



Archaeological Evaluation of land at Summerfield Nurseries, Barnsole Road, Staple, Kent CT3 1LD

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SWAT ARCHAEOLOGY

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1 INTRODUCTION AND SUMMARY

1.1 Project Background

1.1.1 Swale and Thames Survey Company (SWAT Archaeology) were commissioned by the client to carry out an archaeological evaluation of land at Summerfield Nurseries, Barnsole Road, Staple, Kent CT3 1LD. Works were monitored by senior archaeological officer at Kent County Council. The monitoring was carried out remotely by means of exchange of emails and photographs. Fieldwork commenced on 28th June and was completed by 2nd July 2021.

1.2 Planning Background

1.2.1 A planning application was granted by Dover District Council on the 30th October 2020 (Application 19/01362) for the erection of 11no. detached dwellings, 6no. affordable houses, garages, cycle bin/stores, vehicular access and associated parking. A Condition of archaeological works was attached to Planning Decision Notice and it was: (12) No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work in accordance with a written specification and timetable which has been submitted to and approved by the Local Planning Authority.

1.2.2 Reason: To ensure that features of archaeological interest are properly examined and recorded. These details are required prior to the commencement of the development as they form an intrinsic part of the proposal, the approval of which cannot be disaggregated from the carrying out of the rest of the development.

1.2.3 On the basis of the present archaeological information KCCHC advising Dover District Council recommended that the proposed development should be subject to a programme of archaeological works in order to clarify the archaeological elements within the site:

1.2.4 The evaluation works were undertaken in accordance with a written specification that was agreed in advance with the KCC Evaluation Manual Part B.

1.3 Site description, Geology and Topography

1.3.1 The application site is located is located within a triangular parcel of land that is contained by three Roads, Mill Lane, Mill Road and Summerfield on the eastern

side of the hamlet of Staple which is to the south of Canterbury. The application site is totally within the boundaries of the former Summerfield Nursery.

1.3.2 The site is located on relatively flat plain gently descending to the north and eastwards. Slope changes 5 metres over a distance of 150 metres.

1.3.3 The Geological Survey of Great Britain (1:50,000) shows that the site is set on bedrock geology of Margate Chalk Member- Chalk. Superficial Deposits are recorded as Head- Clay & Silt. The NGR to centre of site is NGR 627776 156262 and the OD height is about 23m aOD.

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 2.1 The Proposed Development Area (PDA) is located close to a number of archaeological sites which have been highlighted below. The research area consisted of radius buffer of 500 metres from the site and comprises Historic Environmental Records showing Listed Building dated from High Medieval with majority being of Post Medieval period. Additionally records showing prehistoric assets have been researched within 1 km radius. These shows two records of Iron Age Period and three undated crop marks of which one is not recorded in HER.
- 2.1.1 Immediately to the east of PDA area, it is recorded a Post Medieval farmstead (MKE 86726) that is west of Chalk Farm (MKE 86728) that is Early Post Medieval farmstead comprising Post Medieval brewery and maltings (TR 25 NE 55).
- 2.1.2 On the opposite site of the road to Chalk Farm and 30metres to the north west from PDA area records shows Grade II Listed building The Black Pig Inn (TR 25 NE 207) that was constructed during Late Medieval and Post Medieval periods
- 2.1.3 Further north alongside Barnsole Road and within distance of 100 metres from the site records shows: High Medieval GANDER COURT FARMHOUSE (TR 25 NE 130), site Yard North of the Black Pig Inn (MKE86729) of Early Post Medieval Farmstead, Early Post Medieval Barnswell Cottage (TR 25 NE 114) and site of Late Post Medieval Farmstead north of Barnswell Cottage (MKE86730)
- 2.1.4 Alongside the Barnsole Road off to the South within distance of 100 metres records shows: Post Medieval Summerfield House (TR 25 NE 102), Early Post Medieval Cottage (TR 25 NE 119), Post Medieval well and gear (TR 25 NE 117) and Early Post Medieval Summer Field Farmstead
- 2.1.5 80 m to the west is the site of Barnsole Mill (TR 25 NE 295) which is Late Post Medieval wind mill
- 2.1.6 70m to the east from PDA area the site of a Limekiln (TR 25 NE 56) is located. It comprise post medieval chalk pit and limekiln
- 2.1.7 700metres to the west record shows metal detecting find (TR 25 NE 4) of Iron Age golden coin
- 2.1.8 950 metres off to the east Belgic ditches (TR 25 NE 41) were recorded
- 2.1.9 740 metres to the south cropmarks have been recorded (TR 25 NE 39).

2.1.10 690 metres to the north and slightly westwards record of cropmark of possibly mound (TR 25 NE 238) is located.

2.1.11 1 km to the south west at NGR 627043, 155448 cropmarks were noted by the author. It comprises large circular feature surrounded by ring ditch and large linear feature running across the field. These are best visible on 1990 photographs.



Plate A: Aerial photo from 1990 showing cropmarks

2.1.12 All described above records are irrelevant in context of archaeological remains discovered on site during evaluation phase as they represent completely different periods.

2.2 Historic Maps

2.2.1 1st Edition OS map (1890) shows orchard and open field within PDA area

2.2.2 OS map (1900) shows orchard and open field that are the same as shown on the first map, with addition of the building. The building would be located within area occupied by Evaluation Trench 8. The Layout doesn't change until development of nursery in (1960-1990) when the area was densely covered with greenhouses.

3 METHODOLOGY

3.1 Introduction

3.1.1 All fieldwork was conducted in accordance with the methodology set out in the Specification (SWAT 2021) and carried out in compliance with the standards outlined in the Chartered Institute for Archaeologists' Standards Guidance for Archaeological Evaluations (CIfA 2014).

3.2 Fieldwork

3.2.1 A total of 13 evaluation trenches were excavated within the extents of the site.

3.2.2 Each trench was initially scanned by metal detector for surface finds prior to excavation. Excavation was carried out using a 360° mechanical excavator fitted with a toothless ditching bucket, removing the overburden to the top of the first recognisable archaeological horizon, under the constant supervision of an experienced archaeologist.

- 3.2.3 Where appropriate, trenches, or specific areas of trenches, were subsequently hand-cleaned to reveal features in plan and carefully selected cross-sections through the features were excavated to enable sufficient information about form, development date and stratigraphic relationships to be recorded without prejudice to more extensive investigations, should these prove to be necessary.
- 3.2.4 All archaeological work was carried out in accordance with LPA and ClfA standards and guidance. A complete photographic record was maintained on site that included 12 working shots; during mechanical excavation, following archaeological investigations and during back filling.
- 3.2.5 On completion, the trenches were made safe and left open in order to provide the opportunity for a curatorial monitoring visit. Backfilling was carried out once all recording, survey and monitoring had been completed.
- 3.2.6 Works were monitored by senior archaeological officer at Kent County Council, Ben Found. The monitoring was carried out remotely by means of exchange of emails and photographs.

3.3 **Recording**

- 3.3.1 A complete drawn record of the evaluation trenches comprising both plans and sections, drawn to appropriate scales (1:20 for plans, 1:10 for sections) was undertaken. The plans and sections were annotated with coordinates and aOD heights.
- 3.3.2 Photographs were taken as appropriate providing a record of excavated features and deposits, along with images of the overall trench to illustrate their location and context. The record also includes images of the Site overall. The photographic record comprises digital photography. A photographic register of all photographs taken is contained within the project archive.
- 3.3.3 A single context recording system was used to record the deposits. A full list is presented in Appendix 1. Layers and fills are identified in this report thus (100), whilst the cut of the feature is shown as [100]. Context numbers were assigned to all deposits for recording purposes. Each number has been attributed to a specific trench with the primary number(s) relating to specific trenches (*i.e.* Trench 1, 101+, Trench 2, 201+, Trench 3, 301+ etc.).

4 AIMS AND OBJECTIVES

- 4.1 The principle objective of the archaeological evaluation is to establish the presence or absence of any elements of the archaeological resource, both artefacts and ecofacts of archaeological interest across the area of the development.
- 4.2 To ascertain the extent, depth below ground surface, depth of deposit if possible, character, date and quality of any such archaeological remains by limited sample excavation.
- 4.3 To determine the state of preservation and importance of the archaeological resource if present and to assess the past impacts on the site and pay particular attention to the character, height/depth below ground level, condition, date and significance of any archaeological deposits.
- 4.4 The opportunity will also be taken during the course of the evaluation to place and assess any archaeology revealed within the context of other recent archaeological investigations in the immediate area and within the setting of the local landscape and topography. In general the work is to ensure compliance with the archaeological requirements from the Senior Archaeologist at Kent County Council that an archaeological evaluation to take place as a post-planning requirement, and to publish the results either on line, or through OASIS and/or in a local journal.

5 RESULTS

5.1 Introduction and Summary Results

- 5.1.1 Archaeological evaluation of land at Summerfield Nurseries, Barnsole Road, Staple, Kent CT3 1LD has exposed natural geology comprising orange-brown clay-sand-silt with occasional chalk flecking and angular stones.
- 5.1.2 A couple of geological test-pits TP A and TP B were excavated respectively in west end of trench 2 and north end of trench 13. Test pits were excavated throughout potential top colluvium to ascertain appropriate depth for archaeological horizon. Trenches 4, 7, 9 and 11 revealed clay horizon which contrasted with silt horizon in other trenches. To be clear both horizons are very similar in appearance and still comprise admixture of clay or silt to form remaining 40% of the sediment. In case of Trench 1, 2, 13 the clay horizon was exposed at the base of excavated features hence indicating that clay horizon is below archaeological horizon. The clay horizon in trenches 4, 7, 9 was exposed at low depth just

below 0.2metres thick topsoil which was a result of reducing the ground in the past to form levelled rectangular area.

- 5.1.3 Evaluation has exposed archaeological remains in Trenches 1, 2 and 13 comprising Early Neolithic pit truncated by Early Neolithic pit in Trench 1, slightly curvilinear double-ditch of Mid to Late Bronze Age date in Trench 2 and a Late Bronze Age to Early Iron Age sub-circular pit in Trench 13.
- 5.1.4 Trench 12 revealed large modern intrusion and Trenches 3, 4, 5, 6, 7, 8, 9, 10 and 11 have exposed drainage pipes associated with former plant nursery infrastructure.

5.2 Trench Narratives

- 5.2.1 Trench 1 (Figure 5, Plates 21 and 22) was placed in southern part of the site in WNW-ESE alignment and measured 22.8 metre in length by 1.8metre in width and 0.55metre in depth. It exposed natural geology context (103) comprising orange-brown clay-sand-silt with infrequent chalk flecks. A Pit [108] cut by pit [104] was exposed at western end of this trench. Both features were extending into north wall of the trench.
- 5.2.2 Pit [108] had half oval shape in plan. Feature had vertical, slightly undercut sides and measured 0.7metre in width and was excavated to the depth of 0.62metre. The undercut sides are result of erosion.
- 5.2.3 Its fill sequence comprised 6 distinctive deposits that formed as a result of sedimentation processes. Contexts (113) and (114) representing material that collapsed of the feature walls after rain. Contexts (109), (110), (112), (113) comprise material washed down the pit derived from erosion of the surface around the pit. Except charred context (109) and (110) all other fills were looking very similar to surrounding natural. The charred contexts were full sampled. All other context were sieved on site.
- 5.2.4 Stratigraphically lowest fill (114) of pit [108] comprised orange-grey clay-sand-silt with infrequent angular stones. It was overlain by Fill (109) comprising orange-grey clay-sand-silt with infrequent charcoal flecks and subsequently was capped by context (113) comprising orange mottled brown clay-sand-silt with infrequent angular stones. That was capped by 0.1m-thick band (context 110) comprising dark-grey clay-sand-silt with moderate charcoal flecks.
- 5.2.5 Next in turn it was context (111) comprising orange clay-sand-silt with infrequent chalk flecks and pottery sherds and was capped on top by context (112) comprising orange clay-sand-silt without noticeable inclusions.

- 5.2.6 Fills (109), (110), (111), (112) and (113) produced 72 contemporary potsherds dated to Early Neolithic Period, 3650/3500 to 3350 BC.
- 5.2.7 Fill (112) was truncated by later shallow sub-oval cut [104] with shallow to moderately sloping sides gradually breaking into slightly concave base. Feature measured 2.6metre in length by 1.2metre in width and 0.4metre in maximum depth. It was filled-up with 3 deposits. Primary fill (105) comprised firm, orange-yellow clay-sand-silt with infrequent chalk flecks measuring 2.6metre in width and 0.4metre in maximum depth. It was overlain by 0.05metre-thick band (context 106) comprising orange-grey clay-sand-silt with moderate charcoal flecks and it was subsequently capped on top by 0.25metre-thick band of orange-grey clay-sand-silt (Fill (107)) with infrequent chalk flecks and angular stones.
- 5.2.8 Fill (106) produced several potsherds dated to Early Neolithic/Later Prehistoric Period (3650 to 3350/1550 to 50 BC).
- 5.2.9 Trench 2 (Figure 6) was placed in southern part of the site in NW-SE alignment and measured 22.12metre in length by 1.8metre in width and 0.42metre in depth. An extension was dug along south-eastern part of this trench and measured 5.80metre in length by 1.8metre in width. Trench has exposed slightly curvilinear double ditch [204] and [206] at its south-eastern end. First mentioned linear [204] had moderately sloping sides gradually breaking into mainly flat base and measured 3.1metre in width by 0.45metre in depth. Its only fill context (205) comprised orange-grey clay-sand-silt with infrequent chalk flecks and angular stones. Several potsherds of Middle to Mid to Late Bronze Age, 1550 to 1150 BC were retrieved from this context. Another probably contemporary feature was revealed immediately to the north-west. Ditch [206] had also moderately sloping sides gradually breaking into slightly concave base and measured 2.4metre in width by 0.38metre in depth and was filled-in by fill (207) comprising orange-grey clay-sand-silt with infrequent angular stones.
- 5.2.10 Fill (205) of Ditch [204] was truncated by modern cut [208] measuring 1.02 metre in width by 0.39metre in depth of which only fill context (209) comprised pale grey clay-sand-silt with infrequent chalk flecks.
- 5.2.11 Trench 3 (Figure 4) was placed in central-western part of the site in E-W alignment and measured 31.3metre in length by 1.8metre in width and 0.43metre in depth. Trench has exposed natural geology context (303) comprising orange-grey clay-sand-silt with

infrequent angular stones. A modern drain was exposed in this trench, no archaeological cuts or deposits were exposed here.

- 5.2.12 Trench 4 (Figure 4) was placed in central part of the site in E-W alignment and measured 25.9metre in length by 1.8metre in width and 0.53metre in depth. Trench has exposed natural geology context (403) comprising orange-grey clay-sand-silt with infrequent angular stones. A modern drain and plastic water pipe were exposed at western end this trench, no archaeological cuts or deposits were revealed here.
- 5.2.13 Trench 5 (Figure 4) was placed in western part of the site in NE-SW alignment and measured 18.1metre in length by 1.8metre in width and 0.51metre in depth. Trench has exposed natural geology context (503) comprising orange-grey clay-sand-silt with infrequent angular stones. A modern drain was exposed in this trench, no archaeological cuts or deposits were revealed here.
- 5.2.14 Trench 6 (Figure 4) was placed in western part of the site in SE-NW alignment and measured 26.3metre in length by 1.8metre in width and 0.48metre in depth. Trench has exposed natural geology context (603) comprising orange-grey clay-sand-silt with infrequent angular stones. A modern drain was exposed in central part of this trench, no archaeological cuts or deposits were revealed here.
- 5.2.15 Trench 7 (Figure 4) was placed in central part of the site in SE-NW alignment and measured 23.2metre in length by 1.8metre in width and 0.52metre in depth. Trench has exposed natural geology context (703) comprising orange-grey clay-sand-silt with infrequent angular stones. A modern drain and post-hole were exposed at western end this trench, no archaeological cuts or deposits were revealed here.
- 5.2.16 Trench 8 (Figure 4) was placed in north-western part of the site in N-S alignment and measured 27.9metre in length by 1.8metre in width and 0.48metre in depth. Trench has exposed natural geology context (803) comprising orange-grey clay-sand-silt with infrequent angular stones. Two modern drains were exposed in the middle of this trench, no archaeological cuts or deposits were revealed here.
- 5.2.17 Trench 9 (Figure 4) was placed in northern part of the site in E-W alignment and measured 32.55metre in length by 1.8metre in width and 0.54metre in depth. Trench has exposed natural geology context (903) comprising orange-grey clay-sand-silt with infrequent

angular stones. A modern drain was exposed in western part of this trench, no archaeological cuts or deposits were revealed here.

- 5.2.18 Trench 10 (Figure 4) was placed in northern part of the site in E-W alignment and measured 26.7metre in length by 1.8metre in width and 0.48metre in depth. Trench has exposed natural geology context (1003) comprising orange-grey clay-sand-silt with infrequent angular stones. A modern drain and two modern post-holes were exposed in this trench, no archaeological cuts or deposits were revealed here.
- 5.2.19 Trench 11 (Figure 4) was placed in north-eastern part of the site in N-S alignment and measured 26.9metre in length by 1.8metre in width and 0.47metre in depth. Trench has exposed natural geology context (1103) comprising orange-grey clay-sand-silt with infrequent angular stones. A modern drain was exposed in the middle part of this trench, no archaeological cuts or deposits were revealed here.
- 5.2.20 Trench 12 (Figure 4) was placed in central-eastern part of the site in N-S alignment and measured 24.74metre in length by 1.8metre in width and 0.49metre in depth. Trench has exposed natural geology context (1203) comprising orange-grey clay-sand-silt with infrequent angular stones. A modern cut [1204] was exposed in northern part this trench, no earlier archaeological cuts or deposits were revealed here.
- 5.2.21 Trench 13 (Figure 7) was placed in central part of the site in SE-NW alignment and measured 23.77metre in length by 1.8metre in width and 0.56metre in depth. Trench has exposed natural geology context (1303) comprising orange-grey clay-sand-silt with infrequent angular stones. A Pit [1304] continuing beyond west wall of the trench was exposed in the middle part of this trench.
- 5.2.22 Oval Pit [1304] had moderately sloping southern side and gently sloping, stepped northern side gradually breaking into concave base. It measured 2.6metre wide by 0.54metre in depth and was filled by a sequence comprising 4 deposits: (1305, 1306, 1307 and 1308). All fills formed as a result of natural sedimentary processes where material derived from erosion of feature sides and surrounding surface.
- 5.2.23 Primary fill (1305) was firm, pale orange clay-sand-silt with infrequent angular stones and measured 1.6metre in width and 0.28metre in depth. It was capped by Fill (1306) comprising orange-grey clay-sand-silt with infrequent chalk flecks. Context measured 1.23metre in width and 0.33metre in depth. Both contexts were very similar in appearance

and the boundary between them was indicated by line of charcoal flecks. Context (1306) was concealed by 0.05m-thin band (1307) of orange-grey clay-sand-silt with moderate charcoal flecks. Subsequently it was capped on top by broad fill (1308) comprising orange-grey clay-sand-silt with infrequent angular stones and pottery sherds.

5.2.24 Fills (1307) and (1308) have produced several potsherds of Late Bronze Age/Earliest Iron Age to Early Iron Age, 1150/900 to 600 BC date

5.3 **Test pits**

5.3.1 Test pit A was excavated to the depth of 2.4 metres below ground level revealed uniform brown stoneless sediment (203) throughout its profile overlaid with subsoil (202) comprising firm(dry) compaction, mid orangey brown silty loam with occ. chalk flecks and subangular flint. This context had diffused boundary with underlying unit. These were sealed with top soil (201) comprising soft compaction, dark brown silty loam (clayey silt slightly sandy) with occ. flints and modern stones. Natural sediment (203) comprised firm compaction, mid orangey brown silty loam with rare subangular flint. Downwards material gradually becomes yellowish brown, brighter and comprising more clay. The clay content was increasing with depth and was dominant from 1 metre below ground which was below bases of features excavated in trench 2. Frequent flint cobbles were revealed at the base of the test pit accompanied by rare chalk. The context was identified to be a HEAD deposit. Small roots were common to the depth of 0.8 metres below topsoil and sparse further down.

5.3.2 Test pit B was excavated to the depth of 0.5 metres below the base of trench 13 at its north end and 0.85 metres below top ground level. It revealed clay horizon at depth of 0.6 metres below top ground level which is about 0.2 metres below the top op pit excavated in the trench.

6 **CONCLUSIONS**

6.1 The archaeological evaluation has been successful in fulfilling the primary aims and objectives of the Specification and exposed common stratigraphic sequence comprising top-soil and sub-soil concealing natural geology.

6.2 Several archaeological features of Neolithic, Bronze Age and Later Iron Age dates were exposed in southern and south-eastern part of the site. These consist of Early Neolithic pits

exposed in Trench 1, Late Bronze Age to Early Iron Age pit exposed in Trench 13 and Middle Bronze Age to Late Bronze Age slightly curvilinear double Ditch exposed in Trench 2.

- 6.3 Cluster of Neolithic features exposed in Trench 1 is particularly interesting due to its early date (3650/3500 to 3350 BC) and will require full excavation (100% sampling).
- 6.4 Slightly curvilinear double ditch exposed in Trench 2 although of a later date can be associated with potential agrarian enclosure extending eastwards.
- 6.5 This evaluation has, therefore, assessed the archaeological potential of land intended for development. The results of this work show that the proposed development will be having an impact on buried archaeological resource in southern and south-eastern part of the site.

7 FINDS

7.1 Finds comprise assemblages of flint work and pottery. A total of 52 worked lithics, all flint weighting a total of 630 g were presented and catalogued (see Appendix 3). A total of 95 sherds of pottery weighing a total of 1165 g were presented and catalogued (see Appendix 2 for full report).

7.2 All dates given throughout are circa. Several specific phases of activity are suggested and these are listed below. The estimate of the numbers of vessels may give an indication of the relative different degrees of activity that produced these assemblages, with regards to the amount or length of human presence and whether this site was nearer the centre of the activity or perhaps on the periphery of it. It should be noted however that as this pottery was recovered during an evaluation it may represent an incomplete picture of the activity present at this site.

7.3 Ceramic presence Main focus

7.3.1 Early Neolithic 3650/3500 to 3350 BC 17/22 vessels

7.3.2 Middle to Mid to Late Bronze Age 1550 to 1150 BC 1 vessel

7.3.3 Late Bronze Age to Earliest Iron Age/Earliest Iron Age 1150/900 to 600 BC 6/7 vessels

7.3.4 In addition, some less diagnostic material was also present:

7.3.5 Early Neolithic/Later Prehistoric 3650 to 3350/1550 to 50 BC 2 vessels

7.4 Fabrics and sources

7.4.1 All of the fabrics were flint tempered and likely of local manufacture. It was notable however that the matrices of the potting clays used for the Early Neolithic and potential Earliest Iron Age wares were effectively (macroscopically) identical, suggesting they might have been obtained from similar or perhaps the same sources. The fabric of the single instance of a Middle to Mid to Late Bronze Age ware was different.

7.5 Condition

7.5.1 Many of the sherds seem to have suffered some degree of surface loss or general denudation, though none of the intact surfaces or edges were significantly worn and all have a reasonable potential to be contemporary with their contexts. Their state may be a reflection of adverse soil conditions rather than an indication that the pieces had seen periods of surface exposure.

- 7.6 Early Neolithic, 3650/3500 to 3350 BC
- 7.6.1 All of the material identified as such derived from a single feature – pit [108]. The group contained rims from 4 vessels, one showing shallow, worn, incised linear decoration confined to the rim top, another with a shallow linear rippled finish across the top and rim side. The latter was very similar to the ripple burnish on a body sherd also recovered from this feature. Though this rim top decoration does not continue onto the vessel side, which would be more definitive, it is likely that these vessels are Decorated Bowls that would date between 3650 and 3350 BC. The other rims were plain, though one of these had traces of an impressed line potentially of twisted cord just below. Such decoration is more common on Middle Neolithic wares and a date towards the later end of the Early Neolithic is preferred for this group at present because of the presence of this motif.
- 7.7 Middle to Mid to Late Bronze Age, 1550 to 1150 BC
- 7.7.1 This period was represented by a few sherds from the body and base of a single coarseware, which was the sole pottery recovered from ditch [204].
- 7.8 Late Bronze Age to Earliest Iron Age/Earliest Iron Age, 1150/900 to 600 BC
- 7.8.1 All of this material also derived from a single feature – pit [1304] and little of it was specifically diagnostic. The rims from 2 vessels were present, the larger element being of near S-profiled type with a bevelled interior. There was also 1 sharp angled body sherd. No material was decorated and the fabrics of several sherds appear little different in character to some within the Early Neolithic group. The presence of the S-profiled vessel suggests a Late Bronze Age to Earliest Iron Age date is likely, whilst the fairly profuse generally finer tempering of this piece, plus the presence of some thin-walled sherds, are traits that are commonly encountered in assemblages of Earliest Iron Age date locally. It should be noted however that the characteristics of Late Bronze Age fabrics from the region are not well known at present, due to the low numbers of well identified assemblages, thus it is possible that the gritting and wall-thickness traits which are the basis for the Earliest Iron Age preference given here could potentially have an earlier origin within the Late Bronze Age.
- 7.9 Early Neolithic/Later Prehistoric 3650 to 3350/1550
- 7.9.1 All of this material also derived from a single feature – pit [104] and little of it was specifically diagnostic. The material comprised two small body sherds.

8 ENVIRONMENTAL POTENTIAL

8.1 Introduction Aims and Objectives

8.1.1 Three samples were presented for assessment (see table 1 below). They were taken from charred fills of pits [108] and [1304] dated respectively to Early Neolith and Late Bronze Age periods. The aims of this assessment are to determine the significance and potential of the macro-remains in the samples and consider their use in providing information about diet, craft, crop-husbandry, feature function, environment and their potential to provide radiocarbon dates.

8.2 Sampling and processing methods

8.2.1 Samples were processed by QUEST using water-recycling Siraf type flotation system. These were approximately 3L to 5L and were wet-sieved into a 300mm mesh sieve and produced residues and flots. All samples were completely processed.

8.2.2 The flots were scanned under a low powered stereo-microscope with a magnification range of 10 to 40x. The whole flots were examined. The abundance, diversity and state of preservation of eco- and artefacts in each flot were recorded. A magnet was passed across each flot to record the presence or absence of magnetised material or hammerscale.

8.2.3 At this stage specimen haven't been identified and the numbers given are estimates but where only one item is present that has been noted. Identifiable charcoal >4mm in diameter has been described as that. Samples this size are easier to break to reveal the cross-sections and diagnostic features necessary for identification and are less likely to be blown or unintentionally moved around the site (Asouti 2006, ¶ 31; Smart and Hoffman, 1988, 178-179). Fragments smaller than this and larger than 2mmØ were scanned in case any fragments of twig or roundwood survived. Stem and branch-wood charcoal <4mm diameter are described here as 'flecks'.

No plant remains were preserved by mineralisation (Green 1979, 281) or silicification (Robinson and Straker 1990), which means that there is no archaeobotanical evidence for the cess disposal or slow-burning aerated fires.

8.4.3 *Potential and Significance*

The density of charred plant remains per litre of sampled soil in these samples is low. This can mean that the plant remains are there as general background waste and may not be associated with the features. The only way to be certain that plant remains like these are of a specific date are is to obtain radiocarbon dates from those items (Pelling *et al.* 2015, 96).

8.4.4 *Recommendations for further work on these samples.*

Further work is not recommended on these samples unless the charcoal is needed for identification to select taxa suitable for radiocarbon dating.

9 ARCHAEOLOGICAL POTENTIAL AND SIGNIFICANCE

9.1 Archaeological remains were exposed within south east extent of the site comprising features dated to Early Neolithic, Middle and Late Bronze Age periods.

9.2 Early Neolithic remains are very rare and as such of national importance. The recovered remains points to domestic and flint knapping activity and are indicative for a site of small dwelling. The remains comprised cut features only. There is no potential for occupation horizon as this was destroyed by later agricultural activity.

9.3 The site has high potential for recovery of locally produced pottery of prehistoric period particularly Neolithic with associated C-14 samples and low potential for paleoenvironmental reconstruction. There is also high potential for recovery of locally produced flintwork.

9.4 Remains have high local importance as these are the oldest heritage asset exposed in the area.

10 IMPACT OF DEVELOPMENT PROPOSAL ON ARCHAEOLOGICAL REMAINS

The impact will be significant and would result in loss of any artefacts remaining in the ground. Features are located near top surface of the site at depth of 0.3- 0.5 metres and comprise shallow pits and ditches. These will be truncated by foundation trenches, road trenches, drainage and services

11 ACKNOWLEDGEMENTS

11.1 SWAT Archaeology would like to thank to the client for commissioning the project and thanks are extended to Ben Found, Senior Archaeological Officer at Kent County Council for his support and assistance during the fieldwork.

11.2 On behalf of the client project was directed by Dr Paul Wilkinson, MCIFA and fieldwork was carried out by Peter Cichy who also prepared text for this report. Site investigations were carried out by Django Rayner and Bartek Cichy who also prepared text and illustrations for this report.

12 ARCHIVE

12.1 General

12.2 The Site archive, which will include; paper records, photographic records, graphics and digital data, will be prepared following nationally recommended guidelines (SMA 1995; CifA 2009; Brown 2011; ADS 2013).

12.3 All archive elements will be marked with the site/accession code, and a full index will be prepared. The physical archive comprises 1 file/document case of paper records & A4 graphics. The Site Archive will be retained at SWAT Archaeology offices until such time it can be transferred to a Kent Museum.

APPENDIX 1 – HER FORM

Site Name: Archaeological Evaluation of land at Summerfield Nurseries, Barnsole Road, Staple, Kent CT3 1LD

SWAT Site Code: SNS-EV-21

Site Address: As above

Summary: *Swale & Thames Survey Company (SWAT Archaeology) was commissioned by The Client to undertake an archaeological evaluation of land at Summerfield Nurseries, Barnsole Road, Staple, Kent CT3 1LD*

The archaeological programme was monitored by the Senior Archaeological Officer at Kent County Council. The Archaeological Evaluation consisted of 13 trenches, which recorded a relatively common stratigraphic sequence comprising topsoil and subsoil overlying natural geology.

Trenches 1, 2 and 13 exposed archaeological features of Early Neolithic to Late Bronze Age date.

Further mitigation in form of limited open SMS area is proposed.

District/Unitary: Dover District Council & Kent County Council

Period(s): Neolithic, Bronze Age, Earliest Iron Age

NGR (centre of site to eight figures) NGR 627776 156262

Type of Archaeological work: Archaeological Evaluation

Date of recording: June/July 2021

Unit undertaking recording: Swale and Thames Survey Company (SWAT Archaeology)

Geology: chalk bedrock capped by Head Deposits

Title and author of accompanying report: SWAT Archaeology (P. Cichy; B. Cichy 2021)

Archaeological Evaluation of land at Summerfield Nurseries, Barnsole Road, Staple, Kent CT3 1LD

Location of archive/finds: SWAT. Archaeology. Graveney Rd, Faversham, Kent. ME13 8UP

Contact at Unit: Paul Wilkinson

References

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Figures

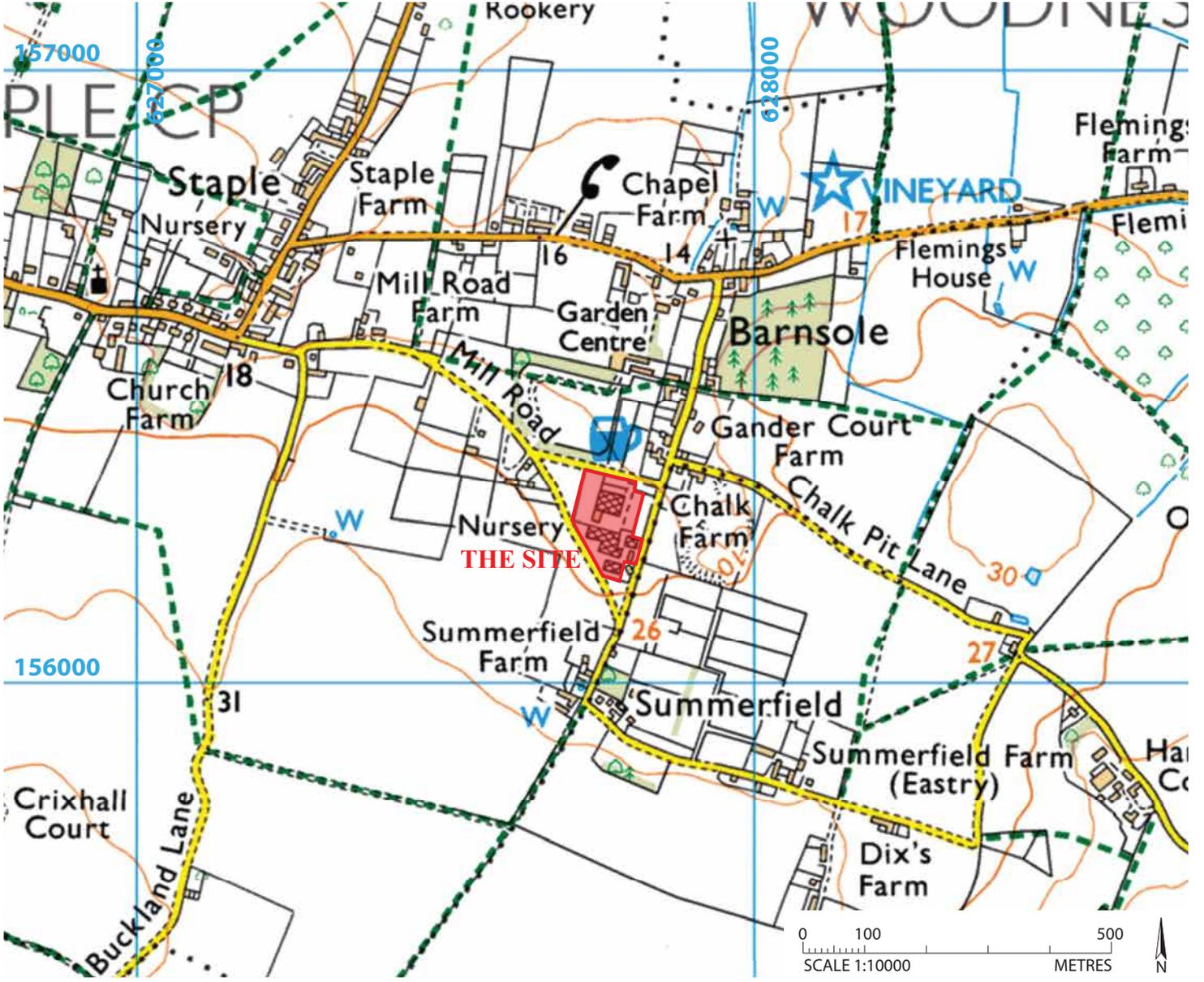
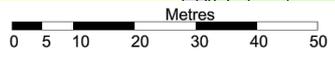


Figure 1: Site location map, scale 1:10000.



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KEY:
Modern features ■

Scale:1: 1250

Figure 2: Trench location in relation to OS map

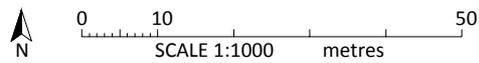


Figure 3: Trench location in relation to development; scale 1:1000

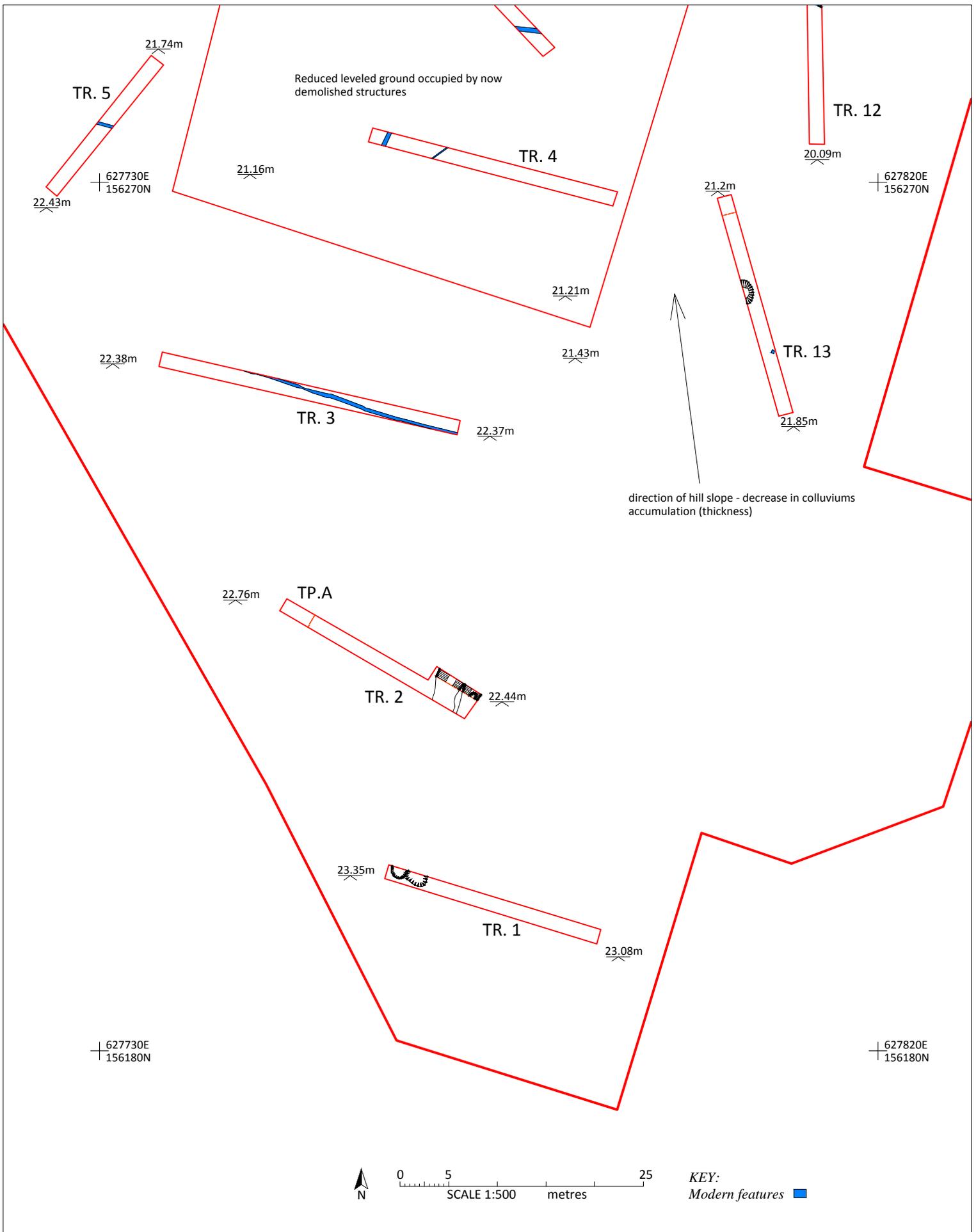
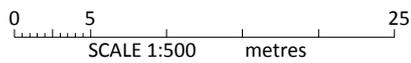
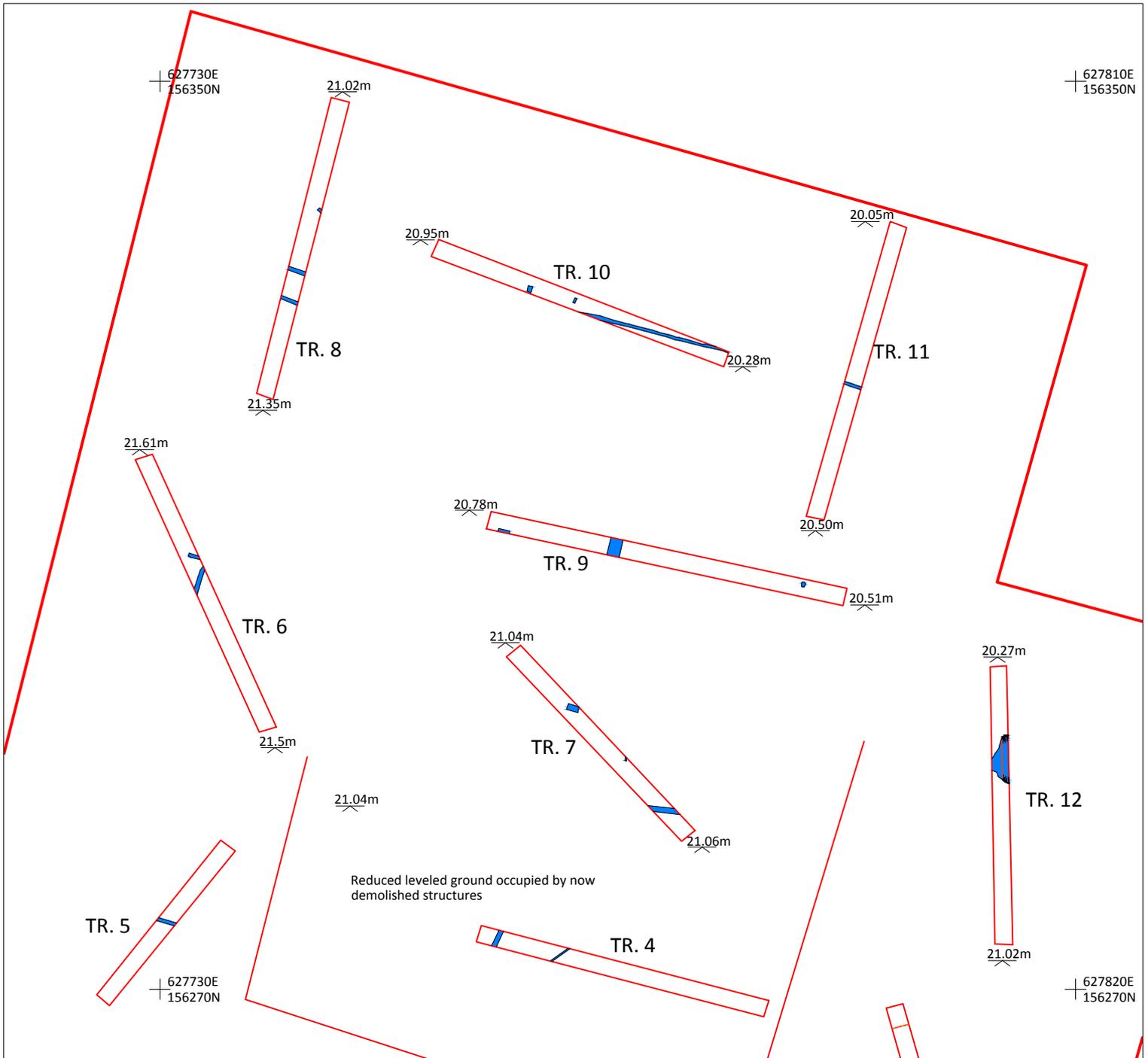


Figure 4A: Trench location (trenches 1-5 and 13) - Southern area; scale 1:500



KEY:
 Modern features ■

Figure 4B: Trench location (trenches 6-12) - Northern area; scale 1:500

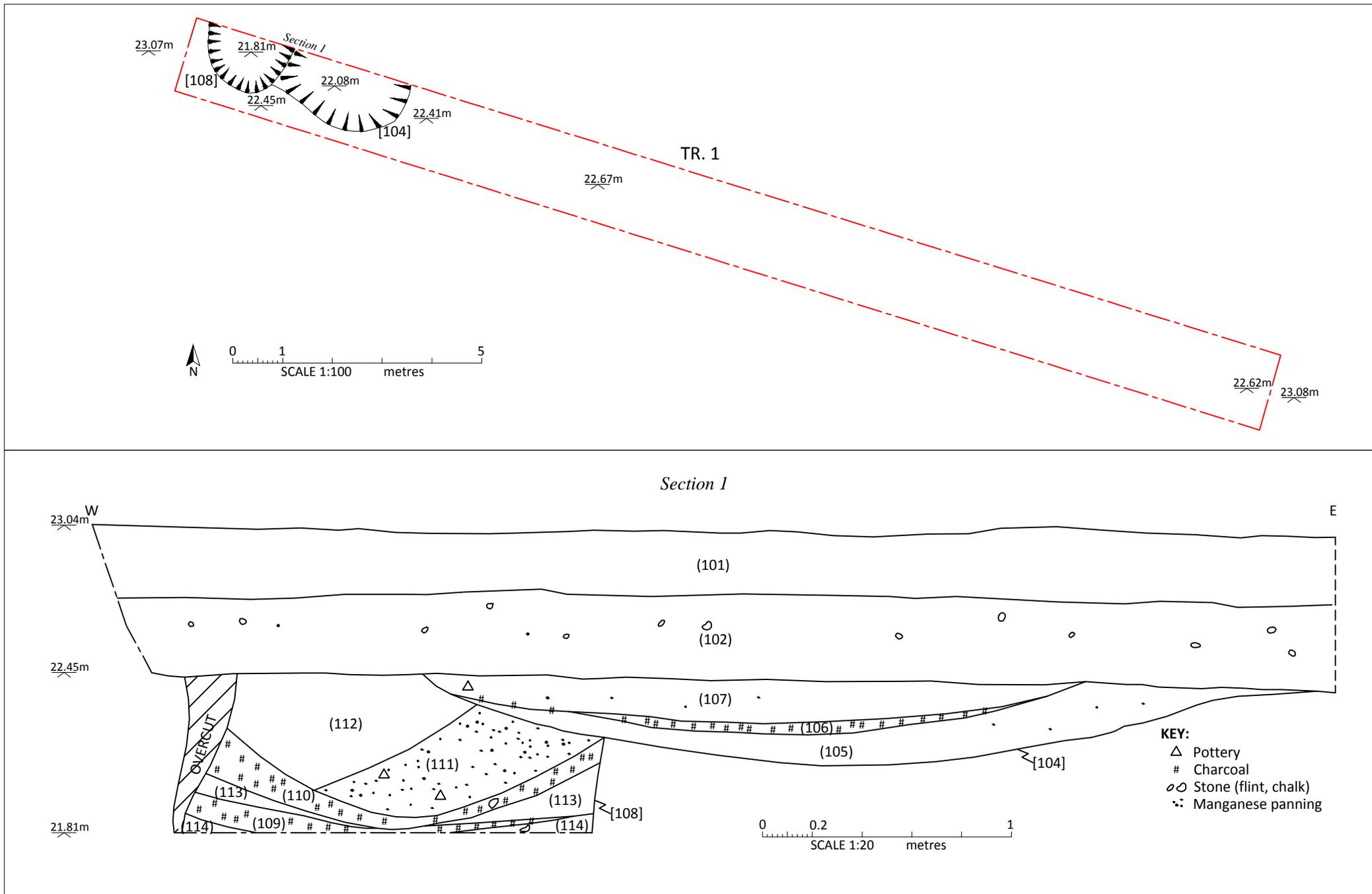


Figure 5: Trench 1 plan and sections

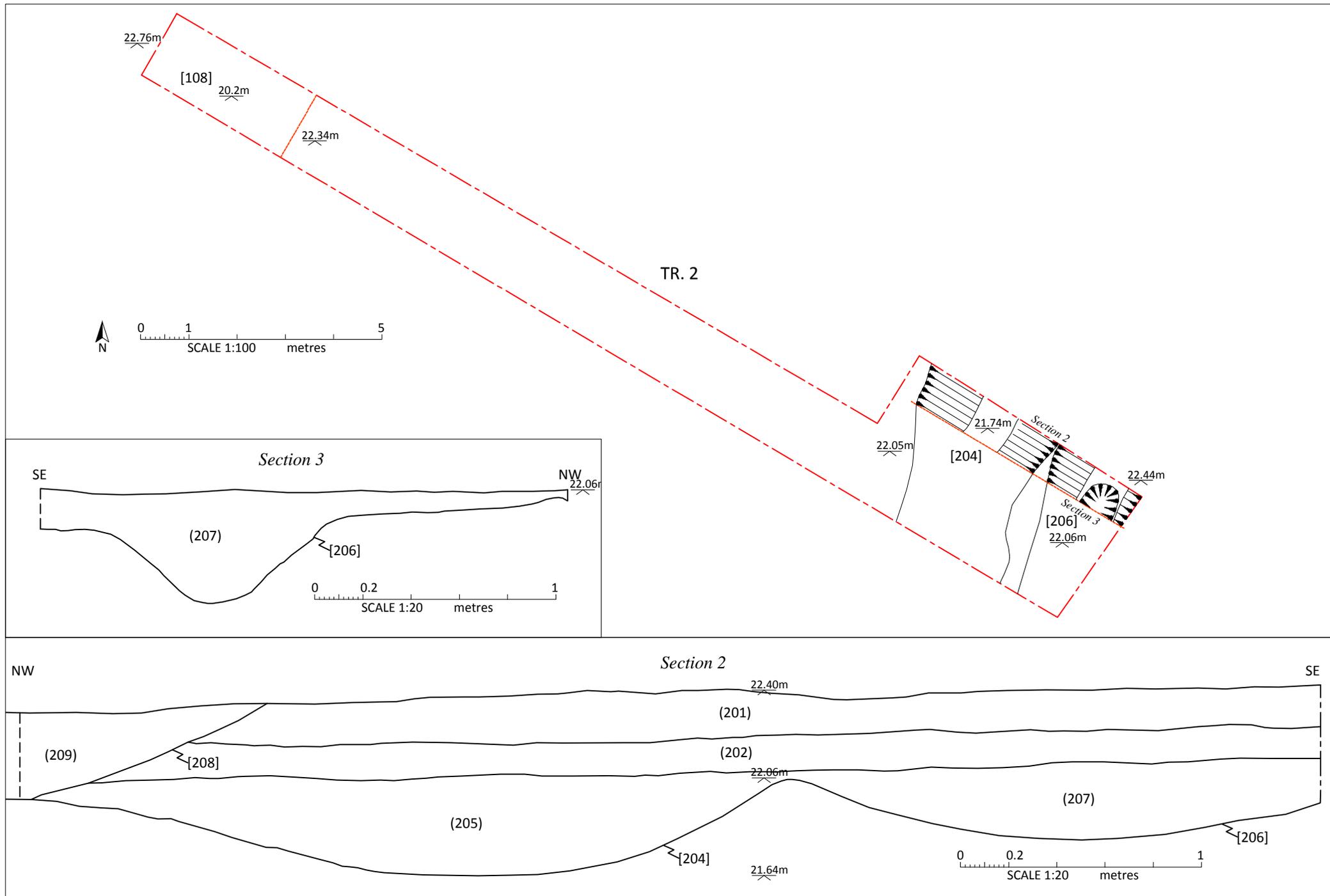


Figure 6: Trench 2 plan and sections

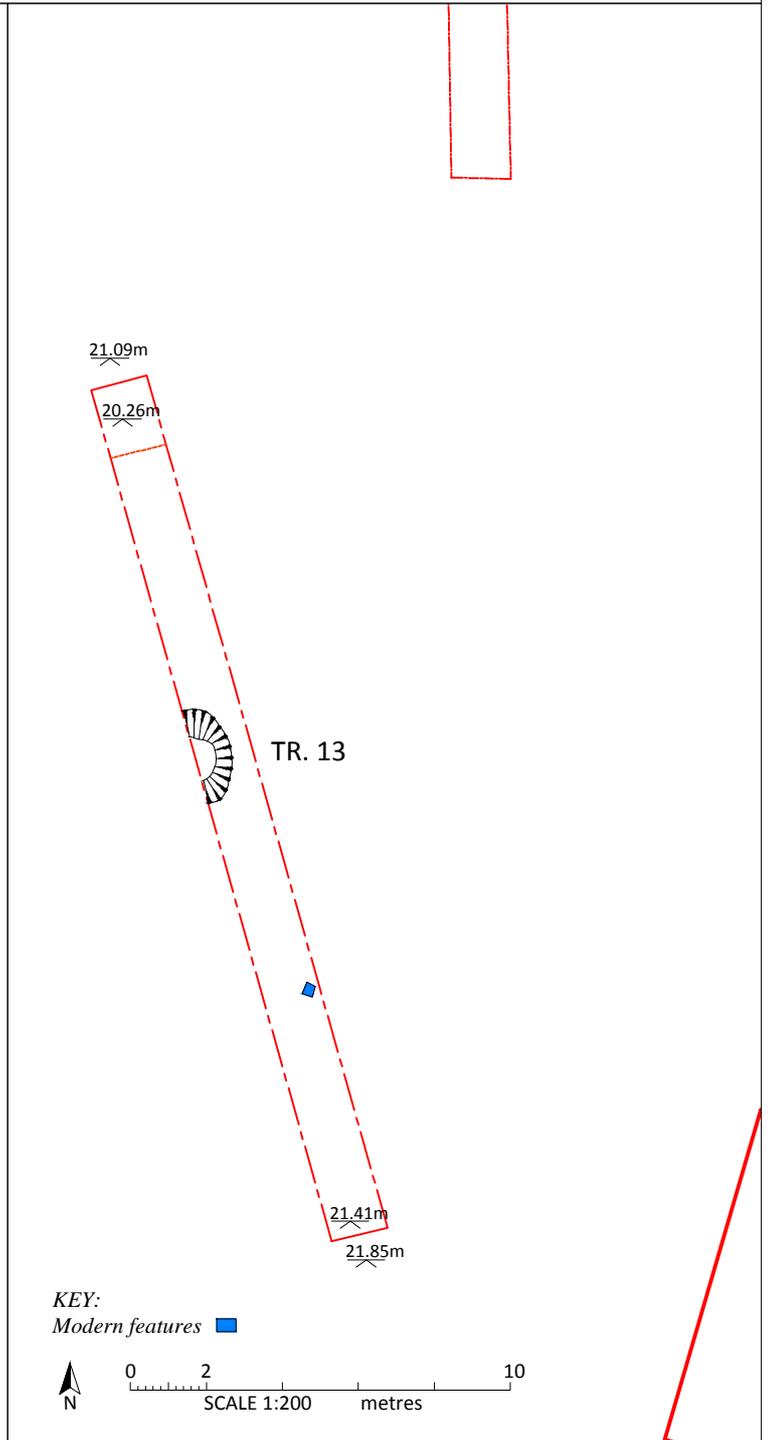
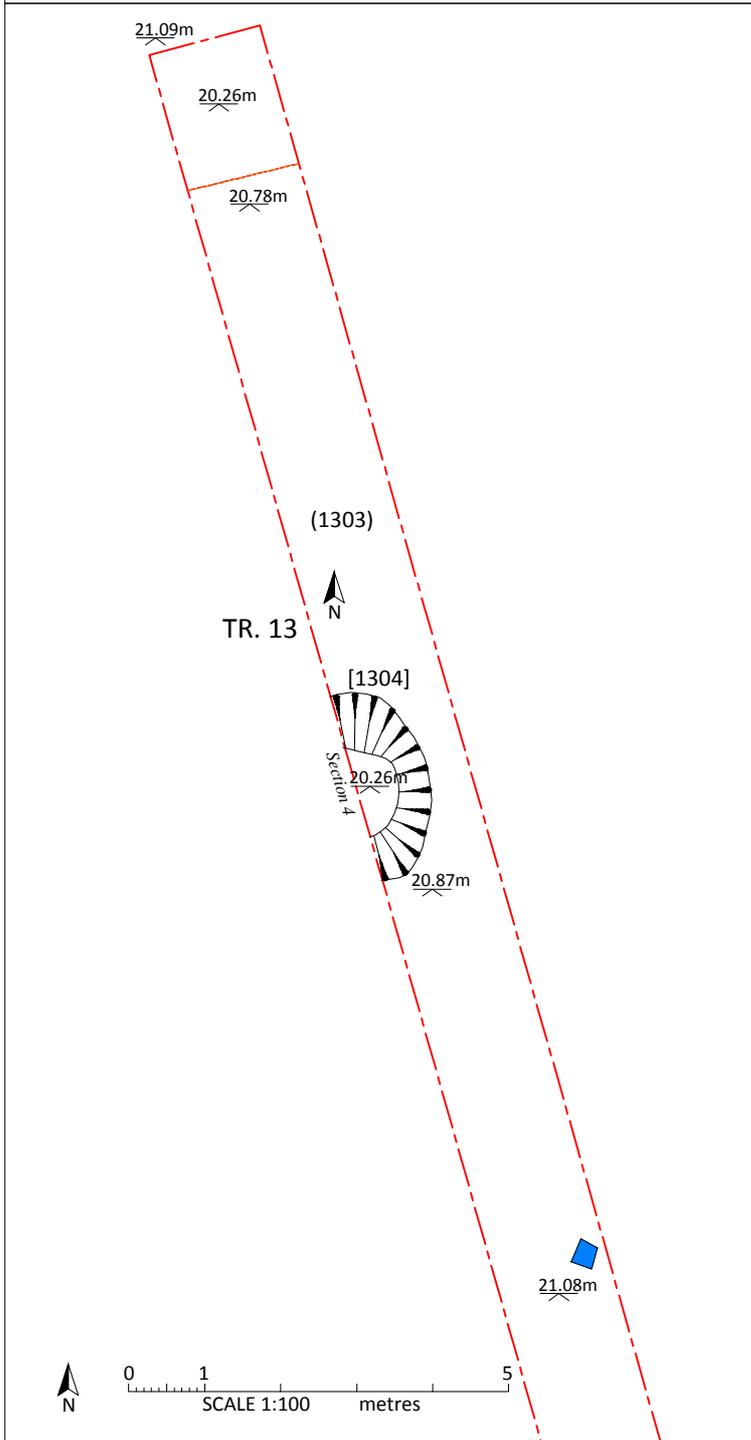
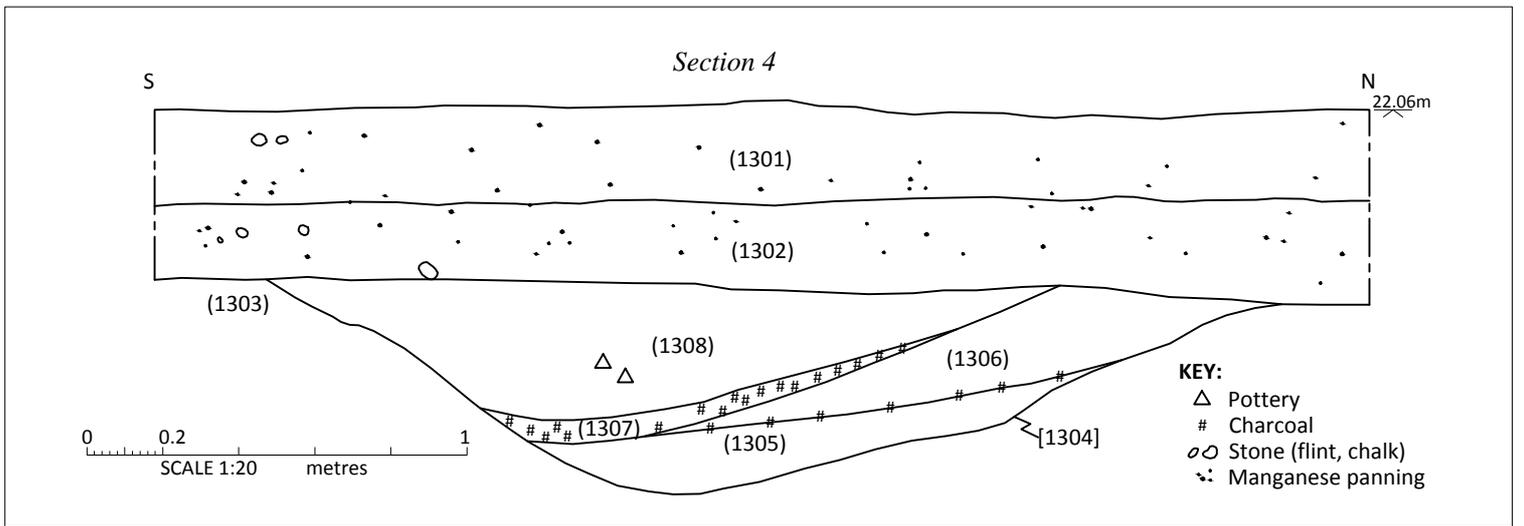


Figure 7: Trench 13 plan and sections

Plates



Plate 1: The site, viewing from north.



Plate 2: Evaluation Trench 1. Looking north-west with one- and two-metre scales.

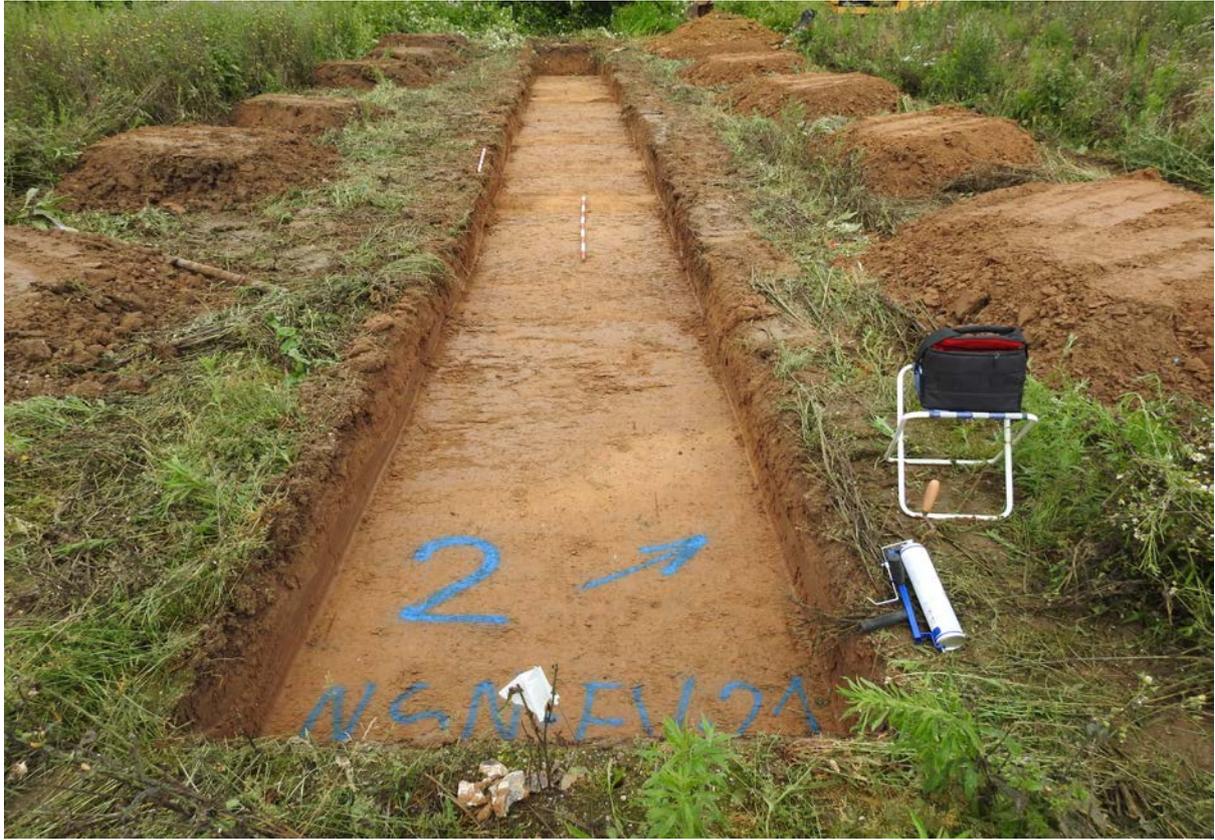


Plate 3: Evaluation Trench 2. Looking north-west with two-metre scale.



Plate 4: Geological test-pit at NW end of Trench 2. Looking north-west with two-metre scale.



Plate 5: Evaluation Trench 3. Looking west with two-metre scale.



Plate 6: Evaluation Trench 4. Looking east with two-metre scale.



Plate 7: Evaluation Trench 5. Looking north-east with two metre scale.



Plate 8: Evaluation Trench 6. Looking south-east with two metre scale.



Plate 9: Evaluation Trench 7. Looking north-west with two metre scale.



Plate 10: Evaluation Trench 8. Looking north-east with two metre scale.



Plate 11: Evaluation trench 9. Looking east with two-metre scale.



Plate 12: Evaluation Trench 10. Looking west with two metre scale.



Plate 13: Evaluation Trench 11. Looking north-east with two metre scale.



Plate 14: Evaluation Trench 12. Looking north-east with two metre scale.



Plate 15: Geological test-pit at northern end of Trench 12. Looking south-west.



Plate 16: Evaluation Trench 13. Looking south-east with two-metre scale.



Plate 17: Half-sectioned Bronze Age Pit [1304] exposed in Trench 13. Looking west with two metre scale.



Plate 18: Geological test-pit at north-western end of Trench 13. Looking south-east with two-metre scale.



Plate 19: Potential Modern cut exposed in Trench 12. Looking east with two-metre scale.



Plate 20: Double Ditch [204] and [206] exposed in Trench 2. Looking north with two metre scales.



Plate 21: Sub-oval Pit [104] exposed in Trench 1. Looking north-east with one- and two-metre scales.



Plate 22: Pit [108] exposed at western end of Trench 1. Looking north with one and two metre scales.

APPENDIX II

**A spot-dating catalogue and summary report
on the pottery from an archaeological evaluation at
Summerfield Nurseries,
Staple,
Kent**

Site Code: SNS-EV-21

Analyst: Paul Hart

Last updated: 20.08.2021

For: The Swale and Thames Archaeology Survey Company

Contents

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2. Period-based review
 - 2.1. Early Neolithic, 3650/3500 to 3350 BC
 - 2.2. Early Neolithic/Later Prehistoric, 3650 to 3350/1550 to 50 BC
 - 2.3. Middle to Mid to Late Bronze Age, 1550 to 1150 BC
 - 2.4. Late Bronze Age to Earliest Iron Age/Earliest Iron Age, 1150/900 to 600 BC
3. Comment
4. Bibliography

Appendix (PDF version only)

5. Quantification and spot-dating of the pottery assemblage
 - 5.1. Methodology
 - 5.2. Period Codes employed
 - 5.3. Abbreviations used in 5.4
 - 5.4. Catalogue: Quantification and spot-dating of the pottery, with notes

1. Summary

A total of 95 sherds of pottery weighing a total of 1165 g were presented and catalogued. All dates given throughout are *circa*. Several specific phases of activity are suggested and these are listed below. The estimate of the numbers of vessels may give an indication of the relative different degrees of activity that produced these assemblages, with regards to the amount or length of human presence and whether this site was nearer the centre of the activity or perhaps on the periphery of it. It should be noted however that as this pottery was recovered during an evaluation it may represent an incomplete picture of the activity present at this site.

<i>Ceramic presence</i>	<i>Main focus</i>	
Early Neolithic	3650/3500 to 3350 BC	17/22 vessels
Middle to Mid to Late Bronze Age	1550 to 1150 BC	1 vessel
Late Bronze Age to Earliest Iron Age/Earliest Iron Age	1150/900 to 600 BC	6/7 vessels

In addition, some less diagnostic material was also present:

Early Neolithic/Later Prehistoric	3650 to 3350/1550 to 50 BC	2 vessels
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Fabrics and sources

All of the fabrics were flint tempered and likely of local manufacture. It was notable however that the matrices of the potting clays used for the Early Neolithic and potential Earliest Iron Age wares were effectively (macroscopically) identical, suggesting they might have been obtained from similar or perhaps the same sources. The fabric of the single instance of a Middle to Mid to Late Bronze Age ware was different.

Condition

Many of the sherds seem to have suffered some degree of surface loss or general denudation, though none of the intact surfaces or edges were significantly worn and all have a reasonable potential to be contemporary with their contexts. Their state may be a reflection of adverse soil conditions rather than an indication that the pieces had seen periods of surface exposure.

Early Neolithic, 3650/3500 to 3350 BC

All of the material identified as such derived from a single feature. The group contained rims from 4 vessels, one showing shallow, worn, incised linear decoration confined to the rim top, another with a shallow linear rippled finish across the top and rim side. The latter was very similar to the ripple burnish on a body sherd also recovered from this feature. Though this rim top decoration does not continue onto the vessel side, which would be more definitive, it is likely that these vessels are Decorated Bowls that would date between 3650 and 3350 BC. The other rims were plain, though one of these had traces of an impressed line potentially of twisted cord just below. Such decoration is more common on Middle Neolithic wares and a date towards the later end of the Early Neolithic is preferred for this group at present because of the presence of this motif.

Middle to Mid to Late Bronze Age, 1550 to 1150 BC

This period was represented by a few sherds from the body and base of a single coarseware, which was the sole pottery recovered from its feature.

Late Bronze Age to Earliest Iron Age/Earliest Iron Age, 1150/900 to 600 BC

All of this material also derived from a single feature and little of it was specifically diagnostic. The rims from 2 vessels were present, the larger element being of near S-profiled type with a bevelled interior. There was also 1 sharp angled body sherd. No material was decorated and the fabrics of several sherds appear little different in character to some within the Early Neolithic group. The presence of the S-profiled vessel suggests a Late Bronze Age to Earliest Iron Age date is likely, whilst the fairly profuse generally finer tempering of this piece, plus the presence of some thin-walled sherds, are traits that are commonly encountered in assemblages of Earliest Iron Age date locally. It should be noted however that the characteristics of Late Bronze Age fabrics from the region are not well known at present, due to the low numbers of well identified assemblages, thus it is possible that the gritting and wall-thickness traits which are the basis for the Earliest Iron Age preference given here could potentially have an earlier origin within the Late Bronze Age.

2. Period-based review

The material listed as being contemporary or residual within its context typically has the potential to be so based solely upon its condition, that is – a consideration of the size and also the number of sherds present and particularly whether the material is fresh, slightly abraded or significantly worn. The nature of the contexts and their stratigraphic relationships are unknown and unconsidered at this stage.

2.1. Early Neolithic, 3650/3500 to 3350 BC

<i>Potential relationship</i>	<i>In contexts</i>	<i>Sherds</i>	<i>Vessels</i>
Contemporary	(109), (110), (111), (112), (113).	71	17/22
Residual			
Unclear			
Total		71	17/22

All of this material derived from feature [108]. The assemblage was solely composed of flint tempered fabrics, most showing a moderate scatter of irregularly distributed flint grits of small to large (coarse) size, which often protruded above the surface. The character of this gritting is very typical of some types of Early Neolithic wares seen in assemblages locally, though similar looking material can occasionally occur in a few later periods. The fabrics present typically if not solely exhibit a notably micaceous very fine sandy silty matrix which shows fairly frequent grey-black small spots and streaks, the consistency suggesting a similar or single source for the raw 'clay' used. A similar character was noted amongst the sherds of potential Earliest Iron Age date from this site (see section 2.4.). The material has often been fired to various brownish surface colours with grey-black cores, whilst a few sherds show dull orangey surfaces and a couple feature darkish red thin skins. Some sherds show a soft burnished dark black-brown or grey-black exterior, many having suffered some loss of this thin skin.

Only a few form and decorative elements were present; notable are:

- 7 rim sherds from a vessel with a rim that has a thickened exterior, the rim top appearing worn and showing shallow incised lines mostly at right-angles to the interior, sometimes angled, with a gently curving concave neck below; in (109) and (110).
- 3 small rim sherds from a vessel with a very neatly made externally thickened overhanging rim, whose curving surface shows a shallow/subtle tooled linear rippled effect across the top and side, very similar to the ripple burnish on a body sherd noted below; in (111).
- 2 conjoining sherds from a single thick-walled vessel with a short out-turned rounded rim, the rim top soft burnished; in (113).
- 1 small simple rim, possibly slightly everted, with traces of a single horizontal impressed line potentially of twisted cord just below; in (112).
- 1 small body sherd with a slight carination and neat soft burnished exterior; in (109).
- 1 small body sherd with an angled shoulder/carination, possibly formed by finger pinching and smoothed over; in (111).
- 1 medium sized body sherd with an area/zone of close-set tooled ripple burnish on the exterior, as seen on the very neat rim noted above; in (109).

The linear decorated and ripple burnished wares likely derive from Decorated Bowls, which would date between 3650 and 3350 BC. The twisted cord which may well be present on the rim noted above is more typical of the succeeding Middle Neolithic. As Ebbsfleet Ware may have first developed around 3500 BC, a date between 3500 and 3350 BC is preferred for this group at present, presuming it is broadly related and not accruing in sequence, also given the lack of any highly decorated Middle Neolithic wares in the site assemblage.

2.2. Early Neolithic/Later Prehistoric, 3650 to 3350/1550 to 50 BC

Potential relationship	In contexts	Sherds	Vessels
Contemporary	(106).	2	2
Residual			
Unclear			
Total		2	2

This material comprised 2 small body sherds with soft burnished surfaces. The fabrics are not dissimilar to some of the less coarsely gritted Early Neolithic sherds within [108], but they could easily be Later Prehistoric, being finer wares of Middle to Mid to Late Bronze Age date or broadly Iron Age.

2.3. Middle to Mid to Late Bronze Age, 1550 to 1150 BC

Potential relationship	In contexts	Sherds	Vessels
Contemporary	(205).	9	1
Residual			
Unclear			
Total		9	1

This comprised:

- Base and body sherds likely from a barrel/bucket/tub shaped vessel; in (205).

It was manufactured in a very heavily coarsely gritted fabric, the grits sitting proud on all surfaces, this probably a result of subsequent surface denudation. Notably, the fabric was not as obviously micaceous as was the case with most of the other fabrics in the site assemblage, suggesting that at this time the raw 'clay' was obtained from a different, though presumably still local, source.

2.4. Late Bronze Age to Earliest Iron Age/Earliest Iron Age, 1150/900 to 600 BC

Potential relationship	In contexts	Sherds	Vessels
Contemporary	(1307), (1308).	13	6/7
Residual			
Unclear			
Total		13	6/7

All of this material derived from feature [1304]. It contained few specifically diagnostic pieces, while the matrices of the fabrics and the tempering characteristics of several of the sherds were very similar or identical to material of Early Neolithic date within [108]. No decorated wares were present; the form sherds comprised:

- A medium sized rim (2 conjoining sherds) from a near S-profiled type jar/bowl with an everted bevelled rim, in a fairly profusely fine to medium gritted flint tempered fabric; in (1307).
- 1 body sherd with a sharp angled junction in a fabric with moderate small to occasionally coarser grits; in (1308).
- 1 thick-walled simple upright rim with pulled exterior lip; in (1308).

The form of the S-profiled sherd from (1307) is more likely to be Late Bronze Age to Earliest Iron Age, while the tempering is potentially more characteristic of the latter period. It should be noted however that Late Bronze Age pottery is not well represented and understood locally (Macpherson-Grant 2011), thus the precise tempering and wall thickness traits of the fabrics of this period, which could include forerunners of some that are characteristic of the succeeding period, are unclear at present.

The fabric of the other sherd from (1307), no more worn, was identical to some of the Early Neolithic wares within (109). It was also similar to the sharply angled body sherd from (1308). The latter could technically be late Early Neolithic, as a possible parallel, though decorated, occurs locally at Court Stairs Pegwell (not reviewed at this time). Such forms are not typical of that period however and they occur much more commonly in the Late Bronze Age and Earliest Iron Age (and for a time afterwards). Coarsewares seen in some local assemblages of Earliest Iron Age date can occasionally exhibit fabrics that are somewhat similar to the classic Early Neolithic ware type discussed here. Particularly given the presence of the fairly profusely gritted S-profiled vessel, but also the sharply angled plain body sherd and a few thin-walled body sherds (though noting that some of the Early Neolithic sherds are similarly thin-walled), an Earliest Iron Age date is preferred for this group at present.

3. Comment

As this report concerns material recovered from an evaluation and there is a possibility that further fieldwork might be conducted in the near future, which could lead to the recovery of additional pottery, no formal statement on the relative academic value or recommendations for future analysis or reporting have been given in this stage. Such matters can be concluded if further material is recovered and an assessment report on all of the pottery is written, prior to any final stage of site reporting. Some points are worth considering going forward, however.

With regards to the opportunities to recover additional material that could not only help to tighten the dating of the current assemblage, but potentially provide comparative data that would be particularly useful for the study of pottery in East Kent, the most important aspects of this assemblage are the ceramics and contexts that date to the:

- Early Neolithic.
- Late Bronze Age to Earliest Iron Age/possibly Earliest Iron Age.

The reporting and publication of securely dated assemblages from these periods, especially if transitional, would always be welcome. Ideally, the pottery would be supported by associated radiocarbon dates and any future excavation work could bear this in mind, re the identification and recovery of material suitable for such dating, with this aspect factored-in to the budgeting.

Also, if a further stage of work provides additional material related to [1304], then the current group from this context should be reviewed in light of this, considering in particular if there are any parallels with definitively Late Bronze Age wares. It should also be considered whether it is possible that some Early Neolithic material might be included within this context; ie. is there an Early Neolithic context that is intercutting or nearby, from which material could have been disturbed and redeposited?

4. Bibliography

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Morris E. L. 2006. Later Prehistoric Pottery, in Barclay A., Booth P., Edwards E., Mephram L. and Morris E.L. *Ceramics from Section 1 of the Channel Tunnel Rail Link, Kent*. CTRL Specialist Report Series. Channel Tunnel Rail Link, London and Continental Railways, Oxford Wessex Archaeology Joint Venture, 34-121.

Appendix

5. Quantification and spot-dating of the pottery assemblage

5.1. Methodology

The sherds were examined in good light using a hand lens of x10 magnification and were catalogued on a context, total quantity, bulk weight (calculated to the nearest gram), period, ware type, estimate of the number of vessels per ware, condition and date preference basis. They are listed in date order from the earliest to the latest. No information about the contexts or their stratigraphic relationships was known unless stated. In the notes, the pieces are typically plain or less diagnostic body sherds unless stated otherwise.

All dates given are *circa*.

It should also be noted that:

- All form and decorative pieces are noted and described in the catalogue and their presence is highlighted by the inclusion of the word 'DRAW'.
- No material has been separated out by date or re-bagged at this stage, in anticipation of a potential subsequent phase of work and the recovery of further material, which may influence the dating of some of the less diagnostic elements from this evaluation. Before any assessment report on the sum of the finds from this site is written, all of the material from the evaluation can be reconsidered and the overall catalogue updated if needed.

5.2. Period Codes employed

<i>Period</i>	<i>Code</i>	<i>Date (circa)</i>			
Early Neolithic	EN	3650	-	3350	BC
Middle Neolithic	MN	3350	-	2700	BC
Later Prehistoric	LP	1550	-	50	BC
Middle Bronze Age	MBA	1550	-	1350	BC
Mid to Late Bronze Age	MBA-LBA	1350	-	1150	BC
Late Bronze Age	LBA	1150	-	1000/900	BC
Earliest Iron Age	EIA	1000/900	-	600	BC
Iron Age	IA	1000/900	BC	-	50 AD

5.3. Abbreviations used in 5.4

<i>Wear</i>	
L	: Light
M	: Moderate

5.4. Catalogue: Quantification and spot-dating of the pottery, with notes

Context		Total sherds	Total weight (g)		
<i>Context:</i>	Information on the nature of the context if known.				
<i>Start date:</i>	Likely commencement date of the context based on the pottery evidence.				
<i>End date:</i>	Likely end date of the context based on the pottery evidence.				
<i>Dating:</i>	Individual elements, potential groups and related observations.				
<i>Comments:</i>	Highlighting elements, wares and issues of note. DRAW: Notes the presence of form or decorated sherds.				
<i>Quantity</i>	<i>Period</i>	<i>Ware</i>	<i>Vessels</i>	<i>Wear</i>	<i>Date preference</i>
	Notes.				
(106) [104]			2 sherds		20 g
<i>Context:</i>					
<i>Start date:</i>	Nothing certainly before 3650 BC.				
<i>End date:</i>	Nothing certainly after 50 BC.				
<i>Dating:</i>	Unclear; little specific data. The fabrics are not dissimilar to some of the less coarsely gritted EN sherds in [108], but could equally be LP (broadly MBA type finer wares or IA) on their own merits. There is however a very slight preference/likelihood for them being EN, given the EN presence in [108] presumably nearby. Review in light of context associations and any further discoveries.				
<i>Comments:</i>	2 small body sherds with soft burnished surfaces.				
<i>Quantity</i>	<i>Period</i>	<i>Ware</i>	<i>Vessels</i>	<i>Wear</i>	<i>Date preference</i>
2	EN/LP	Flint tempered	2	L	?3650-3350/50 BC
(109) [108]			26 sherds		470 g
<i>Context:</i>					
<i>Start date:</i>	Nothing certainly before 3650 BC and possibly after 3500 BC.				
<i>End date:</i>	Nothing certainly after 3350 BC.				
<i>Dating:</i>	Many sherds show some surface loss but none are significantly worn (their state could be a result of the soil conditions rather than a sign of exposure), all are likely related, potentially context-contemporary and EN. Most may derive from a single Decorated/Southern Decorated tradition bowl, 3650 to 3350 BC overall. NB. See note in (112).				
<i>Comments:</i>	Fabrics generally micaceous very fine sandy silty with fairly frequent grey-black small spots and streaks. Small to large thick and thin-walled sherds, mostly body sherds, typically with a moderate scatter of irregularly distributed flint grits of small to large (coarse) size, typically protruding, often fired to brownish colours with grey-black cores. Some sherds show a soft burnished dark black-brown or grey-black exterior, many having suffered some loss of this thin skin. 6 mostly medium sized rims possibly from the same medium-walled vessel, a bowl with a gentle concave neck and a rim with a thickened exterior, the rim top showing shallow incised lines mostly at right-angles, sometimes angled, appearing worn. 1 small body sherd with a slight carination and neat soft burnished exterior. 1 medium sized body sherd with an area/zone of close-set tooled ripple burnish on the exterior, as seen on a very neat rim from (111) [108]. 2 thick-walled plain body sherds conjoin to a large panel from another vessel, some exterior surface loss, though the interior appears fairly fresh. DRAW.				
<i>Quantity</i>	<i>Period</i>	<i>Ware</i>	<i>Vessels</i>	<i>Wear</i>	<i>Date preference</i>
26	EN	Flint tempered	3/5?	L	3650-3350 BC

(110) [108]		20 sherds		205 g	
<i>Context:</i>					
<i>Start date:</i>	Nothing certainly before 3650 BC and possibly after 3500 BC.				
<i>End date:</i>	Nothing certainly after 3350 BC.				
<i>Dating:</i>	Some denuded surfaces, surface loss and edge rounding, but some of this may be due to fabric softness and soil conditions, none are significantly worn, all are likely related, context-contemporary and EN. 1 conjoin with a sherd in (109) noted. NB. See note in (112).				
<i>Comments:</i>	Small to medium sized sherds, mostly body and in similar fabrics to (109), with 1 rim that conjoins to one in (109) {not included in vessel estimate}. Some sherds show grits protruding from denuded surfaces, others show a loss of a soft burnished thin surface skin. 2 have patchy thin dark reddish oxidised surfaces and 1 a similar interior surface, not noted in other sherds from [108]; other variously brown to orangey as generally seen in [108]. DRAW.				
<i>Quantity</i>	<i>Period</i>	<i>Ware</i>	<i>Vessels</i>	<i>Wear</i>	<i>Date preference</i>
20	EN	Flint tempered	?6	L	3650-3350 BC
(111) [108]		10 sherds		91 g	
<i>Context:</i>					
<i>Start date:</i>	Nothing certainly before 3650 BC and possibly after 3500 BC.				
<i>End date:</i>	Nothing certainly after 3350 BC.				
<i>Dating:</i>	Some edge rounding/slight wear, though the surfaces appear fairly fresh and all are likely related, potentially context-contemporary and EN. NB. See note in (112).				
<i>Comments:</i>	Small sherds, mostly body, in micaceous very fine sandy silty fabrics with fairly frequent grey-black small spots and streaks. 3 small rims sherds (2 conjoining) from a single vessel, with a very neatly made externally thickened curving overhanging rim who's curving surface shows a shallow/subtle tooled linear rippled effect across the top and side, very similar to the ripple burnish on a body sherd in (109) [108]. 1 small body sherd with an angled shoulder/carination, possibly formed by finger pinching but smoothed over. Most of the body sherds show smoothed surfaces, though denuded on some with the flints sitting proud. DRAW.				
<i>Quantity</i>	<i>Period</i>	<i>Ware</i>	<i>Vessels</i>	<i>Wear</i>	<i>Date preference</i>
10	EN	Flint tempered	?2/3	L	3650-3350 BC
(112) [108]		9 sherds		36 g	
<i>Context:</i>					
<i>Start date:</i>	Nothing certainly before 3650 BC and possibly after 3500 BC.				
<i>End date:</i>	Nothing certainly after 3350 BC.				
<i>Dating:</i>	Small and mostly not particularly diagnostic elements, likely related to the other EN material in [108], though notably 1 sherd potentially shows twisted cord decoration, that more typically MN. NB. Consider the relationship of the contexts from [108]. Is (112) from a higher level within a gradually accruing feature who's life could extend into perhaps the earlier part of the MN? Otherwise and given the lack of any other certain MN from [108], the presence of this decorated sherd could indicate that the date of [108], if largely single period/phase, lays at the later end of the EN range, 3500-3350 BC.				
<i>Comments:</i>	Small sherds, most body, 1 showing some slight incised/scored lines on exterior (grit-drag?), 1 more heavily worn sherd showing a partial linear groove on the interior. 1 small medium-walled simple rim, possibly slightly everted, with traces of a single horizontal impressed line potentially of twisted cord just below. The latter is more typical of the Middle Neolithic and as Ebbsfleet Ware may have first developed around 3500 BC a date between 3500 and 3350 BC is preferred for now, given lack of any other certain MN in [108]. DRAW.				
<i>Quantity</i>	<i>Period</i>	<i>Ware</i>	<i>Vessels</i>	<i>Wear</i>	<i>Date preference</i>
2	EN	Flint tempered	2	M	3650-3350 BC
7	EN	Flint tempered	?2/3	L	3650/3500-3350 BC

(113) [108]		6 sherds		80 g	
<i>Context:</i>					
<i>Start date:</i> Nothing certainly before 3650 BC and possibly after 3500 BC.					
<i>End date:</i> Nothing certainly after 3350 BC.					
<i>Dating:</i> Likely EN, given similarities in fabric to others in [108]. NB. See note in (112).					
<i>Comments:</i> 3 small body sherds, 1 showing some loss of a soft burnished exterior surface skin. 3 other sherds (2 conjoining to a largeish panel) from a single thick-walled vessel with a short out-turned rounded rim, the rim top soft burnished, the exterior with frequent protruding coarse grits. DRAW.					
<i>Quantity</i>	<i>Period</i>	<i>Ware</i>	<i>Vessels</i>	<i>Wear</i>	<i>Date preference</i>
6	EN	Flint tempered	2/3	L	3650-3350 BC
(205) [204]		9 sherds		135 g	
<i>Context:</i>					
<i>Start date:</i> Nothing certainly before 1550 BC.					
<i>End date:</i> Nothing certainly after 1150 BC.					
<i>Dating:</i> No diagnostic data beyond the very heavy coarse gritting, which could occur in several periods, but is perhaps most likely MBA>MBA-LBA. All potentially from a single vessel and as the sole pottery from this context perhaps this could represent a disturbed/plough-disrupted cremation. Speculation only; consider the nature and depth of the context and the location of the material within.					
<i>Comments:</i> Small to mostly medium sized sherds in a notably heavily and coarsely gritted fabric, which is not obviously micaceous as the EN fabrics from [108], thus from different sources. The grits sit very proud on all surfaces, the exterior buff, interior orange. 2 base sherds, rest body. DRAW.					
<i>Quantity</i>	<i>Period</i>	<i>Ware</i>	<i>Vessels</i>	<i>Wear</i>	<i>Date preference</i>
9	MBA>MBA-LBA	Flint tempered	1	L	1550-1150 BC
(1307) [1304]		3 sherds		31 g	
<i>Context:</i>					
<i>Start date:</i> Unclear, but potentially after 1150/900 BC.					
<i>End date:</i> Nothing certainly after 600 BC.					
<i>Dating:</i> Both elements are in a similar micaceous fabric but with different tempering. 1 element is likely LBA>EIA, perhaps EIA. The other is less diagnostic and could potentially relate, but the fabric is also identical to some EN sherds in (109). This second element is no more worn than the first. Could it have been disturbed and freshly redeposited from an EN context nearby? Check for any evidence of disturbance or intercutting features of these dates. Similar coarse fabrics can occur in the EIA however. Review in light of any additional future finds.					
<i>Comments:</i> Small to medium sized sherds, neither significantly worn. DRAW.					
<i>Quantity</i>	<i>Period</i>	<i>Ware</i>	<i>Vessels</i>	<i>Wear</i>	<i>Date preference</i>
1	EN/?EIA	Flint tempered	1	L	1150/900-600 BC
Medium-ish sized medium-thinnish walled body sherd with moderate fine to coarse spaced protruding grits. Identical in colour, thickness and character to EN sherds in (109), also similar to sharply angled sherd in (1308) [1304].					
2	LBA>EIA/?EIA	Flint tempered	1	L	1150/900-600 BC
Conjoin to a medium sized rim from a near S-profiled type jar/bowl, with a flat-topped everted angled neck (giving a deep bevelled interior to the rim), fairly sharp neck junction and a convex rounded profile below, broken shortly after the return, thinnish-walled, with fairly profuse fine to medium grits, fairly micaceous.					

(1308) [1304]		10 sherds			97 g
<i>Context:</i>					
<i>Start date:</i>	Nothing certainly before 1150/900 BC.				
<i>End date:</i>	Nothing certainly after 600 BC.				
<i>Dating:</i>	Little specific data, though there is a preference at present for all to be broadly related, context-contemporary, LBA>EIA and perhaps EIA.				
<i>Comments:</i>	Small to medium sized medium and thin-walled sherds, none very significantly worn, most only lightly so, some with surface loss and edge rounding. The fabric matrices are micaceous and similar to the EN material in [108], suggesting a similar source. The gritting of some sherds is also similar to that EN material. 1 sharply angled body sherd could perhaps be of late EN/early MN date (a possible parallel, though decorated, occurs at Court Stairs Pegwell), though such forms are not typical and it is more likely to be later. 1 small simple rim present, too basic to be specifically diagnostic, though similar examples have been noted in LBA (Morris 2006) and EIA (Couldrey 2007) assemblages from Kent, as well as in the Earlier Neolithic (Macpherson-Grant 2011). DRAW.				
<i>Quantity</i>	<i>Period</i>	<i>Ware</i>	<i>Vessels</i>	<i>Wear</i>	<i>Date preference</i>
2	LBA>EIA/?EIA	Flint + grog tempered	2	L	1150/900-600 BC
	Body sherds, moderate small to coarse grits, 1 oxidised.				
8	LBA>EIA/?EIA	Flint tempered	2/3	L>M	1150/900-600 BC
	5 thin-walled oxidised body sherds from a single vessel, moderate small to medium grits, slightly more worn than rest. 1 medium sized medium-walled body sherd with a sharp angled ?neck junction, moderate small to occasionally coarser grits, similar to the body sherd in (1307) [1304]. 2 small sherds might relate to latter or be from a third vessel, 1 a thick-walled simple upright rim with pulled exterior lip.				
Totals			95 sherds		1165 g

APPENDIX III

**A spot-dating catalogue and summary report
on the worked lithics from an archaeological evaluation at
Summerfield Nurseries,
Staple,
Kent**

Site Code: SNS-EV-21

Analyst: Paul Hart

Last updated: 27.08.2021

For: The Swale and Thames Archaeology Survey Company

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1. Summary

A total of 52 worked lithics, all flint, weighing a total of 630 g, were presented and catalogued. All dates given throughout are *circa*. Two main phases of activity are indicated, these occurring during the Earlier Neolithic and the Later Prehistoric, in the latter case between the Middle Bronze Age and the Earliest Iron Age. Both of these groups of material derived from different contexts and both were accompanied by pottery, the dating of which has informed the ranges applied to the flintwork.

<i>Lithic presence</i>	<i>Main focus</i>	
Early Neolithic	3650/3500 to 3350 BC	34 flints
Middle Bronze Age to Earliest Iron Age/Earliest Iron Age	1550/900 to 600 BC	18 flints

Geology and patination

The underlying geology comprised brickearth of varying thickness, which gradually changed into sand that overlaid chalk bedrock (Peter Cichy *pers. comm.*). Such geologies do not promote the production of those strong obvious patinas (such as chalk-soil type patinas) that are frequently useful in helping to identify whether otherwise undiagnostic flintwork is more likely to be contemporary or residual within its context. This is a significant issue for this site. The majority of the flintwork present does exhibit a yellowy sheen patina, of varying stronger to more subtle hues, the latter often difficult to determine with certainty unless a piece has been subsequently chipped. This patina type is commonly found in such (and various other) geologies locally and it has been seen to occur on material which is likely or effectively context-contemporary, meaning its presence gives little assistance in the issue of identifying residual material. This is not a particular problem for the Early Neolithic assemblage on this site, but is for the later group, for by that time the overburdens will have had the maximum period of opportunity to have accrued a varied selection of residual flintwork.

Raw materials

All of the flint types used are akin to material that is commonly encountered in chalk-soil and brickearth geologies in East Kent and there is no evidence that any has or needs to have been imported any significant distance.

Early Neolithic, 3650/3500 to 3350 BC

All of this material derived from a single feature and was accompanied by pottery of the given date. None of the flintwork needs to be significantly residual and all are potentially context-contemporary. The presence of a single decent blade and no bladelets is notable. This may be a result of biased deposition or an accident of recovery, though the absence of bladelets could suggest that the intentional production of such had largely been abandoned by this time and that the group could date to the later end of its overall Earlier Neolithic range, in line with the dating suggested for the pottery.

The tools predominantly have thin edges and would have functioned primarily as cutting implements (though knife edges, particularly when blunt, can also be used to scrape, of course). No boldly worked formal scrapers in classic Neolithic style were recovered, the only scrapers present being several small, simply worked, hollow scrapers. A couple of serrated flakes were also recovered. The tool-type profile within this group could be a reflection that resource-specific activities were being conducted at this site, though given that this material was recovered during an evaluation it may represent only a partial and incomplete record of the surviving evidence.

Middle Bronze Age to Earliest Iron Age/Earliest Iron Age 1550/900 to 600 BC

All of the Later Prehistoric material derived from a single feature and it was accompanied by pottery that has been dated between 1150/900 and 600 BC, broadly Late Bronze Age to Earliest Iron Age, with a focus on the latter period being preferred at present. Most of the flintwork is probably context-contemporary and a few could potentially be residual, though to what degree is unclear. One of the more decent looking flakes might pre-date the Middle or Late Bronze Age, though the lack of specifics, particularly when earlier flintwork of a specific date has already been identified in the site assemblage, makes the ambiguous material almost irrelevant as far as useful site data is concerned.

All of the retouched tools are simply worked and mostly function as end or hollow scrapers, while the expediently utilised flakes are generally cutting implements (one is a scraper). One of the scrapers has a narrow convex edge that may be akin to the scrapers with steep, narrow, nosed, working edges that occur occasionally in contexts of Middle and Mid to Late Bronze Age date (1550 to 1150 BC overall). Whether this piece is residual and results from the activity of this date that has been suggested in the pottery from this site is unclear.

2. Period-based review

The contexts which contain evidence of period-diagnostic lithics are listed below, along with an estimate of the maximum number of lithics present. The material listed as contemporary or residual typically has an important *potential* to be so, though this should always be considered in light of the nature of the context, the vertical distribution of the material and any other associated finds. This is important because the nature of the underlying geology can make the certain identification of residual flintwork a significant issue for this site.

Early Neolithic, 3650/3500 to 3350 BC

<i>Potential relationship</i>	<i>In context</i>	<i>Quantity</i>
Contemporary group	(109).	34
Total		34

The pottery that occurred in this context was of the preferred date given. The flintwork, which all potentially relates to it, comprised a fairly decent looking collection, the flakes all small to medium size, often thinnish and with long flakes (sometimes short-long) dominating. Remnant cortex was infrequent and the coverage was less than 50% on all except 1 piece of shatter. There were a couple of instances of thin buff and creamy coloured cortexes, often rough, also some material with white patinated natural facets, though Bullhead Bed flint was the most common raw material identifiable. All of these types are commonly found in chalk-soil and brickearth geologies locally, but an increased or preferential use of the latter has particularly been noted in other Earlier (and Later) Neolithic assemblages from the region and further afield. There were a couple of blade-like flakes present, but notably only 1 really decent blade (long and narrow) and no quality bladelets. This is somewhat untypical for an Earlier Neolithic assemblage and if this profile has not been biased by selective deposition or is an accident of recovery, it could perhaps be reflecting that this group belongs to a late stage of the industry, particularly in regard to the absence of intentional classic bladelets. Such a late date would be in line with the preferred date for the pottery. Of the tools, cutting implements were thoroughly dominant. Most pieces were simply utilised without modification, these typically being flakes with thin edges. Of the retouched element, the majority of the retouch present was of limited extent and small or fine and marginal. A couple of simple hollow scrapers and serrated flakes were present, while the retouched knives were mostly basically utilised flakes with very small areas of retouch, except for the 1 quality blade, which showed extensive retouching along both lateral edges (further detail is recorded in the catalogue).

Nearly all of the potential waste also showed some degree of fine scarring, though whether this was incidental abrasion caused post-discard and prior to subsequent inclusion within the context (perhaps from stockpiling or a period of exposure and trampling), or reflected some limited expedient use, is unclear at this time.

Middle Bronze Age to Earliest Iron Age/Earliest Iron Age, 1550/900 to 600 BC

<i>Potential relationship</i>	<i>In context</i>	<i>Quantity</i>
Contemporary group	(1308).	18
Total		18

The pottery that occurred in this context was dated as potentially Late Bronze Age to Earliest Iron Age, 1150 to 600 BC, with a slight preference for the latter period. The flintwork was mostly a somewhat poor looking collection, the majority likely related and potentially contemporary with the pottery. A couple of pieces, including 1 more decent looking blade-like flake, could be slightly or more significantly earlier, but nothing definitive was present. An element of residual material would usually be expected however, particularly in an assemblage of such a late date as far as Prehistoric flintworking industries are concerned.

Simply utilised flakes outnumbered retouched tools. The latter were all on small flakes showing minimal marginal retouch and would most typically be Middle Bronze Age and later. One tool, a scraper on Bullhead Bed flint, showed a small convex edge that could be more reflective of the nosed scraper types that can more typically be Middle to Mid to Late Bronze Age (1550 to 1150 BC). This piece could be residual in context and related to other potential evidence of this period in the pottery assemblage from this site, though the late end of this range is in line with the earlier end of the date range suggested for the pottery. This was a very simply made piece and whether the form was intentional or not, the issue of contemporaneity will not be solved here because of the problem of certainly identifying residual material as a consequence of the underlying geology.

From the remnant cortex the raw materials used mostly comprised nodules with various thin, often rough, buff cortexes. There were also several instances of Bullhead Bed flint and a couple with white patinated natural facets. Though the precise nature of what was available in the local geology and the overburden is unknown at this time, all of this material is akin to that which commonly occurs in chalk-soil and brickearth geologies in East Kent.

3. Comment

As this report concerns material recovered from an evaluation and there is a possibility that further fieldwork might be conducted in the near future, which could lead to the recovery of additional lithics, no formal statement on the relative academic value or recommendations for future analysis or reporting have been given in this stage. Such matters can be concluded if further material is recovered and an assessment report on all of the lithics is written, prior to any final stage of site reporting. Some points are worth considering going forward, however.

It would be useful to have a sample of any natural flint that is present within the immediate overburden and the underlying geology. The Later Prehistoric industries would typically use whatever material was easily available in the immediate vicinity, while in the Earlier Neolithic good quality material was preferred and could be imported if necessary. All of the raw material evidenced in the assemblage was likely available locally, though a question to be answered is whether it was available on site.

Currently, none of the material present is particularly worthy of illustration (further detail can be found in the catalogue) and the usefulness of the Later Prehistoric assemblage is hindered by the previously noted problem of certainly identifying residual material as a result of the underlying geology.

Appendix

4. Quantification and spot-dating of the worked lithics

4.1. Methodology

A prime aim is to provide a useful catalogue that combines a record of key characteristics (permitting a degree of preservation and some re-analysis by record), with individual spot-dating information and an overall comment on the worked lithic content of the context and its implications. Each piece has been considered on its individual merits. Where some pieces have the potential to be part of related groups which may be able to be dated with a narrower, more specific range than many of their individual components, such dates have sometimes been applied to less diagnostic material and the possibilities are commented upon in the context notes. Details about the nature of the context and any pottery recovered, which inform the interpretation, are noted where known.

The artefacts were examined using a hand lens of x10 magnification and were catalogued on a context, type, character, weight (calculated to the nearest gram, with a minimum of 1g), condition, period and potential relationship to context basis. Their suitability for illustration on their own merits was also noted. Within each context the artefacts have been listed first in order of type (waste, retouched, utilised) and then date (earliest to latest). The bulk weight of the flintwork from each context was also recorded.

All dates given throughout are *circa*.

4.2. Period Codes employed

<i>Period</i>	<i>Code</i>	<i>Date (circa)</i>			
Mesolithic	M	9200	-	4000	BC
Neolithic	N	4000	-	2300	BC
Earlier Neolithic (<i>First and Early to early Middle Neolithic</i>)	EN	4000	-	3350/3000	BC
Earlier Beaker period	EBK	2450	-	2000	BC
Early Bronze Age	EBA	2100	-	1550	BC
Lithic Later Bronze Age (<i>Later Prehistoric: MBA>EMIA+</i>)	LLBA	1550	-	350+	BC
Middle Bronze Age	MBA	1550	-	1350	BC
Mid to Late Bronze Age	MBA-LBA	1350	-	1150	BC
Late Bronze Age	LBA	1150	-	1000/900	BC
Earliest Iron Age	EIA	1000/900	-	600	BC
Early to Mid Iron Age	EMIA	600	-	350	BC

4.3. Key to catalogue 4.4.

Class	-	Class of artefact, listed individually under its context. Ordered as Waste, Retouched and Utilised, then by date, then by the strength of patina if appropriate to the site: strongest (residual?) to lightest/unpatinated (possibly contemporary when occurring in a patinating environment).
	<i>Italics</i>	: Additional notes of interest in italics; including:
	<i>PP</i>	: Denotes the presence of platform preparation abrasion.
FS	-	Flake shape or core type.
	<i>Flake shape</i>	
	S	: Short or squat: width same as or greater than length.
	L	: Long: length greater than width.
	N	: Narrow: blade proportions but not a true blade.
	B	: Blade: length twice or more width, with parallel sides and dorsal ridge/s.
	BL	: Bladelet: blade less than 12mm wide.
	<i>Core type</i>	
	1/2/	: The number of platforms.
FT	-	Flake or core type.
	P	: Primary: complete/nearly complete cover of cortex on the dorsal surface.
	S	: Secondary: lesser amount of cortex.
	T	: Tertiary: no cortex.
	/	: Near, ie. '/T': nearly/effectively a tertiary flake.
RM	-	Raw material type.
<i>Natural</i>	N	: Naturally shattered, unpatinated surface.
<i>Patina</i>	O	: Old, patinated (often strongly), naturally broken surface of flint.
	OW	: As O, showing a strong white patina.
	OG	: As O, showing a mottled grey-white patina.
<i>Buff</i>	SB	: A smooth pale creamy buff thin cortex directly overlaying the flint matrix.
	RB	: Thin rough buff cortex directly overlying the flint matrix.
	BW	: Thin rough buff cortex overlying a thick white sub-cortex.
	BG	: Mixed buff and a buff-washed grey-black cortex, thin, slightly rough.
	GB	: Pale grey-buff cortex, thin, slightly rough, weathered-looking.
	MB	: Thin cortex with patches of RB and BG.
<i>Dark</i>	G	: Glauconitic Bullhead Bed flint.
	TG	: Very thin, smooth, dark greeny-grey/black cortex.
	BP	: Thin, dark black cortex, slightly rough, overlaying a red rind.
<i>White</i>	RW	: Off-white/creamy coloured thin rough cortex.
	SW	: Off-white/creamy coloured thin smooth cortex.
<i>Black+</i>	2	: Mixed patchy black and grey flint.
	3	: Mixed patchy black and brown to translucent yellowy-brown flint.
	4	: Mixed patchy black, grey and brown to translucent yellowy-brown flint.
	7	: Graduating black to brown/translucent yellowy-brown flint.
	8	: Graduating black, grey and brown to translucent yellowy-brown flint.
<i>Brown</i>	13	: Translucent pale greyish yellow-brown flint with minor black flint spots/streaks.
<i>Quality</i>	b	: Generally small cherty inclusions, whether occasional or frequent, which likely do not significantly affect knapping; good quality raw material.
	c	: A moderate content of small to medium-sized cherty inclusions and/or flaws which likely will affect the knapping quality to some degree; moderate quality.
	d	: Moderate to frequent small and/or medium and large-sized cherty inclusions and/or flaws which significantly affect the knapping quality; poor raw material.
H	-	Hammer type.
	H	: Hard stone (eg. a cobble of rolled flint or quartzite).
	SS	: Soft stone (combined hard and soft characteristics, typically mostly hard hammer characters with a platform lip; a cortexed flint nodule perhaps).
	S	: Soft organic (eg. antler, bone, wood).
W	-	Weight in grams (minimum 1g).

Patina	- Patina present?
N	: None.
M	: Moderate (well established colours but coverage is patchy).
G	: Grey.
W	: White.
Y	: Yellowy sheen.
D	- Potential/certain post-discard chipping/breakage damage present?
F	: Some slight chipping but overall fairly fresh.
B	: Burnt.
PO	: Chipped or broken post-patination.
?	: Denotes damage present but not certainly post-discard; might be from use.
I	- Worthy of future illustration? Initial estimate of pieces of prime interest.
Y	: Yes.
?	: Possibly, dependent upon context and associations.
1 etc.	: Number assigned to an illustration or photograph provided with this report.
Period	- Potential date range, defined by Period Codes.
>	: To.
<	: No later than.
/	: Or.
-	: No firm or usefully compact date range.
Preference	- Date preferred at this time. Sometimes a tighter but more intuitive opinion.
A	- Association with the context.
C	: Has a good potential to be contemporary with the context.
R	: Residual.
<i>Blank</i>	: No preference at this time.

Key to abbreviations for notes

A	: Advanced (patina).	nat	: Natural.
abr	: Abrupt (retouch).	nr	: Near.
adj	: Adjacent.	obv	: Obviously.
B	: Blade (flake).	oppos	: Opposite.
back	: Backed.	PP	: Platform preparation (abrasion).
bifac	: Bifacial (retouch).	pat	: Patina.
BL	: Bladelet (flake).	plat	: Platform.
brk	: Break.	poss	: Possible.
convx	: Convex.	prim	: Primary (flake).
cortx	: Cortex.	prob	: Probably.
dentic	: Denticulate (retouch).	prx	: Proximal (flake).
dir	: Direct (retouch).	resid	: Residual.
dist	: Distal (flake).	ret	: Retouch.
dors	: Dorsal (flake).	RM	: Raw material.
E	: Early (patina).	RU	: Re-use.
eg	: Example.	S	: Strong (patina).
exp	: Expedient.	sec	: Section.
fl	: Flake.	SH	: Short (flake).
frag	: Fragment.	signif	: Significant/ly.
incip	: Incipient (cones of percussion).	sm	: Small.
inc	: Including.	SQ	: Squat (flake).
inv	: Inverse (retouch).	subseq	: Subsequent.
irreg	: Irregular.	term	: Termination (flake).
L	: Long (flake).	tert	: Tertiary (flake).
lat	: Lateral (flake).	triang	: Triangular.
lrg	: Large.	trunc	: Truncating/truncated.
vent	: Ventral (flake).	u-w	: Use-wear.
M	: Moderate (patina).	util	: Utilised.
marg	: Marginal (retouch).	V/v	: Very.
med	: Medium (size).		
mod	: Moderate.		

4.4. Catalogue: Quantification and spot-dating of the worked lithics, with notes

Context		Total lithics								Total weight (g)	
<i>Context:</i>	Information on the nature of the context if known.										
<i>Pottery:</i>	Date of any pottery from or the ceramic date of the context if known.										
<i>Notes:</i>	Elements and trends of initial interest.										
<i>Summary:</i>	Dates (see key to abbreviations >, < and / in 4.3 above) and relationships to context.										
<i>Class</i>	<i>FS</i>	<i>FT</i>	<i>RM</i>	<i>H</i>	<i>W</i>	<i>Patina</i>	<i>D</i>	<i>I</i>	<i>Period</i>	<i>Preference</i>	<i>A</i>
(109) [108]		34 lithics								279 g	
<i>Context:</i>											
<i>Pottery:</i>	EN, 3650/3500-3000 BC.										
<i>Notes:</i>	A fairly decent looking collection, all small to medium sized, often thinnish and with long flakes (sometimes short-long) dominating. Cortex infrequent and less than 50% coverage on all except 1 piece of shatter. Bullhead Bed the most common raw material identifiable. A couple of blade-like flakes but only 1 really decent blade (long and narrow) and no quality bladelets, this somewhat untypical for an EN group, which if not biased by selective disposal or recovery could be reflecting a late stage of the industry, particularly perhaps in regard to the absence of intentional classic bladelets. Cutting implements dominant. All of the retouch present is limited, small or fine and marginal; most pieces are simply utilised (thin edges). A couple of serrated flakes and simple hollow scrapers; the retouched knives are mostly basically utilised pieces with very small areas of retouch, all except for the quality blade, which shows extensive retouch. Nearly all of the potential waste shows some fine scarring.										
<i>Summary:</i>	All potentially a related group of EN date and associated with the pottery. Some might be residual to a degree, but none needs to or obviously pre-dates the period. If the sample is not biased, the group might be late within its range, akin to the suggestion made for the pottery, though even so the general lack of quality blades is notable and may more likely be due to biased deposition or chance recovery.										
<i>Class</i>	<i>FS</i>	<i>FT</i>	<i>RM</i>	<i>H</i>	<i>W</i>	<i>Patina</i>	<i>D</i>	<i>I</i>	<i>Period</i>	<i>Preference</i>	<i>A</i>
<i>Waste</i>											
Flake	S	S	RB2c	H	6	Burnt	B		-	EN	R
	Lightly burnt.										
Flake (PP)	B	S	G7b	S	2	N? Y?	F		M>EBA	EN	C
	Sm, narrow but slanted, sm area cortex 1 lat, other lat straighter thinner but without obvious abrasion. Some chips/brks dist end.										
Core shatter	-	T	?G3c	-	64	Y?	?		-	EN	C
	Largish irreg angular piece, shattered along flaws. 1 edge shows 2 small projecting peaks trimmed by ret.										
<i>Waste?</i>											
Flake frag (<i>dist</i>)	L?	S	TG-b	-	2	Burnt	B		-	EN	R
Flake frag (<i>distal</i>)	-	S	SW3c		2	Y	?		-	EN	?
Flake frag (<i>dist, chips</i>)	-	T	3c	-	1	Y?	?		-	EN	?
Flake frag (<i>dist</i>)	-	T	13b	-	1	N? Y?	?		-	EN	?
Flake	L	T	2b	S?	1	Y?	?		-	EN	C
	Sm, thin, snap brks 1 thin lat.										
Flake	L	/T	RW4b	-	9	N? Y?	?		-	EN	C
	Chips and brks.										
Shatter	-	S	RB4c	-	13	Y?	?		-	EN	C
<i>Retouched</i>											
Knife	B	T	2b	S	8	Y	F		M>EBK	EN	C
	Quality long narrow B, largely single dors ridge. 1 upper lat some dir steep semi-abr marg ret followed by dir fine semi-abr scars along rest of thinner lat, the lower part towards the pointed tip also showing inv abr marg ret. Other lat inv semi-abr then abr marg ret on upper half to mid point, followed by dir abr marg ret along rest of lat, all forming an uneven edge.										
Serrated flake	S	P	4b	H	3	Y?	?		N	EN	C
	Sm, squat, area of serrations along thin straight dist end.										

(1308) [1304]		18 lithics								351 g	
Context:											
Pottery:	LBA>EIA/?EIA, 1150/900-600 BC.										
Notes:	Mostly a somewhat poor looking collection, with a couple of more decent looking flakes. The retouched flakes are all small and with minimal marginal retouch; 1 blade-like flake might pre-date, but the rest could well be LLBA, with some or all potentially contemporary with the pottery. 1 of these, a scraper (on Bullhead flint), shows a small convex/nosed edge, which may more typically be MBA>MBA-LBA. Though this is a very small and simple piece, it might be of this date and thus could be residual in context but related to other potential evidence of this period (pottery) in the site assemblage. The problem of identify residual material on this site as a consequence of the underlying geology is a significant issue.										
Summary:	The majority likely related and LLBA and potentially contemporary with the pottery. A couple of pieces could be slightly or more significantly earlier, but there is no specific definitive data.										
Class	FS	FT	RM	H	W	Patina	D	I	Period	Preference	A
Waste											
Core – single plat	1	S	BG3b	-	74	Burnt	B		-	-	R
	Thick, cortex and many nat facets, some heating granulation, lightly burnt. 1 platf face with some incip cones and below an area of repeated chipping and adj a few sm narrow/long flake scar removals.										
?Core/shatter	-	P	RB8c	-	100	N?	?		-	?LLBA	
	Lrgish oval piece, dors cortex, vent nat shattered + sm area sm short flake removals.										
Waste?											
Flake (chips, scars)	L	/T	?G2b	H?	1	Y	PO		-	-	?
Shatter	-	S	SB3-	-	37	N? Y?	B?		-	-	R
	Dors mostly cortx with a few sm fl removals around edge, 1 sm area bifacial flaking, vent mostly granulated-shattered, poss lightly heated.										
Retouched											
End scraper (PP?)	S	S	G3b	H	11		?		?<MBA-LBA	?MBA>MBA-LBA	
	Sm, thick, 1 lat cortx, other lat stepped/brokn, the lats converging at narrow convex dist end showing dir abr marg ret (nosed-like; intentional?)										
End scraper	S	?S	N2c	H	9	N?	?		-	LLBA	
	Thick squat, steep dist end short length dir abr ret.										
Hollow scraper	L	S	G3c	H?	8	N? Y?			-	?LLBA	
	Sm short-L, mostly cortx, vent poorly flawed, prob a fl. 1 uneven thick uncortxd lat show small shallow hollow of dir abr ret.										
Misc. ret. flake	L	S	OG13b	-	1	Y?	?		-	-	
	Sm, B-like but oblique and not classic. 1 steep lat, other thin. Plat truncated obliquely by dir abr ret, adj thin upper lat shows inv abr uneven marg ret.										
Utilised											
Flake – knife ?+piercer	L	T	4b	SS	9	Y?	?		-	??<MBA-LBA	
	Decent looking.										
?Shatter – knife	-	/P	GB2d	-	17	Y	PO		-	?LLBA	
Shatter – knife	-	T	2c	-	7	Y	?		-	?LLBA	
Flake – knife	S	S	BP2b	H	22	Burnt	B		-	-	R
	Cortx 1 lower lat, rest of both lats thin with scarring, lightly burnt.										
Flake – side scraper (n b)	L	S	BG4b	H	8	Y?	?		-	-	
	1 steep lat with chips and scars, oppos lat steep with cortx.										
Flake – knife	S	P	OW2b	H	12	Y	?		-	-	
Flake – knife	L	/T	GB7b	H?	2	N?	?		-	-	
Flake – knife	S	S	BW3b	H?	2	N?	?		-	-	
Flake – knife (nat back)	L	S	MB4b	H	16	?N ?MGW	?		-	-	
	1 thick steep cortxd lat, other lat thin with chips and scars.										
Utilised?											
Flake – knife (nat back)	S	/P	RB?3b	H	17	Y + Burnt	B		-	-	R
	1 lat cortxd, dist hinged, other lat thin with chips and brks, some from/post heating, others u-w? Lightly burnt.										
Totals									52 lithics	630 g	

