

**Channel Tunnel Rail Link  
Union Railways (South) Ltd**

**Project Area 330**

**NORTHUMBERLAND BOTTOM  
ARC WNB 98**

**ARCHAEOLOGICAL EXCAVATION  
INTERIM REPORT**

**Contract S/300/0052 P381**

**MUSEUM OF LONDON**

**Museum of London Archaeology Service**

**September 1999**

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Prepared by:
Date:
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**Contract S/300/0052 P381**

**Museum of London Archaeology Service  
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## 1 INTRODUCTION

- 1.1 The Museum of London Archaeology Service (MoLAS) was commissioned by Union Railways (South) Limited (URS) to undertake detailed archaeological investigations at Northumberland Bottom, south of Gravesend, Gravesham, Kent (Figure 1). This work formed part of an extensive programme of archaeological investigation carried out in advance of the construction of the Channel Tunnel Rail Link (CTRL).
- 1.2 The site was centred on URL grid point 43530 51290, corresponding approximately to Ordnance Survey national grid reference (NGR) TQ 6352 7127. The site consisted of two areas of excavation (Area A/B and Area C) (Figure 2). Area A/B was located to the west of the former Northumberland Bottom army camp. It measured roughly 800m north-west to south-east by 60m north-east to south-west, widening at its west end to 300m. It covered an area of approximately 5.9 hectares. Area C was located to the east of the Tollgate riding school. It measured approximately 140m north-west to south-east by 80m north-east to south-west, covering an area of approximately 1.1 hectares.
- 1.3 The method of investigation was specified as ‘strip, map and sample’. This method entailed machine stripping of topsoil and other deposits to expose the archaeological horizon followed by the construction of a plan of the exposed area, then sufficient hand excavation, recording and sampling of all features to fulfil the project aims. This methodology was set out in a Written Scheme of Investigation, prepared by URL, detailing the scope and methods of excavation was agreed with English Heritage and the local authority. The fieldwork took place between July and September 1998.
- Background*
- 1.4 The natural solid geology in the area of the site consists of the Upper Chalk of the North Downs, overlaid locally by drift deposits of sandy silts and gravels. The site is situated at the foot of the North Downs, but the local topography is varied. Area A/B was located on a slope, the ground rising gradually from west to east. The surface of the chalk undulated and, where the gradient was shallower, it was overlaid by yellow-brown sandy silts and gravels. Periglacial striations and run-off channels indented the slopes and were filled with silty clay containing flint nodules. At the west end of Area A/B the chalk descended in a series of shallow terraces. In Area C the slope was steeper and more consistent, falling to the east down the western side of a dry valley. Deposits of colluvial material had accumulated towards the bottom of the valley.
- 1.5 In both areas of excavation a very shallow, leached soil horizon existed under the topsoil. In most cases the archaeological features were recognised immediately below this horizon, cutting into the natural subsoil or chalk bedrock. Both areas of the site were under cultivation prior to the excavation and it was clear that previous ploughing had reached the subsoil, resulting in significant truncation of the archaeological deposits and features. No ancient land surfaces survived.
- 1.6 A preliminary desk-top assessment conducted for URL by Oxford Archaeological Unit in 1990–94 (URL 1994, vol 1, 101, section 5.14.1.3) identified the site as having possible archaeological interest. Aerial photographs showed cropmarks in Area A/B suggesting the ‘paddocks, enclosures and pits of an Iron Age/ Roman rural settlement’ and ‘enclosures and field boundaries’ to the east (URL 1994, vol 2, drawing 3013; vol 3, gazetteer 1557 & 1909; SMR No. TQ 67 SW 125), and in Area C ‘undated rectilinear enclosures’ or ‘field boundaries of a more recent date’ (URL vol 3, 1558; SMR No. TQ 67 SW 123). The desk-top assessment also indicated that the site was 300m south of the route of the main Roman road between Dover and London (Watling Street) and 1.5–2km east of the Roman small town at Springhead.

A surface artefact collection (or fieldwalking) survey in the vicinity of the site in 1993 had located scatters of prehistoric worked flint (URL 1995, part 1, 23, section 2.2.5.3; part 2, maps 3a–3i; URL 1994 vol 3, gazetteer 1803 & 1804). The small quantities of Roman pottery and tile, and post-Roman pottery recovered were considered insignificant.

- 1.7 The desk-top assessment was supplemented by geophysical prospection (URL 1996). Magnetometer surveys within two areas (ARC NFT 95, corresponding approximately to Area A/B, and ARC TGW 95, corresponding approximately to Area C) identified a range of anomalies which included linear and curving ditches and distinct concentrations of features with possible archaeological significance.
- 1.8 Two archaeological evaluations of the site were commissioned by URL and undertaken in 1997 by MoLAS. Forty-four trial trenches were excavated to the west of the former Northumberland Bottom army camp (URL 1997a). These trenches revealed a group of possible Middle–Late Bronze Age to Early Iron Age features and other groups of features which dated to the Late Iron Age/ early Roman period. These features were interpreted as a settlement site with an adjoining field system. The second evaluation took place to the east of the Tollgate riding school (URL 1997b). This revealed a number of intersecting field ditches dating from the Late Iron Age/early Roman period through to the early 3rd century AD, a medieval field ditch and a large quarry pit.
- 1.9 Immediately prior to the excavation a metal detector survey of Areas A/B and C was carried out under MoLAS supervision. This produced a range of artefacts, principally of post-medieval date but including some Roman coins, jewellery and dress fittings. The finds have been plotted but not analysed by period.

## 2 SUMMARY OF RESULTS

### 2.1 Periods Represented

2.1.1 Provisional dating evidence suggests that the following periods were represented in the archaeological record (refer to Figure 3 for the location of detailed archaeological plans in Figures 4–8).

*Early Bronze Age (2000–1500 BC)*

2.1.2 A double human inhumation was found at the west end of Area C. Each of the burials was accompanied by a characteristic Beaker vessel.

*Middle–Late Bronze Age (1500–650 BC)*

2.1.3 The terminus of a substantial linear ditch, aligned north to south and located towards the west end of Area A/B, contained small quantities of Bronze Age pottery. It is assumed to have been a land boundary.

*Mid–late Iron Age (400–100 BC)*

2.1.4 At the west end of Area A/B a group of large ditches formed part of an enclosure, thought to have been abandoned before completion. A pit to the south of this enclosure, and a short section of curving ditch within the enclosed area, are likely to have been contemporary with it; this group of features can be seen on the left side of Figure 5. Elsewhere in Area A/B a number of intersecting ditches of similar date formed parts of possible field systems. Several pits and a kiln or oven were located within a focus of activity, which continued in use into the Late Iron Age/ early Roman period.

*Late Iron Age/ early Roman (100 BC–AD 200)*

2.1.5 Towards the east end of Area A/B a concentrated area of Late Iron Age/ early Roman activity, bounded to the west by a ditch and adjacent hollow-way, formed part of a settlement (Figure 6). Features included ditches or gullies, at least two single-chambered kilns or ovens, a postulated sunken kiln with raised floor, a number of pits, including one containing disarticulated human bone and another with a horse burial, perhaps ritual, and at least two cremation burials.

2.1.6 In Area C a number of intersecting ditches formed the south eastern corner of a rectilinear field system, approached from the south and east by three converging metalled track-ways. Occupation occurred on this part of the site and was represented by two possible sunken-floored buildings, a well, two single-chambered, sunken kilns or ovens, pits and an infant inhumation (Figure 8). Most of this activity seems to have occurred in the 1st and 2nd centuries AD.

*Medieval (11th–14th centuries AD)*

2.1.7 At the west end of Area A/B medieval occupation was indicated by a concentration of postholes, representing one or more timber structures, and associated pits. The site occupied a west-facing, natural terrace and was bounded to the south by a ditch orientated east to west (Figure 4). The occupation site is dated provisionally to AD 1050–1150. A sub-circular ditched enclosure on much higher ground at the east end of Area A/B is likely to be of contemporary date, and might have been for containing livestock (Figure 7).

2.1.8 The sub-circular enclosure ditch at the east end of Area A/B was at least partially backfilled and replaced by a sub-rectangular ditched enclosure of 12th–14th-century date. There is limited evidence for occupation within this new enclosure, in the form of pits, postholes, and a sunken-floored building containing a possible corn-drying oven, dated by archaeomagnetometry to AD 1295–1325.

*Post-medieval and modern (c AD 1500 to the present)*

- 2.1.9 No evidence was identified archaeologically for occupation of the site in the later medieval or early post-medieval periods, and it can be assumed that the land within the areas of excavation was given over entirely to grazing or cultivation at that time. Two sunken tracks (at the west and east ends of Area A/B) are assumed to be farm tracks of relatively recent date. A number of rubbish pits at the west end of Area A/B contained refuse from the 1930s and 1940s, derived presumably from the nearby Second World War Northumberland Bottom army camp.

**2.2 Feature types***Burials*

- 2.2.1 An early Bronze Age double human inhumation was found at the west end of Area C. Each of the burials was flexed, the earlier with its head to the south and the later, overlying the first, with its head to the north. It is unclear if the two burials occurred at the same time or if the grave was opened for the insertion of the second burial. Both burials were accompanied by a beaker vessel. There was no evidence for an overlying barrow, although a number of shallow and irregular pits surrounding the grave might be the remains of an encircling ditch, subsequently largely destroyed by ploughing and erosion.
- 2.2.2 An infant burial was found on the north side of Area C, accompanied by a pottery vessel which is thought to be of Roman date. Disarticulated human remains were found in a large pit of Late Iron Age date, in Area A/B. Two cremations in vessels, probably of Late Iron Age or Roman date, were found towards the east end of Area A/B. A number of small pits in Area A/B contained charcoal deposits which might indicate other cremations which were buried without vessels. The intact skeleton of an adult horse, probably of Iron Age date, was found in a pit in Area A/B.

*Post-built structures*

- 2.2.3 Two adjacent 'four-poster' structures were found towards the west end of Area A/B. Although undated the postholes were infilled with deposits similar to those in an adjacent ditch which contained Iron Age and Romano-British pottery.
- 2.2.4 At the west end of Area A/B a group of about 100 postholes indicates the presence of one or more timber buildings and associated structures occupying a natural terrace. Pottery from some of the postholes and from associated pits has been dated provisionally to AD 1050–1150.

*Possible sunken-floored buildings*

- 2.2.5 Two possible sunken-floored buildings, both of Roman date, were found in Area C. The first was represented by a shallow square cut, measuring 3.7m wide but only 0.24m deep. It was cut into deposits of soil which sealed an underlying metalled track-way. The second was larger, measuring 8m by 5.5m but only 0.10m deep. A number of adjacent post-holes might be associated with the postulated building, although these do not form a coherent structure. Both of these possible buildings contained deposits with high proportions of charcoal and burnt clay or daub, possibly indicating their destruction by fire.
- 2.2.6 A medieval sunken-floored building was located at the east end of Area A/B, where it housed a possible corn-drying oven.

*Kilns or ovens*

- 2.2.7 The remains of four clay kilns or ovens were found, all of similar, single-chambered, construction. Of the two which were found in Area C the best preserved was constructed in the base of a rectangular pit. It was circular in plan, with a fired-clay base and a partially

collapsed, domed clay superstructure supported by a framework of narrow branches or wattles driven into the underlying natural chalk. Associated pottery indicates that this went out of use in the late 1st or early 2nd century AD.

- 2.2.8 A second kiln or oven in Area C was also constructed below the contemporary ground surface, in a partially infilled ditch. Archaeomagnetic dating of this feature indicates a date range of AD 90–180.
- 2.2.9 Two similar kilns or ovens were found in Area A/B, also sunk below ground level, in an area of Late Iron Age and early Roman activity. One of these contained a large group of pot sherds of mid–late Iron Age date.
- 2.2.10 In the same area of the site, several shallow depressions containing scorched earth and charcoal are difficult to interpret, but might be the highly truncated remains of similar kilns or ovens. Alternatively, they might have been hearths or metalworking areas.
- 2.2.11 Another Roman feature in Area A/B is interpreted provisionally as a sunken kiln with a raised floor. It consisted of an oval pit with a square depression centrally in its base. A narrower flue with a sloping base led into one end of the pit. The backfill of the pit contained large fragments of fired clay, possibly the remains of the kiln superstructure, and the flue was filled with ash. The depression in the base of the pit might have housed a central support for a raised floor, for which no evidence survived.
- Corn-drying or malting oven*
- 2.2.12 A medieval structure found at the east end of Area A/B is provisionally interpreted as the base of a corn-drying or malting oven. A plinth of large flint nodules supported a circular wall of chalk rubble with an opening on one side. Adjacent to this opening was an area of scorched ground. Archaeomagnetic dating of this burnt soil produced a date range of AD 1295–1325. The structure occupied the south-west corner of a shallow rectangular cut feature, thought to be the truncated remains of a sunken-floored building. Layers of crushed charcoal extended across the floor of the building.
- Well*
- 2.2.13 In Area C a large, round pit with a diameter of 4.8m and a depth greater than 2.4m is interpreted provisionally as a well, of early Roman date. It had a central circular shaft with a diameter of 1.2m.
- Enclosure or boundary ditches*
- 2.2.14 Part of a large, linear ditch of Bronze Age date was located in Area A/B. It was orientated north to south and from the evaluation it is known to have been at least 70m long. The ditch had a V-shaped profile and was 2.5m wide and 1.5m deep, with a pronounced terminus at its southern end. No other features within the area of excavation were obviously associated with this ditch. It is interpreted as a land boundary.
- 2.2.15 At the west end of Area A/B a number of substantial linear ditches, probably of later prehistoric date, form what appears to have been the south-western corner of a sub-rectangular enclosure. An L-shaped section of ditch with a V-shaped profile, 2m wide and over 1.3m deep was separated by a causeway from a straight ditch section of similar form and dimensions. Another causeway separated this from a third ditch section to the north. This third section of ditch was much shallower and petered out to the north, which suggests that the construction of the enclosure was abandoned before completion.
- 2.2.16 A crescent-shaped section of ditch located within this postulated enclosure contained mid-late Iron Age pottery, and might represent contemporary activity, although its function is unclear.

A second crescent-shaped ditch section located approximately 150m to the east produced pottery of similar date. Other intersecting ditches of Iron Age or early Roman date in Area A/B form parts of irregular enclosures, or field boundaries.

- 2.2.17 In the northern part of Area C a number of ditches intersected at right-angles and defined rectangular plots which were part of a much larger field system, visible on aerial photographs. The ditches were infilled in the 1st or 2nd centuries AD. They were associated with a number of metalled trackways or droveways which converged at the south-eastern corner of the field system.
- 2.2.18 At the west end of Area A/B an east–west ditch seems to have served as a boundary delimiting an area of occupation represented by a large group of postholes and associated pits.
- 2.2.19 At the east end of Area A/B two medieval enclosures bounded by ditches were identified. A sub-circular ditch with a V-shaped profile and a causeway on its north side might have been a stock enclosure. It was replaced by a sub-rectangular ditched enclosure. The later enclosure contained evidence for occupation in the form of pits, postholes and gullies, and a sunken-floored building containing a possible corn-drying or malting oven.

*Miscellaneous ditches*

- 2.2.20 Throughout Areas A/B and C were a number of other ditches or gullies of uncertain date and function. Some were extremely shallow and did not produce dating evidence. Others can be dated but at this preliminary stage of analysis their functions cannot be identified.

*Pits*

- 2.2.21 Pits occurred singly or in discrete groups and can mostly be dated by pottery assemblages, although their functions cannot be ascertained until the artefactual and environmental evidence has been assessed fully.
- 2.2.22 At the west end of Area A/B a large pit located to the south of the postulated incomplete ditched enclosure produced pottery of mid-late Iron Age date. Further to the east a concentration of features of Late Iron Age and early Roman date included a number of pits, some of which contained burials or cremations. Others might have been used for storage, as latrines or for the disposal of refuse.
- 2.2.23 Several pits dated to the 1st or 2nd centuries AD were found along the north side of Area C. One contained a kiln or oven, and another contained an infant burial.
- 2.2.24 Medieval pits were located at the west end of Area A/B, in association with a group of postholes representing one or more timber structures. The medieval enclosures at the east end of A/B contained a few pits.

*Quarry*

- 2.2.25 A large pit in the southern part of Area C is interpreted as a chalk quarry of relatively recent date.

*Trackways and droveways*

- 2.2.26 A number of shallow linear features are interpreted provisionally as hollow-ways. One of these ran north-south along the eastern side of a ditch which appears to have defined the western boundary of an area of late Iron Age and early Roman activity in Area A/B.
- 2.2.27 In Area C three hollow-ways converged at the south east corner of an early Roman field system (see 2.2.16 above). Layers of flint metalling in the base of the hollow-ways and the presence of parallel gullies or drainage ditches imply that these were well defined routes of some duration and local significance.



## 2.3 Artefactual remains

### *Prehistoric pottery*

2.3.1 From the material seen so far there appears to be pottery from a range of prehistoric periods, but as yet none in any great quantity. Flint-tempered sherds are recorded with some frequency but many are undiagnostic and cannot be closely dated. Most are probably Bronze Age or Iron Age in date and certainly the wall thickness and fabric types may indicate a Middle Bronze Age date. One sherd with red iron-rich/haematite coating is probably of Early Iron Age date. Sandy and glauconitic sherds with burnished surfaces are of probable Middle Iron Age date. There are also two vessels associated with the double human burial, which have been provisionally identified as beaker vessels.

2.3.2 The presence of these sherds suggests a long chronological span of activity in this area but only after all of the pottery is examined in relation to the excavated features can the extent of activity for each period be ascertained. The condition and quantity of sherds so far would suggest limited potential beyond basic dating and interpretation of activity. The exception to this are the vessels associated with the burial, which are in very good condition; one intact, the other complete but fragmentary. These vessels can be compared to other Beaker vessels from Kent to establish whether like most of the Kent examples, these are of forms characteristic of eastern England.

### *Late Iron Age/ early Roman pottery and other Roman pottery*

2.3.3 A considerable amount of pottery has been processed and examined which is of Late Iron Age/ early Roman, and later Roman, date. The identified Roman products appear to date predominately to the mid to late 1st century AD, but there are small amounts of 2nd and 3rd-century material. Of the material seen, the majority is characteristic of the Late Iron Age/ early Roman period; whether this is pre- or post-conquest in date is uncertain at present, but the pottery clearly has origins in the Iron Age period, rather than being highly Romanised. The presence of imported Roman wares should help to refine the dating framework as it is more closely datable than the locally-produced coarse wares. The pottery is in reasonable condition with a good average sherd size and some larger joining sherds; one dish scanned is almost complete. The surfaces of some of the sherds are abraded and worn but this will not greatly hinder identification. The size of the assemblage and range of wares present suggest that the pottery has considerable potential to provide a good chronological framework for the excavated features and to contribute to research aims relating to the size, nature and status of nearby settlement activity.

### *Medieval pottery*

2.3.4 Moderate quantities of shell-tempered sherds were recovered, a substantial portion from a cooking pot has been noted, probably made of Woolwich Beds clay, containing fossil shell. The identification of two phases of medieval occupation is significant. There is potential to ascertain if the material present is consumption debris, or whether the pottery has been dumped. The types of forms and fabrics should ideally be compared and contrasted with similar material from other sites in the area, in an attempt to confirm identification and dating. The range of pottery fabrics is fairly limited, and the shell-tempered wares are assumed to be the same as early medieval shelly ware found in London, and it should be compared with wares from Canterbury.

### *Registered finds*

2.3.5 Eleven copper alloy objects have been scanned. They are all apparently of Roman date and include four brooches, three coins, a mount or seal box lid (with possible organic traces), and three unidentified fragments. Eight iron objects have been examined. They are of Roman and

medieval date, and include an arrowhead, a lock component, a knife blade, two mounts, a nail fragment and a strip or binding.

## **2.4 Palaeo-Environmental and Economic Evidence**

- 2.4.1 Most of the samples from the site were from fills, particularly pits. A preliminary assessment of 12 samples showed the recovery of only charred plant remains. This suggests that soil conditions on the site are likely to limit botanical remains to preservation by charring; these may provide potential information on economic activities, for example, crop husbandry through the recovery of charred remains (cereal grains, chaff and weeds).
- 2.4.2 Several samples were also taken from ditch fills for the recovery of molluscs; these may provide data on the nature of the local environment. Molluscs may also be present in the other bulk samples.
- 2.4.3 The preservation of animal bone appears to be very good and should allow species identification, ageing, bone modification and measurements to be carried out thus allowing detailed analysis of economic activities on the site. Of particular interest is the complete skeleton of a horse, believed to be of Iron Age date.

### 3 FIELDWORK EVENT AIMS

#### 3.1 Primary aims

3.1.1 The primary aims of the fieldwork were:

- to establish a record of changing settlement and landscape morphology for the area, including habitation areas and associated enclosures and trackways etc;
- to determine the function of these areas and changes through time (e.g. the effect of the imposition and decline of Roman administration);
- to determine the palaeo-economy of settlement through the recovery of charred plant material and other palaeo-economic indicators;
- to determine the local environment of settlement through the recovery of assemblages of molluscs from cut features and colluvial sequences.

3.1.2 The provisional results from ARC WNB 98 appear to indicate that the primary aims for the site will be achieved. The results from the excavation have, however, significantly modified and added to the evaluation conclusions, as follows:

- The discovery of an early Bronze Age double inhumation in Area C indicates that there was activity in this area of the site at a much earlier date than was anticipated.
- The evaluation work in Area A/B suggested that during the middle/late Bronze Age to early Iron Age there was settlement in the central area of the site with agricultural activity on the periphery. The excavation has revealed a different picture of prehistoric land use. Apart from one ditch, which is likely to be of mid-late Bronze Age date, the earliest features seem to be of mid to late Iron Age date, and are scattered more generally throughout Area A/B. There is thus some indication of continuity of settlement. The types of activities recorded during the evaluation (such as pit digging, the use of hearths/kilns etc) is now supplemented by a range of ritual activities in the form of cremations and burials.
- In Area C the excavation has clarified the extent of the field ditches and has also identified metallated track-ways providing access to the field system. It has also revealed evidence for occupation and use of the site. Much of this activity appears to occur after the field ditches had been infilled and the track-ways gone out of use. Thus, there is good evidence for changing land-use in the early Roman period.
- The presence of a medieval occupation site at the west end of Area A/B and two phases of ditched enclosure at the east end of Area A/B was not located in the evaluation and is an important addition to our understanding of post-Roman land use in the area.

#### 3.2 Secondary aims

3.2.1 Secondary aims of the excavation were:

- to recover suitable pottery assemblages for study of the Late Bronze Age to Early Iron Age transition;
- to recover suitable Late Iron Age/ early Romano-British pottery assemblages to refine the understanding of fabric types and chronologies;
- to recover assemblages from Late Iron Age/ early Roman contexts for archaeozoological studies.

3.2.2 Prehistoric pottery groups appear to be small, and there appears to be little potential for study of the Late Bronze Age to Early Iron Age transition. A range of Late Iron Age/ early Romano-British pottery was collected and this assemblage might help to refine the understanding of fabric types and chronologies.

- 3.2.3 The discovery of the complete skeleton of a horse, probably of Late Iron Age date, is of particular significance for archaeozoological studies.

## 4 SUMMARY OF POTENTIAL

4.1 The site lies within the ‘landscape zone’ of the North Downs, also called ‘the A2 corridor’. The potential contribution of the site towards answering the research aims of the archaeological component of the CTRL can be considered under the following headings, taken from the *CTRL Archaeological Research Strategy* :

- Farming communities (2000–100 BC)
- Towns and their rural landscapes (100 BC–AD 1700)
- The recent landscape (AD 1700–1945)

4.2 The provisional results of the excavation appear to offer information that can be considered under the broad headings above, but it should be noted that further study may alter these initial views.

### 4.3 Farming communities (2000–100 BC)

4.3.1 The discovery of an early Bronze Age double inhumation is evidence for the ‘ritual landscape’ and can be compared with similar evidence from elsewhere in south-east England.

4.3.2 A Bronze Age boundary ditch and Iron Age enclosures and field systems not only give some indication of the ways in which the landscape was utilised but show continuity of settlement over a long period of time. It is perhaps significant that features of this date were found on the gentler west-facing slopes of Area A/B, rather than on the steeper, east-facing slope of Area C.

4.3.3 There is little evidence for dwellings or occupation sites from this period: such evidence might have been destroyed as a result of subsequent agriculture, or might be located nearby.

4.3.4 A consideration of environmental change as a result of prehistoric landscape management must await analysis of the bulk of the environmental samples.

### 4.4 Towns and their rural landscapes (100 BC–AD 1700)

4.4.1 The identification of a focus of Late Iron Age and early Romano-British activity in Area A/B is of particular significance in view of its location just 150–200m south of the major Roman road between London and Dover (later known as Watling Street and now the A2). In addition this occupation is only a short distance from Springhead Roman town, situated 1.5–2km to the west.

4.4.2 There is evidence for domestic, industrial and ritual activity (the latter in the form of burials). Evidence for structures is present but low, but it is possible that the majority of these are located nearby.

4.4.3 The field system and associated trackways identified in Area C seems at present to have been slightly later in date than the occupation site in Area A/B. This might indicate a shift in the settlement pattern.

4.4.4 The evidence for occupation in Area C, which seems to have post-dated the field system and trackways, might indicate a further change in land use.

- 4.4.5 The presence of possible kilns in both area of the site presents the possibility of pottery manufacture. Detailed analysis of the ceramics from the site might lead to the identification of locally-produced wares.
- 4.4.6 There is little evidence so far for later Roman activity on the site, although the metal detector survey did produce some late Roman coins. It is possible that much of the evidence for later Roman activity has been destroyed by ploughing.
- 4.4.7 The discovery of a medieval occupation site and ditched enclosures is an important contribution which should be assessed in terms of the pattern of medieval settlement in a wider area. The absence of features dating to the later medieval period might indicate that the site was abandoned, or that there was a shift in settlement.

#### **4.5 The recent landscape (AD 1700–1945)**

- 4.5.1 There is little archaeological evidence for use of the site in the post-medieval and modern periods, and it is assumed that most of the area was farmland.
- 4.5.2 There is little evidence for Second World War activity relating to the nearby army camp, apart from the disposal of rubbish in pits close to Downs Road.

## 5 ACKNOWLEDGEMENTS

This interim report has been prepared by the site supervisor, Kieron Heard, with contributions from Louise Rayner (prehistoric and Roman pottery), Roy Stephenson (medieval pottery), Lyn Blackmore (registered finds), Alan Pipe (animal bones) and John Giorgi (botanical remains). The digitised plans were prepared by Sarah Jones and the artwork is by Pamela Williams and Kikar Singh.

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**APPENDIX 1: ARCHIVE INDEX**

<b>ITEM</b>	<b>NUMBER OF ITEMS</b>	<b>NUMBER OF FRAGMENTS</b>	<b>CONDITION (No. of items)</b> (W=washed; UW=unwashed; M=marked; P=processed; UP=unprocessed; D=digitised; I=indexed)
Contexts records	1333		
A1 plans	1 (pen-map)		D
A4 plans	42		D
A1 sections	-		
A4 sections	70		
Small finds (boxes)	1 standard, 1 large, 1 tub		UW
Films (monochrome) S=slide; PR=print	8 PR		
Films (Colour) S=slide; PR=print	8 S, 1 PR		
Flint (boxes)	3 standard		UW
Pottery (boxes)	32 standard		UW
Fired clay (boxes)			
CBM (boxes)	1 large		UW
Stone (boxes)			
Metalwork (boxes)	1 standard		UW
Glass (boxes)			
Slag (boxes)			
Human Bone (boxes)	2 large, 3 standard		UW
Animal Bone (boxes)	21 standard		UW
Soil Samples (No.)	81		
Soil Samples (bags/tubs)	1000 litres		UP
Soil Samples (Monolith/kubina tin)			

**Key to Box Sizes**

Standard box: 0.46m x 0.18m x 0.13m
Large box: 0.46m x 0.27m x 0.25m
Tub: 0.31m x 0.31m x 0.16m



## ***APPENDIX 2: INTERIM SUMMARY REPORT***

The Museum of London Archaeology Service (MoLAS) was commissioned by Union Railways (South) Limited (URS) to undertake detailed archaeological investigations at Northumberland Bottom, south of Gravesend, Gravesham, Kent, in 1998. This work formed part of an extensive programme of archaeological investigation carried out in advance of the construction of the Channel Tunnel Rail Link (CTRL).

The site was centred on URL grid point 43530 51290, corresponding approximately to Ordnance Survey national grid reference (NGR) TQ 6352 7127. The site consisted of two areas of excavation (Area A/B and Area C). The underlying solid geology in both areas consists of Upper Chalk, with overlying pockets of clay-with-flints and other drift deposits of sands and gravels.

An early Bronze Age double inhumation was found near the crest of the hill in Area C. Each of the burials (which were superimposed) was accompanied by a beaker vessel. The burial pit was surrounded by a number of shallow pits, which might be all that remained of an encircling ditch. In Area A/B prehistoric activity was represented by a large, Middle–Late Bronze Age boundary ditch, part of a mid-late Iron Age enclosure, a number of intercutting ditches which may have formed parts of field systems, some pits and a sunken kiln or oven. Occupation in Area A/B continued into the Late Iron Age/ early Roman period, represented by pits, gullies, several kilns or ovens, human burials (including two cremations) and a horse burial. These were contained within an focus of activity which was defined to the west by a hollow-way and boundary ditch. In Area C a number of intersecting ditches formed part of an early Roman field system. This field system was approached from the south and east *via* three metalled tracks which converged at its south-eastern corner. After the ditches became partially infilled there was some occupation in this part of the site, probably in the 2nd century AD, represented by two possible sunken-floored buildings, pits, a well, two single-chambered kilns or ovens and an infant inhumation.

At the west end of Area A/B a medieval occupation site, dated provisionally to AD 1050–1150, occupied a shallow terrace near the foot of the hill. It consisted of one or more timber structures, represented by over 100 postholes, with associated pits and a boundary ditch to the south. A circular, ditched enclosure near the crest of the hill in Area A/B also appears to have been 11th to 12th century in date, and was presumably for containing livestock. It was superseded in the 12th–14th centuries by a sub-rectangular ditched enclosure which contained some evidence for occupation, including a small, sunken-floored building in which was a possible corn-drying or malting oven.

**APPENDIX 3: KENT SMR RECORD SHEET**

<b>Site Name:</b> Northumberland Bottom, Area 330, Kent			
<b>Site code:</b> ARC WNB 98			
<b>Summary:</b> An excavation at Northumberland Bottom, south of Gravesend, Kent, was commissioned by Union Railways Limited and carried out by the Museum of London Archaeology Service in 1998.			
<b>District:</b> Gravesham		<b>Parish:</b>	
<b>Period(s):</b>  <ol style="list-style-type: none"> <li>1. Early Bronze Age</li> <li>2. Middle–Late Bronze Age</li> <li>3. Middle–Late Late Iron Age</li> <li>4. Late Iron Age/ early Roman</li> <li>5. Roman</li> <li>6. medieval</li> <li>7. post-medieval</li> </ol>			
<b>NGR (to west and east extremes):</b>		100 km ref: TQ	
<b>NGR Easting</b> 6295		<b>NGR Northing</b> 7165	
<b>NGR Easting</b> 6400		<b>NGR Northing</b> 7110	
<b>Type of Recording:</b>	<b>Evaluation</b>	<b>Watching–Brief</b>	<b>Field–Walking</b>
<b>(Delete)</b>	<b>Excavation</b>	<b>Geophysical Survey</b>	<b>Measured Survey</b>
<b>Date of Recording: (From)</b> 21 July 1998		<b>(To)</b> 25 September 1998	
<b>Unit Undertaking Recording:</b> Museum of London Archaeology Service, Walker House, 87 Queen Victoria Street, London EC4V 4AB			
<b>Summary of Field Results:</b>  An early Bronze Age double inhumation was found near the crest of the east-facing slope of a dry valley, in the east of the site. Each of the burials, one of which overlay the other, was accompanied by a Beaker vessel. The burial pit was surrounded by a number of shallow pits which might be all that remained of an encircling ditch.  In the western half of the site prehistoric activity was represented by a large Middle–Late Bronze Age			

boundary ditch, part of a mid-late Iron Age enclosure, possibly abandoned during construction, a number of intercutting ditches forming part of a possible field system, some pits and a sunken kiln or oven. Occupation of the western part of the site continued into the Late Iron Age/ early Roman period, and was represented by pits, gullies, several kilns or ovens, human burials (including two cremations) and a horse burial. These were contained within an focus of activity which was defined to the west by a trackway and boundary ditch.

In the eastern part of the site a number of intersecting ditches formed part of an early Roman field system, already detected by aerial photography. The field system was approached from the south and east *via* three metalled tracks which converged at its south-eastern corner. After the ditches became infilled and the tracks were at least partially buried by hillwash there was some occupation of this part of the site, probably in the 2nd century AD. This was represented by two possible sunken-floored buildings, pits, a well, two single-chambered kilns or ovens and an infant inhumation.

At the west end of the excavation a medieval occupation site, dated provisionally to 1050–1150, occupied a shallow terrace near the foot of the hill. It consisted of one or more timber structures, represented by over 100 postholes, with associated pits and a boundary ditch to the south. A circular ditched enclosure near the crest of the hill is likely to have been contemporary with this occupation site, and was presumably for containing livestock. It was superseded in the late 12th–early 14th centuries by a sub-rectangular ditched enclosure which contained some evidence for occupation, including a sunken-floored building in which was a possible corn-drying or malting oven, dated by archaeomagnetometry to AD 1295–1325.

<b>Location of Archive/Finds:</b>	MoLAS temporarily
<b>Bibliography:</b>	<p>URL (Union Railways Limited), 1994 <i>Channel Tunnel Rail Link, Assessment of Historic and Cultural Effects, Final Report</i>, Oxford Archaeological Unit</p> <p>URL, 1996 <i>Channel Tunnel Rail Link, Geophysical Surveys, Final Report</i>, A Bartlett Associates, Oxford</p> <p>URL, 1997a <i>West of Northumberland Bottom (ARC WNB 97), an archaeological evaluation</i>, Museum of London Archaeology Service</p> <p>URL, 1997b <i>Area of Neolithic potential west of Tollgate (ARC TGW 97), an archaeological evaluation</i>, Museum of London Archaeology Service</p>
<b>Summary Compiler:</b>	K A Heard
<b>Date:</b>	27 July 1999