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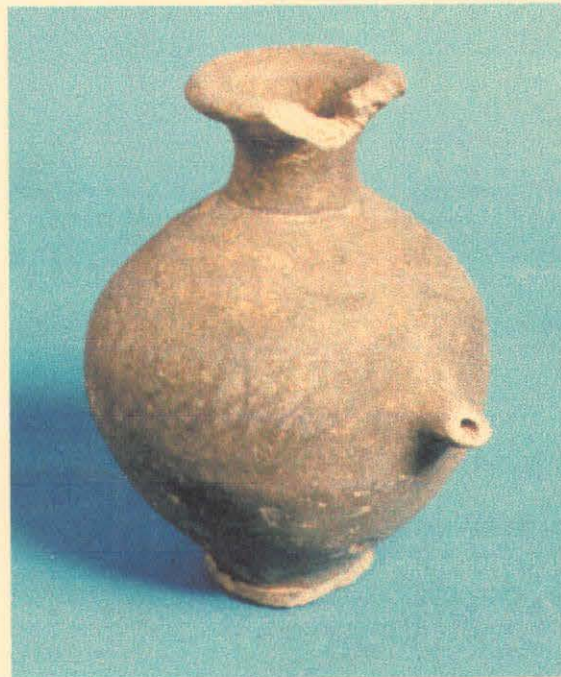
North of Saltwood Tunnel,  
Saltwood, Kent

ARC SLT 97

Archaeological Evaluation Report

Contract No. 194/870

Environmental Statement Route Window No. 37



Oxford Archaeological Unit

December 1997

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UNION RAILWAYS LTD

NORTH OF SALTWOOD TUNNEL, KENT

ARC SLT 97

**ARCHAEOLOGICAL EVALUATION**

Environmental Statement Route Window No. 37

OS GRID TR 1540 3695

Contract No. 194/870

**REPORT**

Volume 1 of 1

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# NORTH OF SALTWOOD TUNNEL, KENT

## ARCHAEOLOGICAL EVALUATION

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# NORTH OF SALTWOOD TUNNEL, KENT

## ARCHAEOLOGICAL EVALUATION

### SUMMARY

*The Oxford Archaeological Unit was commissioned by Union Railways Ltd to conduct a field evaluation of 4.5 ha of land between the M20 and Saltwood railway tunnel as part of a wider programme of archaeological investigations along the route of the Channel Tunnel Rail Link (CTRL). The site was located at NGR TR 1540 3695, URL Grid Reference 95400 16950, on a greensand ridge on the dip slope of the North Downs. The west end of the site sloped down towards Sandling and the eastern part of the site was situated on level ground north of the railway tunnel.*

*Sixteen evaluation trenches were excavated. A concentration of Roman features was located within a well defined area towards the centre of the evaluation, immediately south of the M20. The features comprised mainly ditches with several pits, and a linear 'hollow'. The linear features clearly continue into the area now occupied by the M20. The predominant alignment of the ditches is north-west to south-east suggesting a layout of enclosures/boundaries. A late second century (AD 160-200) Roman human cremation and associated vessels was located at the eastern limits of the site.*

*The pottery from the evaluation falls within a well defined date range in the first century AD. The pottery from a linear 'hollow' was slightly later in date and probably contemporary with the late 2nd century human cremation. The cremation appears to be peripheral to the other features and would be consistent with the Roman tradition of placing cremations away from the main occupation area. It is clear, from the evidence of the M20 watching brief, undertaken by the Kent Archaeological Rescue Unit in 1979, that the site probably extends to the north and probably developed from the Iron Age and lasted throughout the Roman period. The present evaluation identifies the southern limits of an early phase of the 1st-century AD settlement. A full understanding of the 1st-century AD site is somewhat offset by the limited extent of the Roman occupation within the Rail Link corridor. Since the full extent of the settlement is not understood it is difficult to assess the present findings and their context within the spatial layout of the settlement.*

## SECTION 1: FACTUAL STATEMENT

### 1 BACKGROUND

#### 1.1 Introduction

1.1.1 The Oxford Archaeological Unit undertook an archaeological field evaluation (Fig. 1), between 13<sup>th</sup> and 17<sup>th</sup> October 1997 inclusive, on land south of the M20 and north of the Saltwood railway tunnel at Saltwood, Kent (NGR TR 1540 3695, URL Grid Reference 95400 16950) on behalf of Union Railways Ltd (URL). The evaluation forms part of a programme of archaeological investigation along the line of the Channel Tunnel Rail Link (CTRL). The aim of which, was to assess the effect of the construction of the new railway upon the cultural heritage of the site. An Environmental Assessment has been prepared (URL 1994). The site lies within Environmental Statement Route Window No.37.

1.1.2 The work was carried out according to a Written Scheme of Investigation, prepared by URL and agreed with the County Archaeologist and English Heritage, detailing the scope and methods of the evaluation, including this report. The area of the evaluation is shown in Fig. 2.

#### 1.3 Archaeological background

1.3.1 The evaluation was targeted specifically to investigate an area where Neolithic to Medieval artefacts were recorded (OAU No. 1103 in URL 1994), in a watching brief undertaken by the Kent Archaeological Unit, during the construction of the M20 in 1979 (Willson 1985).

1.3.2 The Iron Age pottery was dated to c. 500-200 BC and probably indicated occupation nearby. The presence of Roman pottery (162 sherds) and burnt daub indicated occupation in the immediate area, which may range from the late-first to late-fourth century AD. The site was badly damaged by the motorway construction and only one feature was identified.

1.3.3 The surface collection survey (URL 1994) recovered middle Iron Age pottery (three sherds) a low level of Roman pottery (four sherds) and eight sherds of medieval pottery. The site also produced a diffuse scatter of worked flint and burnt unworked flint (27 in total).

#### 1.2 Geology, landscape and landuse

1.2.1 The site lies on the Folkestone Beds along the dip slope of the North Downs. The land in the eastern half of the site is generally level (97m above OD) and the grounds slopes away to the west (90m above OD). At the western boundary it slopes steeply into a dry valley where Sandling railway station is situated.

1.2.2 The evaluation area is presently grassland, grazed by sheep. The Saltwood railway tunnel forms the southern boundary. Constructed in 1843, it is

marked by a linear earthwork formed from material excavated for the tunnel. The M20, here linking Ashford and Folkestone, forms the northern boundary and lies within a cutting.

## **2 AIMS**

The Written Scheme of Investigation specified the general aims of the evaluation and also the site specific aims, both of which are reiterated below.

### **2.1 General aims**

2.1.1 To determine the presence/absence, extent, condition, character, quality and date of any archaeological remains within the evaluation area;

2.1.2 To determine the presence and potential of environmental and economic indicators preserved in any archaeological features or deposits;

2.1.3 To determine the local, regional, national and international importance of such remains, and the potential for further archaeological fieldwork to fulfil local, regional and national research objectives.

### **2.2 Specific aims**

2.2.1 To determine the presence/absence etc. of any subsoil features or deposits of archaeological interest which may be associated with, or in close proximity to Iron Age and Romano-British artefacts recorded during the construction of the M20 and thought to be associated with a possible small farmstead.

2.2.2 To determine the presence/absence etc. of any subsoil features or deposits of archaeological interest which may be associated with, or in close proximity to, multi-period artefacts recorded during the CTRL Environmental Assessment.

## **3 METHODS**

### **3.1 General**

3.1.1 A detailed statement on the methods used in the evaluation is contained in the Written Scheme of Investigation prepared by URL, and agreed with the County Archaeologist and English Heritage. The following is intended only to amplify certain aspects of the evaluation methodology.

### **3.2 Survey**

3.2.1 The trench locations were surveyed by P H Matts, Building & Civil Engineering Land Survey (Reading) based on a trench location plan provided by URL. Trenches 1854TT, 1859TT and 1861TT were subsequently repositioned to avoid an overhead power line.

3.2.2 The trenches have been digitally plotted using AutoCAD graphics programme (Fig. 2). All survey points are based upon the URL local grid rather than the National Grid.

### 3.3 Excavation

3.3.1 Sixteen trenches were excavated over the 4.5 ha site. All trenches were 30m long and 2m wide.

3.3.2 The topsoil and soil layers were excavated by a 360° mechanical excavator using a toothless ditching bucket under close archaeological supervision.

3.3.3 Archaeological finds were hand-retrieved from machine-excavated deposits on an opportunistic basis. Spoil heaps were also inspected for superficial finds but not rigorously searched.

3.3.4 Machine-excavation resulted in a generally clean trench base which was not hand cleaned except where archaeological deposits were suspected. Sample sections of all trench sides were cleaned and drawn.

3.3.5 Bulk environmental samples were taken from two ditch fills, a pit, a dark horizon, as well as a cremation and associated pit (Appendix 5).

### 3.4 Recording

3.4.1 Recording followed the standard OAU single context recording system (Wilkinson ed. 1992). A running sequence of context numbers was adopted for the whole site. Plans were drawn at 1:50 or 1:100. Sections were drawn at 1:20. All evaluation records were prefaced by the site code ARC SLT 97.

3.4.2 All trenches and archaeological features were photographed using colour slide and black and white print film.

## 4 RESULTS

### 4.1 Presentation of results

4.1.1 Descriptions of individual trenches are presented in Section 5. The main description regarding those trenches with Roman features. A summary of all contexts and finds is presented in the archaeological context inventory (Section 6) and Fig. 9 summarises the distribution of archaeological features and finds. Detailed reports on the pottery, flint, human cremation, glass bead, animal bone and other finds are contained in Appendices 1-7.

### 4.2 General Stratigraphy

#### *Modern deposits*

4.2.1 In all trenches the upper 0.25m-0.32m consisted of the modern turf and topsoil, which overlaid an earlier ploughsoil 0.25m deep. A deeper stratified



sequence of deposits was revealed in Trenches 1851TT, 1853TT and 1855TT.

#### **4.3 Summary of the archaeology**

4.3.1 Archaeological features were found in trenches in the central part of the site (Trenches 1851TT, 1852TT, 1855TT, 1856TT, 1857TT and 1858). The features mainly comprised of ditches and the pits. This suggests that occupation is located towards the centre of the evaluated area, situated immediately south of the M20. The main concentration of Roman features was within Trenches 1852TT, 1855TT, 1856TT and 1857TT.

4.3.2 There was a noticeable density of shallow ditches in Trench 1852TT (Ditches 1, and 6) and a gully (4). A deep vertical-sided cut (Ditch 9) into the soft greensand appears to be a recut of an earlier ditch (18). The predominant alignment is north-west to south-east suggesting a layout of enclosures/boundaries.

4.3.3 A double ditch alignment in Trench 1857TT (Ditches 21 and 87) was later replaced by a shallow 'hollow' (23) which is likely to be the continuation of a major boundary. The precise character of this feature is unclear although it appears to continue into Trench 1856TT.

4.3.4 The cremation in Trench 1858TT appears to be on the eastern periphery of the settlement.

4.3.5 A probable Iron Age ditch in Trench 1851TT is on the western periphery of the site.

#### **4.4 Site archive**

4.4.1 The site archive has been compiled in accordance with the specification prepared by URL. It includes six electronic datasets for the Fieldwork Event, Contexts, Bulk Finds, Finds, Environmental Samples and Graphical Output.

### **5 TRENCH DESCRIPTIONS**

#### **5.1 Trenches with Roman Features (1852TT, 1855TT, 1856TT, 1857TT and 1858TT)**

##### *Trench 1852TT (Fig.3)*

5.1.1 Trench 1852TT contained five linear features; consisting of four ditches and a gully. Ditch 1 was orientated north-east to south-west while the remaining linear features were orientated north-west to south-east. Pottery from the ditches was 1st-century AD in date. Environmental sampling of three of the linear features (Ditch 1, 9 and Gully 4) produced cereal grains (see Appendix 3: Environmental Indicators).

- 5.1.2 *Ditch 1.* This was 1.65m wide and 0.25m deep with a broad shallow U-shaped profile. The ditch was aligned north-east to south-west as opposed to, the other three ditches in the trench which were all orientated north-west to south-east. The primary fill (3) was a yellow to green clayey sand and contained 1st-century AD pottery, fired clay and bone. The upper fill (2) was a mid-grey clayey sand which also contained 1st-century AD pottery, fired clay and bone. The fills and dimensions of Ditch 1 and Ditch 6 were similar and the projected intersection of the two ditches is a right angle.
- 5.1.3 *Ditch 6.* This was 1.40m wide and 0.31m deep with a broad shallow U-shaped profile and aligned north-west to south-east. The primary fill (7) was yellow to green clayey sand with sandstone inclusions and produced no finds. The upper fill (8) was mid brown clayey sand, which contained 1st-century AD pottery, fired clay, bone and a struck flint flake.
- 5.1.4 *Gully 4.* This was 0.42m wide and 0.19m deep with a steep sided U-shaped profile and aligned north-west to south-east. The fill (5) was a mid brown clayey sand and contained 1st-century AD pottery.
- 5.1.5 *Ditch 18.* Ditch 18 was truncated on the west side by Ditch 9, but the surviving profile measured 1.06m wide and 0.61m deep. The primary fill (19) comprised a green sand with occasional mid brown clay inclusions and contained nine sherds of mid-late 1st-century AD pottery. Fill 19 was very similar to the natural sand, which the ditch cut through, and probably resulted from a slump or collapse of the ditch sides. The upper fill (17) was a mid brown clayey sand which contained bone.
- 5.1.6 *Ditch 9.* Ditch 9 terminated within the trench and measured 0.90m wide and 0.71m deep. It was almost vertical sided with a flat base and a very distinct squared shaped terminal. Ditch 9 appeared to be a recut of an earlier ditch (18). The primary fill (10), a mid greenish brown clayey sand, produced no finds. The upper fill (11), a mid brown clayey sand, contained nine sherds of mid-late 1st-century AD pottery and bone. Although interpreted as a ditch, the vertical sides of this feature and variation in character from the other features in the trench may also suggest that this feature could be a robber trench.
- 5.1.7 *Trench 1855TT (Fig. 4)*  
*Ditch 58.* This was 0.75m wide and 0.20m deep with a rounded U-shaped profile and orientated north-west to south-east. The fill (57), a dark brown clayey silt, contained four sherds of 1st-century AD pottery and bone.
- 5.1.8 *Pit 61.* The pit was located adjacent to and apparently respecting Ditch 58. The irregular shape in plan and variation in fills suggests that Pit 61 is one in a complex of pits. A hand excavated section across the south end revealed the pit to be 0.80m deep with an estimated total width of 0.90m. The primary fill (60) was a mixed mottled deposit of mid brown and yellowish-brown clayey silt, which contained some redeposited natural clay. The fill (60) contained six sherds of mid 1st-century AD pottery and a large fragment of iron slag.

The upper fill (59), a dark brown clayey silt with sandstone inclusions, contained pottery of probable 1st-century AD date, and also bone.

5.1.9 Two deposits (63, 89) were located at the south end of the trench. The full extent of these deposits was not revealed within the trench. A hand excavated section through 63 demonstrated that it was the fill of a shallow cut (64) which was 0.30m deep.

5.1.10 The features in Trench 1855TT were overlain by a sequence of deposits (56, 55 and 54). They were up to one metre deep and demonstrate a significant build up of deposits where the ground originally sloped steeply away to the west and south. Layer 56 overlaid all the features and was a dark grey clayey silt containing 19th century pottery. This was overlain by an olive brown silty sand layer (55) with inclusions of crushed brick and rubble with an abandoned salt glazed drainpipe set into it. This was overlaid by the topsoil (54), which contained further amounts of rubble debris, including a discarded iron drain inlet cover.

*Trench 1856TT (Fig. 5)*

5.1.11 'Hollow' 42. A large flat bottomed 'hollow' (42) was located at the western end of Trench 1856TT. The 'hollow' was up to 0.60m deep and a length of 10m was exposed in the trench. It appeared to be orientated approximately north to south and its eastern edge was marked by a later ditch (39). It was filled by a dark grey-brown clayey sand (43) and produced late 1st-century AD pottery. The 'hollow' continued west beyond the limits of the trench and the exact character of this feature is unclear. A similar feature, and most likely a continuation of the same feature, was exposed in Trench 1857TT. Although the eastern edge of the 'hollow' was delineated by Ditch 39, it was clear that the ditch had been cut after the 'hollow' had filled with 43.

5.1.12 *Ditch 39.* This was 1.3m wide and 0.56m deep with a rounded base and U-shaped profile and orientated north to south. The primary fill (41) was a mid yellowish-brown clayey sand with flecks of charcoal. No finds were recovered during hand excavation but environmental sieving of a bulk sample produced 1st-century AD pottery and two struck flints. The upper fill (40), a mid-grey brown clayey sand with frequent flecks of charcoal, contained bone, struck flint and pottery which probably dates to the middle-late Iron Age.

5.1.13 *Gully 37.* This was 0.30m wide and 0.08m deep, with a shallow U-shaped profile and orientated north-east to south-west. The gully cut was cut into the latest fill (40) of Ditch 39. It was not clear whether this gully was indeed an archaeological feature as it was on the same alignment as the modern tyre tracks (44, 46) at the east end of the trench.

*Trench 1857TT (Figs 6 and 7)*

5.1.14 *Ditch 21 and Ditch 87.* These features, interpreted as ditches, were 4.7m apart and on a parallel alignment orientated north-west to south-east. Both ditches had broad U-shaped profiles with flat bottoms. Both ditches were truncated by the 'hollow' 23, although Ditch 21 more severely than Ditch 87. The original width of Ditch 21 is estimated at 3.1m and the surviving depth

was 0.26m. Its depth prior to truncation by 23 is estimated at about 0.60m. The original width of Ditch 87 is estimated at 3.7m and the depth 0.72m. No finds were recovered from Ditch 87 but seven sherds of late 1st to early 2nd century pottery were recovered from Ditch 21.

5.1.15 *'Hollow' 23.* This broad cut truncates Ditches 21 and 87. The width of the 'hollow' is estimated at about 7.5m and where investigated it was 0.25m to 0.37m deep with a generally flat bottom. Some undulation in the bottom of the feature were identified and these are likely to be the result of the removal of large slabs of sandstone. The northern edge of the feature corresponds approximately with the projected northern edge of Ditch 21. On the south side the edge of 23 does not respect the south edge of Ditch 87 (see Fig. 6). The fill of the 'hollow' was dark greyish-brown sandy silt (it was noticeably darker than fills of Ditches 21 and 87). Finds recovered from the 'hollow' fill (24) were early to mid 2nd century pottery and included part of a glass bead (see Appendix 6). It is likely that the 'hollow' continues into Trench 1856TT, although the complete profile was not exposed in Trench 1856TT, to allow a direct comparison of the two 'hollow' type features. In contrast to 1857TT the ditch (39) delineating the edge of the hollow in Trench 1856TT, was later than the infill of the 'hollow'.

5.1.16 *Ditch 29.* A curving ditch orientated south-west to north-east, was located on the south side of Ditch 87 and was also cut by Ditch 87. The Ditch terminated within the trench and measured 0.70m wide and up to 0.28m deep. The base was flat and the terminal square with slightly rounded corners. It produced no finds.

5.1.17 *Ditch 31.* This ditch was very similar in character to Ditch 34 and was not readily distinguished in plan. It measured 1.4m wide and 0.29m deep with a flat base, U-shaped profile and orientated east to west. The primary fill (33) was a mid brown silty sand with flecks of charcoal. The upper fill (32) was a mid greyish-brown silty sand and contained one sherd of 1st-century AD pottery.

5.1.18 *Ditch 34.* This ditch was very similar in character to Ditch 31 and was not readily distinguished in plan. It measured 0.92m wide and 0.32m deep with a flat base, U-shaped profile and orientated east to west. The primary fill (36) was a mid greyish-brown silty sand with sandstone inclusions and produced a struck flint. The upper fill (35) was a mid greyish-brown silty sand.

*Trench 1858TT (Fig. 7)*

5.1.19 *Cremation Pit 73.* A human cremation was located at the south end of the trench. The cremation pit was situated adjacent to an area of disturbance containing a modern brick. The cremation pit was not observed during initial machine excavation and its contents were disturbed during the removal of the modern debris. It was clear that the assemblage consisted of cremated bone (71), which was placed within a pot (72) with three other vessels (78, 79 and 96, see Plate I and Appendix 1), arranged around the cremation urn. The

larger cremation vessel was incomplete and disturbed by ploughing, while the other smaller vessels were virtually complete.

- 5.1.20 *Pits 81, 86, and 84.* Three pits were located in the vicinity of cremation Pit 73. Pits 82 and 86 were oval in shape and 84 although not fully exposed in the trench appeared to be subrectangular with rounded corners. Pits 82 and 86 were 0.14m deep and the fills (80 and 85 respectively) were a mid-brown clayey sand and produced no finds. In contrast Pit 84 had three distinct fills (83, 95 and 112). A sample from this Pit 84 produced small threads and beads of solidified molten lead, six iron nails and four fragments of burnt bone.

## 5.2 Dark Soil Horizon (1851TT, 1853TT and 1855TT)

- 5.2.1 A deep stratified sequence was recorded in Trenches 1851TT, 1853TT and 1855TT (up to 2.10m deep in 1853TT), with a dark soil horizon occurring at, or towards the base of the sequence. The information from these three trenches suggest that the landscape has been modified and deposits have moved down slope towards the south. The date of this is uncertain and it is possible it started by deep ploughing in the 19th century and the dark horizon indicates severe truncation of the Roman deposits. A complete understanding of the mechanism and date of this deposit is uncertain, as there is clearly some dumping and landscaping associated with the construction of the M20 motorway.

### *Trench 1853TT (Fig.8)*

- 5.2.2 The stratigraphy comprised a dark soil horizon (109) at the base, which was overlain by two ploughsoils (108 and 107) and above this the present topsoil (106). The trench was initially machined to 1.2m but to examine the dark horizon further a machine excavated sondage was placed at the north end to a depth of 2.10m below the present ground surface. The investigation revealed that the deposit 109 sloped steeply away to the west and was up to 1.0m deep. The origin of this deposit is unclear; it extends the full length of the trench and the pottery suggests a mid to late 1st-century AD date. The deposits above appear to be consistent with an accumulation of material downslope and there is no obvious sign of mixed dumped material associated with the M20 as seen in Trench 1851TT.

### *Trench 1855TT (Fig.4)*

- 5.2.3 A dark horizon (56) was also noted in Trench 1855TT, which overlaid the Roman features. Although it is by no means certain that this is the same layer as 109 in Trench 1853TT, it may be significant that Layer 56 contained a 19th century find and became deeper towards the south end of the trench where it was up to 0.38m deep.

### *Trench 1851TT (Fig.8)*

- 5.2.4 A dark horizon (99) was also noted in Trench 1851TT. This layer had been severely compacted when M20 dumped material (98) was deposited on top of it. Although disturbed, the dark horizon (99) would seem to be an *in situ* deposit. A probable earlier ploughsoil (100 and 101), which had been compacted at the west end of the trench, was recorded below the dark horizon

99. There were no finds recovered from deposits 99, 100 or 101, although unstratified finds from Trench 1851TT were no later than the 1st-century AD.

### **5.3 Iron Age Ditch (1851TT)**

#### *Trench 1851TT (Fig.8)*

5.3.1 A linear feature was located in Trench 1851TT. It was orientated north-west to south-east up to 0.90m wide. The ditch was 1.2m below the present ground surface. The depth of the trench prevented further safe excavation of the feature although pottery from the upper fill (102), is probably Iron Age in date.

### **5.4 Peripheral trenches with modern disturbance (1846TT, 1847TT, 1848TT, 1849TT, and 1850TT)**

5.4.1 This group of trenches, in the western part of the site, all had shallow topsoil about 0.20m deep and the natural clay and greensand had areas of modern disturbance. It is likely this area of the site had had the topsoil removed during the construction of the M20 and later landscaped, prior to the reinstatement of the topsoil.

### **5.5 Peripheral trenches (1854TT, 1859TT, 1860TT, and 1861TT)**

5.5.1 Trenches 1854TT and 1859TT were situated south of the Roman area and both trenches contained an earlier ploughsoil overlain by the modern topsoil. The natural was a greensand with sandstone inclusions. No features were recorded except for an abandoned salt glazed drain and associated brickwork in the west end of Trench 1854TT. Similar remains were located in Trench 1855TT.

5.5.2 Trenches 1860TT and 1861TT were situated at the eastern end of the site and the stratigraphy was an earlier ploughsoil overlain by the present topsoil. No features were located.

## 6 ARCHAEOLOGICAL CONTEXT INVENTORY

The following abbreviations and definitions have been used in the Context Inventory

<b>o/l</b>	overlies	<b>IA</b>	Iron Age
<b>c/by</b>	cut by	<b>MIA</b>	Middle Iron Age
<b>f/of</b>	fill of	<b>LIA</b>	Late Iron Age
<b>s/as</b>	same as	<b>Roman</b>	AD 43 to 410
<b>f/by</b>	filled by	<b>medieval</b>	1500 A.D. to 1800 A.D.
<b>o/l by</b>	overlain by	<b>Post-medieval</b>	1800 to present

Trench	Context	Type	Associations	Finds	No.	Date
1852	01	ditch	f/by 3, 2			Roman
1852	02	fill	f/of 1, o/l by 14	pot	9	1st cent. AD+
				?fired clay	1	
				bone		
				?nail	2	
1852	03	fill	f/of 1, o/l by 2	pot	3	1st cent. AD
				?fired clay	1	
				bone		
1852	04	ditch	f/by 5, cuts 12			Roman
1852	05	fill	f/of 4, o/l by 15	pot	5	1st cent. AD
1852	06	ditch	f/by 7, 8, cuts 12			Roman
1852	07	fill	f/of 6 o/l by 8			
1852	08	fill	f/of 6, o/l 7, o/l by 15	pot	8	1st cent. AD
				flint	1	
				fired clay	4	
				bone		
				iron strip	1	
1852	09	ditch	f/by 10, 11, cuts 12			Roman
1852	10	fill	f/of 9, o/l by 11			
1852	11	fill	f/of 9, o/l 10, o/l by 15	pot	9	mid-late 1st cent. AD+
				bone		
1852	12	natural	c/by 1, 4, 6, 9, 18			
1852	13	layer	o/l 15, o/l 13			
1852	14	topsoil	o/l 13			
1852	15	earlier ploughsoil	o/l 5, 8, 11			
1852	16	ditch	part of 18			Roman
1852	17	fill	f/l of 16, o/l by 15, c/by 9	bone		
1852	18	ditch	f/l by 19, cuts 12			Roman
1852	19	fill	f/l of 18, o/l by 17	pot	9	mid-late 1st cent. AD+
1852	20	natural	o/l by 12			
1857	21	ditch	f/by 22, cuts 28			Roman
1857	22	fill	f/of 21, c/by 23	pot	7	late 1st -2nd cent. AD
1857	23	'hollow'	f/by 24, cuts 28, 88			Roman
1857	24	fill	f/of 23, o/l by 25	glass bead	1	
				pot	16	early-mid 2nd cent. AD+
				iron nails	2	
1857	25	layer	o/l 24, o/l by 26			

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Trench	Context	Type	Associations	Findings	No.	Date
1857	26	earlier ploughsoil	o/l 25, o/l by 27,			
1857	27	topsoil	o/l 26, 90			
1857	28	natural	cut by 21, 31, 34, 87			
1857	29	ditch	f/by 30, cuts 28			Roman
1857	30	fill	f/of 29, c/by 87			
1857	31	ditch	f/by 33, 32, cuts 28			?Roman
1857	32	fill	f/of 31, o/l by 90	pot	1	1st cent. AD
1857	33	fill	f/of 31, o/l by 32			
1857	34	ditch	f/by 35, 36, cuts 28			?Roman
1857	35	fill	f/of 34, o/l 36, o/l by 90	flint	1	
1857	36	fill	f/of 34, o/l by 35			
1856	37	disturbance	f/by 38			modern
1856	38	fill	f/of 37			modern
1856	39	ditch	f/l by 40, 41, cuts 43			Roman
1856	40	fill	f/of 39, c/by 37	pot flint bone	5	MIA-LIA
1856	41	fill	f/of 39, o/l by 40	flint pot	3	1st cent. AD
1856	42	hollow	f/by 43, cuts 53			Roman
1856	43	fill	f/of 42, c/by 39	pot	4	late 1st cent. AD+
1856	44	disturbance	f/by 45			modern
1856	45	fill	f/of 44			modern
1856	46	disturbance	f/by 47			modern
1856	47	fill	f/of 46			modern
1856	48	disturbance	f/by 49			modern
1856	49	fill	f/of 49			modern
1856	50	layer	o/l 52, o/l by 51			modern
1856	51	topsoil	o/l 50			
1856	52	earlier ploughsoil	o/l 38, o/l by 50			
1856	53	natural	c/by 42			
1855	54	topsoil	o/l 55			
1855	55	layer	o/l by 54, o/l 56			modern
1855	56	layer	o/l 57, 59, 89	pot	1	19th cent
1855	57	fill	f/of 58, o/l by 56, o/l 62	pot bone	4	1st cent. AD
1855	58	ditch	f/by 57, cuts 62			Roman
1855	59	fill	f/of 61, o/l by 56, o/l 60	pot bone	8	mid-late 1st cent. AD+
1855	60	fill	f/of 61, o/l by 59	pot slag	6 1	mid 1st cent. AD+
1855	61	pit	f/by 59, 60, cuts 62			Roman
1855	62	natural	c/by 58, 61, 64			
1855	63	fill	f/of 64, o/l by 89	pot tile	8 1	1st cent. AD
1855	64	?pit	f/by 63, cuts 62			?Roman
1855	65	natural	o/l by 62			modern
1858	66	topsoil	o/l 67	pot	1	late 2nd cent. AD
1858	67	earlier ploughsoil	o/l 83, 93			
1858	68	natural				



North of Saltwood Tunnel (ARC SLT 97) Evaluation Report

Trench	Context	Type	Associations	Finds	No.	Date
1858	69	natural				
1858	70	fill	f/of 73			
1858	71	cremation	f/of 73	burnt bone		Roman
1858	72	pot	f/by 71	vessel	1	late 2nd cent. AD
1858	73	pit	f/by 71, 72, 73			Roman
1858	74	fill	f/of 76, o/l 75, o/l by 66	glass		modern
1858	75	fill	f/of 76, o/l by 74			
1858	76	posthole	f/by 74, 75, cuts 67			modern
1858	77	fill	f/of 78			
1858	78	pot		vessel		late 2nd cent. AD
1858	79	pot		vessel		late 2nd cent. AD
1858	80	fill	f/of 82, c/by 84			
1858	81	fill	f/of 82, o/l 80			
1858	82	pit	f/by 80, 81, cuts 68			?Roman
1858	83	fill	f/of 84, o/l 95, o/l by 67	pot	3	1st cent. AD
				lead		
				burnt bone		
				iron nails	6	
1858	84	pit	f/by 83, 95, 112, cuts 93, 80			Roman
1858	85	fill	f/of 86, o/l by 67			
1858	86	pit	f/by 85, cuts 68			?Roman
1857	87	ditch	f/by 88, cuts 30			?Roman
1857	88	fill	f/of 87, c/by 23			
1855	89	fill	f/of 64, o/l 63, o/l by 56			
1857	90	layer	?same as 26			
1858	91	fill	f/of 92, o/l by 67			
1858	92	ditch	f/by 91, cuts 68			?Roman
1858	93	fill	f/of 94, o/l by 67			
1858	94	ditch	f/by 93, cuts 68			?Roman
1858	95	fill	f/of 84			
1858	96	pot		vessel	1	late 2nd cent. AD
1851	97	topsoil	o/l 98			
1851	98	layer	o/l by 97, o/l 99			modern
1851	99	layer	o/l by 98, o/l 100			
1851	100	layer	o/l by 99, o/l 101			
1851	101	layer	o/l by 100, o/l 102			
1851	102	fill	f/of 103, o/l by 101	pot	4	?IA
1851	103	ditch	f/by 102, cuts 104			?IA
1851	104	natural	c/by 103			
1851	105	unstratified finds		pot	10	?late 1st cent. AD
				flint	1	
1853	106	topsoil	o/l 107			
1853	107	earlier ploughsoil	o/l by 106, o/l 108			
1853	108	earlier ploughsoil	o/l by 107, o/l 109			
1853	109	layer	o/l by 108, o/l 110	pot	29	?mid-late 1st cent. AD
				iron nail	1	
1853	110	natural	o/l by 109			
1853	111	unstratified finds		pot	7	?mid 1st cent. AD

Trench	Context	Type	Associations	Finds	No.	Date
				flint	1	
				bone		
1858	112	fill	f/of 84, o/l by 95			
1858	113	fill	f/of 114, o/l by 67	pot	1	mid 1st-2nd cent. AD
1858	114	ditch	f/by 113, cuts 68			?Roman
1861	115	topsoil	o/l 116			
1861	116	earlier ploughsoil	o/l 117, o/l by 115			
1861	117	natural	o/l by 116			
1860	118	topsoil	o/l 119			
1860	119	earlier ploughsoil	o/l 120, o/l by 118			
1860	120	natural	o/l by 119			
1859	121	topsoil	o/l 122			
1859	122	earlier ploughsoil	o/l 123, o/l by 121			
1959	123	natural	o/l by 122			
1847	124	topsoil	o/l 125			
1847	125	natural	o/l by 124			
1846	126	topsoil	o/l 127			
1846	127	natural	o/l by 126			
1849	128	topsoil	o/l 129			
1849	129	natural	o/l by 128			
1854	130	topsoil	o/l 131			
1854	131	layer	o/l 132, o/l by 130			
1854	132	layer	o/l 133, o/l by 131			
1854	133	natural	o/l by 132			
1848	134	topsoil	o/l 135			
1848	135	fill	f/of 136, o/l by 134			
1848	136	cut	f/by 135, cuts 137			?modern
1848	137	natural	c/by 136			

## SECTION 2: STATEMENT OF IMPORTANCE

### 7 CONCLUSIONS

#### 7.1 Extent of archaeological deposits (Fig. 9)

7.1.1 Archaeological features were found in the trenches towards the central part of the site (Trenches 1851TT, 1852TT, 1855TT, 1856TT, 1857TT and 1858TT). This suggests that occupation occurred in the centre of the evaluated area, situated immediately south of the M20 and occupying an area of approximately 200m x 60m. It clearly continues north into the area now taken up by the M20 and identified during the 1979 watching brief. The main concentration of Roman features was within Trenches 1852TT, 1855TT, 1856TT and 1857TT. The cremation in Trench 1858TT appears to be on the eastern periphery. A probable Iron Age ditch in Trench 1851TT is on the western periphery.

7.1.2 There was a noticeable density of linear features in 1852TT and the predominant alignment is north-west to south-east suggesting a layout of enclosures/boundaries. The finds recovered consisted of mainly small sherds of pottery, although the presence of a glass bead in 1857TT and the cremation in 1858TT, may indicate domestic occupation in the vicinity.

#### 7.2 Date and character

7.2.1 Pottery from the site is dated to the first century AD although the cremation pottery is firmly attributable to a later period in the late second century AD and the samian bowl recovered with the cremation vessel to the period AD 160-200.

7.2.2 The nature of the archaeological remains would be consistent with a small farmstead. It would seem to be characterised by generally shallow ditches and pits, probably associated with enclosures. The focus to the occupation may be to the north, in the area identified by the M20 watching brief. The evaluation has identified the southern limits of that settlement. The purpose of the linear hollows and associated ditches in 1856TT and 1857TT is uncertain without a clearer idea of the layout of this feature. There are some similarities to a late Iron Age feature excavated at Boys Hall Moat (Booth and Everson 1994). It is possible that they form part of an enclosure, although a hollow way is also a possibility.

7.2.3 The Iron Age pottery from Ditch 39 in 1856TT is residual, although the four Iron Age pottery sherds from a probable ditch (103) in 1851TT suggest that this feature may be Iron Age in date.

7.2.4 Struck flint was recovered from Trenches 1856TT, 1857TT, 1851TT and 1853TT and except for one feature in Trench 1857TT, it was associated with later Roman pottery. This represents a low level 'background' scatter, which

is consistent with the findings of the previous Surface Collection Survey (URL 1994).

### **7.3 Environmental evidence**

- 7.3.1 Preservation of the charred remains was generally fairly poor. The majority of cereal gains were only identifiable to genus level and not to species. The density of remains is low in all feature types represented (see Appendix 3).
- 7.3.2 Animal bones were found on the site, although no large amounts were recovered. Cattle, sheep/goat and horse were identified (see Appendix 4).
- 7.3.3 Terrestrial snails were absent and there appears to be no potential for their survival on the site.

## **8 IMPORTANCE OF ARCHAEOLOGICAL DEPOSITS**

### **8.1 Survival/Condition**

- 8.1.1 The archaeological features were sealed by later ploughsoils. Little Roman pottery appears to be within the later ploughsoils or the modern topsoil and this is reflected by the small amount of Roman pottery (4 sherds) recovered during the previous Surface Collection Survey (URL 1994). The cremation urn had been damaged by ploughing although the smaller accessory vessels were unaffected.
- 8.1.2 The dark soil horizons recorded in Trenches 1851TT, 1853TT and 1851T attest to some earlier truncation of deposits and accumulation of deposits downslope (colluvium). However, the ditch and pit in Trench 1855TT demonstrates that features do survive below these deposits.
- 8.1.3 Disturbance and landscaping, which is almost certainly related to the construction phase of the M20 motorway, was located in all except the far eastern end of the site. There were wheel ruts in Trenches 1856TT and 1857TT as well as landscaping/redeposition in Trench 1851TT, which was also apparent in the Trenches in the western area of the site. However, the origin of the sequence of deposits and dark horizon in Trench 1853TT remains unclear. Although it is probably a post-medieval colluvial accumulation the proximity of the M20 dumping in Trench 1851TT may also indicate that this horizon is of recent origin.
- 8.1.4 An abandoned salt glazed drain and associated brickwork occurred in the west end of Trench 1854TT and a similar pipe was located in Trench 1855TT. The type of yellow brick suggest these drains have been laid prior to the M20 construction. They may be associated with the construction of the Saltwood Tunnel in 1843, or possibly part of the World War I Sandling Camp, (marked by a stone monument next to the lane on the north side of the M20).

## **8.2 Period**

8.2.1 The pottery recovered from the features is datable to the first century AD and it is possible some is pre-conquest in date. The late second century is represented by the cremation in Trench 1858TT and pottery from the linear 'hollow' in Trench 1857TT. The samian bowl associated with the cremation can be firmly dated to AD 160-200.

8.2.2 The pottery from the evaluation falls within a well defined date range in the early Roman period. This is in contrast to the material recovered during the 1979 M20 watching brief (Willson 1985), which ranged from the 1st-century AD to the late 4th century AD, although only one feature was identified (the 'cut out') which contained 4th century material. This would suggest that are later phases to the site, probably north of the current evaluation site.

8.2.3 The only feature which is likely to date to the Iron Age was a ditch located in Trench 1851TT.

## **8.3 Rarity**

8.3.1 Small Roman farmsteads in South-East England have not been readily identified or received the attention or study which has been ascribed to urban or villa sites. How these settlements develop is important to understanding the Romanization of Iron Age communities (Drewett et al. 1988).

8.3.2 The type of cremation and level of furnishing associated with the cremation in Trench 1858T has been recorded throughout the South-East of England in the 1st and 2nd century AD. The great majority contain between one and four vessels, including the cinerary urn (Philpott 1991, 35).

## **8.4 Fragility/vulnerability**

8.4.1 The majority of archaeological features were sealed by later ploughsoils and not disturbed by modern ploughing. There had been some disturbance, truncation and landscaping associated with the construction of the M20. This had caused wide wheel ruts which had mainly affected the earlier ploughsoils and some compaction of the underlying archaeological deposits. Disturbance of the natural substrate was noted in Trench 1856TT and both Trenches 1857TT and 1852TT had a relatively shallow sequence of ploughsoils which identifies a more vulnerable 20m wide corridor between these two trenches and the M20.

## **8.5 Diversity**

8.5.1 The archaeology on the site appears to be limited both in its chronological range and in the nature of the evidence. Features appear to be limited to shallow ditches and pits, although a cremation cemetery may also be present.

## **8.6 Documentation**

- 8.6.1 The surface collection survey (URL 1994) recovered a low level of Roman pottery (four sherds) and a diffuse scatter of worked flint and burnt unworked flint (27 in total). The amount of Roman pottery from the surface collection survey is less than might be suggested from the evaluation evidence. However, this is not unlikely considering that ploughsoils were sealing the Roman deposits and there was a relatively low incidence of pottery within features.
- 8.6.2 The evaluation substantiates the information gained from the 1979 M20 watching brief (Willson 1985), although the character of the features and extent of Roman occupation to the north of the evaluation site still remains unclear. Aerial photographs have proved unsuccessful in enhancing the picture of the site as pasture tends to predominate in this area.
- 8.6.3 There were medieval late 13th to early 14th century pottery and a possible Saxon loomweight from the M20 watching brief, but no finds or features of this date were recorded from the present evaluation.

## **8.7 Group value**

- 8.7.1 The site North of Saltwood Tunnel is likely to be a Roman farmstead. The pottery indicates that this area of the settlement is attributed to a 1st-century AD phase of the site. Its value could contribute to the understanding of the regional romanization of local rural settlement and its role within the local and regional economy.
- 8.7.2 The rural settlement of the Stour Valley is dominated by Canterbury and there have only been isolated finds which provide limited evidence for the location of any villa estates or small rural farms (Detsicas 1987, 97). In the vicinity of Saltwood a substantial Roman building is suggested 1.5km south-west of the site near to Harp Wood and the Brockhill Stream where foundations and building debris were found in 1864, although no detailed account of the findings exist (VCH 1932, 124).
- 8.7.3 The area 3km to the east of Saltwood has been recently excavated by the Canterbury Archaeological Unit (1987-89), prior to and during the construction of the Channel Tunnel. The site at Dolland's Moor (2.5km to the east of the Saltwood site) provided evidence from a number of periods, but the major occupation phases were in the early-middle Iron Age and the early Roman period, both these phases produced large amounts of pottery (estimated 20,000 sherds in total from all periods) (Macpherson-Grant 1990, 60). Dolland's Moor also revealed three inhumations which probably date to the later Roman period (Rady 1990, 40).
- 8.7.4 An early Roman site was also identified near Peene (3km to east of the Saltwood site), which consisted of intercutting ditches and pits mostly dated from the mid 1st to mid 2nd century. Although no structures were located, there was a considerable quantity of pottery recovered (Rady 1990, 38).

8.7.5 The site at Saltwood provides further evidence on the settlement along the foot of the North Downs in the Iron Age and early Roman period and the location at Saltwood contrasts to the wetter sites at Dolland's Moor and Peene, which were situated near to the Seabrook Stream.

8.7.6 The settlement although rural was situated at a location near to two main Roman roads and 4.5kms north-east of the military base at Lympne. The Lympne to Dover Road is 2km away and the Lympne to Canterbury road (Stone Street) is just under 4km to the west.

## **8.8 Potential**

8.8.1 The site appears to have potential as a relatively well-preserved sample of a rural 1st-century AD Roman settlement of a type whose nature is at present poorly understood in Kent. This potential is somewhat offset by the limited extent of the occupation within the Rail Link corridor. It is clear, from the evidence of the M20 watching brief that the site probably extends to the north. The combined evidence of the previous watching brief and the present evaluation also suggests that the site may have been established in the Iron Age and lasted throughout the Roman period. Unfortunately the extent of the settlement is difficult to assess since the M20 must have destroyed a 50m wide corridor.

8.8.2 The discovery of one certain 2nd century AD cremation and a number of other shallow pits nearby, including one containing human bone, may indicate the presence of a cemetery. The existence of a possible cemetery and its association with a rural Roman settlement, possibly with an Iron Age precursor, makes the site at least of County importance.

8.8.3 The environmental potential of the site would appear to be limited as carbonised remains were shown to be poorly preserved. However, the discovery of emmer wheat is important and further work may provide additional evidence for its use in the Roman period.

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## APPENDIX 1

### ROMAN AND IRON AGE POTTERY

by Paul Booth, Oxford Archaeological Unit

#### 1 Introduction

- 1.1 The evaluation produced 162 sherds of pottery (1035 g) plus three substantially complete and one partial vessel from a cremation (together 22 sherds weighing 1558 g). The totals include material recovered from sieving environmental samples (41 sherds, 151 g) but exclude a single fragment (3 g) of 19th century pottery, the only sherd from Layer 56. Apart from this sherd the material was all of prehistoric and Roman date, with the majority assignable to the late Iron Age-early Roman period.

#### 2 Methodology

- 2.1 The pottery was recorded by context in terms of broad fabric categories for the purposes of assigning dates, with quantification by sherd count and weight. Vessel type, where identifiable, was also recorded, and other characteristics were noted as appropriate. Coding followed the standards established in the OAU prehistoric and Roman pottery recording system. The pottery was generally only in moderate condition owing to the fairly small average sherd weight: discounting the cremation vessels, and excluding the material from the sieved samples, this was only 9.8 g. Sherds were not particularly abraded, however, and preservation of surfaces (owing to soil conditions) was average.

#### 3 Fabrics

- 3.1 Three main traditions were represented by the material, the first consisting of hand made fabrics using various tempering agents, but with flint as the most common. The second tradition consisted primarily of grog-tempered and sand-tempered fabrics of late Iron Age character, and the third of a range of Romanised fabrics dating from the mid-late 1st-century AD onwards.

- 3.2 The fabrics of the first tradition were defined in terms of principal inclusion types, designated by letter codes. The quantification of these was as follows:

A (sand-tempered)	2 sherds.
F (flint-tempered)	21 sherds.
G (?grog-tempered)	4 sherds.
Z (uncertain (?organic) voids)	1 sherd.

- 3.2 Only two context groups consisted solely of such material. A group of four sherds (45 g), from ditch fill 102, included one sherd in a grog-tempered fabric and three tempered with flint and sand and is tentatively assigned to the middle-late Iron Age. It is possible that the grog-tempered sherd was of Bronze Age date. A further group of five (very small) sherds from ditch fill

40 also contained flint, sand and grog-tempered sherds, the last of these being an upright rim of a simple jar form. The date of this group may be similar to that of ditch fill 102. Otherwise this material occurred in association with pottery of the other traditions, though a middle to late Iron Age date range is likely for these fabrics.

3.3 Fabrics of the second tradition were categorised as variants of 'E' wares, the grouping used in the OAU system to define late Iron Age-early Roman 'Belgic type' wares. Not all the sherds assigned to this category were readily distinguished from those of the previous group, and they were certainly not all wheel thrown, though some were (the small size of many sherds would make systematic examination of the material to quantify this characteristic quite difficult). The dating of this material is difficult. Grog-tempered fabrics are shown by Pollard (1988, 45) to dominate assemblages in east Kent up to the Flavian period. Such material, the most common ware group present, could therefore be of this date but could at least in part be pre-conquest. Certainty is impossible in the absence of diagnostic forms.

3.4 The E ware subgroups identified were as follows:

E30 (moderately sand-tempered fabrics)	22 sherds.
E60 (flint-tempered fabrics) (apparently wheel-thrown and distinct from the flint-tempered sherds discussed above)	1 sherd.
E80 (grog-tempered fabrics)	75 sherds.

3.5 The following 'Romanised' fabrics, comprising the third ceramic tradition defined on the site, were identified (excluding the vessels associated with the cremation):

S (samian ware, source uncertain)	1 sherd.
S20 (?South Gaulish samian ware)	1 sherd.
S30 (Central Gaulish samian ware)	2 sherds.
F60 (oxidised fabric with red slip)	1 sherd.
A10 (?South Spanish amphora)	1 sherd.
W30 (fine buff/white fabric)	1 sherd.
O10 (fine oxidised fabrics)	11 sherds.
O20 (sandy oxidised fabrics)	1 sherd.
R10 (fine reduced wares)	6 sherds.
R25 (?Canterbury sandy reduced ware)	2 sherds.
R30 (medium sandy reduced wares)	6 sherds.
B20 (BB2)	2 sherds.
C10 (shell-tempered wares)	3 sherds.

3.6 The material is mostly unremarkable, being derived (apart from the obvious imports) mainly from sources within the county. The north Kent industries probably accounted for some if not all the fine oxidised and reduced fabrics, and F60 and possibly C10, as well as the BB2 sherds. Fabric R30, not certainly assigned to a source, might have included Canterbury products additional to those identified as R25.

- 3.7 All three traditions, but particularly the two last, frequently occurred side by side in individual context groups. The size of these groups was such, however, that it was not generally clear if they were genuinely contemporary or if flint or grog-tempered sherds were residual when associated with later material.

#### 4 The cremation

- 4.1 The cremation group consisted of three substantially complete vessels (Plate I) and one fragmentary one:

*Vessel.* Cremation urn. Fabric O10. Only the base, part of the lower body and a (separate) part of the shoulder and neck survived. The vessel had clearly been broken some time ago, perhaps in antiquity. At the least it may have been badly damaged by post-Roman ploughing.

*Vessel.* Central Gaulish Drag 31 stamped L. ADN.ADGANI. This potter is assigned to Lezoux and his work dated c. AD 160-200. The vessel is complete except for the footring, much of which is missing. It was presumably damaged in antiquity before being placed in the grave.

*Vessel.* Small necked bowl/wide mouthed jar. Fabric R10. Complete, though damaged in the course of excavation.

*Vessel.* Small flask with conical spout projecting from girth (Monaghan 1987 type 13B1.1). Fabric R10. There is a narrow band of lattice decoration on the girth. Largely complete - the base is chipped and part of the rim is missing, damage which was clearly not recent. Monaghan's type example, from Shorne in north Kent, was almost certainly also from a cemetery (ibid, 235).

#### 5 Chronology

- 5.1 The cremation group was probably the latest Roman feature encountered within the excavated trenches, given a *terminus post quem* of AD 160-200 by the Drag 31 bowl. The associated vessels are consistent enough with this chronology, though Monaghan dates his type 13B1.1 to AD 80-120 on the basis of a parallel at Richborough. In fact the Richborough example (Bushe-Fox 1932, Pl. XL No 325) was in a feature associated with BB2 amongst other material (ibid, Pl. XLI No 339), which should be dated at least c. AD 120. At Saltwood the only context group to contain BB2 was that from the fill of 'Hollow' (24). With a *terminus post quem* therefore of at least c. AD 120 it is the only assemblage which could have been relatively closely contemporary with the cremation. With the exception of these and the two possible Iron Age context groups the remaining assemblages are of two types: those dominated by E wares and those in which E wares were supplemented by Romanised fabrics. Both could have been post-conquest, though in view of the presence of Iron Age material it is quite possible that the 'E' wares spanned the chronological gap between the decline of the fabrics in the ?middle Iron Age tradition and the Romanised material. The

latter fabrics, relatively sparse in numbers, might have covered an extensive date range, but it is much more probable that they indicate activity from the mid 1st-century AD up to the early 2nd and not significantly beyond, the groups from Context 24 and the cremation being the only ones potentially or certainly of late 2nd century (or slightly later) date.

## 6 Distribution

- 6.1 The pottery was confined to trenches located in the central part of the site, as follows:

Trench	No.
1851	14 sherds
1852	43 sherds
1853	39 sherds
1855	27 sherds
1856	12 sherds
1857	24 sherds
1858	7 sherds plus cremation vessels

- 6.2 There is no apparent chronological patterning within this distribution. The two possible Iron Age groups (40 and 102) were widely spaced, in Trenches 1856TT and 1851TT respectively. Groups with and without Romanised fabrics were found in all the trenches which produced pottery. The small number of sherds from Trench 1858TT suggests that it lay towards the margin of the occupied area. The occurrence in this trench of the cremation burial, for which a marginal location would be expected, is therefore entirely consistent with such an interpretation.

- 6.3 A fragment of Roman tile was recovered from pit Fill 63 (202g). A total of six pieces (50g) of fired clay were recovered, all from ditch fills in Trench 1852TT.

## APPENDIX 2

### THE WORKED FLINT

by Philippa Bradley, Oxford Archaeological Unit

#### 1 Introduction

- 1.1 Six pieces of worked flint were recovered from the evaluation (five flakes and one end and side scraper). The majority of the flint was dark brown to black in colour with a worn, buff cortex. A single piece of greyish-brown flint with a worn buff cortex was also recovered. The flint was lightly corticated.

#### 2 Methodology

- 2.1 The flint was briefly scanned and recorded using standard codes. Technological traits such as butt type, hammer mode and position in reduction sequence were recorded where it was felt that this information would enhance the characterisation of the material. The general condition of the flint and raw material types were also noted.

#### 3 Dating and discussion

- 3.1 All of the material was hard-hammer struck. The material is not particularly diagnostic, the only piece which may provide a broad date is the scraper. This piece has been quite neatly made and may be of Neolithic or Bronze Age date. Flintwork has been previously recovered in the immediate area; a small diffuse scatter was recovered during the surface collection survey (OAU No. 1368 in URL 1994). The material consisted of flakes, an end scraper and nine pieces of burnt unworked flint (URL 1994). Further west at Westenhanger (OAU Nos. 1366-7 in URL 1994), the fieldwalking produced flakes, an arrowhead fragment and burnt unworked flint. The 1979 M20 watching brief recovered a scraper, knife fragments and a hammerstone of supposed Neolithic date (Willson 1985, 233, fig. 2, 234).

Table 1: Summary of struck flint by context

Trench	Context	No.	Type
1852TT	8	1	End and side scraper, ?Neolithic/Bronze Age
1857TT	35	1	Flake
1856TT	41	2	Two small broken flakes
1851TT	105	1	Flake
1853TT	111	1	Flake

## APPENDIX 3

### ENVIRONMENTAL INDICATORS

by Dana Challinor, Oxford Archaeological Unit, and Ruth Pelling, Oxford University Museum

#### 1 Introduction and Methods

1.1 Twelve samples were taken for the assessment of their charred plant content. Volumes of deposit processed ranged from 3 to 46 litres, but were generally in the region of 20 litres. Features are thought to be of 1st to 2nd century AD in date. Features sampled include a gully, three ditches, a pit, a cremation and dark soil horizon. The purpose of the assessment was to evaluate the quality of the preservation of the charred material and the potential for further sampling.

1.2 Following pre-processing treatment to break down these clay-rich deposits up to 46 litres of soil were processed to extract the charred plant remains by flotation in a modified Siraf flotation machine, with the sample held on 0.5 mm mesh and the flot collected on 0.5 mm mesh. The mineral residue that remained following the processing was washed through a stack of 10 and 4 mm sieves. The coarse residue fraction (>10 mm) was sorted for bones and artefacts, and the medium residue fraction (10-4 mm) was sorted for bone, artefacts other than fired clay, and wood charcoal (which was added to the flot). The finest fraction (4-0.5 mm) was scanned for small bones and micro debitage. Flotation recovery was good and no sample required further flotation by hand.

1.3 Flots were then allowed to air dry slowly before being submitted for assessment. Each flot was separated in a stack of sieves of mesh sizes 500µm to 2mm for ease of analysis. Each fraction was scanned under a binocular microscope at x10 to x25 magnification. The quantity and quality of charred plant material was noted. Material was provisionally identified and estimates were made of the abundance of grain, chaff, weed seeds and charcoal. Abundance was recorded on a two point scale (+ = present, 0-10 items; ++ = common, 11-50 items). This information is recorded in Table 2.

#### 2 Results

2.1 *Pits:* Three samples were taken from pit fills (59, 60 in Trench 1855TT and 83 in Trench 1858TT). Small numbers of charred remains are present in each sample. Grain of free-threshing *Triticum* sp. (wheat), *Hordeum* sp. (barley) and *Avena* sp. (oat) were present. *Hordeum* grains were most commonly noted. The *Avena* sp. is recorded as cultivated grain, although they may be present as a weed. Occasional weed seeds were noted, including *Anthemis cotula* (stinking mayweed) and *Agrostemma githago* (corn cockle), both of which became common arable weeds from the Roman period onwards. Very

occasional fragments of charcoal were present, but the only identifiable taxon was *Quercus* sp. (oak).

2.2 *Ditch Fills*: Five samples were taken from ditch fills:

Ditch 1(2, 1852TT)  
Ditch 9 (11, 1852TT)  
Ditch 21 (22, 1857TT)  
Ditch 39 (40, 1856TT)  
Ditch 39 (41, 1856TT)

Each sample contained small quantities of charred remains. Two grains from sample 8 (Context 40) were identified as *Triticum* cf. *dicoccum* (possible emmer wheat). One *Triticum dicoccum/spelta* (emmer/spelt wheat) glume base was also noted and occasional more poorly preserved *Triticum* sp. grains. The most frequently identified cereal was *Hordeum* sp. (barley). Occasional weeds were present and include *Plantago lanceolata/media* (plantain), *Polygonum* sp. (knotgrass) and various small seeded Gramineae (grasses), all of which could have been growing as arable weeds.

2.3 *Other Samples*: Four further samples were taken from Gully 4 (Fill 5, 1852TT), Fill of 'Hollow' 23 (Fill 24, 1857TT) and dark horizon (109, 1853TT) and a ?cremation pit (Fill 83, 1858TT). No charred remains were present in the cremation samples. The remaining samples contained very occasional grains of *Triticum* sp., *Hordeum* sp. and indeterminate cereal species. No weed seeds were noted. Occasional fragments of cf. Pomoideae (apple/pear/hawthorn) charcoal were noted.

2.4 *Bone*: Unburnt bone was quite well preserved and fragments of large bones were plentiful. Most samples produced some bone fragments; the coarse fraction of context 40, in particular, produced a large amount. Bones of small animals, however were very rare. Cremated bone was present in context 71; otherwise burnt bone was restricted to a few small fragments.

2.5 *Metal residue*: Metal was preserved in the samples. Context 83 produced small (4-0.5mm) lead fragments.

2.6 *Snails*: Snails were not preserved. The investigation of formation processes and the local ecology will have to rely on herbaceous plants, pollen and insects preserved in waterlogged contexts (if any), and on micromorphology on buried soils (if any).



### 3 Conclusions

- 3.1 Preservation of the charred remains was generally fairly poor. The majority of cereal grains were only identifiable to genus level and not to species. The density of remains is low in all feature types represented.
- 3.2 Published archaeobotanical reports are as yet infrequent from Kent, although recent evaluations suggest that generally there is a very high potential for sampling for charred plant remains. The remains from the present site are not very well preserved or abundant and as such may have a more limited potential than other sites in the region. The presence of possible emmer wheat is, however, of national significance. The present evidence suggests that in Kent emmer wheat continued in cultivation into the Iron Age, but that it had been replaced by spelt wheat by the end of period. There is now some evidence of a brief reoccurrence of emmer wheat in Southern England during the early Roman period. Samples providing evidence of a presence of emmer wheat in the 1st or 2nd centuries AD are therefore of great interest. While large scale sampling may not yield much useful information, there is the potential for some useful more limited sampling for charred remains.

Table 2: Summary of Charred Remains.

Total number of samples assessed, 12. The total number of seeds and chaff for each feature group is shown.

		Feature Type	Pits	Ditch	Gully	Layer	Cremation
Total Number of Samples			3	5	1	2	1
Total Volume (litres)			86	100	20	37	3
<b>SEEDS AND CHAFF</b>							
<i>Triticum cf. dicoccum</i>	cf. Emmer wheat grain	-	+	-	-	-	-
<i>Triticum dicoccum/spelta</i>	Emmer/spelt wheat glume base	-	+	-	-	-	-
<i>Triticum sp.</i>	Free-threshing wheat grain	+	-	-	-	-	-
<i>Triticum sp.</i>	Wheat grain	+	+	+	+	-	-
<i>Hordeum sp.</i>	Barley grain	++	++	-	+	-	-
<i>Avena sp.</i>	Oat grain	+	-	-	-	-	-
Indeterminate	grain	-	+	+	+	-	-
Weeds		+	++	-	-	-	-
<b>CHARCOAL</b>							
Pomoideae	Apple/Pear/Hawthorn	-	+	-	+	-	-
<i>Quercus sp.</i>	Oak	+	+	-	-	-	-

## APPENDIX 4

### ANIMAL BONE

by Kathy Ayres, Centre for Human Ecology, University of Southampton

#### 1 Introduction

1.1 The total number of fragments was recorded for each context, with species identified where possible. The presence of butchery and gnawing was noted, as was burnt bone.

#### 2 Condition of the bone

2.1 The condition of the bone from each context was graded on a scale of 1-5, where grade 1 bone was in excellent condition with little or no post-depositional damage and that graded as 5 could not be identified further than 'bone'. Table 3 summarises the condition of the bone in each assemblage.

Table 3: Summary of condition of the animal bone

Recovery	1	2	3	4	5
Hand retrieved	3	2	1	3	1
>10mm	0	2	2	0	1
10-4mm	0	0	0	1	7

#### 3 Species representation

3.1 Bone was identified from both hand-retrieved and sieved contexts. A total of 67 hand retrieved bones were recorded, 25 of which could be identified to species (37%). Species present include cattle, sheep/goat and horse, with the two larger species being the more frequent. A larger number of bones were recorded from the sieved contexts, although the percentage of these which could be identified to species was lower. Of the 10-4mm sieved material, only 8% could be identified to species, and included one sheep/goat bone, one pig bone and seven fragments of fish bone, although the latter could not be identified further to species. In the >10mm fraction 18% of the bone was identified to species and horse was again the most frequent. Other species present include cattle, sheep/goat and domestic fowl.

Table 4: Summary of species of animal bone

Recovery	Cattle	Sheep	Pig	Horse	Dom Fowl	Fish	Unid.
Hand retrieved	11	5	0	9	0	0	42
>10mm	1	2	0	13	1	0	77
10-4mm	0	1	1	0	0	7	98

#### **4 General comments**

- 4.1 An articulated horse calcaneum and astragalus were identified in the assemblage from the site, both of which were measurable. Other tarsals were present in the context, together with a fragmented tibia. There were few other measurable bones in the assemblage although some highly fragmented elements could be reconstructed and measured
- 4.2 Burnt bone was noted in the sieved samples, some of which were calcined. None of these could be identified to species. Gnawing was also observed on some of the bone and was probably canid. Fusion evidence was limited and there were no mandibles available for ageing.

#### **5 Discussion**

- 5.1 Few Roman animal bone reports from Kent have been published and all further information gained through analysis makes a valuable contribution. The frequency of cattle bones in the small assemblages is comparable with the assemblage from the evaluation at Ebbsfleet (Ayres 1997). Likewise, the assemblage from Kent Road, St. Mary Cray (Hart 1984) was dominated by cattle, although these mainly consisted of horn cores recovered from a ditch. In contrast, however, sheep dominated the early Roman period at both the early Romano-British settlement at Monkton (Serjeantson nd) and the defences in Canterbury (King 1982), although at the latter site a predominance of cattle was noted in the later Roman period. Other species present in the Saltwood Tunnel assemblage such as domestic fowl and fish have also been recorded from other sites of this period.

## APPENDIX 5

### CREMATED HUMAN BONE

by Angela Boyle, Oxford Archaeological Unit

#### 1 Introduction

1.1 Two deposits of cremated bone were recovered during the evaluation. Details of the analysis of the deposits appear in Table 5 below.

1.2 The more substantial of the two deposits (71) had been placed within a pottery vessel and was buried along with three others, dated to the late 2nd century date (AD 160-200). The vessel containing the bone comprised largely a base and two sherds from the shoulder of the vessel with no surviving rim sherds. Only some of the damage was modern and it seems likely that in addition to damage caused by the removal of overlying modern debris, the deposit had also suffered plough damage in the past.

#### 2 Results

2.1 The damage by ploughing would account for the fact that the deposit weighed only 90 g. The remains have been identified as belonging to an adult of uncertain sex.

2.2 A small number of burnt bone fragments were recovered from the fill of a pit (84) in association with beads of molten lead. It comprised only four fragments and weighed 2 g. The fragments are probably human although it has not been possible to determine age and sex of the individual represented.

Table 5: Summary of the cremated bone

Context	Weight	Colour	Identifiable bone	Age	Sex	Comment
71	90 g*	white	ulna, skull vault	adult	?	wormian bone
83	2 g	white	long bone, ?articular facet from vertebra	?	?	

\* this total includes the unsorted 2 mm fraction (less than 27 g)

2.3 No further analysis of the cremations is recommended.

## APPENDIX 6

### GLASS BEAD

*by Angela Boyle, Oxford Archaeological Unit*

#### 1 Introduction

- 1.1 A broken and incomplete glass bead was recovered from the fill (24) of a linear 'hollow' (23) which also contained pottery indicative of a 2nd century date.

#### 2 Description

- 2.1 The bead (small find 1) is made of translucent pale blue-green glass. Two fragments survive though these are not conjoining. Decoration comprises pale blue wavy lines or whirls with yellow and dark blue stripes. These whirls emerge from the perforation. It is not possible to determine precisely the shape of the bead as it is incomplete. However, it was most probably originally disc-shaped.

#### 3 Discussion

- 3.1 Due to the incomplete nature of the bead it is not possible to be very precise about its classification or date. Nonetheless there are similarities with examples of Iron Age and earlier Roman date (Guido 1978, 57-60, 77-79). A fragmentary example from Caerleon, Monmouthshire was recovered in a stratified context with a date range of AD 130-230 and was described as a 'survival' (Guido 1978, 57). Since other contexts at the site are of middle to late Iron Age date it is not inconceivable that the bead is a residual find of pre-conquest origin.

## APPENDIX 7

## OTHER FINDS

by R. Williams, Oxford Archaeological Unit

## 1 Metal

- 1.1 A total of twelve iron objects were collected including six nails within Pit 84, which may have been a cremation pit. All the iron objects listed in Table 6 below were corroded and encrusted with sand. The lead had clearly become molten and turned into fine threads and small molten 'beads'.

Table 6: Summary of metal objects by context

Object	Trench	Context	Description	Date
?nails x2	1852	2	Possibly natural iron panning	Roman
Strip	1852	8	Iron strip length 90mm	Roman
nail	1857	24	Iron nail length 40mm	Roman
?nail	1857	24	Iron, flat at one end 71mm	Roman
nails x 6	1858	83	Iron, Lengths: 73mm, 30mm, 29mm, 54mm, 32mm, 38mm	Roman
Molten fragments	1858	83	Fragments of solidified molten lead (<1g)	Roman
nail	1853	109	Iron nail, length 25mm, squared cross section	Roman

- 1.2 A large piece of iron slag (158g) was recovered from Pit 61 (Fill 60)

## 2 Glass

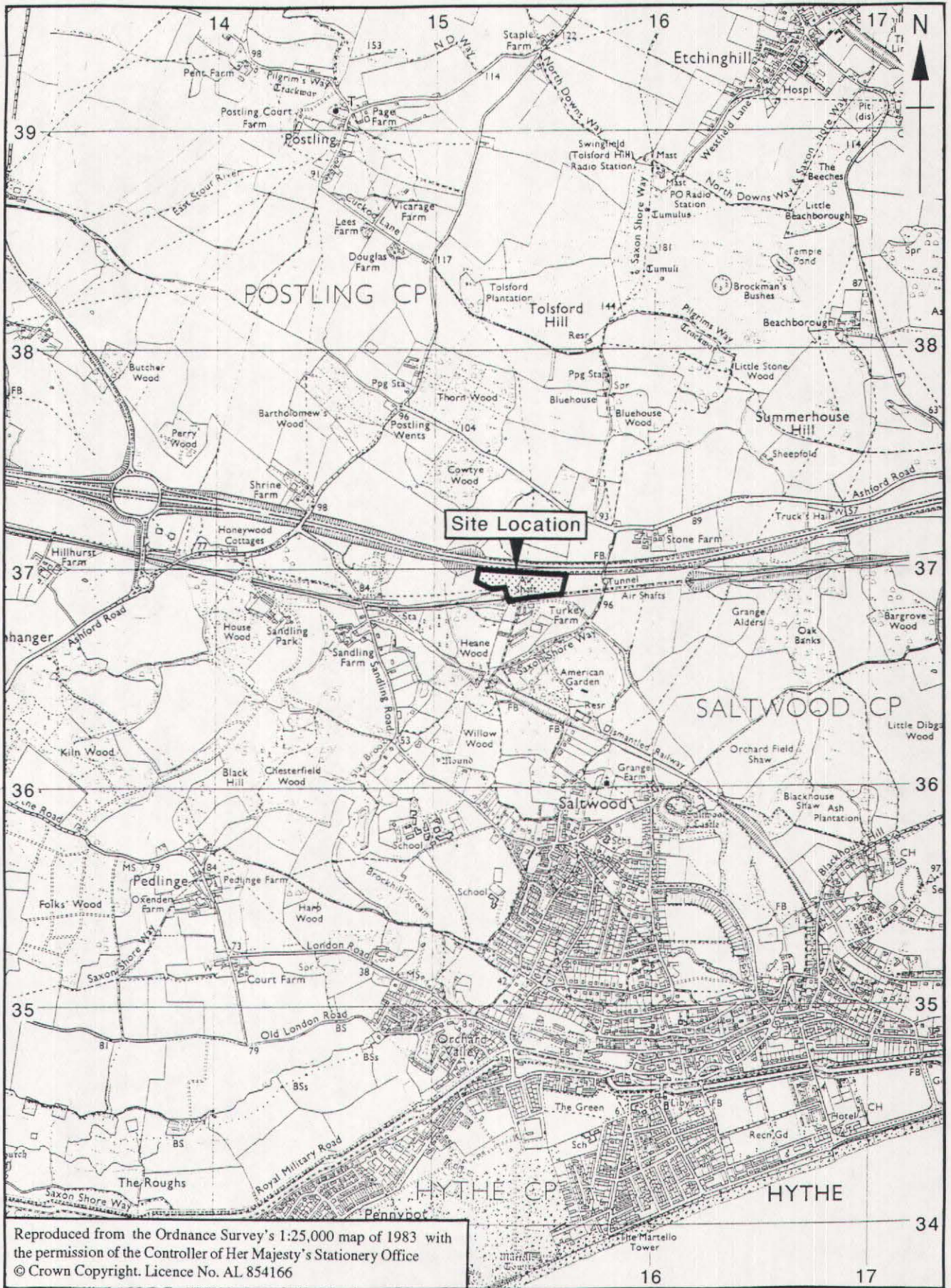
- 2.1 A fragment of modern glass was collected from a modern posthole, and a decorated Roman bead from the 'hollow' in Trench 1857TT. For a complete report on glass bead see Appendix 6.

Table 7: Summary of glass by context

Object	Trench	Context	Description	Date
Vessel	1858	74	Glass	Modern
Bead	1857	24	Fragmented blue-green decorated bead, probably disc shaped	?1st century AD



PLATE 1: Three of the four vessels from cremation in Trench 1858TT.  
From left to right: Central Gaulish samian bowl Drag 31 (AD 160-200). Small flask with conical spout.  
Small necked bowl/wide mouthed jar.





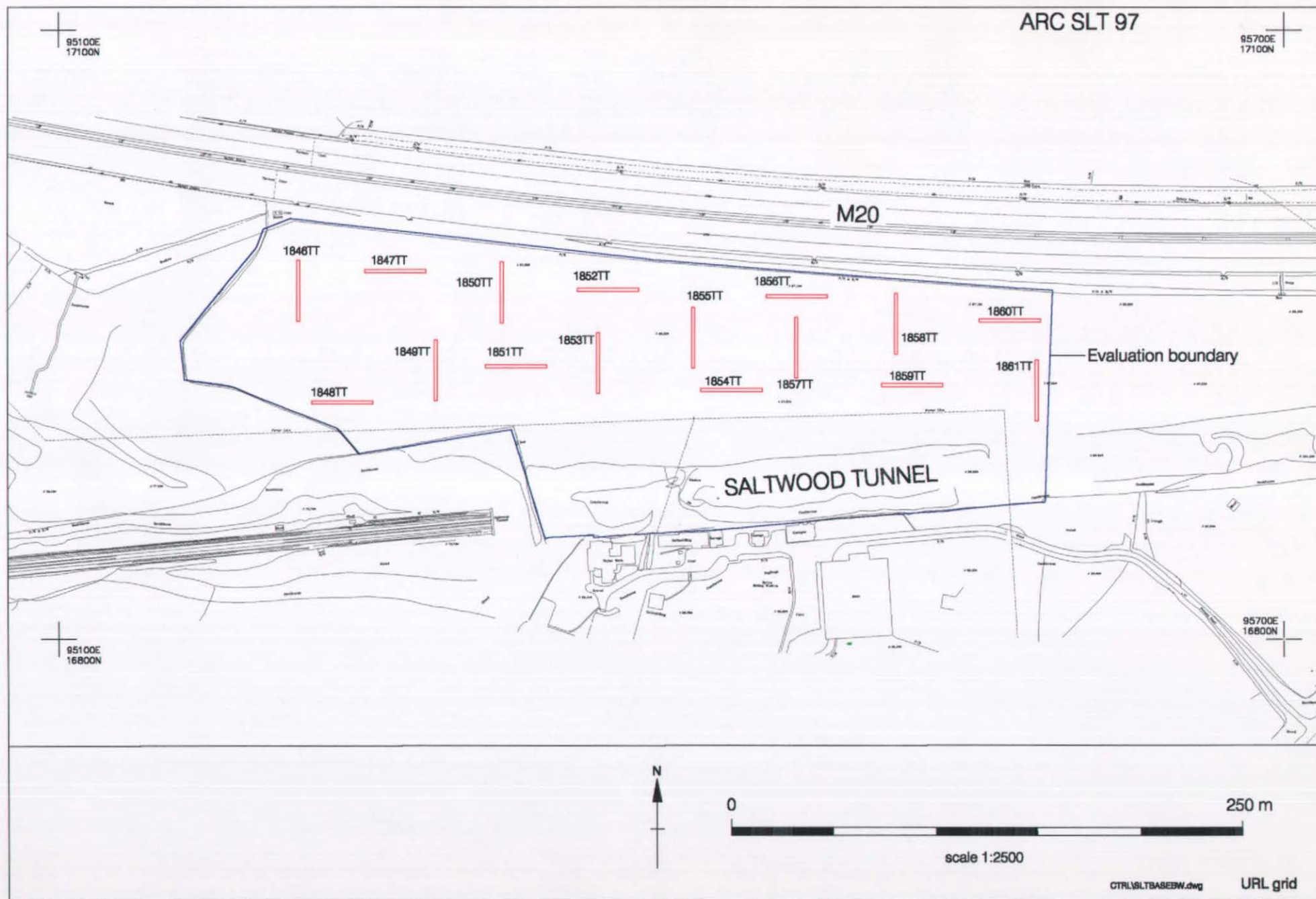
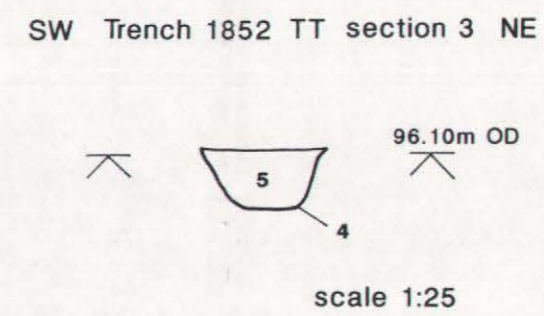
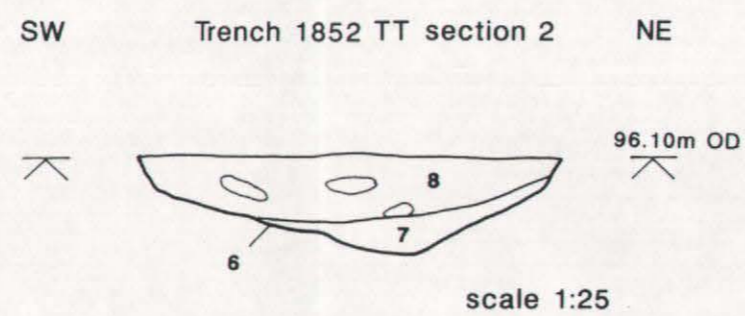
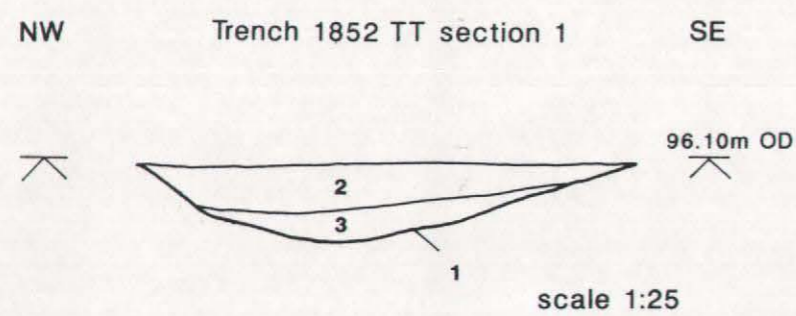
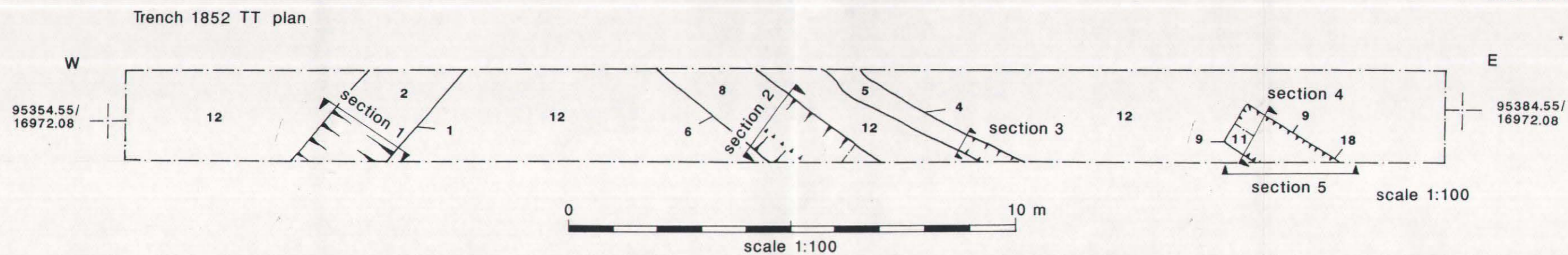
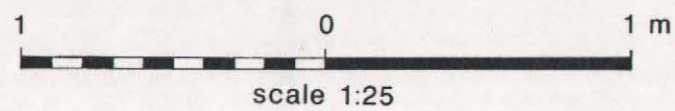
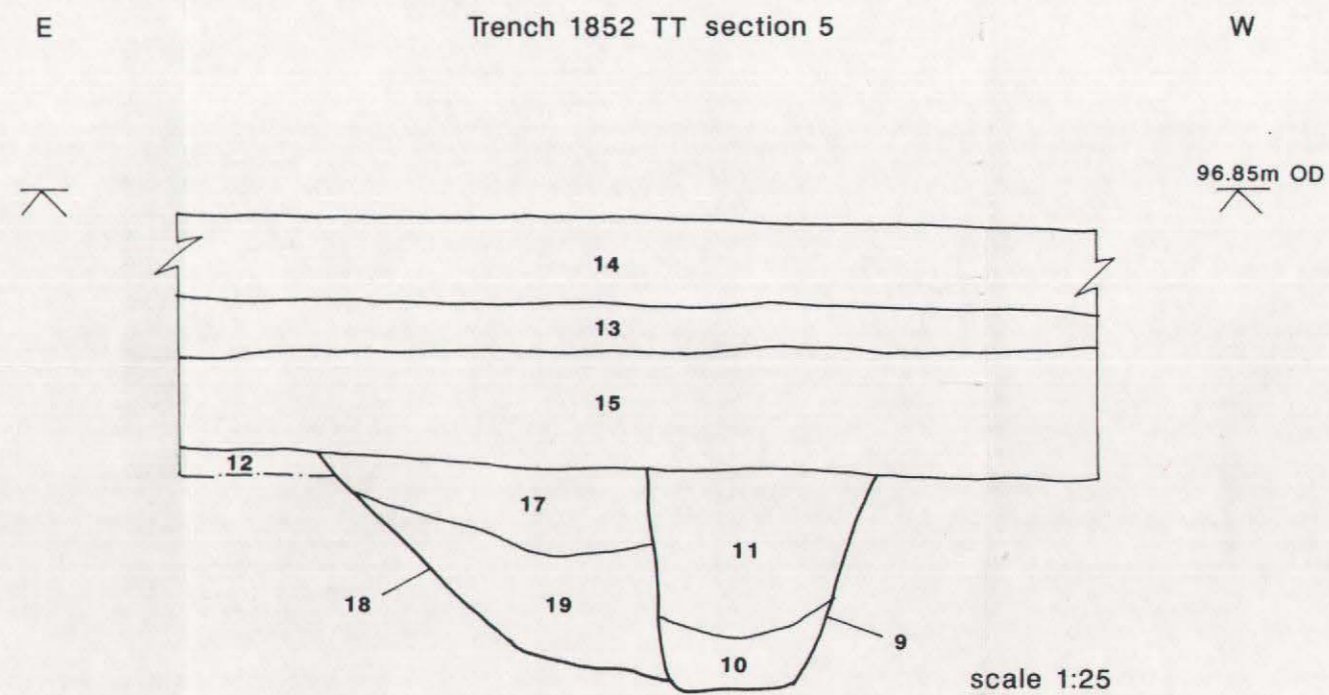
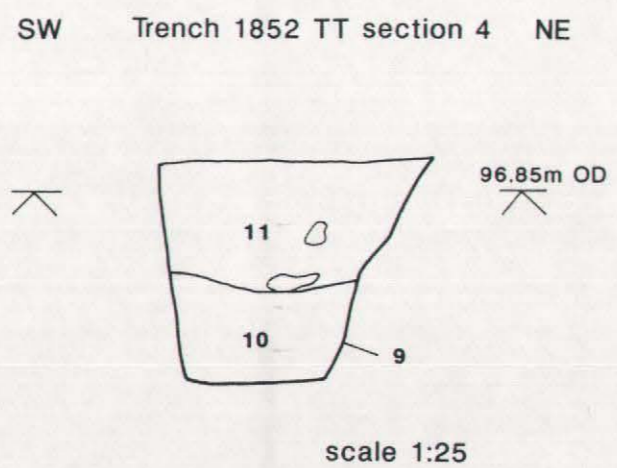


Figure 2: Trench location plan

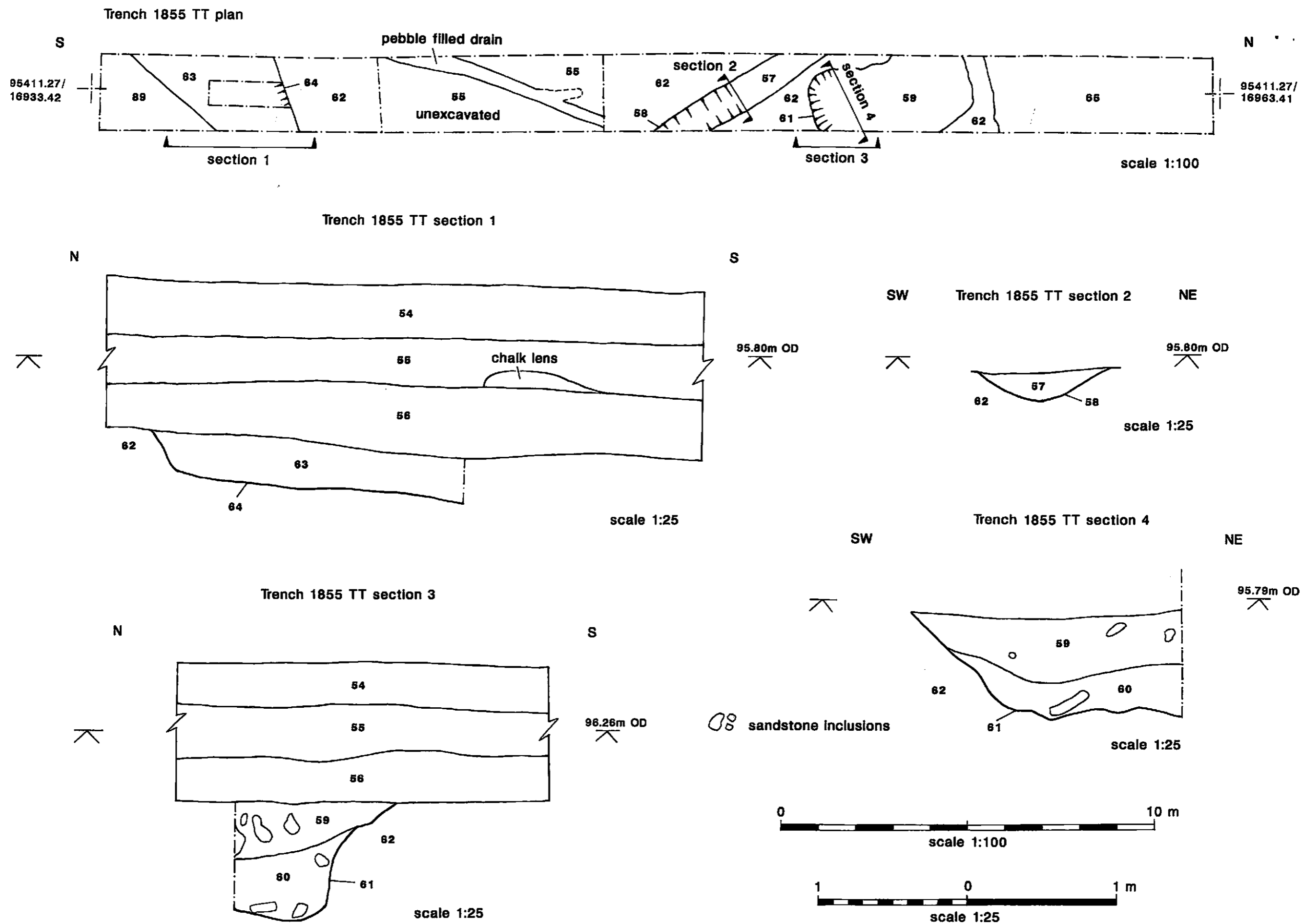


○ sandstone inclusions



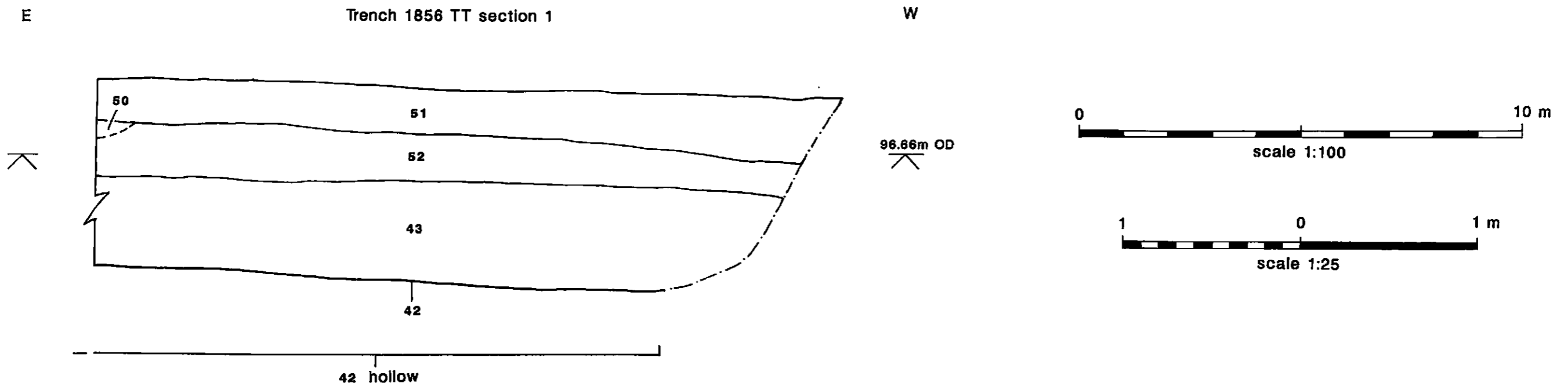
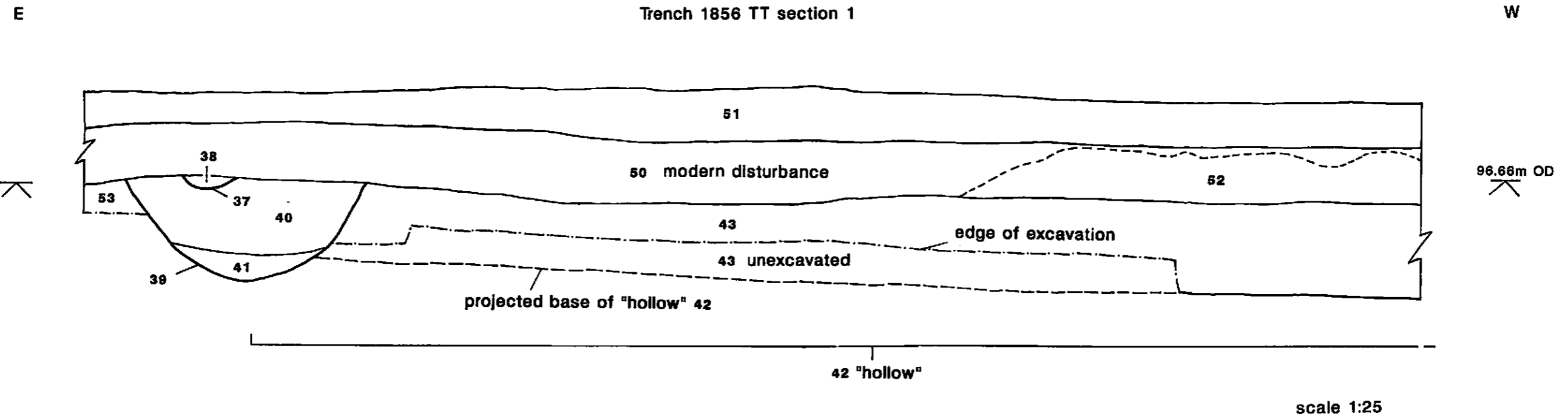
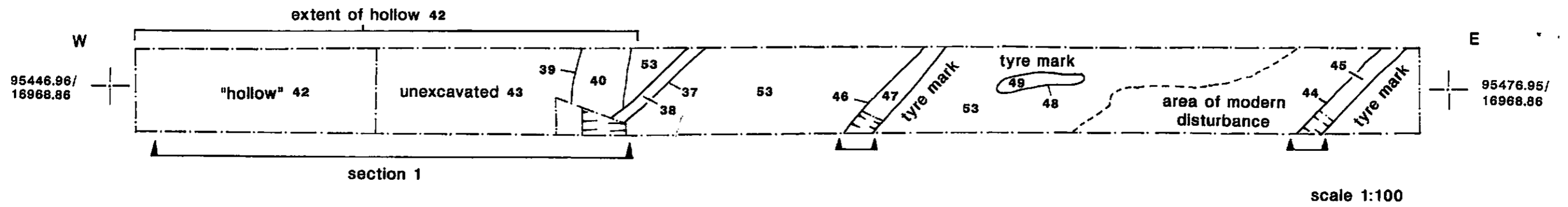
Trench 1852 TT plan and sections

Figure 3



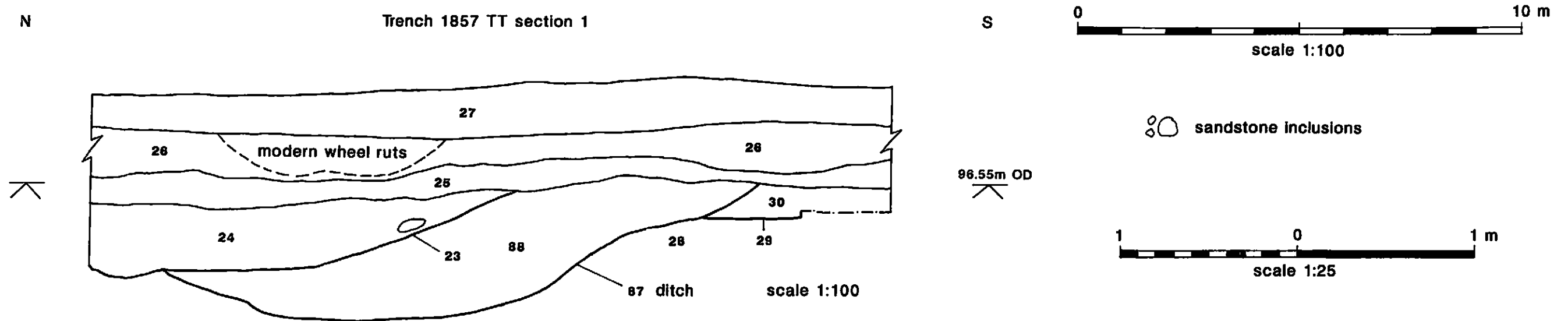
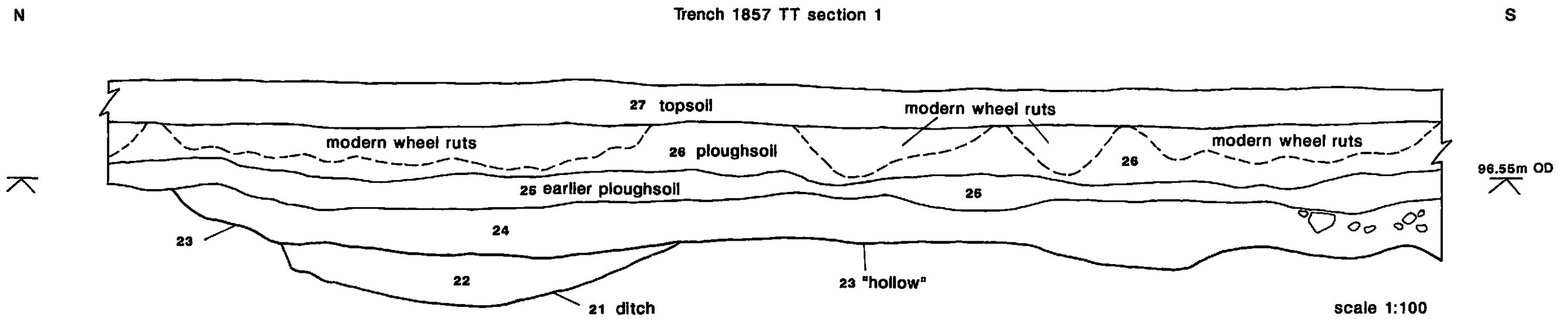
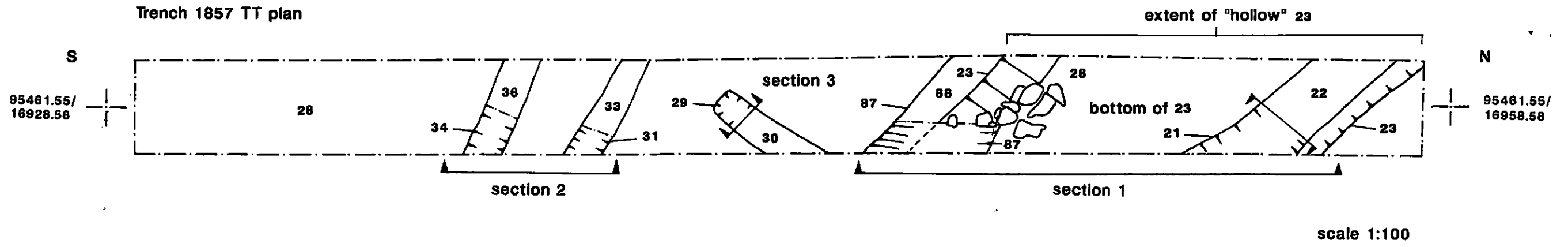
Trench 1855 TT plan and sections

Figure 4



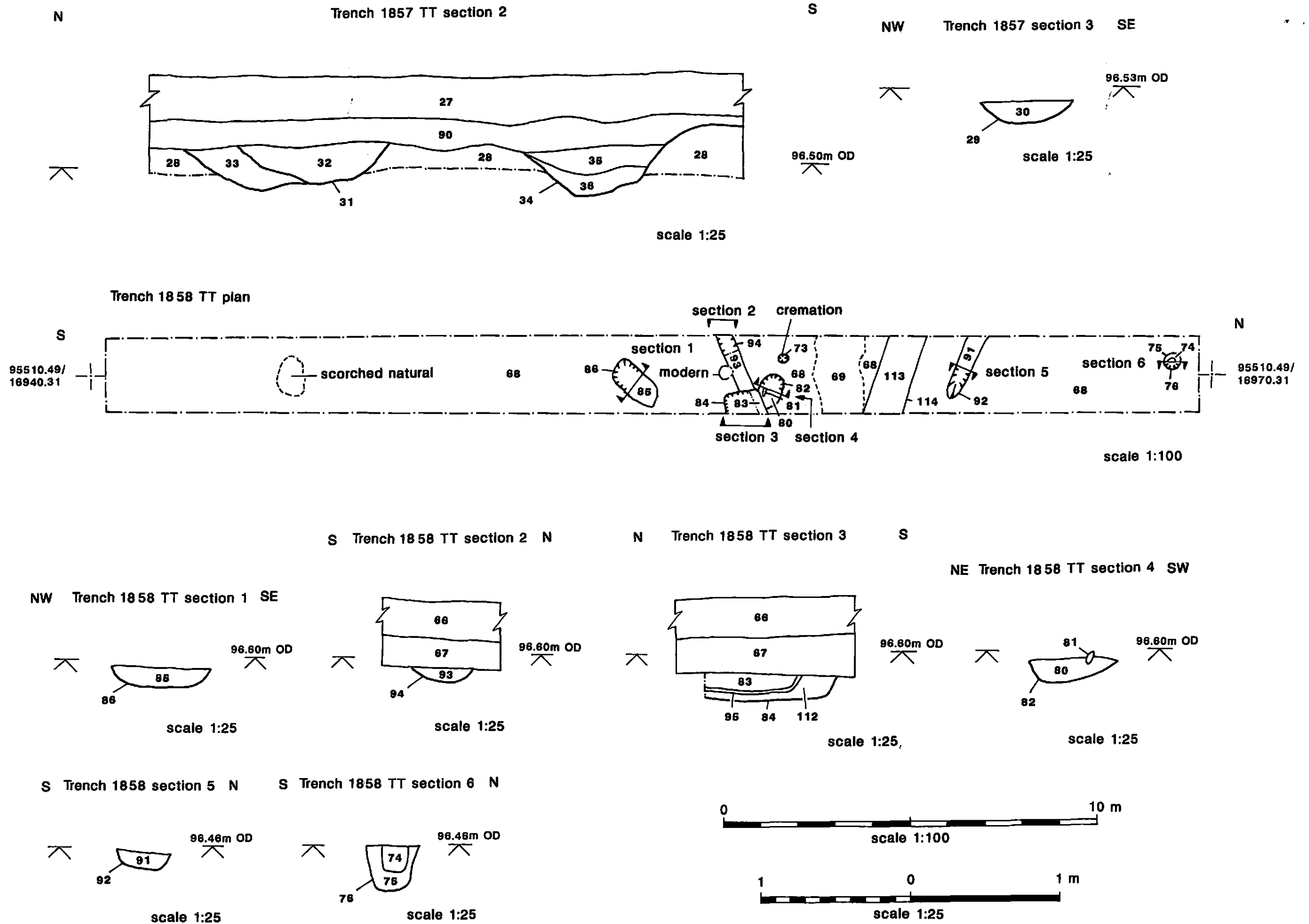
Trench 1856 TT plan and section

Figure 5



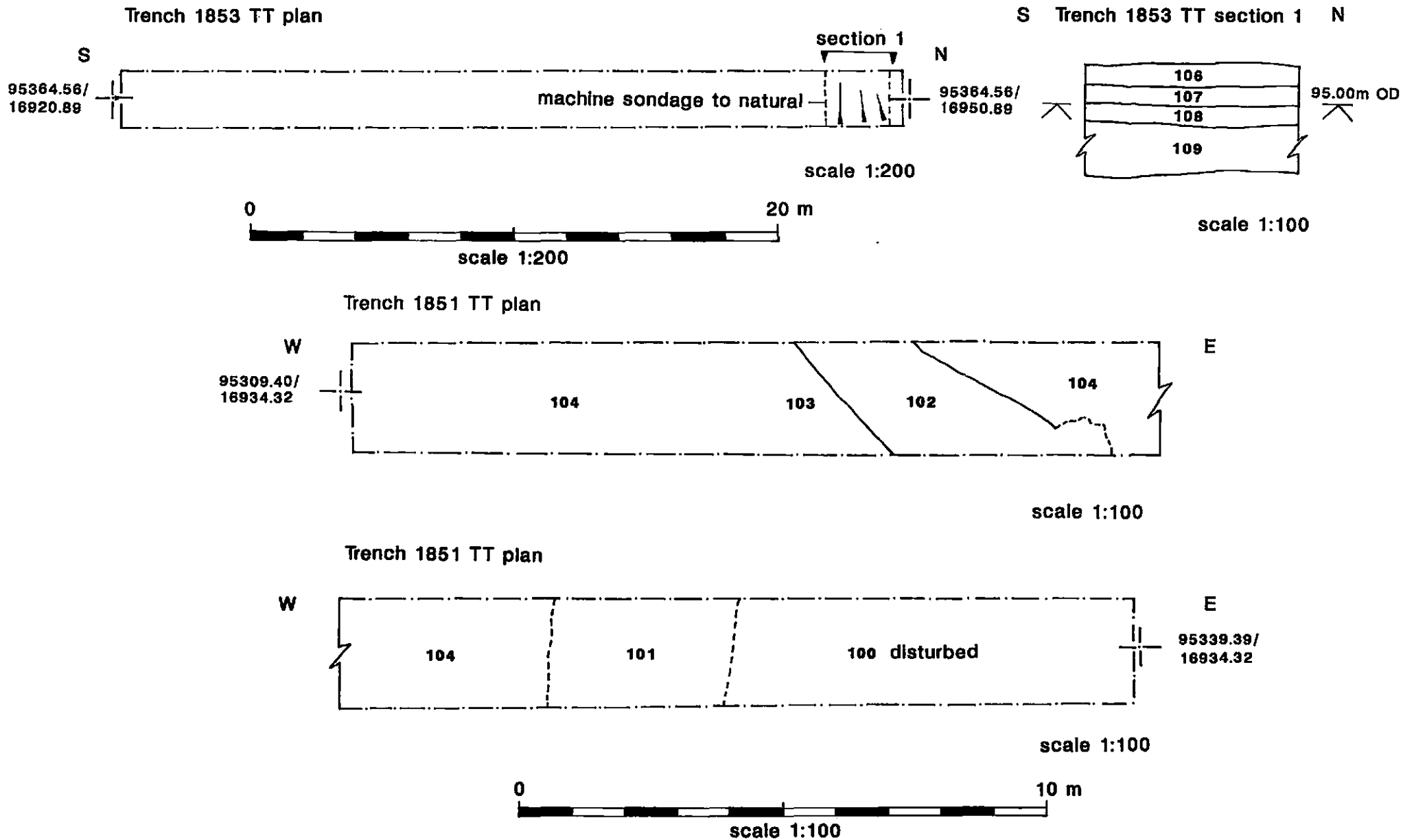
Trench 1857 TT plan and section

Figure 6



Trench 1857 TT sections and Trench 1858 TT plan and sections

Figure 7



Trenches 1853 TT and 1851 TT plans and section

Figure 8

95100E  
17100N

95700E  
17100N

M20

Evaluation boundary

SALTWOOD TUNNEL

95100E  
16800N

95700E  
16800N

- Iron Age linear feature
- Roman ditches
- Roman pit
- Large Roman linear 'hollow'
- ★ Roman cremation
- ▲ Worked flint



scale 1:2500

CTRL\SLTBASEBW.dwg

URL grid

Figure 9: Interpretative archaeological plan





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