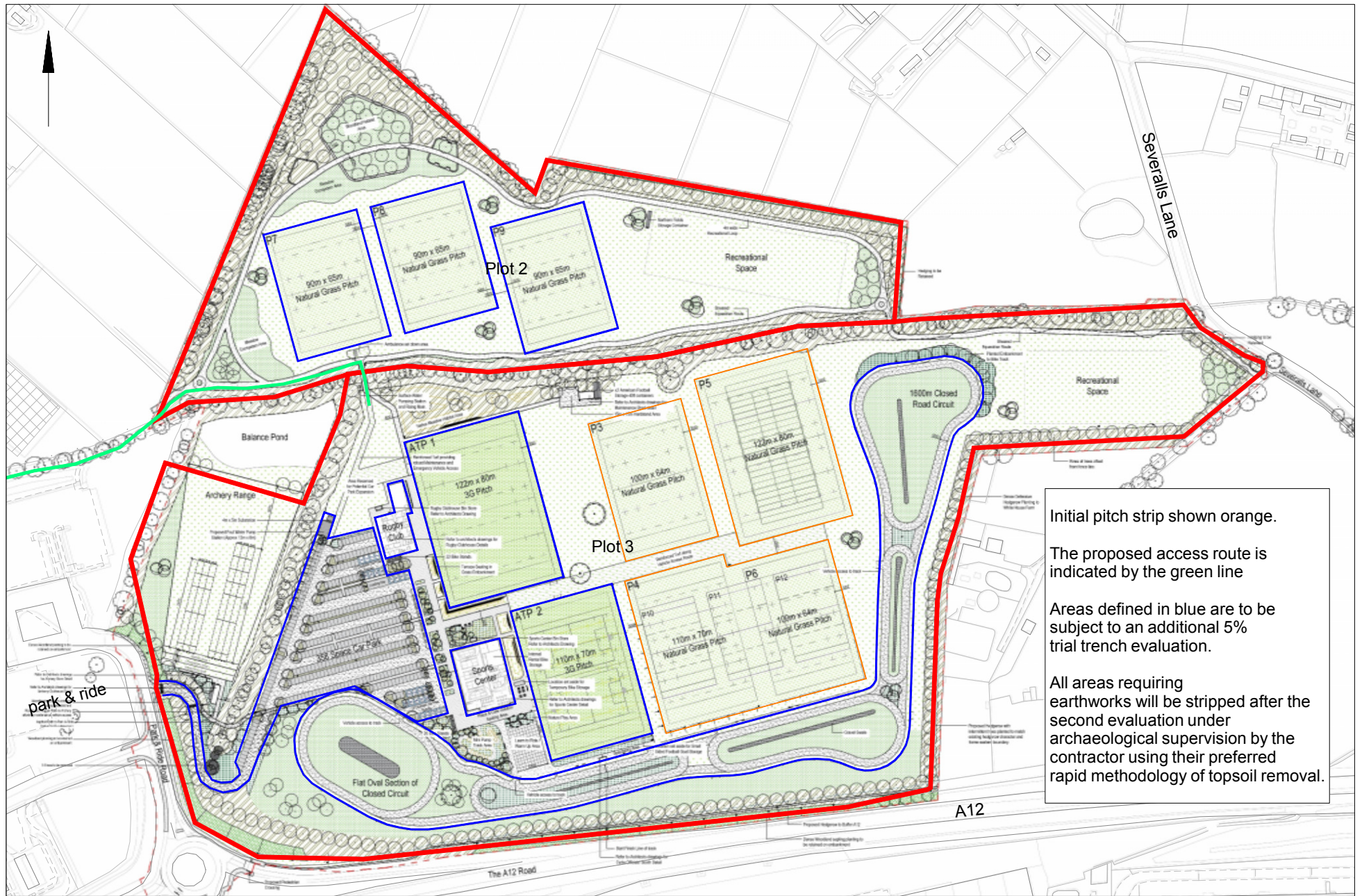
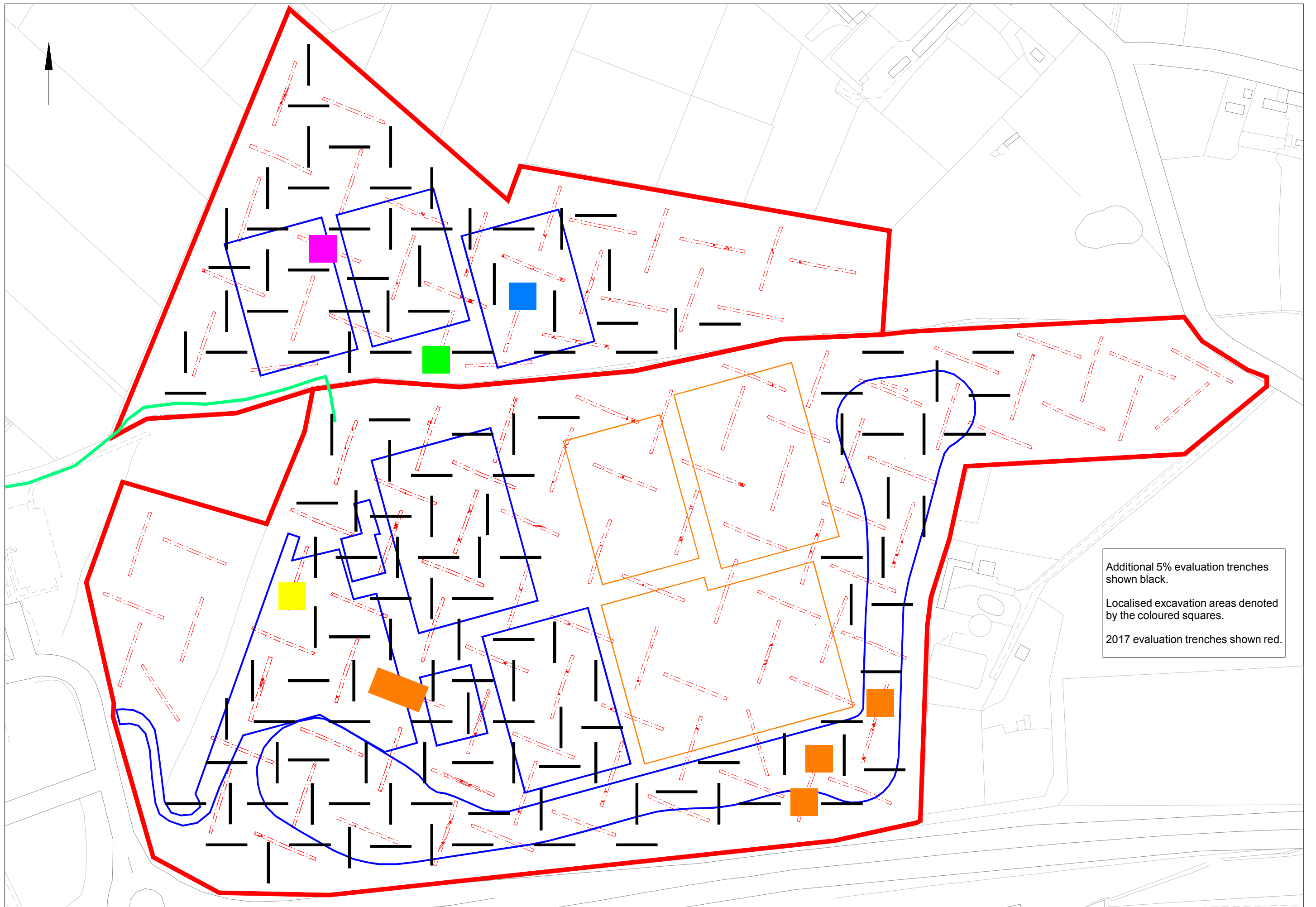


Fig 2 Colchester Northern Gateway Sports Hub proposed layout.

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Additional 5% evaluation trenches shown black.

Localised excavation areas denoted by the coloured squares.

2017 evaluation trenches shown red.

Fig 3 Additional 5% trenching plan and localised excavation areas.

# OASIS DATA COLLECTION FORM: England

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**OASIS ID: colchest3-321034**

## Project details

Project name	Archaeological investigations at Colchester Northern Gateway Sports Hub, Plots 2-3, Mile End, Colchester, Essex, CO4 5JA
Short description of the project	Between July 2018 and June 2019, Stage II archaeological investigations were carried out at Colchester Northern Gateway Sports Hub Plots 2-3, Colchester, Essex, in advance of development works. The investigations consisted of an evaluation (120 trial-trenches), excavation and monitoring. Stage II archaeological investigations revealed 132 charcoal-rich pits, seventeen of which were dated through either associated finds or radiocarbon dating, with dates ranging from the Middle Iron Age through to the post-medieval period. Three Late Iron Age hearths/cooking pits were also excavated along with 45 pits, nine pits/postholes, five postholes, five pit/tree-throws, five tree-throws and two pit/natural features. Only one pit and one posthole could be dated, both were modern. Modern field boundary ditches were planned but not excavated, and another nine post-medieval gunflints were recovered from the ploughsoil. A detailed search of archaeological investigations close to the development site has brought the total number of charcoal-rich pits in this part of northern Colchester to 269. Although only 38 of the 269 charcoal-rich pits could be dated these features appear to fall into three phases: Phase 1) Early Iron Age to early Roman; Phase 2) late Anglo-Saxon to medieval period (10th to 14th centuries); and Phase 3) post-medieval period (16th century onwards). The charcoal-rich pits from Phases 1 and 2 most likely represent evidence for charcoal production in northern Colchester. The Phase 3 features could be associated with the scatter of gunflints and are possibly the remains of military campfires.
Project dates	Start: 17-07-2018 End: 03-06-2019
Previous/future work	Yes / No
Any associated project reference codes	18/06m - Contracting Unit No.
Any associated project reference codes	180438 - Planning Application No.
Any associated project reference codes	ECC4241 - HER event no.
Any associated project reference codes	COLEM: 2017.152 - Museum accession ID
Type of project	Recording project
Site status	None
Current Land use	Cultivated Land 4 - Character Undetermined
Monument type	CHARCOAL-RICH PITS Middle Iron Age
Monument type	CHARCOAL-RICH PITS Late Iron Age
Monument type	HEARTHES/COOKING PITS Late Iron Age
Monument type	CHARCOAL-RICH PITS Roman
Monument type	CHARCOAL-RICH PITS Early Medieval
Monument type	CHARCOAL-RICH PITS Medieval
Monument type	CHARCOAL-RICH PITS Post Medieval
Monument type	FIELD BOUNDARY DITCHES Post Medieval
Monument type	CHARCOAL-RICH PITS Uncertain
Monument type	PITS Uncertain
Monument type	POSTHOLES Uncertain
Monument type	TREE-THROWS Uncertain
Significant Finds	WORKED FLINT Late Prehistoric
Significant Finds	CHARCOAL Middle Iron Age
Significant Finds	CHARCOAL Late Iron Age
Significant Finds	POTTERY Late Iron Age
Significant Finds	CHARCOAL Roman
Significant Finds	CHARCOAL Early Medieval
Significant Finds	CHARCOAL Medieval
Significant Finds	CLAY PIPE Post Medieval
Significant Finds	CERAMIC BUILDING MATERIAL Post Medieval
Investigation type	"Full excavation", "Watching Brief"
Prompt	Planning condition

## Project location

Country	England
Site location	ESSEX COLCHESTER COLCHESTER Colchester Northern Gateway Sports Hub, Plots 2 and 3
Postcode	CO4 5JA

Study area 31.7 Hectares  
Site coordinates TL 9976 2939 51.926606763059 0.905645107578 51 55 35 N 000 54 20 E Point  
Height OD / Depth Min: 42.81m Max: 48.75m

#### Project creators

Name of Organisation Colchester Archaeological Trust  
Project brief originator CBC Archaeological Officer  
Project design originator Laura Pooley  
Project director/manager Chris Lister  
Project supervisor Robin Mathieson  
Type of sponsor/funding body Borough Council

#### Project archives

Physical Archive recipient Colchester Museum  
Physical Archive ID COLEM: 2017.152  
Physical Contents "Animal Bones", "Ceramics", "Environmental", "Metal", "Worked stone/lithics"  
Digital Archive recipient Colchester Museum  
Digital Archive ID COLEM: 2017.152  
Digital Contents "other"  
Digital Media available "Images raster / digital photography", "Survey", "Text"  
Paper Archive recipient Colchester Museum  
Paper Archive ID COLEM: 2017.152  
Paper Contents "other"  
Paper Media available "Context sheet", "Miscellaneous Material", "Photograph", "Plan", "Report", "Section"

#### Project bibliography 1

Publication type Grey literature (unpublished document/manuscript)  
Title Archaeological excavation, evaluation and monitoring at Colchester Northern Gateway Sports Hub, Plots 2-3, east of Colchester Park and Ride, Mile End, Colchester, Essex, CO4 5JA: July 2018 - June 2019  
Author(s)/Editor(s) Pooley, L.  
Other bibliographic details CAT Report 1479  
Date 2020  
Issuer or publisher Colchester Archaeological Trust  
Place of issue or publication Colchester  
Description A4 ring-bound loose leaf  
URL <http://cat.essex.ac.uk/all-reports.html>  
Entered by Laura Pooley (lp@catuk.org)  
Entered on 17 September 2020

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