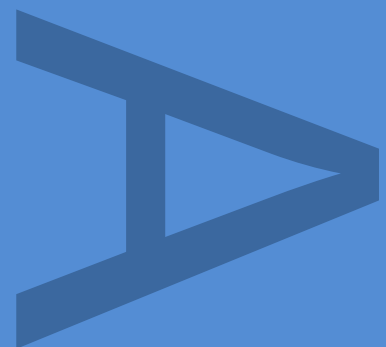


LAND OFF HILL FARM ROAD,  
FARNHAM, SUFFOLK, IP17 1LU:  
AN ARCHAEOLOGICAL TRIAL  
TRENCH EVALUATION

September 2015



PRE-CONSTRUCT ARCHAEOLOGY  
R12213

LAND OFF HILL FARM ROAD,  
FARNHAM, SUFFOLK, IP17 1LU

AN ARCHAEOLOGICAL EVALUATION

Quality Control

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## Land off Hill Farm Road, Farnham, Suffolk, IP17 1LU:

### Archaeological Trial Trench Evaluation

**Local Planning Authority:** Suffolk Coastal District Council

**Planning Reference:** Pre-application

**Central National Grid Reference:** TM 367 594

**Site Code:** ESF 23208 (evaluation) and ESF 23207 (Geophysics)

**Report No.** R 12213

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**September 2015**

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## **ABSTRACT**

*This report describes the results of an archaeological trial trench evaluation and geophysical survey carried out by Pre-Construct Archaeology on land off Hill Farm Road, Farnham, Suffolk, IP17 1LU (NGR TM 367 594) between the 24th and the 28th August 2015. The archaeological work was commissioned by Strutt and Parker prior to the redevelopment of the site as a reservoir. The aim of the work was to characterise the archaeological potential of the proposed development area.*

*The principal result of the evaluation was the identification of two phases of field boundaries dating from the Bronze Age and Iron Age periods as well as a series of Medieval pits and boundary ditches. A later field boundary was present running across the site from the northwest to the southeast. This field boundary was shown on the 1883 Ordnance Survey map of the area.*

## **1 INTRODUCTION**

- 1.1 The archaeological trial trench evaluation was undertaken by Pre-Construct Archaeology Ltd (PCA) on land off Hill Farm Road, Farnham, Suffolk, IP17 1LU (centred on Ordnance Survey National Grid Reference (OS NGR) TM 367 594) from the 24th to the 28th August 2015 (Figure 1).
- 1.2 Prior to trenching a geophysical survey was undertaken by Britannia Archaeology Ltd in August 2015 (Appendix 4), which identified a number of anomalies. These were mostly identified as ditches and pits, with little internal detail visible on the geophysical plot.
- 1.3 The archaeological work was commissioned by Strutt and Parker prior to the redevelopment of the site as a reservoir.
- 1.4 The aim of the evaluation was to determine the location, date, extent, character, condition and quality of any archaeological remains on the site, to assess the significance of any such remains in a local, regional, or national context, as appropriate, and to assess the potential impact of the development proposals on the site's archaeology
- 1.5 The evaluation was carried out in accordance with a Written Scheme of Investigation (WSI) prepared by Taleyra Fletcher of PCA (Fletcher 2015) in response to a Brief for archaeological evaluation issued by Matthew Brudenell (Brudenell 2015) of Suffolk County Councils Archaeology Service Conservation Team (SCCAS/CT).
- 1.6 A total of 14 trial trenches were excavated and recorded.
- 1.7 This report describes the results of the evaluation and aims to inform the design of an appropriate archaeological mitigation strategy. The site archive will be deposited at Suffolk County Council Archaeological Store.

## **2 GEOLOGY, LOCATION AND TOPOGRAPHY**

### **2.1 Geology**

2.1.1 The underlying geology of the site is Crag Group - Sand (British Geological Survey; Website 1). Sedimentary bedrock formed approximately 0 to 5 million years ago in the Quaternary and Neogene Periods when the local environment was dominated by shallow seas.

2.1.2 The superficial deposits are Lowestoft Formation - Diamicton (BGS; Website 1). These deposits were formed up to 2 million years ago in the Quaternary Period when the local environment was dominated by ice age conditions.

### **2.2 Location and Topography**

2.2.1 The site is located on the eastern side of Hill Farm Road, south of Farnham village. The site was most recently under crop which was removed prior to the start of the geophysical survey.

2.2.2 The site is relatively flat and lies at approximately 24m above Ordnance Datum (AOD).

### **3 ARCHAEOLOGICAL BACKGROUND**

#### **3.1 General**

3.1.1 The site lies in an area of known archaeological significance, as recorded in the Suffolk Historic Environment Record (HER). It is situated across a known archaeological cropmark recorded by aerial reconnaissance (FNM013) and is indicative of early occupation remains. It is located to the south of a prehistoric flint scatter (FNM 008) and to the east of a medieval finds scatter (FNM 004). This archaeological and historical background has been drawn from the archaeological design brief (Brudenell 2015) and a search of the HER database.

#### **3.2 Prehistoric**

3.2.1 There are several results for findspots of prehistoric artefacts within a 1km radius of the site. Three sherds of Early Neolithic to Early Bronze Age pottery were found re-deposited in a brick-lined pit in a garden in Farnham (MSF 2358), a similarly dated axehead (FNM Misc) and Neolithic flakes, scrapers and cores have all been found in the area (MSF 2355). A Late Bronze Age socketed axehead was also discovered during metal-detecting (MSF 11779).

3.2.2 Three fieldwalking surveys were carried out along the preferred route of the new A12 (FNM 006, FNM 007 and FNM 008). The first (FNM 006) recovered a widespread scatter of worked and burnt flints including 40 flakes, 1 core, 10 burnt flints and a number of small and abraded pottery fragments. A second fieldwalking survey (FNM 007) was carried out which discovered a further scatter of worked and burnt flints. The finds from this included: 24 flakes, 3 burnt flints and 8 sherds of Medieval coarse ware. The final fieldwalking survey (FNM 008) recovered similar finds including 54 flakes, 1 core, 5 burnt flints and a sherd of flint gritted Prehistoric pottery.

#### **3.3 Roman**

3.3.1 Further afield a Roman bathhouse was excavated in 1971 by Ipswich Museum. This revealed a bath house 15 feet by 9 feet with projecting bays to the east and west (FNM 001). The bath house was heavily robbed during

the medieval period with only a few hypocaust pillars and fragments of wall remaining.

### **3.4 Anglo-Saxon and Medieval**

3.4.1 The church of St. Mary is located c.800m to the south-west of the site (HER: FNM 010). There is no record of a church in the Domesday survey but much of the church retains Norman features. The church is now disused and redundant.

3.4.2 A medieval annular brooch with eight circular settings and a patterned hand-punched thimble was recovered during metal detecting (FNM 001).

3.4.3 The monitoring of various groundworks was carried out on land adjacent to Church Hill Cottages (FNM 015). A small quantity of medieval pottery was recovered from unstratified contexts on the site but no archaeological features were identified. The site did show signs of being heavily terraced which is likely to have truncated any possible archaeology.

3.4.4 A scatter of medieval artefacts was found during a fieldwalking survey of the new A12 route (FNM 004). The finds recovered include: 45 pottery sherds, lava quern, flints, tokens and silver coins dating from the 13th to 15th centuries AD.

3.4.5 A circular lead seal matrix, with flower design, inscribed SIGILL AGNETIS FILROB (seal of Agnes, daughter of Robert) was discovered during metal detecting (MSF 12004).

### **3.5 Post-Medieval**

3.5.1 A post-medieval bridge (SSA 006), which crosses the River Alde, is shown on maps of the area (Hodskinsons 1783 and Bowens 1755). The construction date for this bridge is unknown. However a possible rebuild of this bridge has the year 1804 carved on the keystone. A bridge still exists on this site.

## **4 METHODOLOGY**

### **4.1 Excavation**

4.1.1 The Written Scheme of Investigation for the evaluation proposed the excavation of fourteen trial trenches, distributed across the site (Figure 2). The trenches were located to investigate geophysical anomalies identified in a geophysical survey (Britannia 2015, Appendix 4).

4.1.2 Ground reduction was carried out under archaeological supervision using a 21-ton mechanical excavator fitted with a 1.8m-wide toothless ditching bucket. Topsoil and subsoil deposits were removed in spits down to the level of the undisturbed natural geological deposits where potential archaeological features could be observed and recorded. Exposed surfaces were cleaned by trowel and hoe as appropriate and all further excavation was undertaken manually using hand tools. Overburden deposits were set aside beside each trench and examined visually and with a metal-detector for finds retrieval.

4.1.3 Metal-detecting was carried out during the topsoil and subsoil stripping and throughout the excavation process. Archaeological features and spoilheaps were scanned by metal-detector as they were encountered/ created.

4.1.4 Field excavation techniques and recording methods are detailed in the PCA Fieldwork Induction Manual (Operations Manual I) by Joanna Taylor and Gary Brown (2009).

4.1.5 A representative sample of features were investigated and recorded in order to properly understand the date and nature of the archaeological remains on the site and to recover sufficient finds assemblages to assess the chronological development and socio-economic character of the site over time.

4.1.6 Discrete features such as pits and postholes were at least 50% excavated.

### **4.2 Recording Methodology**

4.2.1 The limits of excavations, heights above Ordnance Datum (m OD) and the locations of archaeological features and interventions were recorded using a

Leica 1200 GPS rover unit with RTK differential correction, giving three-dimensional accuracy of 20mm or better.

- 4.2.2 Section drawings of archaeological features and deposits were drawn at an appropriate scale (1:10, 1:20).
- 4.2.3 Deposits or the removal of deposits judged by the excavating archaeologist to constitute individual events were each assigned a unique record number (often referred to within British archaeology as 'context numbers') and recorded on individual pre-printed forms (Taylor and Brown 2009). Archaeological processes recognised by the deposition of material are signified in this report by round brackets (thus), while events constituting the removal of deposits are referred to here as 'cuts' and signified by square brackets [thus]. The record numbers assigned to cuts and deposits are entirely arbitrary and in no way reflect the chronological order in which events took place. All features and deposits recorded during the evaluation are listed in Appendix 2. Artefacts recovered during excavation were assigned to the record number of the deposit from which they were retrieved.
- 4.2.4 High-resolution digital photographs were taken at all stages of the evaluation process. Digital photographs were taken of all archaeological features and deposits.



## **5 ARCHAEOLOGICAL SEQUENCE**

### **5.1 Introduction**

5.1.1 The trenches are described below in numerical order, with technical data tabulated. Features and deposits are described from west to east or south to north depending on the alignment of the trench. Archaeological features and deposits were sealed by the subsoil, unless otherwise stated.

5.1.2 The trenches were located to investigate the results of a geophysical survey (Figure 2) undertaken by Britannia Archaeology Ltd (Britannia 2015, Appendix 4). This identified a number of possible archaeological features as well as a large number of probable ferrous anomalies.

### **5.2 Trench 1**

5.2.1 Trench 1 was located to investigate two intercutting narrow negative linear anomalies on the geophysical survey. These were seen truncating the topsoil and were removed before the archaeological horizon was reached. The trench contained three ditches, two aligned northeast to southwest and one aligned east to west.

5.2.2 Ditch [109] (Figures 2 & 3) was located at the south-east end of the trench. It was linear in plan, aligned east to west, with moderately sloping sides and a concave base, measuring 2.66m long, 0.58m wide and 0.18m deep. It contained a single fill (108) of mid- orange-brown silty sand which had a single sherd of abraded Bronze Age to Iron Age pottery and fragments of fired clay (1.0g). Due to the similarities in fills it is likely contemporary to ditches [105] and [107] and formed part of a larger field system.

5.2.3 Ditch [107] (Figures 2 & 3) was located to the north of [109]. It was linear in plan, aligned northeast to southwest, with slightly concave sides and a concave base, measuring 2.0m in length, 1.15m wide and 0.16m deep. It contained a single fill of mid- orange-brown silty sand (106). This feature contained 1 sherd (4g) of highly abraded Bronze Age-Iron Age pottery and two small flint trimming flakes (Pers comm. Bishop 2015).

5.2.4 Ditch [105] (Plate 2; Figures 2 & 3) was located to the north of [107]. It was

linear in plan, aligned northeast to southwest, with slight sides and a concave base, measuring 2.0m long, 0.9m wide and 0.21m deep. It contained a single fill of mid- orange-brown silty sand (104). No finds were recovered from this feature.

5.2.5 These features are likely to be boundary ditches, forming part of a larger complex of field systems. The pottery from [107] and [109] is Bronze Age to Iron Age in date. The low density of finds suggests they were not immediately close to any areas of settlement.

5.2.6 Ditch [109] has a shared alignment with Ditch [158] in Trench 3, and contains a similar fill. It is likely that these ditches are contemporary and form part of a larger complex of field systems. The finds present provide a potential prehistoric date for these features.

TRENCH 1	Figures 2-3		Plate 1-2	
Trench Alignment: NW-SE	Length: 40m	Level of Natural (m OD): 23.37-23.08m		
Deposit	Context No.	Average Depth (m)		
		SE End	NW End	
Topsoil	(100)	0.32m	0.32m	
Subsoil	(101)	0.15m	0.12m	
Natural	(102)	0.45m+	0.34m+	
<b>Summary</b>				
Trench 1 was located close to the northern boundary of the site.				
The trench contained three ditches, two aligned northeast to southwest and one aligned east to west, dating to the prehistoric period.				

### 5.3 Trench 2

5.3.1 The trench was located to investigate a large remnant field boundary and a number of other isolated dipolar anomalies. The trench contained three ditches, one aligned northwest to southeast, one north to south and one aligned east to west, and a posthole.

5.3.2 Posthole [127] (Figures 2 & 3) was circular in plan, extending beyond the northern limit of excavation, with steep sides and a concave base, measuring 0.30m wide and 0.26m deep. It had a single fill of dark grey-

brown silty sand (128) which contained a single sherd (4.0g) of Iron Age pottery.

- 5.3.3 Ditch [125] (Figures 2 & 3) was linear in plan, aligned north to south and was truncated by Ditch [123], with gradual sides and concave sides. It measured 2.3m in length, 1.40m wide and 0.26m deep. It had a single fill of reddish-brown silty sand (126), which contained two sherds (4.0g) of Iron Age and Medieval pottery. Ditch [125] truncated ditch [123].
- 5.3.4 Ditch [123] (Figures 2 & 3) was linear in plan, aligned northwest to southeast with gradually sloping sides and a concave base. It measured 1.3m long, 0.80m wide and 0.15m in depth. It contained a single fill of mid-reddish-brown silty sand. No finds were recovered from this feature. Ditch [123] was truncated by ditch [125].
- 5.3.5 Ditch [120] (Figures 2 & 3) was linear in plan, aligned northwest to southeast with straight sides and a concave base. It measured 2.1m long, 1.50m wide and 1.05m deep. It contained two fills; a lower fill (121) of mid- grey-brown silty sand containing a residual flint flake (Pers. comm. Bishop 2015) and an upper fill of (122) of dark grey-brown silty sand which contained metal fragments and three fragments of animal bone. This ditch is present on the 1883 Ordnance Survey map (Website 2).
- 5.3.6 Ditch [123] in this trench may form part of a larger complex of field systems with ditches [105], [107] and [109] in Trench 1. Ditch [120] is shown on the 1883 Ordnance Survey map as an extant field boundary (Website 2).

<b>TRENCH 2</b>	<b>Figures 2-3</b>	<b>Plate 3</b>	
Trench Alignment: NE-SW	Length: 43.1m	Level of Natural (m OD): 24.24-23.59m	
<b>Deposit</b>	<b>Context No.</b>	<b>Average Depth (m)</b>	
		<b>NE End</b>	<b>SW End</b>
Topsoil	(100)	0.31m	0.32m
Subsoil	(101)	0.04m	0.29m
Natural	(102)	0.35m+	0.63m+
<b>Summary</b>			
Trench 2 was located in the north of the site. There were four archaeological features in the			

trench: three ditches and one posthole.

## 5.4 Trench 3

- 5.4.1 The trench was targeted on two linear anomalies in the geophysical survey, one identified as a remnant field boundary and the second a possible furrow, as well as two isolated dipolar responses. Upon excavation the furrow was larger and deeper than expected and is likely to be a larger boundary ditch.
- 5.4.2 The trench contained three ditches, two aligned northwest to southeast and one aligned roughly east to west, as well as a small pit.
- 5.4.3 Ditch [158] (Figures 2 & 5) was linear in plan, aligned east to west, with steep sides and a concave base. It measured 4.3m long, 0.55m wide and 0.12m in depth. It contained a single fill of mid orange-brown silty sand (159).
- 5.4.4 Ditch [156] (Figures 2 & 5) was linear in plan, aligned northwest to southeast, with steep straight sides and a flat base. The ditch measured 2.1m long, 1.70m wide and 0.58m deep. It contained a single fill (157) of mid orange-brown silty sand.
- 5.4.5 Pit [154] (Figures 2 & 5) was sub-circular in plan, extending beyond the southern limit of excavation, with gradually sloping sides and a concave base. It measured 0.55m wide and 0.06m in depth. It contained a single fill of mid orange-brown silty sand (155) which contained no finds.
- 5.4.6 A further ditch was identified but not excavated due to the ditch being excavated in Trenches 2 and 8. This ditch was identified in the geophysical survey and also is shown on the 1883 Ordnance Survey map (Website 2).
- 5.4.7 Ditch [158] has a shared alignment with Ditch [109] in Trench 1 and [123] in Trench 2, and contains a similar fill. It is likely that these ditches are contemporary and form part of a larger complex of field systems.

TRENCH 3	Figures 2 & 5	Plate 4
Trench Alignment: NE-SW	Length: 42.5m	Level of Natural (m OD): 23.35-22.52m

Deposit	Context No.	Average Depth (m)	
		SW End	NE End
Topsoil	(100)	0.32m	0.35m
Subsoil	(101)	0.14m	0.15m
Natural	(102)	0.46m+	0.50m+
<b>Summary</b>			
Trench 3 was located towards the north-east corner of the site.			
The trench contained three ditches, one not excavated, and a small pit.			

## 5.5 Trench 4

5.5.1 The trench was located to investigate the terminus of a potential furrow seen in the geophysical survey. The trench contained no archaeological features.

TRENCH 4	Figure 2	Plate n/a	
Trench Alignment: NE-SW	Length:42.2m	Level of Natural (m OD): 24.36-24.19m	
Deposit	Context No.	Average Depth (m)	
		SW End	NE End
Topsoil	(100)	0.28m	0.24m
Subsoil	(101)	0.31m	0.32m
Natural	(102)	0.58m+	0.21m+
<b>Summary</b>			
Trench 4 was located in the western part of the site.			
No archaeological features were identified in the trench.			

## 5.6 Trench 5

5.6.1 The trench was located to investigate a series of isolated dipolar responses identified in the geophysical survey. These were not related to archaeological features, and were likely to be responses from ferrous objects in the topsoil and subsoil.

5.6.2 The trench contained a single ditch aligned north to south.

5.6.3 Ditch [130] (Figures 2 & 4) was linear in plan, aligned north to south extending beyond both limits of excavation, with steep sides and a concave base. It measured 5.5m long, 1.20m wide and 0.32m deep. It contained a

single fill of mid grey-brown silty sand. The feature contained no finds.

- 5.6.4 Due to shared alignments and similar morphology Ditch [130] is likely to be contemporary with Ditches [105], [109] and [158] forming part of a larger complex of field systems. This is further accentuated by the similarities in the fills of these ditches.

<b>TRENCH 5</b>		<b>Figures 2 &amp; 4</b>		<b>Plate n/a</b>	
Trench Alignment: NW-SE		Length:42m		Level of Natural (m OD): 23.93-22.99m	
<b>Deposit</b>		<b>Context No.</b>		<b>Average Depth (m)</b>	
				<b>SE End</b>	<b>NW End</b>
Topsoil		(100)		0.33m	0.28m
Subsoil		(101)		0.31m	0.36m
Natural		(102)		0.71m+	0.64m+
<b>Summary</b>					
Trench 5 was located in the centre of the site.					
A single ditch, aligned north to south, was identified in the trench. No finds were present in this feature.					

## 5.7 Trench 6

- 5.7.1 The trench was located to investigate the presence of a series of northwest to southeast aligned positive linear anomalies, identified in the geophysical survey as being potential furrows. A potential area of geological disturbance was also identified. Upon excavation the potential furrows proved to be wider and deeper than would be expected and so are likely to be larger boundary ditches or intercutting pits.
- 5.7.2 The trench identified three ditches aligned northwest to southeast, as well as two large sub-rectangular pits and a potential palaeochannel or pond remnant.
- 5.7.3 Ditch [149] (Plate 6; Figures 2 & 6) was linear in plan, aligned northwest to southeast and extended beyond the limits of excavation, with moderately sloping sides and a concave base. It measured 2.0m long, 0.66m wide and 0.16m in depth. It contained a single fill of mid grey-brown silty sand (148).

No finds were recovered from this ditch. Ditch [149] truncated Pit [153].

- 5.7.4 Pit [153] (Plate 6; Figures 2 & 6) was sub-rectangular in plan, continuing beyond the southern limit of excavation and being truncated by Ditch [149]. It had steep, almost vertical sides and a flat base. It measured 1.9m long, 2.10m wide and 0.90m+ deep, with excavation stopped at this depth due to safety concerns. It contained a basal fill of light yellowish-grey silty sand (152) measuring 0.30m in depth, a middle fill of light yellow-grey silty sand (151) 0.10m in depth, and an upper fill of mid grey-brown silty sand (150) 0.82m deep. No finds were present in this feature. Pit [153] was truncated by Ditch [149].
- 5.7.5 Pit [168] (Figures 2 & 6) was sub-rectangular in plan, continuing beyond the southern limit of excavation and was truncated by Ditch [166]. It had steep, near vertical sides and a flat base. It measured 2.0m long, 1.42m wide and 1.08m in depth. It contained a lower fill of pale grey-brown silty sand (169) 0.54m deep, a middle fill of mid orange-brown silty clay (170) 0.16m deep and an upper fill of dark grey-brown silty sand (171) 0.60m deep. No finds were present in this feature.
- 5.7.6 Ditch [166] (Figures 2 & 6) was linear in plan, aligned northwest to southeast and extended beyond the limits of excavation, with steep sides and a flat base. It measured 2.0m long, 1.28m wide and 0.92m in depth. It contained a single fill of mid grey-brown silty sand (167). No finds were recovered from this feature. Ditch [166] truncated Pit [168].
- 5.7.7 Ditch [164] (Figures 2 & 6) was linear in plan, aligned northwest to southeast and extended beyond the limits of excavation, with steep sides and a flat base. It measured 2.0m long, 2.40m wide and 0.54m deep containing a single fill of mid orange-brown silty sand (165).
- 5.7.8 An alluvial deposit (103) was present at the north-eastern end of the trench. This consisted of a deposit of blue-grey silty sand 0.66m in depth. It is likely that this represents a small stream or a former pond, which is reasonable when viewed alongside evidence from old maps of the local area, for instance the presence of Pond Wood, Pond Barn and Pond Barn Cottages in

the immediate area (Website 2).

5.7.9 The identification of [166] and [164] as ditches may be misleading, with the geophysics only identifying segments of these ditches in Trenches 6 and 10. However with the projected alignments joining up neatly with the slots dug in Trench 10 this provides compelling evidence that they do in fact form continuous ditches. It is worth noting, however, that it is possible that they may represent more isolated rectangular pits used possibly for marl or gravel extraction. The regularity in form and depth of the ditches indicates that they are not geological in origin.

5.7.10 Due to the shared alignments and similarities in fills it is reasonable to say that Ditches [166] and [164] are contemporary.

<b>TRENCH 6</b>	<b>Figures 2 &amp; 6</b>		<b>Plates 5-6</b>	
Trench Alignment: NE-SW	Length: 42m	Level of Natural (m OD): 23.57-23.0m		
<b>Deposit</b>	<b>Context No.</b>	<b>Average Depth (m)</b>		
		<b>SW End</b>	<b>NE End</b>	
Topsoil	(100)	0.23m	0.28m	
Subsoil	(101)	0.36m	0.35m	
Alluvium	(103)	-	0.66m	
Natural	(102)	0.59m+	0.63m+	
<b>Summary</b>				
Trench 6 was located centrally within the site.				
There were five archaeological features in the trench: three ditches, and two pits with a deposit of alluvium at the northeast end of the trench.				

## 5.8 Trench 7

5.8.1 The trench was located to investigate a remnant field boundary identified in the geophysical survey as well as a positive linear anomaly, identified in the geophysics report as a possible furrow, and an isolated dipolar anomaly (Figure 2). Both the linear and isolated dipolar anomaly were not seen in the trench.

5.8.2 The trench identified only the modern field boundary, present on the 1883 Ordnance Survey map of the area. This ditch was not excavated but was



investigated in Trenches 2 and 8.

TRENCH 7	Figure 2		Plate n/a	
Trench Alignment: NE-SW	Length: 42m	Level of Natural (m OD): 22.86-22.33m		
Deposit	Context No.	Average Depth (m)		
		SW End	NE End	
Topsoil	(100)	0.22m	0.28m	
Subsoil	(101)	0.24m	0.18m	
Natural	(102)	0.46m+	0.44m+	
<b>Summary</b>				
<p>Trench 7 was located on the eastern limit of the site.</p> <p>A single modern field boundary was identified, but not excavated due to it being investigated in Trenches 2 and 8.</p>				

## 5.9 Trench 8

5.9.1 The trench was located to investigate a positive linear anomaly and part of a remnant field boundary seen on the geophysical survey.

5.9.2 This trench contained two ditches, aligned northwest to southeast. One was located at the southwest end of the trench with the second present midway along the trench.

5.9.3 Ditch [145] (Plate 8; Figures 2 & 5) was linear in plan, aligned northwest to southeast extending beyond the limits of excavation, with steep near vertical sides and a flat base. It measured 2.0m long, 1.39m wide and 0.54m deep. It contained two fills; a lower deposit of mixed grey-brown and orange-brown silty clay (144) 0.22m in depth, and an upper fill of dark grey-brown silty sand (143) 0.44m deep. No finds were recovered from this feature.

5.9.4 Ditch [147] (Plate 9; Figures 2 & 5) was linear in plan, aligned northwest to southeast extending beyond the limits of excavation, with steep sides and a concave base. It measured 2.0m long, 0.96m wide and 0.44m deep containing a single fill of dark grey silty sand (146). Ditch [147] is part of a modern field boundary which is shown on the 1883 Ordnance Survey map, and is also present in Trenches 2, 3 and 7. No finds were recovered from

this feature.

<b>TRENCH 8</b>	<b>Figures 2 &amp; 5</b>		<b>Plates 7-10</b>	
Trench Alignment: NE-SW	Length: 40m	Level of Natural (m OD): 22.14-21.64m		
<b>Deposit</b>	<b>Context No.</b>	<b>Average Depth (m)</b>		
		<b>SW End</b>	<b>NE End</b>	
Topsoil	(100)	0.22m	0.22m	
Subsoil	(101)	0.3m	0.22m	
Natural	(102)	0.52m+	0.44m+	
<b>Summary</b>				
Trench 8 was located in the south-eastern part of the site. Two ditches were identified within the trench, one a modern field boundary shown on the 1883 Ordnance Survey map.				

## 5.10 Trench 9

5.10.1 The trench was located to investigate two isolated dipolar anomalies identified in the geophysical survey. No archaeological features or deposits were identified in this trench, with the anomalies likely relating to ferrous responses in the topsoil or subsoil (Figure 2).

<b>TRENCH 9</b>	<b>Figure 2</b>		<b>Plates n/a</b>	
Trench Alignment: NW-SE	Length: 43m	Level of Natural (m OD): 22.28-21.62m		
<b>Deposit</b>	<b>Context No.</b>	<b>Average Depth (m)</b>		
		<b>SE End</b>	<b>NW End</b>	
Topsoil	(100)	0.20m	0.22m	
Subsoil	(101)	0.31m	0.45m	
Natural	(102)	0.51m+	0.67m+	
<b>Summary</b>				
Trench 9 was located in the south-eastern part of the site. No archaeological features or deposits were identified in the trench.				

## 5.11 Trench 10

5.11.1 The trench was positioned to investigate a series of geophysical anomalies

possibly relating to agricultural furrows as well as isolated dipolar anomalies (Figure 2). These anomalies were wider and deeper than would be expected for furrows and are likely to be larger boundary ditches or intercutting pits.

5.11.2 The trench revealed two ditches aligned northwest to southeast and two intercutting sub-rectangular pits.

5.11.3 Pit [134] (Figures 2 & 6) was sub-rectangular in plan, extending beyond the southern limit of excavation and was truncated by Pit [137]. It had steep near vertical sides and a flat base and measured 1.2m long, 1.70m wide and 0.92m deep. It contained three fills; a basal deposit of pale orange-brown sandy clay (133) 0.26m in depth, a middle fill of mid orange-brown silty sand (132) 0.41m deep, and an upper fill of orange-brown silty sand (131) 0.40m deep. This pit contained a single sherd (2.0g) of Saxo-Norman pottery.

5.11.4 Pit [137] (Plate 11; Figures 2 & 6) was sub-rectangular in plan, extending beyond the northern limit of excavation and truncated Pit [134]. It had steep near vertical sides and a flat base and measured 1.2m long, 1.30m wide and 0.96m deep. It contained two fills; a basal fill of mid orange-brown silty sand (136) 0.26m deep, and an upper fill of mid orange-brown silty sand (135) 0.70m deep. This pit contained five sherds (34.0g) of pottery dating from between c. 900-1400AD.

5.11.5 Ditch [140] (Figures 2 & 6) was linear in plan, aligned northwest to southeast parallel to Ditch [160] and extended beyond the limits of excavation. It had steep near vertical sides and a flat base and measured 2.0m long, 1.98m wide and 0.83m deep. It contained two fills; a basal fill of pale orange-brown silty sand (139) 0.33m in depth and an upper fill of mid orange-brown silty sand (138) 0.54m in depth. No finds were recovered from this feature.

5.11.6 Ditch [160] (Plate 12; Figures 2 & 6) was linear in plan, aligned northwest to southeast parallel to Ditch [140] and extended beyond the limits of excavation. It had steep sides and a flat base and measured 2.0m long 2.90m wide and 0.80m deep. It contained three fills; a lower fill of mid grey-brown silty sand (161) 0.80m in depth, and two slumps of orange-brown clay (162) and (163). No finds were recovered from this ditch.

5.11.7 The identification of [140] and [160] as ditches may be misleading, as the geophysical survey only identified segments of ditches in Trenches 6 and 10. However with the projected alignments neatly joining up with the slots dug in Trench 6 this provides convincing evidence that they are continuous ditches. It is worth noting, however, that it is possible that they may represent rectangular pits used possibly for marl or gravel extraction. The regularity and depth of the ditches is a good indicator that they are not geological in origin.

5.11.8 Due to the shared morphology and fill types it is reasonable to say that Ditches [140], [160], [166] and [164] are contemporary.

<b>TRENCH 10</b>	<b>Figures 2 &amp; 6</b>	<b>Plate 10-12</b>	
Trench Alignment: NE-SW	Length: 42m	Level of Natural (m OD): 22.92-22.51m	
<b>Deposit</b>	<b>Context No.</b>	<b>Average Depth (m)</b>	
		<b>SW End</b>	<b>NE End</b>
Topsoil	(100)	0.24m	0.26m
Subsoil	(101)	0.17m	0.10m
Natural	(102)	0.41m+	0.35m+
<b>Summary</b>			
Trench 10 was located in the southwest corner of the site.			
The trench contained two ditches and two intercutting sub-rectangular pits. The pits produced pottery of Saxon and Medieval date.			

## 5.12 Trench 11

5.12.1 The trench was positioned to investigate two geophysical anomalies (Figure 2).

5.12.2 The trench identified two ditches both aligned northwest to southeast.

5.12.3 Ditch [115] (Figures 2 & 7) was linear in plan, aligned northwest to southeast and extended beyond the limits of excavation. It had moderate to steep sides and a concave base and measured 2.2m long, 0.80m wide and 0.30m in depth. It contained a single fill of grey-brown silty sand (114). No finds were recovered from this feature.

5.12.4 Ditch [142] (Figures 2 & 7) was linear in plan, aligned northwest to southeast and extended beyond the limits of excavation. It had steep sides and a concave base and measured 2.15m long, 0.75m wide and 0.26m deep, containing a single fill of grey-brown silty sand (141). No finds were recovered from this feature.

5.12.5 Ditch [142] and Ditch [149] (Figures 2 & 7) in Trench 6 are part of the same boundary, and are significantly shallower than the other ditches identified in Trenches 6 and 10. This boundary is likely to represent a final shift in field alignment mirroring the alignment of the boundary identified on the 1883 Ordnance Survey map. No finds were recovered to provide a date.

TRENCH 11	Figures 2 & 7	Plate n/a	
Trench Alignment: NE-SW	Length: 42m	Level of Natural (m OD): 22.96-22.47m	
Deposit	Context No.	Average Depth (m)	
		SW End	NE End
Topsoil	(100)	0.22m	0.21m
Subsoil	(101)	0.14m	0.16m
Natural	(108)	0.35m+	0.38m+
<b>Summary</b>			
Trench 11 was located in the south-eastern corner of the site.			
The trench contained two ditches, both aligned northwest to southeast.			

### 5.13 Trench 12

5.13.1 The trench was positioned to investigate a positive linear anomaly identified in the geophysical survey as well as two isolated dipolar anomalies (Figure 2). Trench 14 was positioned midway along the trench running perpendicular to Trench 12.

5.13.2 The trench uncovered a single ditch aligned north to south, but found no evidence for the positive linear anomaly identified in the geophysical survey.

5.13.3 Ditch [111] (Figures 2 & 8) was linear in plan, aligned north to south and extended beyond the limits of excavation. It had moderately sloping sides and a concave base. It measured 2.3m long, 0.76m wide and 0.22m deep

and contained a single fill of mid grey-brown silty sand (110). No finds were recovered from this feature.

5.13.4 Ditches [111], [113], [117] and [119] are likely to be contemporary due to morphological similarities and shared alignments, and are likely to form part of a larger complex of field systems. No dating evidence was recovered from these ditches, however they share a similar alignment to ditches [109] and [158] which returned a potential prehistoric date.

<b>TRENCH 12</b>	<b>Figures 2 &amp; 8</b>	<b>Plate 13</b>	
Trench Alignment: NW-SE	Length: 42m	Level of Natural (m OD): 22.96-22.47m	
<b>Deposit</b>	<b>Context No.</b>	<b>Average Depth (m)</b>	
		<b>SE End</b>	<b>NW End</b>
Topsoil	(100)	0.28m	0.28m
Subsoil	(101)	0.10m	0.08m
Natural	(102)	0.38m+	0.36m+
<b>Summary</b>			
Trench 12 was located in the south-western corner of the site.			
The trench contained a single ditch aligned north to south.			

## 5.14 Trench 13

5.14.1 The trench was positioned to investigate an anomaly picked up by the geophysical survey. This proved to be caused by a ferrous object in the topsoil or subsoil.

5.14.2 The trench identified two ditches, both aligned east to west, located at the north-west end of the trench.

5.14.3 Ditch [117] (Figures 2 & 8) was linear in plan, aligned east to west and extended beyond the limits of excavation, with steep sides and a flat base. The ditch was parallel to Ditch [119] to the north. It measured 2.4m long, 0.86m wide and 0.36m deep containing a single fill of pale grey-brown silty sand. No finds were recovered from this feature.

5.14.4 Ditch [119] (Plate 14; Figures 2 & 8) was linear in plan, aligned east to west and extended beyond the limits of excavation, with moderately sloping sides and a flat base. It was parallel to Ditch [117] to the south. It was 2.2m long,

0.98m wide and 0.28m in depth containing a single fill of pale grey-brown silty sand. No finds were recovered from this feature.

5.14.5 Ditches [111], [113], [117] and [119] are likely to be broadly contemporary due to morphological similarities and shared alignments, and are likely to form part of a larger complex of field systems. No dating evidence was recovered from these ditches, however they share a similar alignment to ditches [109] and [158] which returned a potential prehistoric date.

<b>TRENCH 13</b>	<b>Figures 2 &amp; 8</b>	<b>Plate 14</b>	
Trench Alignment: NW-SE	Length: 43m	Level of Natural (m OD): 24.31-23.63m	
<b>Deposit</b>	<b>Context No.</b>	<b>Average Depth (m)</b>	
		<b>SE End</b>	<b>NW End</b>
Topsoil	(100)	0.30m	0.32m
Subsoil	(101)	0.22m	0.30m
Natural	(102)	0.52m+	0.62m+
<b>Summary</b>			
Trench 13 was located in the eastern corner of the site.			
Two ditches were identified in the trench both aligned east to west, neither produced any finds.			

## 5.15 Trench 14

5.15.1 The trench was positioned to investigate a positive linear anomaly identified in the geophysical survey, but was not seen after excavation of the trench.

5.15.2 One ditch, aligned north to south, was identified at the north-eastern end of the trench.

5.15.3 Ditch [113] (Figures 2 & 8) was linear in plan, aligned north to south and extended beyond the limits of the excavation, with steep sides and a concave base. It measured 3.3m long, 0.56m wide and 0.26m in depth containing a single fill of mid grey-brown silty sand (112). No finds were recovered from this feature.

5.15.4 Ditches [111], [113], [117] and [119] are likely to be broadly contemporary due to morphological similarities and shared alignments, and are likely to

form part of a larger complex of field systems. No dating evidence was recovered from these ditches, however they share a similar alignment to ditches [109] and [158] which are potentially of prehistoric date.

<b>TRENCH 14</b>	<b>Figures 2 &amp; 8</b>		<b>Plate n/a</b>	
Trench Alignment: NE-SW	Length: 23m	Level of Natural (m OD): 23.61-23.58m		
<b>Deposit</b>	<b>Context No.</b>	<b>Average Depth (m)</b>		
		<b>SW End</b>	<b>NE End</b>	
Topsoil	(100)	0.36m	0.32m	
Subsoil	(101)	0.10m	0.20m	
Natural	(102)	0.38m+	0.52m+	
<b>Summary</b>				
Trench 14 was located in the south-eastern corner of the site.				
A single ditch was identified in the trench aligned north to south. No finds were recovered from this feature.				



## 6 THE FINDS

### 6.1 Pottery

#### By Berni Sudds

##### Introduction

6.1.1 A very small assemblage of pottery was recovered from site, totalling 12 sherds and weighing just 50g. A catalogue of the pottery appears below in Table 1.

##### Assemblage Composition

6.1.2 Four sherds of pre-historic pottery were recovered, characterised by flint and quartz inclusions. On balance an Iron-Age date is most likely for this material given the range of inclusions present, although a Bronze Age, and Early Saxon date in the case of the coarse quartz-tempered sherd from [128], cannot be definitively ruled out. The pottery from the larger ditches and pits is of late Saxon and medieval date, amounting to seven sherds, and the range of types identified can be well-paralleled regionally.

Context	Fabric code	Common Name	Description	No.	Wg (g)	Date range
106	BA/IAFT	Flint-tempered	Abraded body sherd tempered with flint (some of which calcined) and quartz)	1	4	Bronze Age – Iron Age
108	-	Quartz and flint-tempered	Small abraded body sherd tempered with quartz and flint	1	1	Bronze Age – Iron Age
	-	Fired clay	Small fragmentary crumbs	1	1	-
126	IAFF	Fine flint-tempered	Small body sherd, fairly smooth surfaces.	1	3	Iron Age
	MISC SAND	Sand-tempered ware	Very small body/ base sherd	1	1	Medieval
128	IAQT	Coarse quartz-tempered ware	Body sherd. Oxidised surface and outer margin.	1	4	Iron Age

134	THET	Thetford-type ware	Base sherd. Post-depositional discolouration. External sooting.	1	2	900 – 1150
135	STNE	St Neots-type ware	Small abraded body sherd, most of shell leached.	1	1	900 – 1150
	EMW	Early medieval ware	Sagging base sherds. Grey core, partially oxidised surfaces. Some abrasion.	2	20	1000 – 1200
	MCW/ HCW	Medieval coarseware	Hard. Mid-grey core and oxidised outer surface. External sooting. Possibly a Hedingham coarseware.	1	3	1175 – 1400
	HOLL	Hollesley-type ware	Thumbbed base sherd. Abraded.	1	10	1275 – 1400

Table 1: Catalogue of the pottery.

## Discussion

- 6.1.3 The condition of the pottery of all periods is poor, being highly fragmentary and abraded. It is likely that the majority is re-deposited, and aside for determining the presence of prehistoric, late Saxon and medieval activity in the vicinity of site, has little intrinsic merit.

## 6.2 Faunal Remains

### By Kevin Rielly

#### Introduction

- 6.2.1 This site is situated close to the village of Farnham, some 15 miles north-east of Ipswich and 6 miles due west of the Suffolk coast. A small quantity of animal bones was hand recovered from only the 'modern' boundary ditch.

#### Methodology

- 6.2.2 The bone was recorded to species/taxonomic category where possible and to size class in the case of unidentifiable bones such as ribs, fragments of longbone shaft and the majority of vertebra fragments. Recording follows the established techniques whereby details of the element, species, bone portion, state of fusion, wear of the dentition, anatomical measurements and taphonomic including natural and anthropogenic modifications to the bone were registered.

### Description of the Faunal Assemblage

- 6.2.3 The hand recovered collection amounted to just 3 fragments, all taken from fill (121) within the 'modern' ditch [120]. No dating evidence was found in this feature. They include a sheep/goat radius and 2 rabbit bones, a radius and a tibia. These last two bones are unlikely to represent the same animal, the former possibly from a sub-adult and the latter from an adult individual. Notably there is a mixed range of preservation states, the sheep/goat radius with slight abrasion at the proximal end and the rabbit radius with severe erosion, also at the proximal end.

### Conclusion and Recommendations for Further Work

- 6.2.4 The site provided a rather small collection, the mix of preservation states suggesting a degree of redeposition. While probably deleterious regarding the close dating of these finds, it is worth noting that two out of the three bones were rabbit, a species which would be expected to be under represented given a high level of disturbance, this promoting fragmentation. Clearly there is some movement but not sufficient to greatly affect bone preservation. It can perhaps be supposed that the levels of fragmentation were higher amongst the 'furrow' deposits, this explaining the absence of faunal material.
- 6.2.5 It can be assumed that further excavation will provide more bones, at least regarding further sections of the boundary ditches. However there is clearly a rather poor potential for the recovery of sufficient bones to provide any meaningful analysis of animal usage in this locality.

## **7 DISCUSSION & CONCLUSIONS**

### **7.1 Prehistoric Activity**

7.1.1 The evaluation identified a complex of boundary ditches relating to activity during the Bronze Age or Iron Age. These were seen in Trenches 1-3, 5 and 11-14. Two phases of prehistoric activity can be tentatively suggested, with the ditches either on a north-south, east-west alignment or a northeast-southwest, northwest-southeast alignment.

7.1.2 It is likely that some of the ditches identified in the trenches represent continuations of the same features and likely form larger field systems: Ditches [111], [119], and [113] (Trenches 12-14) along with [107] and [109] (Trench 1) form part of a rectilinear field system aligned north to south. Ditches [130] (Trench 5), [125] (Trench 2), [105] (Trench 1) most likely make up part of a rectilinear field system aligned northeast to southwest. These ditches were generally narrow and shallow, with a low density of finds. Ditches [107] and [109] produced pottery of Bronze Age and Iron Age date, but the highly abraded nature of the sherds indicates that the ditches were likely to be field boundaries located away from the main area of settlement.

7.1.3 The second phase of field systems was located primarily in the north of the site (Trenches 1, 2, 3 & 5). These are on a slightly different alignment to the previous prehistoric alignment. These produce very little in terms of finds with only three sherds of Iron Age pottery recovered, indicating a shift in axis in this period.

### **7.2 Medieval Activity**

7.2.1 These boundary ditches were focused in the north and southwest of the site (Trenches 1-6 and 10-14). Three, potentially segmented, large ditches and four large pits were also uncovered in Trenches 6 and 10.

7.2.2 Ditches [142], [140], [160], [149], [166] and [164] (Trenches 6, 10 and 11) formed a series of parallel northwest to southeast aligned field boundary ditches. Due to their largely differing alignments these are likely to represent a gradually evolving series of field systems with alignments adjusted over the course of time.

7.2.3 A Saxon/Medieval period is also represented by a series of northwest to southeast aligned ditches and pits. These were very different in shape and form to the other boundaries identified on the site, which provides further evidence for a potential prehistoric origin for the site.

### **7.3 Post-Medieval Activity**

7.3.1 A remnant field boundary was identified running across the site from northwest to southeast, through Trenches 2, 3, 7 and 8. This was modern in date and is shown on the 1883 Ordnance Survey map. The lack of finds indicates the boundary is an outfield boundary, located away from settlement areas.

### **7.4 Conclusions**

7.4.1 The trial trench evaluation has identified features reflecting two main periods of activity on the site: an initial prehistoric period (Bronze Age to Iron Age) and later Saxon-Norman/Medieval activity (c. 900-1400 AD).

7.4.2 The archaeological features and deposits from the prehistoric period are poorly preserved with evidence for intensive ploughing on the site heavily truncating activity from this period. The later Saxon/Medieval activity is relatively well preserved surviving beneath fairly deep overburden deposits in a number of trenches.

7.4.3 Systems of similar, generally narrow and shallow, boundary ditches have been excavated across this part of Suffolk. Where datable material has been present, the ditches have been found to belong to a range of different time periods, beginning in the Bronze Age, and continuing through the Iron Age, Roman, Anglo-Saxon, medieval and post-medieval periods. However, as with the ditches in the trial trenches, finds tend to be extremely scarce in field boundary ditches, particularly prehistoric ones, even when, as at Alnesbourn Crescent, they are subject to 50-100% excavation (Woolhouse 2014a). Similarly extensive sampling of field ditches at Area T, Ravenswood and Main Road, Martlesham also failed to yield more than a few small fragments of later prehistoric pottery (Jones 2015; Woolhouse 2014b).

7.4.4 The character of the features and the associated finds is in keeping with a

rural site, and suggests activity of prehistoric, Saxon and medieval date in the vicinity.

## **8 ACKNOWLEDGEMENTS**

8.1 Pre-Construct Archaeology Ltd would like to thank Strutt and Parker for commissioning the work and J. Fendley of Anthill Plant Hire for operating the excavator. PCA are also grateful to Dr Richard Hoggett of Suffolk County Council Archaeology Service Conservation Team for his advice and for monitoring the work. The author would like to thank Taleyna Fletcher for managing the project, Mary-Anne Slater for editing the report and the project team: Ciaran Grace, Lawrence Morgan-Shelbourne and Sam Corke for their hard work. The author would also like to thank Ray Murphy of PCA's CAD department for preparing the figures.

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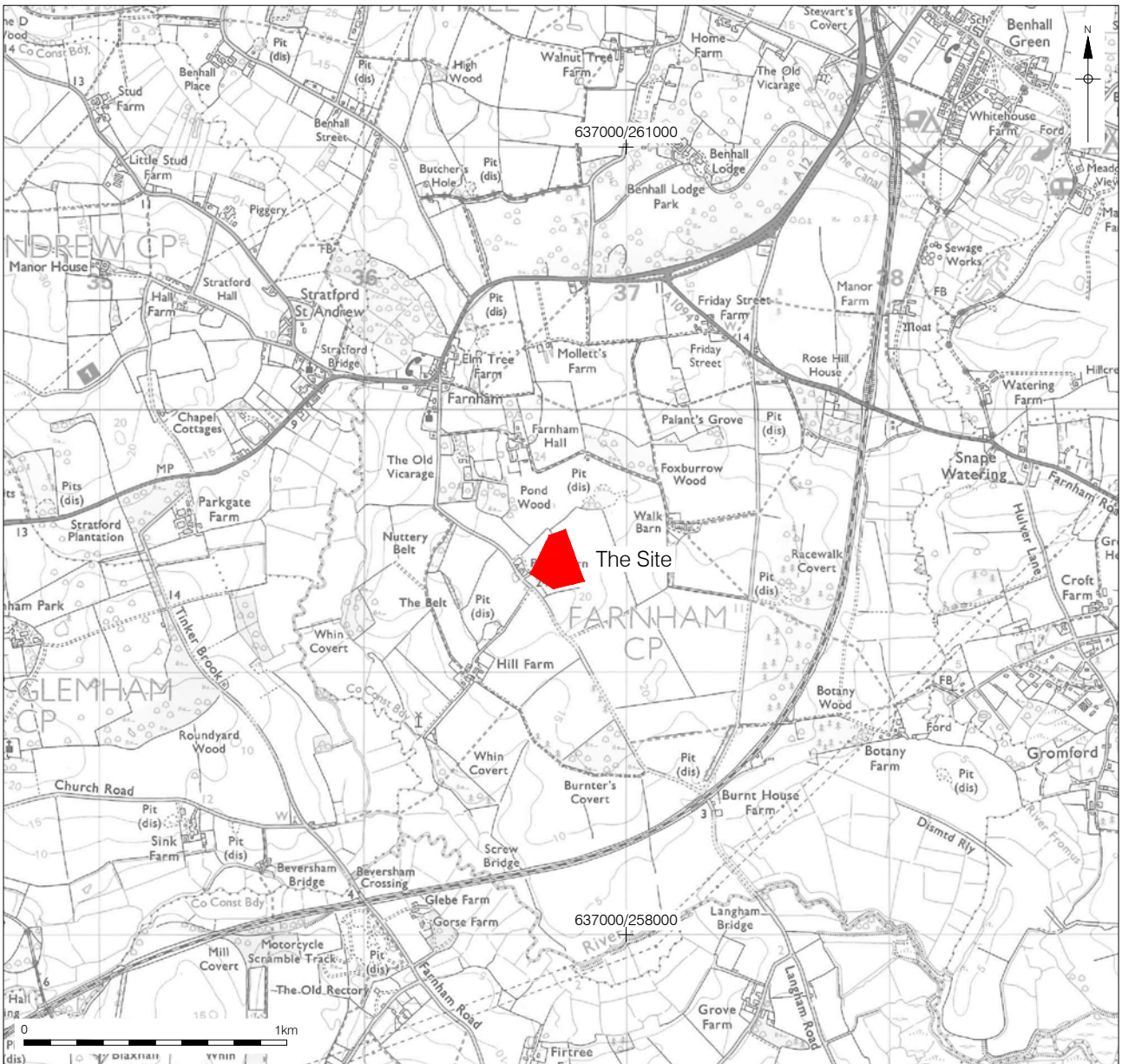
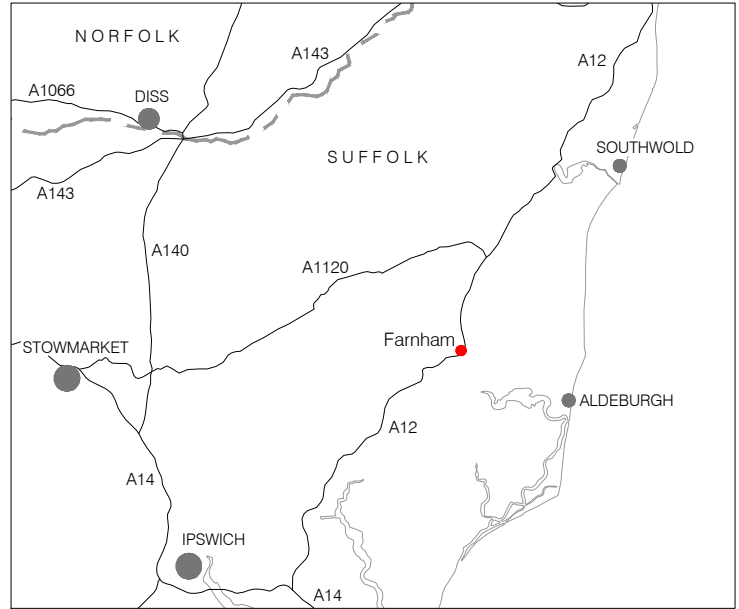
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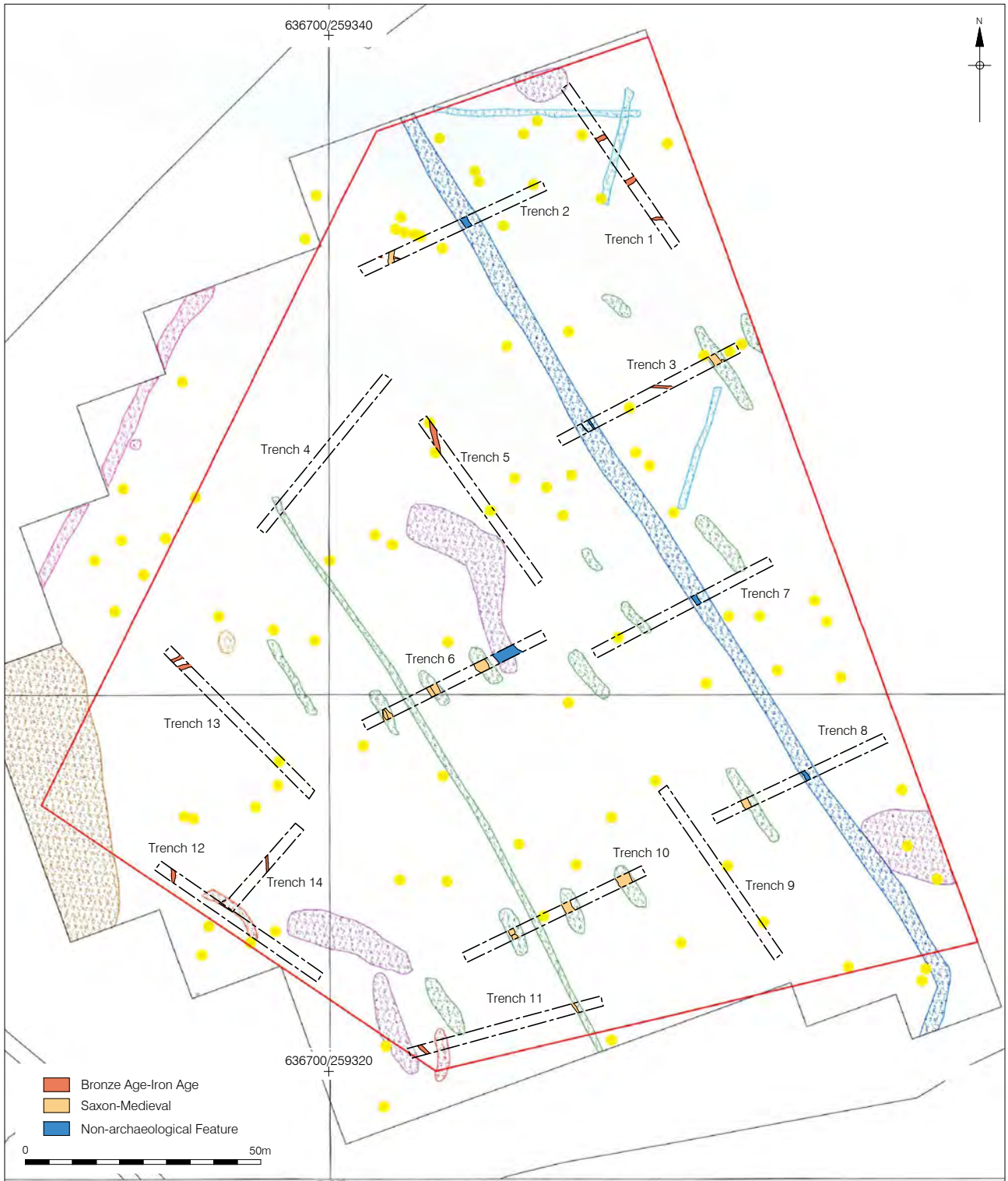


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11/09/15 MR

Figure 1  
Site Location  
1:2,000,000; 625,000 & 25,000 at A4



	Positive Linear Anomaly, Archaeology?		Magnetic Disturbance, Overhead Power Cable and Pole		Narrow Negative Linear Anomalies, Agricultural Land Drains
	Positive Discrete Anomaly, Archaeology?		Weak Broad Positive Anomalies, Geology		Area of Magnetic Disturbance, Modern
	Positive Linear Trend, Remnant Field Boundary		Positive Linear Anomalies, Agricultural Furrows		Isolated Dipolar Responses, Ferrous Objects

Figure 2  
Trench Location plan overlain on  
geophysical survey results  
1:1250 at A4

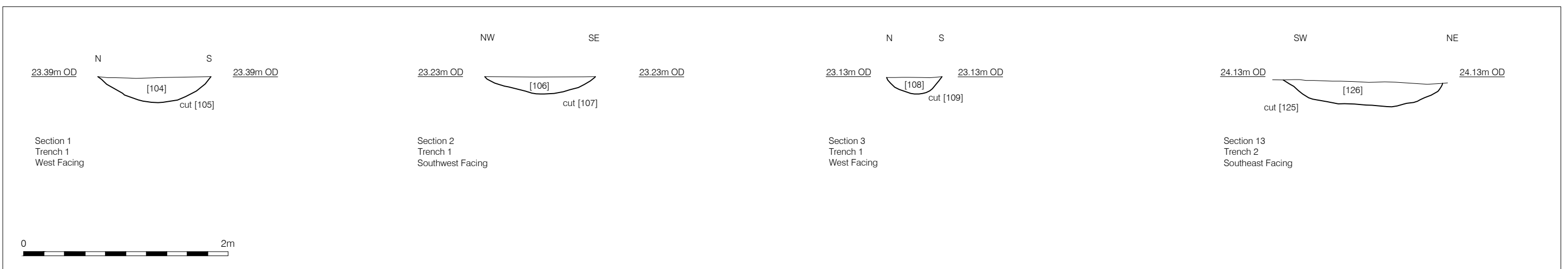
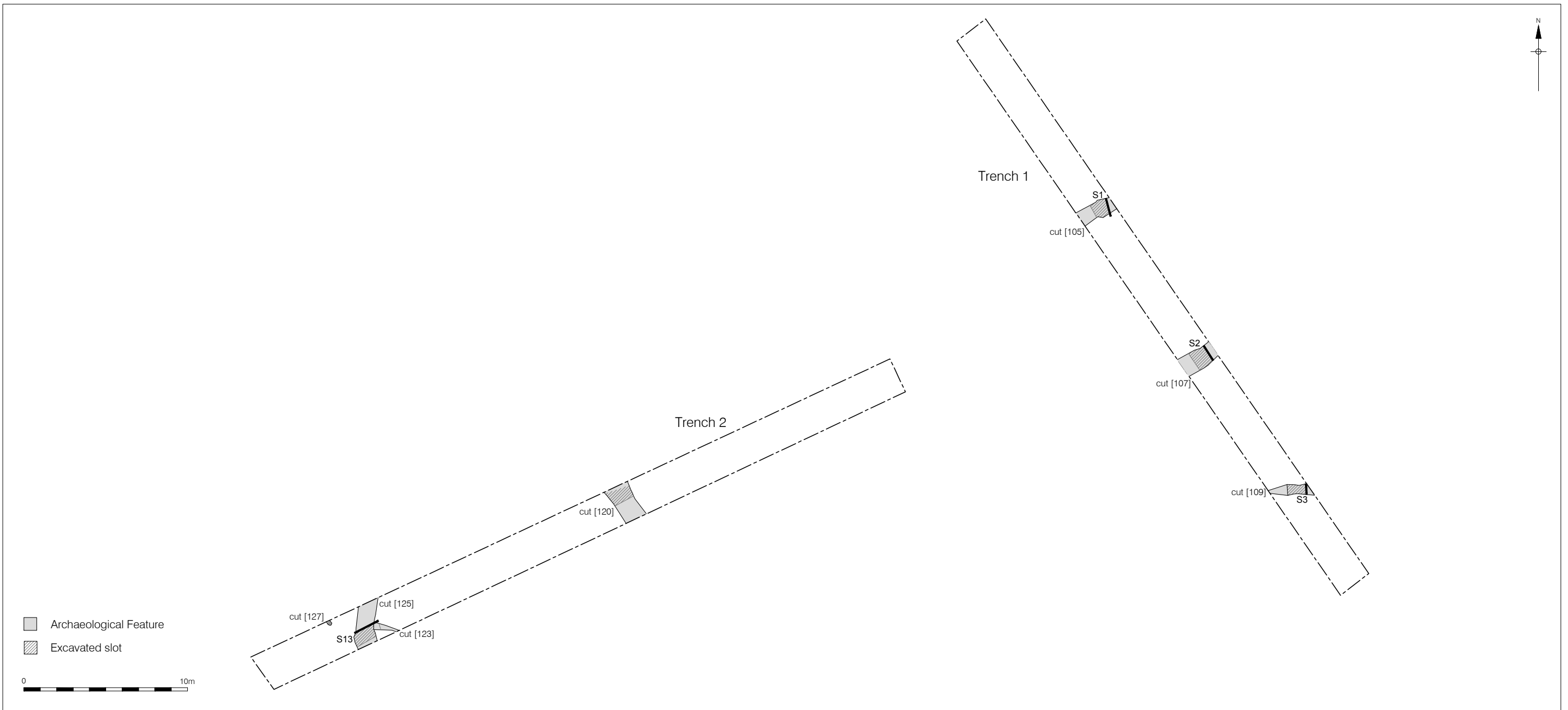


Figure 3  
Trenches 1 and 2 Plans and Sections  
Plans at 1:250 and Sections at 1:40 at A3

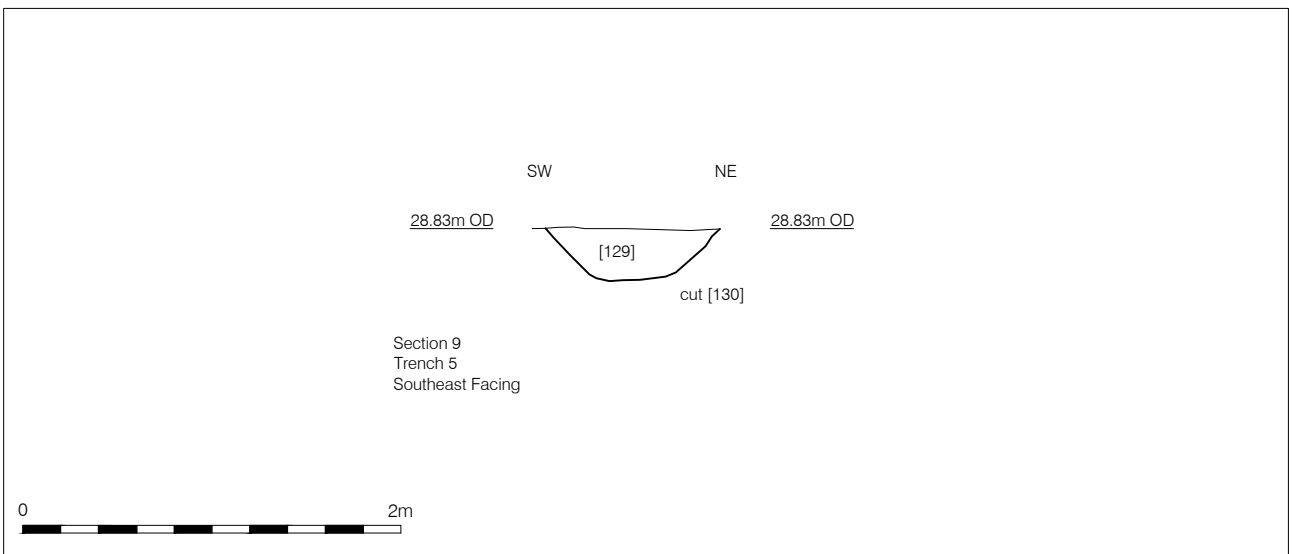
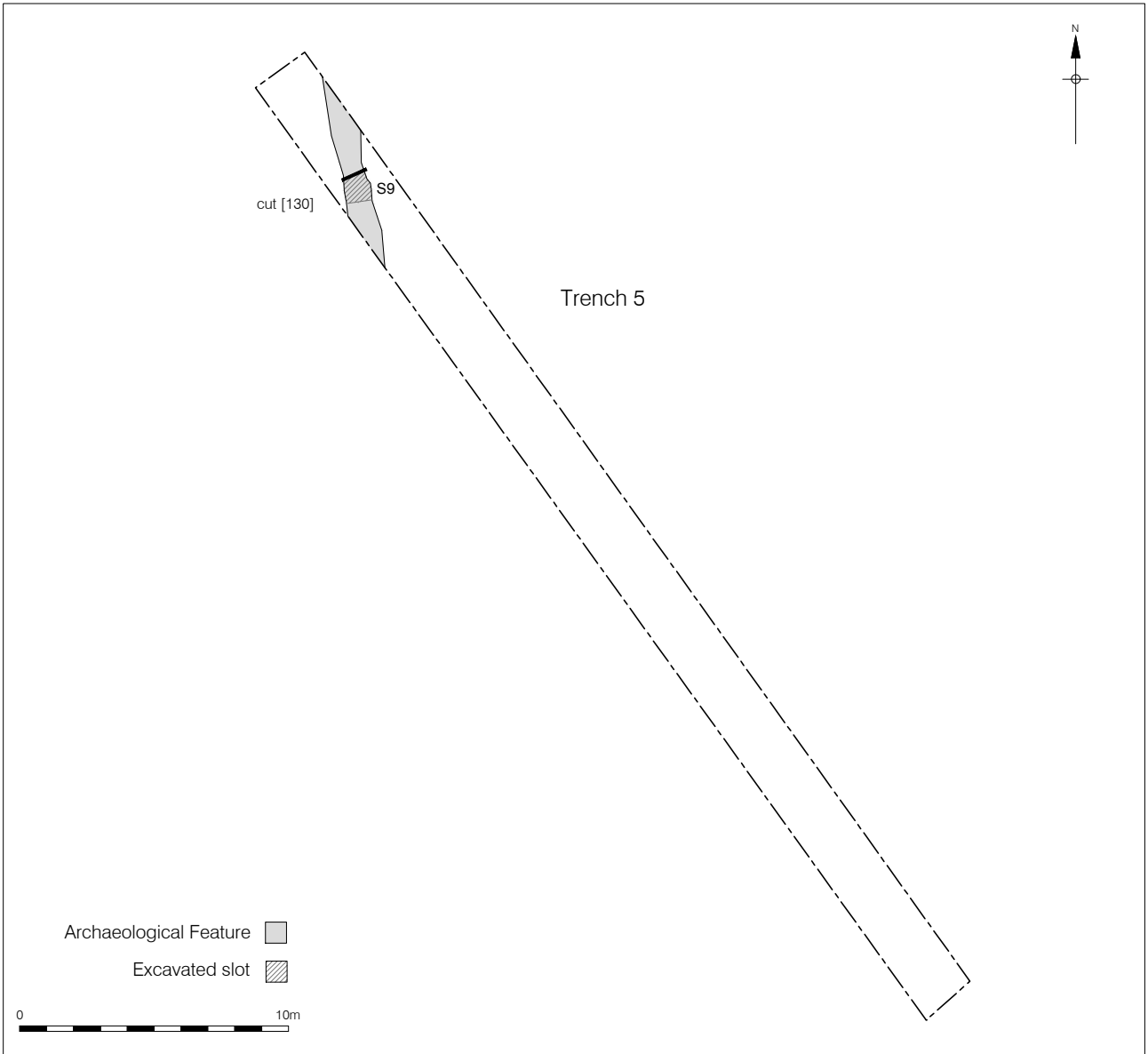


Figure 4  
Trench 5 Plan and Section  
Plan at 1:250 and Sections at 1:40 at A4

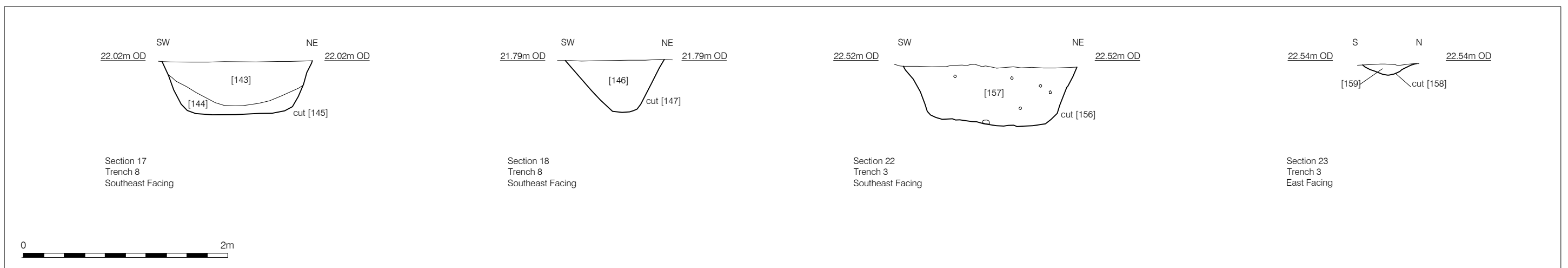
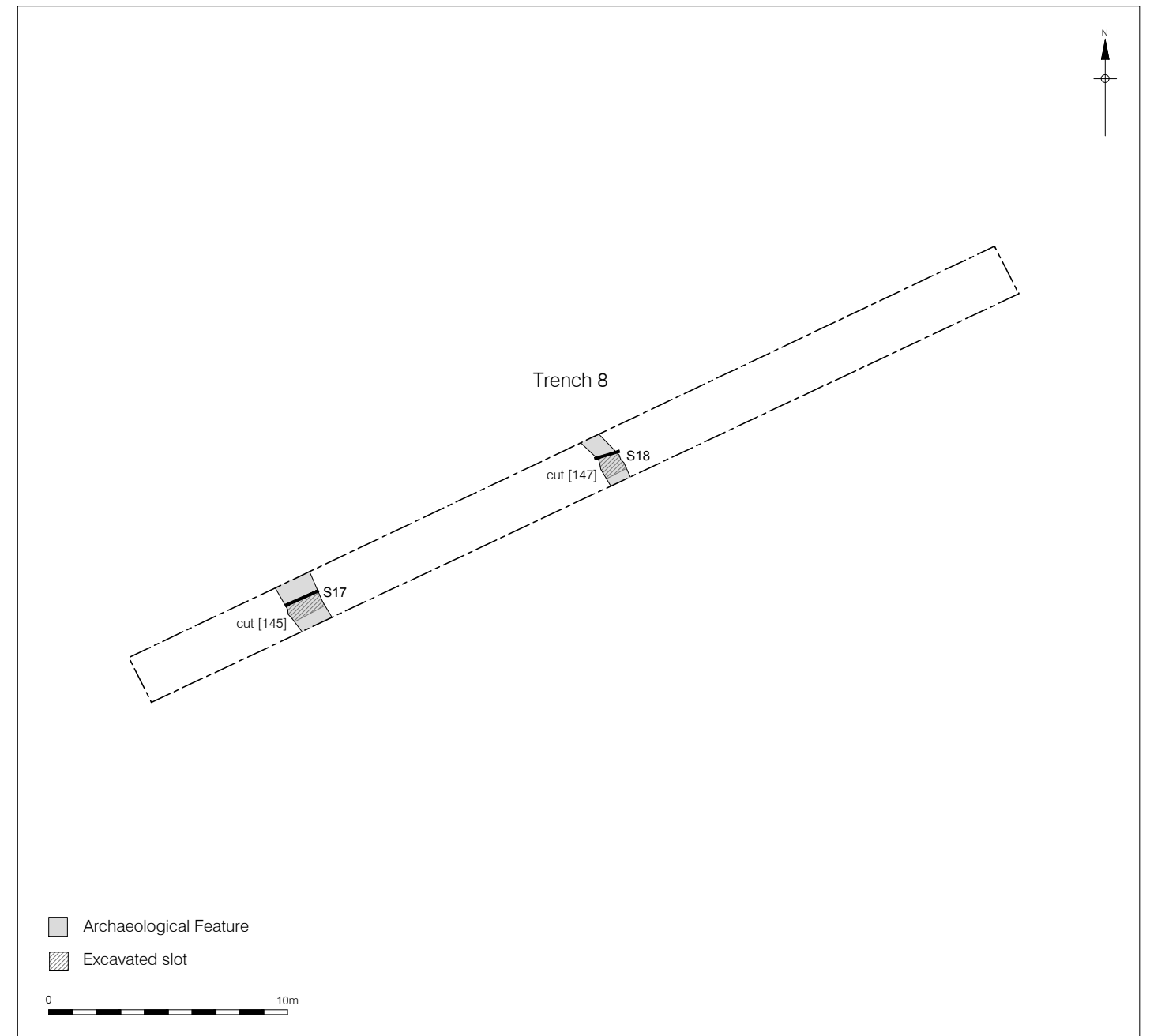
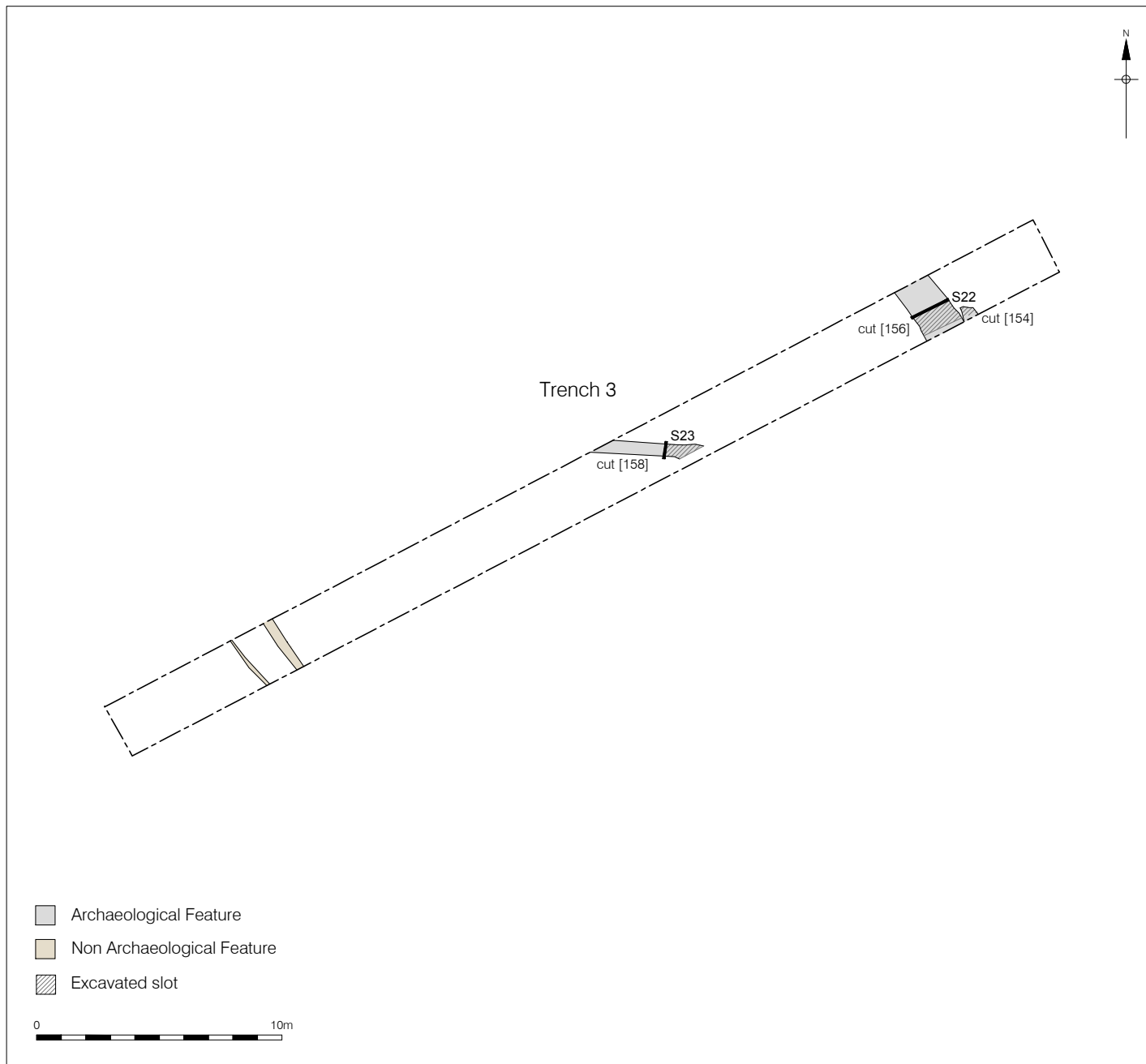


Figure 5  
 Trenches 3 and 8 Plans and Sections  
 Plans at 1:250 and Sections at 1:40 at A3

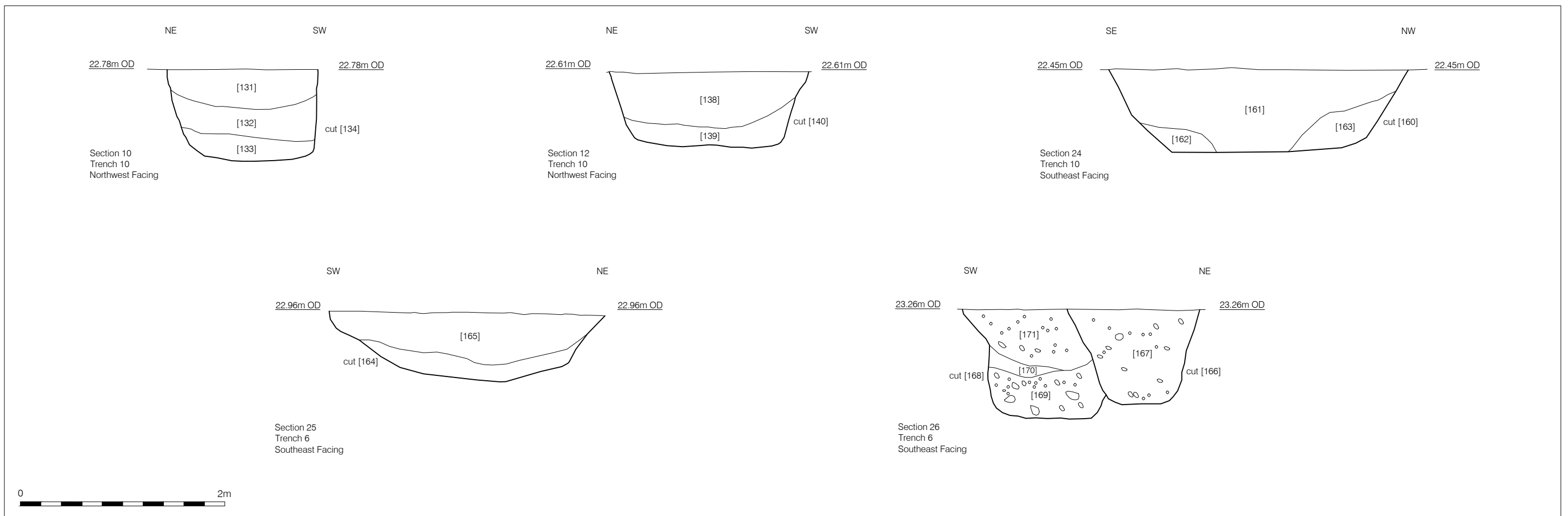
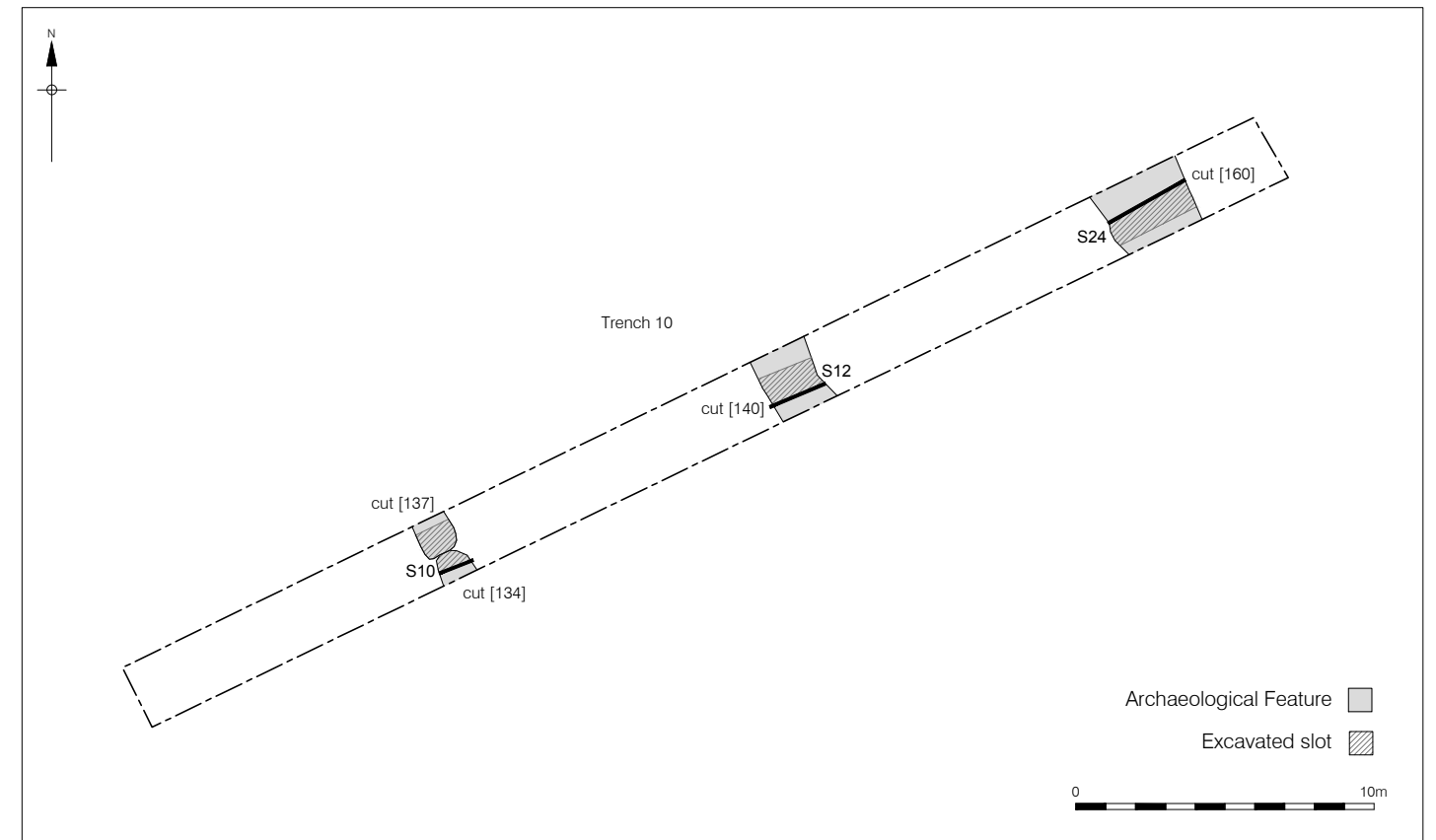
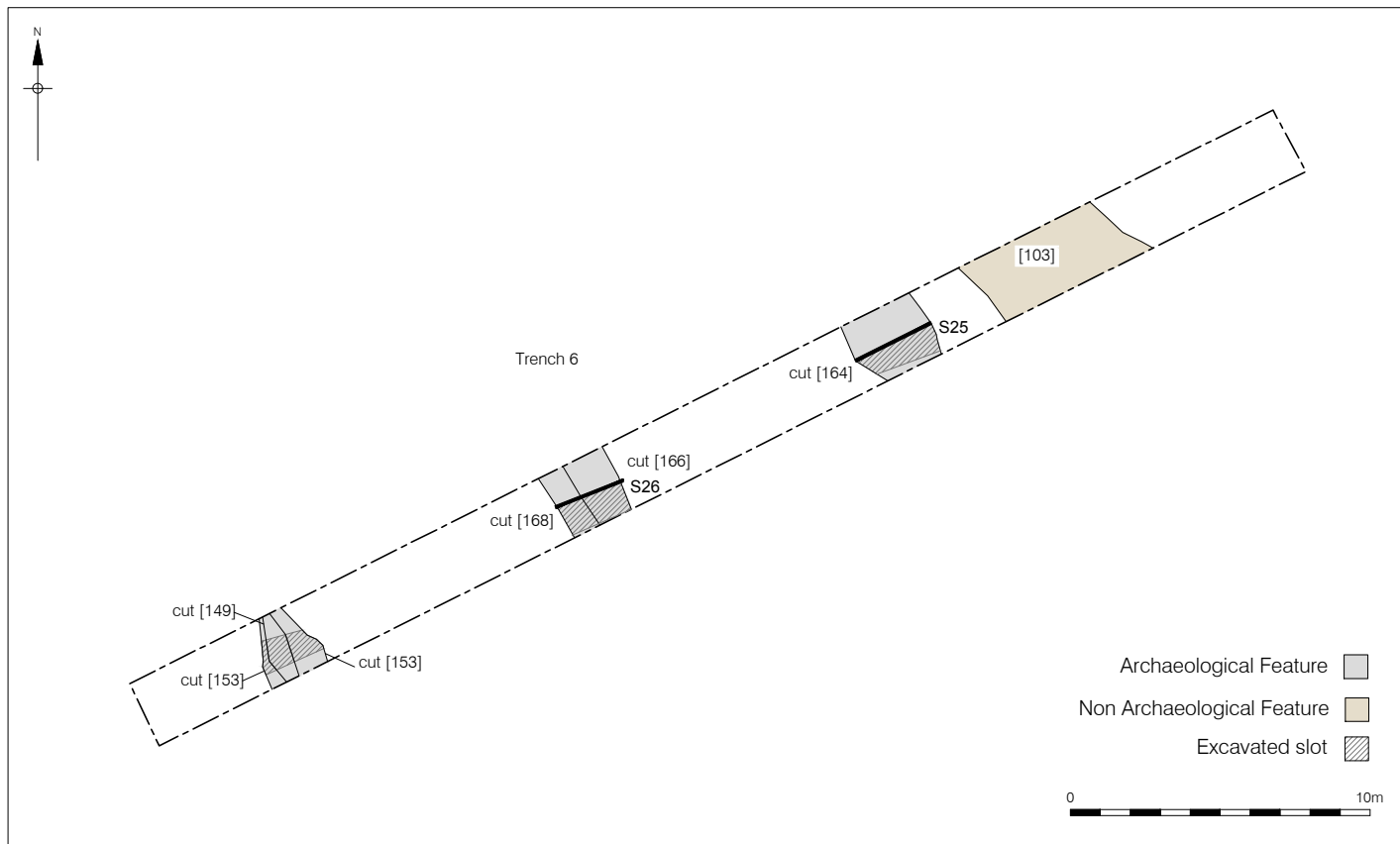


Figure 6  
Trenches 6 and 10 Plans and Sections  
Plans at 1:250 and Sections at 1:40 at A3

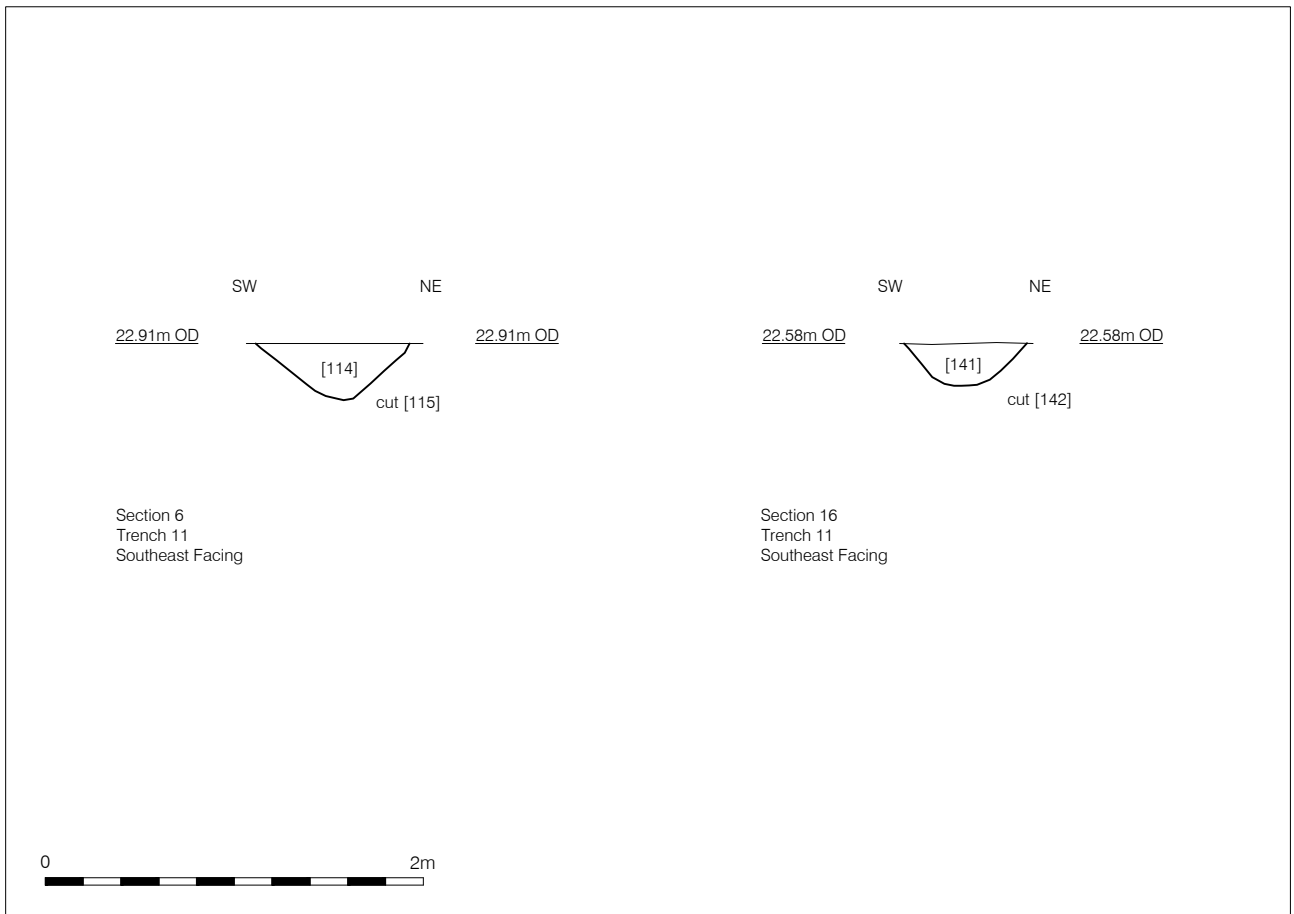
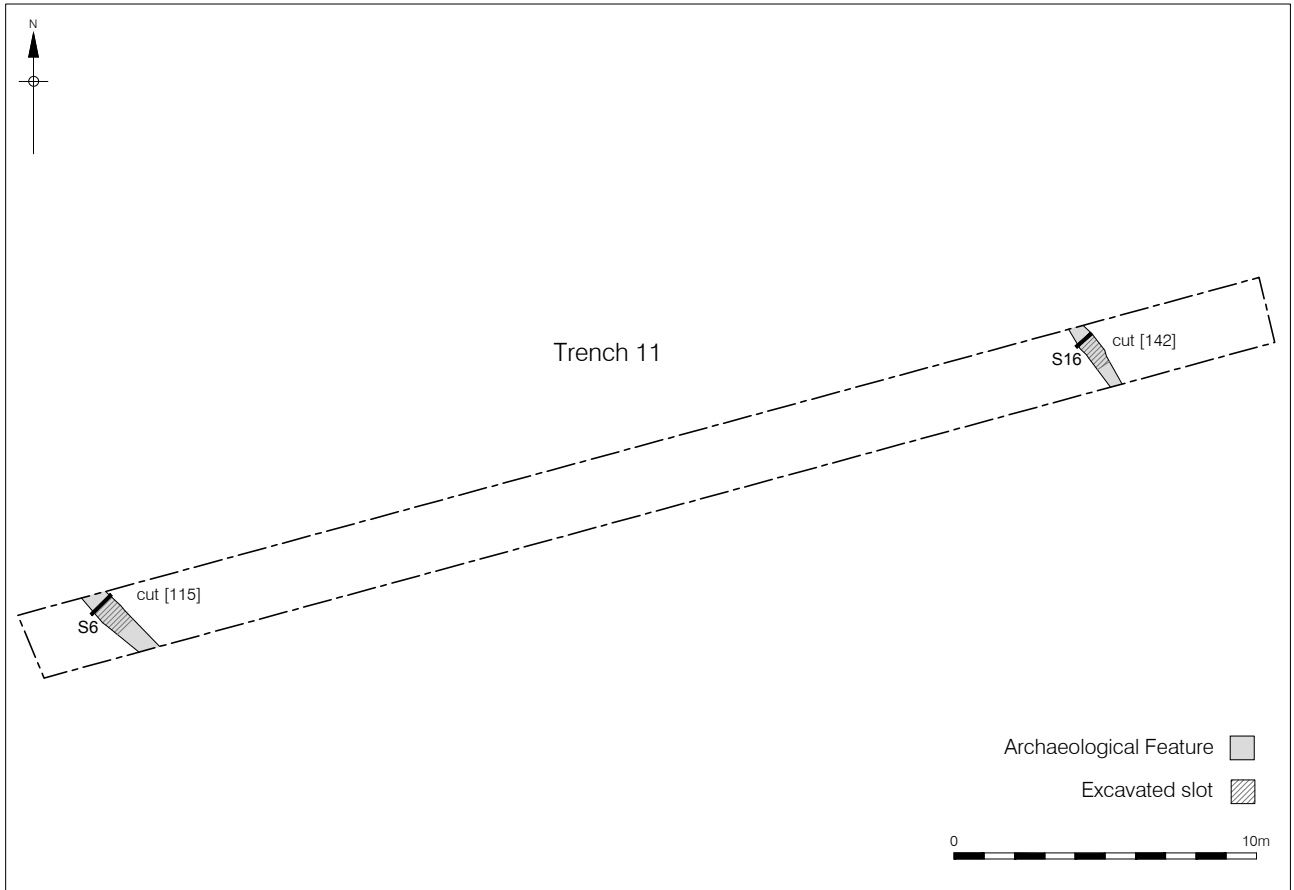


Figure 7  
Trench 11 Plan and Sections  
Plan at 1:250 and Sections at 1:40 at A4



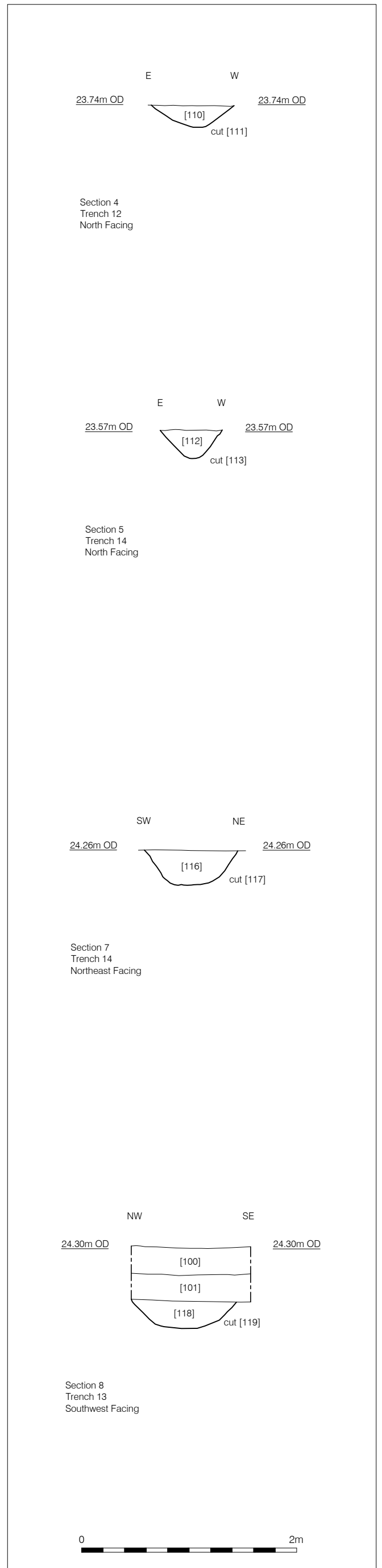
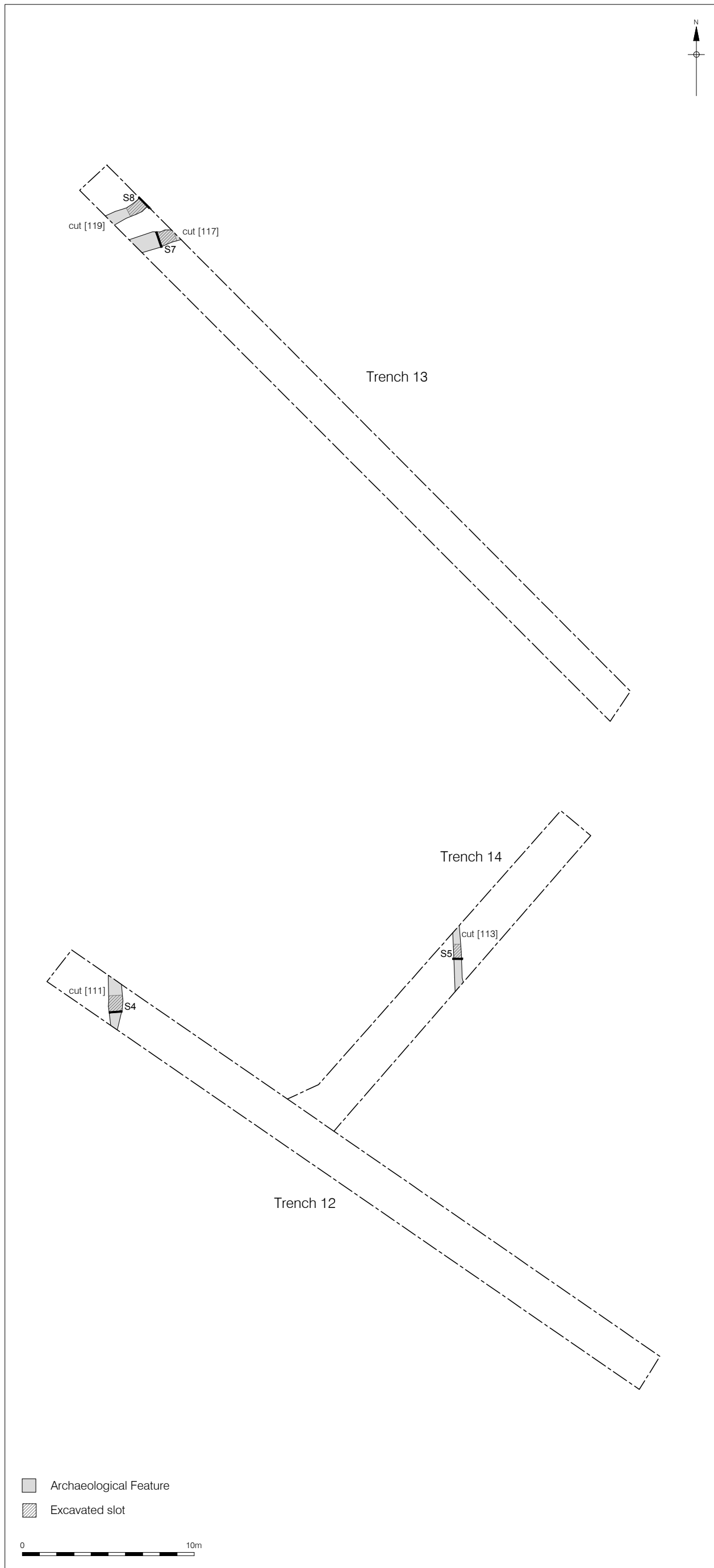


Figure 8  
Trenches 12, 13 and 14 Plans and Sections  
Plans at 1:250 and Sections at 1:40 at A3

**10 APPENDIX 1: PLATES**



Plate 1: Trench 1, view north



Plate 2: Trench 1 Ditch [105] view east





Plate 3: Trench 2, view north-east



Plate 4: Trench 3, view north-east





Plate 5: Trench 6, view south-west



Plate 6: Trench 6, Ditch [149] and [153] view south-east





Plate 7: Trench 8, view north-east



Plate 8: Trench 8, Ditch [145] view north-west





Plate 9: Trench 8, Ditch [147] view north-west



Plate 10: Trench 10, view north-east





Plate 11: Trench 10, Pit [137] view north



Plate 12: Trench 10, Ditch [160] view south-east





Plate 13: Trench 12, view north-west



Plate 14: Trench 13, Ditch [119] view east



## 11 APPENDIX 2: CONTEXT INDEX

Context Number	Trench	Cut	Type	Category
100	0	0	Layer	Topsoil
101	0	0	Layer	Subsoil
102	0	0	Layer	Natural
103	6	0	Layer	Natural
104	1	105	Fill	Ditch
105	1	105	Cut	Ditch
106	1	107	Fill	Ditch
107	1	107	Cut	Ditch
108	1	109	Fill	Ditch
109	1	109	Cut	Ditch
110	12	111	Fill	Ditch
111	12	111	Cut	Ditch
112	14	113	Fill	Ditch
113	14	113	Cut	Ditch
114	11	115	Fill	Ditch
115	11	115	Cut	Ditch
116	13	117	Fill	Ditch
117	13	117	Cut	Ditch
118	13	119	Fill	Ditch
119	13	119	Cut	Ditch
120	2	120	Cut	Ditch
121	2	120	Fill	Ditch
122	2	120	Fill	Ditch
123	2	123	Cut	Ditch
124	2	123	Fill	Ditch
125	2	125	Cut	Ditch
126	2	125	Fill	Ditch
127	2	127	Cut	Posthole
128	2	127	Fill	Posthole
129	5	130	Fill	Ditch
130	5	130	Cut	Ditch
131	10	134	Fill	Pit
132	10	134	Fill	Pit
133	10	134	Fill	Pit
134	10	134	Cut	Pit
135	10	137	Fill	Pit

136	10	137	Fill	Pit
137	10	137	Cut	Pit
138	10	140	Fill	Ditch
139	10	140	Fill	Ditch
140	10	140	Cut	Ditch
141	11	142	Fill	Ditch
142	11	142	Cut	Ditch
143	8	145	Fill	Ditch
144	8	145	Fill	Ditch
145	8	145	Cut	Ditch
146	8	147	Fill	Ditch
147	8	147	Cut	Ditch
148	6	149	Fill	Ditch
149	6	149	Cut	Ditch
150	6	153	Fill	Pit
151	6	153	Fill	Pit
152	6	153	Fill	Pit
153	6	153	Cut	Pit
154	3	154	Cut	Pit
155	3	154	Fill	Pit
156	3	156	Cut	Ditch
157	3	156	Fill	Ditch
158	3	158	Cut	Ditch
159	3	158	Fill	Ditch
160	10	160	Cut	Ditch
161	10	160	Fill	Ditch
162	10	160	Fill	Ditch
163	10	160	Fill	Ditch
164	6	164	Cut	Ditch
165	6	164	Fill	Ditch
166	6	166	Cut	Ditch
167	6	166	Fill	Ditch
168	6	168	Cut	Pit
169	6	168	Fill	Pit
170	6	168	Fill	Pit
171	6	168	Fill	Pit

## 12 APPENDIX 3: OASIS FORM

**OASIS ID: preconst1-223342**

---

### Project details

Project name Land off Hill Farm Road, Farnham, Suffolk, IP17 1LU: Archaeological Trial Trench Evaluation

Short description of the project This report describes the results of an archaeological trial trench evaluation and geophysical survey carried out by Pre-Construct Archaeology on land off Hill Farm Road, Farnham, Suffolk, IP17 1LU (NGR TM 367 594) between the 24th and the 28th August 2015. The archaeological work was commissioned by Strutt and Parker prior to the redevelopment of the site as a reservoir. The aim of the work was to characterise the archaeological potential of the proposed development area. The principal result of the evaluation was the identification of two phases of field boundaries; one aligned northeast to southwest forming a larger complex of rectilinear field systems, aligned north to south, in the north of the site (Trenches 1 and 12-14). These ditches produced sherds of pottery dating from the Bronze Age and Iron Age periods. The second set of field boundaries were aligned northeast to southwest (present in Trenches 1-3 and 5) which formed a series of rectilinear field systems. A further modern field boundary was present running across the site from the northwest to the southeast (Trenches 2, 3, 7 and 8). This remnant field boundary was shown on the 1883 OS map of the area and produced a small amount of animal bone. The geophysical survey identified a number of positive linear anomalies eight of which were identified in the evaluation. These features, initially presumed to be furrows, were located in Trenches 6, 8 and 10. Upon the excavation of these features proved to be wider and deeper than would be expected for furrows and are likely to be later boundary ditches and associated pits.

Project dates Start: 24-08-2015 End: 28-08-2015

Previous/future work Yes / Not known

Any associated project reference codes ESF23208 - Sitecode

Any associated project reference codes FNM 021 - HER event no.

Type of project Field evaluation

Site status	None
Current Land use	Cultivated Land 2 - Operations to a depth less than 0.25m
Monument type	DITCH Late Prehistoric
Monument type	DITCH Iron Age
Monument type	DITCH Medieval
Monument type	PIT Early Medieval
Significant Finds	BONE Modern
Significant Finds	POTTERY Late Prehistoric
Significant Finds	POTTERY Medieval
Significant Finds	POTTERY Early Medieval
Methods & techniques	"Sample Trenches","Targeted Trenches"
Development type	Service infrastructure (e.g. sewage works, reservoir, pumping station, etc.)
Prompt	Planning condition
Position in the planning process	Not known / Not recorded

---

### **Project location**

Country	England
Site location	SUFFOLK SUFFOLK COASTAL FARNHAM Land off Hill Farm Road, Farnham, Suffolk, IP17 1LU
Postcode	IP17 1LU
Study area	0 Hectares
Site coordinates	TM 367 594 52.181392385782 1.462778654032 52 10 53 N 001 27 46 E Point
Height OD / Depth	Min: 21.62m Max: 24.36m

---

### **Project creators**

Name of Organisation	Pre-Construct Archaeology Ltd
Project brief originator	Suffolk County Council's Archaeological Officer
Project design originator	Pre-Construct Archaeology Ltd

Project director/manager Taleyna Fletcher  
Project supervisor Matthew Jones  
Type of sponsor/funding body Developer  
Name of sponsor/funding body Strutt and Parker

---

### Project archives

Physical Archive recipient Suffolk County Council  
Physical Archive ID ESF23208  
Physical Contents "Animal Bones","Ceramics","Metal","Worked stone/lithics"  
Digital Archive recipient Suffolk County Council  
Digital Archive ID ESF23208  
Digital Contents "none"  
Digital Media available "Database","Geophysics","Images raster / digital photography","Spreadsheets","Survey","Text"  
Paper Archive recipient Suffolk County Council  
Paper Archive ID ESF23208  
Paper Contents "none"  
Paper Media available "Context sheet","Drawing","Photograph","Plan","Report","Section","Survey","Unpublished Text"

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### Project bibliography 1

Grey literature (unpublished document/manuscript)  
Publication type  
Title Land off Hill Farm Road, Farnham, Suffolk, IP17 1LU: Archaeological Trial Trench Evaluation  
Author(s)/Editor(s) Jones, M.  
Other bibliographic details R12213  
Date 2015  
Issuer or publisher Pre-Construct Archaeology Ltd.  
Place of issue or publication Pampisford

Description A4 bound report including text, figures, and plates.

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Entered by Matt Jones (MJones@pre-construct.com)

Entered on 10 September 2015

**13 APPENDIX 4: GEOPHYSICAL SURVEY REPORT**



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# POND FARM, FARNHAM, SUFFOLK

## DETAILED MAGNETOMETER SURVEY







## POND FARM, FARNHAM, SUFFOLK

### Detailed Magnetometer Survey

Prepared for:  
Mark Hinman  
Pre-Construct Archaeology Ltd  
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Brewery Road  
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CB22 3EN

By:  
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Registered in England and Wales: 7874460

August 2015

<b>Site Code</b>	FNM 021	<b>NGR</b>	TM 3670 5940
<b>Planning Ref.</b>	Pre-application	<b>OASIS</b>	-
<b>Approved By</b>	Dan McConnell	<b>DATE</b>	August 2015



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**The results and interpretation of the report cannot be considered an absolute representation of the archaeological or any other remains. In the case of geophysical surveys the data collected, and subsequent interpretation is a representation of anomalies recorded by the survey instrument. Britannia Archaeology Ltd will not be held liable for any errors of fact supplied by a third party, or guarantee the proper maintenance of the survey stations.**



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## **ABSTRACT**

*In August 2015 Britannia Archaeology Ltd undertook a detailed fluxgate gradiometer survey over c.2.8 hectares of land at Pond Farm, Farnham, Suffolk, in a single agricultural field, ahead of the proposed construction of an agricultural reservoir.*

*A fairly wide range of anomalies were prospected during the survey, the majority of which are likely to have a modern agricultural or geological origin. One positive discrete and two positive linear anomalies are most likely to be of an archaeological derivation, however a natural geological source cannot be ruled out.*

*Overall the results of the geophysical survey indicates that the site does not have a particularly high archaeological potential. However it would be prudent to ground-truth the various anomaly types by trial trench evaluation, in order to test the interpretations given within this report and to ascertain an origin for the anomalies prospected.*



## 1.0 INTRODUCTION

In August 2015, Britannia Archaeology Ltd (BA) undertook a detailed fluxgate gradiometer survey over c.2.8 hectares of land at Pond Farm, Farnham, Suffolk (NGR TM 3670 5940) in a single agricultural field (Figure 1).

The survey was commissioned by Mark Hinman of Pre-Construct Archaeology Ltd in response to a brief issued by SCCAS/CT (Brudenell, M. dated 24<sup>th</sup> March 2015) for a geophysical survey over the proposed development of an agricultural reservoir. The weather was predominantly overcast with outbreaks of sunshine.

## 2.0 SITE DESCRIPTION

The site of the proposed reservoir is located within one agricultural field to the east of Pond Farm, Farnham, Suffolk, at a height of 20m aOD (Figure 1). Bound by hedgerows to the north, south, east and west; the field has recently been cropped of potatoes.

The bedrock geology is described as Crag Group Sand, a sedimentary bedrock formed up to 5 million years ago in the Quaternary and Neogene Periods in shallow seas, deposited as mud, silt, sand and gravel (BGS, 2015).

Superficial deposits are described as Lowestoft Formation Diamicton, formed up to 2 million years ago in the Quaternary Period when the local environment was dominated by ice age conditions, with glaciers depositing moraines of till with outwash sand and gravel from seasonal and post glacial meltwaters (BGS, 2015).

## 3.0 PLANNING POLICIES

The archaeological investigation is to be carried out on the recommendation of the local planning authority, following guidance laid down by the National Planning and Policy Framework (NPPF, DCLD 2012). The relevant local planning policy is the *Suffolk Coastal Local Plan; incorporating First and Second Amendments* (March 2006) which is due to be replaced with the *Suffolk Coastal Local Development Framework* in the near future.

## 4.0 ARCHAEOLOGICAL BACKGROUND

The proposed site of the reservoir is located within an area of archaeological potential, recorded in the Suffolk Historic Environment Record (SHER). An archaeological cropmark indicative of early occupation remains was recorded during aerial reconnaissance (HER no. FNM 013). A prehistoric flint scatter (FNM 008) is located to the north of this cropmark. Recorded to the east of the cropmark is a medieval finds scatter (FNM 004), (Brief, Section 2.1).



## 5.0 PROJECT AIMS

A field evaluation is required of the site to enable the archaeological resource, both in quality and extent, to be accurately quantified. The field evaluation should include a geophysical survey and a programme of trial trenching (Brief, Section 3.1). The geophysical survey is required to establish the suitability of the area for development (Brief, Section 3.2). This report deals solely with the geophysical survey stage.

## 6.0 METHODOLOGY

### 6.1 Instrument Type Justification

Britannia Archaeology Ltd employed a Bartington Dual Grad 601-2 fluxgate gradiometer to undertake the survey, because of its high sensitivity and rapid ground coverage. The surveyors noted that the background magnetic susceptibility signature was relatively low and a suitable zero station was located with ease.

### 6.2 Instrument Calibration

One hour was allowed in the morning for the magnetometers sensors to settle before the start of the first grid. The instrument was zeroed after every three to five grids to minimise the effect of sensor drift. An area with a relatively low magnetic reading was chosen to calibrate the instrument; this same point was used to zero the sensors throughout the survey providing a common zero point. The survey was undertaken during outbreaks of sunshine which caused a degree of sensor drift and the characteristic parallel traverse 'striping' that is present within the raw dataset (Figure 2).

### 6.3 Sampling Interval and Grid Size

The sampling interval was set at 0.25m along 1m traverse intervals, providing 4 readings a metre, the magnetometer survey was undertaken within 20 x 20m grids.

### 6.4 Survey Grid Location

The survey grid was set out to the Ordnance Survey OSGB36 datum to an accuracy of  $\pm 0.1\text{m}$  employing a Leica Viva Glonass Smart Rover GS08 real time kinetic (RTK) survey system. Data were converted to the National Grid Transformation OSTN02 and the instrument was regularly tested using stations with known ETRS89 coordinates. The grids were positioned on a north-west to south-east alignment (Figure 1).

### 6.5 Data Capture

Instrument readings were recorded on an internal data logger that were downloaded to a laptop at midday, followed by a second download at the end of the survey. The grid order was recorded on a BA pro-forma to aid in the creation of the data composites. Data were filed in job specific folders. These data composites were checked for quality on site by BA, allowing grids to be re-surveyed if necessary. The data were backed up



onto an external storage device in the office and finally a remote server at the end of the day.

## 6.6 Data Presentation and Processing

Data are presented in both raw and processed data plots in greyscale format (Figures 2 and 3). An XY trace plot of the processed data has also been included (Figure 4).

The raw data plots are presented with no processing, and were clipped to produce a uniform greyscale plot, processed data schedules are displayed below.

### *Raw Data:*

**Data Clipping:** -3 to +3nT;  
**Display Clipping:** +/- 3 standard deviations.

### *Processed Data:*

**De-stripe:** Median Sensors: All;  
**Data Clipping:** -2 to +2nT;  
**Display Clipping:** +/- 3 standard deviations.

An interpretation plan characterising the anomalies recorded can be found at Figure 5, which draws together the evidence collated from both greyscale and XY trace plots (Figures 2, 3 and 4). All figures are tied into the National Grid and printed at an appropriate scale.

## 6.7 Software

Raw data were downloaded using DW Consulting's Terrasurveyor v.3.0.25.0 and will be stored in this format as raw data. The software used to process the data and produce the composites was also DW Consulting's Terrasurveyor v.3.0.25.0. Datasets were exported into AutoCAD and placed onto the local survey grid. Interpretation plots were then produced using AutoCAD.

## 6.8 Grid Restoration

Britannia Archaeology Ltd did not position any reference stations within the field; however three virtual geo-referenced survey stations are presented in Figure 1 that will allow the survey grid and anomalies to be accurately targeted.

## 7.0 RESULTS & DISCUSSION (FIGURES 1 - 5)

Positive and negative linear trends prospected on a north-east to south-west alignment throughout the datasets (Figures 2, 3 and 4) record the extant potato furrows of the current year's crop. To avoid confusion these modern anomalies have not been digitised on Figure 5.



Isolated Dipolar anomalies (yellow spots) record the location of ferrous objects within the topsoil, it is possible that they relate to archaeological finds; however it is more likely that they have been introduced into the topsoil through manuring.

A large area of magnetic disturbance (brown hatching) has been recorded close to the remains of extant outbuildings and the access track. The Ordnance Survey Map of 1975 (Old-Maps, 2015) also records an enclosure within this location (magenta line, Figure 1). It is therefore likely that these magnetic readings have been caused by brick and ferrous debris from the outbuildings and access track, in combination with modern disturbance from the enclosure.

Three narrow negative linear anomalies (cyan hatching) have been recorded on a NNE-SSW and perpendicular orientation and interpreted as narrow land drain trenches. It is probable that these trenches were differentially backfilled with the less magnetic subsoil deposited at the top of the soil matrix causing negative readings to be prospected.

The positive linear anomalies (green hatching) are also likely to be of an agricultural origin (orientated NW-SE) relating to discontinuous furrow type anomalies. Their intermittent nature suggests that the majority of the furrows have been ploughed out, with only those present at a greater depth surviving. This has caused uniform bands of anomalies to be prospected across the survey area. The alignment of these trends correlates with the location of a positive linear trend (blue hatching) recorded as a remnant field boundary on the 1883 Ordnance Survey Map (Figure 1) which was backfilled sometime after the 1990 Ordnance Survey Map was published (Old-Maps, 2015).

Weak broad positive anomalies (purple hatching) irregular in size and shape have been recorded across the dataset that are likely to relate to natural magnetic variations within the superficial geology.

A linear area of magnetic disturbance with an associated isolated dipolar response (magenta hatching) has been recorded along the north-western edge of the dataset where an extant overhead power cable and associated pole were present.

One positive discrete anomaly (orange hatching) recorded near the centre of the dataset has been interpreted as a potential rubbish pit type anomaly of possible archaeological origin. A geological or modern derivation however cannot be ruled out.

Two positive linear trends (red hatching) orientated N-S and NW-SE have been recorded in the south-western corner of the survey area. They are potentially of an archaeological origin and are worthy of further archaeological investigation.

## **8.0 CONCLUSION**

A fairly wide range of anomalies were prospected during the survey, many of which are likely to have a modern, agricultural or geological origin. One positive discrete and two





positive linear anomalies are most likely to be of an archaeological derivation, however a natural geological source cannot be discounted.

Overall the results of the geophysical survey illustrate that the site does not have a particularly high archaeological potential. However it would be prudent to ground-truth the various anomaly types by trial trench evaluation, to test the interpretations given within this report and to ascertain an origin for the anomalies prospected.

## **9.0 PROJECT ARCHIVE AND DEPOSITION**

A full archive will be prepared for all work undertaken in accordance with guidance from the *Selection, Retention and Dispersion of Archaeological Collections*, Archaeological Society for Museum Archaeologists, 1993. Arrangements will be made for the archive to be deposited with the relevant museum/HER Office.

## **10.0 ACKNOWLEDGEMENTS**

Britannia Archaeology Ltd would like to thank Mark Hinman of Pre-Construct Archaeology Ltd for commissioning the survey.



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Witten. A.J. 2006. *Handbook of Geophysics and Archaeology*. Equinox Publishing Ltd. London.

## Websites

The British Geological Survey, 2015, (Natural Environment Research Council) – Geology of Britain Viewer - [www.bgs.ac.uk/opengeoscience/home.html?Accordion2=1#maps](http://www.bgs.ac.uk/opengeoscience/home.html?Accordion2=1#maps)

## Cartographic Sources

Old-Maps, 2015, - <https://www.old-maps.co.uk>



## APPENDIX 1 METADATA SHEETS

### Raw Data

Filename	Farnham R.xcp
<b>Description</b>	
Instrument Type	Grad 601-2 (Gradiometer)
Units	nT
Direction of 1st Traverse	45 deg
Collection Method	ZigZag
Sensors	2 @ 1.00 m spacing.
Dummy Value	2047.5
<b>Dimensions</b>	
Composite Size (readings)	720 x 220
Survey Size (meters)	180 m x 220m
Grid Size	20 m x 20m
X Interval	0.25 m
Y Interval	1m
<b>Stats</b>	
Max	3.26
Min	-2.61
Std Dev	0.31
Mean	0.28
Median	0.28
Composite Area	3.96 ha
Surveyed Area	3.044 ha
<b>Program</b>	
Name	TerraSurveyor
Version	3.0.25.0

### Processed Data

Filename	Farnham P.xcp
<b>Description</b>	
Instrument Type	Grad 601-2 (Gradiometer)
Units	nT
Direction of 1st Traverse	45 deg
Collection Method	ZigZag
Sensors	2 @ 1.00m spacing.
Dummy Value	2047.5
<b>Dimensions</b>	
Composite Size (readings)	720 x 220
Survey Size (meters)	180m x 220m
Grid Size	20m x 20m
X Interval	0.25m
Y Interval	1m
<b>Stats</b>	
Max	2.83
Min	-2.73
Std Dev	0.72
Mean	0.04
Median	0.00
Composite Area	3.96 ha
Surveyed Area	3.044 ha
<b>Program</b>	
Name	TerraSurveyor
Version	3.0.25.0



## Grids

Source Grids: 78		
1	Col:0	Row:4 grids\01.xgd
2	Col:0	Row:5 grids\02.xgd
3	Col:0	Row:6 grids\03.xgd
4	Col:1	Row:2 grids\04.xgd
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## **APPENDIX 2            TECHNICAL DETAILS**

### **MAGNETOMETER**

The magnetometer differs from the 'active' magnetic susceptibility meter by being a 'passive' instrument. Rather than injecting a signal into the ground it detects slight variations in the Earth's magnetic field caused by cultural and natural disturbance (Clark).

Thermoremanent magnetism is produced when a material containing iron oxides is strongly heated. Clay for example has a high iron oxide content that in a natural state is weakly magnetic, when heated these weakly magnetic compounds become highly magnetic oxides that a magnetometer can detect.

The demagnetisation of iron oxides occurs above a temperature known as the Curie point; for example haematite has a Curie point of 675 Celsius and magnetite 565C. At the time of cooling the iron oxides become permanently re-magnetised with their magnetic properties re-aligned in the direction of the Earth's magnetic field (Gaffney and Gater). The direction of the Earth's magnetic field shifts over time and these subtle alignment differences can be recorded. Kilns, hearths, baked clay and ovens can reach Curie point temperatures, and are the strongest responses apart from large iron objects that can be detected. Other cultural anomalies that can be prospected include occupation areas, pits, ditches, furnaces, sunken feature buildings, ridge and furrow field systems and ritual activity (David, 2011). Commonly recorded anomalies include modern ferrous service pipes, field drainage pipes, removed field boundaries, perimeter fences and field boundaries.

### **Fluxgate Gradiometers**

Fluxgate gradiometers are sensitive instruments that utilise two sensors placed in a vertical plane, spaced 1 metre apart. The sensor above reads the Earth's magnetic (background) response while the sensor below records the local magnetic field. Both sensors are carefully adjusted to read zero before survey commences at a 'zeroing' point, selected for its relatively 'quiet' magnetic background reading. When differences in the magnetic field strength occur between the two sensors a positive or negative reading is logged. Positive anomalies have a positive magnetic value and conversely negative anomalies have a negative magnetic value relative to the site's magnetic background. Examples of positive magnetic anomalies include hearths, kilns, baked clay, areas of burning, ferrous material, ditches, sunken feature buildings, furrows, ferrous service pipes, perimeter fences and field boundaries. Negative magnetic anomalies include earthwork embankments, plastic water pipes and geological features.

The instruments are usually held approximately 0.30m to 0.50m above the ground surface and can detect to a depth of between 1-2metres. Best practice dictates that the optimal direction of traverse in Britain is east to west.



## **Magnetic Anomalies**

### **Linear trends**

Linear trends can be both positive and negative magnetic responses. If they are broad, relatively weak or negative in nature they may be of agricultural or geological origin, for example periglacial channels, land drains or ploughing furrows. If the responses are strong positive trends they are more likely to be of archaeological origin. Archaeological settlement ditches tend to be rich in highly magnetic iron oxides that accumulate in them via anthropogenic activity and humic backfills. Conversely surviving banks will be negative in nature, the material is derived from subsoil deposits that are less likely to be positively magnetic. Curvilinear trends can also be recorded and are indicative of archaeological structures such as drip-gullies.

### **Discrete anomalies**

Discrete anomalies appear as increased positive responses present within a localised area. They are caused by a general increase in the amount of magnetic iron oxides present within the humic back-fill of for example a rubbish pit.

### **'Iron spike' anomalies**

These strong isolated dipolar responses are usually caused by ferrous material present in the topsoil horizon. They can have an archaeological origin but are usually introduced into the topsoil during manuring.

### **Areas of magnetic disturbance**

An area of magnetic disturbance is usually associated with material that has been fired. For example areas of burning, demolition (brick) rubble or slag waste spreads. They can also be caused by ferrous material, e.g. close proximity to barbwire or metal fences and field boundaries, buried services, pylons and modern rubbish deposits.



**APPENDIX 3**

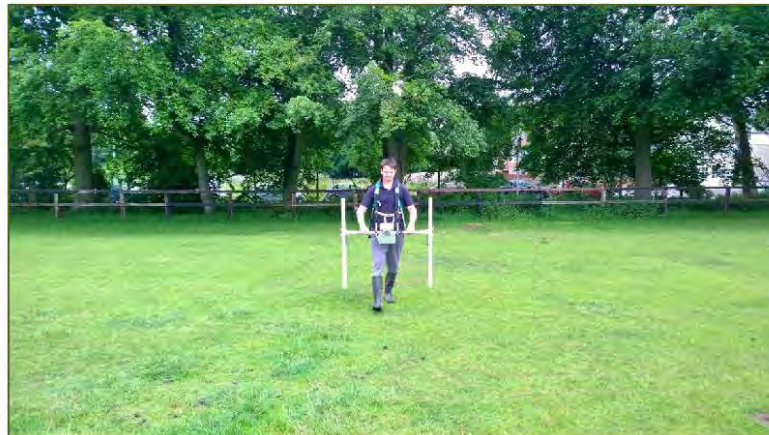
**WRITTEN SCHEME OF INVESTIGATION**



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**POND FARM, FARNHAM, SUFFOLK**

WRITTEN SCHEME OF INVESTIGATION  
DETAILED MAGNETOMETER SURVEY



Project Number: 1112

August 2015

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**POND FARM, FARNHAM, SUFFOLK**

**Written Scheme of Investigation  
Detailed Magnetometer Survey**

Prepared for:  
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Pre-Construct Archaeology Ltd  
The Granary  
Rectory Farm  
Brewery Road  
Pampisford  
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By:  
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Registered in England and Wales: 7874460

August 2015

<b>Site Code</b>	tbc	<b>NGR</b>	TM 367 594
<b>Planning Ref.</b>	Pre-application	<b>OASIS</b>	-
<b>Approved By</b>	Dan McConnell	<b>DATE</b>	August 2015



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## 1.0 INTRODUCTION

This Written Scheme of Investigation (WSI) has been prepared by Britannia Archaeology Ltd (BA) on behalf of Mark Hinman of Pre-Construct Archaeology Ltd (PCA) in response to a brief (Brudenell, M. dated 24<sup>th</sup> March 2015) for a geophysical survey and trenched archaeological evaluation (to be undertaken by PCA, separate WSI) over the proposed development of an agricultural reservoir (2.8ha) on land adjacent to Pond Farm, Farnham, Suffolk (NGR TM 367 594).

## 2.0 SITE DESCRIPTION

The proposed reservoir location is situated in within one agricultural field to the east of Pond Farm, Farnham, Suffolk, at a height of 20m aOD (Figure 1). Bound by hedgerows to the north, south, east and west; the field has been recently cropped of potatoes.

The bedrock geology is described as Crag Group Sand, a sedimentary bedrock formed approximately up to 5 million years ago in the Quaternary and Neogene Periods in shallow seas deposited as mud, silt, sand and gravel (BGS, 2015).

Superficial deposits are described as Lowestoft Formation Diamicton, formed up to 2 million years ago in the Quaternary Period when the local environment was dominated by ice age conditions, with glaciers depositing moraines of till with outwash sand and gravel deposits from seasonal and post glacial meltwaters (BGS, 2015).

## 3.0 PLANNING POLICIES

The archaeological investigation is to be carried out on the recommendation of the local planning authority, following guidance laid down by the National Planning and Policy Framework (NPPF, DCLD 2012). The relevant local planning policy is the *Suffolk Coastal Local Plan; incorporating First and Second Amendments* (March 2006) which is due to be replaced with the *Suffolk Coastal Local Development Framework* in the near future.

### 3.1 National Planning Policy Framework (NPPF, DCLG March 2012)

The NPPF recognises that 'heritage assets' are an irreplaceable resource and planning authorities should conserve them in a manner appropriate to their significance when considering development. It requires developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. The key areas for consideration are:

- The significance of the heritage asset and its setting in relation to the proposed development;



- The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance;
- Significance (of the heritage asset) can be harmed or lost through alteration or destruction, or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification;
- Local planning authorities should not permit loss of the whole or part of a heritage asset without taking all reasonable steps to ensure the new development will proceed after the loss has occurred;
- Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.

### 3.2 Suffolk Coastal District Council (Policy AP7, 31<sup>st</sup> March 2006)

The local plan for the Suffolk Coastal District deals with development on archaeological sites in section AP7, this states the following:

In considering planning applications, outline or detailed, for development that might affect sites that are known or are likely to contain archaeological remains, the Council will require the following. Where necessary, these should be preceded by a professional archaeological assessment as to the likelihood that remains might be encountered and their importance.

- a field evaluation in those cases where the assessment suggests that important archaeological remains may exist but it is unable to be precise about their nature or extent. The field evaluation shall be carried out by an approved archaeological contractor in accordance with a specification agreed with the Council;
- the preservation of archaeological remains in situ where the assessment and/or field evaluation indicate that the remains are important. Even where lesser remains exist, consideration must be given to the desirability of preserving them in situ;
- adequate arrangements for "preservation by record" - a recording of the archaeological remains that would be lost in the course of works for which permission is being sought - in those cases where arguments in favour of the development outweigh the significance of the remains;
- Development that would adversely affect a Scheduled Ancient Monument, its setting or remains will not be permitted.

## 4.0 ARCHAEOLOGICAL BACKGROUND

The proposed site of the reservoir is located within an area of archaeological potential, recorded in the Suffolk Historic Environment Record (SHER). A known archaeological cropmark indicative of early occupation remains was recorded during aerial reconnaissance (HER no. FNM 013). A prehistoric flint scatter (FNM 008) is located to



the north of this cropmark. Recorded to the east of the cropmark is a medieval finds scatter (FNM 004).

## **5.0 PROJECT AIMS**

A field evaluation is required of the site to enable the archaeological resource, both in quality and extent, to be accurately quantified. The field evaluation should include a geophysical survey and a programme of trial trenching (Brief, Section 3.1). The geophysical survey is required to establish the suitability of the area for development (Brief, Section 3.2). This WSI deals solely with the geophysical survey stage.

## **6.0 METHODOLOGY**

### **6.1 Fieldwork**

A detailed fluxgate gradiometer survey is required over c.2.8 Hectares, scheduled to be undertaken in August 2015.

### **6.2 Instrument Type Justification**

Britannia Archaeology Ltd will employ a Bartington Dual Grad 601-2 fluxgate gradiometer to undertake the survey, because of its high sensitivity and rapid ground coverage. The soils and underlying geology are receptive to magnetometer survey, but good results are dependent on the contrast between the fills of a feature (with humic and charcoal rich deposits providing the best results) and the relative weakness of the local magnetic background field.

### **6.3 Instrument Calibration**

The Magnetometer will be left on for a minimum of 20 minutes in the morning for the sensors to settle before any recorded survey takes place. Sensor heights will be measured and equalised at the start of the first day so that a consistent height above the ground is maintained during the survey. Each sensor shall be positioned on the same side of the instrument throughout the survey. The instrument shall be zeroed after every three grids to minimise the effect of sensor drift. An area shall be chosen with low magnetic susceptibility to calibrate the instruments sensors, this same point shall be used to zero the sensors throughout the survey providing a common zero point.

### **6.4 Sampling Interval and Grid Size**

The sampling interval shall be 0.25m along 1m traverse intervals, within 20 x 20m grids.

### **6.5 Survey Grid Location**

The survey grid shall be set out to the Ordnance Survey OSGB36 datum to an accuracy of  $\pm 0.01$ m employing a Leica Viva Glonass Smart Rover GS08 real time kinetic (RTK) survey system. Data will be converted to the National Grid Transformation OSTN02, and



the instrument will be regularly tested using stations with known ETRS89 coordinates. The grid will be located over the footprint of the reservoir, on a north-east to south-west alignment, with the first traverse of each grid walked north-easterly (Figure 1).

## 6.6 Data Capture

The grid order will be recorded on a BA pro-forma so that the composite plan can be inputted at the close of the day. Instrument readings will be recorded on an internal data logger, downloaded to a laptop at midday and in the evening. Data will be filed in job specific folders, broken up into daily data sets. All data will then be backed up onto an external storage device and finally a remote server. Raw data composites will be uploaded into an AutoCAD drawing and then printed out daily. This will allow BA to check data quality and to re-survey any grids if necessary.

## 6.7 Data Presentation and Processing

Only minimal processing of the datasets shall be undertaken, typically de-spike and zero mean traverse. Raw and processed greyscale plots shall be produced for comparison, this ensures that no anomalies are processed out of the original data set. An XY trace plot consisting of raw and processed data will be used in combination with raw and processed greyscale data. An interpretation plan characterising the anomalies shall be produced drawing on the evidence collated from the greyscale and XY trace plots. All figures will be tied into the National Grid and printed at an appropriate scale.

## 6.8 Software

The software used to process the data and produce the composites will be DW Consulting's Terrasurveyor v.3.0.25.0. Datasets will be exported into AutoCAD and placed onto their corresponding grid positions. An interpretation plot will then be produced using AutoCAD.

## 7.0 PRESENTATION OF RESULTS

The prepared client/archive report will be commensurate with the results of the fieldwork, and will be consistent with the principles of the *Management of Research Projects in the Historic Environment (MoRPHE)*, English Heritage, Edmund Lee, 2006 (minor revisions 2009), *Geophysical Survey In Field Evaluation*, English Heritage, Andrew David *et al*, 2008, and the *Standard and Guidance for Archaeological Geophysical Survey*, Institute for Archaeologists, 2011, containing the following:

- *Summary.* A concise summary of the work undertaken and the results.
- *Introduction.* Introduction to the project including the reasons for work, funding, planning background.
- *Background.* The history, layout and development of the site.



- *Aims and Objectives.*
- *Methodology.* Survey strategy and techniques used.
- *Results.* Detailed description of findings outlining the nature, location and extent of the anomalies.
- *Discussion and Conclusions.* A synopsis interpreting the anomalies, impact assessment, site potential, possible locations of subsequent trial trenches.
- *Bibliography.*
- *Appendices.* Technical Details, Geo-referencing Information, Metadata Sheet, HER/OASIS Summary Sheet.
- *Illustrative Material.* Raw Data Plots, Processed Data Plots, XY Trace Plots, Interpretation Plots, Photographs.

Digital copies will be supplied to the client and the digital version of the final report will be submitted to the Suffolk Historic Environment Record in due course (including a vector plan and AutoCAD .dxf file) and the National Monuments Record (NMR). A .pdf version will be uploaded to the ADS website and an OASIS form will be completed online and sent to the HER.

## **8.0 PROJECT ARCHIVE AND DEPOSITION**

A full archive will be prepared for all work undertaken in accordance with guidance from the *Selection, Retention and Dispersion of Archaeological Collections*, Archaeological Society for Museum Archaeologists, 1993. Arrangements will be made for the archive to be deposited with the relevant museum/HER Office.

## **9.0 HEALTH AND SAFETY**

BA operates a comprehensive Health and Safety Policy in accordance with the Health and Safety Executive. BA operates under the Federation of Archaeological Managers and Employers (FAME) *Health and Safety Field Manual*, which is regularly updated by supplements.

BA are covered by employer's liability, public liability and professional indemnity insurance arranged through Towergate Insurance (see Appendix 2).

### **9.1 Code of Practice, Risk Assessment and Site Induction**

BA's Code of Practice covers all aspects of survey work and ensures all risks are adequately controlled. A site visit will be undertaken and an assessment of the potential risks highlighted, a full site risk assessment will be produced based on this information. The assessment of risk is continually monitored and this document can be updated if any



change in risk occurs. A copy of the Risk Assessment is kept on site, read and countersigned by all staff and visitors during the BA site induction.

BA will liaise with the contractor or client on arrival and will follow any additional Health and Safety instructions given.

A qualified First Aider will be present on every site.

All BA staff members are CSCS registered.

## **10.0 RESOURCES**

All archaeological projects are undertaken by a team of professional qualified archaeologists, a synopsis can be found at Appendix 3. Full CVs are available on request.

All site work will be undertaken by a Project Officer (with a field team if required) in close communication with a Project Manager. This project officer will also be responsible for post-survey publication.

## **11.0 TIMETABLE AND PROGRAMME OF WORK**

The geophysical survey is scheduled to be undertaken in August 2015 and report production will commence thereafter. Preliminary greyscale and interpretation plots shall be issued at the end of the survey. It is understood that the client is aware of the working methods and provision has been made to allow access to undertake the survey as required.





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## **Magnetic Anomalies**

### **Linear trends**

Linear trends can be both positive and negative magnetic responses. If they are broad, relatively weak or negative in nature they may be of agricultural or geological origin, for example periglacial channels, land drains or ploughing furrows. If the responses are strong positive trends they are more likely to be of archaeological origin. Archaeological settlement ditches tend to be rich in highly magnetic iron oxides that accumulate in them via anthropogenic activity and humic backfills. Conversely surviving banks will be negative in nature, the material is derived from subsoil deposits that is less likely to be positively magnetic. Curvilinear trends can also be recorded and are indicative of archaeological structures such as drip-gullies.

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Discrete anomalies appear as increased positive responses present within a localised area. They are caused by a general increase in the amount of magnetic iron oxides present within the humic back-fill of for example a rubbish pit.

### **'Iron spike' anomalies**

These strong isolated dipolar responses are usually caused by ferrous material present in the topsoil horizon. They can have an archaeological origin but are usually introduced into the topsoil during manuring.

### **Areas of magnetic disturbance**

An area of magnetic disturbance is usually associated with material that has been fired. For example areas of burning, demolition (brick) rubble or slag waste spreads. They can also be caused by ferrous material, e.g. close proximity to barbed wire or metal fences and field boundaries, buried services, pylons and modern rubbish deposits.



**APPENDIX 2      INSURANCE DETAILS**

	<b>Employers Liability Insurance</b>	<b>Public Liability</b>	<b>Professional Indemnity</b>
Insurer	Towergate Insurance	Towergate Insurance	Towergate Insurance
Extent of Cover	£10,000,000	£2,000,000	£2,000,000
Policy Number	000436	000436	201101352/1236



### **APPENDIX 3 STAFF**

The following members of staff have the skills and experience necessary to undertake the supervision of archaeological work as required in the brief. All have a wide range of experience on a variety of site types.

#### **Archaeologist Adam Leigh BA (Hons)**

*Qualifications:* University of Reading, BA (Hons) History (2008-2011)

*Experience:* Adam joined Britannia Archaeology in early 2015 as an Archaeologist and has four years' experience within commercial archaeology. After graduating from Reading with First Class Honours, Adam began his career in archaeology processing finds recovered from sites across East Anglia. In 2012 he became responsible for supervising the processing of finds and working with specialists to produce post excavation assessments. Adam has also worked closely with archivists and has experience in preparing archives for deposition across the region. In his time within commercial archaeology he has learned a wide range of fieldwork skills on numerous sites within and beyond the East Anglia. Adam's main research interests lie in the archaeology and history of the medieval period that stemmed from his higher education studies.

#### **Senior Project Manager Dan McConnell BSc (Hons)**

*Qualifications:* University of Bournemouth, BSc (Hons) Archaeology (1995-1998)

*Experience:* Dan is a Senior Project Manager at Britannia Archaeology and has seventeen years commercial archaeological experience. He took part in several archaeological projects in the north of England from the late 1980's onwards, including the Wharram Percy Research Project and Mount Grace Priory excavations. Within commercial archaeology he has been involved with many small to large scale archaeological projects in the United Kingdom and Ireland including major infrastructure schemes. Since relocating to East Anglia in 2004 he has carried out and managed several small to large scale excavations across the south and east of England. In 2008 Dan became a County Archaeologist for the Cambridgeshire County Council Historic Environment Team before joining Britannia in 2014. His main research interests focus on the early pre-historic period (In particular the Neolithic) of the British-Isles and late post-medieval archaeology.

#### **Senior Project Manager Martin Brook BA (Hons) PCIfA**

*Qualifications:* University of Leicester, BA (Hons) Archaeology (2003 – 2006)

*Experience:* Martin is a Senior Project Manager at Britannia Archaeology and has ten years commercial archaeological experience. He specialises in logistical project management, archiving and fieldwork. He has carried out numerous excavations and evaluations throughout East Anglia and the Midlands, and works closely with local and national museums when archiving sites. His research interests are focused on the British Iron age specifically funerary traditions in the south of England and in East Yorkshire.



Martin specialises in metalwork finds from the period, specifically those associated with grave goods and personal adornment.

**Director Timothy Schofield HND BSc PCIfA**

**Qualifications:** University of Bournemouth, BSc Archaeological Studies (1999-2000)  
Yeovil College, HND Practical Archaeology (1997-1999)

*Experience:* Tim is the Co-Director of Britannia Archaeology and has fifteen years post-graduation archaeological experience. He specialises in geophysical survey, topographic survey, computer aided design and archaeological excavation. He has carried out numerous surveys and excavations across the UK. His research interests focus mainly on prehistoric and post-Roman archaeology and in the use and application of modern technological advances in archaeology.

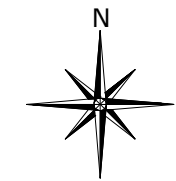
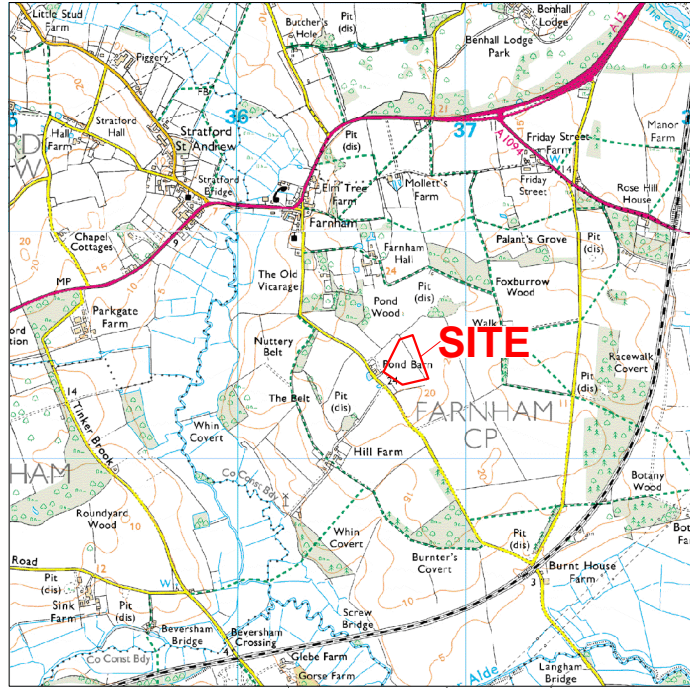
**Director Matthew Adams BA (Hons) ACIfA**

**Qualifications:** University of Durham, BA (Hons) Classical Studies (1997- 2000)

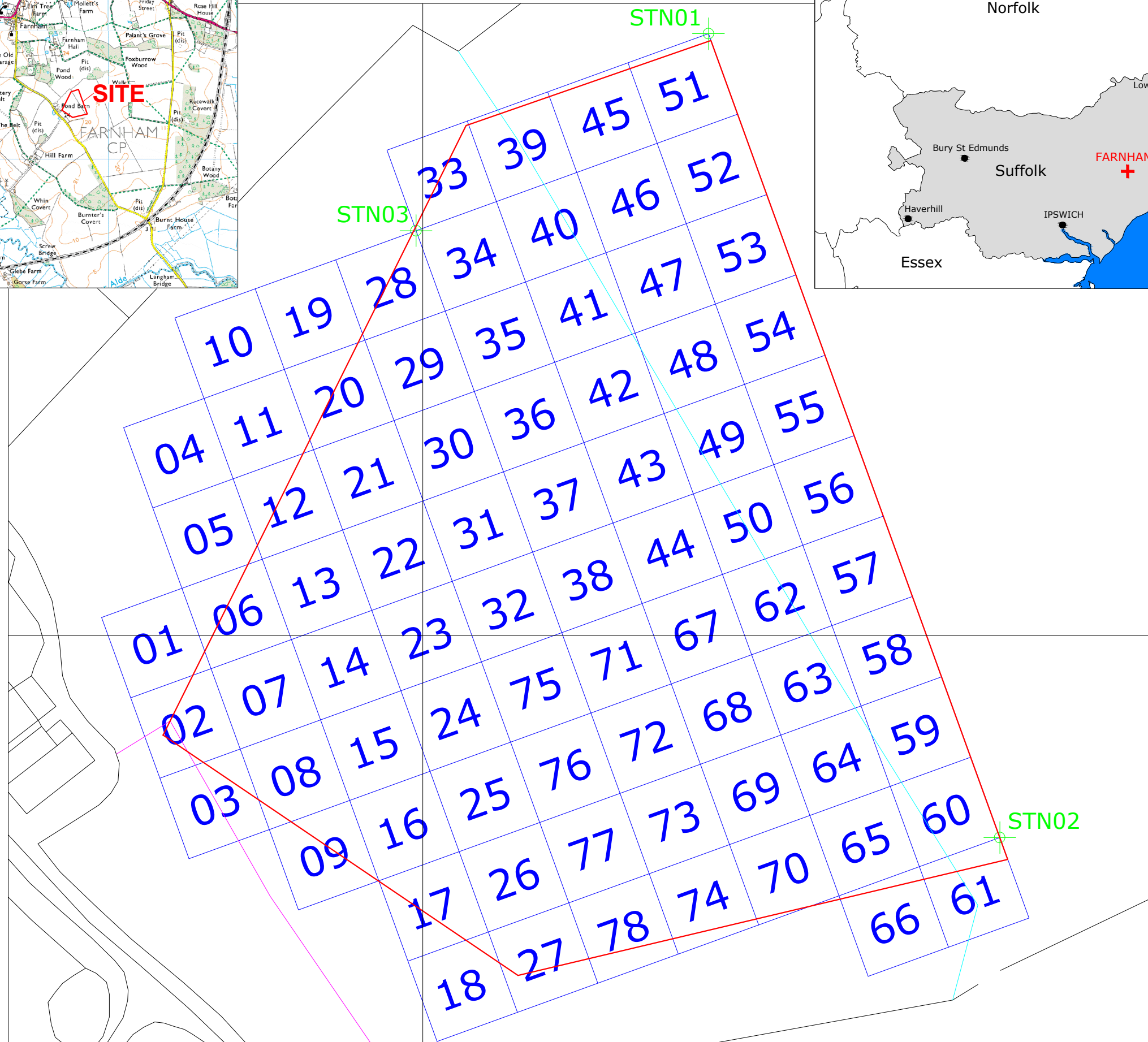
*Experience:* Matt is the Co-Director of Britannia Archaeology and has ten years commercial archaeology experience. He was involved in several archaeological projects in the midlands from the mid 1990's onwards and in the North East of England as an undergraduate. Since 2007 he has been based in East Anglia where he has specialised in all areas of practical field work, running numerous projects both large and small. He is also an experienced surveyor, GIS and AutoCAD operator. Matt was an occasional contributor to the popular TV series Time Team and is experienced at presenting talks and seminars to interested organisations. His main research interests focus on transitional periods and include the late Iron Age and early Romano-British period, and the late Roman and early Anglo-Saxon period in Britain and the late Aegean Bronze Age in Crete.







STATION	EASTING	NORTHING
01	636766.815	259540.782
02	636834.961	259352.750
03	636698.417	259494.720



259400

636700

	1975 Digitised Map Features
	1883 Digitised Map Features
	Survey Grid Location
	Site Boundary

NGR: TM 3670 5940	REPORT NUMBER: 1107
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PROJECT: POND FARM, FARNHAM, SUFFOLK



DESCRIPTION: SITE, SURVEY GRID & GEOREFERENCING INFORMATION PLAN

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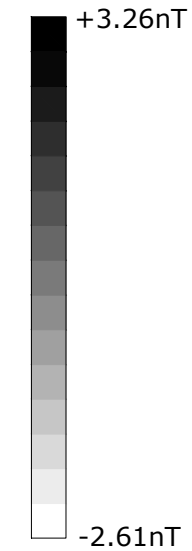
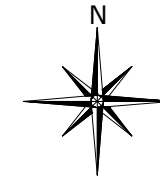
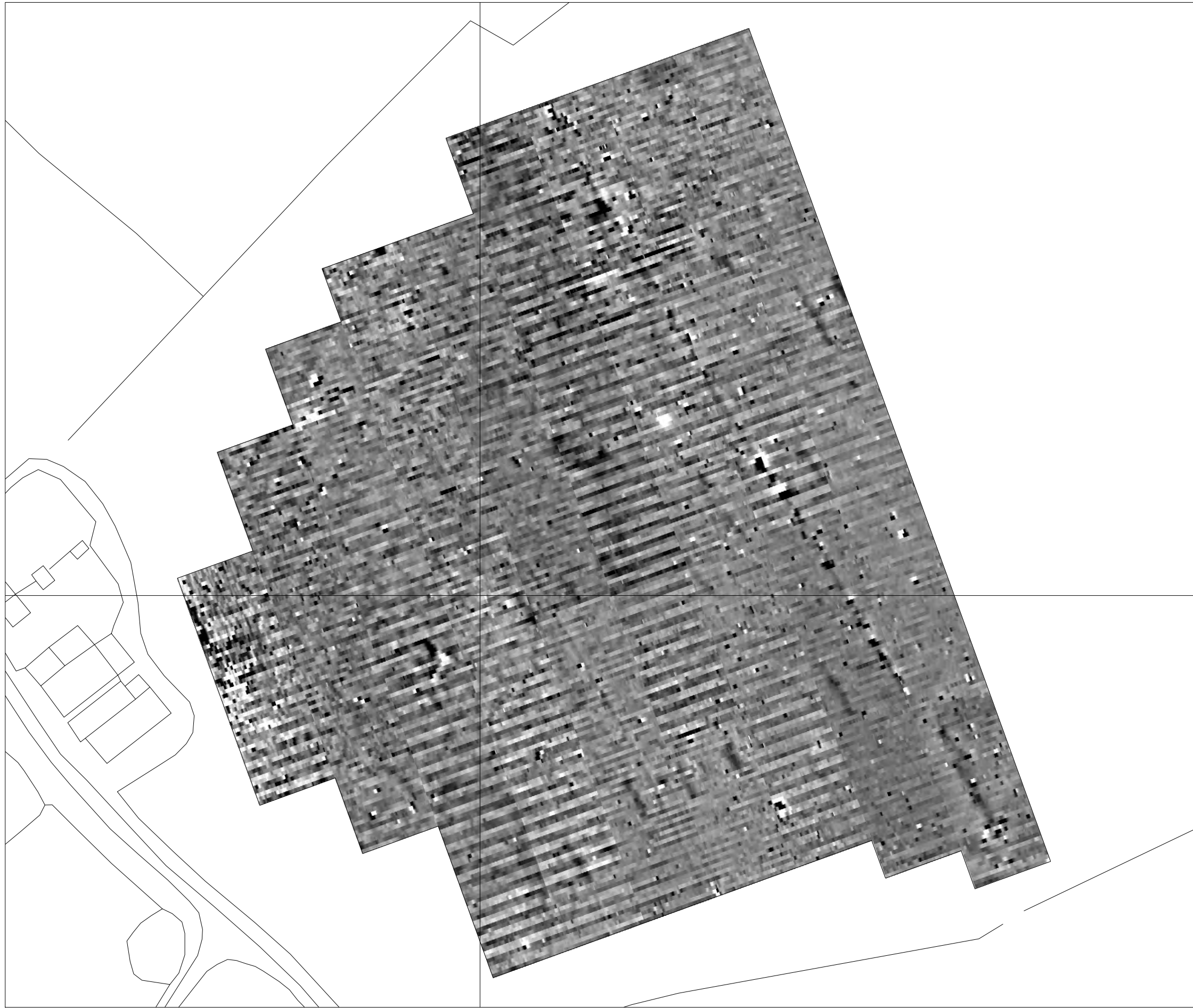
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PLOT: A3	APPROVED: DPM	VERSION: 01
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DATE: AUG 2015	AUTHOR: TPS	FIGURE: 01
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NGR: TM 3670 5940      REPORT NUMBER: 1107

PROJECT: POND FARM, FARNHAM, SUFFOLK

CLIENT: 

DESCRIPTION: RAW MAGNETOMETER GREYSCALE PLOT

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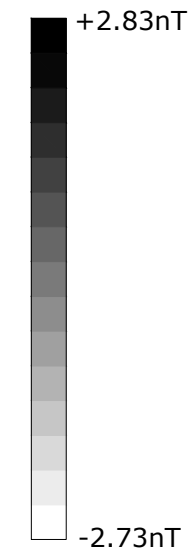
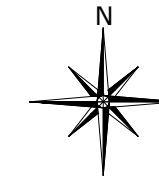
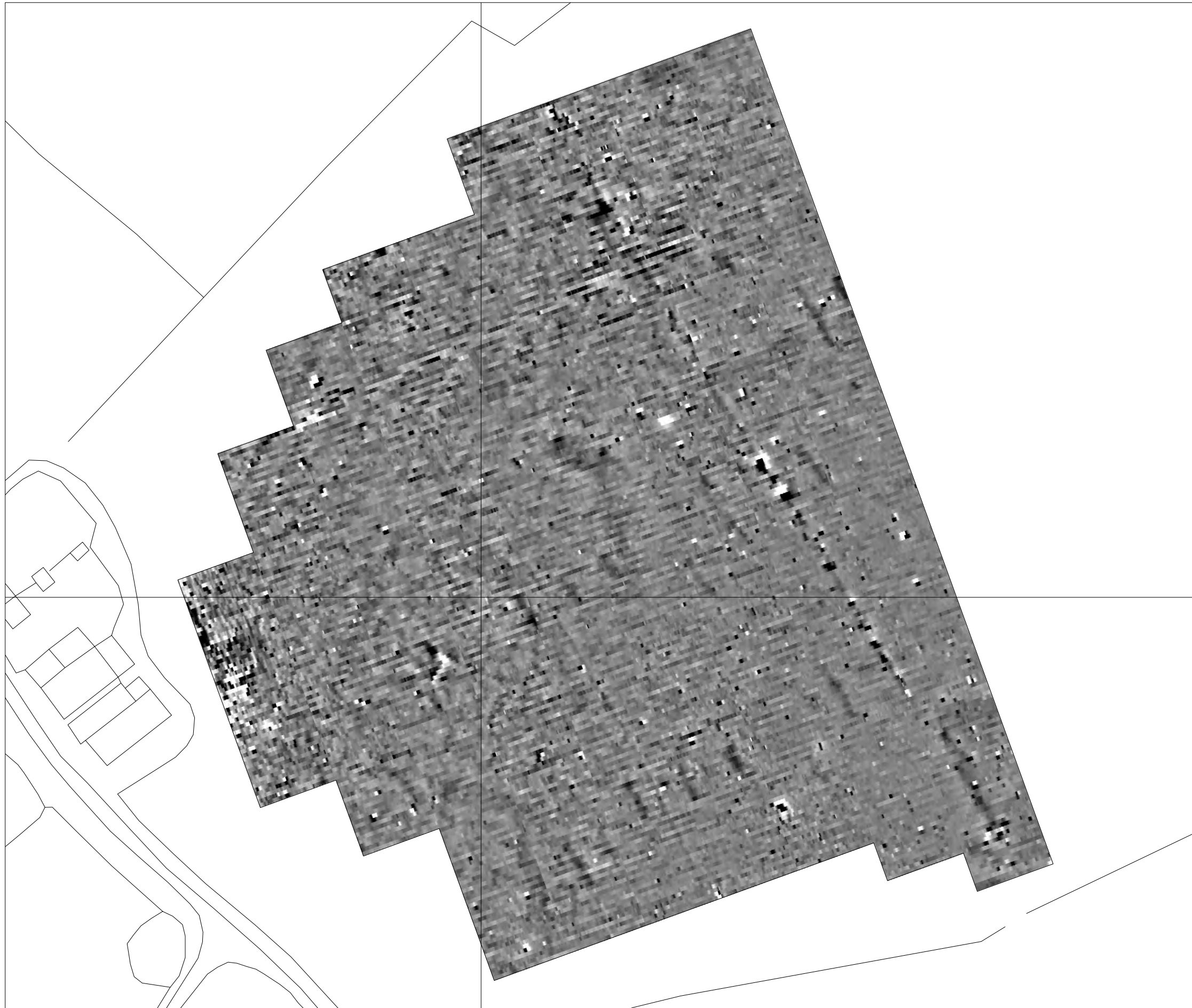
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PLOT: A3	APPROVED: DPM	VERSION: 01
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DATE: AUG 2015	AUTHOR: TPS	FIGURE: 02
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NGR: **TM 3670 5940**      REPORT NUMBER: **1107**

PROJECT: **POND FARM,  
FARNHAM, SUFFOLK**

CLIENT: 

DESCRIPTION: **PROCESSED MAGNETOMETER  
GREYSCALE PLOT**

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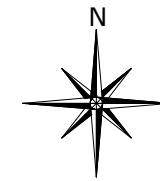
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PLOT: <b>A3</b>	APPROVED: <b>DPM</b>	VERSION: <b>01</b>
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DATE: <b>AUG 2015</b>	AUTHOR: <b>TPS</b>	FIGURE: <b>03</b>
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19nT/cm	Scale Interval
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NGR: TM 3670 5940	REPORT NUMBER: 1107
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PROJECT: POND FARM, FARNHAM, SUFFOLK
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CLIENT: 
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DESCRIPTION: PROCESSED MAGNETOMETER XY TRACE PLOT
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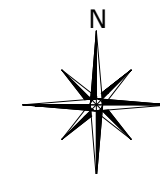
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PLOT: A3	APPROVED: DPM	VERSION: 01
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DATE: AUG 2015	AUTHOR: TPS	FIGURE: 04
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	Positive Linear Anomaly, Archaeology?
	Positive Discrete Anomaly, Archaeology?
	Positive Linear Trend, Remnant Field Boundary
	Magnetic Disturbance, Overhead Power Cable and Pole
	Weak Broad Positive Anomalies, Geology
	Positive Linear Anomalies, Agricultural Furrows
	Narrow Negative Linear Anomalies, Agricultural Land Drains
	Area of Magnetic Disturbance, Modern
	Isolated Dipolar Responses, Ferrous Objects

	Site Boundary
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NGR: TM 3670 5940	REPORT NUMBER: 1107
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PROJECT: POND FARM, FARNHAM, SUFFOLK
--------------------------------------

CLIENT:
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DESCRIPTION: INTERPRETATION PLOT OF MAGNETOMETER ANOMALIES
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SCALE: 1:1000	
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PLOT: A3	APPROVED: DPM	VERSION: 01
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DATE: AUG 2015	AUTHOR: TPS	FIGURE: 05
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# PCA

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---

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