

**POST-EXCAVATION ASSESSMENT &
UPDATED PROJECT DESIGN REPORT**

**CHARING QUARRY, HOOK LANE
CHARING, KENT**

**NGR: 593650 148980
(TQ 93650 48980)**

(Excavation Area 4a)

Planning Reference: AS/96/933

**ASE Project No: 2800
Site Code: CHA 07
ASE Report No: 2014369
OASIS ID: archaeol6-195608**



by Simon Stevens BA MCIfA

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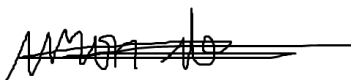

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Revision			

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Abstract

Archaeology South-East (ASE) was commissioned by Bretts Aggregates Ltd. to undertake an archaeological excavation at Charing Quarry, Hook Lane, Charing, Kent (Area 4a). The archaeological work was undertaken during February and March 2014.

The earliest material encountered was a limited assemblage of possible Mesolithic flintwork recovered from later deposits. The first evidence of traceable alterations to the landscape were two Early Neolithic pits containing assemblages of pottery and flintwork.

The next firmly datable episode of activity at the site consisted of the creation of a small Early Bronze Age cremation cemetery. Encountered features consisted of one urned and one unurned cremation with associated pits containing pyre debris.

A group of gullies presenting two phases of medieval land division was also recorded. No datable material was recovered from the current site, although the gullies clearly form the continuation of a medieval field system encountered in an adjacent, previously excavated area of the quarry. In addition a medieval jeton was recovered from the topsoil.

Post-medieval features included infilled irregular ditches as well as a small number of pits, and square post-holes interpreted as the bases of hop poles.

The report is written and structured so as to conform to the standards required of post-excavation analysis work as set out in the National Planning Policy Framework (HM Gov 2012) and older documents Management of Research Projects in the Historic Environment (MoRPHE), Project Planning Notes 3 (PPN3): Archaeological Excavation (English Heritage 2008). Interim analysis of the stratigraphic, finds and environmental material has indicated a provisional chronology, and assessed the potential of the site archive to address the original research agenda, as well as assessing the significance of those findings. This has highlighted what further analysis work is required in order to enable suitable dissemination of the findings in a final publication.

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1.0 INTRODUCTION

1.1 Site Location

1.1.1 The current site forms part of Charing Quarry, a sand quarry located in a rural location to the east of the village of Charing Heath. The quarry is bounded to the north by Tile Lodge Farm, to the east by the existing Brett's Charing Sand Pit, to the south by Little Swan Street Farm and Charing Heath Road and to the west by Charing Heath and Tile Lodge Road. The current site (excavation Area 4a) forms an extension to the existing quarry, close to Wind Hill Lane and Cherry Tree Road (Figure 1).

1.2 Geology and Topography

1.2.1 The site lies at a height of c. 90m AOD and formed an area of pasture adjacent to the existing quarry workings at the time of the excavation.

1.2.2 According to current data from the British Geological Survey the underlying bedrock at the site is Folkestone Sandstone Formation. There are no recorded superficial geological deposits (BGS 2014).

1.3 Scope of the Project

1.3.1 Planning permission was granted by Kent County Council (KCC) for the extraction of sand at the site in the 1990s (planning ref. AS/96/933 extended under ref. AS/10/1652 in 2010). Following advice from Heritage Conservation Group at KCC, a condition was attached to the permissions requiring a programme of archaeological work at the site in advance of the extraction process.

1.3.2 A specification for the archaeological work was prepared by KCC, which outlined the background to the site, methods to be used in the field, and details of proposed publication of results (KCC 1997). Subsequently a number of archaeological investigations have been undertaken at the quarry by ASE, and have been summarised in a recent report (ASE 2014). The current site forms one of the last areas (4a) to be quarried for sand.

1.3.3 The archaeological excavation of the current site was undertaken by ASE during February and March 2014. The site was staffed by a team of ASE archaeologists; project managed by Paul Mason and supervised in the field by Simon Stevens.

1.4 Circumstances and Dates of Previous ASE Work at the Site

1.4.1 Watching brief commissioned in October 1997 (Area 1)

1.4.2 Watching Brief commissioned in June 2002 (Area 2a)

1.4.3 Watching Brief commissioned in March 2004 (Area 2b)

1.4.4 Watching Brief commissioned in September 2009 (Area 3a)

- 1.4.5 Watching Brief commissioned in November 2010 (Area 3b)
- 1.4.6 Watching Brief commissioned in March 2013 (Area 4)
- 1.4.7 Watching Brief commissioned in February / March 2014 (Area 4a)
- 1.4.8 All archaeological works were commissioned by Brett Aggregates Ltd and carried out by ASE.
- 1.4.9 In addition archaeological work was previously undertaken at the old *Bretts Sandpit* adjacent to the current quarry by the Kent Archaeological Rescue Unit in 1989, 1992 and 1995 (KCC 1997).

1.5 Archaeological Methodology

- 1.5.1 Given the results of the previous archaeological work KCC stipulated that Area 4a should be stripped of topsoil and overburden to allow identification, excavation and recording of archaeological features prior to the commencement of the extraction of the underlying sand.
- 1.5.2 The excavation area was stripped using a tracked mechanical 360° excavator with a toothless ditching bucket under the direct supervision of experienced archaeologists from ASE. Machine excavation was taken down to the top of any archaeological deposits or to the surface of natural geology; whichever was the uppermost.
- 1.5.3 The resultant surfaces were cleaned as necessary and a pre-excavation plan prepared using Global Positioning System (GPS) planning technology. This was made available to the project manager, the supervisor and Wendy Rogers, Archaeological Officer, KCC.
- 1.5.4 All archaeological features, deposits and structures were recorded using standard ASE recording sheets. They were added to the digital site plan by the on-site ASE Surveyor using GPS planning technology. In accordance with the strategy previously formulated for work at the quarry by KCC, the majority of the discrete features were then excavated and recorded, while sufficient sections were excavated through linear features to characterise and date them. Sections were hand-drawn at a scale of 1:10.
- 1.5.5 A comprehensive soil sampling programme for environmental analysis was undertaken in accordance with English Heritage guidelines. Samples of 40 litres were taken from a representative range of dated deposits. Bulk soil samples were taken from all features where prehistoric pottery was encountered. Identified cremation deposits were also completely removed for off-site analysis.

1.6 Organisation of the Report

- 1.6.1 This post-excavation assessment (PXA) and updated project design (UPD) has been prepared in accordance with the guidelines laid out in Management of Research Projects in the Historic Environment (MoRPHE), Project Planning Notes 3 (PPN3): Archaeological Excavation (English Heritage 2008).
- 1.6.2 The report seeks to place the results from the current site within the local archaeological and historical setting; to quantify and summarise the results; specify their significance and potential, including any capacity to address the original research aims; lists any new research criteria; and lays out what further analysis work is required to enable the final dissemination of the information and what form the latter should take.
- 1.6.3 Material from this phase of archaeological work (and from all others carried out by ASE) has been recorded under site code CHA 07.

1.7 The Site Archive

- 1.7.1 The archive from the current phase 4a, including all finds, will be offered to Ashford Museum in due course, with the aim of depositing it along with the archives from other work carried out by ASE at the quarry. The archive, which is quantified in Table 1, will continue to be held at ASE offices in Portslade during the post-excavation analysis work.

Type	Description	Quantity
Context sheets	Individual context sheets	217
Section sheets	A1 Multi-context permatrace sheets 1:10	9
Plans	Multi-context DWG plans	ALL FEATURES
Photos	Digital images	174
Environmental sample sheets	Individual sample sheets	5
Context register	Context register sheets	7
Environmental sample register	Environmental sample register sheets	1
Photographic register	Photograph register sheets	3
Drawing register	Section register sheets	2

Table 1: Site Archive Quantification

2.0 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Introduction

2.1.1 The Historic Environment Record (HER) maintained by Kent County Council (KCC) was consulted during reporting on previous phases of archaeological work at the quarry (ASE 2014). Details were taken of all archaeological sites within 1km of the study area. Listed buildings have been omitted. Much of the general description of the periods is taken from a desk-based assessment of a nearby site at Harrietsham (ASE 2013), with all due acknowledgement.

2.2 Palaeolithic

2.2.1 No finds of this date are recorded in the vicinity of the current site.

2.3 Mesolithic

2.3.1 Prehistoric communities appear to have settled the Greensand as well as the Chalk uplands. The Weald to the south was covered in dense forest throughout this period, and much of the known settlement pattern concentrates around the rim of the Weald, where the Chalk and Greensand produce better soils. Mesolithic communities resettled the area as the climate began to improve at the end of the Ice Age. Expanding woodland provided a rich resource base for transient hunting groups, who also exploited the river valleys of the region (*ibid.*). Surface finds of Mesolithic flint flakes were recorded in 1961 at King's Sandpit, near Newlands.

2.4 Neolithic

2.4.1 The early farming communities of the Neolithic saw a major phase of woodland clearance take place, opening up land for crops and the domestication of animals. Much of the evidence for this period is found in the north of the county, with high status 'monuments' such as the causewayed enclosures at Burham and Kingsborough Farm and complex burial monuments such as Kits Coty House and Julliberrie's Grave. Neolithic finds along the Greensand tend to be axes and flint scatters indicative perhaps of a reliance on hunting in these less favourable locales. A polished Neolithic flint axe was found in the fill of a Late Iron Age ditch during excavations by the Kent Archaeological Rescue Unit (KARU) in advance of extraction works at the quarry in 1989. Flint scrapers, struck flint and 3 sherds of Late Neolithic/Early Bronze Age pottery were later identified during excavations in 1992.

2.5 Bronze Age

2.5.1 The Bronze Age is characterised by the introduction of metals and, initially, the construction of a distinctive burial tradition under round earthen barrows. The later Bronze Age period saw a change in emphasis away from the ritual landscape towards a more utilitarian landscape of agricultural settlement, albeit with spirituality as an integral part of the fabric. Recent studies of Late Bronze Age settlement have identified a bias towards the better soils and improved trading links of the coastal plain and estuaries, but settlement patterns elsewhere in Kent are becoming clearer.

2.5.2 Settlement *foci* are known along the Greensand ridge at places such as Harrietsham. Many of these settled areas were controlled by enclosures such as the one above Thurnham (White Horse Wood) (*ibid.*).

2.6 Late Iron Age/Early Romano-British

2.6.1 As the nearest part of Britain to the continent, Kent experienced contact with Rome from an early date. Following the Roman invasion of AD43, the region became heavily settled, particularly along the principal route, Watling Street, which linked Richborough with the major urban centres of Canterbury, Rochester and London. Stone Street was subsequently constructed southwards from Rochester, to access the iron resources of the Weald. Much of Kent was characterised by pre-Roman native type farmsteads, although the distribution of other Roman sites and finds are widespread, with all the main river valleys being well populated (*ibid.*). A possible Romano-British trackway was found during archaeological investigations in an area to the east of Newlands containing 21 sherds of late Iron Age/early Romano-British pottery, thought to comprise residual material from a nearby settlement. Field systems, enclosures, possible pyre pits, furnaces and a trackway of Late Iron Age/Early Roman date have been encountered at Charing Quarry during previous phases of sand extraction

2.7 Anglo-Saxon

2.7.1 Although Kent was one of the first areas to be heavily settled by Germanic peoples, they tended to prefer the more tractable soils of the coastal plain and the river valleys. The densest occupation in the early Anglo-Saxon period seems to have been in the north-east of the county, the heartland of the kingdom of the *Cantware*, protected to the west by the Medway and to the south-west by the Weald (*ibid.*). No archaeological sites or finds of Anglo-Saxon date have been encountered within 1km of Charing Quarry.

2.8 Medieval

2.8.1 Medieval settlement along the Greensand ridge is typified by a dispersed pattern of farmsteads with associated open field systems (often enclosed at an early stage producing irregular field patterns), hamlets and moated sites. Isolated churches served these settlements, often within long narrow parishes extending up onto the downland. Much of the medieval settlement still exists as modern farmsteads. Higher status features of medieval settlement are less evident (*ibid.*). There are three medieval houses and eight medieval farmsteads within a 1km radius of Charing Quarry.

2.9 Post-Medieval

2.9.1 The 1871 Ordnance Survey 1:2,500 map of Kent shows the site as a series of open fields. More recent maps show that the land remained undeveloped until it was used for sand extraction in the late 20th century.

2.10 Recent Archaeological Work at Charing Quarry

- 2.10.1 Archaeological work was undertaken at the old Bretts Sandpit adjacent to the current quarry by the Kent Archaeological Rescue Unit in 1989, 1992 and 1995. Evidence of Iron Age and Romano-British occupation was uncovered (KCC 1997).
- 2.10.2 More recent fieldwork undertaken by ASE has revealed a range of archaeological features. The earliest identifiable activity on the site dates to the Bronze Age and consisted of two pits containing Beaker pottery and flint flakes. A later field system with surrounding iron smelting pits and cremations were dated to the Late Iron Age / Early Roman period.
- 2.10.3 A 13th century medieval field system followed the same alignment and consisted of a droveway and series of enclosures (Figure 2). There was some evidence of small scale iron smithing, but greater evidence for agricultural activities indicating a medieval farming economy.
- 2.10.4 The latest activity on the site is post-medieval in date and comprised an area of brickearth extraction, probably for use at the nearby kiln at Tile Lodge Farm (ASE 2014).

3.0 ORIGINAL RESEARCH AIMS

- 3.1 No specific research aims were given in the Specification (KCC 1997) beyond that:

'The investigation will record any archaeological remains which are discovered during the removal of topsoil and overburden prior to extraction of sand.'

4.0 ARCHAEOLOGICAL RESULTS

4.1 Introduction

4.1.1 Individual contexts, referred to thus [***], have been sub-grouped and/or grouped together during post-excavation analysis. Ditches/gullies are generally referred to by their group label (D **) and pits or post-holes as (GP **) below. In this way, linear features, such as ditches which may have numerous individual interventions and context numbers and groups of discrete features which are clearly contemporary and functionally associated can be discussed as single entities. However, contexts have been referred to where it is necessary to distinguish individual elements of a group. Environmental samples are listed within triangular brackets <*>.

4.2 Summary

4.2.1 The archaeology is discussed under provisional date-phased headings determined primarily through assessment of the datable artefacts, predominantly the pottery with partial reliance on limited stratigraphic or spatial relationships.

4.2.2 The earliest material encountered was a small assemblage of residual Mesolithic/Early Neolithic flintwork. The earliest in situ activity was two Early Neolithic pits containing assemblages of pottery and flintwork.

4.2.3 The next firmly datable episode is a small Early Bronze Age cremation cemetery. The features consisted of one urned and one unurned cremation with associated pits containing pyre debris.

4.2.4 A group of gullies representing two phases of medieval land division were recorded. Although no datable material was recovered from the current site, the gullies clearly form the continuation of a well-dated medieval field system encountered in the adjacent excavated area. In addition, a medieval coin was recovered from the topsoil.

4.2.5 Post-medieval features included infilled irregular ditches, probably the result of the removal of field boundaries in the relatively recent past, as well as a small number of pits, and square post-holes interpreted as hop pole bases.

4.3 Natural Deposits and Overburden

4.3.1 The 'natural' at the site consisted of a brownish orange sand encountered at heights varying between c.91mAOD and c.94mAOD.

4.3.2 There were two layers of overburden at the site, a deposit of mid- brown to mid-brown silty clay topsoil, context [400], and a layer of orangey brown silty sand subsoil, context [401], which directly overlay the 'natural' brownish orange sand, context [402].

4.3.3 A small assemblage of artefacts was recovered from the overburden, including a medieval jeton.

4.4 Mesolithic

- 4.4.1 A small number of pieces of flint dated to the Mesolithic period based on technological and morphological grounds were recovered from later deposits, including the topsoil.

4.5 Period 1 - Early Neolithic (Figure 3)

GP1 Pits (contexts [442] and [450])

- 4.5.1 These two large sub-circular pits, containing early Neolithic pottery, were more than a metre in diameter but less than 350mm deep. The single sandy fills of each contained Neolithic pottery; although there were notably larger quantities of artefacts in Pit [442], with pottery sherds deriving from five or so vessels. Both pits also contained larger quantities of contemporary flintwork, both tools and débitage, most in a notably fresh condition, suggesting backfill shortly after manufacture.
- 4.5.2 This characteristic is arguably indicative of structured deposition. The term was first used by Richards and Thomas (1984) to indicate that '*special finds were often deposited in patterns showing a high level of structure*' (Chapman 2000, 62). A recent study has shown that this appears to be a widespread practise in the Neolithic across southern Britain, and the Charing features clearly fit the criteria of apparent rapid backfilling with comparatively little variation in pit backfill (Munnery 2013, 20).
- 4.5.3 Other discrete features in the immediate vicinity were investigated, but proved to be significantly different in character to suggest a more recent date and that therefore it was concluded that the two Early Neolithic pits survived in isolation (Figure 9).

4.6 Period 2 - Early Bronze Age (Figure 4)

GP2 Urned Cremation [543]

Unurned Cremation [535]

Pits containing possible pyre debris [537] and [539]

Spatially associated pit [541]

- 4.6.1 Two cremation burials, one urned [543], one unurned [535] and two apparently associated oak charcoal-rich sub-circular features [537] [539], perhaps containing pyre material, were identified.
- 4.6.2 The urned cremation [543] had been placed in an inverted biconical urn [544], which appeared to have had the rim removed before deposition. Included were two pieces of Mesolithic or Early Neolithic flint; a broken blade and a broken blade-like flake. Neither was burnt and they are therefore thought likely to be residual rather than curated finds.
- 4.6.3 The remains of a single adult, or older juvenile, appear to have placed in each of the burial deposits. Samples yielded solely oak charcoal.

4.6.4 A small, otherwise undated pit located nearby was also included in this group.

4.7 Period 3 Phase 1 - Medieval (Figure 5)

D7 Gully (contexts [525], [557], [577] and [589])

D8 Gully (contexts [527], [565] and [571])

D10 Gully (contexts [533], [559] and [563])

D12 Gully (context [561])

4.7.1 Although no medieval material was recovered from any of the features at the site, a number of the linear features encountered are similar in character and orientation to elements of a medieval field system recorded in the adjacent area of the quarry; ditches D10 and D12 were continuations of two of these gullies (ASE 2014 and Figure 2).

4.7.2 Clear stratigraphic relationships suggest two phases of division of the land/establishment of trackways. The earliest consisted of three gullies each orientated from north-west to south-east

4.7.3 In addition a late 13th to 14th century medieval jeton was recovered from the topsoil.

4.8 Period 3 Phase 2 - Medieval

D1 Gully (contexts [403] and [411])

D3 Gully (contexts [413], [569], [575] and [581])

D6 Gully (contexts [419], [424] and [434])

D13 Gully (contexts [587], [601], [603] and [613])

4.8.1 The second phase of medieval activity was represented by gullies laid out on a north-east to south-west alignment perpendicular to Phase 3.1, which appeared to form a trackway/droeway. Again there was no direct dating evidence from the retrieval of artefacts.

4.9 Period 3 Phase 3 - Later Medieval

D4 Ditch (contexts [415], [607] and [609])

- 4.9.1 Based on stratigraphic evidence of relationships with ditches D3 and D5, a wide but shallow linear feature which continued to the east of the site (ASE 2014 and Figure 2) where it was interpreted as poaching probably relating to an animal drove route was assigned to this phase. Again there was no direct dating evidence from the retrieval of artefacts, but the feature is clearly a continuation of the routeway for droving of animals identified and dated by association with other features during the previous phase of work.

4.10 Period 4 - Post-Medieval

D2 Ditch (contexts [407] and [615])

D5 Ditch (contexts [417], [593], [597] and [611])

D9 Ditch (contexts [531], [591], [599] and [605])

D11 Ditch (contexts [476] and [549])

- 4.10.1 A number of features were assigned to this phase on the basis of the retrieval of firmly dating artefacts, mostly of 19th and 20th century date. Linear features, pits and a number of probable hop post bases were identified and recorded. No clear stratigraphic relationships could be established between ditches D2 and D5 or D5 and D9 and all were placed in this phase; D5 and D11 both contained late post-medieval artefacts. These somewhat irregular features, which again continued to the east (ASE 2014 and Figure 2) are interpreted as the remains of field boundaries. The juxtaposition of D5 and D1/D13/D6 suggests considerable continuity of the alignment of that field boundary.

GP3 Excavated Post Holes (contexts [520], [529] and [551])

Unexcavated Post Holes (contexts [498], [508], [516], [547], [553], and [555])

- 4.10.2 The other features assigned to this phase consisted of a number of square post-holes mostly measuring c.800mm by c.800mm interpreted as the bases of short-lived hop poles.

GP4 Pits (contexts [426], [430], [438], and [567])

- 4.10.3 A number of pits were excavated and dated to this phase on the grounds of the recovery of a range of artefacts. Most appear to contain 19th and 20th century domestic refuse derived from nearby cottages, or arguably from occupation associated with temporary camps set up in rural locations for hop pickers. Such sites offered accommodation in so-called '*hopper huts*'. The grim realities of hop-picking in the Kent countryside are immortalised in George Orwell's novel '*A Clergyman's Daughter*'.

4.11 Period 5 - Undated

GP5 Pits (contexts [405], [409], [421], [428], [444], [446], [460], [466], [470], [472], [474], [490], [492], [510], [523], [545], [573] and [579])

4.11.1 A number of features were excavated and recorded; most sub-circular with silty fills. No dating evidence was recovered from them.

GP6 Pits (contexts [432], [436], [452], [454], [456], [458], [462], [464], [468], [478], [480], [482], [484], [486], [488], [494], [496], [500], [502], [504], [506], [512], [514], [518], [582], [585] and [595])

4.11.2 Given the paucity of dating evidence retrieved from the excavated features (and in accordance with the agreed excavation strategy employed for this and previous phases at the site), a number of small features with similar silty fills, encountered away from the prehistoric features, were not investigated.

4.11.3 Although the excavated (and unexcavated features) could not be firmly dated, it is likely that they were post-medieval in date as their fills appeared broadly similar to those of the excavated post-medieval features, and notably dissimilar in terms of charcoal content and/or contents of the Neolithic and Bronze Age features. Given that no discrete medieval features were encountered at the current site, they seem unlikely to date from that period of the site's agricultural use either. However, positive dating remained elusive and the features therefore remain classed as undated.

5.0 FINDS ASSESSMENT

5.1 Introduction

5.1.1 A relatively small assemblage of finds was recovered from the site (Appendix 1). Finds were all washed and dried or air dried as appropriate. They were subsequently quantified by count and weight and bagged by material and context. Finds were all packed and stored according to CifA guidelines (CifA 2014). No further conservation is required.

5.2 The Worked Flint by Karine Le Hégarat

5.2.1 The latest phase of work (Area 4A) produced 287 pieces of struck flint weighing 2073g and a flint hammerstone (123g). The majority of the struck flints (85.42% of the total assemblage, some 246 pieces) came from Early Neolithic contexts [442] and [451]. Only three fragments (82g) of burnt unworked flint were recovered from context [422]. This report characterises the nature of the flint assemblage and assesses its potential for further detailed analyses.

Period	Flakes *	Blades, Blade-like flakes, Bladelets	Chips	Irregular waste	Cores, Core fragments	Retouched forms	Hammerstone	Total	Percentage
1 - Early Neolithic	101	48	76	13	3	5	-	246	85.42%
2 - Early Bronze Age	2	2	1	-	-	-	-	5	1.74%
4.2 - Post medieval	3	-	-	-	1	1	-	5	1.74%
5 - Undated	17	7	-	-	-	7	1	32	11.11%
Total	123	57	77	13	4	13	1	288	100.00%

Table 2: summary of the struck flint by provisional period (fragments of burnt unworked flint are not included) (* includes a core preparation flake)

Methodology

5.2.2 The pieces of struck flint were individually examined and classified using standard set of codes and morphological descriptions (Butler 2005, Ford 1987 and Inizan *et al.* 1999). Basic technological details as well as further information regarding the condition of the artefacts (evidence of burning or breakage, degree of cortication and degree of edge damage) were recorded. Dating was attempted when possible. The assemblage was catalogued directly onto a Microsoft Excel spreadsheet.

Provenance

5.2.3 The 288 pieces of struck flint were spread over only eight numbered contexts. The greatest concentration (85.42% of the total assemblage, n=246) came from two pits (pit [442] and pit [450] G1) dated to the Early Neolithic period (Period1). Five artefacts came from urn [544] and two pits with possible pyre debris (contexts [538]

and [540], which are part of a group of features (G2) associated with an Early Bronze Age cemetery. The remaining assemblage originated from a post medieval ditch (context [477], five pieces), an undated pit ([context [406], 1 piece) and from the topsoil (context [400], 32 pieces).

Raw material and condition

- 5.2.4 The colour of the flint selected for the production of the lithics varies through light to dark browns and greys. Overall the flint is fine-grained, but a few pieces with cherty inclusions were also present. No thermal fractures were recorded. The material is also characterised by a slightly stained (off-white or mid brown) outer surface. It is also slightly weathered, and its thickness varies. For some pieces, the cortex is thin (1 or 2 mm thick), but for other artefacts it measures up to 5mm or 6 mm. This chalk-derived raw material which appears to be of good flaking quality would have been available from tertiary deposits and from surface deposits located just north of the site. A flake from topsoil context [400] may represent a Bullhead flint which occurs in Chalk overlain by Thanet sands.
- 5.2.5 The condition of the flintwork varies. The artefacts recovered from context [477] displayed extensive edge damage that is consistent with their residuality. Surprisingly, with a small number of exceptions, the flints found from topsoil context [400] were in a relatively fair condition. In general, the flintwork from Early Neolithic (Period 1) and Early Bronze Age contexts (Period 2) exhibits fresh edge condition, implying that the material has undergone negligible post-depositional disturbance or that it was not exposed for a long period before burial. Nonetheless, although good overall, it should be noted that the condition of the material from both Early Neolithic pits varies slightly, with more artefacts from pit [443] being minimally damaged than from pit [450]. Also, both features produced burnt and recorticated flints. Pit [443] contained 15 burnt pieces and nine recorticated artefacts, and pit [451] contained two burnt pieces and four recorticated artefacts.

The assemblage

Pits associated with Early Neolithic pottery - Group 1

5.2.6 The majority of the struck assemblage (246 pieces) came from two pits which produced Early Neolithic pottery. Both features were similar in form, both measured c. 1m in diameter and both were only c.350mm deep producing only a single deposit each. Pit [442] contained the largest amount of flints - 162 pieces in comparison with 84 pieces for pit [451] (Table 3). The ceramic assemblage produced a similar pattern, which was even more striking. Although the concentration of flints differs, the composition is similar. In both pits, unmodified débitage dominates, and both features produced only a few retouched pieces. Overall, both assemblages are coherent. Based on the presence of typological tools and based on technological traits, both assemblages are likely to be contemporary with the pottery.

Category type	Pit [442] fill [443]	Pit [451] fill [450]	Total
Flake	72	29	101
Blade-like flake	20	13	33
Blade	7	6	13
Bladelet	-	2	2
Chip	47	29	76
Irregular waste	11	2	13
Multiplatform flake core	1	-	1
Unclassifiable/fragmentary core	1	1	2
End scraper	-	1	1
Piercer	1	-	1
Leaf arrowhead	1	1	2
Misc. Retouch	1	-	1
Total	162	84	246

Table 3: Summary of the struck flint from Early Neolithic pits (Period 1) by category type

5.2.7 Although flakes were more numerous than blades and bladelets, a large proportion of the flakes were very thin and nicely worked. Both hammer modes were recorded, but the use of a soft hammer, witnessed by the presence of lipped and diffused bulbs of percussion (Onhuma and Bergman 1982, 163) was far more common. Linear, punctiform and winged platforms appeared to dominate; and, although platforms were not systematically prepared, the edges were routinely abraded for the controlled and predictable removal of blades and flakes. Only three cores were present; a multiplatform flake core and two unclassifiable cores. They were rather unsystematically worked. No primary flakes were present, and although the presence of cores and chips suggests knapping activities, the material appears to derive from different nodules. Nonetheless, several pieces of related flints were recorded, and refits may be present.

- 5.2.8 The retouched component was limited to five pieces (two leaf arrowheads, a scraper, a piercer and a minimally retouched piece). Both pits produced a leaf arrowhead. While the example from pit [442] was rather crudely made, the arrowhead from pit [451] was more finely worked. The later was broken. The break may have occurred during manufacture. Both artefacts can be dated to the Early Neolithic. The end scraper from [451] was made on a thick flake. It exhibits direct abrupt retouch along the distal end that forms a convex curve. In addition, a piercer and two minimally retouched pieces were present.
- 5.2.9 Despite the low occurrence of modified pieces, a fair quantity of pieces seems to have been utilised without modification. In addition, pit [443] produced four flakes and a blade-like flake with some small polished areas. Polished artefacts are usually associated with implements dated to the Neolithic period; mostly prestigious implements such as axes, chisels and knives. Three of the flakes and the blade-like flake display the grinding on the dorsal surface, indicating that the pieces were likely removed from a polished tool. The grinding on the blade-like flake is located along the lateral parallel edges, suggesting that the polished tool could have subsequently been used as a blade core. The remaining piece differs in that the polishing was visible on the dorsal side. This suggests that it has been applied only once the flake had been struck.
- 5.2.10 The presence of use-wear, together with the few burnt pieces, could indicate that the flint assemblage is related to general day-to-day domestic activities. As noted above, the overall good condition of the flints suggests that they were not exposed for a long period before burial. And if the material was deposited in a midden-like deposit, it wasn't subject to heavy trampling.

Vessel and pits with possible pyre debris associated with Early Bronze Age cemetery - Group 2

- 5.2.11 Urn [544] contained just two pieces of flints; a broken blade and a broken blade-like flake. Based on technological grounds both artefacts indicate a Mesolithic or Early Neolithic date. Neither are burnt and are therefore thought to be residual rather than curated items though this is not impossible. Pit fills [538] and [540] produced just two flakes and a chip, none of which are particularly diagnostic. The pits may contain some pyre debris, but none of these artefacts were burnt.
- 5.2.12 Pit fills [538] and [540] produced just two flakes and a chip, none of which are particularly diagnostic. The pits may contain some pyre debris, but none of these artefacts were burnt.

The remaining assemblage

- 5.2.13 The remaining 37 pieces of struck flint recovered from this phase of work were in much more variable condition. Five came from a post-medieval ditch (context [477]), one from an undated pit (context [406]) and 31 from the topsoil. The assemblage comprises 20 flakes, four blades, three blade-like flakes, a blade core, a flint hammerstone as well as eight retouched tools. On technological and morphological grounds the majority of the assemblage can be dated to the Mesolithic - Early Bronze Age. Nonetheless a few pieces might be later in date.

5.3 The Prehistoric Pottery by Anna Doherty

5.3.1 Three stratified groups of prehistoric pottery were recovered during the latest phase of archaeological work at Charing Quarry, including two pits containing Early Neolithic (Plain Bowl) pottery and an *in situ* cremation vessel of Early/Middle Bronze Age date. A few sherds of unstratified Roman pottery were also recorded.

5.3.2 The pottery was examined using a x20 binocular microscope. Prehistoric fabrics have been defined according to a site-specific type series, formulated in accordance with the guideline of the Prehistoric Ceramics Research Group (PCRG 2010). This takes into account fabric types already recorded elsewhere on the site (Doherty 2014); however since the current phase produced material of entirely different date to that seen in other areas of the quarry, it was necessary to add new fabric codes to the existing type-series. The pottery was quantified by sherd count, weight and Estimated Vessel Number (ENV). The data was recorded on pro-forma sheets for the archive and in an Excel spreadsheet.

New specific fabric codes

GROG3 Common ill-sorted rounded grog of 1-5mm in a dense fairly quartz-free matrix

FLIN2 Sparse to moderate, extremely ill-sorted flint of 0.2-6mm in a dense silty matrix

FLIN3 Sparse to moderate, moderately-sorted flint of 0.2-2mm in a dense silty matrix

GLAU2 Moderate to common glauconite of 0.2-0.3mm with rare sparse quartz grains of 0.3-0.8mm (very similar in terms of inclusions to GLAU1 but lower fired)

GLFL2 Moderate to common glauconite of 0.2-0.3mm with sparse ill-sorted flint mostly of 2-4mm

GLFL3 Moderate to common glauconite of 0.2-0.3mm with rare/sparse flint of 1-2mm

Period 1: Early Neolithic

5.3.3 A fairly large group of pottery was recovered from fill [443] of pit [442]: 190 sherds, weighing 972g with a smaller group of 17 sherds, weighing 66g found in fill [451] of adjacent pit [450]. Both pits contained multiple sherds from a relatively small number of vessels and, although no cross-joins were identified, the similarity in firing and finish may suggest that sherds from the same vessels occur in both pits, indicating that they may have been open contemporaneously or filled in fairly quick succession from a common midden source.

Fabric	Sherds	Weight (g)	ENV
FLIN2	59	394	3
FLIN3	14	48	7
GLAU2	6	38	4
GLFL2	95	458	6
GLFL3	33	100	19
Total	207	1038	39

Table 4: Quantification of Early Neolithic pottery fabrics

- 5.3.4 As shown in Table 4, the majority of vessels (fabrics GLAU2, GLFL2 and GLFL3) contain glauconite, reflecting the Greensand geology in the local area; however, a sizable proportion (fabrics FLIN2 and FLIN3) do not, demonstrating that they originate from different clay sources, although in all probability these are also fairly local to the site itself. As is typical in the Early Neolithic, the vast majority of sherds are flint-tempered. Fabrics in this period are typified by relatively sparse and ill-sorted tempering although there is varied range of coarseness. Fairly fine fabrics like FLIN3 and GLFL3 seem to predominate although there are some medium coarse examples (GLFL2) and a few sherds in a very coarse fabric (FLIN2) usually associated with quite thick-walled vessels.
- 5.3.5 A number of rimsherds were noted, mostly in fill [443] of pit [442], although these tend to be fairly partial, making it difficult to assess the overall profile of the vessel. The majority appear to be simple rims with square section; only one vessel with a beaded rim was recorded. There are probable examples of slightly open, neutral and slightly closed vessels. Pronounced shoulders, carinations or cordons appear to be generally lacking from the assemblage, although this may reflect the fact that there are few sherds which demonstrably come from the mid-body area. There is one carinated shoulder sherd from [443] however, which also represents the only decorated sherd in the assemblage. The decoration consists of simple tooled stabbing on the shoulder carination.

Period 2: Early/Middle Bronze Age

- 5.3.6 Fragmented sherds, representing a truncated *in situ* cremation vessel, were found in fill [544] of cremation pit [543]. It is unclear whether the vessel was placed upright or in an inverted position because, although the mid-section appears to have been intact in the ground, neither rim nor base sherds are present. Whilst it is likely that damage at one end of the vessel may have resulted from ploughing or other post-depositional horizontal truncation, this cannot have affected both ends, suggesting that the vessel had been cut down or otherwise modified prior to burial. The vessel is in a coarsely grog-tempered fabric (GROG3) lacking any flint inclusions and has a thick-walled, straight-sided profile of c.250-300mm diameter with a single undecorated applied horizontal cordon.
- 5.3.7 Although the vessel can be fairly confidently dated to the first half of the 2nd millennium BC, its exact stylistic attribution is slightly unclear. To date, only Early Bronze Age Collared or Biconnical Urns have been identified in wholly grog-tempered fabrics in Kent. However, the use of a horizontal cordon does appear to suggest similarities to the Middle Bronze Age Deverel-Rimbury (DR) tradition. In East Anglia the earliest examples of Deverel-Rimbury pottery, (usually from the period c.1700-1500BC) are frequently grog-tempered; however, although Middle Bronze Age pottery from Kent often comes in fabric types including flint and grog, there appears to be less evidence for wholly grog-tempered DR pottery

5.4 The Post-Roman Pottery by Luke Barber

- 5.4.1 This phase of archaeological work recovered just 50 sherds of post-Roman pottery, weighing 2006g, from three individually numbered contexts. Due to the nature of the assemblage each context group is considered individually.
- 5.4.2 The earliest material was recovered from topsoil [400]. This produced a somewhat abraded sherd from a cooking pot tempered with medium quartz and sparse shell (6g) that can best be placed in a later 12th- to mid-13th- century date range. There is also a worn oxidised bodysherd (2g) in a fine sandy ware that could be placed anywhere between the later 13th and 15th centuries. The context also produced an early post-medieval sherd: a worn piece of 15th- to 16th- century buff sandy earthenware with internal clear glaze (4g). The latest sherd from [400] was much larger and fresher (24g), consisting of a base fragment from a glazed red earthenware vessel of mid-18th- to 19th- century date. Clearly the assemblage from this deposit demonstrates low-level manuring of the land over a considerable period of time.
- 5.4.3 Context [477] produced a small group of fresh sherds that can be dated to between c.1890 and 1940. These consist of an 8g fragment from a saucer with green floral transfer-print, a 4g fragment from an English porcelain mug and four sherds (108g) from the same plain refined whiteware bowl with club rim.
- 5.4.4 Context [550] produced the largest assemblage of post-Roman pottery from this phase of fieldwork. Taken together the group can best be placed between c.1870 and 1920, though more probably toward the latter half of the range. The material is notably fresh and has clearly not been reworked to any degree. A typical domestic assemblage of the period is represented, the material being tabulated in Table 5.

Type	No	Weight	Forms
Glazed Red Earthenware	4	856g	X1 large domed lid with knob handle
Midlands-type Slipware	1	48g	X1 bowl
Refined Redware	1	110g	X1 teapot (with gold gilt lines)
Rockingham-type Redware	2	92g	X1 teapot (lid)
Blue transfer-printed Ware	1	76g	X1 plate (pale floral decoration)
Green transfer-printed Ware	2	34g	X1 corrugated jug (ivy pattern)
Refined Whiteware (plain)	12	236g	X1 plate, x1 mug, x1 jug (moulded barrel decoration), x1 preserve jar
Refined Whiteware (sponged)	1	14g	X1 bowl (blue sponged border on rim)
English Porcelain	16	384g	X2 side plates, x1 saucer, x2 cups (x1 fluted), x1 oval moulded lid, x1 tureen lid (with gold gilt), x1 mug

Table 5: Late post-medieval assemblage from context [550]

5.5 The Ceramic Building Material by Luke Barber

5.5.1 A small assemblage of 19 pieces (2212g) of ceramic building material was recovered from the site. The assemblage includes brick fragments (10/2106g) and peg, tile fragments (9/106g) only. The assemblage has been fully listed on pro forma for the archive with the data being entered into an Excel spreadsheet. All of the material is of post-medieval date.

5.5.2 The peg tile all consists of somewhat worn pieces none of which are particularly large. The material has clearly been reworked. Three different fabrics are present:

T1a – a silty fabric with sparse calcareous inclusions (5/88g). Well-made and medium fired 10mm thick tiles (pit [476], ditch [531], pit [549] and pit [551]).

T1b – as T1a but with moderate/abundant calcareous inclusions (1/4g). (pit [476] only).

T2 – as T1a but with no calcareous inclusions (3/14g). All were recovered from ditch [531]).

5.5.3 The different fabrics are clearly related and all can probably be grouped as being in contemporaneous use. Although calcareous tempered tiles are common in 15th- to 16th- century deposits in East Sussex, the current examples are better made and fired suggesting they are slightly later in date. A 17th- to 18th- century date is suggested for these pieces. Although all came from post-medieval contexts of Period 4, Phase 2, it is likely they are residual in some contexts (eg the pottery in pit [549] is clearly later).

5.5.4 The brick from the site is in one of two later 17th- to 19th- century fabrics. Most are tempered with moderate medium sand with either sparse iron oxide inclusions to 1mm (B1: 5/2034g). Although most consist of small amorphous pieces ditch [611], fill [612] produced two much larger fragments. These consist of a 1380g piece measuring 98mm wide by 67mm thick and a 582g piece measuring 96mm wide by 59mm thick. The latter has a deliberately vitrified header and both are well formed and fired. The other fabric is tempered with moderate/abundant fine 'sugary' sand, is usually well formed but only low/medium fired (B2: 5/72g – all from pit [476]).

5.6 The Geological Material by Luke Barber

5.6.1 Three pieces of stone were recovered from three different deposits. Contexts [443] and [451] produced spherical nodules of weathered iron pyrites (each 2g), originally eroded from the chalk, while [550] produced a 92g piece of Tertiary ferruginous sandstone. All stone types would be naturally available at the site and none of the pieces show any sign of modification at the hand of man.

5.7 The Bulk Metalwork by Trista Clifford

5.7.1 This phase of work produced 19 fragments of iron weighing 224g from six separate contexts. The assemblage consists entirely of objects such as container wall fragments ([550]) and a heel protector from [431] of 20th century date, and unidentifiable plate and rod fragments from [447].

5.8 The Metallurgical Remains by Luke Barber

5.8.1 Just two contexts produced slag, all of which appears to relate to late post-medieval activity. Context [431] contained a 4g fragment of black aerated clinker and [477] two pieces (98g) of grey aerated fuel ash slag. All of the slag is likely to derive from coal-burning in the 19th to 20th centuries.

5.9 The Glass by Elke Raemen

5.9.1 A total of 24 fragments of glass (434g) were recovered from context [550] during the archaeological work. The majority comprises medicine bottles (e.g. Lung Tonic by Owbridge of Hull) and bottles which would have contained toiletries or household products. Only the Lung Tonic bottle is embossed. In addition, the site contained a few jar fragments as well as a near complete ink bottle, the latter with sheared rim and pen rests. The assemblage in its entirety is of later 19th to early 20th-century date.

5.10 The Clay Tobacco Pipe by Elke Raemen

5.10.1 Three clay tobacco pipe fragments (4g) were recovered from two different contexts. Included is a stem fragment dating between c. 1750 and 1910, recovered from [400] as well as a two decorated bowl fragments from [427]. The latter comprise a small, fluted bowl fragment (RF <3003>), likely to date between c. 1780 and 1850. A figural bowl fragment (RF <3002>) was also found in [427]. It probably represents a military dragoon and is likely to date to c. 1830-1860.

5.11 The Registered Finds by Trista Clifford

5.11.1 All registered finds have been washed and dried or air dried. Each object has been packed according to ClfA guidelines and has been assigned a unique registered finds number (RF <0000>). Metal objects have been boxed in airtight Stewart tubs with silica gel. No conservation is required.

Coins and tokens

5.11.2 A late 13th to 14th century 'Sterling Bust' jeton, RF<3000> came from topsoil [400]. The jeton depicts a crowned bust on the obverse with pellet and ?saltire 'legend'. The reverse exhibits a cross ?fleuree dividing the legend of stars and ?saltires, with three pellets around a central pellet in each quarter. There is a central perforation which was employed to prevent silvering of the copper alloy token to be passed off as

a penny. The jeton is likely to have been produced during the reign of Edward I-Edward III.

Ordnance

- 5.11.3 A copper alloy fired shotgun cartridge base, RF<3004>, was recovered from pit fill [431]. The headstamp reads 'KYNOCHE No 12 GASTIGHT', indicating it is a 12 bore sporting cartridge produced by Kynoch in the early part of the 20th century.

5.12 The Animal Bone by Gemma Ayton

- 5.12.1 A small assemblage of ten animal bones have been recovered from two contexts, both dated to Period 4 Phase 2. Context [612] includes a poorly preserved fragment of cattle tibia, the specimen forms part of the shaft of the bone. Context [477] produced nine fragments of moderately preserved bone including a large-mammal rib and a dog metapodial. There is no evidence of butchery, burning or gnawing on the bone.

5.13 The Cremated Human Bone by Lucy Sibun

Introduction

- 5.13.1 Burnt bone was recovered from two contexts, one of which was an inverted, urned cremation burial, dated to the Early Bronze Age ([544], SG 81). The second, un-urned cremation burial [536] (SG77) has been provisionally dated to the same period.

Methods

- 5.13.2 Urned cremation [544] was removed from the field and subjected to careful recording and excavation in spits of approximately 20mm. Bone fragments were collected per spit and accurate plans drawn at each stage of the excavation. The excavated fill underwent flotation (sample <1045>) and all additional bone fragments recovered have been included in this assessment. The remaining cremation deposit [536] was collected in three spits, processed as environmental sample <1044>. Sieve fractions of <4mm, 4-8mm and >8mm were presented for assessment.
- 5.13.3 The assessment of this material was undertaken according to standard guidelines (McKinley 2004). The total of weight of each cremation deposit was established. Each assemblage was then examined to record the degree of fragmentation and fragment colour. The presence and weight of fragments from all skeletal areas (skull, axial skeleton, upper limb and lower limb) was noted. The potential of each assemblage to yield demographic or other information was then considered. The material was also scanned for the presence of possible staining on bone or for animal bone.

Results

- 5.13.4 Cremated human bone was identified in both assemblages and the assessment results are summarised in the table below. It should be noted that the fragment size totals include both the identifiable and unidentifiable material.

Sample	Context	WEIGHT (grams)				AGE	SEX	IDENTIFIABLE				
		Fragment size (mm)						Total (g)	S	A	U	L
		0-4	5-8	9-20	21-30							
1044	536	32.9	37.9	13.8		84.6	?	?	✓	✓	✓	✓
1045	544	98.7	150.4	172.2	17.2	439.5	?	?	✓	✓	✓	✓

Table 6: Summary results of cremated human bone analysis (S= skull, A = axial, U= upper limb, L = lower limb,

5.13.5 Urned cremation burial [544] produced a much larger quantity of cremated bone (439.5 grams) than un-urned [536] (84.6 grams) which is not unexpected.

5.13.6 From the initial assessment it would appear that each cremation deposit contained the remains of a single individual, with no repeated elements noted. However, a large percentage of both assemblages remain unidentified to skeletal element due to the nature of bone fragments. Additionally, the high level of fragmentation meant that fragments enabling age at death or sex to be confidently established were not identified. However, fragment size would suggest both individuals represent older juveniles or adults. No evidence of pathology was noted on any fragments. The cremation process was highly efficient in all cases and as a result, all bone was an off-white colour.

6.0 ENVIRONMENTAL ASSESSMENT - Plant Macrofossils and Wood Charcoal

by Lucy Allott and Dawn Elise Mooney

6.1 Introduction

6.1.1 During excavation work at the site, four bulk soil samples were taken from prehistoric pit features in order to recover environmental remains such as charred macrobotanical remains, charcoal, fauna and mollusca, and to assist finds recovery. Additionally, two samples were taken from cremation burials at the site. Sample <1045> was taken from an Early Bronze Age urned cremation burial [544], which was excavated in nine spits. Material from the second, unurned cremation burial [536], located near to the urned cremation [544], was excavated and sampled in three spits marked A, B and C. This report summarises the contents of these samples, and discusses their potential to provide information contributing to the interpretation of the site. The material presented here builds on data from 35 samples previously analysed from the site (Le Hégarat 2014, Mooney 2014). Previous work at the site has presented data from Iron Age and Medieval phases of land use while the current work provides limited evidence for Early Neolithic and Early Bronze Age activities.

6.2 Methodology

6.2.1 The samples were processed by flotation. Flots and residues were retained on 250µm and 500µm meshes respectively, and air dried. The dried residues were passed through graded sieves of 8mm, 4mm and 2mm and each fraction sorted for environmental and artefactual remains (Table 7). Artefacts recovered from the samples were distributed to specialists, and are reported on in the relevant sections of this volume. The dry flots were scanned under a stereozoom microscope at 7-45x magnifications and their contents recorded (Table 8). Identifications of macrobotanical remains have been made through comparison with published reference atlases (Cappers *et al.* 2006, Jacomet 2006, NIAB 2004), and nomenclature used follows Stace (1997).

6.2.2 Charcoal fragments recovered from the heavy residue of each sample were fractured along three planes (transverse, radial and tangential) according to standardised procedures (Gale & Cutler 2000). Specimens were viewed under a stereozoom microscope for initial grouping, and an incident light microscope at magnifications up to 400x to facilitate identification of the woody taxa present. Taxonomic identifications were assigned by comparing suites of anatomical characteristics visible with those documented in reference atlases (Hather 2000, Schoch *et al.* 2004), and by comparison with modern reference material held at the Institute of Archaeology, University College London. Identifications have been given to species where possible, however genera, family or group names have been given where anatomical differences between taxa are not significant enough to permit satisfactory identification. Taxonomic identifications of charcoal are recorded in Table 7, and nomenclature used follows Stace (1997).

6.3 Results

Early Neolithic - Pits

- 6.3.1 Sample <1040> [443] and <1041> [451] from Early Neolithic pits [442] and [450] contained very few wood charcoal fragments and with the exception of a few charred plant macrofossils no other environmental remains were evident in these samples. Wheat (*Triticum* sp.) caryopses, cleavers (*Galium* sp.) and a grass stem fragment were the only charred plant macrofossils recorded. The flots from these samples also contained moderate amounts of uncharred/ modern vegetation, primarily small rootlets although some uncharred seeds were also noted, which suggest evidence for post-depositional, modern bioturbation and the potential for the introduction of younger material.

Early Bronze Age - Pits and Cremations

- 6.3.2 Moderate to large quantities of charcoal were recovered from samples <1042> [540] and <1043> [538] from pits [539] and [537]. Both assemblages were moderately well preserved, although they show some evidence of sediment infiltration and concretion that may be linked to fluctuations in groundwater level. Both assemblages were composed solely of oak charcoal, with juvenile roundwood fragments commonly noted in sample <1043>. Flots from both samples also contained some modern uncharred rootlets and seeds and as noted above they suggest a degree of bioturbation.
- 6.3.3 All of the flots from the Early Bronze Age cremation pit features were dominated by uncharred modern rootlets and the majority also contained uncharred seeds. By comparison charred plant macrofossils and wood charcoal fragments were infrequent. Cabbage/mustard (*Brassica/Sinapis* sp.) seed and a grass stem fragment were the only charred plant macrofossils noted while the wood charcoal assemblage consisted primarily of small flecks and fragments measuring <2mm in size. No identifications were undertaken for the small charcoal assemblages.

Table 7: Residue quantification (* = 1-10, ** = 11-50, *** = 51-250, **** = >250) and weights in grams

Sample Number	Context	Parent Context	Subgroup	Group	Spot Date (all circa)	Spit (if relevant eg. cremational)	Context / deposit type	Sample Volume litres	Sub-Sample Volume litres	Charcoal >4mm	Weight (g)	Charcoal <4mm	Weight (g)	Charcoal Identifications	Burnt bone >8mm	Weight (g)	Burnt bone 4-8mm	Weight (g)	Burnt Bone 2-4mm	Weight (g)	Other (eg ind, pot, cbm)
1040	443	442	28	GP1	EN		P	40	40	*	<2	**	<2								Flint **/ 14g - Pottery **/ 60g - FCF */ 6g - Mag. Mat. ***/ 6g - Round iron stone */ 8g
1041	451	450	31	GP1	EN		P	40	40	*	<2	**	<2								Flint **/ 28g - Mag. Mat. **/ 2g - Pottery **/ 22g - FCF */ 6g
1042	540	539	79	GP2	EBA?		P	40	40	**	4	****	16	<i>Quercus</i> sp. (10)							Mag. Mat. ***/ 6g - Flint */ 4g - Petrified Wood */ <2g - Round iron stone */ 6g
1043	538	537	78	GP2	EBA?		P	20	20	***	16	****	30	<i>Quercus</i> sp. (10)							Metal */ 4g - Flint */ <2g - Mag. Mat. **/ 2g
1044	536	535	77	GP2	EBA?	A	CR	1.5	1.5	*	<2				*	8	**	16	***	14	Mag. Mat. */ <2g
1044	536	535	77	GP2	EBA?	B	CR	4.5	4.5			*	<2		*	4	**	16	***	16	Stone */ 6g
1044	536	535	77	GP2	EBA?	C	CR	6	6			*	<2		*	4	**	8	***	4	Stone */ 6g
1045	544	543	81	GP2	EBA	1	CR	2	2			*	<2		*	2	**	14	***	8	Pottery */ 4g - Mag. Mat. */ <2g - Round iron stone */ <2g
1045	544	543	81	GP2	EBA	2	CR	2	2			*	<2		**	12	**	18	***	8	
1045	544	543	81	GP2	EBA	3	CR	2	2			*	<2		*	6	**	16	***	10	Mag. Mat. */ <2g
1045	544	543	81	GP2	EBA	4	CR	2	2	*	<2	*	<2		**	18	***	22	***	10	

Sample Number	Context	Parent Context	Subgroup	Group	Spot Date (all <i>circa</i>)	Spit (if relevant eg. cremational)	Context / deposit type	Sample Volume litres	Sub-Sample Volume litres	Charcoal >4mm	Weight (g)	Charcoal <4mm	Weight (g)	Charcoal Identifications	Burnt bone >8mm	Weight (g)	Burnt bone 4-8mm	Weight (g)	Burnt Bone 2-4mm	Weight (g)	Other (eg ind, pot, cbm)
1045	544	543	81	GP2	EBA	6	CR	4	4			*	<2		***	72	***	92	****	32	
1045	544	543	81	GP2	EBA	7	CR	3	3			*	<2		*	4	***	42	***	28	Pottery */ <2g - Mag. Mat. */ <2g
1045	544	543	81	GP2	EBA	8	CR	3	3			*	<2		*	4	**	12	***	18	
1045	544	543	81	GP2	EBA	9	CR	4	4	*	<2	**	<2		*	<2	**	<2	***	8	Pottery */ 4g - Mag. Mat. */ <2g - Round iron stone */ <2g

Table 8: Flot quantification (* = 1-10, ** = 11-50, *** = 51-250, **** = >250) and preservation (+ = poor, ++ = moderate, +++ = good)

Sample Number	Context	Feature type	Parent context	Spit (if relevant)	Weight g	Flot volume ml	Volume scanned	Uncharred %	Sediment %	Seeds uncharred	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	Crop seeds charred	Identifications	Preservation	Weed seeds charred	Identifications	Preservation	Other botanical charred	Identifications	Preservation	Insects, Fly Pupae not mineralised/modern?	Land Snail Shells	Fungal Sclerotia
1040	443	P	442		8	55	55	40	30	*	*	**	***				*	<i>Galium</i> sp.	++						
1041	451	P	450		12	60	60	50	30	*	*	**	****	*	<i>Triticum</i> sp. (2)	+				*	Poaceae stem frag (1)	++			**
1042	540	P	539		363	1635	800	2	3		***	****	****												
1043	538	P	537		49	155	155	30	5	**	**	***	****							*	Poaceae stem frag (1)	++	*		**
1044	536	CR	535	A	<1	<5	<5	90	2	*			**												*
1044	536	CR	535	B	2	10	10	90	3	*	*	*	**				*	cf. <i>Brassica</i> sp.	+				*		*
1044	536	CR	535	C	<1	5	5	95	2	*	*	*	**											*	
1045	544	CR	543	1	<1	<5	<5	55	1	*	*	*	**											*	*
1045	544	CR	543	2	<1	<5	<5	60	1	*	*	*	***											*	
1045	544	CR	543	3	<1	<5	<5	80	2	*	*	*	**												
1045	544	CR	543	4	<1	<5	<5	85	1	*	*	*	**												*

Sample Number	Context	Feature type	Parent context	Spit (if relevant)	Weight g	Flot volume ml	Volume scanned	Uncharred %	Sediment %	Seeds uncharred	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	Crop seeds charred	Identifications	Preservation	Weed seeds charred	Identifications	Preservation	Other botanical charred	Identifications	Preservation	Insects, Fly Pupae not mineralised/modern?	Land Snail Shells	Fungal Sclerotia
1045	544	CR	543	6	<1	5	5	80	1	*		*	**												*
1045	544	CR	543	7	<1	<5	<5	60	1		*	*	**											*	*
1045	544	CR	543	8	<1	<5	<5	80	1	*		*	**											*	*
1045	544	CR	543	9	<1	5	5	75	1	*	*	*	***											*	*

7.0 POTENTIAL & SIGNIFICANCE OF RESULTS

7.1 Realisation of the original research aims

OR1 *The investigation will record any archaeological remains discovered during the removal of topsoil and overburden prior to sand extraction.*

7.1.1 A range of archaeological features, including some dating from periods not previously encountered at the quarry were excavated and recorded.

7.1.2 Ditches and gullies formed the continuation of the previously encountered medieval and post-medieval field systems (Figure 2).

7.1.3 A pair of Early Neolithic pits represents new evidence of activity of this date both on the site and in the area.

7.1.4 An urned and unurned cremation of Early Bronze Age date and 3 other associated features represents new evidence of activity of this date both on the site and in the area.

7.1.5 Possible post-medieval hop pole bases were also found.

7.2 Significance and Potential of the individual datasets

The Stratigraphic Sequence

Mesolithic to Early Bronze Age

7.2.1 A very thin 'background scatter' of flintwork was evident at the site, all recovered from later deposits including the overburden. The material from this period holds little potential to do more than add to the existing corpus of material from the general area.

Period 1: Early Neolithic

7.2.2 The early Neolithic material is clearly of significance, and although Neolithic flintwork has been unearthed at the quarry in the past, the pits encountered during the current work are the first archaeological features of this date to be positively identified, excavated and recorded. Given this exceptionality, the features (and their contents) are locally and regionally significant.

Period 2: Early Bronze Age

7.2.3 Another archaeological 'first' for the quarry and locale were two cremations, both urned and unurned, containing single adult, or older juvenile individuals and associated possible pyre debris. This Bronze Age evidence is locally and regionally significant.

Period 3: Medieval

- 7.2.4 Taken in isolation the medieval features from the current site have little to offer. However, when considered as part of the wider field system identified during previous archaeological work at the quarry, the gullies perhaps offer indications of the extent of medieval utilisation of the site and its modification throughout the 13th century. The evidence is locally significant.

Period 4: Post-Medieval

- 7.2.5 The deposition of post-medieval material at the site is not surprising given the proximity of domestic buildings and is not considered archaeologically significant. Arguably the presence of hop pole bases is of slightly more significance though representative of a widespread Kentish industry dating back to the 16th century, when the growing of hops up poles was recommended in a treatise by Reynolde Scot of Ashford (Tann 2005). Hop growing in Kent reached its zenith during the 19th and early 20th centuries, before a disastrous decline owing to cheap imports of hops for brewing from the USA and China (*ibid.*).

7.3 The Finds

The Worked Flint

- 7.3.1 The previous phases of work at the Charing quarry have already provided evidence of a prehistoric presence in the landscape. This investigation (Phase 4a) adds greatly to this. While until now, the archaeological work provided evidence for the Early Bronze Age onwards, the assemblage from pit fills [443] and [451] demonstrates that the area was also occupied during the Early Neolithic period. Both features contained large assemblages of flints associated with Early Neolithic pottery.
- 7.3.2 The overall fresh condition of the flintwork indicates that the material has undergone negligible post-depositional disturbance or that it was not exposed for a long period before burial. Based on the presence of diagnostic pieces (two leaf arrowheads and five pieces with polished areas) and based on technological and morphological traits, both assemblages are likely to be contemporary with the pottery. The assemblage consists primarily of waste debris with just a few modified tools. Nonetheless, it contained a high proportion of utilised material. Considering also its association with the pottery, the flint assemblage is likely to relate to general day-to-day domestic activities.
- 7.3.3 Until recently, in South East England, evidence for well-stratified Early Neolithic material was very sporadic. Nonetheless, recent large-scale archaeological interventions have exposed an increasing amount of features from that period. A large group of 26 Early Neolithic pits with varying quantities of flints were recently excavated at Peacehaven, West Sussex (Hart 2015). Closer to the site, a pit at Beechbrook Wood (5km south of Charing) produced a substantial Early Neolithic flint assemblage (Cramp 2006, Garwood 2011). In addition to flints, the pit comprised Plain Bowl pottery

and a complete saddle quern. With a total of 565 pieces, the flint assemblage was larger, but its composition was similar. Knapping waste dominated, and just a few retouched pieces were present (12 pieces). Utilised edges were also noticed. It is always difficult to infer on depositional practices, but the finds from Beechbrook wood, with the saddle quern at the base of the pit, were interpreted has been deliberately deposited.

- 7.3.4 The Early Neolithic assemblage from Charing is important. It adds to the growing corpus of Early Neolithic sites with well stratified assemblages found in the area. As such a summary of the flint assemblage should be added to the publication. An attempt at refitting the Early Neolithic flints from pits [442] and [450] should also be carried out.

Prehistoric Pottery

- 7.3.5 Both periods represented in the prehistoric pottery assemblage, the Early Neolithic and the Early/Middle Bronze Age, have not previously been noted in other areas of excavation at Charing Quarry. Aside from assemblages found at Causewayed Enclosures, Early Neolithic pottery from Kent tends to be found in quite small groups usually from fairly low numbers of associated pits. A few groups of this type were recorded as part of the High-Speed 1 (CTRL) project although there remain relatively few contemporary published assemblages from the region.
- 7.3.6 One interesting point that came out of the CTRL publication was that, generally speaking, Early Neolithic pottery from the sites on the north-western part of the route had more in common with East Anglian (Mildenhall style) pottery whereas groups from the south-eastern part, particularly at Saltwood Tunnel, were said to be more similar to Sussex (Whitehawk style) assemblages (Barclay and Edwards 2006, 25). However, this interpretation was made based very small numbers of sherds (c.300 from the whole scheme).
- 7.3.7 Clearly the presence of different stylistic affinities within quite closely spaced geographical areas is an interesting topic of research which may have implications for how we interpret the organisation of Neolithic society in Kent. This point was also mentioned in the resource assessment phase of the South-East Research Framework (Barclay 2008). Although the partial nature of many of the feature sherds and lack of decoration may limit the extent to which it can be compared with larger pit group assemblages from Sussex or East Anglia, further research should be attempted and a brief discussion undertaken.
- 7.3.8 The Early/Middle Bronze Age cremation vessel also has areas of potential regional significance. Parallels for the modification/breakage of contemporary funerary vessels should be further researched. If radiocarbon dating of the associated human remains shows that the burial does fall after c.1700BC this would represent new evidence for stylistic continuity between Early Bronze Age Collar/Biconnical Urns and Middle Bronze Age Deverel-Rimbury ceramics: something which has not previously been noted in Kent.

- 7.3.9 The unstratified Roman pottery has very little significance and does not need to be included in the analysis/publication report.

Post-Roman Pottery

- 7.3.10 The post-Roman pottery from the site is dominated by two very late groups that, although fresh, are not large enough to be of interest. This is particularly the case considering their isolation. The wares are common industrial types found all over the country. The earlier pottery from [400] demonstrates the presence of manuring but also holds no potential for further analysis

The Ceramic Building Material

- 7.3.11 The ceramic building material from the site is all of the post-medieval period and the majority of the assemblage appears to have been reworked. As such it is not considered to warrant any further analysis beyond that undertaken during this assessment and has duly been discarded.

The Geological Material

- 7.3.12 The material is not considered to hold any potential for further work.

The Bulk Metalwork

- 7.3.13 The assemblage is of minimal significance and has no potential for further work.

The Metallurgical Remains

- 7.3.14 The slag does not hold any potential for further analysis.

The Glass

- 7.3.15 The assemblage is late in date and does not include intrinsically interesting pieces. It is likely to be of domestic origin; however, the group is too small to provide any meaningful data. No glass was recovered from previous phases. As such, its significance is limited to its contribution to the dating evidence. The assemblage is not considered to of further potential.

The Clay Tobacco Pipes

- 7.3.16 The current assemblage is small and previous phases too contained only a small amount of clay tobacco pipe fragments, mostly comprising stems. The assemblage is considered to be too small to be of potential for further analysis. Furthermore, most pieces are not closely dateable. The figural pipe is typical for the period with many similar examples from elsewhere.

The Registered Finds

- 7.3.17 The small registered finds assemblage is of some significance due to the presence of a fairly rare type of medieval jeton. However the lack of context limits this and as such there is little potential for further work beyond a more precise identification. The presence of the shotgun cartridge within pit fill [431] is not out of keeping with the feature.

The Animal Bone

- 7.3.18 The material is not considered to hold any potential for further work

The Cremated Human Bone

- 7.3.19 The limited assemblage size does decrease the value of further analysis of the results for cremation burial [536]. However, further study of the analysis results for urned cremation [544] will enable the degree of fragmentation to be established and the percentage by weight of the fragments from each skeletal area to be calculated. The drawn plans will also be examined to see whether any patterns of deposition within the vessel can be identified.

The Environmental Material

Charred Plant Macrofossils

- 7.3.20 Sampling during this phase of archaeological work produced very few charred plant macrofossils. The majority of remains are from wild/weed plants all of which could have occurred as arable weeds, on waste ground or in grassland vegetation. In addition the wheat caryopses may provide evidence for early agricultural activities at the site although given the low quantities of remains present and the presence of some uncharred vegetation (suggesting a level of bioturbation) caution should be taken in assuming they are contemporary with the Early Neolithic date provided by the pottery and flint assemblages. It is more likely that they are intrusive elements deriving from later activities at the site.

Charcoal

- 7.3.21 The predominance of oak in the charcoal assemblage is strongly indicative of the specific selection of this taxon as fuel. Although these features contained no evidence for funerary related activities they are located nearby and have been placed within the same pit group, GP2. The cremations themselves contained very little charcoal which may indicate that the remaining burnt bone was extracted carefully from the pyre residue. Oak would have been particularly suited to pyre construction and is a moderately common component of other funerary related archaeological features, including other LIA cremations as well as pits recorded previously at the quarry (Mooney 2014).

8.0 PUBLICATION PROJECT

8.1 Revised Research Agenda: Aims and Objectives

8.1.1 This section combines those original research aims that the site archive has the potential to address with any new research aims identified in the assessment process by stratigraphic, finds and environmental specialists to produce a set of revised research aims (RRAs) that will form the basis of any future research agenda for this part of the quarry, to be integrated with the previously reported results from the remainder of the site (ASE 2014).

8.2 The Revised Research Agendas

RRA1

Is there enough material to justify a Mesolithic/pre-Neolithic phase at the site?

RRA2

Does the nature of the evidence from the Neolithic features suggest they display structured deposition? Are there any comparable assemblages from the general area or from further afield?

RRA3

Is the Early Bronze Age cemetery evidence typical of known examples in Kent? Are there parallels for the adaptation of the vessel? Is the topographical situation usual? Is there likely to be an associated local domestic site?

RRA4

Although the current site seems to lie on the periphery of the medieval and post-medieval field systems seen previously at the quarry, how does it fit in the surrounding landscape in terms of surviving alignments of local field boundaries and trackways/footpaths?

RRA5

Is there surviving documentary evidence of hop farming at the site? Would such a temporary enterprise leave any evidence other than the limited archaeological remains?

8.3 Preliminary Publication Synopsis

- 8.3.1 It is suggested that the results of the phase 4a excavation be published along with the previous phases of excavations. This will comprise of an integrated text detailing the key elements of the ASE work at the quarry. The text will include supporting specialist information, figures, photographs and artefact illustrations as necessary and will consider the site in its local and regional context. The publication will address the research questions identified in this and previous post-excavation assessments.

8.4 Publication Project

Stratigraphic Method Statement

- 8.4.1 Once the subgrouping are finalised, groups leading onto the definition of a basic land use model will be established for the site. This will provide a land-use led chronological framework for the analysis and reporting of the site.
- 8.4.2 After completion of the specialist analysis, reporting and documentary research, an integrated period-driven narrative of the site sequence will be prepared. This will draw on specialist information in order to fully address the revised research aims. The narrative will include relevant selection of period/phase plans, sections, photographs and finds illustrations.

10.5 days

Worked Flint

- 8.4.3 It is proposed that a full specialist report be prepared for publication

Resources

Refitting work on the material from pits [442] and [451]

Comparing the Early Neolithic flint assemblage with assemblages recovered from similar pits in the region

Producing a publication text based on the above data as well as additional information obtained from the refitting work

Total

5 days

Prehistoric Pottery

- 8.4.4 A short publication texts should be completed on the Early Neolithic and Early/Middle Bronze Age pottery. There is no need for any further analysis or

reporting on the few unstratified Roman sherds. The following tasks have been identified:

Resources

Research and comparison of the Early Neolithic assemblage with Whitehawk and Mildenhall style groups from Sussex and East Anglia

1 day

Further research on continuity of Early/Middle Bronze Age pottery styles

1 day

Research on parallels for modification/breakage of Bronze Age funerary vessels

0.5 days

Total **2.5 days**

Registered Finds

8.4.5 A short specialist report on the registered finds will be prepared

Resources

Identification of RF<3000> and short report

1 day

Total **1 day**

The Burnt Bone

8.4.6 A report will be produced summarising and tabulating the results, including generalised comparisons with the un-urned cremation burial [536] as well as comparisons with other contemporary cremation burials. Radiocarbon dating, if suitable should be undertaken on bone from both features.

Resources

Comparisons with other known data sets

0.25 day

Report writing

0.75 day

Radiocarbon dating 2 samples

fee

Total **1 day**

The Environmental Samples

8.4.7 If suitable charcoal can be derived from the two pits with possible pyre material relating to the 2 Bronze Age cremations then these should be radiocarbon dated to attempt to prove their association with the cremations.

Radiocarbon dating 2 samples fee

Illustration

8.4.8 ***Resources***

Preparation of 6-7 stratigraphic figures 2.5 days

Illustration of c.5 Early Neolithic vessels and 1 Early/Middle Bronze Age cremation vessel is recommended (largely simple, undecorated profiles) 1.5 days

TOTAL 4 days

Stratigraphic Tasks	Days
Finalise subgrouping	0.5
Define groups and draw date phased group matrices. Define landuse.	1
Describe landuse. Interpretative text will be written about each landuse element.	1
Define periods and describe periods. A textual summary, built from the landuse and group texts where appropriate, will be formed for each period. Plots of each period will be produced using Auto-Cad, GIS and/or hand-annotated plans, these will include feature conjecture.	1
Documentary research will be conducted prior to commencement of the authorship of the period-driven narrative by the principal author. This should include relevant study of archaeological features, sites and published themes of the surrounding area, region, and the southeast.	1
Prepare period-driven narrative of the site sequence. This task comprises the combination of the stratigraphic period descriptions and the relevant portions of completed finds, environmental, documentary and integrated analytical reports. Suitable photographic and drawn images such as sections and plans will also be selected from the archive at this point.	1
Write publication text	3
Post-edit addressing of comments	2
Total	
Specialist Analysis	
Flintwork	5 days
Prehistoric Pottery	2.5 days
Registered Finds	1 day
Cremated Bone	1 day
Radioncarbon dating, bone and charcoal, 4 samples in total	fee
Illustration	
Flint and pottery illustration	1.5 days
Publication figures	2.5 days
Production	
Editing (pre-submission & post-ref)	3
Project Management	2
Journal publication fee	fee

Table 9: Resource for analysis and publication for phase 4a

8.5 Artefacts and Archive Deposition

8.5.1 The site archive is currently held at the offices of ASE. Following completion of all post-excavation work, including any publication work, the site archive will be deposited in a suitable museum or archive centre in accordance with their deposition policy and procedures. It will be offered to Ashford Museum in due course (See 1.7).

BIBLIOGRAPHY

ASE 2013. *Land off West Street, Harrietsham, Kent: Archaeological Desk-Based Assessment*. Unpub. ASE Report No. 20130710-6040

ASE 2014. *Final Archaeological Report - Charing Quarry Hook Lane, Charing, Kent (Extraction Areas 1, 2a, 2b, 3 And 4)*. Unpub ASE Report No. 2013189-2800

Barclay, A, 2008, Ceramics of the South-East: New Directions, South-East Research Framework Resource Assessment Seminar published online at [http://www.kent.gov.uk/leisure and culture/heritage/south east research framewor
k.aspx](http://www.kent.gov.uk/leisure_and_culture/heritage/south_east_research_framework.aspx)

Barclay, A. and Edwards, E., 2006. Earlier prehistoric pottery, in Booth, P. (ed) *Ceramics from Section 1 of the Channel Tunnel Rail Link, Kent* (CTRL Specialist Report Series), 10-33 Published online at <http://archaeologydataservice.ac.uk/>

BGS 2014. British Geological Survey, Geology of Britain Viewer, accessed 3.02.2014 <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

Butler, C. 2005 Prehistoric Flintwork. Tempus, Stroud

Cappers, R.T.J., Bekker, R.M. and Jans, J.E.A. 2006. *Digital Seed Atlas of the Netherlands*. Groningen Archaeological Series 4. Netherlands: Barkhuis.

Chapman, J. 2000. Pit-digging and Structured Deposition in the Neolithic and Copper Age, *Proceedings of the Prehistoric Society* 66, 61-87

CIfA 2014. *Standard and Guidance for the collection, documentation, conservation and research of archaeological materials*

Cramp, K, 2006. The worked flint from Beechbrook Wood, Hothfield, Kent, HS1 Specialist Report Series, in ADS

Doherty, A. 2014. Prehistoric and Roman pottery, in ASE 2014

English Heritage, 2008. *Management of Research Projects in the Historic Environment, Project Planning Notes 3: Archaeological Excavation*

Ford, S, 1987 Chronological and functional aspects of flint assemblages. In A, Brown and M, Edmonds (eds) *Lithic analysis and Later British Prehistory BAR British Series 162 Oxford*, 67-81

Gale, R. & Cutler, D. 2000. *Plants in Archaeology*. Otley/London: Westbury/Royal Botanic Gardens, Kew.

Garwood, P, 2011. Chalcolithic and Early Bronze Age pits, settlement and landscape change 118-124, in *Early Prehistor*, in P. Booth, T. Champion, S. Foreman, P.

Garwood, H. Glass, J. Munby, and A. Reynolds (eds.). *On Track, the Archaeology of High Speed I Section I in Kent*. Oxford Wessex Archaeology (OWA), Oxford, Monograph No 4

Hart, D. 2015. *Around the ancient track: Archaeological Excavations for the Brighton and Hove Waste Water Treatment Works and adjacent housing at Peacehaven, East Sussex SpoilHeap Publications Monograph*

Hather, J. G. 2000. *The Identification of the Northern European Woods: A Guide for archaeologists and conservators*. London: Archetype Publications Ltd.

Inizan, M-L, Reduron-Ballinger, M, Roche, H & Tixier, J, 1999. *Technology and Terminology of Knapped Stone*. Tome 5. Cercle de Recherches et d'Etudes Préhistoriques (CREP), Nanterre

Jacomet, S. 2006. *Identification of cereal remains from archaeological sites*. 2nd ed. *Archaeobotany laboratory, IPAS, Basel University*, Unpublished manuscript.

KCC 1997. *Specification for Archaeological Investigation of Charing Sand Pit, Tile Lodge Farm, Charing*. Unpub. KCC document

Le Hégarat, K. 2014. *Charred Macrobotanical Remains*, in ASE 2014, 29-31.

McKinley, J. I. 2004. *Compiling a skeletal inventory: cremated human bone*, in M. Brickley, J. I. and McKinley, (eds.) *Guidelines to the Standards for Recording Human Remains* British Association for Biological Anthropology and Osteoarchaeology and Institute for Field Archaeology, 9-12

Mooney, D.E. 2014. *Analysis of Charred Wood Remains* ASE 2014, 32-35.

Munnery, T. 2013. *A study of Neolithic pits in south-east England – shifts in deposition, farming and self-perception*. Unpub. MA dissertation, University of Leicester

NIAB 2004. *Seed Identification Handbook: Agriculture, Horticulture and Weeds*. 2nd ed. NIAB, Cambridge.

Onhuma, K, and Bergman, C, 1982. *Experimental studies in the determination of flake mode*, Bull. Inst. Archaeol. Univ. London 19, 161-71

PCRG. 2010. *The study of later prehistoric pottery: general policies and guidelines for analysis and publication*. Prehistoric Ceramic Research Group Occasional Papers 1&2, 3rd edition,

Richards, C. and Thomas, J. 1984. *Ritual activity and structured deposition in Later Neolithic Wessex*, in R. Bradley and J. Gardiner (eds.) *Neolithic Studies* 189-218. Oxford: British Archaeological Reports, British Series 133

Schoch, W., Heller, I., Schweingruber, F. H., & Kienast, F. 2004. *Wood anatomy of central European Species*. Online version: www.woodanatomy.ch

Stace, C. 1997. *New Flora of the British Isles*. Cambridge: University Press

Tann, P. 2005. A Brief History of the Hop Industry in Kent, *Brewery History, The Journal of the Brewery History Society* 118, 21-26

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Appendix 1: Context Register

Context	Context Type	Feature Type	Parent Context	Sample	Subgroup	Group	Provisional Period	Provisional Phase
400	LAYER	TS						
401	LAYER	SS						
402	LAYER	N						
403	CUT	D			1	D1	3	2
404	FILL	D	403		2	D1	3	2
405	CUT	P			3	GP5	5	
406	FILL	P	405		3	GP5	5	
407	CUT	D			4	D2	4	2
408	FILL	D	407		5	D2	4	2
409	CUT	P			6	GP5	5	
410	FILL	P	409		6	GP5	5	
411	CUT	D			7	D1	3	2
412	FILL	D	411		8	D1	3	2
413	CUT	D			9	D3	3	2
414	FILL	D	413		10	D3	3	2
415	CUT	D			11	D4	4	1
416	FILL	D	415		12	D4	4	1
417	CUT	D			13	D5	4	2
418	FILL	D	417		14	D5	4	2
419	CUT	D			15	D6	3	2
420	FILL	D	419		16	D6	3	2
421	CUT	P			17	GP5	5	

Context	Context Type	Feature Type	Parent Context	Sample	Subgroup	Group	Provisional Period	Provisional Phase
422	FILL	P	421		17	GP5	5	
423	FILL	P	421		17	GP5	5	
424	CUT	D			18	D6	3	2
425	FILL	D	424		19	D6	3	2
426	CUT	P			20	GP4	4	2
427	FILL	P	426		20	GP4	4	2
428	CUT	P			21	GP5	5	
429	FILL	P	428		21	GP5	5	
430	CUT	P			22	GP4	4	2
431	FILL	P	430		22	GP4	4	2
432	CUT	P			23	GP6	5	
433	FILL	P	432		23	GP6	5	
434	CUT	D			24	D6	3	2
435	FILL	D	434		25	D6	3	2
436	CUT	P			26	GP6	5	
437	FILL	P	436		26	GP6	5	
438	CUT	P			27	GP4	4	2
439	FILL	P	438		27	GP4	4	2
440	FILL	P	438		27	GP4	4	2
441	FILL	P	438		27	GP4	4	2
442	CUT	P			28	GP1	1	
443	FILL	P	442	1040	28	GP1	1	
444	CUT	P			29	GP5	5	
445	FILL	P	444		29	GP5	5	

Context	Context Type	Feature Type	Parent Context	Sample	Subgroup	Group	Provisional Period	Provisional Phase
446	CUT	P			30	GP5	5	
447	FILL	P	446		30	GP5	5	
448	FILL	P	446		30	GP5	5	
449	FILL	P	446		30	GP5	5	
450	CUT	P			31	GP1	1	
451	FILL	P	450	1041	31	GP1	1	
452	CUT	P			32	GP6	5	
453	FILL	P	452		32	GP6	5	
454	CUT	P			33	GP6	5	
455	FILL	P	454		33	GP6	5	
456	CUT	P			34	GP6	5	
457	FILL	P	456		34	GP6	5	
458	CUT	P			35	GP6	5	
459	FILL	P	458		35	GP6	5	
460	CUT	P			36	GP5	5	
461	FILL	P	460		36	GP5	5	
462	CUT	P			37	GP6	5	
463	FILL	P	462		37	GP6	5	
464	CUT	P			38	GP6	5	
465	FILL	P	464		38	GP6	5	
466	CUT	P			39	GP5	5	
467	FILL	P	466		39	GP5	5	
468	CUT	P			40	GP6	5	
469	FILL	P	468		40	GP6	5	

Context	Context Type	Feature Type	Parent Context	Sample	Subgroup	Group	Provisional Period	Provisional Phase
470	CUT	P			41	GP5	5	
471	FILL	P	470		41	GP5	5	
472	CUT	P			42	GP6	5	
473	FILL	P	472		42	GP6	5	
474	CUT	P			43	GP5	5	
475	FILL	P	474		43	GP5	5	
476	CUT	P			44	D11	4	2
477	FILL	P	476		44	D11	4	2
478	CUT	P			45	GP6	5	
479	FILL	P	478		45	GP6	5	
480	CUT	P			46	GP6	5	
481	FILL	P	480		46	GP6	5	
482	CUT	P			47	GP6	5	
483	FILL	P	482		47	GP6	5	
484	CUT	P			48	GP6	5	
485	FILL	P	484		48	GP6	5	
486	CUT	P			49	GP6	5	
487	FILL	P	486		49	GP6	5	
488	CUT	P			50	GP6	5	
489	FILL	P	488		50	GP6	5	
490	CUT	P			51	GP5	5	
491	FILL	P	490		51	GP5	5	
492	CUT	P			52	GP5	5	
493	FILL	P	492		52	GP5	5	

Context	Context Type	Feature Type	Parent Context	Sample	Subgroup	Group	Provisional Period	Provisional Phase
494	CUT	P			53	GP6	5	
495	FILL	P	494		53	GP6	5	
496	CUT	P			54	GP6	5	
497	FILL	P	496		54	GP6	5	
498	CUT	P			55	GP6	5	
499	FILL	P	498		55	GP6	5	
500	CUT	P			56	GP6	5	
501	FILL	P	500		56	GP6	5	
502	CUT	P			57	GP6	5	
503	FILL	P	502		57	GP6	5	
504	CUT	P			58	GP6	5	
505	FILL	P	504		58	GP6	5	
506	CUT	P			59	GP6	5	
507	FILL	P	506		59	GP6	5	
508	CUT	P			60	GP6	5	
509	FILL	P	508		60	GP6	5	
510	CUT	P			61	GP5	5	
511	FILL	P	510		61	GP5	5	
512	CUT	P			62	GP6	5	
513	FILL	P	512		62	GP6	5	
514	CUT	P			63	GP6	5	
515	FILL	P	514		63	GP6	5	
516	CUT	P			64	GP6	5	
517	FILL	P	516		64	GP6	5	

Context	Context Type	Feature Type	Parent Context	Sample	Subgroup	Group	Provisional Period	Provisional Phase
518	CUT	P			65	GP6	5	
519	FILL	P	518		65	GP6	5	
520	CUT	P			66	GP3	4	2
521	FILL	P	520		66	GP3	4	2
522	FILL	P	520		66	GP3	4	2
523	CUT	P			67	GP5	5	
524	FILL	P	523		67	GP5	5	
525	CUT	D			68	D7	3	1
526	FILL	D	525		69	D7	3	1
527	CUT	D			70	D8	3	1
528	FILL	D	527		71	D8	3	1
529	CUT	P			72	GP3	4	2
530	FILL	P	529		72	GP3	4	2
531	CUT	D			73	D9	4	2
532	FILL	D	531		74	D9	4	2
533	CUT	D			75	D10	3	1
534	FILL	D	533		76	D10	3	1
535	CUT	CR			77	GP2	2	
536	FILL	CR	535	1044	77	GP2	2	
537	CUT	P			78	GP2	2	
538	FILL	P	537	1043	78	GP2	2	
539	CUT	P			79	GP2	2	
540	FILL	P	539	1042	79	GP2	2	
541	CUT	P			80	GP2	2	

Context	Context Type	Feature Type	Parent Context	Sample	Subgroup	Group	Provisional Period	Provisional Phase
542	FILL	P	541		80	GP2	2	
543	CUT	CR			81	GP2	2	
544	FILL	CR	543		81	GP2	2	
545	CUT	P			82	GP5	5	
546	FILL	P	545		82	GP5	5	
547	CUT	P			83	GP3	4	2
548	FILL	P	547		83	GP3	4	2
549	CUT	P			84	D11	4	2
550	FILL	P	549		84	D11	4	2
551	CUT	P			85	GP3	4	2
552	FILL	P	551		85	GP3	4	2
553	CUT	P			86	GP3	4	2
554	FILL	P	553		86	GP3	4	2
555	CUT	P			87	GP3	4	2
556	FILL	P	555		87	GP3	4	2
557	CUT	D			88	D7	3	1
558	FILL	D	557		89	D7	3	1
559	CUT	D			90	D10	3	1
560	FILL	D	559		91	D10	3	1
561	CUT	D			92	D12	3	1
562	FILL	D	561		93	D12	3	1
563	CUT	D			94	D10	3	1
564	FILL	D	563		95	D10	3	1
565	CUT	D			96	D8	3	1

Context	Context Type	Feature Type	Parent Context	Sample	Subgroup	Group	Provisional Period	Provisional Phase
566	FILL	D	565		97	D8	3	1
567	CUT	D			98	GP4	4	2
568	FILL	D	567		99	GP4	4	2
569	CUT	D			100	D3	3	2
570	FILL	D	569		101	D3	3	2
571	CUT	D			102	D8	3	1
572	FILL	D	571		103	D8	3	1
573	CUT	P			104	GP5	5	
574	FILL	P	573		105	GP5	5	
575	CUT	D			106	D3	3	2
576	FILL	D	575		107	D3	3	2
577	CUT	D			108	D7	3	1
578	FILL	D	577		109	D7	3	1
579	CUT	P			110	GP5	5	
580	FILL	P	579		110	GP5	5	
581	CUT	D			111	D3	3	2
582	FILL	D	581		112	D3	3	2
583	CUT	P			113	GP6	5	
584	FILL	P	583		113	GP6	5	
585	CUT	P			114	GP6	5	
586	FILL	P	585		114	GP6	5	
587	CUT	D			115	D13	3	2
588	FILL	D	587		116	D13	3	2
589	CUT	D			117	D7	3	1

Context	Context Type	Feature Type	Parent Context	Sample	Subgroup	Group	Provisional Period	Provisional Phase
590	FILL	D	589		118	D7	3	1
591	CUT	D			119	D5	4	2
592	FILL	D	591		120	D5	4	2
593	CUT	D			121	D9	4	2
594	FILL	D	593		122	D9	4	2
595	CUT	P			123	GP6	5	
596	FILL	P	595		123	GP6	5	
597	CUT	D			124	D5	4	2
598	FILL	D	597		125	D5	4	2
599	CUT	D			126	D9	4	2
600	FILL	D	599		127	D9	4	2
601	CUT	D			128	D13	3	2
602	FILL	D	601		129	D13	3	2
603	CUT	D			130	D13	3	2
604	FILL	D	603		131	D13	3	2
605	CUT	D			132	D9	4	2
606	FILL	D	605		133	D9	4	2
607	CUT	D			134	D4	4	1
608	FILL	D	607		135	D4	4	1
609	CUT	D			136	D4	4	1
610	FILL	D	609		137	D4	4	1
611	CUT	D			138	D5	4	2
612	FILL	D	611		139	D5	4	2
613	CUT	D			140	D13	3	2

Context	Context Type	Feature Type	Parent Context	Sample	Subgroup	Group	Provisional Period	Provisional Phase
614	FILL	D	613		141	D13	3	2
615	CUT	D			142	D2	4	2
616	FILL	D	615		143	D2	4	2

Appendix 2 Quantification of Bulk Finds

Context	Pot	Wt (g)	CBM	Wt (g)	Bone	Wt (g)	Rubber	Wt (g)	Flint	Wt (g)	FCF	Wt (g)	Stone	Wt (g)	Iron	Wt (g)	Clinker	Wt (g)	Glass	Wt (g)	Slag	Wt (g)	Copper	Wt (g)	CTP	Wt (g)	Mortar	Wt (g)
400	3	34							14	288									1	2			2	8				
400									18	318															1	2		
406									1	2																		
422											3	82																
427																									2	2		
431														1	54	1	6						1	8				
440			2	40										3	16												1	22
443	186	990							124	712			1	4														
451	12	68							20	620			1	4														
451	6	22							31	494																		
477	6	120	8	138	8	50			6	488				7	44						2	98						
532			5	26																								
538									1	76																		
544	61	2780																										
550	39	1850	1	6			1	22						6	90			24	494	1	92							
552			1	48										1	4													
568														1	16													
612			2	1968	1	112																						
Total	313	5864	19	2226	9	162	1	22	215	2998	3	82	2	8	19	224	1	6	25	496	3	190	3	16	3	4	1	22

APPENDIX 3: HER Summary

Site Code	CHA 07				
Identification Name and Address	Charring Quarry (Phase 4A), Hook Lane, Charing				
County, District &/or Borough	Ashford Borough, Kent				
OS Grid Refs.	593650 148980				
Geology	Folkestone Formation (Sandstone)				
Arch. South-East Project Number	2800				
Type of Fieldwork		Excav. ✓			
Type of Site	Green Field ✓				
Dates of Fieldwork		Excav. 30.04.2014 – 21.05.2014			
Sponsor/Client	Brett Aggregates Ltd.				
Project Manager	Paul Mason				
Project Supervisor	Simon Stevens				
Period Summary			Neo. ✓	BA ✓	
		MED ✓	PM ✓		
<p>Site Summary</p> <p>The earliest material encountered was a limited assemblage of possible Mesolithic flintwork recovered from later deposits. The first evidence of in situ activity was of two Early Neolithic pits containing assemblages of pottery and flintwork.</p> <p>The next firmly datable episode of activity at the site consisted of the creation of a small Early Bronze Age cremation cemetery. Encountered features consisted of one urned and one unurned cremation with associated pits containing pyre debris. It appears that the remains of one adult individual were placed in each of the funerary deposits.</p> <p>A group of gullies presenting two phases of medieval land division was also recorded. No datable material was recovered from the current site, although the gullies clearly form the continuation of a medieval field system encountered in an adjacent previously excavated area. In addition medieval coin was recovered from the topsoil.</p> <p>Post-medieval features included infilled irregular ditches probably the result of the removal of hedgelines in the relatively recent past, as well as a small number of pits, and square post-holes interpreted as the bases of hop poles.</p>					

APPENDIX 4: OASIS Form

OASIS ID: archaeol6-195608

Project details

Project name	Charing Quarry (Area 4a)
Short description of the project	Archaeology South-East (ASE) was commissioned by Bretts Aggregates Ltd. to undertake an archaeological excavation at Charing Quarry, Hook Lane, Charing, Kent (Area 4a). The archaeological work was undertaken during February and March 2014. The earliest material encountered was a limited assemblage of possible Mesolithic flintwork recovered from later deposits. The first evidence of traceable alterations to the landscape were two Early Neolithic pits containing assemblages of pottery and flintwork. The next firmly datable episode of activity at the site consisted of the creation of a small Early Bronze Age cremation cemetery. Encountered features consisted of one urned and one unurned cremation with associated pits containing pyre debris. A group of gullies presenting two phases of medieval land division was also recorded. No datable material was recovered from the current site, although the gullies clearly form the continuation of a medieval field system encountered in an adjacent, previously excavated area of the quarry. In addition a medieval jeton was recovered from the topsoil. Post-medieval features included infilled irregular ditches as well as a small number of pits, and square post-holes interpreted as the bases of hop poles.
Project dates	Start: 30-04-2014 End: 21-05-2014
Previous/future work	Yes / No
Any associated project reference codes	2800 - Contracting Unit No.
Any associated project reference codes	CHA07 - Sitecode
Any associated project reference codes	AS/96/933 - Planning Application No.
Type of project	Recording project
Site status	None
Current Land use	Industry and Commerce 5 - Mineral extraction
Monument type	PITS Early Neolithic

Monument type	URNED CREMATION Early Bronze Age
Monument type	UNURNED CREMATION Early Bronze Age
Monument type	DITCHES Medieval
Monument type	DITCHES Post Medieval
Significant Finds	POTTERY Early Neolithic
Significant Finds	POTTERY Early Bronze Age
Significant Finds	CREMATED HUMAN BONE Early Bronze Age
Significant Finds	JETON Medieval
Investigation type	""Full excavation""
Prompt	Direction from Local Planning Authority - PPG16

Project location

Country	England
Site location	KENT ASHFORD CHARING Charing Quarry Area 4A
Postcode	TN27 0AN
Study area	7.70 Hectares
Site coordinates	TQ 93650 48980 51.206563082 0.772572661751 51 12 23 N 000 46 21 E Point

Project creators

Name of Organisation	Archaeology South-East
Project brief originator	Heritage Conservation Group at Kent County Council
Project design originator	Heritage Conservation Group at Kent County Council
Project director/manager	Paul Mason
Project supervisor	Simon Stevens
Type of sponsor/funding body	client
Name of sponsor/funding body	Brett Aggregates Ltd.

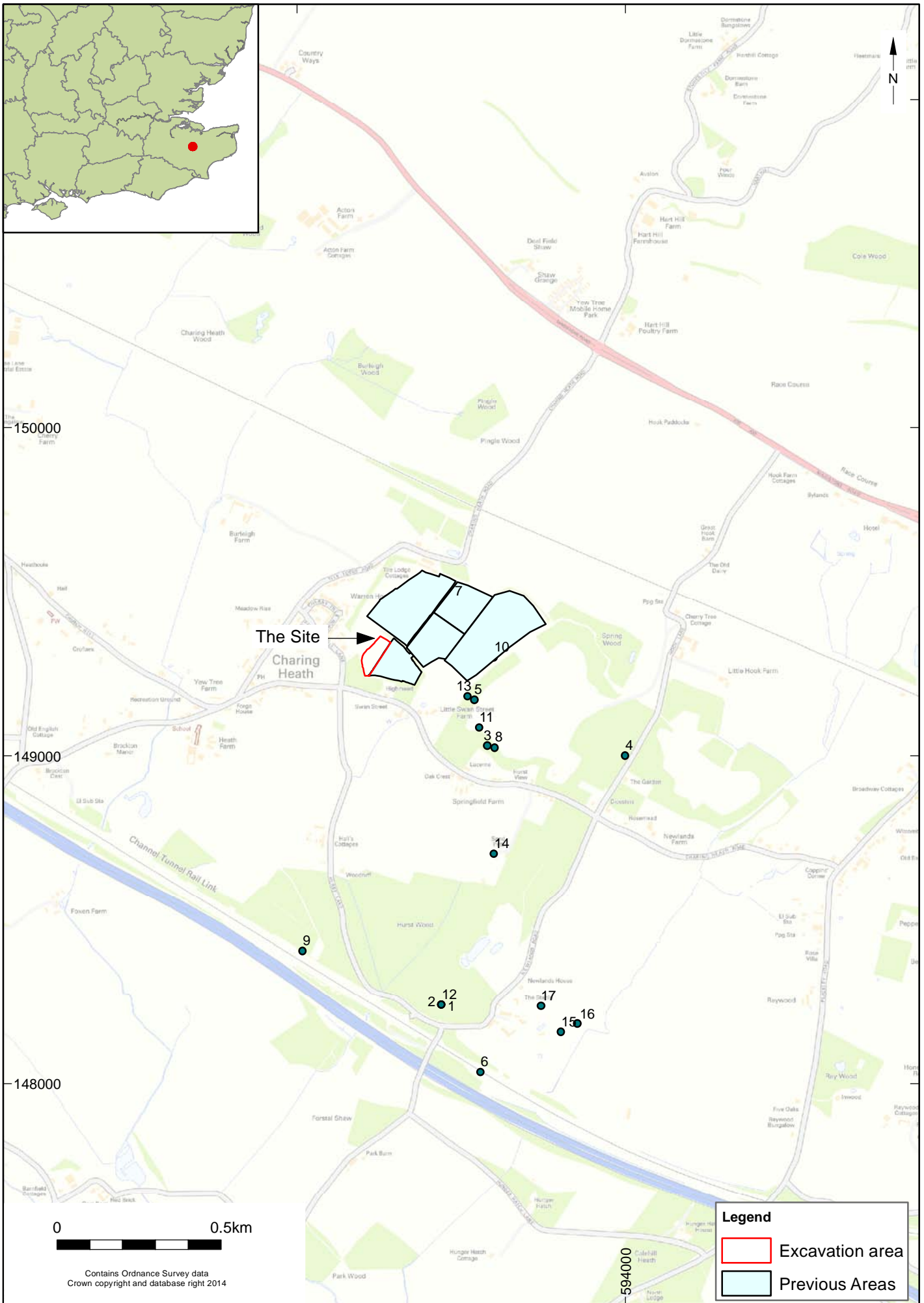
Project archives

Physical Archive recipient	Ashford Museum
Physical Contents	"Ceramics","Worked stone/lithics"
Digital Archive recipient	Ashford Museum
Digital Contents	"other"
Digital Media available	"Database","Images raster / digital photography","Survey","Text"
Paper Archive recipient	Ashford Museum
Paper Contents	"other"
Paper Media available	"Context sheet","Correspondence","Diary","Miscellaneous Material","Plan","Report","Unpublished Text"

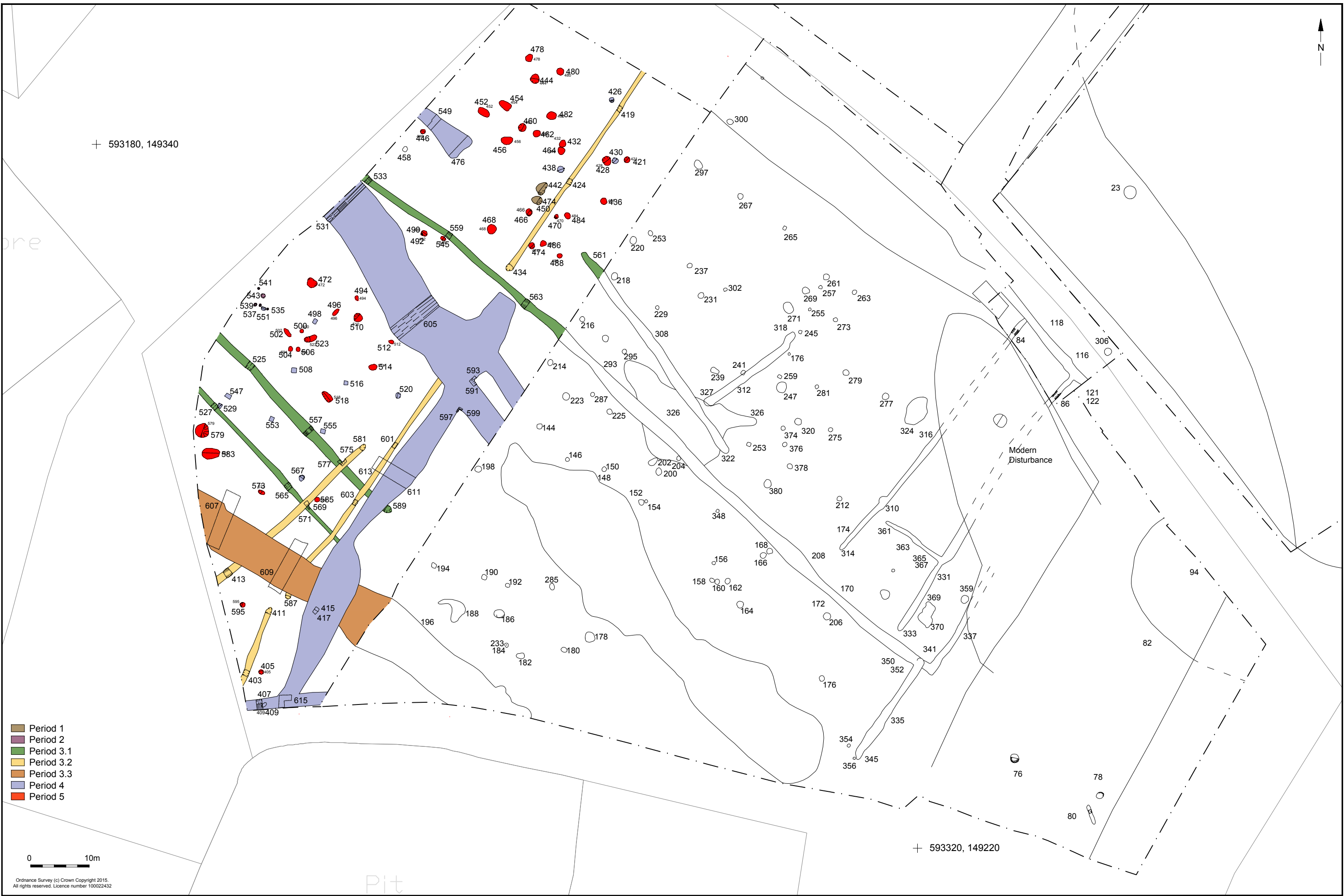
Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Post-Excavation Assessment and Updated Project Design - Charing Quarry, Hook Lane, Charing, Kent (Excavation Area 4A)
Author(s)/Editor(s)	Stevens, S.
Other bibliographic details	ASE Report No. 2014369
Date	2014
Issuer or publisher	Archaeology South-East
Place of issue or publication	Portslade, East Sussex
Description	ASE PXA and UPD document - A4-sized with cover logos

Entered by	d (d.swift@ucl.ac.uk)
Entered on	10 July 2015



© Archaeology South-East		Charing Quarry	Fig. 1
Project Ref: 2800	June 2015	Site location, study area and archaeological data	
Report Ref: 2014369	Drawn by: NG		



© Archaeology South-East		Charring Quarry		Fig. 2
Project Ref: 2800	May 2015	Site plan showing all features and adjacent excavation area		
Report Ref: 2014369	Drawn by: RHC			

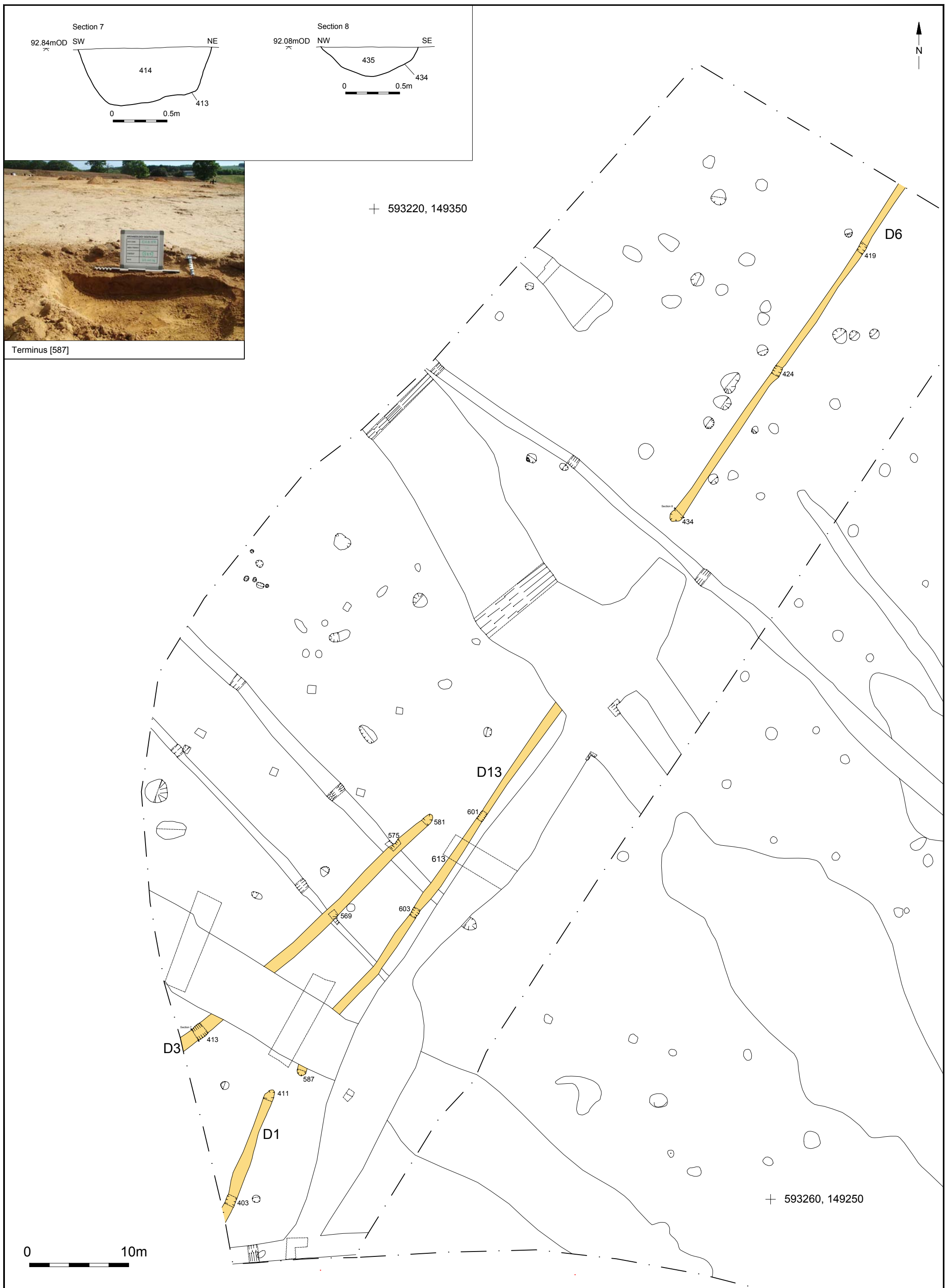


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Project Ref: 2800	May 2015	Period 1: Early Neolithic - plan and sections	
Report Ref: 2014369	Drawn by: RHC		

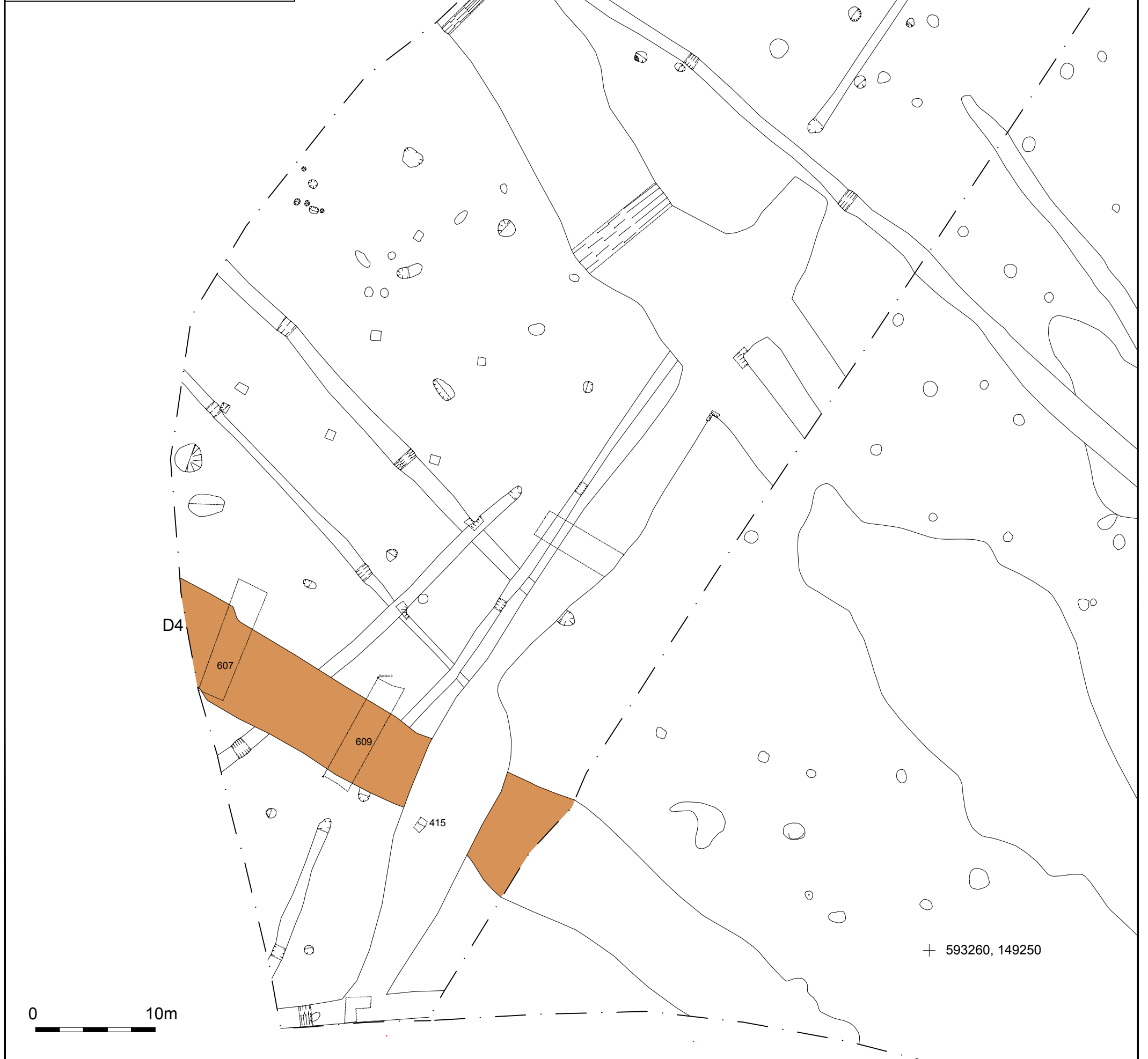
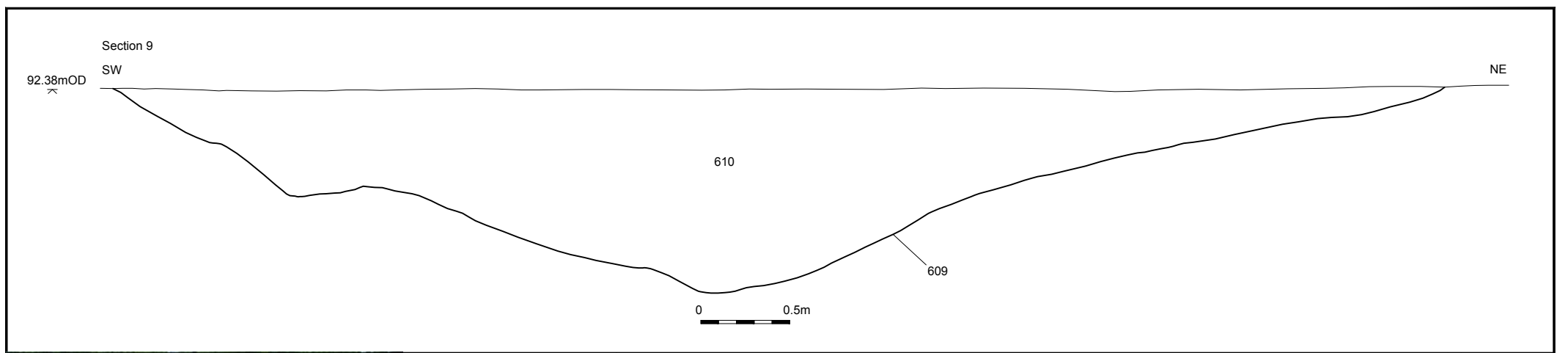




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Project Ref: 2800	May 2015	Period 3.1: Medieval - plan, sections and photograph	
Report Ref: 2014369	Drawn by: RHC		



© Archaeology South-East		Charing Quarry	Fig. 6
Project Ref: 2800	May 2015	Period 3.2: Medieval - plan, sections and photograph	
Report Ref: 2014369	Drawn by: RHC		



© Archaeology South-East		Charing Quarry	Fig. 7
Project Ref: 2800	May 2015	Period 3.3: later-medieval - plan, section and photograph	
Report Ref: 2014369	Drawn by: RHC		





○ Group 5 - excavated
● Group 6 - unexcavated

0 10m

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Project Ref: 2800 May 2015
 Report Ref: 2014369 Drawn by: RHC

Charing Quarry

Period 5: Undated

Fig. 9

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