

**A Final Report on an Archaeological Excavation at the  
Twyford Water Supply Compliance Scheme,  
Twyford, Hampshire**

**NGR 449240 124864 to 449216 124200**

**(SU 49240 24864 to 49216 24200)**

**ASE Project No. 3981  
Site Code: TWY 09**

**ASE Report No. 2009181**



**Giles Dawkes BA MIFA**

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**Abstract**

*Archaeology South-East undertook an archaeological strip, map and sample along the route of a pipeline to the east of Twyford, Hampshire on behalf of 4Delivery Ltd on behalf of Southern Water in July and August 2009.*

*Archaeological features included a prehistoric ring-ditch and roundhouse; a Roman field boundary ditch; a 16<sup>th</sup>/17<sup>th</sup> century field boundary ditch and World War I practice trenches associated with the temporary military base of Hazeley Camp.*

*The natural chalk was encountered at 60m OD in the south, sloping down to 40m OD in the north.*

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## **1.0 INTRODUCTION**

### **1.1 Site Background**

Archaeology South-East (ASE), the contracting division of the Centre for Applied Archaeology, University College London (CAAUCL), was commissioned by 4 Delivery Limited Ltd (4D) on behalf of Southern Water to undertake an archaeological strip, map and sample along the route of a proposed pipeline to the east of Twyford, Hampshire (NGR 449240 124864 to 449216 124200; Figures 1 and 2) hereafter referred to as 'the site'.

### **1.2 Geology and Topography**

According to Ordnance Survey Geological Survey Sheet 299 - Winchester, scale 1:50,000, the underlying geology at the site is chalk. The site lies on land east of Twyford village and is bounded to the north by Hazeley Road (and the Twyford Waterworks) and to the west by Watley Lane. Green fields lie to the east of the site and the reservoir is located south of the route of the proposed route. The site falls away from south to north by some 20m over a distance of c. 400m.

### **1.3 Planning Background**

Consultation between 4 D and Tracy Matthews, Historic Environment Officer (Archaeology), Winchester City Council (WCC), established that due to the archaeological potential of the area an archaeological strip, map and sample was required on the easement topsoil strip. A *Written Scheme of Investigation* (WSI) for the work was prepared (ASE 2009) with reference to the consultation mentioned above and communication between ASE and 4D. The WSI was duly approved by the WCC Archaeologist and all work was carried out in accordance with this document and the relevant *Standards and Guidance* of the Institute of Field Archaeologists (IFA 2001).

### **1.4 Aims and Objectives**

The general objective of the archaeological work set out in the WSI (ASE 2009) was to monitor the intrusive groundworks in order to ensure that any artefacts or ecofacts of archaeological interest exposed are recorded and interpreted to appropriate standards.

### **1.5 Scope of Report**

This report details the findings of the strip, map and sample was undertaken by Giles Dawkes, Senior Archaeologist, in July and August 2009. The project was managed by Jon Sygrave (Fieldwork), Jim Stevenson and Dan Swift (Post-excavation).

## **2.0 ARCHAEOLOGICAL BACKGROUND**

- 2.1** The following basic archaeological background information has been reproduced from the WSI (ASE 2009).
- 2.2** Four Archaeologically Sensitive Areas (ASA) are known in the area surrounding the site and numerous finds spots have been recorded within the general area of the proposed pipeline. Finds spots are particularly concentrated around Hazeley Farm (NGR 450099 124869) Twyford Village (NGR 448166 125043) and the site of a Roman Villa (Scheduled Monument HA173, NGR 448338 124400). A number of tumuli are also recorded within 1km of the proposed pipeline route. Two of these (located at NGR 449490 124962, c.250m east of the northern end of the proposed pipeline route) represent adjacent bowl barrows (Scheduled Monument 12138) measuring between 32-35m across, up to 3m high and surrounded by associated ditches. These type of barrows date from the Late Neolithic to Late Bronze Age periods with most examples dating between c. 2400-1500BC.
- 2.3** The site of Twyford Waterworks, at the northern end of the proposed pipeline route, comprising of an Edwardian building which houses a steam pumping engine, water tube boiler, steam lighting set, several diesel engines, with associated and lime plant and lime kilns, is designated as a Scheduled Monument (No. HA501) and as an ASA.

### **3.0 ARCHAEOLOGICAL METHODOLOGY**

#### **3.1 Fieldwork Methodology**

The complete adopted methodology may be found in the WSI (ASE 2009) and is not reproduced here. Additions to this methodology included:

- The fencing-off of an exposed ring-ditch from the rest of the easement.
- After recording, but not excavating, the ring-ditch was subsequently protected by the spreading of mounded topsoil over the feature.
- Archaeological features cut into the top of colluvium were excavated and recorded prior to the further stripping-away of the colluvium to natural chalk under archaeological supervision.

#### **3.2 The Archive**

The site archive is presently held at the Archaeology South-East offices in Portslade, East Sussex pending submission to a suitable local museum. The contents of the site archive are summarised below in Table 1.

Table 1: Quantification of the site archive

Number of Contexts	62 contexts
Number of files/paper record	1 file
Plan and sections sheets	2 section sheets
Photographs	48 digital images

The digital images will be submitted to archive as uncompressed images on DVD / CD and printed on archival quality photographic paper by a professional photographic laboratory.



## 4.0 RESULTS

### 4.1 Phase 1: Natural

The natural chalk [22] was highest in the south at a relatively level small terrace at around 59m OD. Further north the chalk stepped down to around 57m OD for the majority of the easement. At the northern end of the easement the chalk sloped steeply down to around 40m OD with the break of slope some 20m south of a post-medieval ditch.

### 4.2 Phase 2: Prehistoric (Figure 3)

#### *Ring-ditch*

- 4.2.1 The eastern portion of a ring-ditch [21] was exposed just to the south of the centre of the easement strip. As the pipe trench was to be on the opposite side of the easement and the ring-ditch would not be affected, it was recorded in plan only and not excavated.

The ring-ditch was c. 19m in diameter and was c. 1.8m wide. Ditch fill [20] was firm grey brown silt with frequent chalk gravel and flint cobbles. No finds or charcoal patches could be seen in the upper surface of the fill. The ring-ditch was metal-detected and two spots were identified, one of a moderate strength signal and the other of a very weak signal. These positions were recorded but not excavated. As the ring-ditch was not excavated and no finds were recovered, the feature can only be broadly phased as prehistoric on the basis of monument form alone.

#### *Middle /Late Iron Age Roundhouse Structure*

- 4.2.2 A sub circular post-built roundhouse structure (Group 2.1 -GP2.1) was located c. 100m to the south of the ring ditch on an area of relatively flat ground (at c. 59m OD) at the base of the steep slope located immediately beyond the site.

The structure was formed of 9 postholes [40, 42, 44, 46, 48, 50, 52, 54 and 56] set between 0.6m and 2.5m apart in a sub-circular pattern approximately 4.6m in diameter. The postholes were mostly sub-circular, around 0.3m in diameter with vertical sides and concave bases. The postholes were up to 0.36m deep and had supported vertical posts: there was no indication of the post being angled inward. The postholes were filled with firm grey brown sand silt [39, 41, 43, 45, 47, 49, 51, 53 & 55] with occasional flint pebbles. Finds of Middle/Late Iron Age pottery and animal bone were recovered from posthole fills [39, 41 & 53].

Two pits were identified within the interior of the roundhouse. There was no stratigraphic relationship with the postholes and the pits are not necessarily contemporary with the structure.

The largest pit was an apparent fire-pit. Subcircular pit [58] was up to 1.42m in diameter and 0.2m deep with shallow concave sides and an irregular stepped base. The chalk at the sides and base of the pit were slightly discoloured and crumbly from heat-affection. Pit fill [57] was grey brown sand silt with moderate amounts of burnt chalk and flint pebbles and finds of Middle/Late Iron Age pottery sherds and a small quantity of fine lime-rich

daub with chalk inclusions and a squared linear wattle impression. The bulk sample from the pit fill did not produce any significant environmental material. This pit probably represents the remains of the central hearth.

Pit [60] was irregular, 0.9m long, 0.64m wide and 0.22m deep with concave sides and an irregular base. Pit fill [59] was grey brown sand silt with moderate amounts of flint pebbles and no finds. The function of this pit is unknown, but it may represent a sleeping hollow.

Posthole [56] was ovular, 0.58m long, 0.3m wide and 0.2m deep with near vertical sides and a flat base. Posthole fill [55] was grey brown sand silt with occasional flint pebbles and finds of animal bone. Posthole [40] was to the south-east of [56] and probably supported one side of the south-east facing porch structure over the entrance.

There was no indication of a foundation trench or eaves-drip gully associated with the round house.

To the north-west of the roundhouse was probable tree-throw [36] which had been cut by a WW1 ditch (see 4.5). This was sub-circular, up to 2.9m in diameter and 0.48m deep with irregular side and base. Primary fill [38] was mottled brown and white chalk and silt with frequent flint cobbles. Above was light brown silt sand [37] which contained a hard chalk/white limestone spherical bead (see 5.7).

#### **4.3 Phase 3: Roman (Figure 4)**

##### *Field Boundary Ditch*

Ditch GP3.1 was aligned north-east to south-west and terminated at the north-east end. The ditch was at least 18m long, 1.7m wide and 0.72m deep with irregular convex sides and a concave base. Two sondages were investigated through the ditch. Finds of Roman pottery, dating from AD270 to 400, and residual prehistoric pottery were recovered from the interface [10] between upper ditch fills [11 & 23] and topsoil [1].

Primary fills [12 & 24] were mottled white and grey silt with frequent chalk and flint gravel with finds of animal bone and fire-cracked flint.

Secondary fills [11 & 23] were brown grey silt with moderate flint gravel and finds of animal bone and fire-cracked flint.

##### *Colluvium*

Brown sand silt with frequent flint gravel colluvium deposits [2] were recorded over much of this end of the easement. These deposits sealed post-built roundhouse structure GP2.1. A single Roman pottery sherd and highly-abraded Roman brick fragment was recovered from the colluvium.

#### **4.4 Phase 4: Early Post-Medieval Field Boundary Ditches (Figure 5)**

Field boundary ditches GP4.1 are aligned east to west, and terminate to the east. Two sondages were investigated. The double-ditch profile [4 & 6] is probably the result of a re-cutting, or a ditch on either side of a hedgerow. The exact stratigraphic relationship between ditch cuts [4] and [6] could not be established.

Ditch cuts [4], [6] & [19] (not illustrated) had irregular steep sides and concave base and were up to 0.2m deep and 1.5m wide.

Ditch fills [3, 5 & 18] were loose orange brown sand silt with flint gravel. Finds of sherds of a Frechen stoneware bottle of mid 16<sup>th</sup> to 17<sup>th</sup> century date and an iron nail fragment were recovered from [3].

#### **4.5 Phase 5: World War 1 (WW1) Practice Trenches (Figures 6 and 7)**

Two trench systems were identified aligned east to west and facing each other and separated by distance of some 50m of 'no man's land'. The northern of the two sets was the more illustrative with the front-line trench crenulated in plan, 4m wide and 2m deep, and a parallel sinuous communication trench located 20m to the rear, linked to the front-line by a similar sinuous perpendicular trench.

Trench GP5.1 of the northern system was excavated in sondages [29, 31, 33 & 63]. The trench was between 0.5m and 0.9m wide with vertical to near vertical sides and a mostly flat base. The trench had been cut into the natural chalk up to 0.56m deep.

The trenches had been simply backfilled with the original excavation upcast, mostly of crushed chalk with lenses of topsoil [28, 30, 32 & 64]. There was no evidence of silting indicating the trenches had been cleaned out or were open for only a short period. An iron-sheet canister for motor oil and three 0.22 inch bullet cases were recovered from fill [28].

Only the eastern end of southern trench system GP5.2 was seen. Front-line trench [62] was 6m long with a terminus at the east end. Similarly, the curved communications trench [35] located 18m to the south, also terminated at the east end. Fills [61 & 34] were similar crushed chalk with topsoil lenses and no finds were recovered.

#### **4.6 Phase 6: Undated Features (Figure 8)**

Undated ditch GP6.1 was aligned east to west and probably represents another field boundary. Ditch cuts [14 & 16] were up to 0.1m deep with shallow concave sides and a flat base. Ditch fills [15 & 17] were yellow brown silt clay with chalk fragments and no finds.

Undated pit [27] cut ditch GP6.1 and was in 2.4m diameter, 0.1m deep with shallow concave sides and a flat base. Pit fill [26] was dark brown sand clay and no finds.

Undated pit [8] was 1.2m in diameter, 0.22m deep with irregular sides and base. Primary fill [9] was orange silt and upper fill [7] was brown silt and no finds.

## 5.0 FINDS & ENVIRONMENTAL MATERIAL: QUANTIFICATION & DESCRIPTION

5.1 A small assemblage of finds was recovered during the archaeological work. An overview can be found in Table 2.

Context	Pot	Wt (g)	CBM	Wt (g)	Bone	Wt (g)	FCF	Wt (g)	Fe	Wt (g)	Cu. Al.	Wt (g)	CTP	Wt (g)	F. Clay	Wt (g)	Graphite	wt (g)
1	20	567	3	76									7	22			1	4
2	1	8	1	166			1	30										
3	1	12					2	146										
10	7	14																
11					11	38	8	628										
24					8	58	4	638										
28									1	108	3	<2						
39															1	<2		
41	1	<2			1	<2												
56					9	6	1	6										
57	6	22			1	<2												

Table 2: Quantification of the finds

### 5.2 The Pottery

The archaeological work recovered a small assemblage of pottery from the site from five individually numbered contexts. On the whole the material is in good condition with little signs of abrasion though sherd size, particularly for the earlier material is never large.

#### 5.2.1 The Prehistoric Pottery by Anna Doherty

The site produced 16 sherds of prehistoric and Roman pottery, weighing 50 grams, from five contexts. The most diagnostic of these are four conjoining sherds from a Late Bronze Age/ Early Iron Age bi-partite profile jar in context [57]. The same context produced a very small fragment which could be part of a Middle or Late Iron Age pedestal base, although the sherd is too fragmentary to identify with certainty. The flint-tempered fabric of this vessel is also much sandier than that of the other jar form: a trait which is also more closely associated with Middle or Late Iron Age wares. Similar sandy flint-tempered sherds were also recovered residually within context [10] which also contained Roman pottery. Two tiny sherds, recovered from environmental samples are also probably contemporary. One, from context [57], features sparse fine flint tempering with rare chalk inclusions. The sherd was also accompanied by a number of tiny, rounded, low-fired, ceramic fragments with moderate chalk inclusions of around 1mm, which could be pottery or fired clay. Another sherd with a sandy matrix, from context [53], is very typical of Middle and Late Iron Age assemblages locally.

Context [39] produced a single (4g) unabraded bodysherd in a low-fired slightly soapy fabric tempered with sparse fine sand and moderate shell to 2mm and occasional quartz grits to 1mm. The fabric is similar to Middle/Late Iron Age fabrics encountered more generally in the South-East. However, shell-tempered fabrics are rare in Iron Age assemblages in Hampshire. For example shell-tempering was absent from the Mid/Late Iron Age phases at Binfield, whilst only two sherds of a somewhat coarser shell-tempered fabric

were recovered from Thames Valley Park excavations, and these were tentatively assigned to an Early Iron Age phase (Booth 1995, 107-110; Mephram 1997, 49).

Diagnostic material in the Roman assemblage includes abraded sherds of Hadham red-slipped ware from context [10], which can be dated the late 3<sup>rd</sup> to 4<sup>th</sup> century AD. Context [2] also contained a rim-sherd from a Roman grey ware necked jar, which cannot be closely dated within the Roman period.

In summary, the assemblage is indicative of some activity in the vicinity during Late Bronze Age/Early Iron Age, late Roman and possibly Middle or Late Iron Age periods. However, the small quantity together with the low average sherd size and quite abraded nature of the pottery suggests a fairly strong likelihood of redeposition and residuality.

### 5.2.2 The Post-Roman Pottery by Luke Barber

Context [1] produced by far the largest group, consisting of 20 sherds (565g) of essentially 19<sup>th</sup> century date. The earliest piece consists of a single sherd (18g) from a creamware dish dating to between c. 1780 and 1820. The remaining sherds are more in keeping with a mid to late 19<sup>th</sup>- century date and reflect a typical domestic assemblage of this period. Post-medieval redware, both glazed (a jar: 1/41g) and unglazed (a flower pot: 1/45g), are represented along with a screw-stopper in English stoneware (93g) and two sherds (20g) of yellow ware, including a jug with blue mocha decoration. A single sherd (3g) from a ?tankard in industrial slipware and a number of sherd of transfer-printed ware (5/107g) plates and saucers with blue and green decoration (mainly willow pattern and foreign landscapes) are also present. There are a number of sherds of refined whiteware (plain 'china': 7/220g) including a bowl and jug, as well as a single base from an egg cup in English porcelain.

Context [3] contained 11 bodysherds (97g) from the same Frechen stoneware bottle. Without more diagnostic sherds or other material the mid 16<sup>th</sup> to 17<sup>th</sup> century date for this German import cannot be refined.

### 5.4 The Ceramic Building Material by Sarah Porteus

A total of four fragments of ceramic building material (CBM) weighing 232g were recovered from contexts [1] and [2]. The earliest CBM recovered was a fragment of Roman brick in a fine sandy orange under-fired fabric with moderate fine mica and sparse fine red iron rich silt inclusions from context [2]. The Roman brick, though highly abraded, retains part of a double arc 'signature' mark in the upper surface. A single fragment of high fired late post-medieval or modern peg tile in a calcareous fabric with coarse silt inclusions and two abraded brick fragments in a coarse pinkish orange fabric with sparse very coarse red iron rich inclusions and moderate coarse quartz and cream silt streaking from context [1] are all of 19<sup>th</sup> or 20<sup>th</sup> century date. A small quantity of fine lime rich material with abundant very coarse chalk inclusions was recovered from sample <11> context [57], it is possible this is a form of prehistoric daub made using predominantly crushed lime, a squared linear impression in the surface of a larger fragment may support this theory.

### **5.5 The Clay Tobacco Pipe** by Elke Raemen

A total of seven clay tobacco pipe (CTP) fragments were recovered from [1]. Six of these consist of plain stem fragments, five of which are of mid 18<sup>th</sup>- to 19<sup>th</sup>-century date. A piece dating to the mid 17<sup>th</sup> century was also recovered. In addition, a stem fragment with round heel was recovered and dates to the later 17<sup>th</sup> to early 18<sup>th</sup> century.

### **5.6 The Animal Bone** by Gemma Ayton

The animal bone assemblage contains 28 fragments of bone from four contexts ([41], [11], [56] and [24]). The assemblage is in a poor condition containing a number of small, unidentifiable fragments. The surface of the bone is eroded and no evidence of burning, butchery, gnawing or pathology has been noted. The identifiable bone includes cattle (*Bos taurus*) teeth and mandible fragments and one sheep/goat (*Ovis/Capra*) tooth.

### **5.7 Other Finds** by Elke Raemen

A single, amorphous fine sand-tempered fired clay fragment was recovered from posthole fill [39]. Tree-throw fill [37] contained a hard chalk/white limestone spherical bead, recovered from environmental sample <6>. The piece could date anywhere between the Late Iron Age and Early Saxon period.

In addition, a single iron general purpose nail shank fragment was recovered from ditch fill [3] (environmental sample <5>). The fragment cannot be dated. A 20<sup>th</sup> century graphite battery core was found in the topsoil [1].

Of potential interest are the finds from practice trench fill [28]. An iron sheet canister or bottle i.e. for (motor) oil was recovered from here. The piece is of World War 1 period. Inside were three 0.22 (short) inch cartridges. Although unfired, the bullet is missing, suggesting they are blank rounds or that the bullets have been removed although the pinched neck would suggest that they are blanks. The headstamp (found on the base of the cartridge) reads 'U', signifying the manufacturer, in this instance Union Metallic Cartridge Company, Remington, USA.

### **5.8 Environmental Material** by Lucy Allot

Eleven bulk soil samples were taken to establish evidence for environmental remains such as wood charcoal, charred macrobotanical remains, fauna and mollusca and to assist recovery of material suitable for dating. Samples were taken from the fills of postholes and a hearth relating to a roundhouse feature, a series of pits or possible tree throws, as well as linear features containing 16<sup>th</sup>-17<sup>th</sup> century pottery and WWI practice trenches.

5.8.1 The samples were processed in their entirety in a flotation tank, the residues and flots were retained on 500µm and 250µm meshes respectively and were air dried prior to sorting. The residues were passed through 4mm and 2mm geological sieves and each fraction sorted for environmental and artefact remains (Table 3). The flots were scanned under a stereozoom microscope at magnifications of x7-45 and an overview of their contents recorded (Table 4). Macrobotanical remains were subsequently quantified and identified with

reference to modern comparative material and reference atlases (Cappers *et al.* 2006, NIAB 2004).

5.8.2 Uncharred botanical remains such as roots and seeds were abundant in each sample and suggest moderate disturbance and potential for the introduction of modern contaminants. Mollusca were also common in each sample and while it is possible that these are associated with the prehistoric, Roman and post-Roman landuses that have been identified it is also possible that they are of relatively modern origin given the evidence for vegetation disturbance. Plough marks noted during excavation provide further indication of disturbances that are likely to have a detrimental effect upon the survival and possible interpretations of environmental remains present. The mollusca have therefore not been considered further.

5.8.3 These samples also produced a small quantity of wood charcoal fragments, poorly preserved charred macroplant remains as well as occasional faunal remains. The bone and teeth fragments have been incorporated into the bone report (see G. Ayton). Both wood charcoal and charred macrobotanical remains were scarce. Wood charcoal fragments were frequently vitrified suggesting they were charred at high temperatures. No identifications have been undertaken for the small charcoal assemblage as insufficient well preserved and non vitrified fragments were evident. A single charred bindweed seed cf. *Fallopia* sp. was recorded in sample <6>, [37]. All other macrobotanical remains were uncharred and therefore of relatively modern origin.

5.8.4 No further work has been undertaken on this small assemblage of environmental remains as they hold no potential to provide further information about the vegetation environment or plant use.

Table 3: Residue Quantification (\* = 1-10, \*\* = 11-50, \*\*\* = 51-250, \*\*\*\* = >250) and weights in grams

Sample Number	Context	Feature Number	Context / deposit type	Sample Volume litres	sub-Sample Volume litres	Charcoal >4mm	Weight (g)	Charcoal <4mm	Weight (g)	Bone and Teeth	Cremated/Burnt?	Weight (g)	Molluscs	Weight (g)	Other (eg ind, pot, cbm) quantification/weight in grams
1	7	8	fill of pit/ tree throw	30	30								*	<1	
2	9	8	fill of pit/ tree throw	10	10								**	2	
3	24	25	primary fill of linear feature	40	40								***	6	FCF*/8
4	28		fill of practice trench feature	40	40			*	<1				***	8	FCF**/196, W.Flint*/20, Fossil*/20
5	3	4	fill of slot [6] practice trench feature	40	40	*	2	*	<1				***	14	FCF*/40, Pot**/84, Fe*/62
6	37	36	fill of pit/ possible tree throw	40	40	*	<1	8	<1				***	12	FCF*/4, Bead*/21

Sample Number	Context	Feature Number	Context / deposit type	Sample Volume litres	sub-Sample Volume litres	Charcoal >4mm	Weight (g)	Charcoal <4mm	Weight (g)	Bone and Teeth	Cremated/Burnt?	Weight (g)	Molluscs	Weight (g)	Other (eg ind, pot, cbm) quantification/weight in grams
7	39		fill of posthole (roundhouse)	30	30	*	<1	*	<1	*	Y	<1	*	4	FCF*/50, Pot*/8
8	41		fill of posthole (roundhouse)	20	20	*	<1	**	<1	*	N	2	*	4	FCF*/8
9	51	52	fill of posthole (roundhouse)	10	10								**	2	Flint*/2, Tooth?*/2
10	53	54	fill of posthole (roundhouse)	20	20			*	<1	*	Y	<1	**	4	Pot*/4, FCF*/<1
11	57		fill of hearth (in roundhouse)	60	60	**	<1	**	<1	*	Y	2	***	6	Pot**/14, Mortar**/34, FCF****/4576, Flint*/20

Table 4: Flot Quantification (\* = 1-10, \*\* = 11-50, \*\*\* = 51-250, \*\*\*\* = >250)

Sample Number	Context	weight g	Flot volume ml	Uncharred %	sediment %	seeds uncharred	Charcoal >4mm	Charcoal <4mm	Charcoal <2mm	crop seeds charred	weed seeds charred	Identifications	Preservation	fish, amphibian, small mammal bone	Land Snail Shells (% of flot)
1	7	8	180	95		*									4
2	9	2	10	98				*							<2
3	24	18	50	4		**	*	*							95
4	28	10	120	94	1	*		*							4
5	3	20	130	13	1			*							85
6	37	8	65	32	1	*		*		1		cf. <i>Fallopia</i> sp.	++		66
7	39	8	110	49	1		*	*	*						35
8	41	8	40	35	1		**	**	**					1	29
9	51	<2	25	50	3			*							43
10	53	6	30	45	1		*	*	*						35
11	57	26	240	51	2		**	**	**						30



## **6.0 DISCUSSION**

### **6.1 Phase 2: Prehistoric**

The ring-ditch, roundhouse and tree-throw were all of prehistoric date and may be contemporary. Although the recovered prehistoric pottery did have some Late Bronze Age/Early Iron Age qualities, the majority of the assemblage is Middle to Late Iron Age in character and it is therefore likely that the roundhouse and tree-throw date from this period, rather than the former, with the LBA/EIA pottery as residual material.

The roundhouse is a somewhat small example with an overall diameter of only 4.6m. The entrance was probably in the south-east, the usual location of a roundhouse entrance, where posthole [40] may have supported one side of a porch structure. There was no evidence of repairs or replacement posts and the structure appeared to represent a single occupation phase.

The roundhouse was located on a small flat north-facing terrace, sheltered in the lee from the prevailing south-west winds at the base of Cockscomb Hill. This dwelling may well have been part of a small Middle/Late Iron Age settlement located along the flat ground at the base of the hill.

The ring-ditch is undated although it may have been earlier than the roundhouse and contemporary with the two known tumuli in the near vicinity, although these Late Neolithic/Late Bronze Age bowl barrows are considerably larger, some 35m in diameter. Whatever the date of the ring-ditch, the broad valley north of Cockscomb Hill does appear to have been a relatively significant prehistoric funerary landscape.

### **6.2 Phase 3: Roman, Phase 4: Early Post-Medieval and Phase 6: Undated**

Field boundary ditches dating from the Roman to early post-medieval period all reflect the continuing rural character of site and are all laid out perpendicular, or parallel to, the alignment of the north-west to south-east ridge of Cockscomb Hill to the immediate south. Modern field boundaries also follow the same orientation.

### **6.3 Phase 5: WW1 Practice Trenches**

A remarkable series of WW1 practice trenches were identified within the easement strip. Although the trenches excavated were only 0.56m deep, they would originally have been cut from some 0.4m higher up through the overlying topsoil. In addition, the upcast from the trench digging would have been banked into a parapet on the side facing the enemy, giving an overall trench depth of somewhere between 1.2m and 1.5m deep (War Dept., 1998 part III, paragraph 36).

The three 0.22 inch cartridges recovered from the trench fill were presumably scattered across the trench parapet whilst in use and are unusual as this type of round was not military issue. The 0.22 inch cartridge is one of the most common ever produced, but it never had an operational military role. The

standard British rifle of the time, the .303 Short Magazine Lee-Enfield, was however adapted for training purposes in the Great War, with a smaller .22 barrel which enabled short range indoor practice to be undertaken with a rifle familiar to the soldiers. Whether these cartridges were blanks (non-bulleted, for noise simulation) or full rounds with the bullets removed is uncertain although the necks are pinched and do not show any distortion from bullet extraction. They could well have been used in battle training (Luke Barber and Justin Russell *pers. comm.*)

The front-line trenches were crenulated in plan to concentrate more men in firing positions than a simple straight line. The crenulations and sinuous communications trenches also stopped any enemy entering the trench being able to fire down the length at the defenders and to limit the damaging effects of shell explosions (War Dept., 1917 part III, paragraph 41).

These trenches were dug by the soldiers stationed at Hazeley Camp, between 1916 and 1918 and located in the immediate vicinity of the site. These trenches were dug not only to teach the soldiers the practicalities of how to lay-out and construct trench systems but also to undertake the exercises of trench assaults, rifle-firing and grenade range-finding. The identification of two sets of trenches facing each other across a 50m wide 'no-man's land' suggests that both the simulation of assault and defence of trenches were being undertaken (Brown, 2009).

On the completion of the training, the soldiers based at Hazeley Camp were sent straight to the Western Front and these trenches are, therefore, identical in form to the actual WWI trenches found in France and Belgium.

Other WWI practice trenches are known from around Winchester from aerial photographs (Tracy Matthews *pers.comm.*). Similar trenches are also known on Salisbury Plain in Wiltshire, Thundersbarrow Hill, Polegate and Seaford Head in East Sussex and practice trenches have been previously excavated by Martin Brown, a Ministry of Defence Archaeologist, in Otterburn in Northumberland (Justin Russell *pers.comm.*). The practice trench systems used reflected the local topography and often quite irregular in plan although they occasionally were square or rectangular formations. The easement strip appeared to have exposed the eastern end of the Hazeley trenches, and the trenches could have extended along the flat ground a further 250m west to Watley Lane. It is also quite conceivable that other trenches systems were dug elsewhere within the vicinity of Hazeley Camp.

Known WWI practice trenches probably do not amount to more than a few tens of kilometres and this may well represent only a small percentage of the actual amount excavated. Ironically, in a European context, practice trenches are significantly rarer archaeological features than actually WWI battlefield trenches, which extended from Switzerland to the Belgium coast in a maze of opposing trench systems that were tens of thousands of kilometres in total length (Ellis, 1976, 10).

#### **6.4 Phase 6: Undated features**

These undated features, a boundary ditch and two pits, could date from any of the Phases 2 – 5, however, the boundary ditch is most similar in alignment to the perpendicular Roman ditch to the south and may therefore be more likely to date from this period.

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## **ACKNOWLEDGEMENTS**

The co-operation and assistance of Tracy Matthews (WCC), Gary Noble and Steve Fastnedge (4D) has been greatly acknowledged.

**SMR Summary Form**

Site Code	TWY 09					
Identification Name and Address	Twyford WSW Compliance Scheme					
County, District and/or Borough	Nr Winchester, Hampshire					
OS Grid Refs.	NGR 449240 124864 to 449216 124200					
Geology	Chalk Bedrock					
Arch. South-East Project Number	3860					
Type of Fieldwork	Eval.	<b>Excav.</b>	Watching Brief	Standing Structure	Survey	Other
Type of Site	<b>Green Field</b>	Shallow Urban	Deep Urban	Other		
Dates of Fieldwork	Eval.	<b>Excav. July 2009</b>	WB.	Other		
Sponsor/Client	4D/Southern Water					
Project Manager	Jon Sygrave					
Project Supervisor	Giles Dawkes					
Period Summary	Palaeo. None	Meso. None	Neo. None	BA None	IA √	RB √
	AS None	MED None	PM √	Other WWI √		
<p>100 Word Summary.</p> <p><i>Archaeology South-East undertook an archaeological strip, map and sample along the route of a pipeline to the east of Twyford, Hampshire (NGR 449240 124864 to 449216 124200) in July and August 2009.</i></p> <p><i>Four archaeological phases were identified and include a prehistoric ring-ditch and roundhouse; a Roman field boundary ditch; a 16<sup>th</sup>/17<sup>th</sup> century field boundary ditch and World War I practice trenches associated with the temporary military base of Hazeley Camp.</i></p> <p><i>The natural chalk was encountered at 60m OD in the south, sloping down to 40m OD in the north.</i></p>						

**OASIS ID: archaeol6-67795**

**Project details**

Project name	Twyford Water Supply Compliance Scheme
Short description of the project	Archaeology South-East undertook an archaeological strip, map and sample along the route of a pipeline to the east of Twyford, Hampshire on behalf of 4Delivery Ltd on behalf of Southern Water in July and August 2009. Archaeological features included a prehistoric ring-ditch and roundhouse; a Roman field boundary ditch; a 16th/17th century field boundary ditch and World War I practice trenches associated with the temporary military base of Hazeley Camp. The natural chalk was encountered at 60m OD in the south, sloping down to 40m OD in the north.
Project dates	Start: 01-07-2009 End: 01-09-2009
Previous/future work	No / No
Any associated project reference codes	TWY 09 - Sitecode
Type of project	Excavation
Site status	None
Current Land use	Grassland Heathland 1 - Heathland
Monument type	RING DITCH Iron Age
Monument type	ROUNDHOUSE Iron Age
Monument type	PIT Iron Age
Monument type	BOUNDARY DITCH Roman
Monument type	BOUNDARY DITCH Post Medieval
Monument type	WW1 TRENCHING Post Medieval
Monument type	BOUNDARY DITCH AND PITS Uncertain
Significant Finds	BEAD Iron Age
Significant Finds	POTTERY Iron Age
Significant Finds	POTTERY Roman
Significant Finds	POTTERY Post Medieval
Significant Finds	CBM Roman
Significant Finds	FCF Uncertain
Methods & techniques	'Excavation'
Development type	Pipelines/cables (e.g. gas, electric, telephone, TV cable, water, sewage, drainage etc.)

Prompt                      Statutory undertaking

Position in the              Not known / Not recorded  
 planning process

**Project location**

Country                      England

Site location                HAMPSHIRE WINCHESTER TWYFORD Twyford Water Supply  
 Compliance Scheme

Postcode                    SO21 1

Study area                   10000.00 Square metres

Site coordinates            SU 449240 124864 50.9095438695 -1.360957366420 50 54 34 N 001  
 21 39 W Point

Site coordinates            SU 449216 124200 50.9089469307 -1.360999679910 50 54 32 N 001  
 21 39 W Point

Height OD /                Min: 40.00m Max: 60.00m  
 Depth

**Project creators**

Name of                      Archaeology South-East  
 Organisation

Project brief                Hampshire County Council  
 originator

Project design              Archaeology South-East  
 originator

Project                        Dan Swift/Jim Stevenson  
 director/manager

Project                        JON SYGRAVE  
 director/manager

Project supervisor        Giles Dawkes

Type of                        4D Ltd  
 sponsor/funding  
 body

**Project archives**

Physical Archive            local museum  
 recipient

Physical Archive            TWY 09  
 ID

Physical Contents        'Animal Bones','Ceramics','Environmental','Metal','other'

Digital Archive             Local Museum  
 recipient

Digital Archive ID        TWY 09

Digital Contents	'Animal Bones','Ceramics','Environmental','Metal','Stratigraphic','Survey','other'
Digital Media available	'Survey','Text'
Paper Archive recipient	Local Museum
Paper Archive ID	TWY 09
Paper Contents	'Animal Bones','Ceramics','Environmental','Metal','Stratigraphic','Survey','other'
Paper Media available	'Context sheet','Correspondence','Diary','Drawing','Map','Matrices','Miscellaneous Material','Notebook - Excavation',' Research',' General Notes','Photograph','Plan','Report','Section','Survey ','Unpublished Text'

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**Project bibliography 1**

Publication type	Grey literature (unpublished document/manuscript)
Title	A Final Report on an Archaeological Excavation at the
Author(s)/Editor(s)	Dawkes, G
Other bibliographic details	ASE Report No: 2009181
Date	2009
Issuer or publisher	ASE
Place of issue or publication	ASE
Description	Grey Lit report

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Entered on	20 November 2009



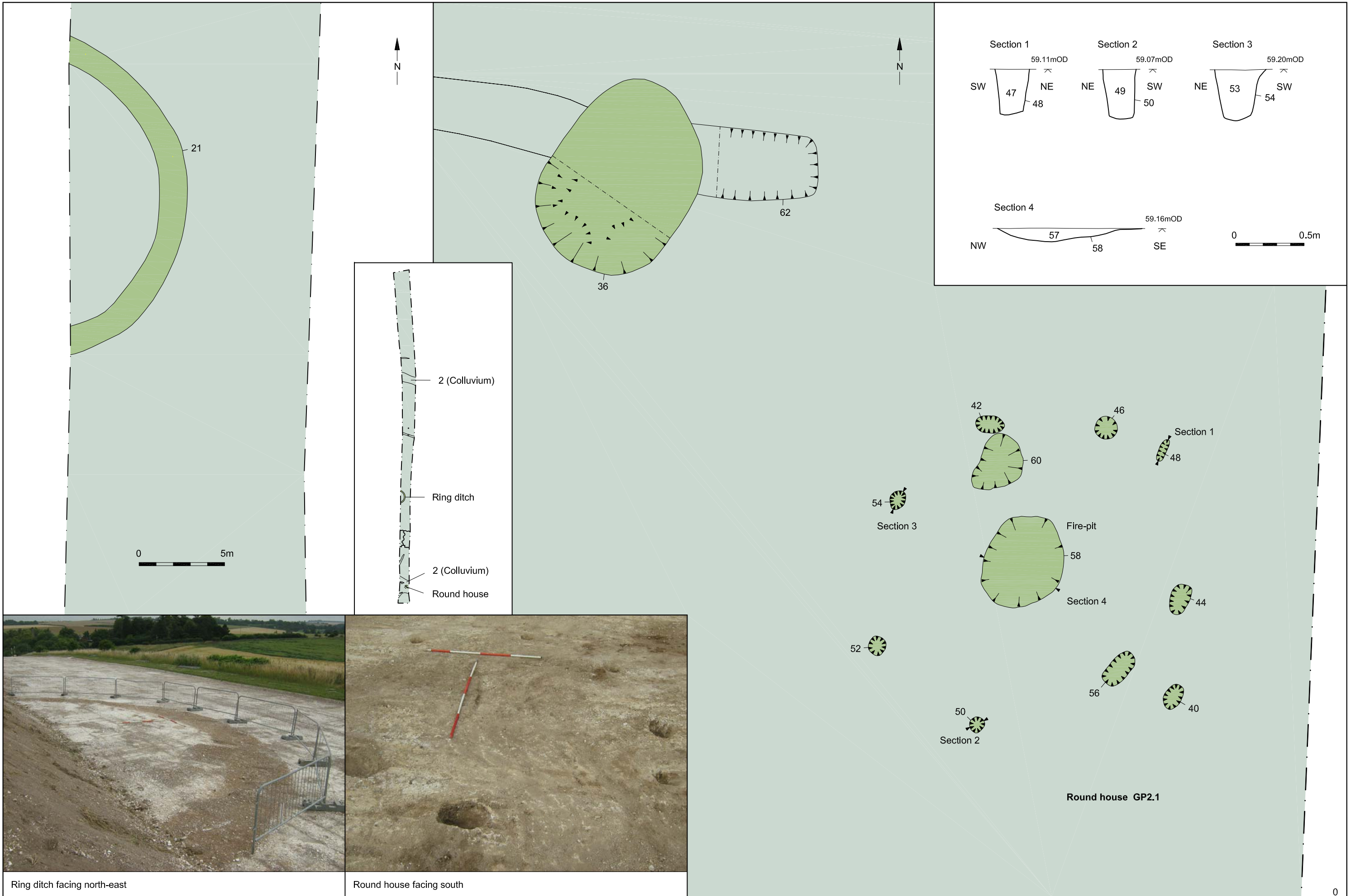


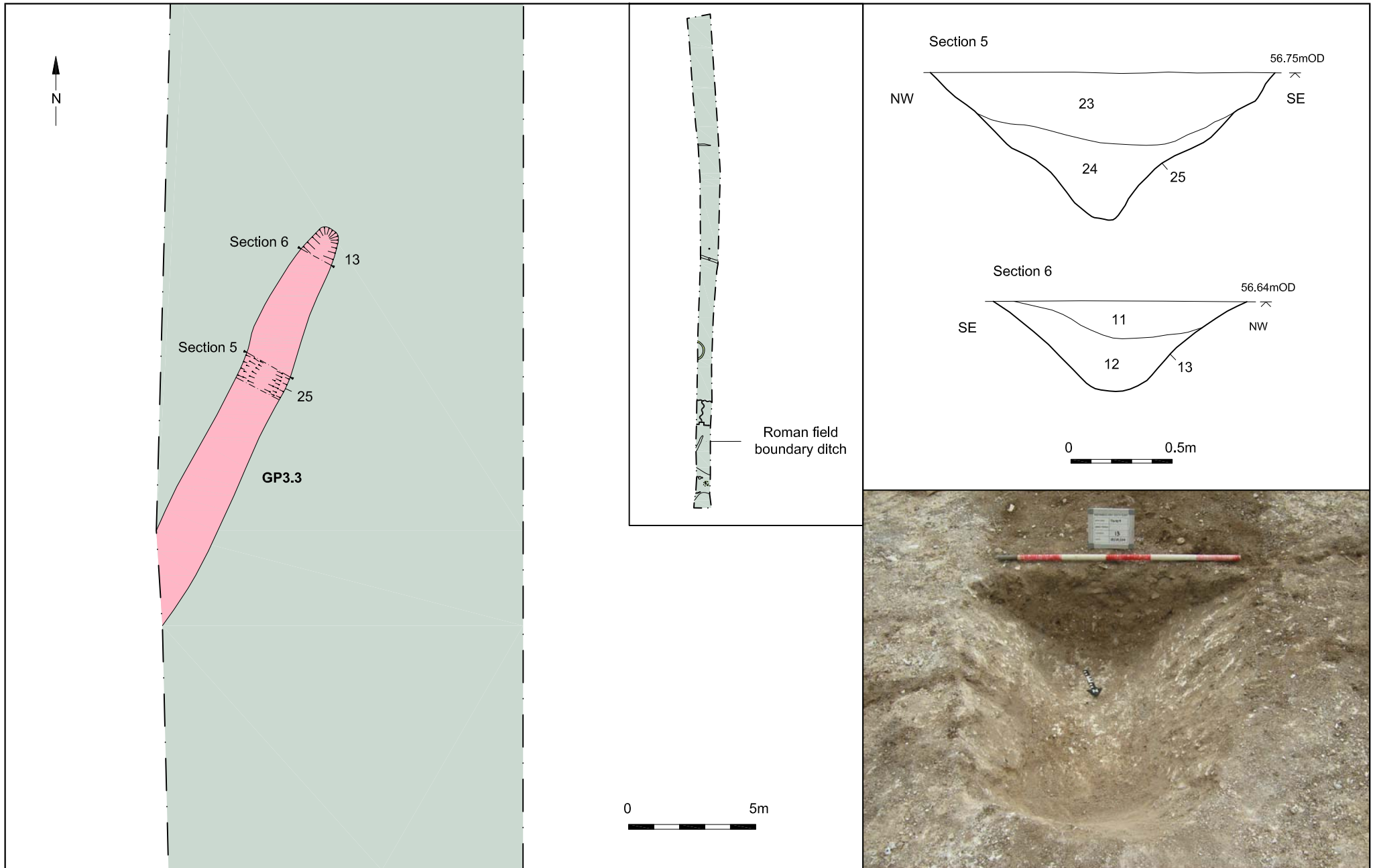
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Project Ref: 3981	Nov 2009	Site location	
Report Ref: 2009181	Drawn by: JLR	Fig. 1	

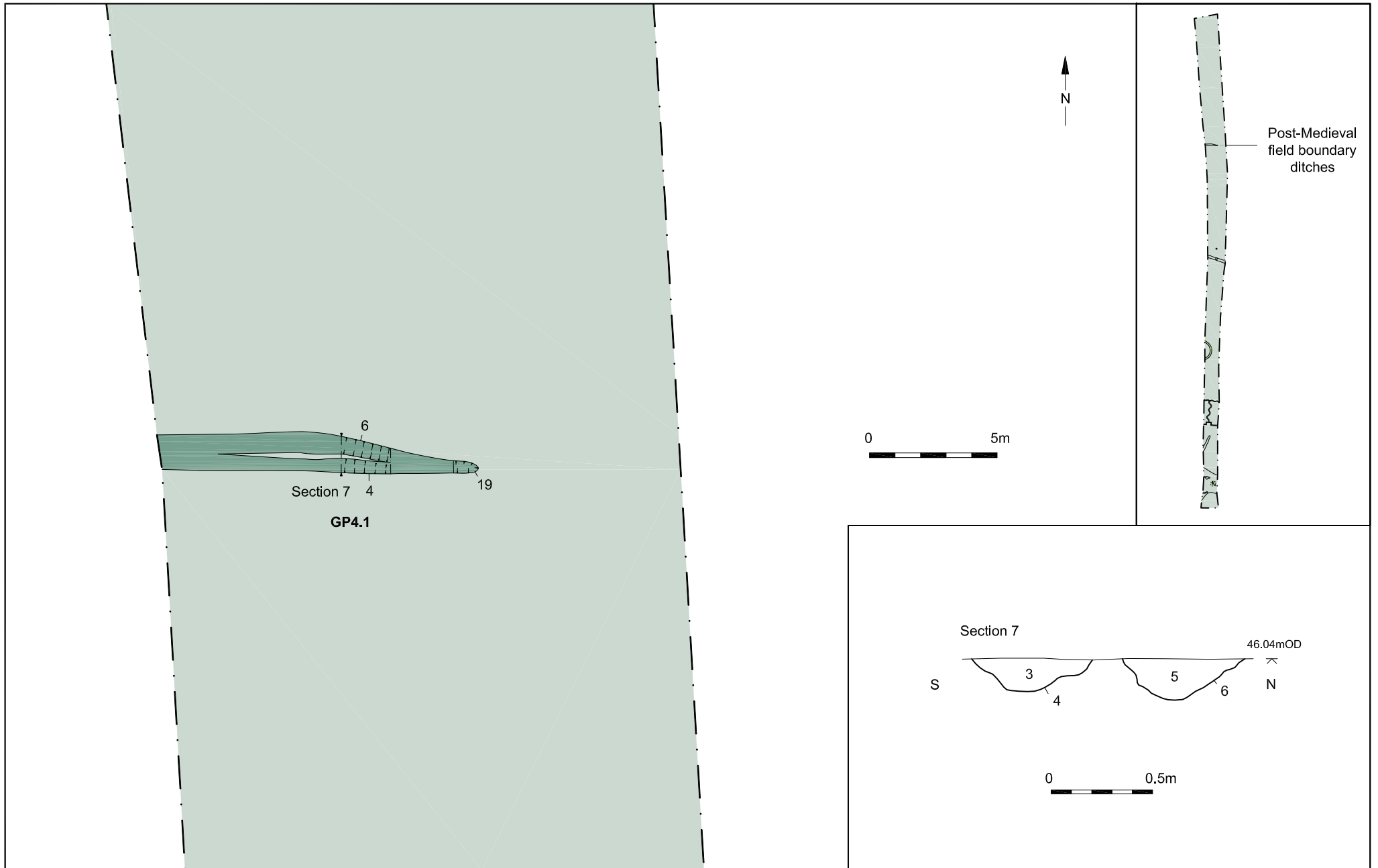


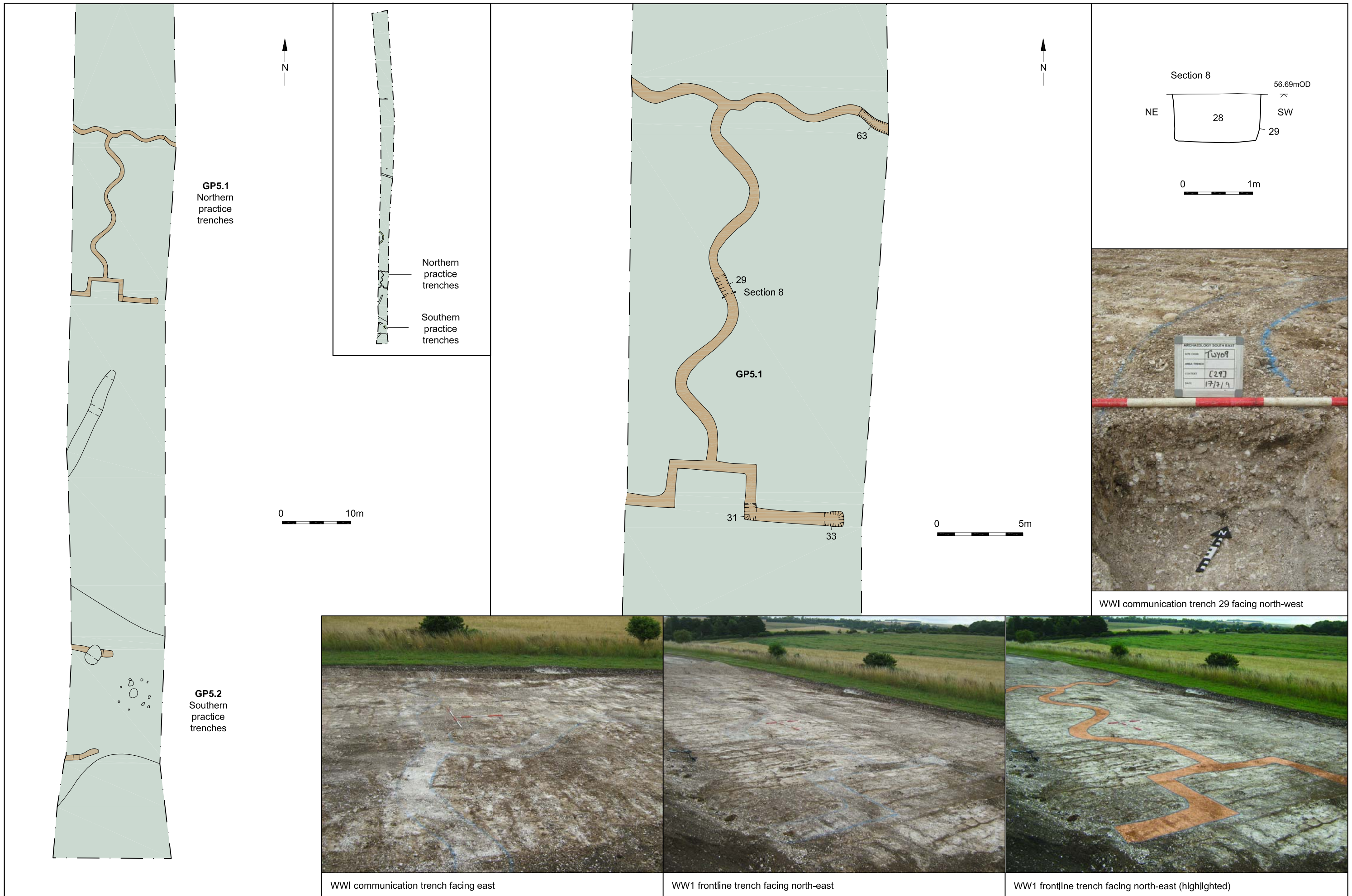
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Project Ref: 3981	Nov 2009	Site plan		
Report Ref: 2009181	Drawn by: RC/JR			

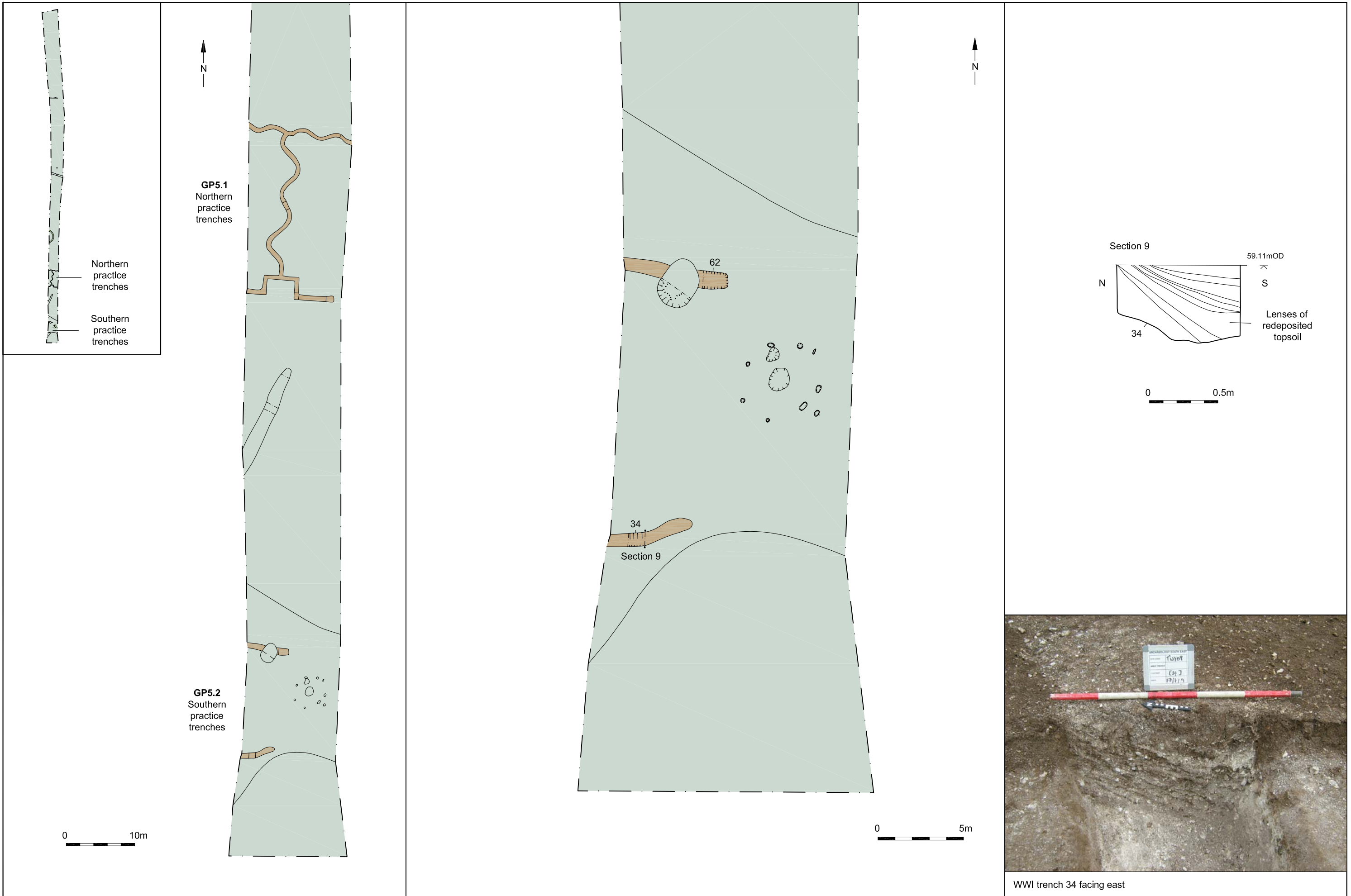


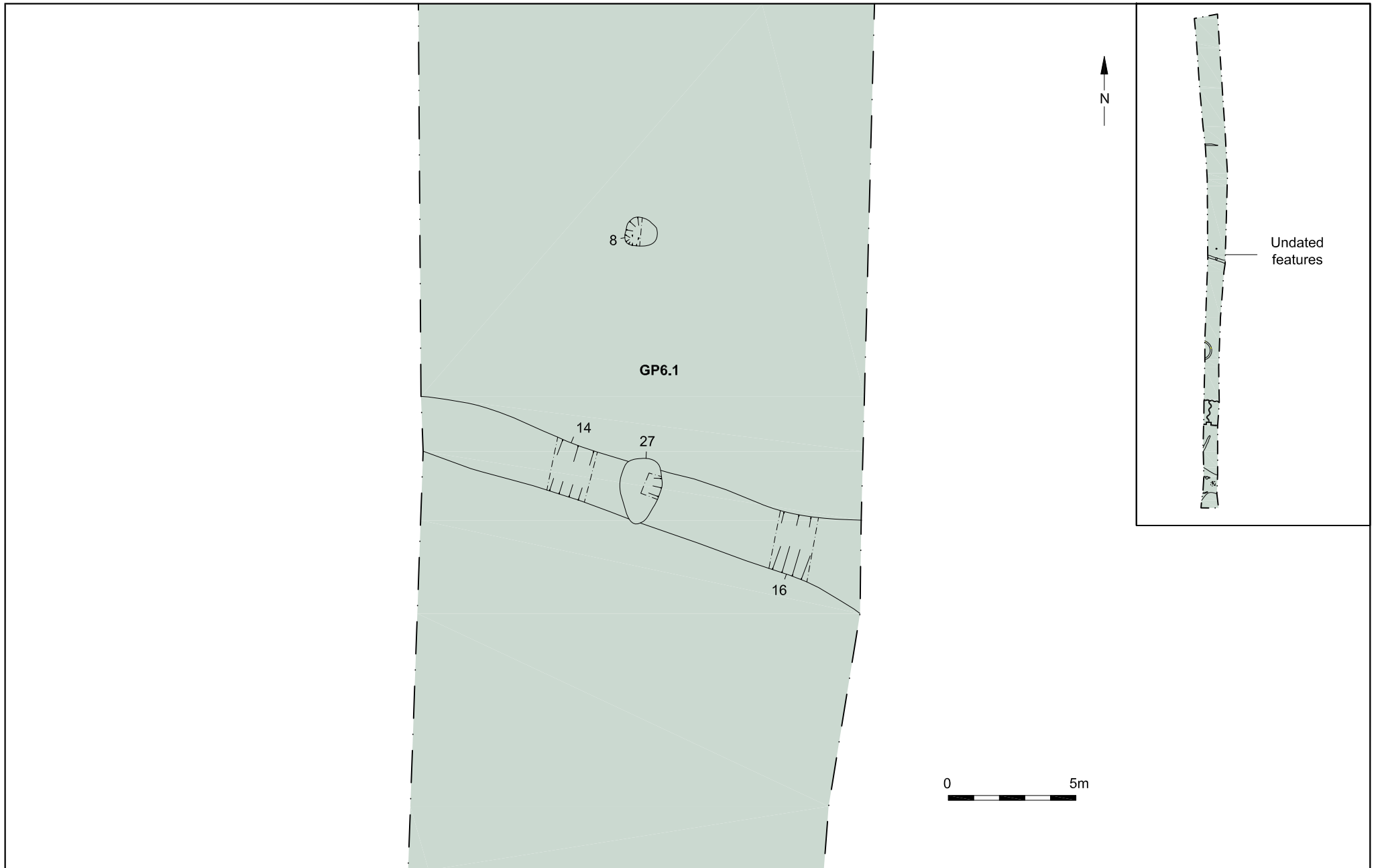


© <b>Archaeology South-East</b>		Twyford Compliance Scheme		Fig. 4
Project Ref: 3981	Nov 2009	Plans, sections and photograph of Phase 3 Roman field boundary		
Report Ref: 2009181	Drawn by: JLR			











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