

# Land at Burleigh Farm, Tile Lodge Road, Charing Heath Kent TN27 0BX

Archaeological strip, map and monitoring and set-piece excavation  
Phase 1

Post-excavation assessment report

Project Code: BFCH EX 16

Planning Ref: AS/15/206 (KCC/AS/0040/2015)

Client: Brett Aggregates Limited

NGR: 592808 149924

Report No: 2018/27

Archive No: 3862

Prepared by: Tania Wilson and Richard Helm

February 2018

## Document Record

This report has been issued and amended as follows:

Version	Approved by	Position	Comment	Date
1	Jane Elder	Publications Officer		28/02/2018
2	Richard Helm	Senior Project Manager	Incorporated changes requested by Andrew Joseph Associates	15/06/2018

## Conditions of Release

This document has been prepared for the titled project, or named part thereof, and should not be relied on or used for any other project without an independent check being carried out as to its suitability and prior written authority of Canterbury Archaeological Trust Ltd being obtained. Canterbury Archaeological Trust Ltd accepts no responsibility or liability for this document to any party other than the person by whom it was commissioned. This document has been produced for the purpose of assessment and evaluation only. To the extent that this report is based on information supplied by other parties, Canterbury Archaeological Trust Ltd accepts no liability for any loss or damage suffered by the client, whether contractual or otherwise, stemming from any conclusions based on data supplied by parties other than Canterbury Archaeological Trust Ltd and used by Canterbury Archaeological Trust Ltd in preparing this report. This report must not be altered, truncated, précised or added to except by way of addendum and/or errata authorized and executed by Canterbury Archaeological Trust Ltd.

All rights including translation, reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means electronic, mechanical, photocopying, recording or otherwise without the prior written permission of Canterbury Archaeological Trust Limited

## Canterbury Archaeological Trust Limited

92a Broad Street · Canterbury · Kent · CT1 2LU

Tel +44 (0)1227 462062 · Fax +44 (0)1227 784724 · email: admin@canterburytrust.co.uk

www.canterburytrust.co.uk



# Contents

Acknowledgements .....	v
Summary .....	vi
Summary .....	vi
1 Introduction .....	1
1.1 Project background.....	1
1.2 Planning background .....	1
1.3 Location, topography and geology .....	1
2 Heritage setting.....	3
2.1 Conservation Area .....	3
2.2 Designated Heritage Assets .....	3
2.3 Archaeological events.....	3
2.4 Archaeological potential .....	3
3 Project objectives and methodology .....	5
3.2 Objectives .....	5
3.3 Methodology .....	5
3.4 Health, safety and welfare.....	6
4 Project Archive .....	7
4.1 Archive status .....	7
4.2 Fieldwork records .....	7
4.3 Bulk finds .....	7
4.4 Registered finds .....	8
4.5 Environmental .....	9
5 Group descriptions (Tania Wilson).....	10
5.1 Overview .....	10
5.2 P1 Prehistoric (c 9000–120 BC).....	10
5.3 P2 Late Iron Age/Roman transition (c 120 BC–AD 43).....	13
5.4 P3 Roman (c AD 43–410) .....	14
5.5 P4 Medieval (c AD 1050–1550).....	19
5.6 P5 Post-medieval and modern (c AD 1550–present).....	20
5.7 P6 Unphased.....	23
6 Geoarchaeology (Peter Allen) .....	25
6.1 Geology and topography .....	25
6.2 Regional geological setting .....	25
6.3 Site geology.....	25
6.4 Chronology.....	26
6.5 Artefactual potential.....	27
7 Worked flint (Rebecca Devaney).....	28
7.1 Introduction .....	28
7.2 Methodology .....	28
7.3 Provenance .....	28
7.4 Assessment of assemblage .....	29
7.5 Statement of potential and recommendations for further work .....	31
8 Prehistoric pottery (Barbara McNee).....	32
8.1 Introduction .....	32
8.2 Methodology .....	32
8.3 Quantification .....	32
8.4 Fabrics.....	33
8.5 Forms, surface treatments, decoration and usewear .....	33
8.6 Discussion .....	33
8.7 Conservation.....	34
8.8 Statement of potential .....	34
8.9 Recommendations for further work.....	34
9 Late Iron Age and Roman pottery (Malcolm Lyne) .....	35

9.1	Introduction .....	35
9.2	Methodology .....	35
9.3	Fabrics.....	35
9.4	The Assemblages .....	36
9.5	Recommendations for further work.....	37
10	Post-Roman pottery (Luke Barber) .....	40
10.1	Assemblage summary.....	40
10.2	Periods and fabrics .....	40
10.3	Statement of potential .....	41
10.4	Recommendations for further work.....	41
11	Clay tobacco pipes (Luke Barber).....	42
11.1	Assemblage summary.....	42
11.2	Statement of potential .....	42
11.3	Recommendations for further work.....	42
12	Ceramic building materials (Luke Barber) .....	43
12.1	Introduction.....	43
12.2	Daub/burnt clay.....	43
12.3	Roman tile.....	44
12.4	Medieval roof tile .....	44
12.5	Post-medieval brick .....	44
12.6	Post-medieval roof tile .....	44
12.7	Statement of potential .....	44
12.8	Recommendations for further work.....	44
13	Geological material (Luke Barber).....	45
13.1	Introduction .....	45
13.2	P1 prehistoric.....	45
13.3	P2 late Iron Age to early Roman .....	45
13.4	P3 Roman.....	45
13.5	Phase 5 Post-medieval/modern .....	46
13.6	Phase 6 Unphased .....	46
13.7	Statement of potential .....	46
13.8	Recommendations for further work.....	46
14	Metallurgical remains (Luke Barber).....	47
14.1	Introduction .....	47
14.2	P1 prehistoric.....	47
14.3	P2 late Iron Age to early Roman .....	47
14.4	P3 Roman.....	47
14.5	P4 medieval, P5 post-medieval to modern, and P6 undated .....	48
14.6	Statement of potential .....	48
14.7	Recommendations for further work.....	48
15	Registered finds (Andrew Richardson).....	49
15.1	Introduction .....	49
15.2	Quantification.....	49
15.3	Discussion of finds by material .....	49
15.4	Statement of potential .....	52
15.5	Recommendations for further work.....	52
16	Animal bone (Ian Smith).....	53
16.1	Introduction and methodology.....	53
16.2	Dating/phasing .....	53
16.3	Results .....	53
16.4	Statement of potential .....	55
16.5	Recommendations for further work.....	55
17	Charred plant remains (Wendy Carruthers).....	56
17.1	Introduction .....	56
17.2	Methods.....	56
17.3	Results .....	56

17.4	The quantity and quality of charred plant material.....	56
17.5	Brief descriptions of the assemblages by phase.....	57
17.6	Comparisons with other sites.....	58
17.7	Recommendations for further work.....	58
18	Statement of archaeological potential.....	64
18.1	Summary of archaeological results.....	64
18.2	Significance of the data.....	66
18.3	Project Research Design.....	67
18.4	Proposed tasks.....	68
18.5	Project output.....	68
18.6	OASIS Record.....	68
18.7	Archive storage and curation.....	68
	References.....	70
	Appendix 1. OASIS Record.....	73

## List of tables

Table 1.	Fieldwork records.....	7
Table 2.	Bulk finds.....	7
Table 3.	Registered finds.....	8
Table 4.	Summary of geological units (based on Worssam 1963).....	25
Table 5.	Summary of worked and burnt unworked flint by type.....	28
Table 6.	Summary of pottery by ceramic phase.....	32
Table 7.	Quantification and breakdown of the assemblage by context.....	32
Table 8.	Summary of Phase 3 Early Roman pottery assemblage.....	36
Table 9.	Late Iron Age and Roman pottery catalogue.....	37
Table 10.	Characterisation of pottery assemblage by period.....	40
Table 11.	Clay tobacco pipe assemblage.....	42
Table 12.	Breakdown of the ceramic building material assemblage.....	43
Table 13.	Ceramic Building Material fabrics.....	43
Table 14.	Summary of stone assemblage by phase.....	45
Table 15.	Summary of slag assemblage by phase.....	47
Table 16.	Quantitative summary of registered finds.....	49
Table 17.	Roman coins.....	50
Table 18.	Identifications of taxa by phase, number of identified specimens (NISP), minimum numbers of elements (MNE), fusion states, tooth rows and number of burnt specimens.....	54
Table 19.	Equid mandibular third molar measurements from phase 3 (Roman) context (1484).....	55
Table 20.	Summary of processed soil samples.....	60
Table 21.	Levels of archaeological significance.....	66
Table 22.	Summary of potential archaeological significance of stratigraphic narrative by phase.....	66
Table 23.	Summary of potential archaeological significance of excavated materials.....	67
Table 24.	Summary of proposed analysis tasks.....	68

## List of plates

Plate 1.	UAV aerial view of PEA looking E (credit: Atec-3D).....	77
Plate 2.	Sample excavation in progress, looking W.....	77
Plate 3.	P1 G1 burnt flint deposit S1705, looking N (scale 2m).....	78
Plate 4.	P1 G1 burnt deposit S1733, looking SE (scale 0.5m).....	78
Plate 5.	P1 G2 Pits S1647, S1649, S1668, S1655 containing burnt flint assemblage, looking SE (scale 1m) ..	79
Plate 6.	P1 G26 miscellaneous feature S1454 and post-hole S1442, potentially representing a SFB, looking NE (scale 1m).....	79
Plate 7.	P2 G17 pit S3032 showing rich charcoal content, looking E (scale 1m).....	80
Plate 8.	P2 G55 miscellaneous feature S1234, looking NW (scale 1m).....	80
Plate 9.	P3 ditch G14 S1703 showing iron smelting debris, looking NE (scale 1m).....	81
Plate 10.	P3 G14 ditch S1666, looking NW. Note truncated P1 G3 ditch S1685 visible in sides of cut (scale 1m).....	81
Plate 11.	P3 G30 ditch S1326, looking E (scale 0.5m).....	82

Plate 12.	P3 G31 ditch S1490, looking SE (scale 1m) .....	82
Plate 13.	P3 G22.1 pit S1059 with placed deposit, looking W (scale 0.1m).....	83
Plate 14.	P3 G22.2 pit S1224 with placed deposit, looking SE (scale 1m) .....	83
Plate 15.	P3 G56 limekiln furnace chamber S1314 showing Ragstone rubble infill, looking W (scale 1m) .....	84
Plate 16.	P3 G56 limekiln, section through in situ deposits in firing chamber S1314, looking NE (scale 1m) ..	84
Plate 17.	P3 G56 limekiln section through stoke-pit, flue and furnace chamber, looking N (No scale) .....	85
Plate 18.	P3 G56 limekiln, looking NW (scale 2m) .....	85
Plate 19.	P4 G38 ditch S1036, looking NW (scale 2m).....	86
Plate 20.	P4 G38 ditch S1026 with Burleigh Chapel ruins in background, looking E (scale 1m).....	86
Plate 21.	Section through P5 G39 ditch S1109, G43 masonry gully S1089, and G42 metalled surface S1065 and S1088, looking NW (scale 1m) .....	87
Plate 22.	Detail of P5 G43 masonry gully S1089, looking N (scale 0.5m) .....	87
Plate 23.	General view of PEA during machine strip, east-side of Tile Lodge Road, looking N (No scale) .....	88
Plate 24.	P5 G52 Well S1609, looking SW (scale 1m) .....	88
Plate 25.	P5 G60 horticultural feature S1585, looking SE (scale 0.5m) .....	89
Plate 26.	P5 G63 miscellaneous feature S1606, looking NE (scale 1m).....	89
Plate 27.	UAV aerial mosaic of western PEA (credit: Atec-3D).....	90
Plate 28.	Example of Head Gravel (scale 0.5m intervals) .....	90
Plate 29.	Example of fine Head Gravel (scale 0.5m intervals) .....	91
Plate 30.	Head Gravel load structure (scale 0.5m intervals).....	91
Plate 31.	Head Gravel, circular patch (scale 0.5m intervals) .....	92
Plate 32.	Head Gravel, linear examples (scale 0.5m intervals).....	92
Plate 33.	Geological stratification on west side of central ridge .....	93
Plate 34.	Detail showing red-brown Head Brickearth (scale 0.5m intervals) .....	93
Plate 35.	Detail showing grey-brown Head Brickearth (scale 0.5m intervals).....	94
Plate 36.	Structure of Head Gravel overlain by Head Brickearth (scale 0.5m intervals) .....	94
Plate 37.	Head Brickearth, northern area of PEA (scale 0.5m intervals) .....	95
Plate 38.	Folkestone Sands at crest of central ridge (scale 0.5m intervals) .....	95
Plate 39.	Section through Folkestone Sands at crest of central ridge (scale 0.5m intervals).....	96

## List of figures

Figure 1.	Site location plan (1:25,000@A4) .....	97
Figure 2.	Distribution of all archaeological features (1:4000@A4) .....	98
Figure 3.	Geological and topographic setting (1:2500@A4).....	99
Figure 4.	Geological and topographic setting (1:2500@A4).....	100
Figure 5.	P1 Prehistoric archaeological features (1:2500@A4) .....	101
Figure 6.	P1 Prehistoric archaeological features (1:2500@A4) .....	102
Figure 7.	P2 late Iron Age to Roman transition archaeological features (1:2500@A4).....	103
Figure 8.	P2 late Iron Age to Roman transition archaeological features (1:2500@A4).....	104
Figure 9.	P3 Roman archaeological features (1:2500@A4) .....	105
Figure 10.	P3 Roman archaeological features (1:2500@A4) .....	106
Figure 11.	P3 Roman G56 limekiln plan (1:200@A4) and sections (1:50@A4) .....	107
Figure 12.	P4 medieval archaeological features (1:2500@A4).....	108
Figure 13.	P4 medieval archaeological features (1:2500@A4).....	109
Figure 14.	P5 post-medieval to modern archaeological features (1:2500@A4) .....	110
Figure 15.	P5 post-medieval to modern archaeological features (1:2500@A4).....	111
Figure 16.	P6 undated archaeological features (1:2500@A4).....	112
Figure 17.	P6 undated archaeological features (1:2500@A4) .....	113
Figure 18.	Site topography (©Ordnance Survey) .....	114
Figure 19.	Site geology (©British Geological Survey) .....	115
Figure 20.	Late Devensian and Holocene temperature variation.....	116
Figure 21.	Late Devensian aeolian activity (after Baker et al 1998) .....	117

## Acknowledgments

Fieldwork was directed by Tania Wilson, Ross Lane and Damien Boden. Excavation was conducted by Ian Anderson, Kirsty Bone, Thierry Biot, George Carstairs, Matthew Charlwood, Isobel Curwen, Gareth Daws, Caitlin Godfrey, John Grigsby, Gordon Hutchinson, Julie Martin, Phil Mayne, Laura McArdle, Adrian Murphy, Adelina Teoca and Jess Twyman.

Digital survey was conducted by Paul Armour. A geoarchaeological site investigation was provided by Peter Allen. UAV aerial photography was conducted by Stuart Hards, Atec-3D.

Finds processing was carried out by Michele Johnson, Jacqui Mathews and Jo Stephenson. Environmental processing was carried out by Alex Vokes and managed by Enid Alison.

Post-excavation processing of site records was conducted by Tania Wilson.

Specialist finds assessments were undertaken by Luke Barber (post-Roman pottery, ceramic building materials, clay tobacco pipes, geological materials, metallurgical residues), Wendy Carruthers (charred plant remains), Rebecca Devaney (worked flint), Malcolm Lyne (late Iron Age and Roman pottery), Barbara McNee (prehistoric pottery), Andrew Richardson (registered finds), and Ian Smith (animal bone).

This report was compiled by Tania Wilson and Richard Helm. Report illustrations were by Peter Atkinson and Richard Helm.

The project was managed by Richard Helm.

Thanks are extended to the Kent Archaeological Metal Detector Support Unit (KAMSU) who undertook a metal detectorist survey following machine stripping and during the excavation works.

Brett Aggregates Limited provided logistical support during the site investigation works and Ovenden Earthmoving operated all site plant during machine stripping.

Ian Meadows (Andrew Josephs Associates Limited) acted as Archaeological Consultant on behalf of Brett Aggregates Limited. The archaeological programme was monitored by Wendy Rogers, Senior Archaeological Officer, Heritage and Conservation Group, Kent County Council.

## Summary

An archaeological strip, map and sample excavation of an area 7.66ha was conducted between 6 September and 2 December 2016 on land at Burleigh Farm, Tile Lodge Road, Charing Heath, Kent TN27 0BX (NGR 592808 149924). The work was commissioned by Andrew Joseph Associates on behalf of Brett Aggregates Limited, in response to Phase 1 of a permitted extension of Charing Quarry. The permitted extension area had been subjected to geophysical survey (Archaeophysica 2013), fieldwalking (TVAS 2013a), evaluation (AJA 2013a; TVAS 2013b), and a cultural heritage and historic landscape assessment (AJA 2015b; 2015c).

Archaeological remains spanning the prehistoric to post-medieval/modern periods were recorded across the investigated area.

Prehistoric activity comprised an assemblage of late Mesolithic worked flint with potential associated occupation, and early to mid Neolithic, late Bronze Age to early Iron Age, and mid to late Iron Age features, including ditches, pits and a potential sunken-featured building, as well as a probable plough-damaged Bronze Age hoard.

Late Iron Age to early Roman activity comprised a boundary ditch and track or drove-way, charcoal rich pits and a large sub-rectangular feature. During the early Roman period these features were superseded by new boundary ditches and an associated track or drove-way, along with post-holes, refuse pits, and a limekiln. Placed deposits within some pits, evidence for iron smelting, and a plough-damaged coin hoard (dated AD 64-85) were also recorded.

Roman activity did not appear to date later than the mid second century AD, and a hiatus in archaeological features continued until the early thirteenth century AD, represented by a sequence of boundary ditches which formed the west-side of a rectangular enclosure surrounding a contemporary farm and adjacent chantry chapel, the remains of which still survive today.

Post-medieval to modern features reflected a general continuity from the medieval land use, and included former field boundary ditches illustrated on a manorial map dated 1639, pits, post-holes, a masonry footing or drain, and a metalled yard associated with the chantry farm. To the east, contemporary activity, including a brick-lined well, and horticultural pits, represented activity fronting Tile Lodge Road.

The Phase 1 archaeological investigation demonstrated that the recovered data has the potential to contribute to the local heritage setting, and that the late Mesolithic and early Roman activity, particularly the limekiln, also have the potential to contribute to wider regional and perhaps national research agendas.

# 1 Introduction

## 1.1 Project background

- 1.1.1 A programme of archaeological investigation comprising a strip, map and sample monitoring and 'set-piece' excavation was carried out between 6 September and 2 December 2016 by the Canterbury Archaeological Trust (CAT) on land at Burleigh Farm, Tile Lodge Road, Charing Heath, Kent TN27 OBX (centred NGR 592808 149924; Fig 1).
- 1.1.2 The archaeological investigation was commissioned by Andrew Josephs Associates (AJA) on behalf of their client Brett Aggregates Limited, in response to a permitted extension area (PEA) of Charing Quarry.
- 1.1.3 The archaeological works followed a written scheme of investigation (WSI) submitted by CAT and approved by Kent County Council (CAT 2016a).
- 1.1.4 The present archaeological investigation relates to Phase 1 of the PEA and associated infrastructure works, comprising a proposed conveyor system and car parking area, only.

## 1.2 Planning background

- 1.2.1 The archaeological investigation was undertaken in response to a planning permission submitted to Ashford Borough Council for the extraction of sand from Burleigh Farm with a conveyor to a plant site at Charing Quarry (planning reference AS/15/00206) and delegated to Kent County Council (planning reference KCC/AS/0040/2015).
- 1.2.2 Approval of the scheme, dated 04/05/2016, was granted by KCC subject to a condition for the inclusion of a programme of archaeological work (condition no. 44).

44 No development shall take place until a written specification and timetable for a programme of archaeological work has been submitted to and approved in writing by the Mineral Planning Authority. The written specification, timetable and programme shall be implemented as approved.

REASON: To ensure that features of archaeological interest are properly examined and recorded.

- 1.2.3 In accordance with this condition, a written scheme of investigation (WSI) for a programme of archaeological works comprising strip, map and sample excavation and a 'set-piece' excavation was prepared by CAT on behalf of AJA (CAT 2016a).
- 1.2.4 The archaeological works were monitored by Wendy Rogers, Senior Archaeological Officer, Heritage Conservation, Environment Planning and Enforcement at Kent County Council, and by the client's archaeological consultant, Ian Meadows, AJA.

## 1.3 Location, topography and geology

- 1.3.1 The PEA is located approximately 1km to the west of Charing and 1km to the south of the A20 Maidstone Road. The site is bounded to the north by the Maidstone–Ashford mainline railway embankment, by Tile Lodge Road and the existing quarry to the east, open fields to the west and by a stream and Burleigh Farm Lane to the south.
- 1.3.2 The PEA comprises about 21ha of arable land to the north-west of Charing Heath (where sand extraction and processing would take place) and 4ha of land both within Charing Quarry (where plant, weighbridge, office and haul road would be located) and between the two areas (where a conveyor would connect the two sites under Tile Lodge Road). Within this area approximately 7.66ha were investigated (Plate 1, Fig 2).
- 1.3.3 The underlying geology is mapped as Folkestone Formation Sand overlain in places by Head deposits of silt, sand and gravel (NERC 2016; Fig 3–4). Alluvial deposits associated with a shallow stream lie adjacent to the western and south-western sides of the PEA.
- 1.3.4 The investigation area formed an irregular shaped plot of land, the main block of which lay on the western side of the PEA and totalled 6,3535.87m<sup>2</sup>. The route of the proposed conveyor extended along the northern limit of the PEA for some 430m before turning south to cross the PEA before turning again

to extend east to cross Tile Lodge Road, and totalled 9,757.7m<sup>2</sup>. To the east of Tile Lodge Road, the continuation of the conveyor route and a proposed car parking area measured 3,311m<sup>2</sup>.

- 1.3.5 The investigation area gently undulates in a general east to west direction with an overall change in levels of about 15m (Fig 3–4). Levels are about 102m above Ordnance Datum (AOD) in the north-east and 87m AOD in the south-west. The majority of the surrounding land is undulating and in arable use with woodland blocks.

## 2 Heritage setting

### 2.1 Conservation Area

2.1.1 The PEA does not lie within or adjacent to any Conservation Area.

### 2.2 Designated Heritage Assets

2.2.1 No nationally designated heritage assets are located within the bounds of the PEA.

2.2.2 Two Grade II listed structures are situated adjacent to the PEA. These comprise a medieval chapel (Historic England List Entry No. 1299329), and a post-medieval farmhouse at Burleigh Farm (Historic England List Entry No. 1299325). There are several further listed buildings in the settlement of Charing Heath, which are topographically distant from the PEA with no visual connection and will not be impacted.

### 2.3 Archaeological events

2.3.1 Previous archaeological events conducted within the PEA comprise a field-walking survey (TVAS 2013a), geophysical survey (Archaeophysica 2013) and archaeological evaluation (TVAS 2013b; AJA 2015a). The results of these works have been amalgamated and summarized in a cultural heritage assessment (AJA 2015b). A landscape archaeological assessment (AJA 2015c) and a conservation statement relating to the chapel remains within the PEA (Oxford Archaeology 2014) have also been undertaken.

### 2.4 Archaeological potential

2.4.1 The site is located within an area of known archaeological potential with field-walking (TVAS. 2013a), geophysical study (Archaeophysica 2013), archaeological evaluation (TVAS 2013b; AJA 2015a) previously undertaken and summarized within a cultural heritage assessment (AJA 2015b). The geophysical survey of the site was suggestive of heavy truncation by deep ploughing.

#### Prehistoric (9000–120 BC)

---

2.4.2 The earliest evidence for human activity in the vicinity of the PEA is formed by a few potential Mesolithic or early Neolithic flints (HER No. TQ94 NW273) recovered during field-walking of the site (HER No. EKE13252). The same survey also recovered other flints of Neolithic/early Bronze Age date. Subsequent evaluation identified a single pit on the eastern side of the site that was late Neolithic to early Bronze Age in date (AJA 2015b).

2.4.3 A single polished Neolithic stone axe was recovered from within an Iron Age ditch (HER No. TQ94 NW52) located within the existing quarry that lies to the south-east of the PEA. This find may be associated with further late Neolithic/early Bronze Age activity recovered in excavations between 1989 and 1995 within the same site, when over 200 flints of late Neolithic/early Bronze Age date along with three small sherds of possibly Bronze Age pottery were recorded (HER No. TQ94 NW54). More recently, Neolithic pits and Bronze Age cremation burials have been recorded at Charing Quarry.

#### Late Iron Age to Roman (120 BC–AD 410)

---

2.4.4 The results of the evaluation of the PEA recorded a single Romano-British feature, comprising a ditch in trench 29 (TVAS 2013b; AJA 2015b).

2.4.5 There has been some suggestion that the PEA lies within the area of a planned Romano-British landscape, remnants of which remained fossilised in the modern topography (see AJA 2015c). To examine this suggestion further, 5 additional archaeological trial trenches were excavated to investigate the north-south boundary in the eastern part of the PEA and two to the south in the proposed conveyor. These identified no features of Romano-British date, with the trenches cut along the north-south boundary identifying a hollow-way and metalled track-way of probable post-medieval origin (AJA 2015a).

2.4.6 The discovery of Iron Age pottery in the area has been recorded (HER No. TQ94 NW9). However, this record was felt to be unreliable during the desk-based appraisal (AJA 2015b). The remains of seven shallow pits containing burnt material, possibly either furnace bases or pyre pits, have been recorded

some 260m to the south-east of the PEA (HER No. TQ94 NW57), and further associated features were recorded in 2014. While containing burnt bone, charcoal, burnt flint and iron slag nothing datable was recovered, and the features were presumed to relate to nearby Iron Age/early Roman sites to the east. Activity identified in archaeological works undertaken in advance of extraction within the current quarry, comprised a late Iron Age/early Roman enclosure with associated field system dated to 50 BC to AD 150 (HER No. TQ94 NW53). This included two enclosures, 20m apart, of late pre-conquest Iron Age date, at least one of which had a square or rectangular form. Pottery from the ditches was dated to between AD 10 to AD 100. A group of three cremation burials was inserted into the infill of the square enclosure ditch during the later second century AD (HER No. TQ94 NW31).

- 2.4.7** Work in 1992 examined a severely plough-truncated settlement site comprising a spread of post-holes, ditches, gullies and pits along with two first-century cremation burials. The ditches divided into two groups with those lying east-west defining part of a field system and associated track, whilst the north-south examples defined further tracks or drove ways. The post-holes were interpreted as defining two possible structures and the pits were widely dispersed across the length of the site. The cremation burials were truncated by later cultivation, with only the bottom half of the vessels surviving.
- 2.4.8** Further work in 1995 revealed a continuation of the above activity (HER No. TQ94 NW53), including a triangular ditched-enclosure 40m by 10m by 32m within which lay a hearth in its own enclosing ditched compound. A group of twenty flint packed post-holes represented a four-post granary structure and four two-post structures. Pottery including Gallo-Belgic imports from between 50 BC to the post-conquest period was recovered. A subsequent watching brief recorded field system remains (HER No. TQ94 NW47), but the dating of these features was uncertain. However, the ditches were associated with a group of circular features which contained charcoal, burnt clay and a single sherd of Roman pottery.

#### Anglo-Saxon (c AD 410–1066)

---

- 2.4.9** No Anglo-Saxon activity has been identified in the vicinity of the PEA.

#### Medieval (c AD 1066–1540)

---

- 2.4.10** Burleigh Chapel (HER No. TQ94 SW135), thought to be medieval in origin and a Grade II listed building, lies 160m north of Burleigh Farm and immediately to the south of the PEA. Of potential thirteenth-century date, the building perhaps formed part of a small manorial chapel relating to the lost hamlet of Burleigh (Oxford Archaeology 2014). A sub-rectangular grave was identified during evaluation (TVAS 2013b; trench 111) and while undated, was thought to relate to the chapel (AJA 2015b). A curving ‘wall’ (TVAS 2013b, trench 25), of late medieval or early post-medieval date, appeared to correlate with the western field boundary to ‘Chappell Field’ shown on a map of 1639.
- 2.4.11** Field-walking of the site recovered eleven sherds of medieval pottery (TVAS 2013a) and further pottery was recovered at the interface of subsoil and natural during the second phase of evaluation (AJA 2015a).
- 2.4.12** Medieval features are recorded to the south and south-east of the PEA where field systems (HER Nos. TQ94 SW56; SW TQ94 SW286; TQ94 SW 287), a drove way (HER No. TQ94 NW288) and at least one sand pit (HER No. TQ94 NW55) have been identified. The sand pit comprised a single large and irregular feature within which the sand was extracted from linear entrenchments, the backfill produced pottery of thirteenth- to fourteenth-century date.

#### Post-medieval to modern (c AD 1540–present)

---

- 2.4.13** The post-medieval archaeology of the area reflects an agricultural landscape and comprises of farmsteads and agricultural fields.

## 3 Project objectives and methodology

3.1.1 The project followed the objectives and methodology set out in a WSI approved by KCC (CAT 2016a). Site investigation works comprised a strip, map and sample monitoring of the complete footprint of the Phase 1 extension area and a 'set-piece' excavation area located between the Phase 1 extension area and the west and north sides of an exclusion zone protecting the immediate area of Burleigh Chapel.

### 3.2 Objectives

3.2.1 The specific aims and objectives were set out in the WSI as follows:

3.2.2 The strip, map and sample monitoring and the set-piece excavation sought to:

- establish a broad phased plan of the archaeology revealed following the stripping of the site;
- provide a refined chronology of the archaeological phasing;
- investigate the function of remains and the activities taking place within and close to the site.

3.2.3 The aims of the investigations were (not exhaustively):

- to identify the nature of any prehistoric settlement activity on the site and how this may relate to remains to the south-east;
- to further investigate the possibility that Romano-British landscape elements survive in the modern topography;
- to identify any features or deposits that may relate to Burleigh Chapel or the lost hamlet of Burleigh;
- to include analysis of the spatial organisation of activities on the site through examination of the distribution of structures, and artefactual and environmental assemblages;
- to understand the character, form, function and date of any archaeological activities present on the site;
- to consider the site's geology and topography in terms of the activity encountered;
- to place any remains exposed in their wider setting and contribute to our understanding of the history of Charing;
- to contribute to the environmental and landscape history of the area; and
- to contribute to the objectives of the draft South East Regional Research Framework.

### 3.3 Methodology

3.3.1 The archaeological investigation was conducted in accordance with accepted professional standards as set out in the Chartered Institute for Archaeologists (CIfA), *Standard and guidance for archaeological excavation* (CIfA 2014). Canterbury Archaeological Trust is a registered organisation with the CIfA and conforms to their by-laws, standards and policy statements.

3.3.2 The archaeological works (Plate 2) comprised the removal of modern overburden using a 360° mechanical excavator fitted with a flat-bladed toothless ditching bucket. The overburden was reduced in 100–200mm spits under continuous archaeological supervision. All visible archaeological features and deposits were mapped and tied to the Ordnance Survey National Grid and Datum using a differential GPS (Leica Viva GS08) connected to Ordnance Survey correctional data in real time via live internet feed from Leica SmartNet. A positional accuracy of within  $\pm 50\text{mm}$  (3D) is anticipated using the ETRS89 to OSGB conversion via the OSTN02 projection and the OSGM Geoid.

3.3.3 All exposed archaeological features and deposits were hand cleaned, photographed, and mapped. Features and deposits were sample excavated to sufficiently characterise and date in accordance with the objectives of the WSI. Recording of contexts was undertaken using pro-forma CAT context recording sheets. Single-context and composite plans were hand drawn on A3 drafting film at a scale of 1:10 or 1:20 as appropriate. Sections were drawn at a scale of 1:10.

3.3.4 A full digital photographic record was produced and is currently held by CAT.

3.3.5 Artefacts were retrieved by context. Finds processing was undertaken concurrently with excavation to provide spot dating of significant contexts. Artefacts requiring conservation were stabilised during excavation.

3.3.6 Bulk soil samples were taken from archaeological deposits and features under advisement from a qualified environmental archaeologist, following on-site discussion of the date and quantity of artefacts and environmental evidence present.

### 3.4 Health, safety and welfare

3.4.1 Health, Safety and Welfare followed the Canterbury Archaeological Trust's *Company Policy and Procedural Manual for Health, Safety and Welfare* (2016b).

3.4.2 Site investigation works were conducted in accordance with a project specific Risk Assessment and Method Statement (RAMS) (CAT 2016c).

## 4 Project Archive

### 4.1 Archive status

- 4.1.1 The project archive has been prepared in accordance with *Management of Research Projects in the Historic Environment (MoRPHE), Project Planning Note 3: Archaeological Excavation* (Historic England 2008) and *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation* (AAF 2011).
- 4.1.2 The archive is presently held at the office of the Canterbury Archaeological Trust (92a Broad Street, Canterbury, Kent CT1 2LU).
- 4.1.3 A digital copy of the project archive has been compiled under the project name BFCH EX 16 using the CAT Integrated Archaeological Database (IADB), a secure password protected online resource available at: [http://iadb.canterburytrust.co.uk/portal\\_main.php?DB=CAT](http://iadb.canterburytrust.co.uk/portal_main.php?DB=CAT).

### 4.2 Fieldwork records

- 4.2.1 All fieldwork records have been collated and checked for consistency and a full digital copy made. A summary of the fieldwork records is presented in Table 1.

Table 1. *Fieldwork records*

Contents	Descriptions	Quantity/Comments
Primary context records	Context registers	43
	Context record sheets	963
Catalogue of drawings	Plan and section registers	16
Primary drawings	Plans/sections	351
Primary finds data	Registered finds record sheets	7
Catalogue of photographs	Digital photo record sheets	49 (2,070 images)
Primary environmental records	Soil sample sheets	178
	Soil sample register sheets	10

### 4.3 Bulk finds

- 4.3.1 The bulk finds assemblage comprised 372 records representing 4,422 objects with a total weight of 82,939g.
- 4.3.2 All the bulk finds have been processed and catalogued with reference numbers prefixed BF. A summary of the bulk finds assemblage is presented in Table 2. All the bulk finds have been retained as part of the project archive.

Table 2. *Bulk finds*

Material	Keywords	Quantity	Weight (g)
Pottery	Prehistoric	132	635
	Roman	1000	6537
	Post-Roman	23	312
	Unidentified	3	18
Ceramic	Tobacco Pipe	9	20
Ceramic Building Material	Brick (post-medieval)	8	2267
	Daub	36	270
	Tile (post-medieval)	108	3512
	Tile (medieval)	1	2
Flint	Tile (Roman)	1	76
	Burnt	658	15216
	Worked	2066	32417
Geological material	Stone	59	6718
Metallurgical remains	Hearth Lining	2	420
	Slag	90	13484
Bone	Animal	196	865
	Human	4	31

Material	Keywords	Quantity	Weight (g)
Wood	Charcoal	26	39
<b>Totals</b>		<b>4422</b>	<b>82939</b>

## 4.4 Registered finds

4.4.1 The registered finds assemblage comprised 624 records. Of these, 509 records related to worked flint, 4 records related to geological materials, and 3 records related to clay pipes, and these have been amalgamated with the bulk finds assemblage above (Table 2). The remaining 108 registered finds records represent 145 objects, with a total weight of 6,539g.

4.4.2 The registered finds assemblage has been fully catalogued with reference numbers prefixed with SF. The registered finds are summarised in Table 3.

Table 3. *Registered finds*

Material	Type	Count	Weight (g)
Copper Alloy	Ammunition	2	12
	Blade	1	18
	Brooch	1	14
	Buckle	1	2
	Button	2	5
	Coin	15	171
	Fitting	1	4
	Mixed Finds	6	11
	Mount	1	10
	Pendant	1	6
	Pin	1	3
	Ring	1	3
	Sheet	2	11
	Spear	1	36
	Strap End	1	13
	Tack	1	3
Glass	Unidentified	3	15
	Vessel	1	2
Iron	Window	1	4
	Bar	1	38
Iron	Blade	5	282
	Bolt	1	321
	Chain	1	27
	Fitting	2	961
	Hobnail	1	2
	Hook	1	14
	Horse Shoe	4	286
	Mixed Finds	2	73
	Nail	24	349
	Rod	3	407
	Unidentified	19	2444
Lead	Seal	1	2
	Sheet	1	3
	Unidentified	4	382
Silver	Weight	1	7
	Coin	5	8
Mixed metal	Pendant	1	0
	Unidentified	25	590
<b>Totals</b>		<b>145</b>	<b>6539</b>

4.4.3 All the registered finds have been retained as part of the overall project archive.

## 4.5 Environmental

- 4.5.1 A total of 179 general bulk soil samples for environmental analysis was recovered from a selection of all feature types representing approximately 2,900 litres of soil. Of these, 39 (22%) general bulk samples were processed to assess their potential to recover charred and mineralised plant remains, charcoal, micro fauna and other environmental indicators.

## 5 Group descriptions (Tania Wilson)

### 5.1 Overview

- 5.1.1 A total of 963 contexts were recorded. These have been combined into 427 sets (prefixed S), representing individual features, deposits or interventions. Feature types included ditches, gullies, linear features, pits, post-holes, a limekiln, and probable tree-throw hollows. Sets have been combined into 76 groups (prefixed G).
- 5.1.2 Summary group and set descriptions are presented below. Groups are ordered by chronological phase (prefixed P). A total of 5 phases have been defined, spanning the Prehistoric (P1), late Iron Age to early Roman (P2), Roman (P3), medieval (P4), and post-medieval periods (P5). Phasing was based on spot-dating of recovered artefacts and stratigraphic and morphological observations made in the field. Features that could not be attributed to a chronological phase have been categorised as undated (P6).

### 5.2 P1 Prehistoric (c 9000–120 BC)

- 5.2.1 Prehistoric features (Figs 5–6) comprised burnt flint deposits (G1), pits (G2, G13, G19, G20), ditches (G3, G5, G71), linear features (G25, G54, G67), and miscellaneous features (G26, G29).

#### G1 Burnt flint deposits

---

- 5.2.2 G1 comprised 4 burnt flint deposits (S1683, S1704, S1733, S1705) located in the west of the PEA. Each deposit comprised a concentration of burnt flint, covering an area of between 0.5m to 5m wide by between 0.5m to 10m long (Plates 3–4). It is possible that the flint had been burnt *in situ* and so represent potential hearths. Finds were limited to a flake and blade-like flake from S1704 and a bladelet from S1705. No other datable material was recovered.

#### G2 Pits with burnt flint

---

- 5.2.3 G2 comprised 11 small pits, each of which contained a significant quantity of burnt flint. The group was subdivided into 2 subgroups:
- G2.1 7 pits located in the west of the PEA (S1632, S1639, S1647, S1649, S1655, S1668, S1670), with diameters between 0.52m and 2.13m, and depths of between 0.1m and 0.26m (Plate 5).
- G2.2 4 pits located in the south of the PEA and west of the chapel (S1462, S1464, S1487, S1541), with diameters between 0.62m and 3.05m, and depths of between 0.1m and 0.56m. No other cultural material was recovered from these pits.

#### G13 Elongated pits

---

- 5.2.4 G13 comprised 32 pits, grouped together based on their morphological similarities, where each pit was elongated (measuring approximately twice as long, or greater, than its width). The group was subdivided into 8 subgroups:
- G13.1 2 pits located within the western area of the site to the north (S1171, S1671); with lengths of 2.9m and 3.32m, widths of 0.75 and 1.3m, and maximum surviving depths of 0.24m and 0.54m respectively. No finds were recovered from these pits.
- G13.2 5 pits located within the western area of the site to the south (S1240, S1260, S1303, S1335, S1616); with lengths ranging between 1.05m and 3.1m, widths ranging between 0.4m and 1.32m, and maximum depths ranging between 0.13m to 0.48m. Burnt flint was recovered from pit S1616 and worked flint was recovered from pit S1303.
- G13.3 1 pit (S1199) located within the central western area of the site; measuring 2.7m long, 1.32m in width and 0.61m in depth. No finds were recovered.
- G13.4 1 pit (S1145) located within the central western area of the site; measuring 1.9m long, 0.57m in width and 0.3m in depth. No finds were recovered.
- G13.5 13 pits located in the southern western area of the site (S1030, S1398, S1400, S1401, S1410, S1436, S1446, S1448, S1456, S1470, S1480, S1502, S1504, S1506, S1508, S1557); with lengths ranging between 1.85m and 3.7m, widths ranging between 0.4 and 1.32m, and maximum

depths between 0.11m and 0.53m. Burnt flint was recovered from 8 pits (S1398, S1400, S1401, S1410, S1456, S1470, S1506, S1577) and worked flint was recovered from 12 pits (S1398, S1400, S1401, S1410, S1446, S1448, S1456, S1470, S1502, S1504, S1506, S1557). One sherd of abraded and possibly intrusive pottery, spot-dated to the late first century BC to early second century AD, was recovered from pit S1508.

- G13.6 2 pits located at the southern end of the conveyor area (S3088, S3173); with lengths of 2.1m and 2.4m, widths of 0.99m and 1.22m, and maximum surviving depths of 0.15m and 0.33m respectively. No finds were recovered.
- G13.7 2 pits located midway along the north-east to south-west conveyor area (S3007, S3045); with lengths of 2.32m and 2.44m, widths of 0.99m and 1.5m, and maximum surviving depths of 0.32m and 0.16m respectively. No finds were recovered from these pits.
- G13.8 6 pits located at the north-east corner of the conveyor area (S1343, S3013, S3034, S3043, S3117, S3151); with lengths ranging between 1.4m and 2.5m, widths ranging between 0.7m and 1.32m, and maximum surviving depths ranging between 0.12m and 0.32m. Worked flint and pottery spot-dated to the early/mid Neolithic to early Iron Age period was recovered from two pits (S3117, S3151).

#### G19 Pits

---

- 5.2.5 This group comprises a total of 46 pits (S1005, S1102, S1108, S1113, S1122, S1128, S1135, S1140, S1148, S1163, S1175, S1179, S1189, S1193, S1214, S1218, S1220, S1232, S1236, S1253, S1293, S1299, S1311, S1329, S1332, S1345, S1360, S1444, S1460, S1509, S1641, S3036, S3055, S3063, S3097, S3109, S3123, S3125, S3135, S3141, S3145, S3155, S3157, S3161, S3165, S3167).
- 5.2.6 These features were widely dispersed across the main stripped area and the conveyor area. There were no evident distribution patterns and, whilst some small localised groups did occur, there was no direct indication that the pits were contemporary. Diameters ranged between 0.36m and 2.14m, and maximum surviving depths ranged between 0.06m and 0.44m.
- 5.2.7 These pits had no stratigraphic relationships and produced no cultural material.

#### G20 Pits

---

- 5.2.8 This group comprises a total of 42 pits (S1007, S1014, S1124, S1126, S1139, S1153, S1169, S1187, S1238, S1243, S1245, S1251, S1255, S1268, S1295, S1297, S1313, S1319, S1353, S1369, S1391, S1396, S1411, S1421, S1423, S1434, S1439, S1468, S1476, S1478, S1515, S1517, S1548, S1643, S1761, S3049, S3051, S3053, S3093, S3096, S3133, S3149).
- 5.2.9 These features were widely dispersed across the main stripped area and the conveyor area. These pits have been grouped together on the basis of stratigraphic relationships where they exist and cultural material. Diameters ranged between 0.44m and 1.94m, and maximum surviving depths ranged between 0.09m and 0.52m.
- 5.2.10 Worked flint was recovered from a total of 37 pits (S1007, S1014, S1124, S1139, S1153, S1169, S1187, S1238, S1243, S1245, S1251, S1255, S1268, S1295, S1297, S1313, S1319, S1353, S1369, S1391, S1396, S1411, S1421, S1423, S1434, S1439, S1468, S1478, S1517, S1548, S1643, S1761, S3051, S3093, S3096, S3133, S3149).
- 5.2.11 Burnt flint was recovered from a total of 5 pits (S1353, S1423, S1548, S1643, S3133).
- 5.2.12 Pottery spot-dated to the late Bronze Age to early Iron Age was recovered from pits S1255, S3133 and undated pottery was recovered from pits S1007, S1643.
- 5.2.13 Parts of 2 copper alloy edged weapons (SF1067 and SF1068) of probable mid to late Bronze Age date were recovered from S1761 during metal detector survey.

#### G3 Ditch

---

- 5.2.14 A 64.5m length of ditch situated within the western area of the PEA was excavated in 2 interventions (S1685, S1726). The ditch was aligned north-west to south-east and measured between 0.92m and 1.3m wide, with a maximum surviving depth of 0.5m and a flat base.

5.2.15 Worked flint was recovered from intervention S1685, including 2 conjoining flake fragments.

#### G5 Ditch

---

5.2.16 A 1m long segment of ditch (S1758) was observed within an intervention excavated below the base of P3 ditch G14. The full extents of ditch S1758 could not be determined. The ditch was aligned north to south, and was situated parallel and 4.7m east of P1 ditch G3. The ditch measured 1.15m wide by 0.56m deep and had a flat base.

5.2.17 No finds were recovered.

#### G71 Ditch

---

5.2.18 This ditch was situated within the eastern area of the PEA on the north-east to south-west area of the conveyor route. Aligned east to west, the ditch was excavated in a single intervention (S3003) at its eastern terminus. The ditch had a visible length of 8.4m, extending beyond the west limit of excavation, and measured 0.27m wide by 0.1m deep and had a concave base.

5.2.19 Finds comprised 2 worked flints.

#### G25 Linear feature

---

5.2.20 G25 comprised an irregular short curvilinear feature situated in the western area of the PEA, aligned north-west to south-east. A total two interventions (S1100, S1120) were excavated. The feature had a surviving length of 3m, and measured between 0.71m and 1.14m wide by up to 0.24m deep, and had a concave base.

5.2.21 No finds were recovered.

#### G54 Linear feature

---

5.2.22 G54 comprised a linear feature, aligned north to south, situated at the north-east corner of the conveyor area. A total of two interventions were excavated (S3029, S3115). The feature had a surviving length of 10.1m and measured between 1.2m and 1.5m wide, and had a depth of between 0.25m and 0.5m.

5.2.23 Finds recovered from S3115 comprised 2 sherds of pottery spot-dated to the late Bronze Age to early Iron Age, and worked and burnt flint.

#### G67 Linear feature

---

5.2.24 G67 was located at the north-east corner of the conveyor area, and was excavated in a single intervention (S3015, S3025).

5.2.25 The linear feature was aligned north-east to south-west, with a terminal at the north-east end, and had a visible length of 5.6m before extending into the south-west limit of excavation. The feature comprised an earlier, primary cut S3025, with irregular sides and base, up to 1.47m wide by 1.4m deep, and a secondary recut S3015 with near vertical sides and a rounded base, up to 0.66m wide and 0.59m deep.

5.2.26 No finds were recovered.

#### G26 Miscellaneous feature

---

5.2.27 A large circular feature (S1454) and associated post-hole (S1442), located in the south of the PEA, potentially represented the remains of a sunken-featured building (Plate 6). The feature measured 3.5m in diameter and had steeply cut sides and a flat base, up to 0.30m deep. Post-hole S1442 was located on the east side of feature S1454 and was circular in plan, 0.4m diameter by 0.14m deep. Feature S1454 was cut by P1 G13 elongated pit S1446 and P1 G19 pit S1444.

5.2.28 Finds comprised 15 worked flints.

#### G29 Miscellaneous feature

---

5.2.29 Two shallow features (S1307, S1367) situated in the south-west area of the PEA. Feature 1367 measured 1.62m by 0.40m and was 0.08m deep. Feature 1307 measured 2.3m by 0.79m and was 0.06m deep. Feature 1307 was truncated on its south side by feature 1367, which was itself truncated on its south side by P3 ditch G31.

5.2.30 A single worked flint flake was recovered from feature S1307.

### 5.3 P2 Late Iron Age/Roman transition (c 120 BC–AD 43)

5.3.1 Late Iron Age to transitional early Roman features (Figs 7–8) comprised ditches (G4, G6, G7, G8, G9, G10), pits (G17, G21), and a large sub-rectangular feature (G55) of uncertain function.

#### G4 Ditch

---

5.3.2 A ditch situated within the central area of the PEA, excavated in 4 interventions (S1207, S1212, S1660, S1770).

5.3.3 The ditch was aligned roughly east to west, and had a visible length of 81.9m, though it was not possible to trace the full extent. The ditch measured between 0.98m and 2.06m, by 0.23m deep, and had a flat base.

5.3.4 Worked flint was recovered from 3 interventions (S1207, S1212, S1660), and burnt flint was recovered from 2 interventions (S1207, S1660). Pottery spot-dated to the late Bronze Age to early Iron Age was recovered from intervention S1212, and late Iron Age pottery was recovered from intervention S1207. A single fragment of intrusive post-medieval tile was recovered from S1212.

5.3.5 The ditch was cut by P3 ditches G11, G12 and G14.

#### G6 Ditch

---

5.3.6 A ditch segment situated within the western area of the PEA was excavated in three interventions (S1675, S1713, S1728).

5.3.7 The ditch was aligned north-east to south-west, and had a visible length of 25.45m. The ditch measured between 0.88m and 0.95m wide by up to 0.48m deep, and had a concave base.

5.3.8 A single sherd of residual late Bronze Age pottery was recovered from one intervention (S1713).

5.3.9 The G6 ditch cut P1 ditch G3 and was truncated by P3 ditch G14.

#### G7 Ditch

---

5.3.10 A ditch situated within the western area of the PEA excavated in one intervention (S1709).

5.3.11 The ditch was aligned north-east to south-west and had a visible length of 7.7m. The ditch measured 0.18m wide by 0.05m deep, and had a concave base.

5.3.12 Worked flint and pottery spot-dated to the second half of the first century AD was recovered.

5.3.13 The ditch was truncated on its north-east side by ditch G8.

#### G8 Ditch

---

5.3.14 A ditch situated within the western area of the PEA excavated in one intervention (S1707).

5.3.15 The ditch was aligned north-east to south-west, before turning at its south end to the north-west, and had a visible length of 66.8m. The ditch measured 0.58m wide by 0.23m deep, and had a concave base.

5.3.16 Worked flint, animal bone and pottery spot-dated to the mid first to early second century AD was recovered.

5.3.17 The ditch truncated the north-east side of ditch G7 and its north-east extent was truncated by P3 ditch G14.

#### G9 Ditch

---

5.3.18 A ditch situated within the western area of the PEA excavated in one intervention (S1699).

5.3.19 The ditch was aligned north-east to south-west and had a visible length of 30.8m. The ditch measured 0.25m wide by 0.14m deep, and had a flat base.

5.3.20 No finds were recovered.

5.3.21 The ditch was truncated by P3 ditch G14. The ditch may equate to ditch G7 or G8.

## G10 Ditch

---

- 5.3.22 A ditch situated within the western area of the PEA excavated in two interventions (S1653, S1718).
- 5.3.23 The ditch was aligned north-east to south-west and had a visible length of 38.1m. The ditch measured 1.1m wide by 0.25m deep, and had a concave base.
- 5.3.24 Residual pottery, spot-dated to the late Bronze Age to early Iron Age, was recovered from intervention S1653.
- 5.3.25 The ditch was truncated by P3 ditch G14.

## G17 Pits

---

- 5.3.26 This group comprised a total of 23 pits, the fills of which were characterised by a high carbon content and evidence for in situ surface scorching (Plate 7). The group was subdivided into 4 subgroups:
  - G17.1 3 pits located within the western area of the PEA to the north (S1160, S1165, S1167); with diameters ranging between 0.48m and 1.8m, and maximum surviving depths ranging between 0.08m and 0.32m. No finds were recovered from these pits.
  - G17.2 6 pits located within the western area of the site to the south (S1614, S1619, S1623, S1625, S1629, S1634); with diameters ranging between 0.78m and 1.62m, and maximum surviving depths ranging between 0.15m and 0.38m. No finds were recovered from these pits.
  - G17.3 8 pits located within the western area of the PEA (S1075, S1173, S1197, S1205, S1272, S1277, S1281, S1737); with diameters ranging between 0.87m and 1.7m, and maximum surviving depths ranging between 0.1m and 0.26m. Worked flint was recovered from two pits (S1205, S1277).
  - G17.4 6 pits located in the eastern area of the PEA (S3001, S3021, S3032, S3090, S3139, S3143); with diameters ranging between 0.75m and 1.6m, and maximum surviving depths ranging between 0.11m and 0.34m. Burnt flint, industrial metalworking waste and daub was recovered from one pit (S3090), and worked flint and stone was recovered from another (S3139).

## G21 Pits

---

- 5.3.27 This group comprised 3 pits (S1156, S1309, S1394) located within the centre of the PEA, with diameters ranging between 0.86m and 2m, and maximum surviving depths ranging between 0.1m and 0.28m.
- 5.3.28 All 3 pits produced pottery dated to the late Iron Age/early Roman period (first century BC to first century AD). Metalworking waste was recovered from pit S1309, and worked flint was recovered from pit S1394.

## G55 Miscellaneous feature

---

- 5.3.29 A large sub-rectangular feature (S1234) was located within the central area of the PEA (Plate 8). The feature measured 6.14m long by 4.3m wide, and had steeply sloping sides and a slightly sloped base, with a maximum surviving depth of 0.7m.
- 5.3.30 Recovered finds comprised worked and burnt flint, and pottery dated to the late Bronze Age to early Iron Age and late Iron Age to early Roman periods.

## 5.4 P3 Roman (c AD 43–410)

- 5.4.1 Roman features (Figs 9–11) comprised ditches (G11, G12, G14, G16, G27, G28, G30, G31, G32, G33, G34, G37, G57, G58, G59, G61, G69, G70, G77), post-holes (G18), pits (G22, G36), and a limekiln (G56).

## G11 Ditch

---

- 5.4.2 A ditch situated within the western area of the PEA, excavated in two interventions (S1662, S1769).
- 5.4.3 The ditch was aligned north-east to south-west, and had a visible length of 42.5m. The ditch measured 0.74m wide by 0.2m deep, and had near vertical sides and a flat base.
- 5.4.4 Recovered finds comprised struck flint and a fragment of tap-slag recovered from intervention S1662.

5.4.5 The north-east end of the ditch was cut by P3 ditch G14.

#### G12 Ditch

---

5.4.6 A ditch situated within the western area of the PEA, excavated in one intervention (S1767).

5.4.7 The ditch was aligned north to south, and had a visible length of 8.12m. The ditch measured 0.57m wide by 0.25m deep, and had a flat base.

5.4.8 No finds were recovered.

5.4.9 The ditch cut P2 ditch G4 and its north extent was truncated by P3 ditch G14.

#### G14 Ditch

---

5.4.10 A ditch situated within the western area of the PEA excavated in six interventions (S1666, S1677, S1703, S1711, S1720, S1756).

5.4.11 The ditch was aligned north-east to south-west and had a visible length of 76.6m before turning sharply at its north-east end towards the north-west, continuing for a further length of 30.8m. The ditch measured between 1.62m and 3.3m wide, with a maximum surviving depth of 0.86m, and a slightly concave base (Plates 9–10).

5.4.12 Burnt flint was recovered from two interventions (S1677, S1720) and struck flint was recovered from four interventions (S1677, S1703, S1720, S1756). Animal bone was recovered from one intervention (S1756). A significant concentration of metalworking waste, including smelting tap-slag, hammerscale and furnace lining was recovered from S1703, and smaller amounts from S1720. Pottery ranging from late first century BC to possibly late second century AD was recovered from four interventions (S1677, S1703, S1720, S1756).

5.4.13 The ditch cut a P1 elongated pit G13.1 and seven ditches (P1 ditch G5, P2 ditch G6, G8, G9, and G10; and P3 ditch G11 and G12), and was truncated by P5 pit G23.

#### G16 Ditch

---

5.4.14 A ditch situated within the western area of the PEA excavated in 3 interventions (S1621, S1635, S1645).

5.4.15 The ditch was aligned north-north-west to south-south-east and had a visible length of 32.9m continuing beyond the south limit of excavation. The ditch measured 3.45m wide by 0.92m deep, and had a flat base.

5.4.16 Recovered finds comprised burnt flint and animal bone from intervention S1621.

#### G27 Ditch

---

5.4.17 A ditch situated within the western area of the PEA excavated in 3 interventions (S1425, S1430, S1432).

5.4.18 The ditch was aligned north-west to south-east and had a visible length of 15.9m. The ditch measured between 0.5m and 0.7m wide by between 0.1m and 0.14m deep, and had a concave base.

5.4.19 Finds comprised struck flint recovered from interventions S1425 and S1432.

5.4.20 This ditch cut P1 pit G20 and its southern extent was cut by P3 ditch G28.

#### G28 Ditch

---

5.4.21 A ditch situated within the southern area of the PEA, excavated in 4 interventions (S1389, S1427, S1494, S1496).

5.4.22 The ditch was aligned north-north-east to south-south-west and had a visible length of 22.0m. The ditch measured between 0.16m and 0.65m wide by between 0.07m and 0.38m deep, and had a flat base.

5.4.23 Recovered finds comprised struck flint, recovered from interventions S1389, S1427, S1494, and pottery spot-dated to the late first century BC to late second century AD recovered from intervention S1427.

5.4.24 This ditch cut P3 ditch G27 and its northern extent was truncated by P3 ditch G30 and ditch G31.

### G30 Ditch

---

- 5.4.25 A ditch located within the southern area of the PEA, excavated in 3 interventions (S1326, S1419, S1492).
- 5.4.26 The ditch was aligned roughly east to west and had a visible length of 29.1m, continuing beyond the western limit of excavation (Plate 11). The ditch measured between 0.92m and 1.35m wide by between 0.17m and 0.4m deep, and had a concave base.
- 5.4.27 One intervention (S1326) produced struck and burnt flint and pottery spot-dated first to fourth century AD, and intervention (S1419) produced struck and burnt flint and pottery spot-dated to the late first century BC to first century AD.
- 5.4.28 This ditch cut P3 ditch G28 and was truncated by P3 ditch G31.

### G31 Ditch

---

- 5.4.29 A ditch located within the southern area of the PEA. Evidence for an earlier phase of ditch was recorded at the west limit of excavation (S1362). However, the earlier ditch appears to have been completely replaced by a later recut. A total of five interventions were excavated through the later ditch (S1305, S1358, S1490, S1555, S1568).
- 5.4.30 The ditch was aligned roughly east to west and had a visible length of 125.2m, continuing beyond the western limit of excavation. The primary ditch (S3162) had a maximum surviving depth of 0.43m and a flat base. No finds were recovered.
- 5.4.31 The later recut (S1305, S1358, S1490, S1555, S1568) measured between 1.42m and 2.4m wide, by between 0.33m and 0.66m deep, and had a slightly concave base (Plate 12).
- 5.4.32 Struck flint was recovered from each intervention (S1305, S1358, S1490, S1555, S1568) and burnt flint was recovered from four interventions (S1305, S1358, S1555, S1568). Pottery spot-dated to the late first century BC to first century AD was recovered from intervention S1358, and pottery of first century AD date was recovered from intervention S1490.
- 5.4.33 This ditch cut P3 ditch G30.

### G32 Ditch

---

- 5.4.34 A ditch located within the southern area of the PEA. Evidence of an earlier phase of ditch was recorded in one intervention (S1574). However, the earlier ditch appears to have been completely replaced by a later recut. A total of eleven interventions was excavated through the later ditch (S1415, S1438, S1452, S1458, S1474, S1483, S1531, S1539, S1552, S1561, S1577).
- 5.4.35 The ditch was aligned north-west to south-east and had a visible length of 74.9m. The primary ditch (S1574) measured 1.3m by 0.28m depth and had a flattish base. The ditch recut (S1415, S1438, S1452, S1458, S1474, S1483, S1531, S1539, S1552, S1561, S1577) measured between 0.66m and 1.55m wide by between 0.14m and 0.4m deep, and had a flattish base.
- 5.4.36 Struck flint was recovered from 10 interventions (S1415, S1452, S1458, S1473, S1483, S1539, S1552, S1570, S1560, S1577) and burnt flint was recovered from 5 interventions (S1415, S1452, S1560, S1570, S1577). Fragments of teeth from a single horse mandible were recovered from one intervention (S1577). Pottery spot-dated to the late Iron Age to early Roman period was recovered from intervention S1474, and pottery spot-dated to the first century AD was recovered from intervention S1561.
- 5.4.37 This ditch was cut by P3 ditch G33.

### G33 Ditch

---

- 5.4.38 A ditch located within the southern area of the PEA, excavated in 5 interventions (S1370, S1373, S1377, S1472, S1537).
- 5.4.39 The ditch was aligned roughly east to west, and had a visible length of 27.3m. The ditch measured between 0.65m and 1.18m wide by between 0.12m and 0.25m deep, and had a flat base.
- 5.4.40 Struck flint was recovered from a total of four interventions (S1370, S1377, S1472, S1537) and burnt flint from one (S1472). Pottery spot-dated to c AD 50–200 was recovered from intervention S1537.

5.4.41 This ditch cut P3 ditch G32.

#### G34 Ditch

---

5.4.42 A ditch located within the southern area of the PEA, excavated in 2 interventions (S1500, S1582).

5.4.43 The ditch was aligned roughly south-west to north-east, and had a visible length of 38.9m. The ditch measured between 0.65m and 0.9m wide by between 0.42m and 0.65m deep, and had a flattish base.

5.4.44 Struck flint was recovered from both interventions and burnt flint was recovered from S1500.

5.4.45 This ditch cut P3 ditch G32

#### G37 Ditch

---

5.4.46 A ditch situated within the southern area of the PEA, excavated in a single intervention (S1019).

5.4.47 The ditch was aligned north-west to south-east, and had a visible length of 16.6m. The ditch measured 0.85m wide by 0.35m deep, and had a concave base.

5.4.48 Burnt flint was recovered from S1019.

#### G57 Ditch

---

5.4.49 A short ditch situated within the southern area of the PEA, excavated in 2 interventions (S1351, S1375).

5.4.50 The ditch was aligned north-west to south-east, with a slight turn to the north at the western end. The ditch had a visible length of 9.2m, and measured 0.47m wide by 0.17m deep, and had a concave base.

5.4.51 Struck flint was recovered from intervention S1351.

#### G58 Ditch

---

5.4.52 A ditch situated within the southern area of the PEA, excavated in a single intervention (S1533).

5.4.53 The ditch was aligned north-west to south-east and had a visible length of 6.1m. The ditch measured 0.66m wide by 0.18m deep, and had a concave base.

5.4.54 Burnt flint was recovered from intervention S1533.

5.4.55 This ditch probably continued to the south-east as P3 ditch G59.

#### G59 Ditch

---

5.4.56 A ditch situated within the southern area of the PEA, excavated in 4 interventions (S1485, S1513, S1521, S1535).

5.4.57 The ditch was aligned north-west to south-east, and had a visible length of 12.3m. The ditch measured between 0.66m and 0.95m wide by between 0.12m and 0.22m deep, and had a concave base.

5.4.58 Fragments of horse teeth and struck flint was recovered from intervention S1485.

5.4.59 This ditch probably continued to the north-west as P3 ditch G58.

#### Ditch G61

---

5.4.60 A ditch situated within the southern area of the PEA, excavated in a single intervention (S1465).

5.4.61 The ditch was aligned north-west to south-east and had a visible length of 3.9m. The ditch measured 0.4m wide by 0.17m deep, and had a flat base.

5.4.62 No finds were recovered.

#### Ditch G69

---

5.4.63 A ditch situated within the eastern area of the PEA, excavated in 4 interventions (S3175, S3177, S3182, S3184).

5.4.64 The ditch was aligned north-east to south-west and had a visible length of 11.3m. The ditch measured between 0.82m and 1.28m wide by between 0.07m and 0.27m deep, and had a concave base.

5.4.65 No finds were recovered.

5.4.66 This feature was truncated by P3 ditch G70.

#### Ditch G70

---

5.4.67 A ditch situated within the eastern area of the PEA, excavated in 2 interventions (S3081, S3180).

5.4.68 The ditch was aligned north-west to south-east and had a visible length of 20.7m continuing beyond the east and west limits of excavation. The ditch measured between 0.47m and 0.72m wide by 0.27m deep, and had a concave base.

5.4.69 No finds were recovered.

#### Ditch G77

---

5.4.70 A ditch situated within the eastern area of the PEA, excavated in a single intervention (S3017).

5.4.71 The ditch was aligned east to west and had a visible length of 24.2m, continuing beyond the east and west limits of excavation. The ditch measured 1.63m wide by 0.4m deep, and had a concave base.

5.4.72 Finds comprised pottery dated to the early second century AD, along with metalworking waste.

5.4.73 The ditch was cut by a P5 pit G23.

#### Post-holes G18

---

5.4.74 This group comprised 39 post-holes or small pits (S1091, S1092, S1094, S1098, S1115, S1117, S1131, S1133, S1137, S1143, S1182, S1185, S1191, S1216, S1229, S1249, S1258, S1261, S1270, S1289, S1316, S1323, S1324, S1387, S1408, S1442, S1450, S1543, S1545, S1579, S1651, S1664, S3039, S3113, S3121, S3127, S3129, S3131, S3159, S3163).

5.4.75 The features were widely dispersed across the PEA and no clear structural groupings or alignments were determined. The post-holes measured between 0.1m and 0.7m in diameter, with maximum depths ranging between 0.04m and 0.49m. Six post-holes (S1098, S1182, S1229, S1261, S1387, S1408) had evidence of post-packing comprising large unworked flint nodules.

5.4.76 Struck flint was recovered from post-holes S1098, S1115, S1182, S1543 and burnt flint from post-holes S1289 and S1543. Two worn and probably residual sherds of late Bronze Age to early Iron Age pottery were recovered from post-hole S3159. Small quantities of late Iron Age/Roman pottery were recovered from post-holes S1115 (5 sherds) and S1229 (4 sherds).

#### Pits G22

---

5.4.77 This group comprised a total of 15 pits (S1003, S1050, S1059, S1149, S1158, S1195, S1224, S1279, S1283, S1285, S1286, S1301, S1318, S1337, S1365), located within the centre of the PEA. The group was subdivided into 3 subgroups:

G22.1 Comprised 7 pits (S1050, S1059, S1283, S1285, S1318, S1337, S1365), each characterised by a potential placed deposit. Pits varied between 0.35m and 1.15m in diameter and between 0.17m and 1.02m in depth. Finds comprised pottery spot-dated to first to early second century AD, along with collections of iron nails, hobnails, a deliberately placed flint pebble, and burnt animal bone (Plate 13).

G22.2 2 pits (S1195, S1224) both with evidence for *in situ* burning. Pit S1224 had worked flint and pottery placed within it (Plate 14), spot-dated to the first and second century AD, and a stake-hole (S1286) cut into its base. The diameter of these pits measured 0.86m and 0.97m, with maximum surviving depths of 0.12m and 0.25m respectively.

G22.3 6 pits (S1003, S1149, S1158, S1279, S1286, S1301) dispersed and located to the south-east of sub-group 22.1. Recovered pottery was spot dated to the first to mid second century AD.

## Pits G36

---

- 5.4.78 A large sub-circular pit situated within the southern area of the PEA (S1038). This feature was notable due to its size and the large quantity of carbonised material contained within the fill. The pit measured 3.37m wide and had a maximum surviving depth of 0.82m.
- 5.4.79 No finds were recovered. Processing of bulk soil samples recovered a large quantity of wood charcoal, but no charred plant remains.
- 5.4.80 The pit was cut by P4 ditch G38.

## Limekiln G56

---

- 5.4.81 A limekiln was located within the central area of the PEA. The limekiln comprised a combustion chamber (S1314), a stoke-pit and flue (S1697), an adjacent working area (S1747), and potential access ramp (S1779) (Plates 15–18, Fig 11).
- 5.4.82 The combustion chamber (S1314) comprised a circular cut (1314), with a maximum diameter of 2.70m, and depth of 2.02m. The cut had vertical sides, with a 0.4m wide ledge extending around the interior at a depth of 0.9m. The base of the cut tapered to an internal diameter of 1m and had a slightly concave floor. The chamber was filled with *in situ* remnants of carbon/ash (1563), burnt clay (1563) and lime (1565) associated with final firing of the kiln. This was overlain by deposits associated with its subsequent abandonment/demolition comprising burnt clay (1384) and Ragstone blocks (1385), and mortar (1562, 1566) potentially representing a collapsed superstructure. These deposits were overlain by post-abandonment/destruction infilling (1378, 1379, 1380, 1381, 1382, 1383). The uppermost deposit (1378) produced a single fragment of post-medieval tile along with residual early mid first- to second-century AD Roman pottery. Bulk samples were collected from both the carbon/ash deposit (1563) and lime (1565).
- 5.4.83 A stoke-pit and flue (S1697) were situated on the south side of the combustion chamber. The stoke-pit comprised a 1.4m wide, 5.4m long and 1.4m deep pit (1697). The flue had been partially truncated by a P5 field drain G50, but survived as a linear cut 1.3m long by 0.6m wide, extending between the base of the stoke-pit and the combustion chamber. A probable working surface comprising trample and rake-out deposits (1696=1739, and 1752, 1753, 1754, 1772, 1773) formed in the stoke-pit and flue. A clay deposit (1738) infilling the flue potentially represented abandonment/destruction of the limekiln. This was overlain by a sequence of deposits (1689, 1690, 1691, 1692, 1693, 1694, 1749, 1750, 1751) which represent the subsequent infilling of the stoke-pit. Pottery dated to the first to second century AD was recovered from the base of the stoke-pit (1696), along with residual sherds of late Bronze Age to early Iron Age and late Iron Age to early Roman date.
- 5.4.84 A working area (S1747) was situated to the south-east of the stoke-pit and flue, and comprised a large pit (1747), and fill deposits (1735, 1741, 1742, 1743, 1744, 1745, 1746, 1748) associated with active use of the limekiln, and (1740) representing subsequent gradual infilling. The primary fill produced pottery spot-dated to the second half of the first century AD. Deposit 1735 produced pottery spot-dated c AD 50–250 and the fragmentary remains of a horse jaw. This could potentially represent a closure deposit.
- 5.4.85 A hollow (S1779) extended from the stoke-pit and flue (S1697) and adjacent work area (S1747) to the north-west. The hollow measured 17.1m long by 4.37m wide, and sloped from ground level in the north-east down towards the base of the stoke-pit in the south-east. The hollow, interpreted as a potential access ramp to the stoke-pit and working area, was subsequently infilled by silty clay deposits (1774, 1775, 1776, 1777, 1778) following demolition/abandonment of the limekiln.

## 5.5 P4 Medieval (c AD 1050–1550)

- 5.5.1 Medieval features (Figs 12–13) comprised 4 ditches (G35, G38, G40, G41).

### G35 Ditch

---

- 5.5.2 A ditch situated within the central area of the PEA, immediately west of Burleigh Chapel, excavated in a single intervention (S1077).

5.5.3 The ditch was aligned north-east to south-west, and had a visible length of 31.9m, before turning at its north-east end towards the south-east, for a further 23.7m, extending into the eastern limit of excavation. The ditch measured 0.95m wide by 0.42m deep, and had a flat base.

5.5.4 Finds comprised worked flint only.

5.5.5 The ditch was truncated at its north-east end by P4 ditch G38 and south-west end by P4 ditch G40

#### G38 Ditch

---

5.5.6 A ditch located within the central area of the PEA, immediately west of Burleigh Chapel, excavated in 3 interventions (S1026, S1028, S1036).

5.5.7 The ditch was aligned north-east to south-west, and had a visible length of 35.2m, before turning at its north-east end towards the south-east for a further 51m, extending into the eastern limit of excavation. The ditch measured between 1.3m and 2.78m wide by between 0.4m and 1.04m deep, and had a concave base (Plate 19–20).

5.5.8 Pottery spot-dated to the early thirteenth to mid fourteenth century was recovered from intervention S1026 and S1028. Post-medieval tile and brick was recovered from intervention S1026 and S1036 and might indicate that the ditch continued in use until the sixteenth to eighteenth centuries AD. Animal bone was recovered from intervention S1036. An iron knife blade (SF1000) and iron nails (SF1001 and SF1002) were recovered from intervention S1026.

5.5.9 The ditch cut P4 ditch G35.

#### G40 Ditch

---

5.5.10 A ditch located within the central area of the PEA, immediately west of Burleigh Chapel, excavated in 3 interventions (S1017, S1052, S1055).

5.5.11 The ditch was aligned north-north-east to south-south-west, and had a visible length of 28.9m, extending into the eastern limit of excavation. A possible later recut was identified within intervention S1052. The ditch measured between 0.8m and 1.4m wide, by between 0.2m and 0.36m deep, and had a flat base.

5.5.12 Pottery spot-dated to the later twelfth century AD was recovered from intervention S1017, and residual worked flint was recovered from interventions S1017 and S1055.

5.5.13 A possible later recut of the ditch was identified in intervention S1052. The recut measured 0.8m wide by 0.12m deep, and was filled with gravel. The recut produced no cultural material.

5.5.14 The ditch cut P4 ditch G35 and ditch G41, and was truncated at its north end by P5 pit G45.

#### G41 Ditch

---

5.5.15 A ditch located within the southern area of the PEA, immediately west of Burleigh Chapel, excavated in a single intervention (S1009).

5.5.16 The ditch was aligned north-north-east to south-south-west, and had a visible length of 9.3m, before turning at its north-north-east end towards the east for a further 2.8m. The ditch measured 0.47m wide by 0.09m deep, and had a concave base.

5.5.17 No finds were recovered from intervention S1009. The ditch was truncated at its east end by P4 ditch G40, and its south-south-west end by P5 feature G46.

## 5.6 P5 Post-medieval and modern (c AD 1550–present)

5.6.1 Post-medieval to modern features (Figs 14–15) comprised ditches (G39, G47, G48, G51, G65, G66), pits (G23, G45), post-holes (G49, G64), masonry footing/drain (G43), metallised surface (G42), deposit (G44), horticultural features (G60), well (G62), quarry pit (G46), miscellaneous feature (G63) and land drains (G50).

### G39 Ditch

---

- 5.6.2 A ditch located within the central area of the PEA, immediately west of Burleigh Chapel, excavated in 4 interventions (S1048, S1057, S1074, S1109).
- 5.6.3 The ditch (Plate 21) was aligned north-east to south-west, and had a visible length of 52.2m, before turning at its north-east end towards the south-east, for a further 17.2m. The ditch measured between 1.2m and 3.5m wide by between 0.8m and 1.2m deep, and had a concave base.
- 5.6.4 Pottery of mid to late eighteenth-century date was recovered from intervention S1048, along with residual late Iron Age to early Roman and late medieval pottery. Post-medieval tile dated to the eighteenth and nineteenth centuries was recovered from intervention S1048.

### G47 Ditch

---

- 5.6.5 A ditch situated within the north-east corner of the PEA, excavated in a single intervention (S3027).
- 5.6.6 The ditch was aligned north-west to south-east and had a visible length of 26m, extending into the limit of excavation to the north-west and south-east. The ditch ran parallel and 1.2m south of P5 ditch G48. The ditch measured 0.93m wide by 0.24m deep, and had a flat base.
- 5.6.7 Recovered finds comprised a residual worked flint, animal bone and post-medieval tile. The ditch cut P2 pit G17.

### G48 Ditch

---

- 5.6.8 A ditch situated within the north-east corner of the PEA, excavated in a single intervention (S3023).
- 5.6.9 The ditch was aligned north-west to south-east and had a visible length of 33.6m, extending into the the north-west and south-east limits of excavation. The ditch ran parallel and 1.2m north of P5 ditch G47. The ditch measured 0.46m wide by 0.26m deep, and had a flat base.
- 5.6.10 No finds were recovered.

### G51 Ditch

---

- 5.6.11 A ditch situated within the central-southern area of the PEA, excavated in 2 interventions (S1023, S1525). Evidence for an earlier primary ditch was recorded at the east (S1025).
- 5.6.12 The ditch was aligned north-west to south-east, turning to an east to west alignment at the eastern end, and had a visible length of 130.6m, extending into the western limit of excavation.
- 5.6.13 The primary ditch (S1025) measured 0.5m wide by 0.14m deep, and had a flat base. Finds comprised post-medieval tile dated to the sixteenth to eighteenth century AD. The later recut ditch (S1023, S1525) measured between 0.41m and 2.3m wide, by between 0.25m and 0.35m deep, and had a flat base. Finds comprised post-medieval brick, tile and a brass cap from a twentieth-century shotgun cartridge (SF1089).
- 5.6.14 This ditch cuts a P5 pit G45 (S1525).

### G65 Ditch

---

- 5.6.15 A ditch situated within the western area of the PEA, excavated in 2 interventions (S1673, S1722).
- 5.6.16 The ditch was aligned north-east to south-west, and had a visible length of 64.2m before turning north-west at its south-west end, for a further 17.7m, extending into the northern limit of excavation. The ditch measured between 0.45m and 0.8m wide by between 0.09m and 0.25m deep, and had a flat base. A second unexcavated ditch (S1781), extended parallel and 1.6m south of ditch G65, and is assumed to have been contemporary.
- 5.6.17 Worked flint was recovered from intervention S1722.

### G66 Ditch

---

- 5.6.18 A ditch situated within the western area of the PEA, excavated in 2 interventions (S1657, S1716).

- 5.6.19 The ditch was aligned north-west to south-east, and had a visible length of 61.8m, extending into the western limit of excavation. The ditch measured between 1.55m to 3.8m wide by between 0.14m and 0.22m deep, and had a flat base.
- 5.6.20 Finds comprised worked and burnt flint (S1657 and S1716), animal bone (S1716), a single sherd of thirteenth- to mid fourteenth-century pottery (S1657) and post-medieval tile of sixteenth- to mid eighteenth-century date (S1657 and S1716).

#### G23 Pits

---

- 5.6.21 This group comprised 4 pits (S1106, S1765, S3105, S3019).
- 5.6.22 Pits S1106 and S1175 were situated in the west of the PEA. Pit S1765 cut P3 ditch G14. Pits S3019 and S3105 were situated in the east of the PEA. Pit S3019 cut P3 ditch G77.
- 5.6.23 Finds comprised burnt flint and a sherd of thirteenth- to fourteenth-century pottery from pit S1106, and a post-medieval clay tobacco pipe fragment (not retained) and animal bone from pit S3105.

#### G45 Pits

---

- 5.6.24 This group comprised 5 pits (S1012, S1040, S1070, S1085, S1523) situated within the southern central area of the PEA, immediately west of Burleigh Chapel.
- 5.6.25 The pits varied between 1m and 3.4m in diameter and by between 0.15m and 0.3m in depth.
- 5.6.26 Pottery of Roman date was recovered from pit S1012 and medieval date from pit S1070. Pits S1012, S1070, S1085 all contained post-medieval brick and tile, dated to between the sixteenth to mid eighteenth century AD. Pit S1523 produced fragments of clay tobacco pipe dated c AD 1750–1900.

#### G49 Post-hole

---

- 5.6.27 A single post-hole (S1413) situated within the southern central area of the PEA. The post-hole measured 0.30m in diameter by 0.27m deep and contained remnants of a timber post.

#### G64 Post-holes

---

- 5.6.28 Two post-holes situated within the eastern area of the PEA (S1595, S1599). The post-holes were spaced 8.4m apart, and measured 0.5m in diameter by 0.13m and 0.25m deep respectively.
- 5.6.29 No finds were recovered.

#### G43 Masonry filled gully

---

- 5.6.30 A gully filled with masonry fragments located within the southern area of the PEA, immediately west of Burleigh Chapel, excavated in 2 interventions (S1043, S1089),
- 5.6.31 This feature had been previously identified as a wall during evaluation (TVAS 2013, Tr25, cut 24, wall 83). The gully was aligned north-north-east to south-south-west, had a visible length of 35.2m and was laid directly above and followed the line of infilled P5 ditch G39 (Plates 21–22). The gully measured between 0.6m and 1.4m wide by up to 0.5m deep, and had a flat base. The gully was infilled with large flint nodules, and unworked chalk, sandstone and limestone blocks. A small proportion of stone had indications of being dressed, and a very few had remnants of mortar, suggesting that they may have been sourced from recycled demolition material.
- 5.6.32 Recovered finds comprised post-medieval pottery and glazed brick and peg tile dated to the seventeenth to mid eighteenth centuries AD.

#### G42 Metalled surface

---

- 5.6.33 This group describes the remains of a possible metalled surface located within the southern area of the PEA, immediately west of Burleigh Chapel, excavated in a single intervention (S1065 and S1088).
- 5.6.34 The surface was exposed immediately east of P5 masonry filled gully G43, in an area measuring 2.8m by 0.8m, but continued beyond the area of intervention (Plate 21). The surface comprised a flint gravel (S1065) overlain by a layer of broken peg-tile (S1088).

- 5.6.35 A recovered sample of peg-tile was dated to the sixteenth to mid-eighteenth century AD.

#### G44 Deposit

---

- 5.6.36 A sequence of 3 deposits (S1060, S1066, S1081) located within the southern area of the of the PEA, immediately west of Burleigh Chapel, excavated in a single intervention.
- 5.6.37 These 3 deposits were exposed in an area measuring 7m by 0.8m, but continued beyond the area of intervention, and sealed P5 masonry filled gully G43 and metalled surface G42. They were interpreted as levelling deposits.
- 5.6.38 Finds from deposit (S1060) comprised pottery spot-dated to the seventeenth to mid-eighteenth century AD (S1060), and clay tobacco pipe, brick and tile dated to the eighteenth century AD.

#### G60 Horticultural features

---

- 5.6.39 Some 44 features of probable horticultural function, situated within the east of the PEA, were excavated in 5 interventions (S1585, S1587, S1589, S1601, S1603).
- 5.6.40 The features were characterised as shallow sub-rectangular to sub-circular pits, and measured between 0.97m and 3.96m long by between 0.52m and 1.86m wide and between 0.04m and 0.20m deep, and were set out in regular north-east to south-west aligned rows interpreted as horticultural planting beds (Plate 25).
- 5.6.41 Finds comprised animal bone (S1587, S1589), post-medieval tile (S1587, S1589, S1603), clay tobacco pipe (S1589), and pottery spot-dated to the seventeenth to mid eighteenth century (S1589). An iron nail (SF1105) was recovered from S1602), and an unidentified iron artefact (SF9016) from S1589.

#### G62 Well

---

- 5.6.42 A brick-lined well (S1609) was located in the eastern area of the PEA (Plate 23–24). The well was constructed in a circular shaft with a diameter of 1.8m. The well was constructed of standard frogged red-bricks (220mm x 110mm x 60mm) in a coarse light yellow sandy mortar, and was exposed to a height of two courses. The backfill of the well was not excavated. No finds were recovered.

#### G46 Quarry pit

---

- 5.6.43 This large feature was located within the southern area of the of the PEA, immediately west of Burleigh Chapel and excavated in a single intervention (S1086). The feature measured 12m by 8.4m and where sampled, extended to a depth of 0.2m. The feature was interpreted as a possible quarry pit. The fill contained frequent large flint nodules. No finds were recovered.

#### G63 Miscellaneous feature

---

- 5.6.44 This feature was located within the eastern area of the PEA, and was excavated in a single intervention (S1606).
- 5.6.45 The feature had a visible length of 5.8m, continuing into the south-west limit of excavation, and measured 5.3m wide by up to 0.5m deep. The feature was infilled with unfrogged red brick and peg-tile rubble, capped by a thin deposit of clay, and was potentially formed to provide an area of hard standing or building foundation (Plate 26).

#### G50 Land drains

---

- 5.6.46 Some 20 land drains were exposed within the central area of the PEA. The land drains formed an intersecting network aligned approximately north to south and east to west. The land drains comprised a series of linear cuts of variable length, between 0.3m to 0.5m wide by up to 0.4m deep. Except for land drain S1688 the drains comprised a loose flint gravel infill. Drain S1688 contained terracotta piping.

## 5.7 P6 Unphased

- 5.7.1 A number of features could not be phased. These included a ditch (G15), short linear features (G24, G52, G53, G68), and potential geological/natural features (G72).

### G15 Ditch

---

- 5.7.2 A ditch situated within the western area of the PEA, excavated in 2 interventions (S1729, S1731).
- 5.7.3 The ditch was aligned roughly north to south, with a visible length of 48.8m extending beyond the north-west and south-east limit of excavation, with a return aligned east to west, extending from the north-west limit of excavation for a visible length of 42.5m. The ditch measured between 0.5m and 0.9m wide, by 0.49m depth, and had a flat base.
- 5.7.4 No finds were recovered.

### G24 Linear feature

---

- 5.7.5 A linear feature, located in the central area of the PEA, excavated in a single intervention (S1111).
- 5.7.6 The feature was aligned north-west to south-east, and had a visible length of 12.9m. The feature measured 1.3m wide by 0.27m deep, and had a flat base.
- 5.7.7 No finds were recovered.

### G52 Linear feature

---

- 5.7.8 A linear feature located within the eastern area of the PEA, excavated in a single intervention (S3075).
- 5.7.9 The feature was aligned roughly east to west, and had a visible length of 3.9m. The feature measured 0.82m wide by 0.08m deep, and had a flat base.
- 5.7.10 No finds were recovered.

### G53 Linear feature

---

- 5.7.11 A linear feature located within the eastern area of the PEA, excavated in a single intervention (S3011).
- 5.7.12 The feature was aligned north-west to south-east, and had a visible length of 3.9m, extending beyond the limit of excavation to the north-west. The feature measured 0.7m wide by 0.17m deep, and had a concave base.
- 5.7.13 No finds were recovered.

### G68 Linear feature

---

- 5.7.14 A linear feature located within the eastern area of the PEA, excavated in a single intervention (S3083).
- 5.7.15 The feature was aligned north to south, and had a visible length of 2.2m, extending beyond the northern limit of excavation. The feature measured 0.92m wide by 0.55m deep, and had near vertical sides and a concave base.
- 5.7.16 No finds were recovered.

### G72 Geological/natural features

---

- 5.7.17 This group represents all excavated features which were probably of geological formation or natural in origin.
- 5.7.18 Geological formations, caused by involutions in the Head deposits as a result of sinkage into the underlying Folkestone Beds, were represented by S1033, S1096, S1404, S1406, S1519, S1528, S1591, S1593, S1597, S1612, S3047, S3057, S3065, S3067, S3069, S3071, S3085, S3100, S3102, S3111, S3119, S3137, S3153, S3169, S3171.
- 5.7.19 Features of natural origin included possible tree-throws (S1201, S1209, S1222, S1226, S1264, S1266, S1291, S1322, S1339, S1341, S3041, S3059, S3061, S3073, S3077, S3079, S3092, S3107) and animal burrows (S1090, S1498).

## 6 Geoarchaeology (Peter Allen)

### 6.1 Geology and topography

Table 4. *Summary of geological units (based on Worssam 1963)*

Unit	Age	Environment	
Head Brickearth b	Pleistocene	Aeolian with ground-surface reworking	
Head Brickearth a	Pleistocene	Aeolian with ground-surface reworking	
Head Gravel	Pleistocene	Downslope mass movement	
Chalk	Cretaceous	Marine	
Gault Clay	Cretaceous	Marine	
Folkestone Beds	Lower Greensand	Cretaceous	Marine
Sandgate Beds	Lower Greensand	Cretaceous	Marine
Hythe Beds	Lower Greensand	Cretaceous	Marine

### 6.2 Regional geological setting

6.2.1 Burleigh Farm lies on Folkestone Beds at 90–95m OD within the Vale of Holmesdale, bounded on the north by the Chalk escarpment, reaching 200m OD, and to the south by the Sandgate and Hythe Beds of the Lower Greensand (Figs 18–19). For most of its length the lowest part of the Vale corresponds to the Gault Clay, but locally the Gault Clay and Lower Chalk form a bench of higher ground at 100–125m OD at the foot of the Chalk escarpment, extensively covered with Head Gravel. A ridge extends from this higher ground across the western part of the PEA, leaving two lower areas (Area 1 and Area 2) flanking it.

### 6.3 Site geology

6.3.1 The site geology differs from that shown on BGS mapping (1:50,000 Sheet 288 Maidstone 1976) partly because many of the strata are thinner than the survey records.

#### Folkestone Beds (sand)

---

6.3.2 Folkestone Beds underlie the whole PEA, forming the core of the central ridge dividing the PEA and underlying the flanking lower Areas 1 and 2.

#### Head Gravel

---

##### *Distribution*

6.3.3 The Head Gravel lies immediately above the Folkestone Beds. Across most of the site it is less than 0.5m thick and is composed entirely of angular flint gravel within a sandy clay matrix. It floors the low Areas 1 and 2, and continues under the Brickearth on the sides of the ridge but is absent across its crest, though it may have been present there in the geological past and since eroded. The Head Gravel forms a more-or-less continuous sub-soil surface cover over the southern part of Area 1, but is patchy in Area 2.

##### *Sedimentology*

6.3.4 The gravel element of the Head comprises exclusively poorly sorted flint, many with cortex, linking its sole provenance to the Chalk lying about 1.25km to the north. The flints are slightly sub-angular (the edges showing minor blunting), the cortical faces often show frost-pitting and a high percentage are bleached (Plate 28). The angularity and frost-pitting indicates breakage under cold periglacial conditions, subsequently a minor amount of transport blunted the edges and the bleaching is a form of weathering indicating prolonged residence on the ground surface. The gravel is poorly sorted, intermixed with sandy clay and occurs over a height range of c 10m (85m OD in Area A to 95m OD near the northern boundary of the site), properties typical of mass movement downslope, a solifluction deposit. The bleaching suggests first a release from the Chalk, then a period of residence as Head Gravel on the Gault Clay–Lower Chalk bench by Acton Farm at 100–125m OD (Figs 18–19) before onward progress to the site as a mixture of flint from the Chalk, clay from the Gault Clay and a minor amount of sand from the Folkestone Beds. Although the Head Gravel is principally a poorly sorted slope deposit,

somewhat akin to a mudslide, when looked at in Area 2 where it is patchy, some patches are characterised by flints from 5–6cm up to c 12cm (Plate 28), others are typified by smaller flints of only 2–3cm up to c 12cm (Plate 29), suggesting that there is a minor degree of sorting, possibly due to reworking by surface water flow during heavy rainfall or snowmelt.

- 6.3.5** The patchy distribution of the Head Gravel in Area 2 can be attributed to loading processes. In saturated and super-saturated conditions, heavier overlying deposits often sink into weaker deposits below, forming circular structures (sometimes called festoons or involutions), up to c 1m across (Plate 30). Examples of this were seen in a face near the northern boundary of the site where Head Gravel and Head Brickearth have sunk into the Folkestone Sand. When seen in plan, some of the patches are circular to irregular, up to c 1.5m across (Plate 31), but in a few cases the patches are linear, up to c 3m long (Plate 32). This pattern does not occur so much in Area 1, suggesting that the ground hydrology of the two areas was different; possibly Area 2 was more saturated.
- 6.3.6** These load structures can occur under present-day conditions if the ground becomes sufficiently saturated, but they are more likely to have formed under cold periglacial conditions. As ground freezes, micro-lenses of ice form within the soil or sediment. The ice is hygroscopic and attracts surrounding water to itself and the lens grows. However, in doing this the sediment around the lens loses water which is made up later when the groundwater is recharged by rain or other processes. This then supplies more water to the lens which grows until the ice lenses coalesce and the ground is fully frozen. By this process of groundwater recharging the dehydrated zones around the ice lenses, the ground holds more water than in normal circumstances and is super-saturated. Whilst frozen, the ground is stable, but when melting occurs the supersaturated sediment is very fluid and can move over long distances on slopes as gentle as 1° or 2°. As an example, south of Sevenoaks, solifluction debris flowed up to 4km from the Greensand scarp over slopes of 1.5°. There are many other examples in Kent and around the country.

#### Head Brickearth

---

- 6.3.7** There appear to have been two periods of deposition of the Head Brickearth; an initial period of red-brown sandy silty clay (Head Brickearth a), followed by a grey-brown sandy silty clay (Head Brickearth b) (Plate 33). The latter is somewhat stiffer, suggesting it might have a slightly higher clay content. As the upper Brickearth follows on without a significant break, both are assumed to be part of the one period of aeolian activity.

#### *Distribution*

- 6.3.8** In Area 2 and on the west side of the ridge, the red-brown Head Brickearth (a) is spread thinly, possibly mostly c 0.5m (Plate 34). This is overlain by the grey-brown Brickearth b, nearly 1.5m thick (Plate 35).
- 6.3.9** In Area 1 it is less easy to make the distinction between the two brickearths, partly due to mottling (Plate 36), but mostly because of loading. In plan, the exposed surface is basically brown Brickearth a with frequent circular areas grey Brickearth b. The upper surface of the Head Brickearth can be seen to be irregular, affected by loading, as described above (Plate 37). In turn this would have affected the Brickearths, with Brickearth b (grey) sinking into Brickearth a (brown).
- 6.3.10** To the north, the ridge broadens and the Brickearth on the east side thickens considerably to 2m or more (Plate 37). This area has been mapped as Head Gravel by the British Geological Survey. The Head Gravel is present, as a thin deposit, at depth.
- 6.3.11** On the crest of the ridge, there is no Brickearth (Plates 38–39). The reason for this is not apparent. It may have been eroded off or may never have been deposited.

## 6.4 Chronology

### Mass movements (Head Gravel)

---

- 6.4.1** Whilst most slope movements can be dated to the Late Pleistocene, it should be borne in mind that parts of the current landscape are fragile. In one case in Northamptonshire land slipping has disturbed medieval ridge and furrow, known to have been in existence in AD 1615, indicating that the mass flow occurred during the Little Ice Age (Chandler 1971). At River Hill, Sevenoaks, slope movements were recorded between 1916 and 1932 and I personally witnessed further movement there in the 1990s

(Murton et al, 1998). Many of the Kentish mass movements were of Chalk, as Coombe Rock; and others of Lower Greensand as at Sevenoaks and locally at Boughton Malherbe. The loading structures associated with the junctions of the Folkestone Sands and Head deposits described above indicate that the local landscape was highly saturated and, therefore, vulnerable to mass movement.

6.4.2 Locally three periods of mass movement were recognised at River Hill, Sevenoaks, dated to the late Devensian (Skempton and Weeks 1976). The oldest is hardly recognisable in the landscape. The mass movement that led to the deposition of the Head Gravel at Burleigh Farm is most likely to relate to one of the later movements and be dated to the Dimlington Stadial or the Loch Lomond Stadial. In the absence of evidence to the contrary, the Head Gravel is suggested to have been deposited during the Loch Lomond Stadial. Many mass movements in Kent are attributed to that period. Dates from Late Glacial Interstadial soils and charcoal underneath mass movement material include:

Hubbard’s Hill, near Sevenoaks	12,250 BP	Uncalibrated
Devil’s Kneading Trough, Ashford	11,170 + 12,190 BP	Uncalibrated
Upper Halling, Medway Valley	10,900 + 11,240 BP	Uncalibrated
Holywell Coombe, Folkestone	Seven dates from 12,280 to 11,370 BP	Calibrated

6.4.3 These dates indicate that the overlying mass movement material was deposited during the Loch Lomond Stadial, initially dated to ~11,000–10,000 BP, but many radiocarbon dates have been recalibrated and the Loch Lomond Stadial is now dated to ~12,900–11,500 BP (Fig 20).

#### Aeolian activity (Head Brickearth)

---

6.4.4 The Head Brickearth is part of a pan-European belt of loess extending eastwards from Kent and East Anglia.

6.4.5 There were two periods of significant aeolian activity within the Late Devensian during the Dimlington Stadial and the Loch Lomond Stadial (Fig 21).

### 6.5 Artefactual potential

6.5.1 Given the provenance and dating of the Head Gravel and Head Brickearth, any Lower and Middle Palaeolithic material present will have been derived from the Clay-with-Flints (Scott-Jackson 2000) found near the crest of the North Downs, extending down the dip-slope (Figure 19).

6.5.2 Lower and Middle Palaeolithic artefacts may be found, but the frequency is likely to be low and they will be derived. Specific investigation to recover such material within the PEA is not recommended.

## 7 Worked flint (Rebecca Devaney)

### 7.1 Introduction

7.1.1 A total of 2,066 pieces of worked flint (including 72 chips) and 658 fragments (15,216g) of burnt unworked flint were recovered from the archaeological investigation at Charing Heath (Table 5). In addition, 429 pieces of natural flint (not humanly modified) were also recovered but won't be discussed further. The assemblage includes debitage and cores associated with deliberate blade and bladelet production and microliths, tranchet adzes and picks, all of which indicate a Mesolithic date.

Table 5. Summary of worked and burnt unworked flint by type

Worked flint type	Count
Flake	1357
Blade	173
Bladelet	116
Blade-like flake	163
Chip	72
Flake from ground implement	1
Irregular waste	30
Rejuvenation flake core face/edge	4
Bladelet core with one platform	5
Bladelet core with opposed platforms	5
Other bladelet core	2
Single platform blade core	1
Other blade core	2
Single platform flake core	17
Multiplatform flake core	48
Keeled flake core	8
Discoidal flake core	1
Core on a flake	8
Unclassifiable/fragmentary core	8
Tested nodule	1
Microlith	7
End and side scraper	5
End scraper	8
Side scraper	3
Backed knife	1
Denticulate	1
Retouched flake	9
Retouched blade	1
Miscellaneous retouch	1
Tranchet adze	2
Pick	3
Other heavy implement	1
Other	2
<b>Total</b>	<b>2066</b>
<i>Burnt unworked (count)</i>	658
<i>Burnt unworked (g)</i>	4770

### 7.2 Methodology

7.2.1 The worked flint was catalogued according to a standard debitage, core or tool type. Information about burning, breaks, condition, raw material and technology was recorded and, where possible, dating was attempted. In addition, burnt unworked flint was quantified by count and weight.

### 7.3 Provenance

7.3.1 The worked flint was recovered from 145 contexts with most of the material (1,131 pieces) being recovered from the surface of the Head deposits (context 1001). The rest of the contexts contained less

than 100 pieces each, and in most cases contained less than 10 pieces. The exceptions are context 1469 (P1 G13 pit S1470) which contained 101 pieces and context 3132 (P1 G20 pit S3133) which contained 52 pieces.

## 7.4 Assessment of assemblage

- 7.4.1 Unretouched debitage dominates the assemblage (1916 pieces, 93%). Of this total, 1357 pieces are flakes and 452 are blades, bladelets and blade-like flakes (this includes probable broken blades that exhibit the characteristics of blade production). This ratio (25% blades) is relatively high and suggests at the very least a Mesolithic or Early Neolithic component to the assemblage. Most of the blades exhibit technological characteristics associated with deliberate blade production, such as platform edge abrasion, punctiform butts and parallel dorsal blade scars indicative of previous blade removals from planned blade cores. The high number of bladelets suggests a Mesolithic as opposed to an Earlier Neolithic date. Technological characteristics associated with less skilled knapping, such as large striking platforms, clear cones of percussion, pronounced ventral ripples and hinge terminations were also seen. This material does not necessarily suggest the incorporation of later prehistoric material, and can still be consistent with the more obvious Mesolithic debitage. Four rejuvenation flakes were identified, where a deliberate attempt was made to try and re-work the core to further its usability, for example to remove overhanging platform edges or an area of protruding cortex.
- 7.4.2 A potential flake from a ground implement was recovered from context 1755 (P3 G14 ditch S1756). The flake (SF365, F.ID 1568) has a curved dorsal surface and a flat ventral surface. The dorsal surface is very smooth and has probably been polished. The flake is likely to have been removed from a polished implement, such as an axe, which would mean it is of a Neolithic or later date. The flake should be looked at again to confirm this.

### Cores

---

- 7.4.3 A total of 106 cores were recovered (5% of the worked flint assemblage), weighing between 10g and 483g. Technologically, the cores can be divided into three main groups: bladelet, blade and flake cores. As expected, the 12 bladelet cores are the smallest, weighing between 10g and 77g. Five of the cores have opposed striking platforms, where bladelet removals have been taken from opposite ends of a nodule, and five have a single platform. The two other bladelet cores are pieces that exhibit the negatives of bladelet removals but due to truncation by thermal breaks, are likely to have been part of larger cores that broke during knapping. As bladelets were predominantly produced during the Mesolithic, particularly to produce microliths, the cores are consistent with the debitage. Just three cores exhibit the larger negative scars of blade removals. The largest, a single platform blade core, weighing 93g, has parallel blade removals. The other blade cores, weighing 50g and 62g have blade removals from two main platforms. The flake cores show more variation, both in weight (from 16g to 483g) and in reduction strategy. The most common type are multi-platform flake cores (48 pieces), which have varying numbers of striking platforms. Many have been worked in a rather haphazard manner with flake scars struck from many angles and overlapping each other. The single platform flake cores (17 in total) appear to be more carefully worked, with removals often being taken in a parallel fashion from around one striking platform. Keeled flake cores are quite common (8 pieces) and are so called because flakes are removed from either side of an edge at an acute angle. Similarly, the discoidal flake core has overlapping striking platforms which create an edge with an acute angle, but is flatter in cross section, and more disc-like than the keeled cores. A small number of larger flakes were also utilised as cores (8 pieces). In most cases the ventral surface of the flake was used as a striking platform. The fragmentary or unclassifiable cores (8 pieces) are irregularly worked and some exhibit just a few removals. Thermal surfaces are often present and some are broken, having previously formed part of a larger core. One tested nodule was also recovered. Many of the cores are minimally or haphazardly worked and most retain areas of dorsal cortex, suggesting that the cores were not economically used and that there was a readily available source of raw material. However, many of the cores have thermal surfaces and flaws, suggesting that perhaps the material is of poorer quality. The cores are consistent with the debitage and confirm the presence of deliberate bladelet production associated with Mesolithic industries.

## Retouched tools

---

- 7.4.4** Given the size of the assemblage, the number of retouched tools is quite small (44 pieces, 2% of the worked flint assemblage). As is usually the case, most of the tools are scrapers (16 pieces). These have been classified according to standard physical descriptions as end and side scrapers (8 pieces), end scrapers (5 pieces) and side scrapers (3 pieces). All but one of the scrapers were made on flakes that retained dorsal cortex, with three primary flakes and 12 secondary flakes being present. This is understandable as the shape of the utilised flake and the resulting scraper edges are more important than the surfaces. Furthermore, the thicker flakes produced during the initial knapping of a core are more suitable for turning into scrapers than the thinner tertiary flakes. Scraping edges were created by abrupt and semi-abrupt direct retouch which forms a strong edge. As noted by Butler 'the range of scrapers found in Mesolithic assemblages is remarkably undiagnostic, and sometimes they can be surprisingly crude' (2005, 105) and this can be applied to the scrapers from Charing Heath.
- 7.4.5** The backed knife (F.ID 1514) has abrupt direct retouch on the right lateral edge, and an area of retained dorsal cortex at the distal end. The left lateral edge has remained unretouched and forms a naturally sharp cutting edge. The denticulate (SF239, F.ID 2073) has large retouch which creates teeth-like notches on the distal end. Artefacts with undiagnostic retouch (11 pieces) include nine retouched flakes, a retouched blade and a piece with miscellaneous retouch. The retouched flakes and blade have either direct or inverse retouch on one or more edges. The piece with miscellaneous retouch is a coarser grained material where the ventral characteristics of deliberate striking were not clear. Retouched flakes do not resemble a particular tool type and probably didn't have a particular function, but were likely to be expedient tools manufactured for a specific task.
- 7.4.6** The microliths are all late Mesolithic narrow-blade types (Jacobi 1978, types 5–7) and provide good dating evidence for the assemblage. A large Hengistbury Head type microlith is more unique (F.ID 1826), measuring 51mm long and 12mm wide. Also chronologically diagnostic to the Mesolithic are two tranchet adzes and three picks. The first (F.ID 1240) is quite small, measuring 78mm long and 33mm wide. Direct retouch on both lateral edges creates the shape and a horizontal tranchet blow creates the blade. The larger example, (SF 9013, F.ID 2047) is 120mm long and 48mm wide. It has a classic axe shape created by secondary flaking to all the edges, leaving just a small cortical butt. The transverse removal at the blade end has suffered some damage. The two picks from context 1001 are of a similar size. The first (F.ID 1870) is 148mm long and 40mm wide. It has a cortical curved top and a D-shaped cross section. Secondary flaking along the edges has created the shape and the point. The second (SF 478, F.ID 2048) is 145mm long and 50mm wide. Again, cortex is retained on the upper surface and secondary working creates a point at one end. The third pick (SF 391, F.ID 2080), from the Head Gravel (context 1034), is slightly larger, measuring 150mm long and 66mm wide. Both lateral edges are keeled due to secondary flaking, but the artefact is very rolled and stained which hinders identification.

## Raw material

---

- 7.4.7** Where identifiable, the most predominant raw materials are chalk derived flints, which are identified by a thick cortex, sometimes retaining its fresh white colour, particularly on the finer grained darker coloured material, but in many cases exhibiting a stained brown colour on the coarser grained grey and brown flints. The site lies close to where the chalk bedrock outcrops and is also close to an area of clay-with-flints, providing a local source for both types of material. Gravel derived flints, which have a thinner and more abraded cortex were also present, and were likely to be sourced from local river and gravel deposits. The abundance of large flakes and blades and the presence of large, minimally worked cores, suggests a good supply of readily available flint.

## Condition

---

- 7.4.8** In general, the condition of the worked flint assemblage is very good. A total of 1,021 pieces (52%, excluding chips) are in a fresh condition and 790 pieces (40%) have suffered just slight post-depositional damage, such as small chips to vulnerable edges. More extensive levels of damage were seen on 140 pieces (7%) and just two pieces have been heavily damaged. It is suggested that some of the edge damage occurred after excavation, due to the bulk bagging method of storage, where the flint artefacts are in contact with each other and become damaged, leaving tiny fragments in the finds bags. The good condition of the material suggests limited post-depositional disturbance at the site. Surface alteration

is limited, with 1,855 pieces (94%) remaining uncorticated. Light, moderate and heavy cortication were seen on 78 pieces (4%), 14 pieces (1%) and 21 pieces (1%) respectively. This takes the form of a pale blue or white discolouration on the surface of the flint, and was most commonly seen on the dark grey chalk derived flint. A total of 510 pieces (25%) are broken and 84 pieces (4%) show signs of burning. The number of broken pieces is quite high, and is again in some part due to the bulk bagging. Five cases were identified where pieces with fresh breaks conjoined with other broken pieces in the same bag.

## **7.5 Statement of potential and recommendations for further work**

**7.5.1** The worked flint from Charing Heath can be broadly dated to the late Mesolithic. This is based on the presence of bladelets, bladelet cores, narrow blade microliths, tranchet adzes and picks. The rest of the assemblage is consistent with this date and (apart from the potential flake from a ground implement) can be viewed as one assemblage. It is recommended that further work is carried out on this assemblage to confirm this date and further understand the nature of the material. Further work should include a detailed analysis of context information, to understand the spatial distribution of the assemblage and to ascertain if there are any concentrations of activity (for example the contexts with higher numbers of worked flint) or if the assemblage is all residual. The tools, particularly the microliths, the tranchet adzes and picks, and the potential flake from a ground implement should be looked at in more detail and compared to other Mesolithic assemblages, to confirm the potential dating. This assessment report will form the basis of the final report and a small number of flints should be illustrated to characterise the assemblage (for example at least two microliths, including the large Hengistbury Head type, the tranchet adzes and one of the picks).

## 8 Prehistoric pottery (Barbara McNee)

### 8.1 Introduction

8.1.1 A total of 132 prehistoric pottery sherds weighing 635g, and with a mean sherd weight of 4.8g, was recovered from archaeological investigations at Burleigh Farm. The condition of the pottery is poor and displays significant levels of abrasion on all sherd surfaces.

### 8.2 Methodology

8.2.1 The pottery was recorded using the methodology set out by the Prehistoric Ceramics Research Group (PCRG 1997). All sherds were examined and assigned to a broad fabric group after macroscopic examination and by using a binocular microscope (x10 power). A basic fabric series was established based on dominant inclusion types. All sherds were counted and weighed to the nearest whole gram, and given a unique pottery record number for ease of reference. Characteristics noted include basic forms, decoration and use wear evidence. Parallels have been sought using published and unpublished material. Microsoft Excel has been used to analyse and summarise the data. The pottery has also been assessed in order to identify its potential for further analysis.

### 8.3 Quantification

8.3.1 Three ceramic phases have been tentatively identified and a breakdown of the assemblage by ceramic phase (CP) is listed in (Table 6), and by archaeological intervention and context (Table 7). The dating is tentative as the assemblage contained just two featured sherds, and close dating cannot be achieved with any degree of confidence when small body sherds alone are represented. The Prehistoric Ceramics Research Group also suggests that a minimum of 25 sherds should be present in a context in order for a reliable estimation of phase to be carried out (PCRG 1997, 21). Precise identification is also hampered by the use of certain fabrics which are long lived, and can occur in several ceramic phases.

Table 6. *Summary of pottery by ceramic phase*

Ceramic Phase	Count and percentage of sherds	Weight and percentage of sherds
CP1: Early to middle Neolithic? (4000–3350 cal BC)	27 (20.5%)	263 (41.4%)
CP2: Late Bronze Age to early Iron Age? (1100–600 cal BC)	103 (78%)	353 (55.6%)
CP3: Middle to late Iron Age (300–100 cal BC)	2 (1.5%)	19 (3%)

Table 7. *Quantification and breakdown of the assemblage by context*

Context	Set	Group	Phase	Set Description	Count	Weight (g)	Ceramic Phase/s	Comments
1001	1000	75	5	Overburden	13	42	1	Body sherds, possibly earlier Neolithic
1146	1000	75	5	Overburden	10	36	2	Thick walled body sherds, possibly post Deverel-Rimbury
1210	1234	55	2	Feature	4	11	2	Flint tempered body sherds
1211	1212	4	2	Ditch	1	3	2	Worn body sherd
1254	1255	20	1	Pit	2	3	2	Worn flint tempered 'crumbs'
1317	1318	22	3	Pit	1	7	2	Flint tempered body sherd
1325	1326	30	3	Ditch	3	3	2	Body sherds
1652	1653	10	1	Gully	2	6	2	Worn body sherds
1681	1682	3	1	Ditch	2	19	3	Later Iron Age glauconitic sherd
1691	1697	56	3	Limekiln pit	1	3	2	Flint tempered body sherd
1693	1697	56	3	Limekiln pit	1	4	2	Red flint tempered sherd

Context	Set	Group	Phase	Set Description	Count	Weight (g)	Ceramic Phase/s	Comments
1696	1697	56	3	Limekiln pit	5	25	2	Worn body sherds
1714	1713	6	1	Gully	1	9	2	Body sherd
3114	3115	54	1	Ditch	2	4	2	Worn flint tempered body sherds
3116	3117	13	1	Pit	12	47	1 and 2	Includes 1 possible Neolithic sherd from a fine bowl
3132	3133	20	1	Pit	45	143	2	Several sherds possibly belonging to the same bowl
3151	3151	13	1	Pit	22	263	1 and 2	Possibly a mixed deposit of earlier Neolithic and late Bronze Age pottery
3158	3159	18	3	Post-holes	5	7	2	Worn body sherds

## 8.4 Fabrics

8.4.1 Four basic fabric groups have been identified during preliminary examination. The groups have been classified based on dominant inclusions, and further subdivided based on clay matrix type (silt or sand).

- 1 F/1: Flint and silty clay.
- 2 FSa/1: Flint and sandy clay matrix (mixture of medium sized quartz and common amounts of glauconite).
- 3 FSa/2: Flint in a very fine sandy clay matrix.
- 4 GSa/1: Grog in a sandy clay matrix (fine glauconite and quartz).

8.4.2 The geology of the area around Charing Heath comprises of the Folkstone Beds, Sandgate Beds with deposits of clay, clay-with-flints, sand, brickearth and alluvium. The inclusions identified in the fabrics are all available in the local geology (defined as less than 7 km, see Arnold 1985), suggesting local pottery production. Four different clay matrices were identified, and this would suggest the exploitation of a variety of clay sources by the potters. The assemblage is almost completely dominated by flint tempered fabrics and this is very typical of earlier and later prehistoric assemblages across Kent. One sherd is tempered with red flint (context 1693), and this may suggest the utilisation of a different flint source.

## 8.5 Forms, surface treatments, decoration and usewear

8.5.1 The assemblage contains just two featured sherds which belong to a broken rim (context 3132). Precise identification is hampered due to the lack of adjoining shoulders and obtaining the correct orientation, however the vessel is likely to be a fine open bowl with a fairly-long neck.

8.5.2 Several sherds (69 sherds) display evidence of surface treatment. These examples mostly belong to one badly fragmented pot (context 3132, P1 G20 pit S3133), and this has been burnished on the interior and exterior. Although worn, the pot would have been well burnished, and could represent a fine eating or drinking vessel. One body sherd (context 3116, PG13 pit S3117) has been coated with a fine clay slurry and then burnished. The application of this extra coating of clay may have helped reduce permeability in vessels intended for storage, or may have been used to make the pot more attractive by disguising unsightly coil joins. It may also have been added in order to make the handling of the pot easier, and assist the application of a burnish. The sherd has been tempered with angular flints; these may well have caused discomfort to the societies using them.

8.5.3 The assemblage is essentially undecorated, except for one sherd (context 3151, P1 G13 pit S3151). This example has tiny crescent marks, or tiny fingernail impressions on the interior of the rim, although it is too worn to be certain. The marks could also represent manufacturing marks when the rim was joined to the neck by the potter. The sherd shares similarities with those recovered from Kingsborough (Gibson and Leivers 2008, figure 9.15).

8.5.4 None of the sherds display any usewear evidence.

## 8.6 Discussion

8.6.1 The pottery was recovered from eighteen contexts. The sherds from the excavation show high levels of abrasion on all surfaces. This suggests possible derivation from a rubbish collection open to weathering

and trampling, or general use in a domestic context prior to ending up in their excavated context. Several sherds deriving from P1 G20 pit S3133 (context 3132) could belong to the same pot. The condition would suggest that large sections of the pot body were discarded, crushed and exposed to the elements, prior to deposition.

**8.6.2** The earliest ceramic phase at Burleigh Farm could suggest Neolithic activity (contexts 1001, 3116 and 3151) The pottery is somewhat undiagnostic and has been tentatively assigned to ceramic phase 1 on the basis of the inclusions present in the fabrics, and the general character of the sherds such as firing and thickness. Similar pottery fabrics have been recovered at the nearby Sandway Road, and these have been dated to the earlier Neolithic (Edwards 2006). One possible decorated sherd can be paralleled with the Kingsborough assemblage, and this has been dated to between the 38th and 35th century cal BC (Gibson and Leivers 2008, 253).

**8.6.3** A number of coarse flint tempered sherds could represent the next phase of prehistoric activity, which would commence at some point during the late Bronze Age or earliest Iron Age phase. For the most part the pottery could be dated no more closely than to the earlier/mid part of the first millennium BC. Two body sherds could belong to a later Iron Age phase of activity (context 1681, P1 G3 ditch S1682). One sherd contains significant amounts of glauconite, and during the middle Iron Age there appears to be an increase in the use of glauconitic sandy fabrics (Morris 2006). The sherd also contains some grog inclusions. Eventually grog-tempered fabrics became one of the commonest groups used to make pots in the latest pre-Roman Iron Age period (*ibid*). The Burleigh Farm example may be an earlier example of this particular fabric, due to it containing only moderate amounts of grog.

## **8.7 Conservation**

**8.7.1** The pottery is well bagged and boxed for long-term storage and will require no further conservation. It is recommended that all the prehistoric material be retained for long-term storage.

## **8.8 Statement of potential**

**8.8.1** This small pottery assemblage is important as an indicator of settlement or use within the area during the prehistoric period, possibly commencing during the earlier Neolithic. The assemblage does not appear to represent the later Neolithic, early Bronze Age or middle Bronze Age periods. Several sherds are possibly of late Bronze Age date.

## **8.9 Recommendations for further work**

**8.9.1** There is little potential for further analysis due to the condition of the pottery, and the lack of diagnostic sherds, and therefore no further work is recommended for the prehistoric pottery assemblage.

## 9.1 Introduction

9.1.1 The excavation yielded 1000 sherds (6,537g) of Roman pottery from 53 contexts. A small amount of this pottery may or may not be of late Iron Age date but the bulk (873 sherds, 5790g) belongs to the period c AD 43–150.

## 9.2 Methodology

9.2.1 All the pottery assemblages were quantified by numbers of sherds and their weights per fabric. These fabrics were classified using a x8 magnification lens with built-in metric graticule in order to determine the natures, forms, sizes and frequencies of added inclusions and those naturally present in the prepared potting clay. Fabric codes are those created by the Canterbury Archaeological Trust (Macpherson-Grant *et al* 1995), with the prefixes B, BER and R for 'Belgic' Late Iron Age, 'Belgic'/Early Roman and Roman respectively. None of the assemblages are large enough for further quantification by Estimated Vessel Equivalents (EVEs) based on rim sherds (Orton 1975).

## 9.3 Fabrics

### 9.3.1 Late Iron Age fabrics

- B1 Fine 'Belgic' grog-tempered ware
- B2 Coarse 'Belgic' grog-tempered ware
- B2.1 Coarse 'Belgic' grog-tempered ware with additional siltstone grog.
- B3 Coarse 'Belgic' grog-tempered ware with additional sparse calcined-flint inclusions.
- B5 Coarse 'Belgic' grog and sand tempered ware
- B8 Fine sandy black fabric with profuse <0.30 mm. Multi-coloured quartz-sand filler
- B9 Coarse sandy black fabric with profuse <0.50 mm. Multi-coloured quartz-sand filler
- B16. ELG TR3 fabric
- B22 East Sussex Ware.

### 9.3.2 Transitional 'Belgic' to early Roman fabrics

- BER7 ELG Gallo-Belgic Whiteware. Rigby fabric 1B
- BER15 Chaff-tempered briquetage fabric.

### 9.3.3 Roman

- R5 Canterbury Greyware
- R9.1 Canterbury fine oxidised sandy fabric.
- R14 BB2
- R16 North Kent Fineware
- R17 Hoo St Werburgh oxidised version
- R42 South Gaulish Samian
- R61D Cream-brown Canterbury mortarium fabric with trituration grits of flint, quartz and red-brown material.
- R74.1 Oxidised sandy fabric.

## 9.4 The Assemblages

### P2 late Iron Age to early Roman

- 9.4.1 P2 pits S1394 (G2) and S1309 (G21) and feature S1234 (G55) produced a total of 12 sherds (33g) of badly comminuted or abraded pottery. All but one of these sherds is in handmade grog-tempered ware Fabric B2 and could be either late Iron Age or early Roman date. The other fragment is from the G21 pit S1309 and is in a Romanised sandy greyware of uncertain origin. All the fragments are non-diagnostic bodysherds, with the presence of the Romanised greyware fragment suggesting that the features of this phase belong to Phase 3.

### P3 early Roman

- 9.4.2 The bulk of the recovered pottery was from P3 early Roman features; with nearly all belonging to the period c AD 43–150.

Table 8. Summary of Phase 3 Early Roman pottery assemblage

Fabric	Count	%	Weight (g)	%
Prehistoric	1	0.1	1	0.02
B1	16	1.8	64	1.10
B2	336	38.1	3353	57.71
B2.1	7	0.8	91	1.57
B3	1	0.1	7	0.12
B5	4	0.5	73	1.26
B8	9	1.0	173	2.98
B9	2	0.2	12	0.21
B16 TR3	6	0.7	13	0.22
B22	2	0.2	49	0.84
BER7	7	0.8	3	0.05
BER15	5	0.6	12	0.21
BER16	1	0.1	4	0.07
R5	11	1.2	32	0.55
R6	3	0.3	29	0.50
R9	1	0.1	7	0.12
R14	4	0.5	11	0.19
R16	253	28.7	767	13.20
R17	187	21.2	705	12.13
R61D	7	0.8	345	5.94
R74.1	1	0.1	32	0.55
Miscellaneous	18	2.0	27	0.46
<b>Total</b>	<b>882</b>		<b>5810</b>	

- 9.4.3 The bulk of the pottery getting to the site during P3 comes from native 'Belgic' grog-tempered ware producers (41%) and the Thameside kilns around the estuary of the Medway (51%). The Thameside industry products are almost entirely made up from grey North Kent Fine table wares in fabric R16 and flagons in their oxidised equivalent Hoo St Werbergh fabric R17. Other minority wares include fineware import fragments from a girth-beaker in TR3 fabric (c AD 0–60) and a Gallo-Belgic Whiteware flagon in fabric BER 7 (c AD 10–60); a c AD 43–70 dated South Gaulish Samian platter sherd was unstratified and not included in Table 8. This is the only Samian sherd from the site.
- 9.4.4 Most of the P3 pottery comes from the G22 pits (699 sherds, 4456g). The largest individual pottery assemblage in this group came from pit S1050 with evidence of burning *in situ* (254 sherds, 1725g) and appears to include the latest Roman pottery from the site. It is clear, from the variety of fabrics, that this pit was not used for firing pottery and that the sherds in the bottom of it cover a considerable period of time from the late first to the late second century AD at least. The latest fragments come from a BB2 'pie dish' of Monaghan's Class 5D (1987, c AD 120–180) and a pentice beaker in North Kent Fineware (c AD 150–300).
- 9.4.5 Other G22 pits show signs of structured deposition, suggesting either ritual or industrial activities. These include pit S1059, which yielded 55 sherds of pottery dated c AD 70–130 and burnt pit S1224 with a 191

sherd assemblage. The lower fill of pit S1224 (context 1273) yielded a c AD 43–90 dated assemblage and the upper fill (context 1223) one dated c AD 80–100/150.

**9.4.6** G22 pit S1318 also yielded a significant (147 sherds) pottery assemblage dated c AD 50/70–100 with the most significant suppliers, as with the rest of the G22 pits, being the 'Belgic' grog-tempered ware producers for cooking and storage vessels and the Thameside kilns for North Kent Fineware beakers and its oxidised Hoo St Werbergh equivalent for flagons.

**9.4.7** The G56 limekiln produced a further 64 sherds (345g) of pottery, of which 45 relate to its usage and suggest that it was in operation during the period c AD 43–70. The rest of the sherds come from backfilling after the limekiln was abandoned and are similarly dated.

**9.4.8** There is no ceramic evidence for late Roman occupation.

## 9.5 Recommendations for further work

**9.5.1** All of pottery assemblages referred to above should be published with an estimated 15 pottery sherds to be illustrated.

Table 9. *Late Iron Age and Roman pottery catalogue*

Context	Set	Group	Phase	Fabric	Form	Date-range	Count	Weight (g)	Comments
1001	1000	75	5	B1 Black	Ev rim jar	25 BC–AD 100	1	5	
1001	1000	75	5	B2	Necked jar	c 25 BC–AD 100	1	18	Fresh
1001	1000	75	5	B2 Black	B1-1 jar	c 25 BC–AD 70			
1001	1000	75	5	B2 Black	B2-2 jar	c 25 BC–AD 50			
1001	1000	75	5	B2 Black	C1-2 bead-rim jar	c 25 BC–AD 100	70	453	
1001	1000	75	5	MISC			1	19	
1001	1000	75	5	R16	closed forms		8	16	
1001	1000	75	5	R42	Dr 18 dish	c AD 43–70	1	30	
1002	1003	22	3	B2 Ox		Residual	1	6	Abraded
1011	1012	45	5	B2 Bl	Jar		1	21	Fresh
1011	1012	45	5	R17	5B2.5 dish	c AD 90–130	3	59	abraded
1046	1048	39	4	R5	Jar	Residual	1	6	
1049	1050	22	3	B2 Black	B1-1 jarsx3	c 25 BC–AD 100+			
1049	1050	22	3	B2 Black	C1-2 jar	c 25 BC–AD 100	70	803	
1049	1050	22	3	B2 Ox	C1-2 jar	c 25 BC–AD 100	76	668	
1049	1050	22	3	B9	jar		2	12	
1049	1050	22	3	BER16	Briquetage		1	4	
1049	1050	22	3	MISC			10	11	
1049	1050	22	3	R14	5D1 bowl	c AD 120–180	4	11	
1049	1050	22	3	R16.	2A2 beaker	c AD 90–130			
1049	1050	22	3	R16.	biconical beaker	c AD 43–130			
1049	1050	22	3	R16.	2C beaker	c AD 150–300			
1049	1050	22	3	R16.	2H1 Beaker	c AD 80–130	54	135	
1049	1050	22	3	R17	flagon	c AD 50–150	32	39	
1049	1050	22	3	R5	jar	c AD 80–175	4	10	
1049	1050	22	3	R74.1	closed		1	32	
1058	1059	22	3	B2 Black	Jars		30	325	Fresh
1058	1059	22	3	R16	biconical beaker	c AD 43–130			fresh
1058	1059	22	3	R16	5B3.1 dish	c AD 70–130			fresh
1058	1059	22	3	R16	7A2 dish	c AD 43–140	22	167	fresh
1058	1059	22	3	R17	flagons	c AD 50–150	3	6	abraded
1103	1106	23	5	B22	Painted jar	c 50 BC–AD 70 but residual	2	20	
1115	1115	18	3	B2 Black	Jars	c 25 BC–AD 100	5	8	Fresh and abraded
1129	1000	75	5	R16	Biconical base	c AD 43–130	15	35	Fresh
1150	1149	22	3	B2	Jar	c 25 BC–AD 100	4	14	Fresh and abraded

Context	Set	Group	Phase	Fabric	Form	Date-range	Count	Weight (g)	Comments
1150	1149	22	3	B2.1 black	jar	c 25 BC–AD 100	1	4	fresh
1154	1156	21	2	B2 Black	Chips	c 25 BC–AD 100	3	4	
1157	1158	22	3	B2 Black	Ev rim jar		4	28	Fresh
1157	1158	22	3	B2.1 Black	jar		1	3	fresh
1157	1158	22	3	B22	painted jar	c 50 BC–AD 70	2	49	fresh
1157	1158	22	3	R16	2G2 biconical	c AD 43–100	5	18	fresh
1206	1207	4	2	B1 Black			1	2	Fresh
1206	1207	4	2	B1 Ox			3	4	fresh
1206	1207	4	2	B16 TR3	CAM 82 Beaker	c AD 0–60	1	1	sl abraded
1210	1234	55	2	B2 Black	Jar	c 25 BC–AD 100	5	23	
1223	1224	22	3	B2 Black	B2-1 jar	c 25 BC–AD 100	13	186	Fresh
1223	1224	22	3	B8	closed		2	6	fresh
1223	1224	22	3	R16	closed		8	32	abraded
1223	1224	22	3	R17	flagon	c AD 50–150	44	64	fresh 1 flagon
1223	1224	22	3	R5	lid-seated bowl	c AD 80–150	7	22	fresh and abraded
1230	1229	18	3	B1 Black		c 25 BC–AD 100	2	8	Fresh
1230	1229	18	3	B2	Jar	c 25 BC–AD 100	2	9	fresh
1273	1224	22	3	B2	C4 Jar	c AD 30–100	16	340	Fresh
1273	1224	22	3	B8	lid		3	141	fresh
1273	1224	22	3	R16	2B2 butt beaker	c AD 43–90			fresh
1273	1224	22	3	R16	4J1 bowl	c AD 43–120	98	227	fresh
1278	1279	22	3	B2 Black	Jars		7	33	Fresh and sl abr
1278	1279	22	3	MISC			3	8	abraded
1278	1279	22	3	R16	biconical beaker	c AD 43–130	11	48	sl abraded
1278	1279	22	3	R17	closed	c AD 50–150	1	4	fresh
1282	1283	22	3	MISC			2	6	abraded
1282	1283	22	3	R16	closed	c AD 43–300+	1	3	abraded
1282	1283	22	3	R9	Closed	c AD 50–200	1	7	Abraded
1286	1286	22	3	R17	Closed	c AD 50–250	1	4	Fresh
1308	1309	21	2	B2 Ox		c 25 BC–AD 200	1	3	Abraded
1308	1309	21	2	MISC		c AD 50–370	1	5	abraded
1317	1318	22	3	B16 TR3	Beaker	c AD 0–60	4	11	
1317	1318	22	3	B2 Black	C1-2 jar	c 25 BC–AD 100			
1317	1318	22	3	B2 Black	C2-1 jar	c 25 BC–AD 70			
1317	1318	22	3	B2 Black	C3 jarx2	c 25 BC–AD 70	45	552	
1317	1318	22	3	B2 Ox	Jars		15	91	
1317	1318	22	3	B2.1			2	48	
1317	1318	22	3	B5	jar		4	73	
1317	1318	22	3	B8	HM necked jar	c AD 0–60	3	12	
1317	1318	22	3	BER7	flagon	c AD 50–200	7	3	
1317	1318	22	3	MISC			2	1	
1317	1318	22	3	R16	4J1 bowl	c AD 43–120			
1317	1318	22	3	R16	ev rim beaker	c AD 70–150			
1317	1318	22	3	R16	ev rim cup		39	114	
1317	1318	22	3	R16	2G1 biconical	c AD 70–130			
1317	1318	22	3	R17	flagon		24	21	
1317	1318	22	3	R6		c AD 50–200	2	28	
1325	1326	30	3	B2	Jar	?Residual	2	4	Abraded
1356	1358	31	3	B2.1		Residual	1	1	V abraded
1378	1314	56	3	R17	Closed	c AD 50–150 but residual	4	7	Abraded
1392	1394	2	2	B2 Black		Residual	5	2	Abraded
1417	1419	39	3	B2 Black	Bead-rim jar	c 25 BC–AD 70	4	26	Fresh and abraded
1426	1279	22	3	B2 Black	Jar		5	21	
1426	1279	22	3	R16	4J1 bowl	c AD 43–120	2	5	Fresh

Context	Set	Group	Phase	Fabric	Form	Date-range	Count	Weight (g)	Comments
1428	1430	27	3	B2	Jar	c 25 BC–AD 200	1	4	
1473	1474	32	3	B2 Black		Residual	1	5	V abraded
1488	1490	31	3	B2 Black		Residual	2	2	V abraded
1508	1508	13	1	B1 Black		Residual	1	4	Abraded
1536	1537	33	3	B16 TR3		c AD 0–60	1	1	
1560	1561	32	3	B2		Residual	2	3	
1676	1677	14	3	B1 Ox		Residual	2	1	Abraded flakes
1686	1677	14	3	B2 Ox		Residual	2	8	Abraded
1690	1687	56	3	B2.1	Jar	c 25 BC–AD 200	1	7	Sl abraded
1691	1697	56	3	B2 Black	Thick-walled jar	c 25 BC–AD 100	2	12	Fresh
1691	1697	56	3	B2 Ox	jar	c 25 BC–AD 100	3	20	fresh and sl abr
1691	1697	56	3	R16		c AD 43–150	1	2	abraded
1693	1697	56	3	B2 Black	Jar base	c 25 BC–AD 70	6	79	Fresh
1693	1697	56	3	B3	jar	c 100 BC–AD 50	1	7	abraded
1693	1697	56	3	R16	closed form	c AD 43–100	1	4	sl abraded
1696	1697	56	3	B1 Ox	Closed	c 25 BC–AD 70	7	44	Fresh
1696	1697	56	3	B2 Bl	closed	c 25 BC–AD 100	6	39	fresh and sl abr
1696	1697	56	3	B2 Ox			2	6	sl abraded
1696	1697	56	3	B8	HM necked jar	c AD 0–60	1	14	fresh
1696	1697	56	3	MISC			1	1	
1696	1697	56	3	R16	beaker	c AD 43–300+	11	12	fresh
1700	1703	14	3	B1 Black	Jar	c 25 BC–AD 70	1	5	Fresh
1706	1707	8	3	R17	Lagena	c AD 50–250	53	481	All one pot
1708	1709	7	3	BER15		c AD 0–70	5	12	Abraded
1708	1709	7	3	R6		c AD 50–200	1	1	abraded
1720	1720	14	3	B2 Black	Jar		5	29	Fresh
1720	1720	14	3	R17	1E1.2 flagon	c AD 130–200	1	4	abraded
1723	1707	8	3	R17	?Flagon	c AD 50–250	11	41	All one pot.
1735	1697	56	3	R17	Closed	c AD 50–250	6	3	Flakes
1741	1697	56	3	B2.1 Black	B2-4 jar	c 25 BC–AD 70	1	28	Fresh
1743	1697	56	3	Prehistoric		Residual	1	1	V abraded
1746	1697	56	3	R17	Flagon neck	c AD 50–250	7	31	Fresh 1 pot
1748	1697	56	3	B2 Black	Jar base	c 25 BC–AD 100	2	28	Fresh 1 pot
3016	3017	77	3	R61D	Mortarium	c AD 100–150	7	345	One pot
3078	3079	72	6	B3		Residual	1	8	Abraded
<b>Total</b>							<b>1000</b>	<b>6537</b>	

## 10 Post-Roman pottery (Luke Barber)

### 10.1 Assemblage summary

10.1.1 The archaeological work recovered just 23 sherds of post-Roman pottery, weighing 312g, from 12 individually numbered contexts. At least 19 different vessels are represented. The overall assemblage is of variable condition with a range of sherd sizes. Although the general trend is toward small sherds (ie up to 30mm across) larger sherds are also present (ie to 54g) in a few deposits. The average sherd sizes by period are shown in Table 10. Most of the pottery is in reasonably good condition though there are a notable number, from a wide chronological range, which show signs of abrasion as well as the adverse effects of an acidic subsoil. As such a fair proportion of the pottery appears to have seen some reworking.

10.1.2 The overall site assemblage is characterised at a basic level in Table 10 in order to give a rough idea of quantities by period. The exact division between periods is approximate as the CAT medieval fabric groups, prefixed with a period letter code and used in this report, often cross the actual dates allocated. This is most notable with the early medieval (EM) and medieval (M) fabrics on the current site, particularly the developed shelly wares. The assemblage has been fully quantified (number of sherds/weight/estimated number of vessels) by fabric and spot dated for archive. The results of this work have been input in Microsoft Excel format.

Table 10. *Characterisation of pottery assemblage by period.*

Period	Count/weight	Average sherd size	No. of different fabric groups
Early medieval (EM fabrics) C12th–early/mid C13th	3/34g	11.3g	Local: 2
High medieval (M fabrics) Early/mid C13th–mid C14th	9/110g	12.2g	Local: 6
Late medieval (LM fabrics) Mid C14th–early/mid C16th	3/34g	11.3g	Local: 1
Early post-medieval (PM fabrics) Mid C16th–mid C18 <sup>th</sup>	6/78g	13.0g	Local: 2 Regional: 2 Imported: 1
Late post-medieval (LPM fabrics) Mid/late C18th–mid C20th	2/56g	28g	Local: 1

NB. Totals include all residual/intrusive and unstratified material. Local equates to Wealden wares; Regional to other English wares

### 10.2 Periods and fabrics

10.2.1 Overall the date range of the pottery from the site spans the later twelfth to eighteenth centuries though the peak of activity appears to be between AD 1225 and 1350.

#### Early medieval: early twelfth century to early/mid thirteenth century

10.2.2 This period is represented by just three sherds of North/West Kent shelly ware, two without sand (fabric EM35 from P4 G40 ditch S1017 and G38 ditch S1026) and one with sand (fabric EM36, P3 G14 ditch S1756). The two EM35 cooking pots both have developed tapering rims suggesting a date in the later twelfth century though that from ditch S1026 is almost certainly residual. The EM36 sherd could run as late as the mid thirteenth century.

#### High medieval: early/mid thirteenth to mid fourteenth century

10.2.3 This period is dominated by sandy wares. Although most are in one of the local Ashford/Wealden fabrics (eg M40A, M40B, M40C and M40CS), as well as two North/West Kent or Surrey sandy greywares (M38A N/W Kent greyware and a possible M44 Limsfield sherd from P5 G44 deposit S1060 and P4 G38 ditch S1026 respectively). Most sherds are not diagnostic of form but cooking pots and jugs are present. The

latter include an M40B Ashford/Wealden sandy ware jug with white slip under a clear glaze P4 G38 ditch S1028.

#### Late medieval: mid fourteenth to early/mid sixteenth centuries

---

- 10.2.4 Only three sherds of this date were recovered – all coming from the oxidised base of a vessel in Wealden orange-buff sandy ware (LM32, P5 G39 ditch S1074). A fifteenth- to early sixteenth-century date is suspected.

#### Early post-medieval: early/mid sixteenth to mid eighteenth centuries

---

- 10.2.5 The six sherds of early post-medieval pottery can best be placed in a seventeenth- to mid eighteenth-century date range. Three of the sherds came from P5 G44 deposit S1060 and consisted of sherds of Hard-fired Earthenware, Border Ware (with brown glaze) and Staffordshire-type white salt-glazed stoneware. The latter type is usually dated c AD 1725–1775 though the other two are more likely to derive from the seventeenth century. P5 G43 masonry drain S1089 produced another sherd of white salt-glazed stoneware, possibly from the same bowl, as well as a local glazed red earthenware sherd. P5 G60 horticultural feature S1589 produced the only imported sherd – a North Italian marbled slipware bowl fragment (8g) of the seventeenth to mid eighteenth centuries. This one vessel alone suggests some of this refuse was coming from a well-connected household.

#### Late post-medieval: mid eighteenth to mid twentieth centuries

---

- 10.2.6 The only pottery of this period consists of two quite fresh glazed red earthenware sherds from bowls of mid /later eighteenth-century date recovered from P5 G39 ditch S1048.

### 10.3 Statement of potential

- 10.3.1 The ceramic assemblage from the current site is very small, with few feature sherds and no large context groups. There is also a danger of residual and intrusive sherds – the negligible quantities of pottery in many deposits not making it clear if this is occurring. As such the assemblage is not considered to warrant any further analysis beyond that undertaken for this assessment. Mention should be made of the presence of this material in the site narrative, particularly the Italian slipware, but this information can be extracted from the current assessment and associated Microsoft Excel archive.

### 10.4 Recommendations for further work

- 10.4.1 No further work is proposed and no material is suggested for illustration.

## 11 Clay tobacco pipes (Luke Barber)

### 11.1 Assemblage summary

11.1.1 The archaeological work recovered 9 pieces of clay pipe from the site. The material has been fully listed in Table 11 as part of the visible archive.

Table 11. *Clay tobacco pipe assemblage*

Context	Element	Date	Count	Weight (g)	Bore diameter	Combined stem length	Comments
1060	Stem	c AD 1750–1900	2	4	1.4–1.8mm	61mm	Slight wear
1348	Stem	c AD 1700–1750	1	4	2.2mm	43mm	Slight wear
1522	Stem	c AD 1750–1900	5	8	1.6mm	162mm	Fresher. Same pipe
1588	Stem	c AD 1700–1750	1	4	2.0mm	46mm	Slight wear

11.1.2 The small assemblage does not include any seventeenth-century examples – all probably belonging to the eighteenth-century, though a nineteenth-century date cannot be ruled out for the later types. The material is unremarkable and probably represents breakages by agricultural labourers in the fields and/or domestic refuse being used for manuring.

### 11.2 Statement of potential

11.2.1 The clay pipe assemblage is small and composed of stem fragments from slightly mixed deposits. The danger of intrusiveness and residuality is always high. As such the material is not considered to hold any potential for further analysis beyond that undertaken for this report.

### 11.3 Recommendations for further work

11.3.1 No further work is proposed and no material is suggested for illustration.

## 12 Ceramic building materials (Luke Barber)

### 12.1 Introduction

12.1.1 The archaeological work recovered 154 pieces of ceramic building material, weighing 6,127g, from 31 individually numbered contexts. These totals include a small quantity of burnt clay/daub fragments. All the material considered within this assessment was collected by hand – none has come from environmental residues. The whole assemblage has been fully recorded on pro forma for archive. The resultant data has been used to create an excel database as part of the current assessment and digital archive. The assemblage is composed of a mix of material, both in terms of types and chronological spread, but by far the majority is of the post-medieval. The assemblage is characterised in Table 12.

Table 12. Breakdown of the ceramic building material assemblage

Type	Count	Weight (g)
Daub/Burnt Clay	36	270
Roman tile (misc)	1	76
Medieval roof tile	1	2
Post-medieval brick	8	2267
Post-medieval roof tile (peg)	32	2090
Post-medieval roof tile (flat – probably peg)	75	1402
Post-medieval roof tile (ridge)	1	20

12.1.2 Fabric codes relate to a fabric series established for the site during the archive recording with the exception of the Roman tile, which used the Canterbury code (Barber 2015). Table 13 lists the fabrics allocated, together with provisional suggestions for their date ranges. Where possible the fabrics have been correlated with those noted from excavations at Lenham, a site that produced a similar dominance of calcareous-peppered types (Barber 2016).

Table 13. Ceramic Building Material fabrics

Code	Fabric	Notes	No/weight	Provisional date range
D1	Fine silty clay	Daub/burnt clay	35/264g	-
D2	Fine sandy clay	Daub/burnt clay	1/6g	-
R7a	Moderate/abundant fine quartz	Well formed and fired. As R7a at Canterbury	1/76g	Roman
B1a	Moderate fine medium quartz, sparse/common iron oxides to 2mm	Quite well formed and fired. (B4a at Lenham)	8/2267g	Mid C17th–early C19th
T1a	Silty matrix with sparse medium quartz grains	Well formed and fired	45/616g	C16th–mid C18th
T2a	Poorly-sorted fine and coarse calcareous inclusions (voids) to 1.5mm, marl streaks and no quartz	Quite well formed, well/hard fired (T2c at Lenham)	41/2106g	Mid C15th–mid C18th
T2b	Sparse fine quartz with some calcareous inclusions	Quite well formed, well/hard fired (T3a at Lenham)	7/296g	C16th–C18th
T2c	Abundant very fine calcareous peppering	Quite well formed, well/hard fired	8/354g	C16th–C18th
T3a	Silty matrix with rare shell inclusions	Quite well formed, well/hard fired	1/18g	C16th–C18th
T4a	A buff/yellow marl-rich fine fabric with streaking	Quite well formed, well fired (similar to T6a at Lenham)	6/122g	C15th–C16th
T5a	Common medium quartz, rare calcareous inclusions to 1mm	Quite well formed, well fired. (T7a at Lenham)	1/2g	Mid C14th–15th

### 12.2 Daub/burnt clay

12.2.1 All of the daub/burnt clay was recovered from contexts dated to P1 (1/6g), P2 (1/4g) or P3 (34/260g). All consists of amorphous fragments with the exception of an 11mm thick piece with flattish faces from P1 G20 pit S1643. The largest groups were recovered from P3 G22 pit S1050 (48g), G22 pit S1285 (72g) and G56 limekiln S1314 (132g) but quantities are insignificant.

## 12.3 Roman tile

- 12.3.1 A single piece of residual Roman tile was recovered from a P5 G39 ditch S1057. The piece, which measures 18mm thick, is not diagnostic of form and is heavily abraded. The virtual absence of Roman tile at the site might indicate there were probably no tiled buildings in the vicinity.

## 12.4 Medieval roof tile

- 12.4.1 The single 2g scrap of definite medieval tile was found residual in P5 G47 ditch S3027. Although some of the post-medieval tile is likely to be from the very end of the medieval period (see below), this is the only example that could be of the fourteenth to fifteenth centuries. As with the Roman period, it suggests any buildings that may have been in the area were roofed with thatch or shingles.

## 12.5 Post-medieval brick

- 12.5.1 All of the brick is of this period and, surprisingly, only represented by a single fabric. All of the brick was recovered from P4 or P5 contexts and, considering the finishes and dimensions present the material appears to span the mid sixteenth to eighteenth centuries. Only two full widths were recovered – a 105mm wide, 55mm thick, example from P5 G43 masonry wall/drain S1063 that could be of the seventeenth to eighteenth centuries and a 114mm wide, 60mm thick, example from P5 G50 land drain S1349 suspected of being of eighteenth-century date.

## 12.6 Post-medieval roof tile

- 12.6.1 Peg tiles dominate the assemblage of roofing tile and it is likely, in the absence of any other types, that all of the undiagnostic 'flat' tiles also derive from peg tiles. A good proportion of these are in one of a number of calcareous peppered fabrics (Table 13) of varying degrees of coarseness and frequency. It is clear that these derive from a local workshop but the dating is currently a little ambiguous. Calcareous flecked roof tile is very common in East Sussex in the area around Winchelsea and Rye where it dominates fifteenth- to sixteenth-century deposits. However, more recent work has discovered some calcareous peppered peg tiles in the same area that are clearly of eighteenth- to nineteenth-century date. These types dominated the assemblage from nearby Lenham where it was clear that, although having their beginnings in the late medieval period, the general type continued through into the later post-medieval period (Barber 2016). Distinguishing the earlier and later types has had to rely on finish rather than fabric alone. At the current site by far the earliest dated consist of the eight pieces of T2a peg tile (520g) found in association with mid fifteenth- to mid sixteenth-century pottery in P5 G39 ditch S1074. The same deposit produced two further 'flat' pieces (106g) in T2c and two in T4a (82g). As such these types clearly do have an early start as noted at Lenham. However, similar types appear repeatedly at the current site in deposits associated with later pottery, including P5 G60 feature S1589 (dated c AD 1650–1750) and P4 G38 ditch S1036 (dated c AD 1725–1775). To what extent these pieces represent residual/re-used tile or an uninterrupted continuation of the local tile industry throughout the post-medieval period is uncertain. Fabric 1a, although not possessing calcareous inclusions is very similar to the T2 types in matrix, form and finish and is suspected of being related – the lack of calcareous inclusions possibly being a chronological progression. All of the surviving peg holes are of quite crude circular form – with just a single rectangular example (in T2a) being represented. The absence of square and diamond-shaped peg holes, which were noted at Lenham, is probably an indicator that the current assemblage relates to the early rather than late post-medieval period.

## 12.7 Statement of potential

- 12.7.1 The assemblage is relatively small and essentially of post-medieval date. The material on the whole lacks secure associated dating and there is quite obviously a high risk of residual and intrusive material (there is even a piece of post-medieval tile from the P3 G56 limekiln S1314, fill 1378). As such there is only very limited scope for the current assemblage to help refine the fabric chronology of the area. The assemblage is not considered to hold any potential for further analysis beyond that done for this assessment.

## 12.8 Recommendations for further work

- 12.8.1 No further work is proposed and no material is suggested for illustration.

## 13 Geological material (Luke Barber)

### 13.1 Introduction

13.1.1 The excavations produced 59 pieces of stone, weighing 6718g, from 23 individually numbered contexts. These totals include 6 pieces (3786g), grouped under four small find numbers and two pieces recovered from one of two environmental residues. Of the small finds only one example shows any definite signs of working (SF1104 from P3 G32 ditch S1577). The assemblage has been fully listed on geological record sheets for the archive, with the resultant information being used to create an excel database as part of the current assessment. Each main stone type was allocated a code number for archive though many of these have variations that have been kept separate by the addition of a letter to the type number. Although these variations may simply represent different beds within the same quarry/point of exploitation, they have been kept separate to facilitate any detailed sourcing studies that may be undertaken in the future. The assemblage is characterised in Table 14 by type and site period.

Table 14. Summary of stone assemblage by phase

Type/Phase	Phase 1 Prehistoric	Phase 2 LIA/ERB	Phase 3 Roman	Phase 5 PM/Mod	Phase 6 Unphased
Number of contexts	3	3	14	2	1
1a Fine ferruginous carstone	14/50g	6/86g	9/582g	-	1/18g
1b Coarse ferruginous carstone	1/28g	-	1/12g	-	-
1c Ferruginous concretion	-	-	1/102g	-	-
2a Sarsen-type sandstone	-	1/80g	3/204g	1/30g	-
3a Flint nodule	-	1/2g	2/446g	-	-
3b Tertiary flint	-	-	4/518g	-	2/56g
4a Concretion (compressed chalky silt)	-	-	1/24g	-	-
5a Lower Greensand	-	-	3/950g	1/1494g	-
5b Hassock sandstone	-	-	3/1982g	-	-
6a Chalk	-	-	2/18g	-	-
6b Iron pyrites	1/2g	-	1/34g	-	-
Totals	16/80g	8/168g	30/4872g	2/1524g	3/74g

13.1.2 As the assemblage is virtually devoid of pieces with signs of working/modification it is unnecessary to split the material into functional categories, but instead is considered by phase.

### 13.2 P1 prehistoric

13.2.1 Very little stone was recovered from contexts of this phase (Table 14). The ferruginous carstone is unmodified and either derives from the local Folkestone Beds or could have been washed down from Tertiary deposits situated on top of the chalk downs to the north. That is certainly the origin of the iron pyrites and much of the other stone on the site (see below).

### 13.3 P2 late Iron Age to early Roman

13.3.1 This phase also produced no worked stone and demonstrates similar sources of material to the prehistoric phase. Ferruginous carstone is present together with material derived from the downs to the north, including the flint and Sarsen-type sandstone. All of the stone is worn, which would be in keeping with it being transported through natural processes from its origin.

### 13.4 P3 Roman

13.4.1 This period produced by far the majority of the assemblage (Table 14). A good proportion of this consists of unmodified pieces of types occurring naturally at the site: the ferruginous carstones and various types from the chalk downs to the north. The latter include several pieces of Sarsen-type sandstone derived from larger boulders. Two are burnt (P3 G22 pits S1224 and S1285), probably associated with the heating and cooling of the boulders to break them up and so facilitate their removal. The only other local stone with signs of modification consists of the Tertiary flint fragment from P3 G32 ditch S1577, SF1104), which has part of a face surviving with heavy wear polish. Whether this is from contemporary Roman activity or, as suspected, prehistoric activity, is uncertain. The ferruginous concretion recovered

from P3 G14 ditch S1703 has a notably high iron content and its association with the smelting slag suggests this could be the ore that they were trying to use in production.

**13.4.2** Stone associated with the Roman G56 limekiln shows some variation with the background scatter noted on site in general. Although the limekiln S1314 (fill 1378) contained a slightly burnt flint nodule (270g) three pieces (950g) of weathered calcareous Lower Greensand were also recovered (presumably a subsample of what was there). All are slightly sub-rounded/weathered with no signs of facing or significant burning. They appear to be Ragstone from the Hythe Beds, a suggestion strengthened by the presence of the buff calcareous hassock sandstone pieces from the stoke pit and flue S1697 (fill 1752). It appears unlikely, despite their calcareous content, that these Hythe Beds stones would have been used for lime burning, particularly considering the proximity of chalk to the north. It is perhaps more likely they were brought in as rough rubble for construction. The lack of any mortar may be in part to the use of a weak lime mortar and the long-term burial in an acidic environment. Chalk samples recovered from the limekiln flue S1697 comprised two small pieces (18g) of ammonite fossil. These pieces do not appear to be burnt.

### **13.5 Phase 5 Post-medieval/modern**

**13.5.1** Deposits of this phase produced a piece of burnt Sarsen-type sandstone (presumably residual) and a 1,494g fragment of Hythe Beds Lower Greensand (P5 G45 pit S1085). The latter is very weathered but has possibly been roughly faced on one side. It is possible this represents a residual/re-used piece originally derived from the Roman limekiln. If this were the case it suggests the limekiln's larger 'faced' construction blocks have essentially been robbed for re-use.

### **13.6 Phase 6 Unphased**

**13.6.1** Only unworked stone that naturally occurs in the area was recovered from unphased deposits (Table 14).

### **13.7 Statement of potential**

**13.7.1** The stone assemblage is relatively small and is very much dominated by stone types that could be expected to occur naturally on or very close to the current site. Most of this material shows no modification and that which does is essentially all but unintentional. Material appears to have been shipped in for the construction of the Roman limekiln but otherwise the assemblage is naturally occurring. As such the stone assemblage is not considered to hold any potential for further detailed work beyond that undertaken for the current assessment.

### **13.8 Recommendations for further work**

**13.8.1** No further work is proposed and no material is suggested for illustration.

## 14 Metallurgical remains (Luke Barber)

### 14.1 Introduction

14.1.1 The excavations recovered 13,904g of slag from 15 individually numbered contexts. This total consists of 3547g (35 individual pieces) of hand-collected material with the remainder being derived from one of 10 environmental residues. The assemblage has been fully listed by context and type on metallurgical pro forma sheets, which are housed with the archive. The information from these has been used to create an Excel database for the digital archive.

14.1.2 The current assessment represents an overview of the slag by type and provisional phase, the latter drawing on ceramic dating, stratigraphy and association. Although some deposits could chronologically shift a little during final analysis this is considered unlikely at the present site. As such the current overview is considered to be a reliable guide to the main trends and allows an informed assessment of potential. To that end the assemblage is summarised in Table 15.

Table 15. Summary of slag assemblage by phase

Type/Phase	Phase 1 <i>Prehistoric</i>	Phase 2 <i>LIA/ERB</i>	Phase 3 <i>Roman</i>	Phase 4 <i>Med/PM</i>	Phase 6 <i>Undated</i>
<i>Number of contexts</i>	2	3	8	1	1
Magnetic Fines	2g	1g	28g	-	-
Hearth Lining	-	-	420g	-	-
Tap slag (Iron smelting)	-	48g	5550g	-	-
Undiagnostic iron (dense)	-	1g	1163g	54g	12g
Tap slag/undiagnostic iron undivided	-	-	6540g	-	-
Cinder (aerated iron)	-	-	84g	-	-
Hammerscale?	-	-	<1g	-	-
<i>Totals</i>	<i>2g</i>	<i>50g</i>	<i>13,786g</i>	<i>54g</i>	<i>12g</i>

### 14.2 P1 prehistoric

14.2.1 The only material from this phase consists of granules of ferruginous siltstone and clay whose magnetic properties have been enhanced by burning. The material was recovered from environmental residues (magnetic fraction) and is not indicative of metalworking.

### 14.3 P2 late Iron Age to early Roman

14.3.1 Deposits of this period produced insignificant quantities of magnetic material but also two pieces of iron slag. These consist of a slightly worn piece of tap slag (48g) from G17 pit S3090 and a dense piece of undiagnostic slag (1g) from G21 pit S1309. Although these pieces could indicate early smelting activity it is suspected they may be intrusive P3 material.

### 14.4 P3 Roman

14.4.1 This phase accounted for the majority of the slag on site as well as the majority of the ferruginous siltstone and sandstone 'magnetic fines'. Indeed, five of the eight contexts producing 'slag' from this period contained only magnetic fines and thus have no definite association with metalworking. Two further contexts produced very small quantities of iron smelting waste: G11 ditch S1662 produced a fresh 6g piece of tap slag, while G14 ditch S1720 produced a worn 50g fragment of similar type. However, G14 ditch S1703 (fill 1701) produced a notably large assemblage of waste (13,724g) that accounts for the vast majority of material from the site. This group includes 68 fresh pieces of hand-collected smelting tap slag (5494g), 1163g of grey dense undiagnostic iron slag (almost certainly smelting) and, from the residues, over 1000 small pieces (6540g) that were too numerous/small to warrant dividing into type. A scan of this latter material confirmed it to consist of tap and dense undiagnostic iron slags of similar types to the larger hand-collected sample. The deposit also produced 420g of furnace lining, one piece of which is very hard-fired with internal vitrification. Within the magnetic fraction of the residues were a few possible hammerscale flakes and some 10–15

hammerscale spheres. Although most typical of smithing, small quantities of this waste can be created during the smelting process, particularly if the bloom is subjected to any striking during its handling. Overall it would appear that the assemblage from G14 ditch S1703 represents a dump from perhaps a single bloomery smelting campaign from a nearby furnace.

#### **14.5 P4 medieval, P5 post-medieval to modern, and P6 undated**

14.5.1 These phases produced very small quantities of dense undiagnostic iron slag that could be contemporary, or represent residual Roman material P5 G39 ditch S1074 and P6 G72 tree-throw S3079, respectively.

#### **14.6 Statement of potential**

14.6.1 The excavations have produced a moderate sized assemblage of slag from the site. The majority of this material relates to a short period of iron smelting during the Roman period – the remaining material possibly being intrusive and residual material from this Roman activity. The dump of waste has obviously been redeposited away from its source, but the assemblage's freshness suggests it has not been reworked to any notable degree. Despite the material being of interest at a site level, Roman bloomeries were quite common in the Weald and there have been a number of excavated furnaces with their associated slag tips. As such the current assemblage is worth noting in the site narrative, but the material is not considered to warrant any further detailed analysis on its own right. No scientific analysis or report are proposed, though representative samples of all the different slag types has been retained for long-term curation.

#### **14.7 Recommendations for further work**

14.7.1 No further work is recommended and no material is suggested for illustration.

## 15 Registered finds (Andrew Richardson)

### 15.1 Introduction

15.1.1 An assemblage comprising 624 separate records of registered finds (often referred to as 'small finds') were recovered from the PEA. Of these, 509 records related to worked flint, 4 records related to other geological materials, and 3 records related to clay tobacco pipes, and are reported on elsewhere in this report so are not included in this assessment. The remaining 108 registered finds records comprised objects made of metal (silver, copper alloy, lead and iron) and glass and these are the subject of this assessment. The finds in this assemblage range in date from the late Bronze Age to modern periods.

### 15.2 Quantification

15.2.1 A quantification of the registered finds assemblage (excluding flint, geological materials, and clay tobacco pipes) is presented by material type in Table 16. In some cases, records relate to multiple objects and/or fragments, so that the 108 records equate to a maximum of 145 actual objects. Of these, iron objects are the single largest category by both quantity (over 44% of the total) and weight (over 79% of the total).

Table 16. *Quantitative summary of registered finds*

Material	Records	Objects	Weight (g)	Notes
Iron	55	64	5204	Assorted finds
Copper Alloy	36	41	337	Assorted finds including coins
Silver	6	6	8	Coins and a pendant
Lead	6	7	394	Assorted finds including a weight and seal
Mixed metal	3	25	590	Mixed finds of iron, tin, copper alloy, lead and aluminium
Glass	2	2	6	Vessel and window
<b>TOTAL</b>	<b>108</b>	<b>145</b>	<b>6539</b>	

### 15.3 Discussion of finds by material

15.3.1 This report is ordered according to material (e.g. 'copper alloy objects' or 'iron objects') and within those material groups by functional category where possible. A statement on the conservation of items in each material group is also included.

#### Finds of iron

15.3.2 The 55 records of iron finds relate to a range of object types including nails (SFs1001–2, 1004–9, 1014, 1017–18, 1031, 1042, 1047, 1066, 1092, 1105 and 9017) and other fittings such as a bolt (SF1058), hook (SF1019), and a range of unidentified objects. The assemblage also includes some blades (SFs1000, 1040, 1076, 1097 and 1107), some possible hobnails (SF1010 and part of SF1035), rods and bars (SFs1032, 1041, 1053, 1070), a chain (SF1050) and some horseshoes (SFs1039, 1077, 1079 and 1080).

15.3.3 Many of these finds are not intrinsically closely datable, so will require phasing of their respective contexts before further analysis can be undertaken. In this regard, it should be noted that the majority of the iron finds were recovered by metal detector during machine ground reduction; many of these finds are likely to be of post-medieval to modern date, and to have limited archaeological significance. Once full stratigraphic dating and phasing for the PEA is available, the pre-modern stratified iron objects should be catalogued and discussed, whilst modern finds and undatable unstratified finds should simply be listed by functional class, where possible.

15.3.4 At present the iron finds are in a stable condition, stored in a sealed plastic box with indicating silica gel. It is unlikely any will require further conservation work.

#### Finds of copper alloy

15.3.5 Some 36 records of copper alloy finds, equating to 41 individual objects or fragments, were registered. This assemblage ranges in date from the mid to late Bronze Age through to the modern period, and includes ammunition, two mid to late Bronze Age weapons, a range of dress and costume fittings, fifteen

coins (a mix of Roman and modern issues), and some other fittings and fragments. These are discussed by functional class below.

#### *Weapons and ammunition*

- 15.3.6** Parts of two edged weapons of probable mid to late Bronze Age date were recovered from P1 G20 pit S1761 (fill 1760) during the metal detector survey. SF1067 is a small leaf-shaped spearhead. The actual blade is very small, representing only about a third of the length of the socket and formed from a slight flaring of the lateral ribs which run the length of the tapering socket. SF1068 is the tip and lower part of a very narrow double-edged blade, probably that of a rapier. The patina of both these finds is very similar and it is possible they may represent remnants of a disturbed mid to late Bronze Age hoard.
- 15.3.7** The brass caps from two modern 12-gauge shotgun cartridges were recovered. SF1089 was derived from P5 G51 ditch S1525 (fill 1524), whilst SF9015 was unstratified.

#### *Dress and costume fittings*

- 15.3.8** Copper alloy dress fittings from the site include a brooch of Colchester or Colchester derivative type (SF1012) dating from the mid-first century AD, from P5 overburden deposit 1287. A single buckle with integral plate (SF1102) of medieval date was recovered by metal detector from the spoil heap. The metal detector survey also yielded a medieval copper alloy strap-end with floral terminal (SF1016), and a plain ring, probably a finger-ring (SF1073) of probable post-medieval or modern date. An undecorated pin (SF1069) that may be part of a brooch or buckle pin was also a detector find, as was SF1030, which is either a pendant or lid with incised geometric decoration. Fitting SF1060 may be a toggle or fastener, whilst SF1101 comprises six items, including two modern buttons. SF1061 is a ball-shaped tombac button of eighteenth-century date, whilst SF1072 is another button of post-medieval or modern date. All were recovered by metal detecting.

#### *Coins*

- 15.3.9** Fifteen copper alloy coins were recovered, all during the metal detector survey. Of these ten were of Roman date, whilst the remainder were modern. The Roman coins (including two of silver, see below) are summarised in Table 17, in date order.

Table 17. *Roman coins*

Find	Material	Context	Description	Date
SF1026	Silver	1000	Denarius of Nero. Reverse: AUGUSTUS GERMANICUS. Nero holding branch and victory on globe. Commemorating military victory in Armenia. RIC 47.	AD 64–68
SF1071	Copper Alloy	1000	As of Nero. Reverse: Victory with shield. RIC 312.	AD 65–67
SF1024	Copper Alloy	1000	Sestertius of Vespasian. Reverse: SALUS AUGUSTA. Mint: Rome. RIC (revised) 197.	AD 71
SF1027	Copper Alloy	1000	As of Vespasian. Reverse: Eagle. Mint: Romw. RIC (revised) 322.	AD 71
SF1025	Copper Alloy	1000	As of Vespasian. Reverse: VICTORIA AUGUSTI. Mint: Lyons. RIC (revised) 1241.	AD 77–78
SF1046	Copper Alloy	1000	Sestertius of Vespasian. Reverse: SALUS AUGUSTA. Mint: Lyons. RIC (revised) 1208.	AD 77–78
SF1109	Copper Alloy	1000	As of Vespasian. Reverse: AEQUITAS AUGUSTI. Mint: Lyons. RIC (revised) 1228.	AD 77–78
SF1051	Silver	1715	Denarius of Vespasian. Reverse: Figure standing on a column. RIC (revised) 28.	AD 79
SF1023	Copper Alloy	1000	Sestertius of Domitian. Reverse: Pax setting fire to pile of arms. Commemorating military victories in Germany. Mint: Rome. RIC (revised) 284.	AD 85
SF1085	Copper Alloy	1000	As or Dupondius. Corroded and illegible.	1st century AD
SF1029	Copper Alloy	1715	AS or Dupondius. 1st–2nd century. Corroded and illegible.	1st–2nd century AD
SF1022	Copper Alloy	1000	Sestertius	1st–2nd century AD

- 15.3.10** This group of coins dates to a remarkably narrow period; none were certainly minted outside the years AD 64–85. Typically, Roman coinage of the late third and fourth centuries is far more abundant than coins of first- to second-century date, so the range of coins recovered implies significant activity at the site in the last third of the first century AD, followed by abandonment for the remainder of the Roman

period. The find spots of these coins were closely grouped, and consideration should be given to the possibility that they were derived from a dispersed hoard.

- 15.3.11** The modern coins comprise a halfpenny of George III (SF1083), a halfpenny and penny of George V (SF1095 and SF1084 respectively) and two half pennies of George VI (SF1081 and SF1082).

#### *Other copper alloy finds*

- 15.3.12** Other finds of copper alloy objects included a circular mount, possibly a Roman casket or furniture fitting (SF1056); some fragments of rim binding (SF1052); a folded length of copper alloy sheet (SF1074); a disc-headed tack (SF1091) and several unidentified fragments (SF1036, 1055 and 1094). SF1101 comprises multiple copper alloy finds recovered from the spoil heap.
- 15.3.13** Most of the copper alloy finds are in a stable condition, although the two Bronze Age items do show signs of recently active corrosion and would merit conservation cleaning and stabilisation. Most of the finds merit full cataloguing and discussion and some of the non-coins merit illustration.

#### *Finds of silver*

---

- 15.3.14** The assemblage includes five silver coins, plus a silver sheet fitting. All were metal detected finds from the topsoil (1000). They were not found together and as individual finds the coins do not qualify as potential treasure under the Treasure Act (1996). A small silver object (SF1057), represented by a semi-circular sheet stamped with a series of S's, along with a smaller detached fragment of sheet, may be a pendant. It is probably modern, but if further analysis suggests that it may be over 300 years old, then it should be reported as an item of potential treasure under the Act.
- 15.3.15** As for the silver coins, two are of early Roman date; a denarius of Nero (SF1026), minted between AD 64 and AD 68, and a denarius of Vespasian (SF1051), minted in AD 79 (see above). The remaining three coins are all of medieval date; a penny of Edward I (SF1044), minted in AD 1280–1281, an illegible cut quarter Long Cross penny (SF1045), dating to AD 1247–1279 and a cut half Short Cross penny of Henry III (SF1098), dating to AD 1217–1242.
- 15.3.16** All these finds merit full cataloguing during the analysis stage. Although unstratified, they do indicate periods of human activity at the site during the first century AD and subsequently during the twelfth to thirteenth centuries.

#### *Finds of lead*

---

- 15.3.17** Seven lead objects, registered as six separate records, were recovered from the site, all by metal detector (context 1000). They included an incomplete sub-conical weight (SF1096), a small disc, possibly a bag seal (SF1099), a large sub-rectangular object (SF1033), and some fragments (SF1037 and 1093). In addition, SF1100 comprises two separate objects; a sub-rectangular plate a cylindrical object with centrally offset hole.
- 15.3.18** None of these objects are closely datable, and given their lack of a securely stratified context, little further work is recommended, although apart from the fragments (SFs1037 and 1093) all merit cataloguing.

#### *Mixed metals*

---

- 15.3.19** Three entries in the finds register relate to groups of multiple metal objects and fragments recovered by metal detector from the spoil heap (1000). SF1075 comprises a sub-rectangular iron plate, an iron rod, and a folded copper alloy sheet, damaged with one detached fragment.
- 15.3.20** SF1087 comprises some 20 unidentified copper alloy and lead fragments, including lead sheet and waste, a bottle cap, and a variety of copper alloy fittings. All appear to be modern or not intrinsically datable.
- 15.3.21** Finally, SF1103 includes four lead fragments, a number of small aluminium fragments and a small assemblage of copper alloy objects, including buttons and what appears to be a length of rim binding.
- 15.3.22** Apart from clearly modern items like the buttons or aluminium fragments, none of the objects included in these mixed groups are closely datable, and little further work is required for them beyond listing.

**15.3.23** The registered finds assemblage includes only two fragments of glass. SF1003 is a thin walled, pale blue translucent body sherd from a vessel. Although unstratified, it is probably of Roman date. SF1020, recovered from P5 G50 field drain S1349, is a fragment of clear translucent window glass.

**15.3.24** Both finds should be catalogued, but merit little further work.

### **15.4 Statement of potential**

**15.4.1** The potential of this small assemblage of registered finds is limited by the fact that much of it, including most of the more intrinsically significant finds, is derived from unstratified contexts. Nonetheless, the range of finds represented do indicate a level of human activity on the site from at least the late Bronze Age, the late Iron Age to early Roman periods, the medieval, and the post-medieval and modern eras.

**15.4.2** The narrow date range of the Roman coins recovered from the site is particularly interesting, and would suggest that Roman activity at the site is limited to the second half of the first century AD. However, this probably doesn't reflect the full picture, and it may be that the coins represent just a few depositions, perhaps of subsequently scattered hoards.

### **15.5 Recommendations for further work**

**15.5.1** A small number of the finds in this assemblage merit further work; some of the iron and copper alloy finds may merit a small amount of conservation cleaning, and a very small number ought to be illustrated, ideally with scale drawings although some could be illustrated by colour digital photos.

**15.5.2** Many of the finds should be fully catalogued, although many of the post-medieval and modern items, along with intrinsically undatable finds from post-medieval, modern or unstratified contexts, could be simply listed. A brief narrative report that relates the assemblage as closely as possible to the wider stratigraphic phasing should accompany the catalogue. Most of the iron finds from such contexts could be discarded following completion of the analysis and archive.

## 16 Animal bone (Ian Smith)

### 16.1 Introduction and methodology

- 16.1.1 A small assemblage of animal bones (865g) including the remains of cattle (*Bos taurus*), sheep/goat (*Ovis/Capra*), pig (*Sus* sp) and horse (*Equus* sp) was recovered by hand collection and soil sampling. The assemblage is stored in a single (23x18x16cm box).
- 16.1.2 The aim was to assess the potential of the assemblage in a manner guided by principles outlined in Baker and Worley (2014) and to identify any material that might contribute to an understanding of the issues raised in the interim report (CAT 2017, 3.2.3) including any potential for contributions to the objectives of the draft South East Regional Research Framework.
- 16.1.3 Counts were made of numbers of total bone fragments, according to criteria of either Serjeantson (1996) or Dobney and Reilly (1988), of mandibular tooth rows, of loose teeth (>50% complete) and of measurable bones (von den Driesch 1976) and of specimens that demonstrated epiphyseal fusion states.
- 16.1.4 Modern comparative material was consulted where necessary and reference was made to Halstead and Collins (1994) and to Sisson and Grossman (1938). References to 'large mammal' relate to cattle sized fragments, 'medium mammal' to sheep/goat or pig sized fragments. 'Horse' is here used to encompass all equid types, no species differentiation has been undertaken amongst disarticulated *Equus* remains. States of preservation amongst hand collected and sieved bones were compared to the weathering stages of Behrenmeyer (1978). The abbreviation NISP is used to refer to numbers of identified specimens. NISP totals amongst the highly fragmented material are approximate although all fragments have been scanned. MNE's (minimum numbers of anatomical elements) are here derived from numbers of Serjeantson (1996) diagnostic zones plus mandibular tooth rows, and loose teeth (where >50% complete).

### 16.2 Dating/phasing

- 16.2.1 The bone (NISP=) relates to phases P1 (prehistoric), P3 (Roman), P4 (medieval/post-medieval), and P5 (post-medieval to modern). With regard to dating and phasing one must consider the possibility that there is disturbance to some contexts. The geophysical survey has raised heavy ploughing and truncation as possible factors (CAT 2017; 2.5.1) and this is clearly problematic if it affects bone bearing contexts (since bone bears no glaze or cultural marker that might indicate that it is redeposited).

### 16.3 Results

- 16.3.1 The state of bone surface preservation is generally poor. There are no complete anatomical elements. The P1 prehistoric contexts (1681) (3132) are both in a state that corresponds to weathering stage 5 of Behrensmeyer (1978). The bone is highly eroded, there is little if any surface morphology and all fragments are less than 20mm in size. No species identifications will be possible from this prehistoric material. From phase 3 (Roman) contexts there are some whole horse teeth from a single mandible from context (1484) but other contexts produced fragmented teeth (1223) and (1576) and burnt fragments (1284). The majority of this Roman material also falls within weathering stage 5 of Behrensmeyer (1978) since most of it consists of splinters. In summary regarding the phase 3 Roman material, the dense parts of teeth (several of which are fragmented), burnt fragments and some other splinters are present. From the medieval/post-medieval phase 4 there are two distal femora (1044) and a scapula (1046) at Behrensmeyer (1978) weathering stage 4 or 5. Other fragments from phase 4 are splintered and also at Behrensmeyer (1978) stage 5. From the post-medieval phase 5 from (1586) there is a largely complete cattle tooth but as in the other phases a majority of fragments from the other phase 5 contexts are at Behrensmeyer (1978) stage 5.
- 16.3.2 By NISP the majority of the bone fragments are from phases 3 (Roman) and 4 (medieval/post-medieval). However even with all phases combined there are only three fragments that would be counted under the diagnostic zoning methodologies of either Serjeantson (1996) or Dobney and Reilly (1988) and with loose teeth (>50%) included this increases to only five countable specimens (Table 18).

Table 18. *Identifications of taxa by phase, number of identified specimens (NISP), minimum numbers of elements (MNE), fusion states, tooth rows and number of burnt specimens*

Phase	Common name	Taxa	Context	Set	Group	NISP	MNE	Fusion states	Tooth rows	Burnt
1	mammal	Mammalia	1681	1682	8	5	0	0	0	5
			3132	3133	20	3	0	0	0	3
<i>Phase 1 Total</i>						8	0	0	0	8
3	cattle	<i>Bos taurus</i>	1223	1224	22	5	0	0	0	0
	horse	<i>Equus sp</i>	1484	1485	59	7	(6)1*	0	1*	0
	horse	<i>Equus sp</i>	1576	1577	32	36	0	0	0	0
	large mammal	<i>Mammalia</i>	1755	1756	14	2	0	0	0	0
	mammal	<i>Mammalia</i>	1484	1485	59	1	0	0	0	0
	mammal	<i>Mammalia</i>	1630	1621	16	1	0	0	0	0
	medium mammal	<i>Mammalia</i>	1284	1285	22	24	0	0	0	24
<i>Phase 3 Total</i>						76	1	0	1	24
4	cf. human	<i>cf. Homo</i>	1060	1060	44	4	0	0	0	0
	cattle	<i>Bos taurus</i>	1044	1048	39	1	1	1	0	0
	horse	<i>Equus sp</i>	1046	1048	39	3	1	1	0	0
	large mammal	<i>Mammalia</i>	1035	1036	38	33	0	0	0	0
	horse	<i>Equus sp</i>	1044	1048	39	1	1	1	0	0
	large mammal	<i>Mammalia</i>	1046	1048	39	60	0	0	0	0
<i>Phase 4 Total</i>						102	3	3	0	0
5	cattle	<i>Bos taurus</i>	1586	1587	60	1	1	0	0	0
	cattle	<i>Bos taurus</i>	1588	1589	60	1	0	0	0	0
	cf. cattle	<i>cf. Bos taurus</i>	3026	3027	47	2	0	0	0	0
	large mammal	<i>Mammalia</i>	1715	1716	66	1	0	0	0	0
	medium mammal	<i>Mammalia</i>	3103	3105	23	1	0	0	0	1
	pig	<i>Sus sp</i>	3103	3105	23	4	0	0	0	0
<i>Phase 5 Total</i>						10	1	0	0	1
<b>Grand Total</b>						<b>196</b>	<b>5</b>	<b>3</b>	<b>1</b>	<b>33</b>

\*Six *Equus* teeth from (1484) judged associated (and therefore MNE =1) and classified as a toothrow

- 16.3.3 No articulating partial or whole skeletons, (or associated bone groups) are present.
- 16.3.4 A soil sample <83> from P3 G59 context (1484) produced two small fossiliferous specimens which are judged unlikely to have been curated and fall outside the objectives identified in the Interim Report (CAT 2017, 3.2).
- 16.3.5 The loose horse teeth from P3 G59 context (1484) are judged to be from a single right hand side mandible and this is of some value. The row consists of the second premolar (P2), third molar (M3), three other cheek teeth (between P3 and M2) and a partial left hand side incisor. Thus one cheek tooth is missing from the right hand side row. Two of the cheek-teeth are intact but the others bear some damage. The M3 refits perfectly and has been measured.
- 16.3.6 The four bone fragments from P4 G44 context (1060) are judged to be very probably a human femur (although no human comparative material has been consulted). These bone fragments came from a series of deposits containing eighteenth- to early nineteenth-century material just to the west of the chapel. As such this may be interred and redeposited human bone and it is recommended that a human bone specialist is consulted about these fragments.
- 16.3.7 A cattle femur from the P4 G39 context (1044), dated to the seventeenth to eighteenth century was fused distally, as was a horse distal femur from the same context. Both the cattle and horse femora are represented by partial distal fused ends bearing much of the supracondyloid fossae and damaged condyles. From the same P4 G39 ditch, context (1046) a badly damaged horse scapula was recovered. No standard measurements (von den Driesch 1976) are possible amongst these specimens due to the extent of damage.
- 16.3.8 With regard to preservation the presence of loose and fragmented teeth, poorly preserved bone and burnt bone is suggestive of unfavourable soil conditions. The underlying geology was identified as

Folkestone Formation in the interim report (CAT 2017, 2.1.3; NERC 2016). Paul Booth (South East Research Framework [Seminar notes; The Roman Period]) has noted that poor bone preservation (and small assemblages) appear to be common locally from the Wealden clays and the greensands. It is considered probable given the prevalence of teeth and the fragmented state of the material that taphonomic processes may have significantly affected the element representation of the assemblage as a whole. It is plausible that there are significant biases in anatomical representation and species proportions in each of the periods.

- 16.3.9** The numbers of species identifications are small throughout and there are insufficient from which to predict species ratios in any period or to contribute significantly to an understanding of the pastoral economy. For the prehistoric period the material cannot contribute to the identification of ‘the nature of any prehistoric settlement activity on the site’ (CAT 2017, 3.2.3). There are no complete tooth rows of the main domesticates that might provide age related data. There is too little age-related evidence to suggest any stock kill off patterns or even enough to suggest species ratios in any period. Given the poor state of bone surfaces there is little if any potential for recording butchery. The presence of each of the species in these phases is to be expected. There is little, beyond species presence, that might contribute to the South East Regional Research Agenda or to the objectives in the Interim Report (CAT 2017, 3.2.3).
- 16.3.10** Few standard measurements (von den Driesch 1976) are available, but measurements of the horse (*Equus sp*) mandibular third molar from Gully group 59 context (1484) have been taken (Table 19).

Table 19. *Equid mandibular third molar measurements from phase 3 (Roman) context (1484)*

M3 length von den Driesch (1976, 52)	M3 breadth von den Driesch (1976, 52)	M3 height Levine (1982, 228)
28.6	11.81	51.32

## 16.4 Statement of potential

- 16.4.1** The assemblage has relatively small potential in isolation and no further detailed work is recommended on the animal bone.

## 16.5 Recommendations for further work

- 16.5.1** It is recommended that the associated *Equus* teeth from P3 Roman context (1484), [and since they are contemporary and from the same area the horse teeth from context (1576)] are retained as part of the archive. It is also recommended that the fragments of probable human femur shaft from P4 medieval/post-medieval context (1060) BF 39 are retained as part of the archive.
- 16.5.2** The *Equus* teeth might potentially be the subject of more specialist work, regional syntheses and a species identification and the probable human femur fragments could be refitted and this identification confirmed (or refuted).
- 16.5.3** The rest of the assemblage holds relatively little value in isolation.

## 17 Charred plant remains (Wendy Carruthers)

### 17.1 Introduction

17.1.1 Excavations were carried out at Burleigh Farm by Canterbury Archaeological Trust (CAT) in 2016 prior to the extension of Charing Quarry. The local geology consisted of Folkstone Formation; sandstone overlain by Head deposits of silt, sand and gravel. Alluvial deposits lay to the west and south-west along a shallow stream (CAT 2017).

### 17.2 Methods

17.2.1 During the excavations soil samples were taken from a range of contexts for the recovery of environmental information. The samples were processed by CAT staff using standard methods of wash-over. The dry flots from 39 samples were sent to the author for assessment.

17.2.2 The flots varied a great deal in volume. Small flots (<10ml) were scanned in a petri dish under the low power of an Olympus SZX7 stereoscopic microscope. No items were removed from the bags of flot although useful plant remains were placed in tubes within the flot bag. Larger flots were dry sieved in a stack of sieves (3mm, 1mm, 250 microns) prior to scanning to aid efficiency. Large charcoal fragments (>3mm) were removed, checked and bagged so that they could be sent on to a charcoal specialist if required. The remaining flot was scanned bit by bit until the assemblage had been characterised. Because resources were limited the larger charcoal-rich flots were sub-sampled using a riffle box and 25% was assessed.

### 17.3 Results

17.3.1 The results of the assessment are presented in Table 20. The potential of each sample for charred fruits/seeds/macrofossils (not including charcoal) has been coded as follows;

A = abundant charred plant remains and/or items of high importance

B = reasonable quantity or quality of material that will provide some information about the economy or environment

C = a little material. This is sufficient to be used for radiocarbon dating if required but may only provide a little information about the types of cereal crops being used or weed species present.

D = no further plant macrofossil potential, but charcoal potential where noted.

17.3.2 Although the author is not a charcoal specialist, suggestions as to which samples produced useful quantities of identifiable charcoal (>3mm) have been given in the 'Notes' column.

### 17.4 The quantity and quality of charred plant material

17.4.1 None of the 39 flots produced frequent or abundant charred plant macrofossils if charcoal is excluded. Fifteen flots contained frequent or abundant charcoal fragments. These came from P1 to 3, the largest of which came from P2 (late Iron Age to early Roman). Moderate sized soil samples were processed for the assessment (mostly around 10 litres in volume) so for earlier prehistoric deposits low concentrations of charred material are to be expected. However, Iron Age and Roman features often produce high concentrations of charred cereal remains, or failing that moderate levels of background burnt domestic waste (typically chaff fragments and weed seeds with occasional grains resulting from de-husking emmer and spelt wheat on a daily basis). These types of assemblage were only present in two P3 (Roman) pit fills; samples <3> and <29> from G22 pits S1050 and S1224. The processing of further soil from these two contexts is recommended to maximise the sparse information.

17.4.2 The state of preservation was variable, with some charred remains being heavily encrusted with red/orange silt or mineral deposits. This may have reduced the recovery of charred material from the soil samples, although the use of wash-over techniques enables the technician to adjust to poorly floating material to some extent. Residues need to be checked on these types of clayey/silty soils, particularly where prehistoric deposits are producing hazelnut shell, as much of this may fail to float (only the >2mm residues have been checked for the purposes of this assessment, the fine residues

>1mm have been retained for examination at the analysis stage, if required). Some charred cereal grains were poorly preserved, being 'clinkered' or eroded. These types of preservation suggest high-temperature or repeated charring and damage from redeposition and exposure to mechanical damage (e.g. trampling, floor sweeping, cleaning out of hearths etc).

- 17.4.3 While low levels of modern uncharred contaminants such as rootlets and seeds (mostly Chenopodiaceae and *Veronica hederifolia*) were common in the flots, there was no indication that the charred assemblages had become contaminated, for example the presence of unexpected taxa or modern-looking charred material. Where slaggy material was present, for example in P3 G14 ditch S1703, this fits in with the archaeological interpretation of metal-working waste being present, rather than indicating modern contamination.

## 17.5 Brief descriptions of the assemblages by phase

### Phase 1 Prehistoric

---

- 17.5.1 Fifteen samples from thirteen pits, a ditch and a burnt flint deposit were assessed. Four of the flots contained no identifiable charred plant remains although one sample was rich in charcoal (sample <12> from G19 pit S1179). Seven of the samples contained hazelnut shell fragments (*Corylus avellana*; abbreviated to HNS in Table 20). Five of the samples contained occasional cereal grains, including poorly preserved barley grains (3 samples; *Hordeum* sp.), emmer/spelt wheat grains (2 samples; *Triticum dicoccum/spelta*) and more rounded, short grains indicative of possible free-threshing wheat (2 samples; *Triticum* sp.). Two samples contained only occasional weed/wild plant seeds including gorse seeds (*Ulex* sp.), corn spurrey (*Spergula arvensis*), black bindweed (*Fallopia convolvulus*) and cleavers (*Galium aparine*). Gorse and corn spurrey reflect the poor acidic soils of the area. Gorse was probably being gathered for fodder or used for fuel. The other taxa were probably growing as arable weeds.
- 17.5.2 These samples are fairly typical of prehistoric assemblages, with the combination of common hazelnut shell fragments and small amounts of cereals being characteristic of the late Neolithic. However, radiocarbon dating would be needed to confirm the date. The presence of small, possible free-threshing wheat grains is of interest, although more examples would be needed to ensure that the grains were not simply sporadic plump grains of emmer. Tetraploid free-threshing wheat grain and chaff were recovered from Thanet Earth but the assemblages were much better preserved, much larger and early Neolithic in date (Carruthers forthcoming a). Smaller numbers of poorly preserved rounded grains were also recovered from two early Neolithic pits at Ellington School, Ramsgate (Carruthers forthcoming b). Further information about the occurrence of this unusual small-grained wheat in Kent is of great importance.
- 17.5.3 Four of the fifteen samples have been recommended for full analysis (samples <58>, <108>, <323> and <325>) although unfortunately only one of these has additional soil that can be processed (sample <325>). In all cases it is important that the residues have been sorted for further hazelnut shell fragments and other charred remains.

### Phase 2 Late Iron Age to early Roman

---

- 17.5.4 Seven samples from six pits (G17 and G21) and a large sub-rectangular feature (G55) were assessed. The only charred plant macrofossils recovered were a single small fragment of hazelnut shell from G55 feature S1234 and two weed seeds from G17 pit S1165 (knotgrass (*Polygonum aviculare*) and black bindweed). However, charcoal fragments were frequent to abundant in six of the seven pits. Pottery was also absent from the features so it is likely that this waste was not related to domestic activities, but most likely to some sort of industrial activity. The only further potential in these samples is for charcoal analysis.

### Phase 3 Roman

---

- 17.5.5 Sixteen Roman samples were assessed including three pit fills (G22), a layer of charred wood sealing a pit (G36), eleven ditch fills (G11, G14, G16, G28, G30, G32, G33, G57, G59, G69, G77), and a sample from the stoke-pit of a limekiln (G56). Of these, nine samples produced no fruits/seeds. Charcoal was frequent/abundant in only three samples (the limekiln stoke-pit S1697, the deposit of charred wood S1038), and pit S1050). Only two samples, both from pits, produced 'several' to 'frequent' charred plant remains. Fortunately one of the contexts, the fill of G22 pit S1050 (context 1049), has two buckets of

unprocessed soil in reserve. The two pit samples contain moderate assemblages of domestic-type waste, including spelt-type grains (*Triticum cf. spelta*), barley grain (*Hordeum sp.*), a small rounded wheat grain (*Triticum sp.*), an oat grain (*Avena sp.*), brome grass (*Bromus sect. Bromus*), barley rachis (*Hordeum sp.*), emmer (*Triticum dicoccum*) and spelt (*T. spelta*) glume bases, a few small-seeded weeds and a fragment of hazelnut shell. Once any additional soil has been processed and the remains have been identified and quantified it will be possible to provide some information about crops being consumed and possibly cultivated locally. As described below, information about arable cultivation in the Ashford area during the Iron Age and Roman periods is notably scarce and atypical of southern England as a whole, so any additional information from Burleigh Farm would be valuable. The continued occurrence of gorse seeds in two samples from this phase suggests that scrubby vegetation was common in the area and probably exploited for fuel and fodder.

### Phase 6 Unphased

---

- 17.5.6 A sample from the terminus of G68 ditch S3083 (context 3082), produced no charred plant remains and only a trace of silty charcoal. It is possible that the few fragments of charcoal might be sufficient for radiocarbon dating this feature if required. No further unprocessed soil exists.

## 17.6 Comparisons with other sites

- 17.6.1 Although soils in the area are not ideal for arable cultivation, consisting of heavy, acidic clays and sands, sites dating to the Bronze Age, Iron Age, Roman and medieval periods have been excavated around Ashford, including Park Farm (Wessex Archaeology; [www.kentarchaeology.ac](http://www.kentarchaeology.ac)) and Brisley Farm (Archaeology South East, Stevenson 2013). At Brisley Farm 447 flots were assessed but only sixteen flots showed some potential. The late Iron Age samples were the most productive, but even so the quantities of grain, chaff and weed seeds were low in all but one pit sample (c 10 fragments per litre). A large number of acorn cotyledons were recovered from a mid to late Iron Age pit and other native fruits and nuts included apple, cf. sloe and hazelnut (all late Iron Age). The Roman samples were very unproductive and virtually no chaff or weed seeds were recovered, despite samples of around 20 litres being processed. The conclusions were that the local acidic clay soils were not easy to cultivate and yields were low, so pastoral regimes dominated (Carruthers in Stevenson 2013). This was supported by the pollen data which indicated that in the late Iron Age/early Roman period grassland herbs were dominant although small areas of oak/hazel woodland survived. Interestingly, the single productive late Iron Age/early Roman sample at Brisley produced a chaff-rich assemblage dominated by emmer wheat rather than spelt, supporting findings from other sites in Kent that emmer remained a more important crop in this county than in other parts of southern England. At sites such as Stansted, Essex, spelt had virtually replaced emmer by the late Iron Age (Carruthers 2008). This most likely demonstrates the differences in fertility of the lime-rich Essex Boulder clays in comparison with the poorer, acidic Weald clays, since emmer is less demanding of nutrients than spelt.

## 17.7 Recommendations for further work

- 17.7.1 Although the site at Burleigh Farm produced only a small number of useful samples the lack of information about arable agriculture in the prehistoric period in the Ashford area means that the information is important. For this reason the following samples should be analysed, and all remaining soil should be processed to maximise the retrieval of information;

- P1: sample <58>, context 1412, G20 pit S1411  
sample <108>, context 1615, G13 pit S1616  
sample <323>, context 3108, G19 pit S3109  
sample <325>, context 3132, G20 pit S3133
- P3: sample <3>, context 1049, G22 pit S1050  
Sample <29>, context 1273, G22 pit S1224

- 17.7.2 In addition the following samples may be worth including as additional soil is available.

- P1: samples <62>, <74>, <75>, <135>, <324>

P3: sample <39>, <120>

**17.7.3** The soil processing will be carried out by CAT staff, as will sorting the >2mm residue fractions with any extracted materials sent to the author with the flots. The fine residues (>1mm) from selected samples will be sent to the author for examination.

**17.7.4** In the report comparisons will be made to all published and grey literature reports of relevant sites of the same periods in the Ashford area.

Table 20. Summary of processed soil samples

Sample No	Context	Feature	Processed vol (l)	Buckets remaining	Set No	Group No	Phase	Flot description	Charred plant remains	Potential	Notes
12	1177	fill of pit 1179	12	1	1179	19	1	800 ml flot, 25% scanned, abundant charcoal, 175ml extracted	NIL	D	Charcoal ID
62	1399	single fill of pit 1400	10	?	1400	13	1	70ml flot, mainly silt & small charcoal, c. 15ml (40 frags) extracted	Occasional CPR; poor encrusted HNS++	C	Find out if more soil; ?date; add to database. Charcoal ID
58	1412	single fill of pit 1411	16	0	1411	20	1	90ml flot, mainly silt/sand, charcoal heavily encrusted with minerals, c. 8 frags not sorted	Several CPR: poor.medium HNS frags and some small, cf. barley grain +	B/C	date?, check residue for HNS
74	1455	fill of pit 1456	10	1	1456	13	1	30ml flot, abundant silt/sand, trace of small char only	Occasional CPR: HNS (encrusted, medium) ++	B/C	Could process remaining bucket in case cereal grains present
75	1461	fill of pit 1462	8	?	1462	2	1	15ml flot; frequent silt, rootlets, some small charcoal, none lge	Occasional CPR; HNS (medium, encrusted)++	B/C	Find out if more soil available. Check residue for HNS
76	1463	single fill of pit 1464	8	0	1464	2	1	15ml flot; silt and rootlets, small charcoal	NIL	D	
108	1615	single fill of pit 1616	16	0	1616	13	1	600ml flot; abundant charcoal including lge flaky frags, 400ml extracted	Several CPR; HNS including lge halves ++	B/C	date HNS? Charcoal ID
113	1638	fill of pit 1639	7	0	1639	2	1	125ml flot. Abundant charcoal, not too muddy, 35ml extracted.	Occasional CPR: 2 seeds Ulex sp. (gorse); 1 Spergula arvensis +	C	probably no more but add to database. Charcoal ID? Date?
114	1642	fill of pit 1643	15	0	1643	20	1	200ml flot; modern Veronica seeds; common charcoal and fine silt; 70ml lge charcoal extracted	Occasional CPR; Fallopia embryo +; Galium aparine 1	C	probably little more in flot. Charcoal ID
125	1681	single fill of ditch 1682	10	1	1682	3	1	25ml flot; silt and small charcoal	NIL	D	
135	1705	burnt flint deposit	10	2	1705	1	1	50ml flot; rootlets, stems, black slaggy frags, concreted charcoal++; modern chenopods and Rubus sp.	Occasional CPR; 1 poor barley grain+	C	Low density so far but could process remaining buckets to recover more grain
302	3006	fill of pit 3007	10	1	3007	13	1	10ml flot; silty/sandy, rootlets, silty charcoal +	NIL	D	
323	3108	fill of pit 3109	10	0	3109	19	1	25ml flot; frequent silty/sandy, rootlets, silver slaggy frag, modern Fallopia convolvulus; lge charcoal+	Occasional CPR: small emmer/spelt grain+; possible free-threshing wheat grain+; HNS frag+	B/C	probably no more, date?, add to database

Sample No	Context	Feature	Processed vol (l)	Buckets remaining	Set No	Group No	Phase	Flot description	Charred plant remains	Potential	Notes
324	3116	single fill of pit 3117	10	1	3117	13	1	20ml flot; silty/sandy, small charcoal and occasional lge frag	Occasional CPR; 1 small plump wheat grain	C	low density but may be worth processing remaining bucket to see iof more wheat grains (could be tetraploid FTW)
325	3132	fill of pit 3133	10	1	3133	20	1	45ml flot; frequent charcoal but difficult to see as very muddy +++	Occasional CPR; small barley or Poaceae grain+; indeterminate cereal frag? Small emmer/spelt grain+; HNS+ (small frag)	B/C	As above, process remaining bucket. Charcoal ID
7	1154	fill of pit 1156	8	0	1156	21	2	320ml flot; abundant charcoal, probably mostly oak, 130ml extracted	NIL	D	Charcoal ID
10	1164	single fill of pit 1165	10	1	1165	17	2	1600ml flot; mainly large charcoal frags, 300ml extracted	Occasional CPR; Polygonum aviculare +; Fallopia convolvulus +	D	probably nothing worth analysing apart from charcoal
14	1204	single fill of pit 1205	9	?	1205	17	2	900ml flot, abundant charcoal, 50ml extracted ; 25% scanned	NIL	D	Charcoal ID
22	1233	single fill of large sub-rectangular feature 1234	8	0	1234	55	2	35ml flot; frequent charcoal, mineral encrusted, 10ml extracted	Occasional CPR; HNS+	C	probably no more, char ID?
49	1393	fill of pit 1394	10	1	1394	21	2	50ml flot; abundant silt, small charcoal++; occasional lge	NIL	D	
107	1618	fill of pit 1619	10	2	1619	17	2	900ml flot; 25% scanned, 125ml lge charcoal extracted	NIL	D	charcoal ID
311	3031	fill of pit 3032	8	0	3032	17	2	1000ml flot, 25% scanned, abundant charcoal, 50ml extracted	NIL	D	Charcoal ID
3	1049	single fill of pit 1050	10	3	1050	22	3	175 ml flot; abundant charcoal, 50ml large frags extracted.	Several to frequent CPR; Spelt-type grains++; Bromus sp. ++; poor gains+; barley rachis+; emmer glume base+; spelt glume base; Tripleurospermum inodorum+; HNS+; small vetch seed+	B	Process remaining soil. So far small amount of processing waste/domestic waste recovered to provide information about arable crop husbandry. Charcoal ID
2	1078	deposit of charred wood sealing pit 1038	10	0	1038	36	3	1200ml flot, mainly large charcoal frags, 400ml extracted. 25% flot scanned.	NIL	D	charcoal ID

Sample No	Context	Feature	Processed vol (l)	Buckets remaining	Set No	Group No	Phase	Flot description	Charred plant remains	Potential	Notes
29	1273	fill of pit 1224	4	?	1224	22	3	80ml flot, 20ml lge flaky charcoal extracted	Several CPR: poor emmer/spelt grain (clinkered) ++; barley grain+; plump rounded small wheat grain+; NFI cereal grains++; cf. Avena sp.+; Rumex sp. +	B	Range of cereal grains. Find out if any soil remaining as it would be worth processing more. Charcoal ID
39	1317	single fill of pit 1318	10	1	1318	22	3	45ml flot; frequent silt/sand, small charcoal, several lge charcoal	Occasional CPR: 2 emmer/spelt grains; small cf. Ulex sp. Seed+	C	Low density so far but worth processing remaining bucket
45	1325	single fill of ditch 1326	7	1	1326	30	3	10ml flot; sandy/silty & small charcoal	NIL	D	
41	1374	single fill of ditch 1375	10	1	1375	57	3	25ml flot; rootlets, frequent silt/sand, small charcoal frags	Occasional CPR; thin HNS frag+	C	low density
51	1388	single fill of ditch 1389	8	0	1389	28	3	15ml flot; silt & small charcoal	NIL	D	
84	1471	Single fill of ditch 1472	10	1	1472	33	3	15ml flot; silt/sandy, modern chenopods, iron-encrusted charcoal +	NIL	D	
83	1484	single fill of ditch 1485	10	1	1485	59	3	15ml flot; chalky, rootlets, occasional small charcoal	NIL	D	
104	1576	secondary fill of ditch 1577	8	?	1577	32	3	8ml flot; silt & small charcoal, occasional lge charcoal	NIL	D	
109	1620	secondary fill of ditch 1621	8	1	1621	16	3	100ml flot; abundant silt/sand, uncharred wheat rachis (modern); small charcoal and c. 20 frags lge encrusted charcoal	Occasional CPR: Galium aparine+; Ulex sp.+	C	low density and no economic plants yet. Charcoal ID?
120	1661	single fill of N-S ditch 1662	10	1	1662	11	3	70ml flot; frequent silt/sand, lge charcoal++	Occasional CPR: very poor barley grain +; poor encrusted wheat grain+	C	Low density so far but could process remaining bucket to increase grain recovery, charcoal ID?
129	1701	secondary fill of ditch 1703	8	1	1703	14	3	15ml flot; silty/sandy, occasional slaggy frags, small charcoal and occasional lge frag	occasional CPR; very poor barley grain+	C	low density
141	1739	fill of limekiln, south stoke-pit 1697. Kiln trample deposit/kiln stoking chamber	8	0	1697	56	3	150ml flot, frags of lime, CBM, frequent charcoal, 20ml lge charcoal extracted	NIL	D	charcoal ID?

Sample No	Context	Feature	Processed vol (l)	Buckets remaining	Set No	Group No	Phase	Flot description	Charred plant remains	Potential	Notes
306	3016	single fill of E-W ditch 3017	10	1	3017	77	3	50ml flot; muddy charcoal frequent, ++ lge charcoal; common silt/sand	NIL	D	
333	3176	single fill of ditch 3177	10	1	3177	69	3	40ml flot; frequent silt/sand, some small charcoal	NIL	D	
316	3082	single fill of ditch 3083, terminus	10	0	3083	68	6	25ml flot; frequent silt/sand, rootlets, modern Veronica sp.; silty charcoal+	NIL	D	unphased

## 18 Statement of archaeological potential

### 18.1 Summary of archaeological results

- 18.1.1** The archaeological investigation identified prehistoric, late Iron Age, Roman, medieval, and post-medieval archaeological features and artefacts. Features were distributed across the full extents of the PEA. A summary of the results, and an assessment of archaeological significance is presented below.
- 18.1.2** The earliest evidence comprised an assemblage of late Mesolithic (c 6500–4000 BC) worked flint, recovered from excavated features and as a surface scatter overlying the geological Head deposits. Many of the pieces were fresh, and there is some justification to consider the assemblage to be *in situ*, with good potential for further spatial analysis to reconstruct activity zones. Comparable activity, attributed to transient or seasonal hunter-forager camps has been identified from the wider locality at Beechbrook, Westwell (Barclay *et al.* 2006a), and Eythorne Street, Hollingbourne (Barclay *et al.* 2006b) and Sandway Road, Lenham (Barclay *et al.* 2006c).
- 18.1.3** Features attributed to the prehistoric phase (P1) comprised *in situ* burnt flint deposits (G1), pits (G2, G13, G19, G20), ditches (G3, G5, G71), and other linear (G25, G54, G67) and miscellaneous (G26, G29) features indicated the presence of settlement related activity. Many of these features could not be dated with confidence and are likely to represent a palimpsest of activity. For example, the G1 burnt flint deposits might be comparable to late Mesolithic *in situ* burnt flint deposits, interpreted as hearths, from Sandway Road (Barclay *et al.* 2006c). G13.5 elongated pit S1470 contained a large assemblage of Mesolithic worked flint and is potentially contemporary. Elsewhere, small assemblages of prehistoric pottery of early to middle Neolithic (c 4000–3350 BC), late Bronze Age to early Iron Age (c 1100–600 BC) and mid to late Iron Age (c 300–100 BC) date were recovered. Notable assemblages of early to middle Neolithic and late Bronze Age to early Iron Age pottery were derived from G13 pits S3117 and S3151. G20 pit S3133 contained both an assemblage of 52 late Mesolithic worked flints and 143 late Bronze Age to early Iron Age pottery sherds. No evidence for late Neolithic, or early to mid Bronze Age date activity was observed.
- 18.1.4** It is recommended that the P1 phasing be refined through submission of material for radiocarbon dating. The selection of material to be radiocarbon dated is to be determined in collaboration with environmental specialists. Features that would benefit include a G1 burnt flint deposit S705, a selection of G2, G13, G19 and G20 pits, and the G26 miscellaneous feature S1454, which only contained late Mesolithic worked flint and had the form of a sunken-featured building (SFB). Significant registered finds comprised a copper alloy leaf-shaped spear head (SF1067) and tip from a narrow double-edged blade (SF1068) recovered from G20 pit S1761, and might represent a previously disturbed mid to late Bronze Age period hoard.
- 18.1.5** No evidence for continuity in activity between the prehistoric (P1) and transitional late Iron Age to early Roman period (P2) was determined. Transitional late Iron Age to early Roman activity comprised a series of irregular ditches (G4, G6, G7, G8, G9, G10), pits (G17, G21), and large sub-rectangular feature (G55). The parallel alignment of ditches G6, G7, G8, G9, G10 might represent a track or drove-way extending from the higher central ridge down to the south-west, while ditch G4 appeared to block access off the ridge to the south above the 90m contour. Some 23 pits (G17) were characterised by a high wood charcoal content in their backfill, and environmental processing of soil from these features suggested a potential industrial function, with no charred cereal or other waste typical of domestic activity present. In contrast, the large sub-rectangular feature G55 contained occasional charred plant remains and hazel nut shell, as well as pottery dated c 25 BC–AD 100. Two pieces of iron slag were recovered from pit S3090 (G17) and pit S1308 (G21), respectively, though the small quantity might indicate these were intrusive rather than evidence of early smelting activity.
- 18.1.6** Activity within the PEA intensified during the Roman period (P3). A series of ditch segments (G11, G12, G14, G16, G30, G31) formed a boundary following the contour along the base of the higher central ridge between 86m and 87m OD; and further ditch segments (G27 G32, G58, G59) potentially represent a track or drove-way extending parallel and between 13m to 32m to the south. Potential partitions controlling access along the track were represented by ditches G28, G33, G34, G57 and G61; and ditches G37, G69, G70, and G77 indicate that boundary ditches might project into the eastern extents of the

PEA. Some 39 post-holes (G18) potentially represented timber structures, though at this stage no definitive clusters have been determined, and the virtual absence of Roman tile recovered from the PEA would indicate that no tiled buildings existed in the immediate area. Refuse pits (G22, G36), concentrated north of the boundary ditches and track way, demonstrate associated domestic-type activity within the vicinity, and a small-number also contained placed deposits.

- 18.1.7** A potential coin hoard, composed of 10 copper alloy coins and 2 silver coins, had a date range of between AD 64 and AD 85. The coins were recovered from the surface of the Head deposits, and scattered in a broad east to west alignment across an area approximately 20m by 10m, and appear to have been disturbed by past ploughing, with 2 coins (SF1029 and SF1051) having been redeposited in the upper fill of P5 post-medieval ditch G66.
- 18.1.8** Recovered remains of spelt, barley oat and emmer offer valuable new data on crop production and consumption within the region. However, poor preservation of animal bone prevented sufficient recovery to contribute much data on Roman period animal husbandry, though cattle and horse were present.
- 18.1.9** Evidence for industrial activity was identified. A concentration of iron-working waste (13.7kg) was recorded within G14 ditch S1703, comprising mainly iron smelting tap slag, and furnace lining, and perhaps represented the waste from a single bloomery smelting campaign from an unlocated, but perhaps nearby furnace.
- 18.1.10** An early Roman limekiln (G56) was located on the gentler, south-west facing slope of the central ridge. The limekiln was well-preserved, and the full extent was investigated. Identified elements comprised the furnace chamber, flue and stoke-pit, a working area, and potential access ramp. The limekiln was of a periodic or flare kiln type, in which the fuel and charge were not in direct association (Jackson *et al* 1973, 136). A sample of lime from within the firing chamber was submitted to the Scottish Lime Centre Trust for analysis. Lime had both potential agricultural and building uses. Comparable excavated examples include kilns at Weekley, Northants (Jackson *et al* 1973), Helpston, Peterborough (Challands 1976) and at Northfleet, Kent (Steadman 1913)
- 18.1.11** Pottery from all P3 features suggested a date range of between the mid first to mid second century AD. No late Roman pottery was recovered from within the PEA, and no evidence for continued Romano-British occupation beyond the late second century AD could be identified.
- 18.1.12** Activity did not resume within the PEA until the early to mid thirteenth century AD. Features were limited to boundary ditches (G35, G38, G40, G41) delimiting the western extent of a consecutive sequence of rectangular enclosures. The enclosures would have encompassed a contemporary and still extant chapel at Burleigh Farm (HER No. TQ94 W135) and associated farm (AJA 2015b). Ditch G35 formed the earliest enclosure and was replaced by ditch G38. Ditches G40 and G41 appear to represent internal partitions within this later enclosure. A map of 1639 (Kent Archives ref. U386/P1) illustrates 'Burly Chantry', with five buildings shown within the enclosure, with the farm house in the centre, the chapel to the north, small buildings to the east and west, and a barn to the south.
- 18.1.13** Features associated with the post-medieval to modern period reflect general continuity from the medieval land use. Several agricultural field boundary ditches, illustrated on the 1639 map, were identified as post-medieval archaeological features, notably ditches G47, G48, G51, G65 and G66. Post-medieval ditch G39 represented reinstatement of the earlier medieval enclosure ditch G38, and a masonry footing, perhaps representing a garden boundary wall or drain G43 followed the line of this later ditch after it had been infilled. To the east, within the enclosure's interior, a flint gravel surface overlain with broken peg-tile G42, represented remnants of a metalled yard, and this was sealed by a later deposit G44. Pottery from these features indicated a seventeenth- to mid eighteenth-century date range. Other features focused around Burleigh Chapel included a small number of probable refuse pits (G23, G45), an isolated post-hole (G49) and later quarry pit (G46).
- 18.1.14** A second concentration of post-medieval activity was recorded in the far east of the PEA, fronting the east-side of Tile Lodge Road. This comprised a series of rectangular cut features, interpreted as horticultural planting beds (G60), a well (G62), post-holes (G64) and miscellaneous feature (G63). A sherd of North Italian marbled slipware bowl fragment dated to the seventeenth to mid eighteenth centuries, might be indicative of waste disposal from a relatively affluent household.

18.1.15 A large proportion of features could not be attributed to a chronological phase, either due to not being excavated (G78), or where sample excavated, having no finds or other attributes indicative of date (G15, G24, G52, G53, G68). A further undated group of features were interpreted as either geological formations, or other natural phenomenon, including animal burrows and potential tree throws (G72).

## 18.2 Significance of the data

18.2.1 The archaeological excavation has successfully met the principal objectives to establish a broad phased plan of the archaeology revealed following the stripping of the site, and to provide a refined chronology of the archaeological phasing by targeted sample excavation and to investigate the function of remains and the activities taking place within and close to the PEA (CAT 2016a).

18.2.2 The data complement the results of previous archaeological investigations within the PEA and surroundings, and contributes to our understanding of the past land use, environment and human activity within the local setting.

18.2.3 The level of significance of this data, where significance refers to the value of a heritage asset to this and future generations because of its heritage interest (NPPF 2012), is assessed in accordance with Table 21.

Table 21. *Levels of archaeological significance*

Level	Criteria
<b>Very high</b>	Archaeological remains of International/National significance such as: <ul style="list-style-type: none"> <li>Evidence associated with designated World Heritage Sites, Scheduled Monuments, Protected Wrecks, Registered Battlefields or Listed Buildings</li> <li>Non-designated remains of equivalent status to the above, such as those identified in national research frameworks as being significantly rare</li> </ul>
<b>High</b>	Archaeological remains considered as being of particular significance according to national and regional and/or academic research frameworks, making a special contribution to knowledge of past societies
<b>Moderate</b>	Archaeological remains considered as being of District, Regional or academic significance, adding comparative data for developing knowledge of past societies
<b>Low</b>	Archaeological remains considered as being of local significance, such as: <ul style="list-style-type: none"> <li>Sites of a local or parish value or interest for education or cultural appreciation</li> <li>Sites so badly damaged that too little remains to justify inclusion within a higher grade.</li> </ul>
<b>Negligible</b>	Archaeological remains considered as being of little or no significance, or so badly damaged that too little remains to justify inclusion within a higher grade.

18.2.4 The assessed significance of the data is summarised by phase in Table 22.

Table 22. *Summary of potential archaeological significance of stratigraphic narrative by phase*

Phase	Period	Summary	Significance
1	Prehistoric	Late Mesolithic activity indicative of transient occupation. Low density early to mid Neolithic, late Bronze Age to early Iron Age and mid to late Iron Age features, comprising ditches, pits and miscellaneous features, including a potential sunken-featured building. Potential disturbed late Bronze Age hoard.	Moderate
2	Late Iron Age to early Roman	Boundary ditches, NE-SW track or drove-way, charcoal-rich pits, and large sub-rectangular feature.	Low

Phase	Period	Summary	Significance
3	Roman	Boundary ditches, E–W aligned track or drove-way, post-holes representing potential timber structures, refuse pits, and a limekiln. Potential placed deposits within some pits, potential plough damaged coin hoard, evidence for iron smelting. Activity ceased by mid second century AD.	Moderate–High
4	Medieval	Ditches forming enclosure boundary associated with mid thirteenth-century chantry chapel and farm	Low
5	Post-medieval to modern	Field boundary ditches, enclosure boundary, pits, post-holes and metalled yard surface associated with Burleigh Chantry farm; and horticultural pits and well associated with post-medieval occupation fronting Tile Lodge Road.	Low
6	Unphased	Unexcavated features and/or undated features; geological or natural features (animal burrows, tree throws)	Negligible

18.2.5 The potential significance of the excavated materials and requirements for further analysis is summarised in Table 23.

Table 23. *Summary of potential archaeological significance of excavated materials*

Material class	Principal specialist	Significance	Further work
Prehistoric struck flint	R Devaney	Moderate	Yes
Prehistoric pottery	B McNee	Moderate	No
Roman pottery	M Lyne	Moderate	Yes
Post-Roman pottery	L Barber	Low	No
Clay tobacco pipes	L Barber	Low	No
Ceramic building material	L Barber	Low	No
Geological material	L Barber	Low	No
Metallurgical residues	L Barber	Low	No
Registered finds	A Richardson	Moderate	Yes
Animal bone	I Smith	Low	No
Plant remains	W Carruthers	Moderate	Yes

## 18.3 Project Research Design

18.3.1 While the project results are in general of low to moderate archaeological significance, two areas have potential moderate and moderate to high archaeological significance, and therefore warrant further analysis. These comprise recovered data on the late Mesolithic transient occupation activity, and the early Roman land use and associated industrial activity, with specific emphasis to be placed on the late first to early second century AD limekiln.

18.3.2 The following updated research aims (RAs) are proposed based on the assessment of significance. The RAs have been compiled following consultation with the relevant sections of the draft regional research agenda as set out by the South East Research Framework (SERF 2016).

- RA 1 Can the distribution of late Mesolithic worked flint types and potential associated features help differentiate activity areas across the PEA?
- RA 2 How does late Mesolithic data from the PEA contribute to our understanding of the prehistoric local and regional setting?
- RA 3 What evidence for past environments, if any, can be determined from the PEA, and what evidence is there for change over time?
- RA 4 What is the nature of land use and activity within the PEA during the late Iron Age to early Roman period and does this change over time? How does data from the PEA compare to other evidence recovered from the surrounding local and regional setting, particularly in regard to the apparent hiatus evident within the PEA from the late second century AD?

- RA 5 How does the early Roman limekiln compare to other excavated limekilns? Can recovered data from the limekiln furnace chamber, flue, stoke-pit and working area inform on the processes and technologies employed? How does lime production fit within the local and wider regional economic setting?

## 18.4 Proposed tasks

- 18.4.1 It is recommended that analysis be completed on data recovered from within the Phase 1 PEA. Recommended analysis tasks, personnel, and estimated number of days are listed below (Table 24).

Table 24. *Summary of proposed analysis tasks*

Material	Principal specialist	Task	Days
Prehistoric struck flint	R Devaney	Context analysis	1
	R Devaney	Detailed study of the retouched tools and comparison to other sites	2
	R Devaney	Research	1
	R Devaney	Final report text	2
	R Devaney	Preparation of drawing briefs and checking illustrations	1
Roman pottery	B McNee	Illustration (c 6 items)	1
	M Lyne	Final report text	2
	B McNee	Illustration (c 15 items)	2.5
Registered finds	A Richardson	Catalogue registered finds assemblage	1
	A Richardson	Final report text	1
	A Richardson	Archiving (including disposal)	0.5
	D Goodburn-Brown	Conservation	2
	B McNee	Illustration (c 10 items)	2
Environmental processing	E Alison	Process c 15 bulk soil samples	2
	E Alison	Extraction of residues and flots	1
Plant remains	W Carruthers	Sorting and analysis of extracted residues and flots	6
	W Carruthers	Final report text	2
	Queen's University Belfast	8 × 14C AMS dates	NA
Integrated report	T Wilson	Phase, Group and Set analysis, integration with specialist data	10
Report illustration	T Wilson	Digitise relevant sections	2
	P Atkinson	Final report figures	2
Project Management	R Helm	Project management	0.5

## 18.5 Project output

- 18.5.1 Determination of the final project output should await integration of all data recovered within Charing Quarry following proposed subsequent extraction phases.
- 18.5.2 It is anticipated that as a minimum, output would require dissemination of selected results through publication. At present this might comprise a synthesis article detailing the overall project results, but with emphasis placed on the late Mesolithic activity, and early Roman land use with a focus on the limekiln.

## 18.6 OASIS Record

- 18.6.1 An OASIS (Online Access to the Index of Archaeological Investigations) record has been created for this project (<http://oasis.ac.uk/form/formctl.cfm?oid=canterbu3-310486>).
- 18.6.2 The OASIS record will be updated following completion of the proposed analysis tasks and will be submitted to the Kent Historic Environment Record (Appendix 1).

## 18.7 Archive storage and curation

- 18.7.1 On completion of the project it is recommended that the project archive be deposited with a designated museum or similar repository as agreed with the County Archaeologist and the Local Planning Authority.

Until final deposition, the archive will be stored at the offices of the Canterbury Archaeological Trust under archive no. 3862.

## References

- AAF 2011 *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation*, second edition, Archaeological Archives Forum
- AJA 2015a *Burleigh Farm. Trenching Report Phase II*. Andrew Josephs Associates, unpublished client report
- AJA 2015b *Burleigh Farm. Mineral Extraction and Restoration. Cultural Heritage Assessment*. Andrew Josephs Associates, unpublished client report
- AJA 2015c *Burleigh Farm. Landscape Archaeology Assessment*. Andrew Josephs Associates, unpublished client report
- Archaeophysica 2013 *Burleigh Farm, Charing, Kent: geophysical survey report*. Archaeophysica, unpublished client report.
- Arnold D E 1985 *Ceramic theory and cultural process*, Cambridge, Cambridge University Press
- Baker C, Bateman M, Bateman P and Jones H 2013 'The aeolian sand record in the Trent valley', *Mercian Geologist* 18, 108–118
- Baker P and Worley F 2014 *Animal Bones and Archaeology: Guidelines for Best Practice*, Portsmouth: English Heritage
- Barber L 2015 *The Ceramic Building Material from Marlowe Arcade, Canterbury*, unpublished assessment report, Canterbury Archaeological Trust
- Barber L 2016 *The Ceramic Building Material from Faversham Road, Lenham*, unpublished assessment report, Canterbury Archaeological Trust
- Barclay A, Brady K and Fitzpatrick A 2006a *The prehistoric and Roman landscape at Beechbrook Wood, Westwell, Kent*, Oxford Wessex Archaeology Joint Venture, Oxford, DOI: <https://doi.org/10.5284/1009790>.
- Barclay A and Hayden C 2006b *The Prehistoric Landscape at Eyhorne Street, Hollingbourne, Kent*, Oxford Wessex Archaeology Joint Venture, Oxford, DOI: <https://doi.org/10.5284/1008818>
- Barclay A and Trevarthen M 2006c *The Late Mesolithic and Early Neolithic Landscape at Sandway Road, Lenham, Kent*, Oxford Wessex Archaeology Joint Venture, Oxford, DOI: <https://doi.org/10.5284/1008715>
- Behrensmeyer A K 1978 'Taphonomic and ecologic information from bone weathering', *Palaeobiology* 4, 150–162
- Butler C 2005 *Prehistoric flintwork*, Tempus
- CAT 2016a *Specification for archaeological investigation of land at Burleigh Farm, Tile Lodge. Charing Heath, Kent*, Canterbury Archaeological Trust
- CAT 2016b *Company Policy and Procedural Manual for Health, Safety and Welfare*, Canterbury Archaeological Trust
- CAT 2016c *Burleigh Farm, Tile Lodge Road, Charing Heath, Kent TN27 OAN. Risk Assessment and Method Statement*, Canterbury Archaeological Trust
- CAT 2017 *Land at Burleigh Farm, Tile Lodge Road, Charing Heath Kent, TN27 OAN: Archaeological strip, map and monitoring and set-piece excavation, interim report*, Canterbury Archaeological Trust
- Carruthers W 2008 CD-Rom 'Chapter 29: Environmental Overview', 'Chapter 34: Charred, mineralised and waterlogged plant remains', in N Cooke, F Brown and C Phillpotts, *From hunter gatherers to huntsmen, A history of the Stansted landscape*, Framework Archaeology Monograph 2
- Carruthers W forthcoming a 'The charred, waterlogged and mineralised plant remains', in J Rady et al *Excavations at Thanet Earth, Thanet*, Canterbury Archaeological Trust
- Carruthers W forthcoming b 'The charred plant remains' in J Rady et al *Evidence for a Neolithic midden, later prehistoric and Anglo Saxon settlement at the site of the new Ellington and Hereson School, Ramsgate*, Canterbury Archaeological Trust
- Challands A 1976 'A Roman limekiln at Helpston', *Durobrivae* 4, 22–24
- Chandler R J 1971 'Landsliding on the Jurassic escarpment near Rockingham, Northamptonshire', in Brunsdon D (ed), *Slopes: Form and Process*, Institute of British Geographers 3, special publication, London, 111–128
- CIfA 2014 *Standards and guidance for archaeological excavation*, Chartered Institute for Archaeologists, London

- Dobney and Reilly, 1988, 'A method for recording archaeological animal bones: the use of diagnostic zones', *Circaea* 5, 2, 79–96
- von den Driesch A 1976 *A Guide to the Measurement of Animal Bones from Archaeological Sites*, Harvard University
- Edwards E 2006 *The early prehistoric pottery from Sandway Road, Lenham, Kent*, Channel Tunnel Rail Link (CTRL) Specialist Report Series, online: <http://ads.ahds.ac.uk/catalogue/projArch/ctrl/index.cfm>
- Gibson A and Leivers M 2008 'Neolithic pottery', in M J Allen, M Leivers and C Ellis, 'Neolithic causewayed enclosures and later prehistoric farming: Duality, imposition and the role of predecessors at Kingsborough, Isle of Sheppey, Kent, UK', *Proceedings of the Prehistoric Society* 74, 245–253
- Halstead P and Collins P 1994 *The taxonomic identification of limb bones of European farmyard animals and deer: a multimedia tutorial*, Teaching and Learning Technology Programme, Glasgow
- Historic England 2008 *Management of Research Projects in the Historic Environment (MoRPHE), Project Planning Note 3: Archaeological excavation*, Historic England, London
- Jackson D, Biek L and Dix B 1973 'A Roman limekiln at Weekley, Northants', *Britannia* 4, 128–140, DOI: <https://doi.org/10.2307/525861>
- Jacobi R 1978 'The Mesolithic of Sussex', in Drewett, P L (ed), *Archaeology in Sussex to AD 1500*, CBA Research Report 29
- Levine M A 1982 The use of crown height measurements and eruption-wear sequences to age horse teeth in (eds) Wilson B, Grigson C and Payne S *Ageing and Sexing Animal Bones from Archaeological Sites*, British Archaeological Reports British Series 109, Oxford, 223–25
- Macpherson-Grant N, Savage A, Cotter J, Davey J and Riddler I 1995 *Canterbury ceramics 2. The processing and study of excavated pottery*, Canterbury Archaeological Trust
- Monaghan J 1987 *Upchurch and Thameside Roman Pottery*, British Archaeological Reports British Series 173
- Morris E L 2006 'Later Prehistoric Pottery', in A Barclay, P Booth, E Edwards, L Mephram and E L Morris, *Ceramics from Section 1 of the Channel Tunnel Rail Link, Kent*, Channel Tunnel Rail Link (CTRL) Specialist Report Series, online: <http://ads.ahds.ac.uk/catalogue/projArch/ctrl/index.cfm>, 34–121
- Murton J B, Whiteman C A, Bates M R, Bridgland D R, Long A J, Roberts M B and Waller M P 1998 *The Quaternary of Kent and Sussex. Field Guide*, Quaternary Research Association, London
- NERC 2016 *British Geological Survey Online*, Natural Environment Research Council, accessed 13/12/2016, <http://www.bgs.ac.uk/data/mapViewers/home.html>
- NPPF 2012 *National Planning Policy Framework*, Department for Communities and Local Government, online: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/6077/2116950.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf)
- Oxford Archaeology 2014 *Burleigh Farm Chapel, Charing, Kent. Conservation Statement*. Oxford Archaeology, unpublished client report.
- Orton C J 1975 'Quantitative pottery studies: some progress, problems and prospects', *Science and Archaeology* 16, 30–35
- PCRG 1995, second edition; revised 1997, *The Study of later prehistoric pottery: General policies and guidelines for analysis and publication*, Prehistoric Ceramics Research Group Occasional Papers Nos 1 and 2, Oxford
- Serjeantson, D 1996 'The animal bones', in Needham S and Spence T *Refuse and disposal at Area 16 east Runnymede, Runnymede Bridge Research Excavations, Volume 2*, London, 194–253
- SERF 2017 *South East Research Framework*, Kent County Council, online: <http://www.kent.gov.uk/leisure-and-community/history.../south-east-research-framework>
- Scott-Jackson J E 2000 *Lower and Middle Palaeolithic Artefacts from deposits mapped as Clay-with-Flints*, Oxbow Books, Oxford
- Sisson S and Grossman J D 1938, *The Anatomy of the Domestic Animals*, Saunders, Philadelphia and London
- Skempton A W and Weeks A G 1976 *The Quaternary History of the Lower Greensand escarpment and Weald Clay vale near Sevenoaks, Kent*, Philosophical Transactions of the Royal Society of London, A283, 493–526
- Steadman W H 1913 *Excavations on a Roman site at Northfleet*, Dartford District Antiquarian Society, Dartford
- Stevenson J 2013 *Living by the Sword: the archaeology of Brisley Farm, Ashford, Kent*, SpoilHeap Monograph 6

- TVAS 2013a *Land at Burleigh Farm, Charing, Kent. Archaeological Evaluation (field-walking)*. Thames Valley Archaeological Services Ltd., unpublished client report.
- TVAS 2013b *Land at Burleigh Farm, Charing, Kent. An Archaeological Evaluation*. Thames Valley Archaeological Services Ltd., unpublished client report.
- Trevarthen M 2006 *The Late Mesolithic and Early Neolithic Landscape at Sandway Road, Lenham, Kent*. Channel Tunnel Rail Link Integrated Site Report Series in Archaeology Data Service 2006 CTRL digital archive.
- UKIC 1990 Guidelines for the preparation of excavation archives for long term storage, United Kingdom Institute for Conservation
- Wessex Archaeology nd *Excavations South-East of Park Farm, Ashford, Kent Part 1: Main Report*, Wessex Archaeology, online: <http://www.kentarchaeology.ac/archrep/Ashford03.pdf>
- Worssam B C 1963 *Geology of the country around Maidstone. Memoir of the Geological Survey of Great Britain. Explanation of one-inch Geological Sheet 288, New Series*, HMSO, London

## Appendix 1. OASIS Record

OASIS ID: canterbu3-310486

### Project details

Project name	Burleigh Farm, Charing Heath, Kent
Short description of the project	Archaeological excavation of an area 7.66ha was conducted on land at Charing Heath, Kent, in response to a proposed extension of Charing Quarry. Prehistoric activity comprised late Mesolithic worked flint with potential associated occupation, and early-mid Neolithic, late Bronze Age-early Iron Age, and mid-late Iron Age features, including ditches, pits, a potential sunken-featured-building and Bronze Age hoard. Late Iron Age-early Roman activity comprised ditches, trackway and pits. These were superseded by ditches, trackway, post-holes, pits and a limekiln. Placed-deposits within some pits, evidence for iron smelting, and a plough-damaged coin hoard (AD 64-85) were also recovered. Roman activity dated no later than the mid second century, and this hiatus continued until the thirteenth-century, represented by ditches forming the west-side of an enclosure surrounding a contemporary farm and adjacent chantry chapel, the remains of which are protected. Post-medieval to modern features reflect continuity from this medieval land use, and included field boundary ditches illustrated on a manorial map dated 1639, pits, post-holes, a masonry footing or drain, and a metalled yard associated with the chantry farm. To the east, activity included a brick well, and horticultural pits, fronting Tile Lodge Road. The Phase 1 archaeological investigation demonstrated that all the recovered data has the potential to contribute to the local heritage setting, and that the late Mesolithic and early Roman activity, particularly the limekiln, also have the potential to contribute to wider regional and perhaps national research agendas.
Project dates	Start: 06-09-2016 End: 02-12-2016
Previous/future work	Yes / Yes
Any associated project reference codes	No
Type of project	Research Project
Site status	None
Current Land use	Cultivated Land 4 – Character Undetermined
Monument type	PIT Late Mesolithic
Monument type	HEARTH Late Mesolithic
Monument type	PIT Prehistoric
Monument type	DITCH Prehistoric
Monument type	SUNKEN-FEATURED BUILDING Prehistoric
Monument type	DITCH Late Iron Age
Monument type	TRACKWAY Late Iron Age
Monument type	PIT Late Iron Age
Monument type	DITCH Roman
Monument type	TRACKWAY Roman
Monument type	PIT Roman

Monument type	POST HOLE Roman
Monument type	LIMEKILN Roman
Monument type	ENCLOSURE Medieval
Monument type	ENCLOSURE Post Medieval
Monument type	DITCH Post Medieval
Monument type	PIT Post Medieval
Monument type	POST HOLE Post Medieval
Monument type	QUARRY Post Medieval
Monument type	WELL Post Medieval
Monument type	FIELD DRAIN Post Medieval
Significant Finds	LITHIC IMPLEMENT Late Mesolithic
Significant Finds	LITHIC IMPLEMENT Early Neolithic
Significant Finds	POT Early Neolithic
Significant Finds	POT Middle Neolithic
Significant Finds	POT Late Bronze Age
Significant Finds	POT Early Iron Age
Significant Finds	POT Middle Iron Age
Significant Finds	POT Late Iron Age
Significant Finds	POT Roman
Significant Finds	POT Medieval
Significant Finds	POT Post Medieval
Significant Finds	SPEAR Late Bronze Age
Significant Finds	RAPIER Late Bronze Age
Significant Finds	COIN Roman
Significant Finds	BROOCH Roman
Significant Finds	BUCKLE Medieval
Significant Finds	STRAP END Medieval
Significant Finds	PLANT REMAINS Prehistoric
Significant Finds	PLANT REMAINS Late Iron Age
Significant Finds	PLANT REMAINS Roman

### Project location

Country	England
Site location	KENT ASHFORD CHARING Burleigh Farm, Charing heath
Postcode	TN27 0BX
Study area	7.66 Hectares
Site coordinates	TQ 92808 49924 51.215328573263 0.761039830327 51 12 55 N 000 45 39 E Point

Height OD / Depth      Min: 87m Max: 102m

### Project creators

Name of Organisation      Canterbury Archaeological Trust

Project brief originator      Consultant

Project design originator      Andrew Joseph Associates

Project director/manager      Richard Helm

Project supervisor      Tania Wilson

Type of sponsor/funding body      Landowner

Name of sponsor/funding body      Brett Aggregates Limited

### Project archives

Physical Archive recipient      Kent County Council

Physical Archive ID      3862

Physical Contents      "Animal Bones", "Ceramics", "Environmental", "Glass", "Industrial", "Metal", "Worked stone/lithics", "other"

Digital Archive recipient      Kent County Council

Digital Archive ID      3862

Digital Contents      "Animal Bones", "Ceramics", "Environmental", "Glass", "Industrial", "Metal", "Stratigraphic", "Survey", "Worked stone/lithics", "other"

Digital Media available      "Database", "Images raster / digital photography", "Images vector", "Moving image", "Spreadsheets", "Survey", "Text"

Paper Archive recipient      Kent County Council

Paper Archive ID      3862

Paper Contents      "Animal Bones", "Environmental", "Glass", "Industrial", "Metal", "Stratigraphic", "Survey", "Worked stone/lithics", "other", "Ceramics"

Paper Media available      "Context sheet", "Correspondence", "Drawing", "Matrices", "Miscellaneous Material", "Photograph", "Plan", "Report", "Section", "Survey", "Unpublished Text"

## Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Land at Burleigh Farm, Tile Lodge Road, Charing Heath, Kent TN27 0BX. Archaeological strip, map and monitoring and set-piece excavation. Phase 1. Post-excavation Assessment
Author(s)/Editor(s)	Helm, R.
Author(s)/Editor(s)	Wilson, T.
Author(s)/Editor(s)	Allen, P.
Author(s)/Editor(s)	Devaney, R.
Author(s)/Editor(s)	McNee, B.
Author(s)/Editor(s)	Lyne, M.
Author(s)/Editor(s)	Barber, L.
Author(s)/Editor(s)	Richardson, A.
Author(s)/Editor(s)	Smith, I.
Author(s)/Editor(s)	Carruthers, W.
Other bibliographic details	Report No. 2018/27
Date	2018
Issuer or publisher	Canterbury Archaeological Trust
Place of issue or publication	Canterbury
Description	Post-excavation assessment report (vi + 72pp + 39 plates + 24 tables + 21 figures + 1 appendices)

Entered by	Richard Helm (richard.helm@canterburytrust.co.uk)
Entered on	28 February 2018



*Plate 1. UAV aerial view of PEA looking E (credit: Atec-3D)*



*Plate 2. Sample excavation in progress, looking W (scale 0.5m)*



*Plate 3. P1 G1 burnt flint deposit S1705, looking N (scale 2m)*



*Plate 4. P1 G1 burnt deposit S1733, looking SE (scale 0.5m)*



*Plate 5. P1 G2 Pits S1647, S1649, S1668, S1655 containing burnt flint assemblage, looking SE (scale 1m)*



*Plate 6. P1 G26 miscellaneous feature S1454 and post-hole S1442, potentially representing a SFB, looking NE (scale 1m)*



*Plate 7. P2 G17 pit S3032 showing rich charcoal content, looking E (scale 1m)*



*Plate 8. P2 G55 miscellaneous feature S1234, looking NW (scale 1m)*



*Plate 9. P3 ditch G14 S1703 showing iron smelting debris, looking NE (scale 1m)*



*Plate 10. P3 G14 ditch S1666, looking NW. Note truncated P1 G3 ditch S1685 visible in sides of cut (scale 1m)*



*Plate 11. P3 G30 ditch S1326, looking E (scale 0.5m)*



*Plate 12. P3 G31 ditch S1490, looking SE (scale 1m)*



*Plate 13. P3 G22.1 pit S1059 with placed deposit, looking W (scale 0.1m)*



*Plate 14 P3 G22.1 pit S1224 with placed deposit, looking SE (scale 1m)*



*Plate 15. P3 G56 limekiln furnace chamber S1314 showing Ragstone rubble infill, looking W (scale 1m)*



*Plate 16. P3 G56 limekiln, section through in situ deposits in firing chamber S1314, looking NE (scale 1m)*



*Plate 17. P3 G56 limekiln section through stoke-pit, flue and furnace chamber, looking N (No scale)*



*Plate 18. P3 G56 limekiln, looking NW (scale 2m)*



*Plate 19. P4 G38 ditch S1036, looking NW (scale 2m)*



*Plate 20. P4 G38 ditch S1026 with Burleigh Chapel ruins in background, looking E (scale 1m)*



*Plate 21. Section through P5 G39 ditch S1109, G43 masonry gully S1089, and G42 metalled surface S1065 and S1088, looking NW (scale 1m)*



*Plate 22. Detail of P5 G43 masonry gully S1089, looking N (scale 0.5m)*



*Plate 23. General view of PEA during machine strip, east-side of Tile Lodge Road, looking N (No scale)*



*Plate 24. P5 G52 Well S1609, looking SW (scale 1m)*



*Plate 25. P5 G60 horticultural feature S1585, looking SE (scale 0.5m)*



*Plate 26. P5 G63 miscellaneous feature S1606, looking NE (scale 1m)*



*Plate 27. UAV aerial mosaic of western PEA (credit: Atec-3D)*



*Plate 28. Example of Head Gravel (scale 0.5m intervals)*



*Plate 29. Example of fine Head Gravel (scale 0.5m intervals)*



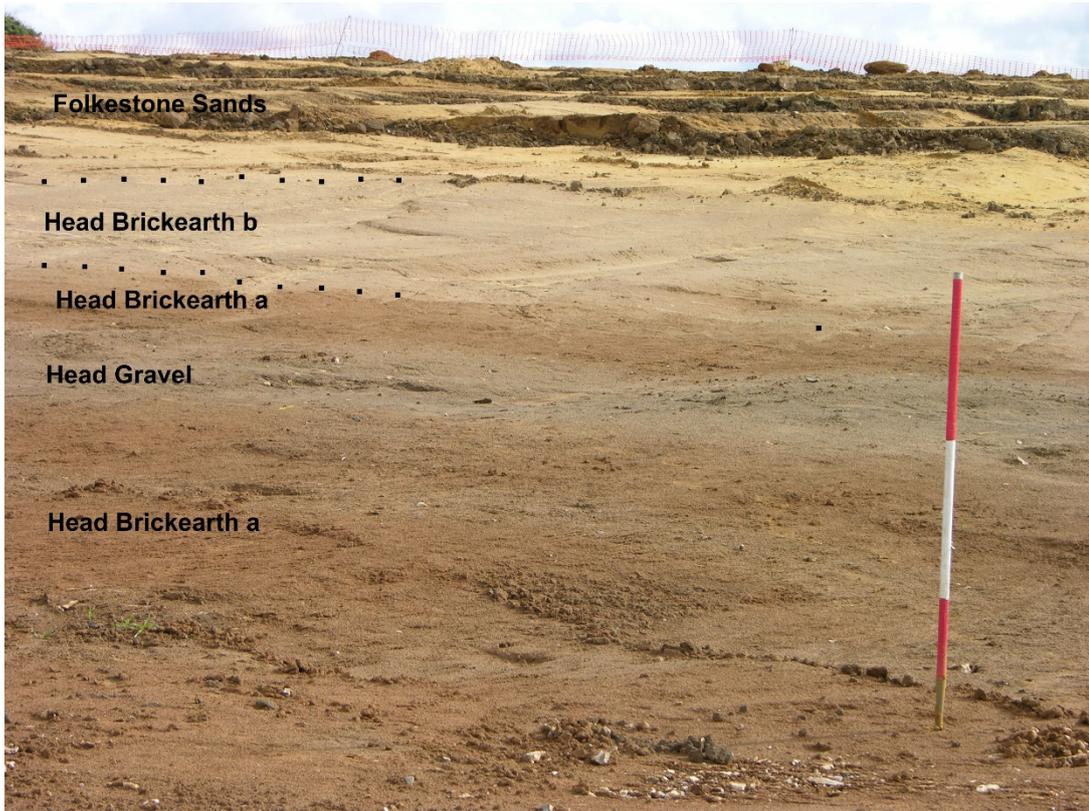
*Plate 30. Head Gravel load structure (scale 0.5m intervals)*



*Plate 31. Head Gravel, circular patch (scale 0.5m intervals)*



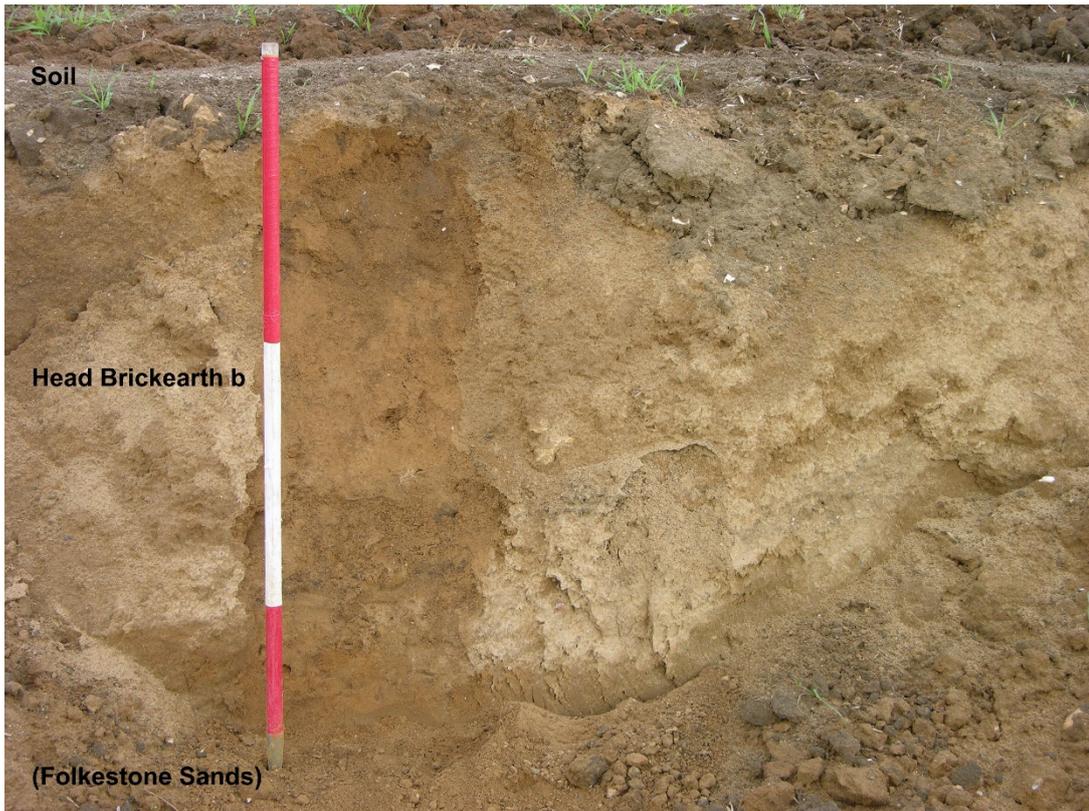
*Plate 32. Head Gravel, linear examples (scale 0.5m intervals)*



*Plate 33. Geological stratification on west side of central ridge*



*Plate 34. Detail showing red-brown Head Brickearth (scale 0.5m intervals)*



*Plate 35. Detail showing grey-brown Head Brickearth (scale 0.5m intervals)*



*Plate 36. Structure of Head Gravel overlain by Head Brickearth (scale 0.5m intervals)*

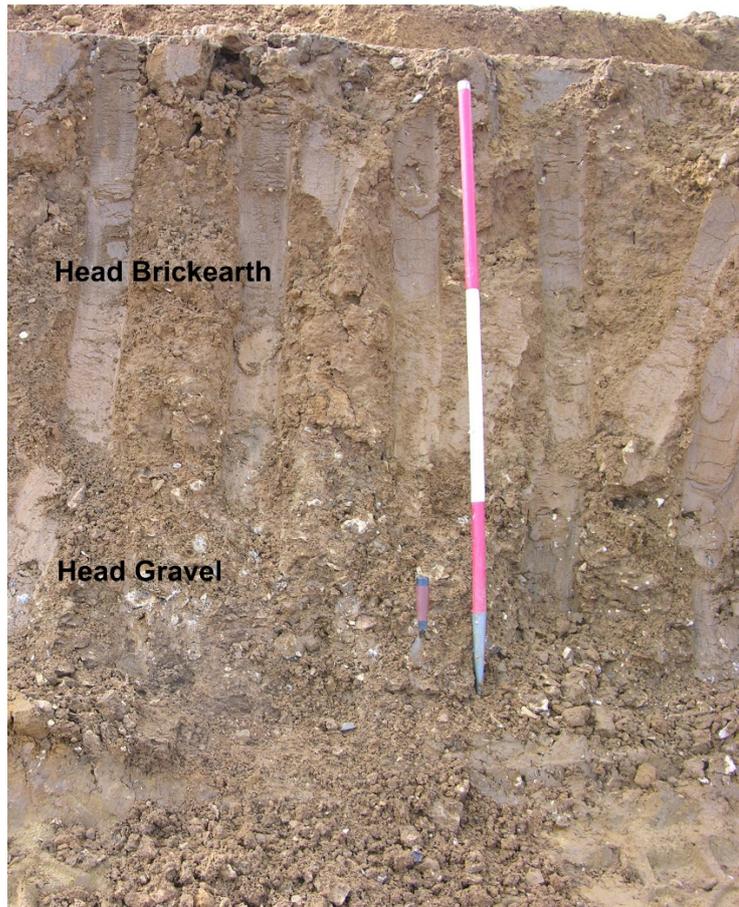


Plate 37. Head Brickearth, northern area of PEA (scale 0.5m intervals)



Plate 38. Folkestone Sands at crest of central ridge (scale 0.5m intervals)



*Plate 39. Section through Folkestone Sands at crest of central ridge (scale 0.5m intervals)*

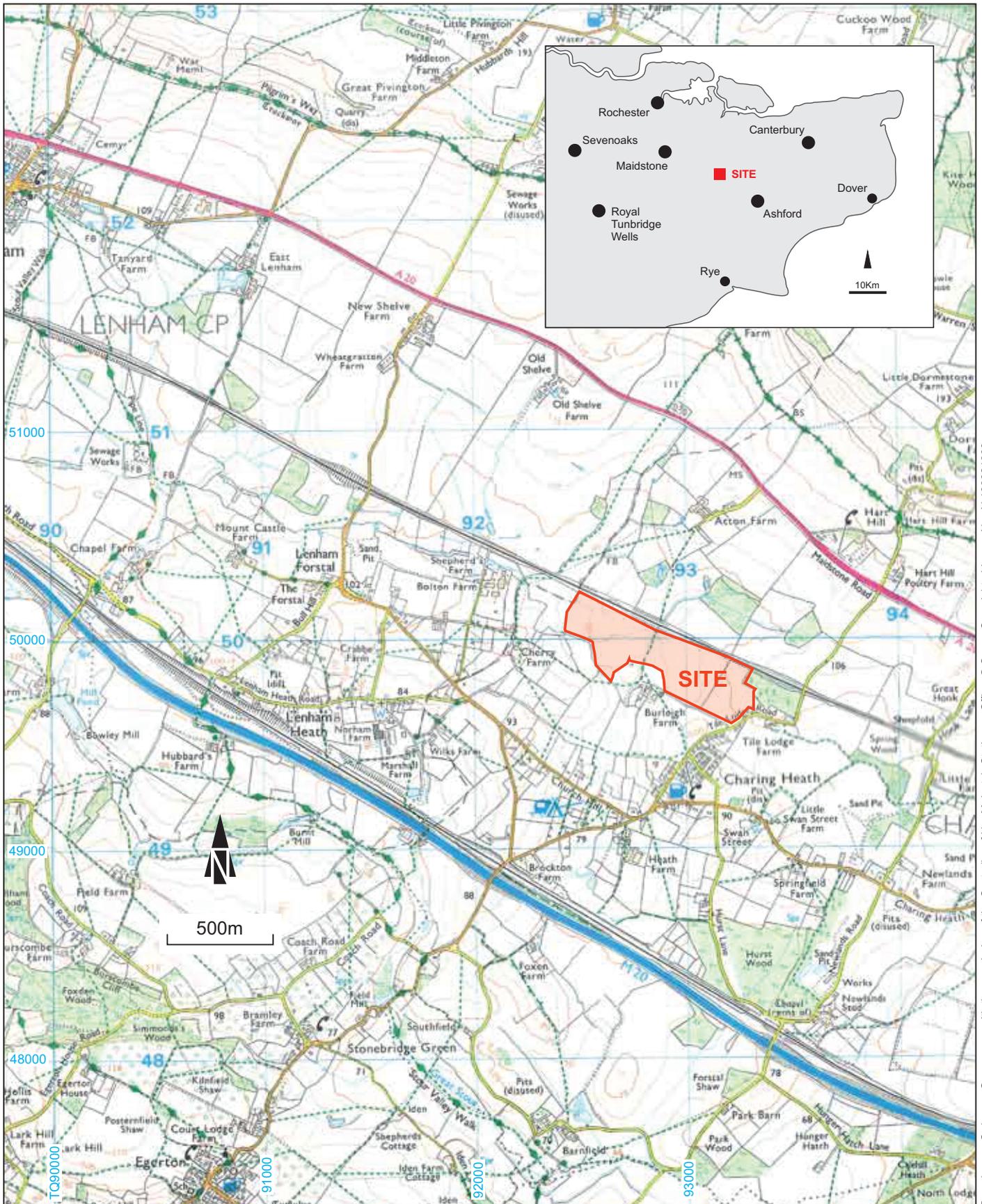
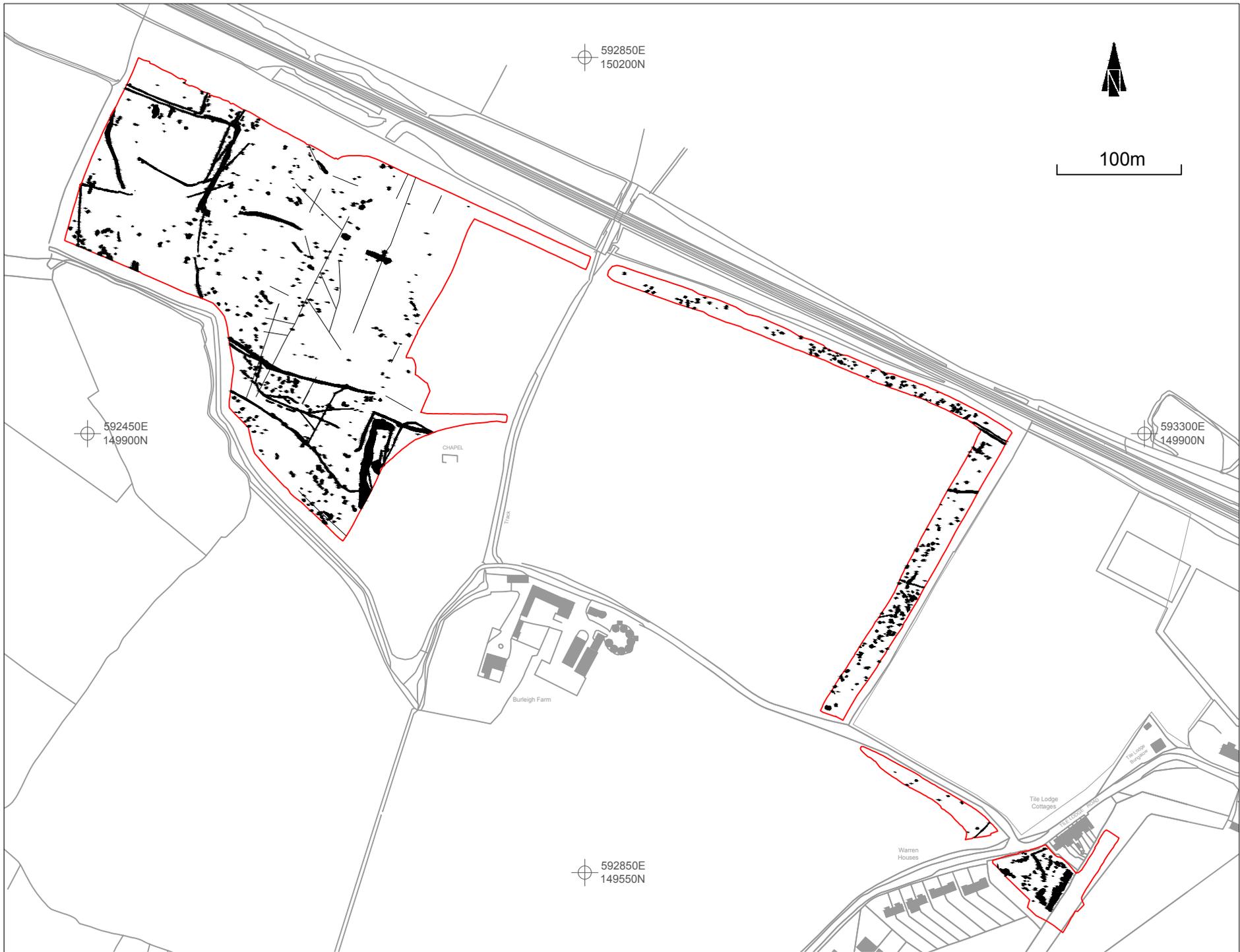


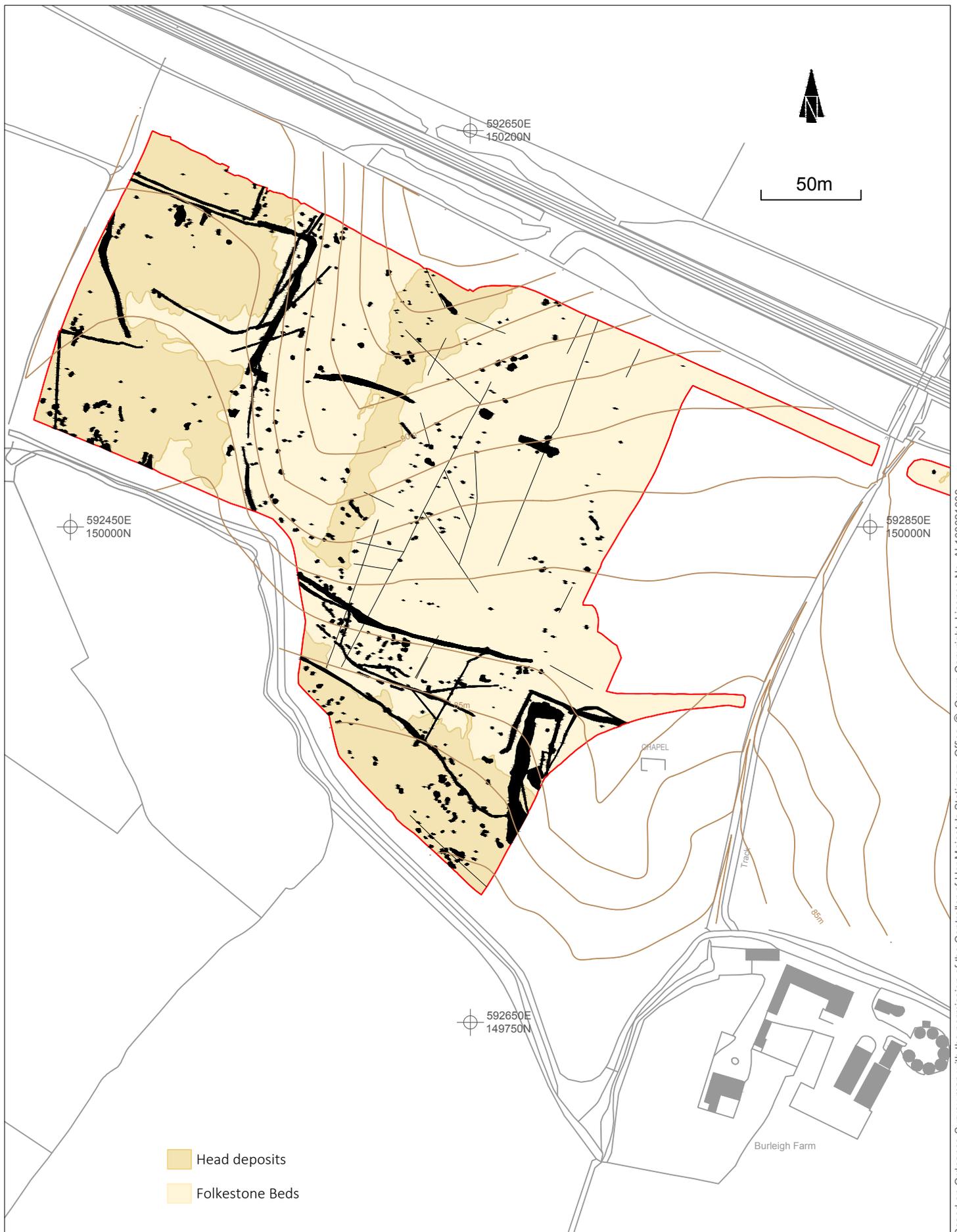
Figure 1. Site location plan (1:25,000)

Based on an Ordnance Survey map with the permission of the Controller of Her Majesty's Stationery Office, © Crown Copyright. Licence No. AL100021009



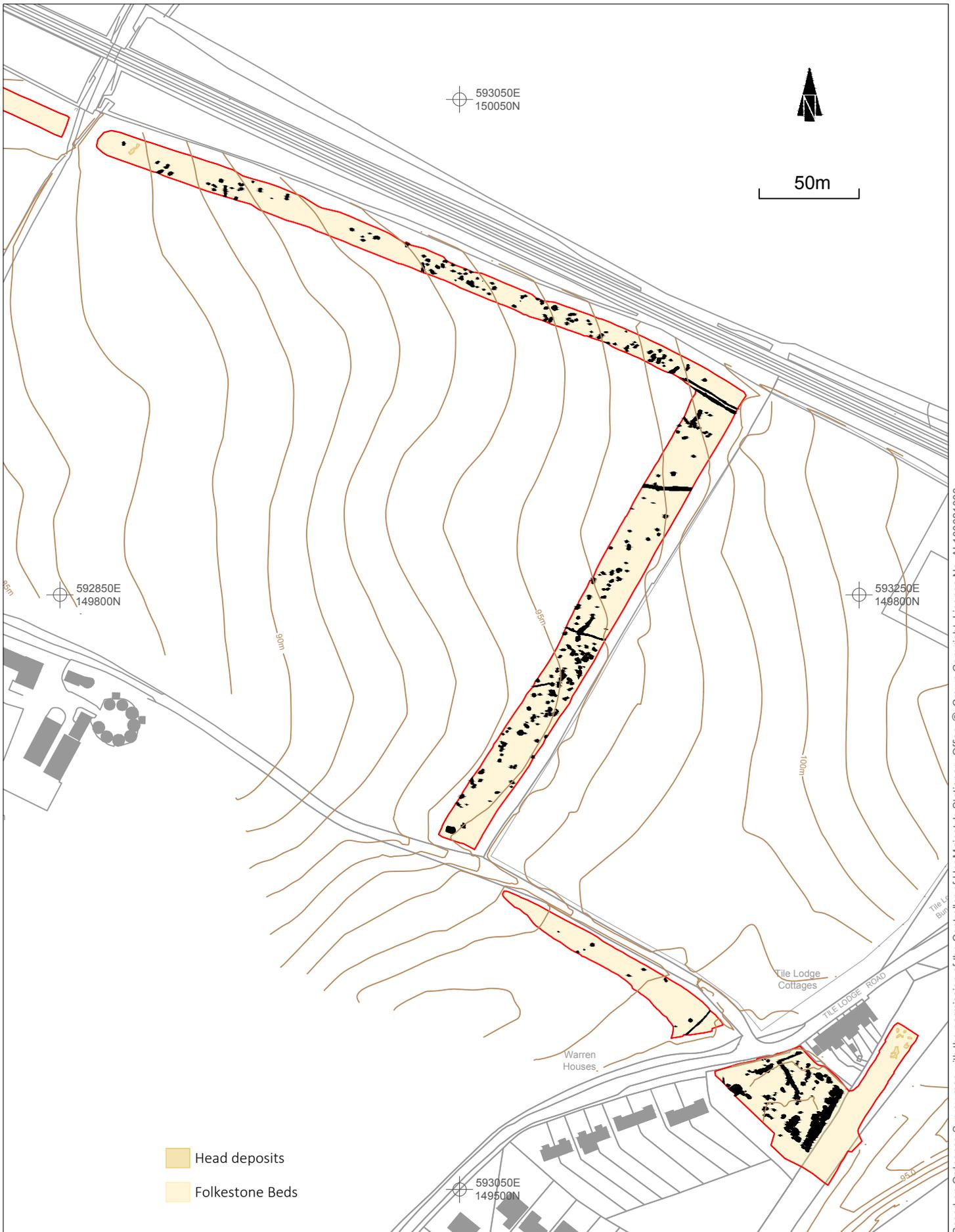
Based on Ordnance Survey map with the permission of the Controller of Her Majesty's Stationary Office. © Crown Copyright. Licence No. AL100021009

Figure 2. Distribution of all archaeological features (1:4000@A4)



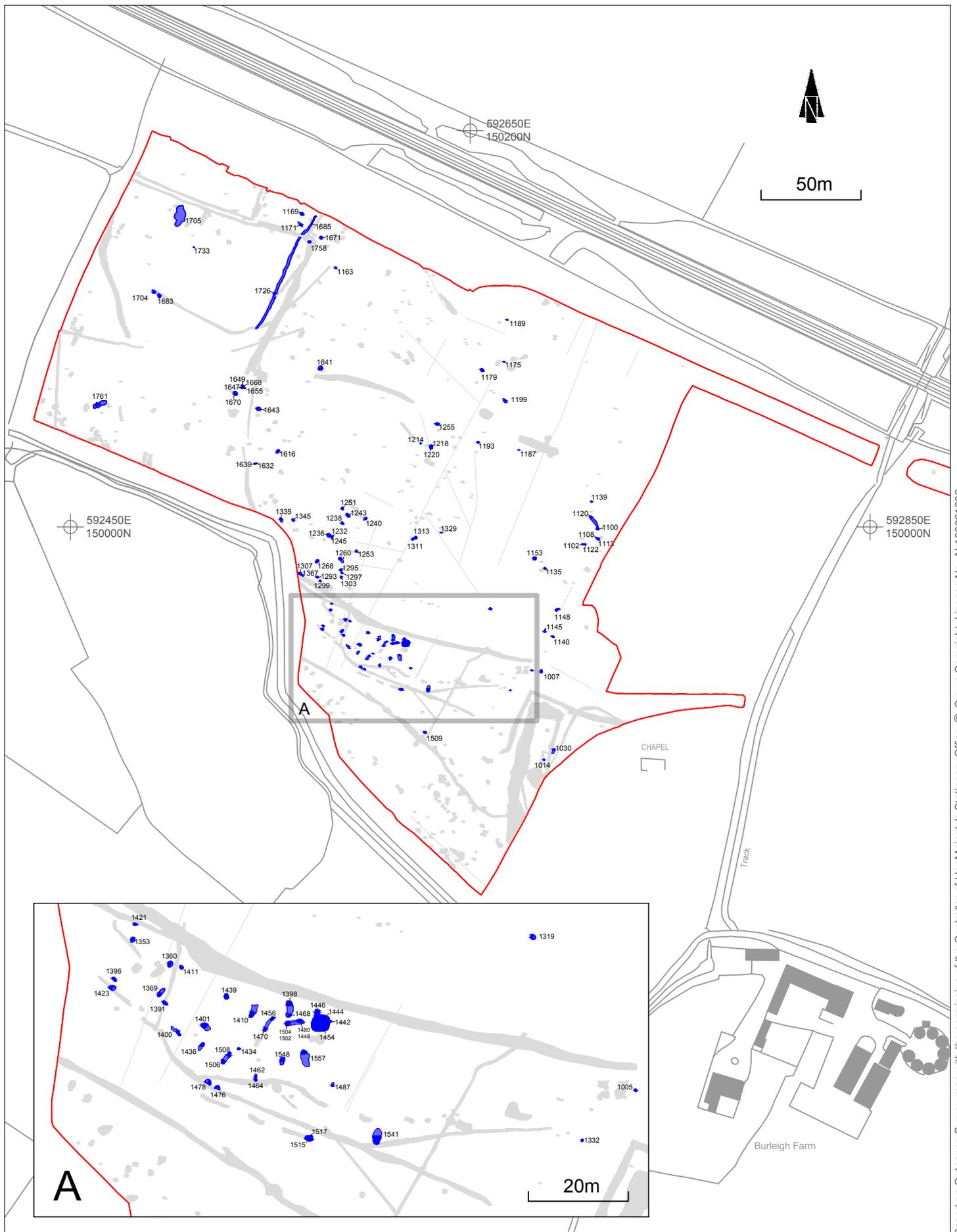
Based on Ordnance Survey map with the permission of the Controller of Her Majesty's Stationary Office. © Crown Copyright. Licence No. AL100021009

Figure 3. Geological and topographic setting (1:2500@A4)



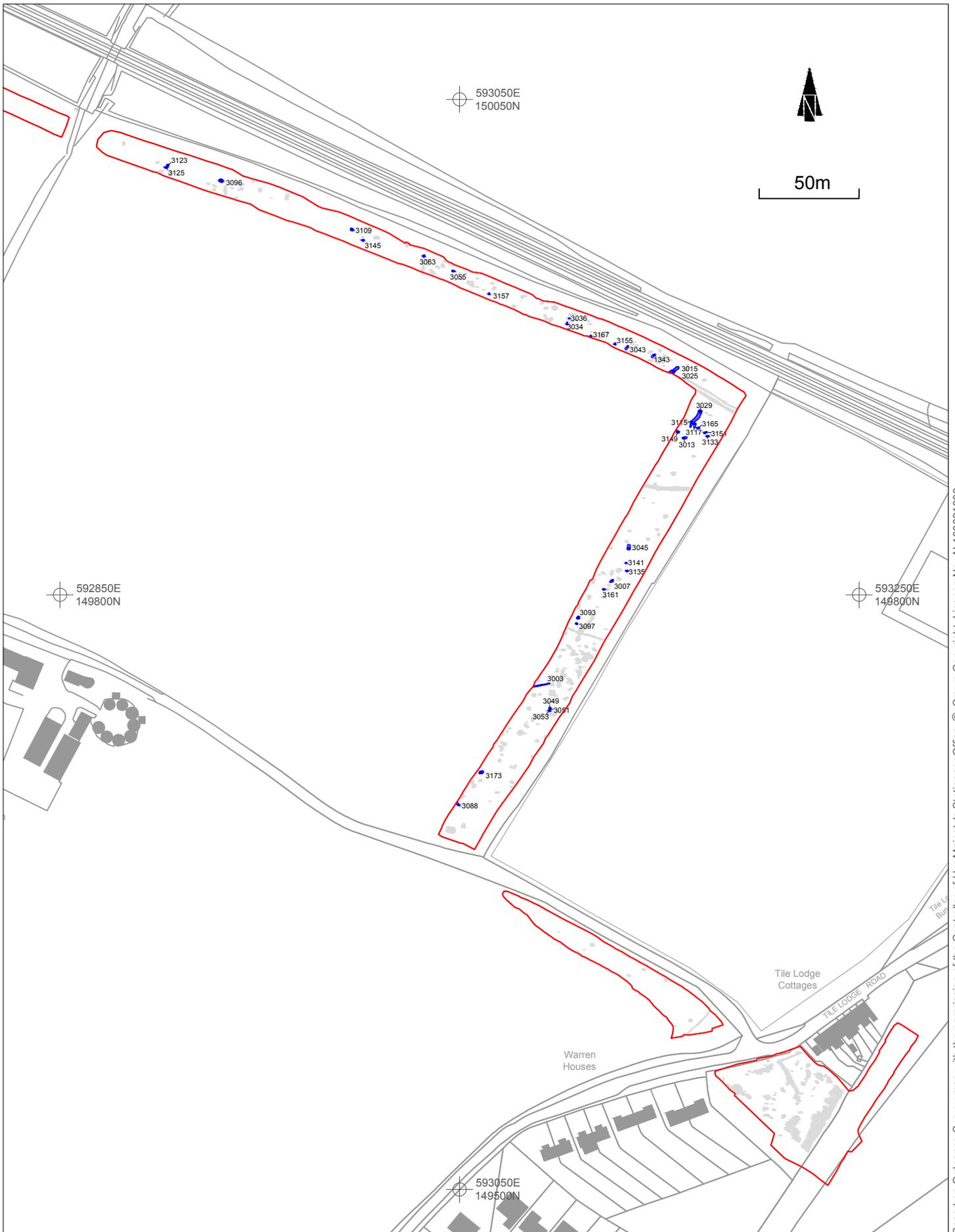
Based on Ordnance Survey map with the permission of the Controller of Her Majesty's Stationary Office. © Crown Copyright. Licence No. AL100021009

Figure 4. Geological and topographic setting (1:2500@A4)



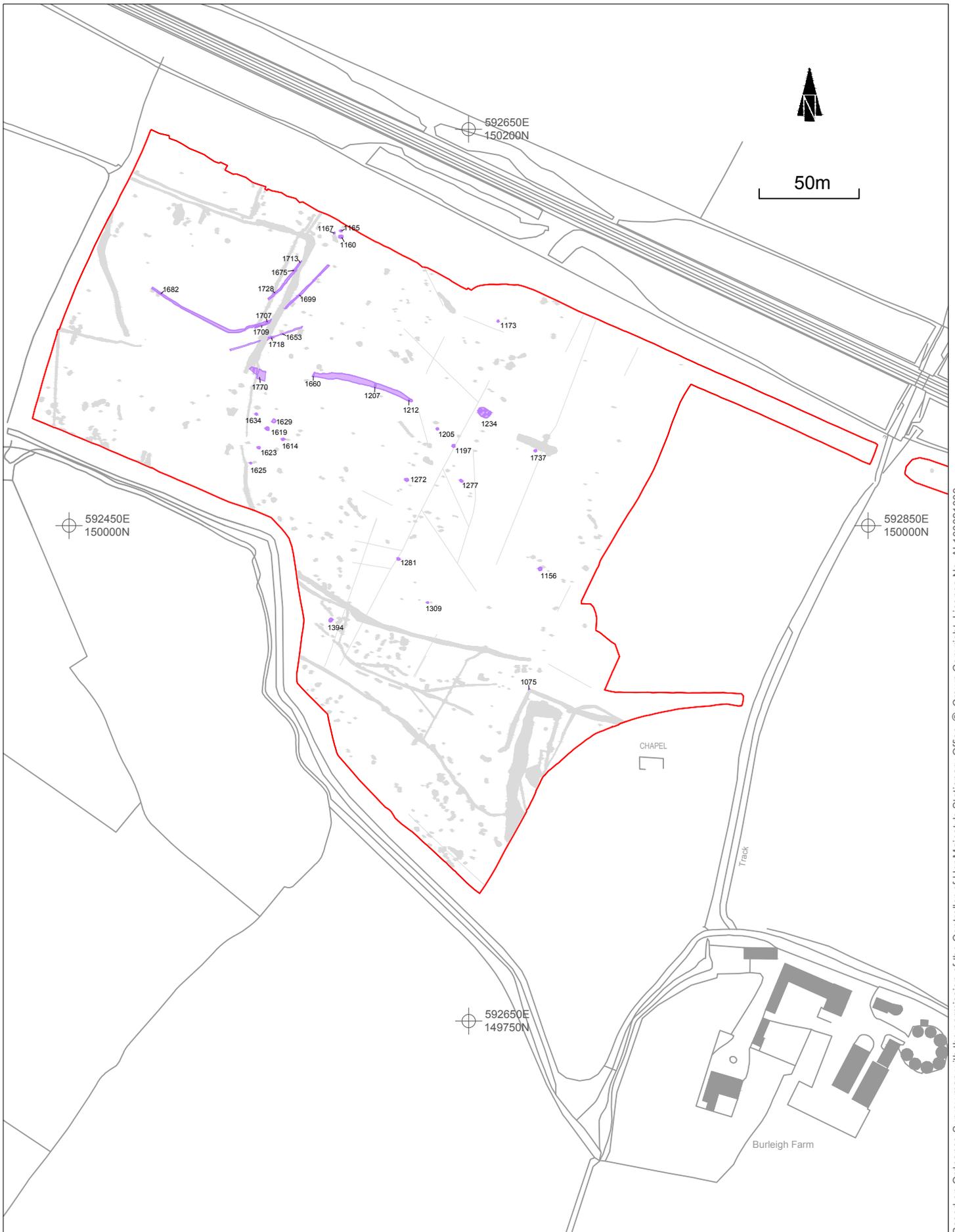
Based on Ordnance Survey map with the permission of the Controller of Her Majesty's Stationary Office. © Crown Copyright. Licence No. AL100021009

Figure 5. P1 prehistoric archaeological features (1:2500@A4; inset A 1:1000@A4)



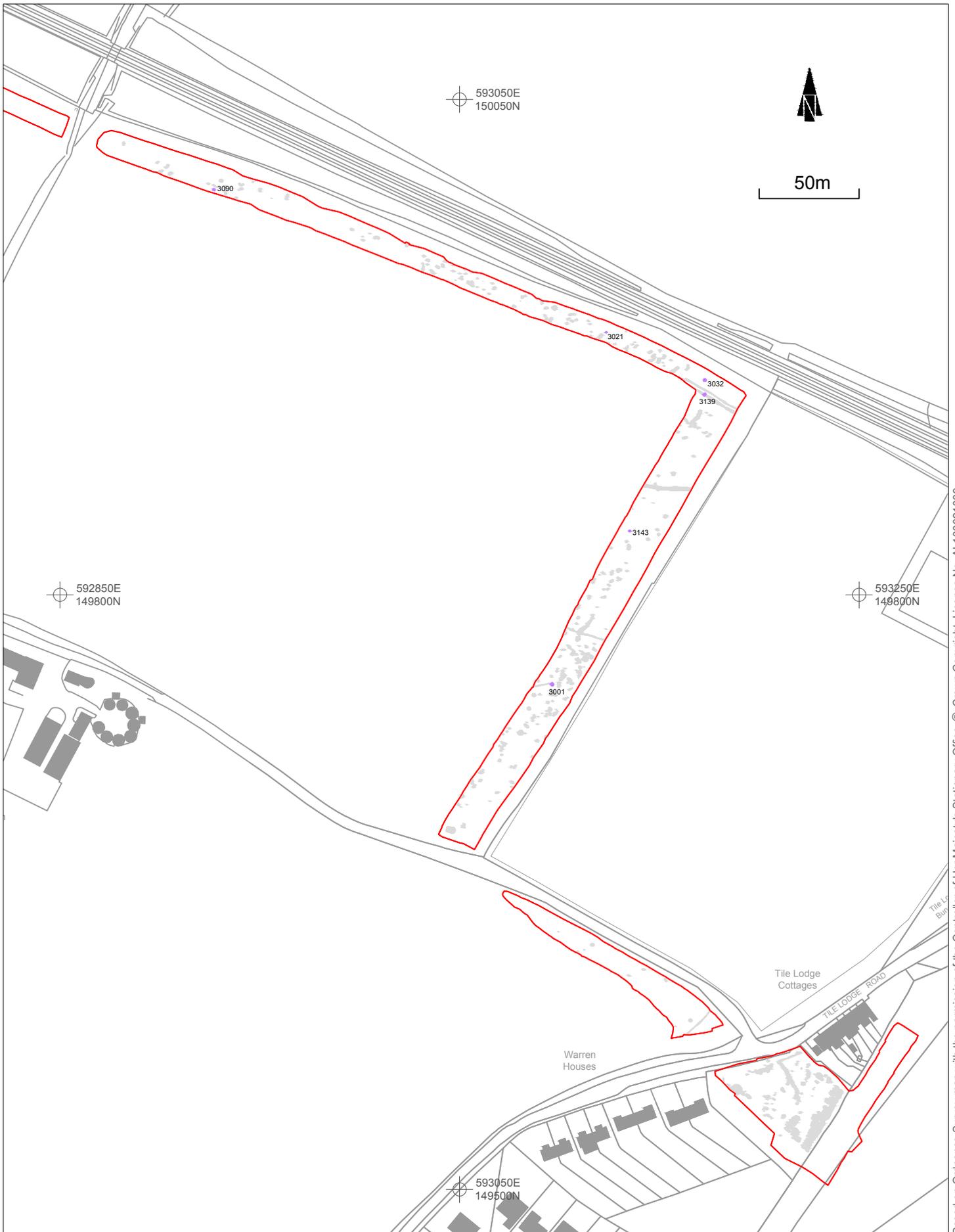
Based on Ordnance Survey map with the permission of the Controller of Her Majesty's Stationary Office. © Crown Copyright. Licence No. AL100021009

Figure 6. P1 prehistoric archaeological features (1:2500@A4)



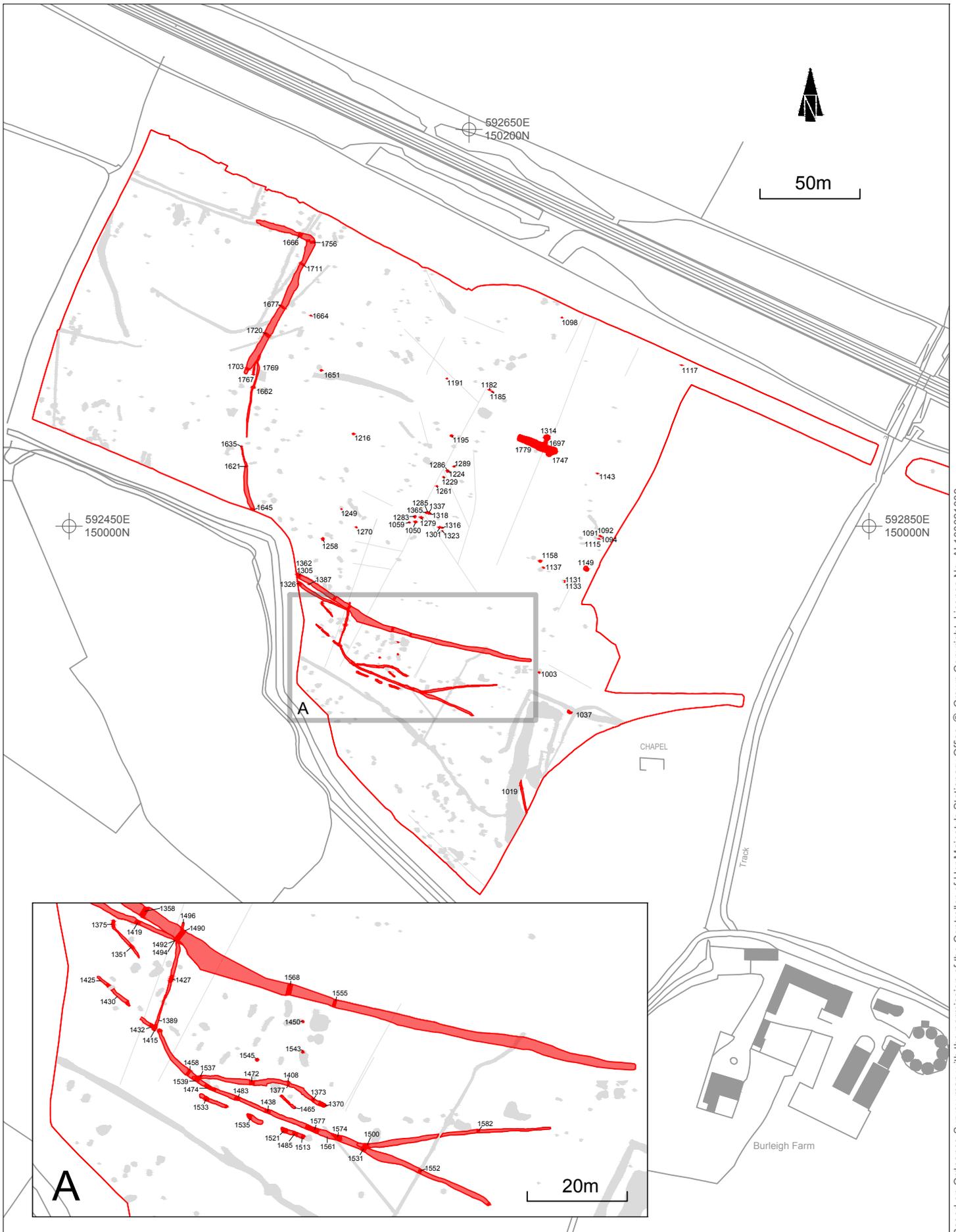
Based on Ordnance Survey map with the permission of the Controller of Her Majesty's Stationary Office. © Crown Copyright. Licence No. AL100021009

Figure 7. P2 late Iron Age to Roman transition archaeological features (1:2500@A4)



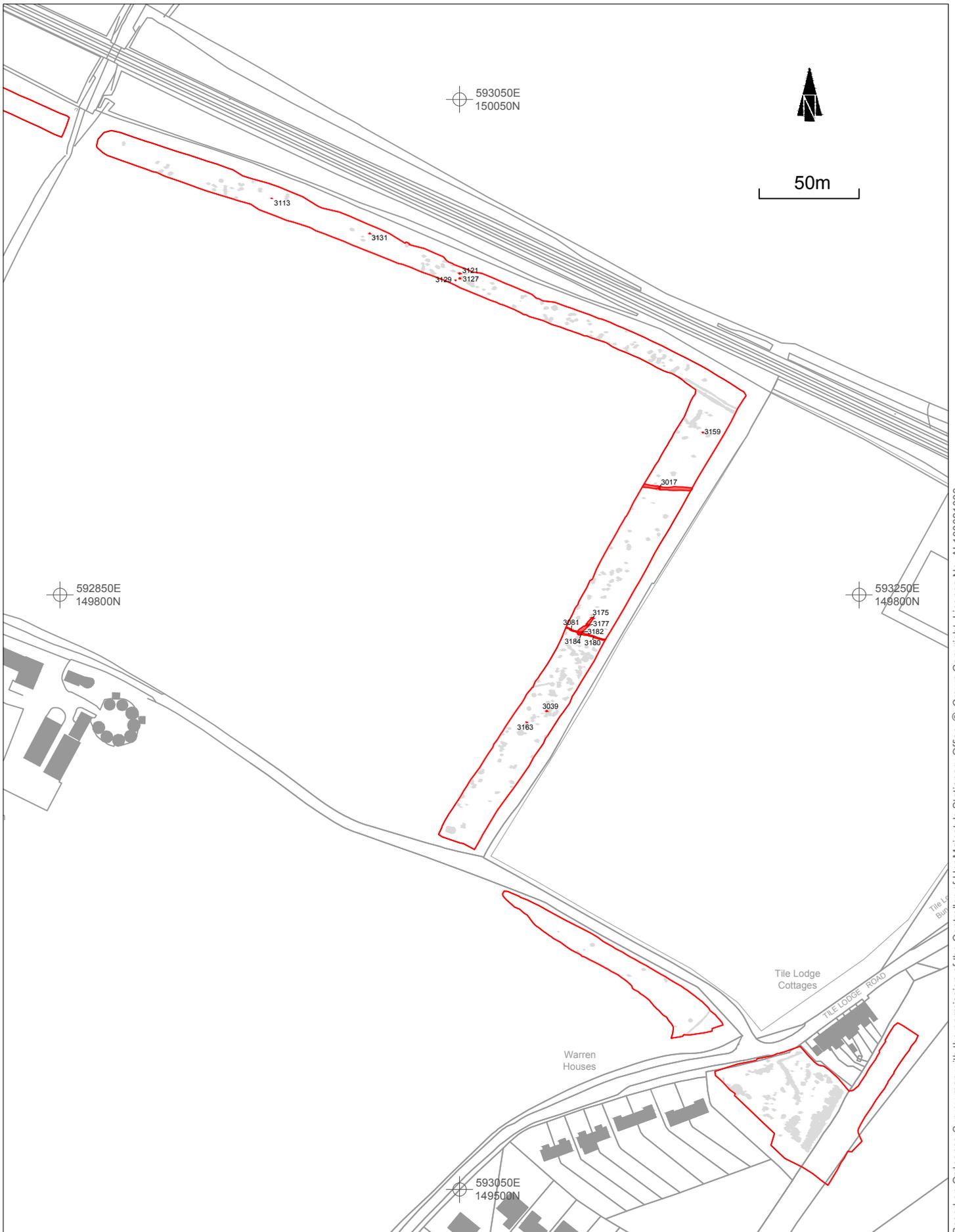
Based on Ordnance Survey map with the permission of the Controller of Her Majesty's Stationary Office. © Crown Copyright. Licence No. AL100021009

Figure 8. P2 late Iron Age to Roman transition archaeological features (1:2500@A4)



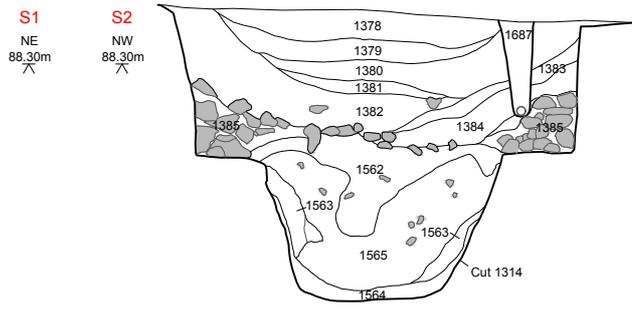
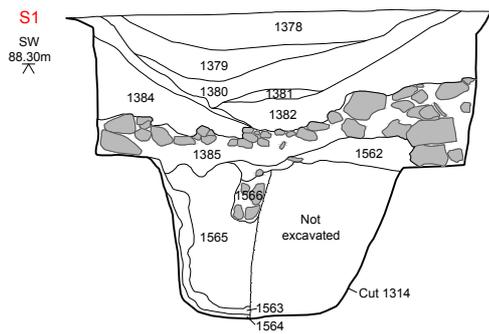
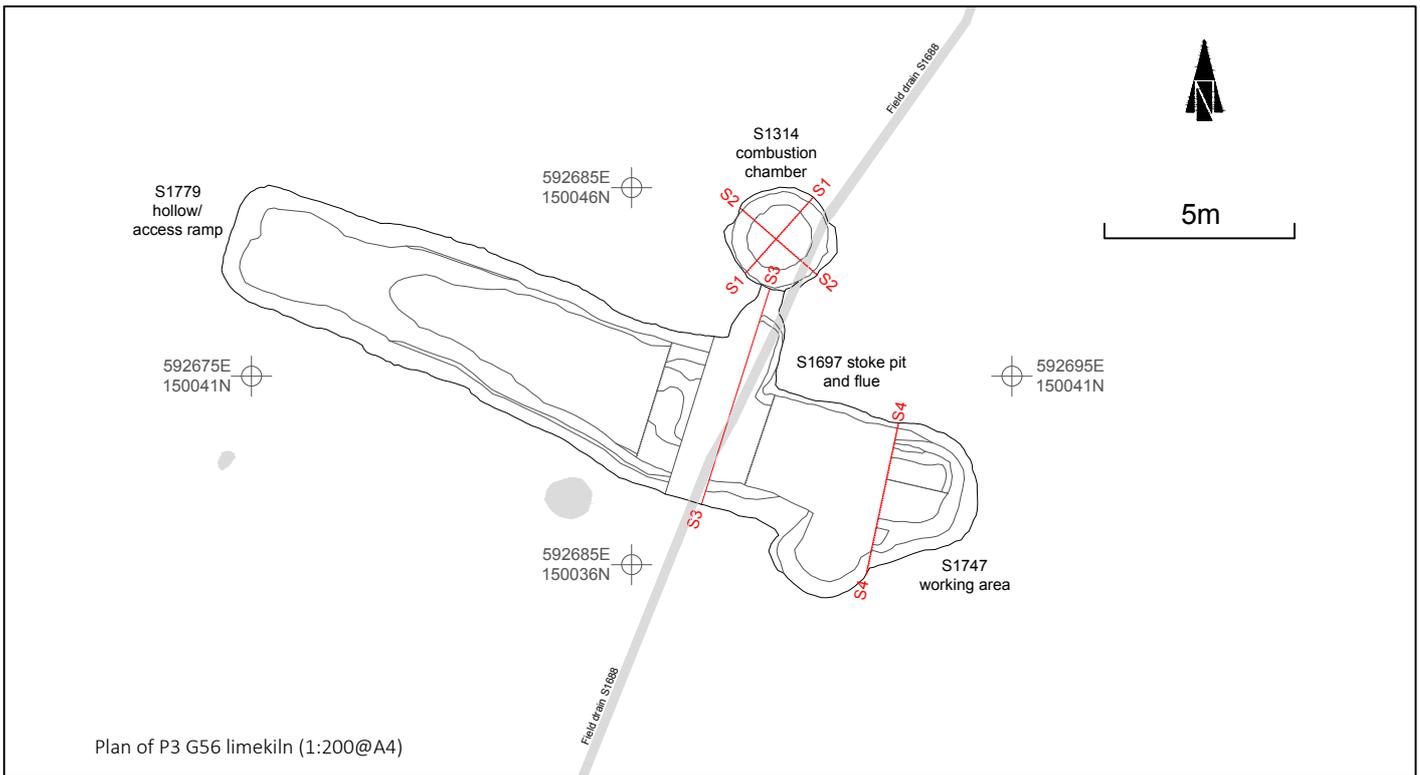
Based on Ordnance Survey map with the permission of the Controller of Her Majesty's Stationary Office. © Crown Copyright. Licence No. AL100021009

Figure 9. P3 Roman archaeological features (1:2500@A4; inset A 1:1000@A4)



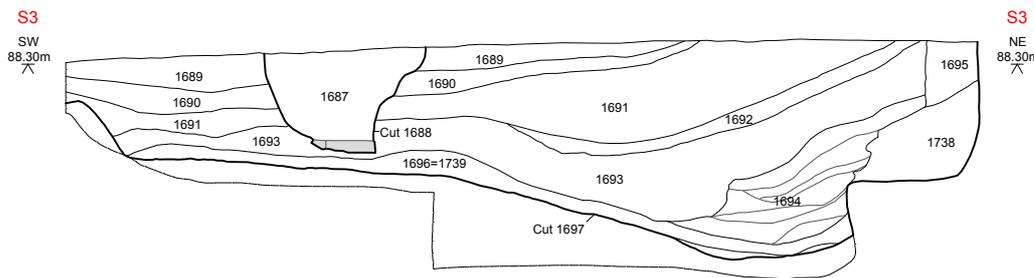
Based on Ordnance Survey map with the permission of the Controller of Her Majesty's Stationary Office. © Crown Copyright. Licence No. AL100021009

Figure 10. P3 Roman archaeological features (1:2500@A4)



SE facing section through combustion chamber S1314 (1:50@A4)

SW facing section through combustion chamber S1314 (1:50@A4)



SE facing section through stoke pit and flue S1697 (1:50@A4)



SE Facing section through working area S1747 (1:50@A4)

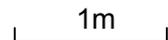
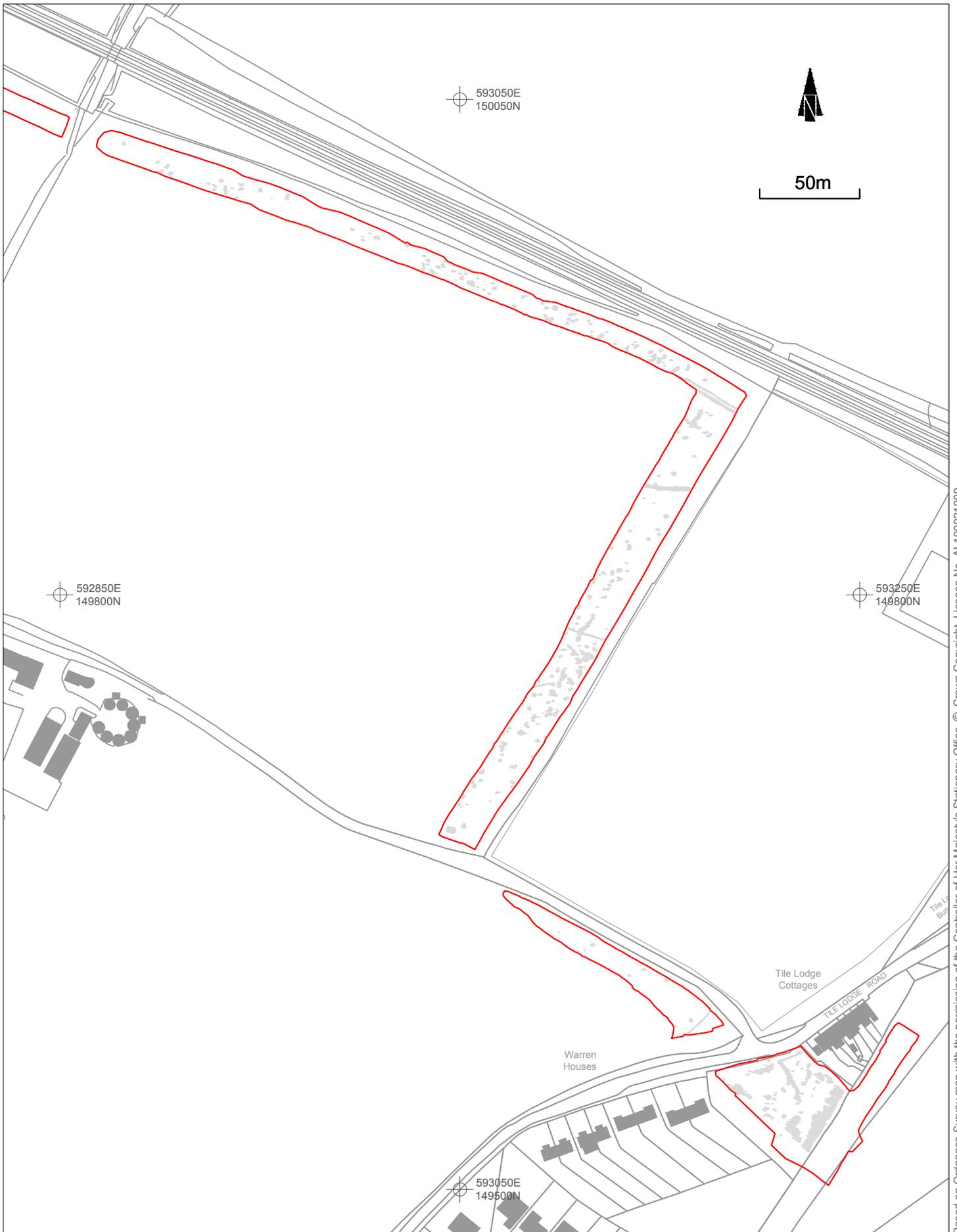


Figure 11. P3 Roman G56 limekiln plan (1:200@A4) and sections (1:50@A4)



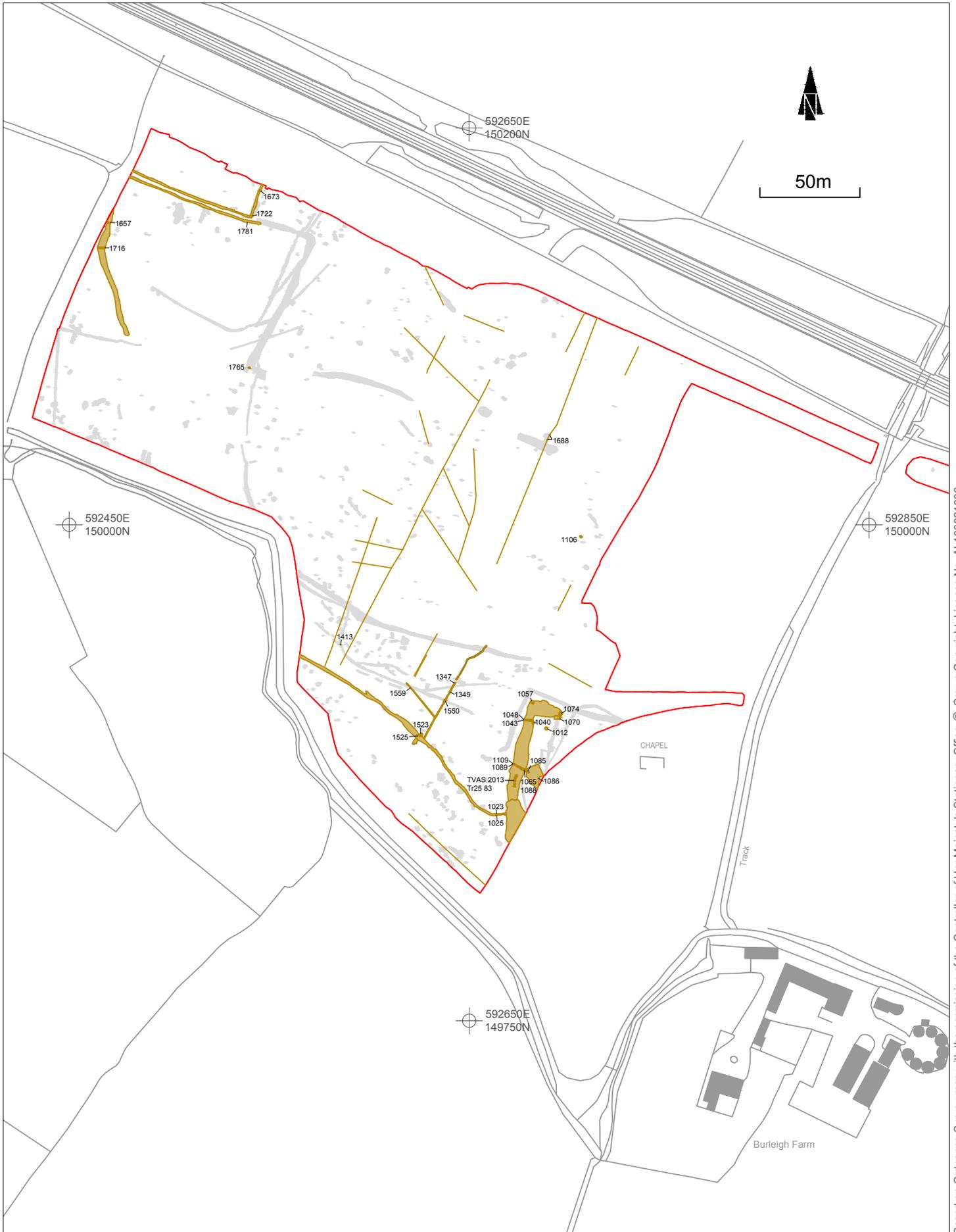
Based on Ordnance Survey map with the permission of the Controller of Her Majesty's Stationary Office. © Crown Copyright. Licence No. AL100021009

Figure 12. P4 medieval archaeological features (1:2500@A4)



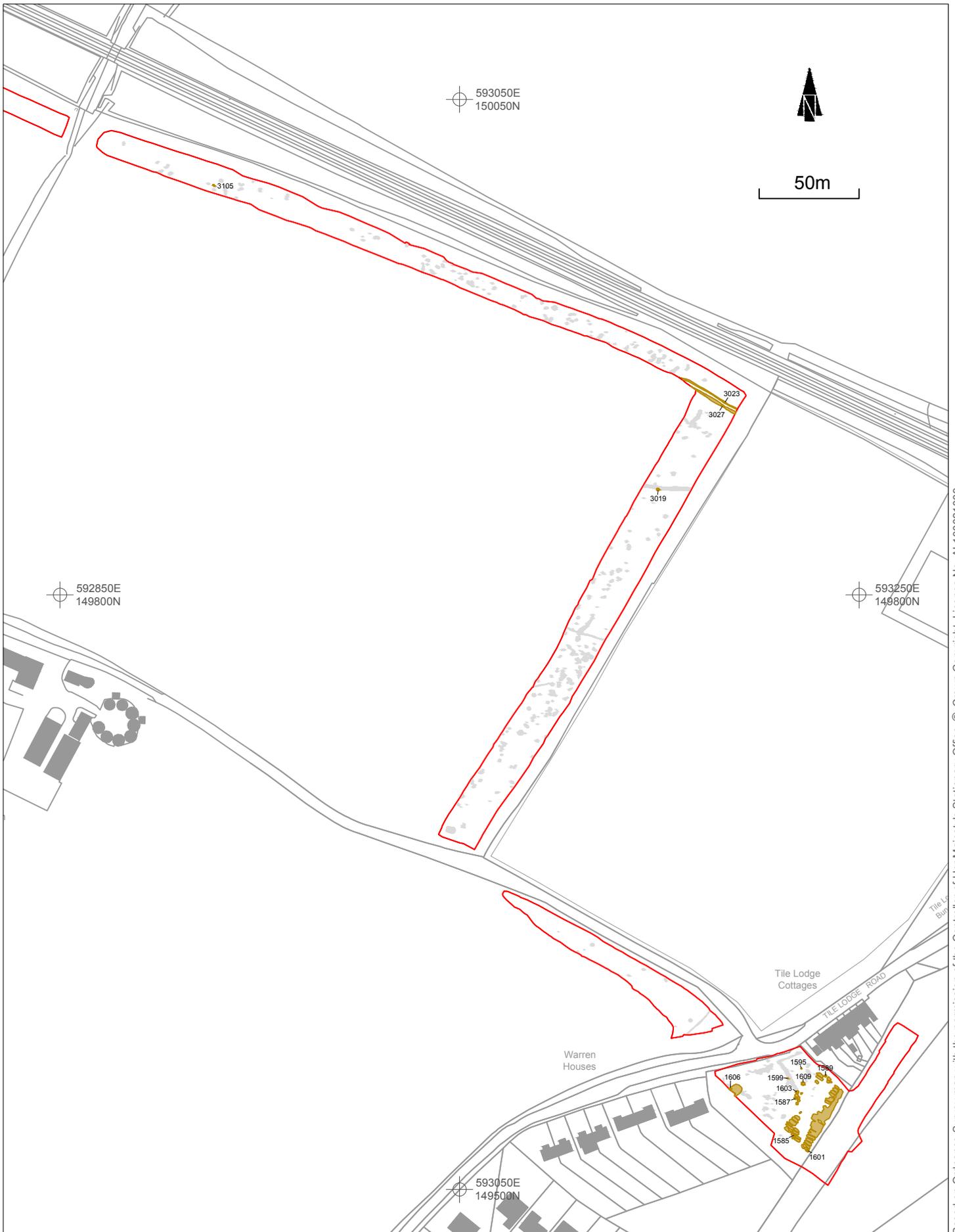
Based on Ordnance Survey map with the permission of the Controller of Her Majesty's Stationary Office. © Crown Copyright. Licence No. AL100021009

Figure 13. P4 medieval archaeological features (1:2500@A4)



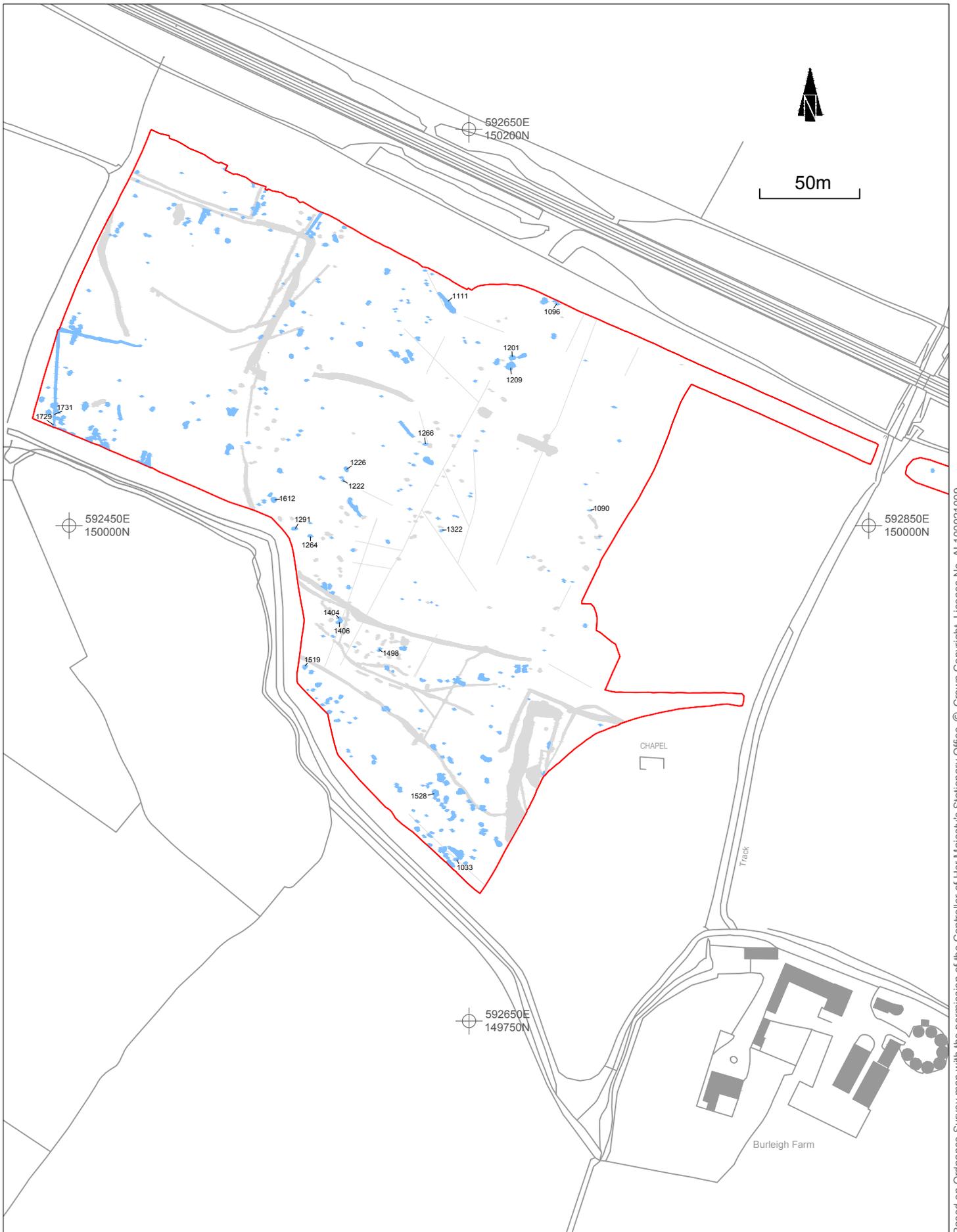
Based on Ordnance Survey map with the permission of the Controller of Her Majesty's Stationary Office. © Crown Copyright. Licence No. AL100021009

Figure 14. P5 post-medieval to modern archaeological features (1:2500@A4)



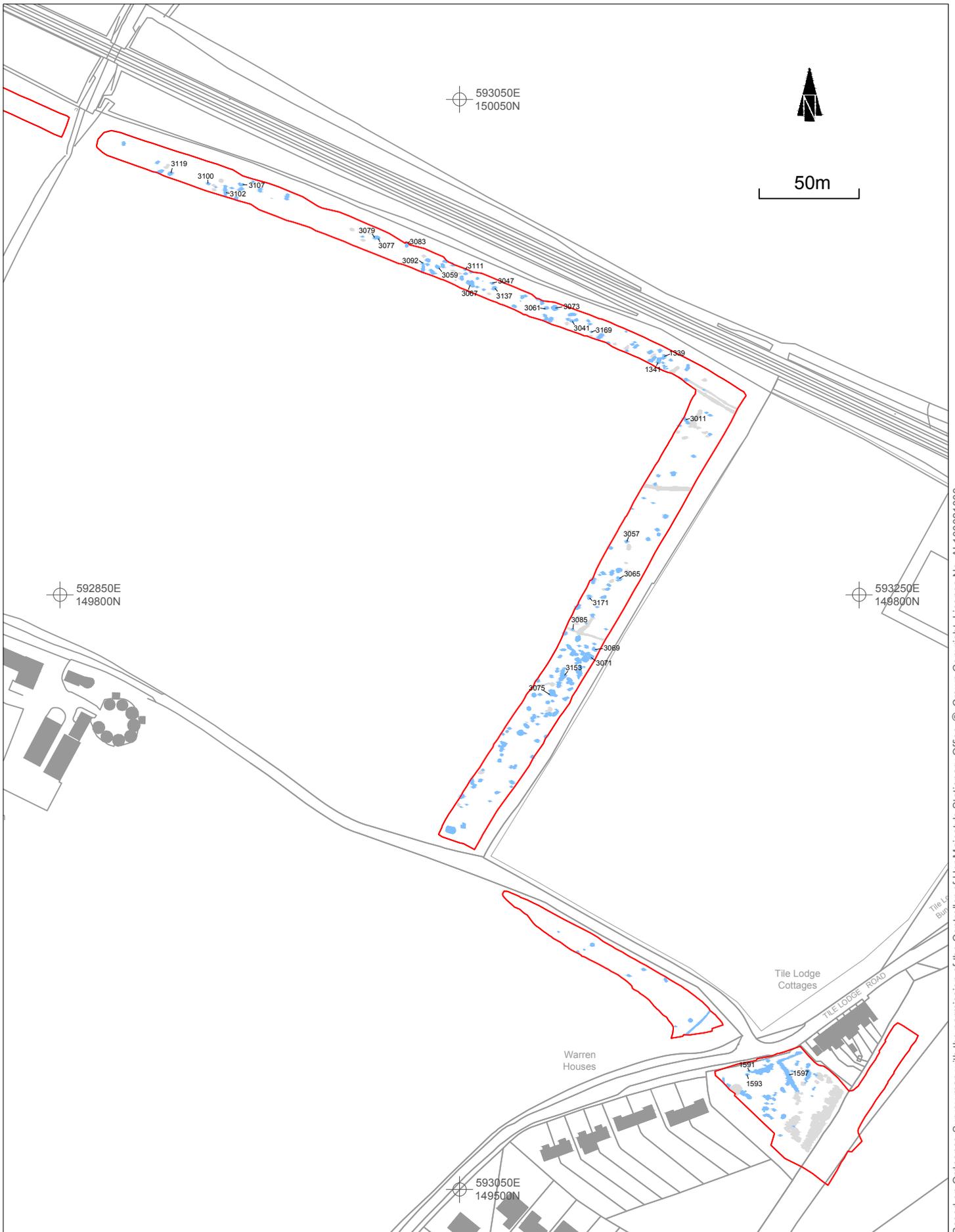
Based on Ordnance Survey map with the permission of the Controller of Her Majesty's Stationary Office. © Crown Copyright. Licence No. AL100021009

Figure 15. P5 post-medieval to modern archaeological features (1:2500@A4)



Based on Ordnance Survey map with the permission of the Controller of Her Majesty's Stationary Office. © Crown Copyright. Licence No. AL100021009

Figure 16. P6 undated archaeological features (1:2500@A4)



Based on Ordnance Survey map with the permission of the Controller of Her Majesty's Stationary Office. © Crown Copyright. Licence No. AL100021009

Figure 17. P6 undated archaeological features (1:2500@A4)

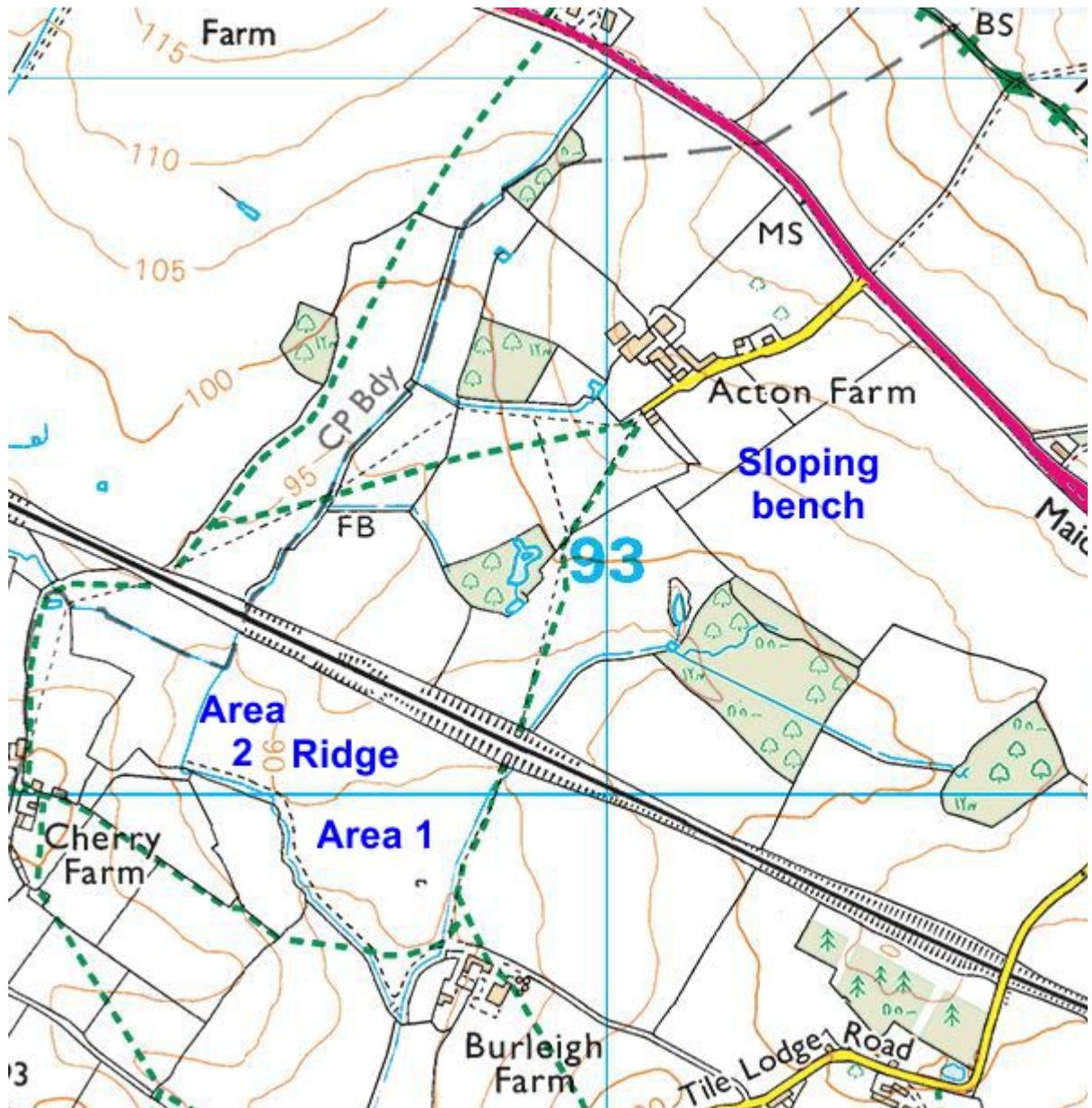


Figure 18. Site topography (©Ordnance Survey)

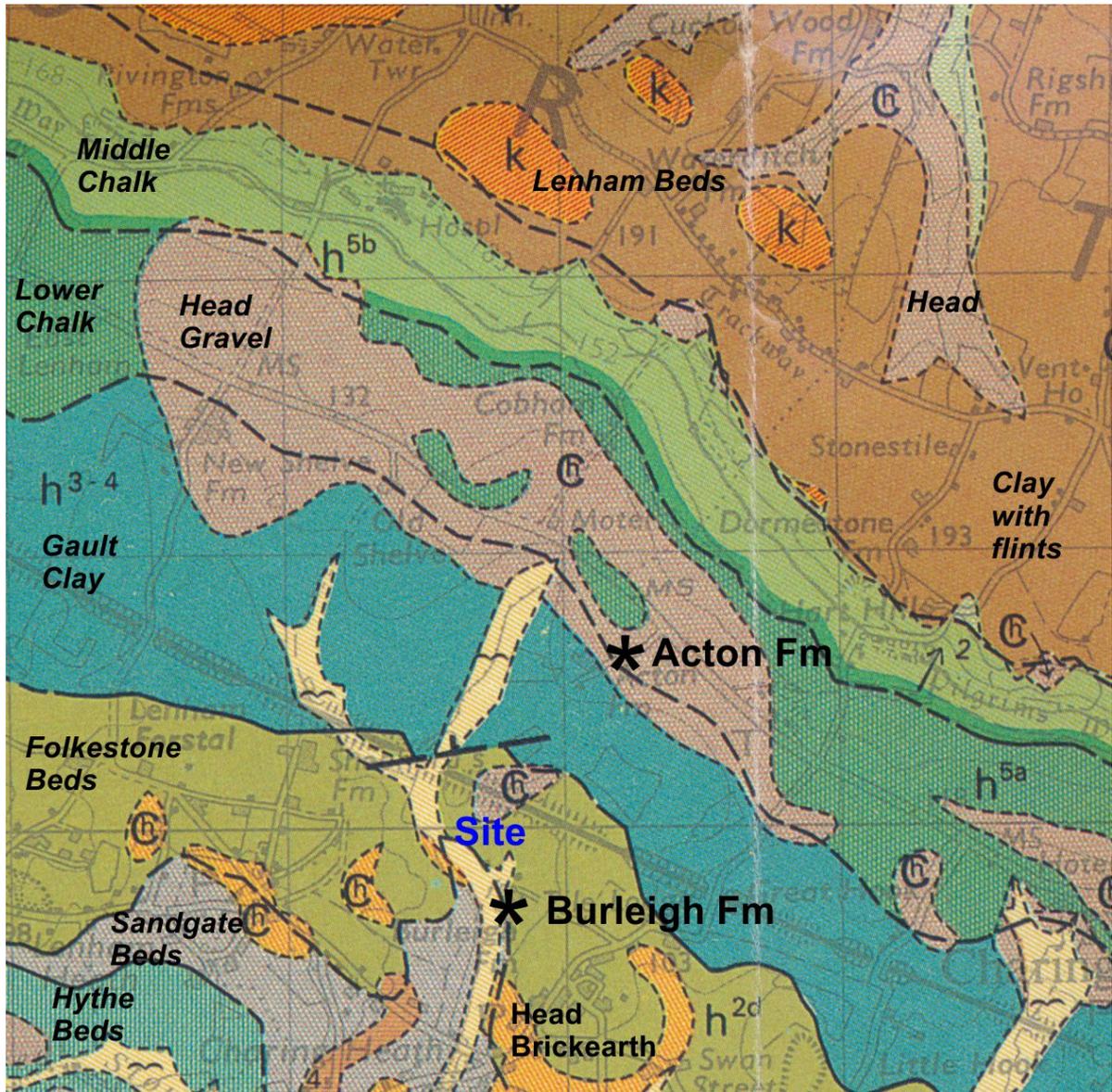


Figure 19. Site geology (©British Geological Survey)

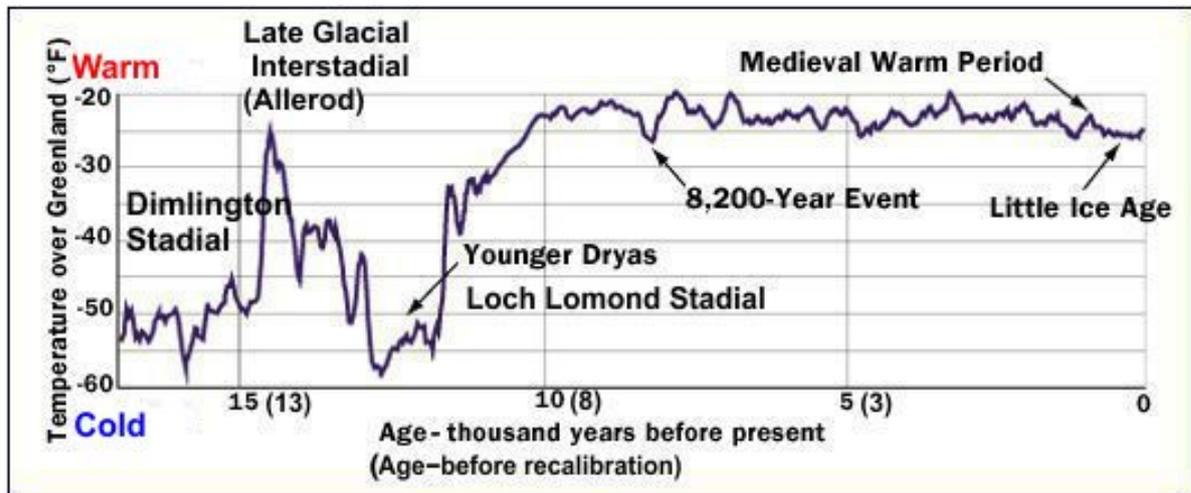


Figure 20. Late Devensian and Holocene temperature variation

Stage	Age (ka)	Chronozones	Lithostratigraphy		
			East Midlands	East Netherlands	Central European Lowlands
Holocene	<b>W</b> 11.65	Subatlantic Subboreal	Human impact from Neolithic onwards	Inland dune fields and drift sands, Veluwe, Twente (Kootwijk)	Human-triggered dune period
		Atlantic Boreal Preboreal	Reactivated drift sands, Tilt unit 1, Girtion units 3-4, Farndon units 3-4		Small dune reactivation
Late Glacial Stadial (GS-1)	<b>C</b> 12.85	Younger Dryas	Humberhead and North Lincolnshire coversands, Spalford Sands (Girtion unit 1), Tilt unit 2, Farndon unit 5 *	Younger Coversand II (Wierden)	Main dune period
Late Glacial Interstadial (GI-1)	<b>W</b> 14.7	Windermere (Allerød, Bølling) Interstadial	Sub-coversand peat horizon	Usselo palaeosol	Finow palaeosol
			Tilt units 3 and 4 Upper Periglacial Surface (?)	Younger Coversand I	Dune period
Last Glacial Maximum Stadial (GS-2) (Late Pleniglacial)	<b>C</b> 23.0	Dimlington Stadial	Proglacial Lake Humber Bagmoor sand unit V Fonaby sand unit V *	Older Coversand II (Lutterzand)	Coversand period Kamion palaeosol
			Lower Periglacial Surface (?)	Deflation surface (Beuningen)	Ventifact horizons
			Cadeby sand (?) Whisby cover deposit unit 4 (?) Brough patterned ground (?) Baston sand (?)	Intense permafrost degradation	Continuous permafrost
				Older Coversand I (Beverborg)	Fluvio-aeolian period

\* Periods of significant aeolian activity  
**C/W** Cold/Warm

Figure 21. Late Devensian aeolian activity (after Baker et al 1998)