

Coton to Bourn Booster Pipeline, Cambridgeshire:

An Archaeological Evaluation and Excavation



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Event Number ECB2942

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CONTENTS

List of Tables	i
List of Figures	i
Acknowledgements	ii
Summary	iii
1 INTRODUCTION	1
1.1 Topography and Geology	1
1.2 Archaeological and Historical Background	1
2 ORIGINAL RESEARCH AIMS	2
2.1 Evaluation	2
2.2 Excavation	2
3 INVESTIGATION STRATEGIES	3
3.1 Field Survey	3
3.2 Evaluation Trenching	3
3.3 Excavation	4
4 RESULTS	5
4.1 Field Survey	5
4.2 Evaluation Trenching	5
4.3 Excavation	7
4.3.1 Phase 1: Iron age	7
4.3.2 Phase 2: Romano British	10
4.3.3 Phase 3: post-Medieval	13
4.4 Discussion	13
4.5 Statement of Potential	15
5 REVISED RESEARCH AIMS	16

6 APPENDICES		17- 88
6.1 Archaeophysical Survey	F.S.M. Prince with A.D.H. Bartlett	17
6.2 The Later Prehistoric and Roman Pottery	Katie Anderson	33
<i>6.2.1 Evaluation</i>		<i>33</i>
<i>6.2.2 Excavation</i>		<i>36</i>
6.3 The Roman Tile	Katie Anderson	45
6.4 Faunal Remains	Vida Rajkovača	46
<i>6.4.1 Evaluation</i>		<i>47</i>
<i>6.4.2 Excavation</i>		<i>48</i>
6.5 The Flint	Lawrence Billington	52
<i>6.5.1 Evaluation</i>		<i>52</i>
<i>6.5.2 Excavation</i>		<i>52</i>
6.6 Assessment of the Human Bone	Natasha Dodwell	54
6.7 Assessment of Bulk Environmental Samples	Anne de Vareilles	55
6.8 Metalwork	Grahame Appleby	59
6.9 Slag and Industrial, Burnt Clay and Stone	Simon Timberlake	60
<i>6.9.1 Evaluation</i>		<i>60</i>
<i>6.9.2 Excavation Areas 1 and 2</i>		<i>62</i>
<i>6.9.3 Excavation Area 3</i>		<i>65</i>
<i>6.9.4 Discussions</i>		<i>67</i>
6.10 Shells		71
6.11 Feature Descriptions		72
<i>6.11.1 Evaluation</i>		<i>72</i>
<i>6.11.2 Excavation</i>		<i>81</i>
BIBLIOGRAPHY		88
FIGURES		92

List of Tables

Table 1: All Artefacts from Field Survey	5
Table 2: Feature Summary for all Evaluation Trenches	6
Table 3: Feature Summary for all Excavation Areas	7
Table 4: Summary of Iron Age Structures	8
Table 5: Summary of Iron Age Enclosures	9
Table 6: Summary of Romano-British Boundaries and Enclosures	10
Table 7: Summary of Material Culture from Romano-British Middens	11
Table 8: All pottery from evaluation by period	33
Table 9: All prehistoric pottery from evaluation by fabric	33
Table 10: All Roman pottery from evaluation by fabric	34
Table 11: All Prehistoric pottery from evaluation by form	34
Table 12: All Roman pottery from evaluation by form	35
Table 13: Pottery from evaluation by feature	35
Table 14: All prehistoric pottery from excavation by fabric	37
Table 15: All Prehistoric pottery from excavation by form	38
Table 16: All prehistoric pottery from excavation by Feature	38
Table 17: All Roman pottery from excavation by Fabric	40
Table 18: All Roman forms from excavation	41
Table 19: All Roman pottery from excavation by Feature	43
Table 20: Sub-division of faunal assemblage based on the chronology	46
Table 21: NISP and MNI counts for contexts in trenches 1-9	47
Table 22: NISP and MNI counts for contexts in trenches 10-44	48
Table 23: NISP and MNI counts for contexts from Areas 1 and 2	49
Table 24: NISP and MNI counts for contexts in the Area 3	50
Table 25: Major species relative proportions by period	50
Table 26: Worked flints from evaluation by type and feature	52
Table 27: Worked flints from Areas 1 & 2 by type and feature	53
Table 28: Worked flints from Area 3 by type and feature	53
Table 29: Charred Plant Macro-Remains and Mollusca from Iron Age Bulk Soil Samples	57
Table 30: Charred Plant Macro-Remains and Mollusca from Romano British Bulk Soil Samples	58
Table 31: All Shell by Feature and Type	71
Table 32: All Shell by Species	71

List of Figures

Figure 1: Location Plan and Pipeline Route	92
Figure 2: Field Survey Areas	93
Figure 3: Evaluation Trenches 1-9	94
Figure 4: Evaluation Trenches 10-21	95
Figure 5: Evaluation Trenches 22-32 and 43	96
Figure 6: Evaluation Trenches 33-42 and 44	97
Figure 7: Excavation Area 3, Plans and Sections	98
Figure 8: Excavation Areas 1 and 2, Plans and Sections	99
Figure 9: Photographs of Excavation Area 3	100
Figure 10: Photographs of Excavation Areas 1 and 2	101
Figure 11: Graph showing frequency of pottery overtime in Areas 1 and 2	44

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Summary

This report is the assessment of the results from an archaeological evaluation comprised of a geophysical survey, field survey and trial trenching, followed by the resulting excavations. The project was undertaken between the villages of Coton to Bourn, Cambridgeshire between May and August 2008 and was commissioned by Cambridge Water Company.

The pipeline route (PR) lies to the north of the adjacent A428, opposite Bourn Airfield, and further east, from Scotland Farm to the A1303/ A428 slip road, south of Park Farm before continuing south of the A428 to Coton. The pipeline originates at TL 3370 5990 and terminates at TL 4060 5900.

The programme of works followed on from the results of a desk based assessment (DBA), (Appleby, G. A. & Beadsmoore, E. 2008), which identified the potential for prehistoric, Roman, Medieval and post-Medieval settlement activity. The evaluation confirmed these findings and identified four zones of significant archaeological activity. The excavation then expanded three of these zones into archaeological excavations, providing substantial evidence of Romano British (Areas 1 and 2), and Iron Age (Area 3) settlement. The fourth area comprised of Late Neolithic/ Early Bronze Age and Romano British activity and was preserved in situ.

The earliest evidence of archaeological activity within the PR was a small cluster of Later Neolithic/ Early Bronze Age worked flints within a buried soil layer, situated towards the eastern extremity of the trial trenching; this was also the deepest trench in the evaluation. A Middle to Late Iron Age settlement was excavated at Two Pots Farm which consisted of an enclosure ditch and associated features. The potential for two further enclosures was identified, of which only a small portion were revealed within the excavation area. A small amount of Middle Iron Age pottery was recovered within features truncated/ re-cut by the main phase of Iron Age activity which suggests an ephemeral presence of slightly earlier settlement. Part of a substantial Romano British settlement was excavated on land east and west of Long Road which produced material from the 1st – 4th centuries AD, with a notable increase of intensity from the mid/ late 2nd into the 4th century. The settlement comprised of a series of large inter-cutting boundary ditches truncated by smaller ditches, gullies, and ring gullies interspersed with pits. The largest boundary ditch revealed a sequence of filling events from the 2nd up to the 4th century AD and appeared to have been continually used for refuse disposal until it was replaced by middens as the settlement appeared to quieten down. The evaluation also revealed nominal evidence of post-Medieval activity in the form of sporadic linears and furrows.

1 INTRODUCTION

An archaeological evaluation comprising a geophysical survey, field survey and trial trenching, and the resulting excavation was undertaken on behalf of Cambridge Water Company between 21st May and 14th August 2008. The pipeline route (PR) lies immediately north of the A428, bisecting the southern limits of the parishes of Knapwell, Boxworth, Childerly, Dry Drayton, Madingley, and the northern parts of Comberton and Coton (Appleby & Beadsmoore 2008). The investigated area originates at TL 3370 5990 and terminates at TL 4060 5900, within the boundaries of South Cambridgeshire. The evaluated trial trenches totalled approximately 0.085 hectares, and the resulting open areas totalled 0.288 hectares.

The investigations followed a project specification set out by the Cambridge Archaeological Unit (CAU) (Beadsmoore 2008) in response to a design brief that was issued by Cambridge Archaeology Planning and Countryside Advise (CAPCA) (Gdanic 2007).

1.1 Topography and Geology

The topography of the study area is characterised by an east-west orientated ridge/spur, attaining a height of *c.*70m OD (Ordnance Datum, above sea level), for the western section of the proposed route and *c.*60m OD along the eastern section before descending over a distance of approximately 100m to *c.*45m OD at Coton (Appleby & Beadsmoore 2008). More specifically the heights of the excavation areas are as follows: Area 1 61.7m – 61.3m OD (north to south); Area 2 62.6m – 61.4m OD (north to south); and Area 3 69.7m – 69.0m OD (east to west). The underlying geology is characterised by Boulder Clay overlying solid chalk, with occasional outcrops of marl (degraded chalk), clay and shale, and grey-blue clay (BGS sheets 187: 1974, and sheet 188: 1975).

The PR runs approximately parallel to the A428 opposite Bourn Airfield and from Scotland Farm to the A1303/ A428 slip road, southeast of Park Farm, where it crosses the dual carriageway at right angles. The route then follows the southern edge of the St Neots Road, east of Red House Farm, and the western margin of Long Road, before resuming an east-west orientation across agricultural land prior to descending to the reservoir at Coton. Excavation Areas 1 and 2 were located almost parallel to each other, situated immediately east and west of Long Road, whilst Area 3 was located within Two Pots Farm towards the western side of the PR, all of which were within arable land (Figure 1).

1.2 Archaeological and Historical Background

The PR lies within a rich archaeological and historical environment with significant evidence for archaeological activity dating from the Middle Iron Age period to the present date. An archaeological desk based assessment (DBA) has been carried out along the route of the PR (Appleby & Beadsmoore 2008), the results of which are briefly summarised below.

Archaeological fieldwork and excavation has taken place across the majority of the length of the PR, the bulk of which was conducted prior to the construction of the improvement scheme for the A428. Mesolithic/ Early Neolithic and potential Bronze Age flints were collected during the field walking survey and evaluations that were carried out prior to the excavation along the A428 (Abrams 2004, Ingham 2007, Abrams and Ingham 2008, Abrams 2005). Nine sites were identified within these excavations of which four, (3, 7, 8 and 9), fall along the line of the PR (Abrams and Ingham 2008). Middle to late Iron Age features were exposed; a probable farmstead comprising enclosures was identified at Scotland Farm, whilst Middle to Late Iron Age enclosures were identified further west towards Two Pots Farm (Albion Archaeology 2006a, Ingham 2007, Abrams and Ingham 2008, Albion Archaeology 2006b). Romano-British activity was also identified along the PR including; a droveway and associated enclosures dated to the 2nd C. AD and enclosures with potential roadside activity dating to the end of the 3rd C./ beginning of the 4th C AD situated north of Bourn Airfield.

Aerial photographic and earthwork studies have also revealed pre-Roman field systems and boundaries, Roman boundaries and ladder systems, and extant Medieval and post-Medieval ridge and furrow.

The known historical land use therefore indicates a medium to high probability of surviving archaeology and artefacts associated with the Iron Age and Romano-British farmsteads at two pots farm, and the possibility of encountering further sites of the same period between Comberton Plantation and Coton (Appleby and Beadsmoore 2008). Evidence for later field and property boundaries may be encountered in addition to evidence relating to quarrying and coprolite mining.

2 ORIGINAL RESEARCH AIMS

2.1 Evaluation

The aim of the evaluation (geophysical survey, field survey and trial trenching) was to determine the presence/ absence and character of archaeological remains within the PR and identify any potential impact the PR may have on the archaeology. More broadly, the evaluation aims were:

- To determine the degree of preservation and chronological range of archaeological remains.
- To determine the need for further archaeological work.
- To determine, as far as possible, the origins, development, function, character and status of the site.

2.2 Excavation

The aim of the excavation was to define the Iron Age and Romano-British settlement activity within three targeted areas identified during the evaluation stage of the investigation. More broadly, the excavation aims were:

- To further define the extent, character and date of the archaeological deposits and features revealed.
- To determine, as far as possible, the origins, development, function, character and status of the site.
- To establish the stratigraphic sequence of the targeted areas, the date of the features and the nature of the activities carried out at the sites during the phases of its occupation.
- To place the findings of the excavations within both regional and national research contexts.

3 INVESTIGATION STRATEGIES

The investigation strategy has been split into stages in order to better illustrate the methodology implemented. The strategy for geophysical survey is located in: **6.1 Archaeogeophysical Survey** (Bartlett-Clark Consultancy).

All work was carried out in strict accordance with statutory Health and Safety legislation, within CAU risk assessment, and within the recommendations of SCAUM (Allen & Holt 2002).

3.1 Field Survey

A central transect was laid out using a ‘Global Positioning System’ (GPS) along the c.15m wide pipeline corridor. The central transect was field walked, covering a 2m sweep and artefacts were collected within 20m intervals. For ease of walking and illustration the central transect was divided into areas; A (Two Pots Farm); B (Park Farm); and C (west and east of Long Road). Areas A, B, and C were sub divided into the 20m intervals; A1, A2, ..., B1, B2 and so on (Figure 2).

The metal detecting survey utilised the same transect as the field walking and was carried out using a ‘Laser Rapier’, covering a sweep of between 1.5m – 2m (Beadsmoore 2008). Iron objects were discriminated against and very recent objects of no archaeological interest/ significance were discarded. All other metal finds were collected and plotted to within 1m along the central transect.

3.2 Evaluation Trenching

After consultation with CAPCA based on information provided by the field survey, 800m of trial trenching was positioned and excavated, a further 30m of trenching was machined as contingency (Trenches 43 and 44) (Figure 1). Trenches were laid out using a GPS. All trenches were 2m wide with the exception of trench 41, (6m wide), which was stepped due to the depth at which archaeology was encountered, the total area evaluated was therefore approximately 0.085 hectares (ha).

The programme of works was carried out as agreed within the project specification (Beadsmoore 2008) using a 360° tracked excavator with a toothless ditching bucket to

remove the overlying topsoil and subsoil deposits. A 'buried soil' deposit was encountered in trench 41 which was left in and subsequently test pitted.

50% of each discrete feature was excavated, while linears were sampled in 1m sections, excavation was carried out by hand and all finds were retained. The recording followed a CAU modified MoLAS system (Spence 1990); assigning context numbers (e.g. [fill], [cut]) to stratigraphic units and feature numbers, F., to interrelated stratigraphic units (e.g. a ditch's cut and fills). All archaeological features were planned at 1:50 and sections were recorded at 1:10. Pertinent features were photographed using a digital camera.

3.3 Excavation

After consultation with CAPCA based on information provided by the evaluation stage of the investigation, three excavation areas were agreed upon and subsequently machined. These were identified as Areas 1 (619m²), Area 2 (1101.28m²), and Area 3 (1155.78m²) totalling 2876.21m² (or 0.288ha) (Figure 1). No contingency trenching was opened. Topsoil and subsoil deposits were removed using a 360° tracked excavator with a toothless ditching bucket and stored separately into bunds using a dumper. The site was not backfilled. Due to the long and narrow nature of the excavation areas, a central base line was laid out on each of the sites, with a grid marker at every 10m interval; this was surveyed in using a GPS.

50% of each discrete feature was excavated, while linears were sampled in 1m sections. A burial license was obtained from the Ministry of Justice to facilitate the removal of human remains in Area 3. Excavation was carried out by hand and all finds were retained, including surface finds which were numbered and their positions plotted. The recording followed a CAU modified MoLAS system (Spence 1990); assigning context numbers (e.g. [fill], [cut]) to stratigraphic unit and features numbers, F., to interrelated stratigraphic units (e.g. a ditches cut and fills). All archaeological features were initially planned at 1:50 with further detail recorded at 1:10 as needed, section drawings were recorded at 1:10. The photographic archive comprises mainly digital photographs, complemented by black and white and colour slides.

Artefacts and accompanying documentary records have been compiled into a stable indexed archive. This is currently being stored at CAU under the project code CBP08. Within the text, the reference to a feature number is marked in bold (e.g. **F.1**) and context numbers in square brackets (e.g. [01]).

4 RESULTS

4.1 Field Survey

A total of ten artefacts were recovered from the field survey which includes: post-Medieval and Modern metal work, 19th C AD pottery and 19th C AD glass (table 1). The central transect within Area A was laid to crop which became trampled when walked upon and artefacts were generally hard to spot, no artefacts were recovered. The central transect within Area B was also laid to crop but was high enough to see through artefacts were moderately hard to spot, only a single sherd of post-Medieval pottery was recovered. Within Area C the ground conditions varied from a low crop with fairly good visibility in the west (making artefacts fairly easy to spot); to very dense, high crop which when trampled created zero visibility of soil towards the east. This made artefacts impossible to spot; therefore land east of Long Road was subject to a metal detector survey only. The weather conditions were clear but quite bright, which created moderate walking conditions (clear and dull would have been optimum).

Transect	Artefact	Quantity	Weight (g)	Date	Details
B7	pottery	1	1	19 th C	transfer printed blue and white
C3	pottery	1	2	19 th C	transfer printed blue and white
C6	glass	1	4	late 19 th C	free blown, black glass, bottle frag.
C8	pottery	1	17	mid 19 th C	Notts. Derbyshire English stoneware sherd with rouletted decoration
C8	tile	1	9	post-Med	abraded fragment
C8	glass	1	24	late 19 th C	free blown, black glass, bottle frag.
C24	metal	1	8	Modern	Cu alloy – decorative corner
C36	metal	1	30	unknown	Pb – casting slag
C58	metal	1	4	post-Med	Cu alloy – button
C92	metal	1	32	Modern	Pb – 9mm cannon round
TOTAL		10	131		

Table 1: All Artefacts from Field Survey

A small group of 19th C artefacts were recovered from C8; however no significant clusters were identified. The ordnance found within C92 may have come from the range situated to the south of the village of Coton, the projection of which is aligned with C92.

4.2 Evaluation Trenching

A total of forty three archaeological features were excavated within twenty four of the forty four evaluation trenches. The archaeological features dated from the Late Neolithic/ Early Bronze Age (L.Neo/ EBA), Iron Age, Romano-British and post-Medieval (post-Med) periods (see Figures 3-6); seven un-dated features were also revealed. Two distinct blank areas were also noted between trenches 10-16 and trenches 29-38. Table 2 shows a summary of the feature types and their associated dates.

Feature Set	Feature Sub Set	Phase									
		L. Neo/ EBA		Iron Age		Roman		post-Med		Un-dated	
		No.	Tr's	No.	Tr's	No.	Tr's	No.	Tr's	No.	Tr's
linears	ditch			2	4	10	2; 5; 8; 9; 24; 26; 39	6	17; 18; 19; 25; 28; 33	2	6; 18
	gully							3	2; 40; 43	1	32
	curvilinear					1	39				
	linear?									1	17
pits & p-holes	pit	1	44			2	26			1	39
	quarry pit					2	39				
	posthole					1	24	1	40		
layers	cobbled surface					1	39				
	layer									1	39
	buried soil	2	41								
other	furrow							4	8; 20; 23; 27		
	tree throw									1	28
TOTAL		3		2		17		14		7	

Table 2: Feature Summary for all Evaluation Trenches

Key: No. = number of features, Tr's = trenches features are within; p-holes = postholes

Thirty two percent of features were post-Medieval in date and no further investigation was necessary surrounding them, however four distinct areas of archaeological interest were identified. Following consultation with CAPCA a mitigation strategy was decided upon to; preserve 'by record' three of these areas, and preserve 'in situ' the fourth area. Trench 4 revealed evidence of Middle to Late Iron Age occupation, an excavation area was therefore called by CAPCA centred on this trench, to preserve by record the activity exposed within it (Area 3; Figure 3). Trenches 24 and 26 revealed evidence of Roman occupation, excavation areas were therefore called by CAPCA focused on these trenches, to preserve by record the activity revealed within them (Areas 1 and 2; Figure 5). Details of features from these trenches can be found in: **6.11.1 Context Descriptions**. Trenches 39, 44 and 41 contained evidence of both Roman and Prehistoric occupation (Figure 6), however as the depth of the archaeological deposits exceeded the depth of the proposed water pipe, this area was preserved in situ, and the results are discussed below.

Late Neolithic/ Early Bronze Age activity was evidenced within Trenches 41 and 44 through finds within two buried soil layers, ([16] and [17]), and a pit **F.17**. A total of seven waste flakes were recovered from six 1m² test pits excavated into the buried soil. The pit was a partially exposed sub-oval feature with very steep and slightly concave sides which contained pottery and a worked flint, located on the side of a ridge. This suggests a preference for higher ground; however the buried soil was located lower down, in a valley between two ridges (51mOD). Although originally opened to reveal the extent of the Romano British cobbled surface in Trench 39, Trench 44 revealed no further Roman activity.

Romano British activity was revealed within Trench 39 at a depth of 50.4mOD and was nested between two ridges. A series of ditches and a curvilinear were sealed by a cobbled surface and its associated quarry pits, which contained a small amount of 2nd – 4th C. AD pottery (see Figure 6 for the matrix). With the exception of the

curvilinear, the linears were aligned north-south and may represent an attempt to bridge the gap between the two ridges, perhaps in response to problems with water levels. It is also likely that this failed/ became redundant and was later replaced with a trackway built with the cobbles retrieved from the associated quarry pits. Curvilinear **F.8** may form part of an enclosure and may represent an area of settlement which extends east of the cobbled surface. The trackway and associated features were sealed by layer [31] which was in turn sealed by a colluvial deposit [32], neither of which contained datable material.

4.3 Excavation

The archaeological features revealed in the three areas of excavation can be divided into three broad phases of activity: Phase 1 – Iron Age; Phase 2 – Romano British; Phase 3 - post-Medieval. Table 3 shows a summary of the feature types and their associated dates.

Feature Set	Feature Sub Set	Phase					
		Iron Age		Roman		post-Med	
		A1/2	A3	A1/2	A3	A1/2	A3
linears	ditch		9	30	3		
	gully			6			
	ring gully			2			
	curvilinear ditch			2			
	curvilinear gully			1			
	linear segment				1		
	linear?			1			
pits & p-holes	pit		2	6			
	hearth pit		2				
	well		1				
	posthole		10	1			
layers	occupation layer			1			
	midden			2			
other	furrow					1	
	hedgerow						1
	tree throw			1			
TOTAL		0	24	53	4	1	1

Table 3: Feature Summary for all Excavation Areas

Key: No. = number of features, A1/2 = Areas 1 and 2; A3 = Area 3; p-holes = postholes

4.3.1 Phase 1: Iron Age

Activity spanning from the Early Iron Age to the Later Iron Age was identified within Excavation Area 3; however the peak of the activity occurred in the Middle to Late Iron Age. The main component of was an enclosure (comprised of five ditches) and its associated features, with two potential further enclosures, only a small portion of which were exposed within the excavation area. All phases of Iron Age activity are associated with settlement (Figures 7 and 9).

Structures

Two posthole structures of Mid - Late Iron Age date were recorded within the settlement area, Structures A and B, which comprised of six and four postholes respectively. A hearth and a burnt stone pit were associated with Structure A which was located within what appears to be the centre of Enclosure A and a hearth was loosely associated with Structure B which was potentially associated with Enclosure B. The postholes which made up both Structures were moderately shallow, with near vertical sides and flat bases, occasionally with surviving post-pipes (see summary below).

Structure	Features	Average Depth	Average diameter	Associated Features
A	69, 70, 71, 72, 108, 110	0.11m	0.25m	83, 109, Enclosure A
B	113, 114, 115, 116	0.17	0.39	117, Enclosure B?

Table 4: Summary of Iron Age Structures

The two structures are different in appearance and are possibly not contemporary in date or comparable in function. Through association with the enclosures and burnt pits and using the pottery recovered from within the postholes (which was minimal and non-diagnostic, leading only to a broad 'Iron Age' date), these structures are broadly dated to the Mid - Late Iron Age and cannot be further divided into phases. Structure B is a simple four post structure, probably a shelter or similar simple construction, whereas Structure A may form the entrance (**F.69**, **F.70**, **F.71** and **F.72**) of a larger house which extends northwest outside of the excavation area. This would place the entrance to the house on the same alignment as the entrance to Enclosure A; southeast. The small amount of daub within some of the postholes of Structure A strengthens the argument that it was a house.

Pits

Two small pits, two hearth pits and one well were recorded within Area 3 all dated to the Mid - Late Iron Age either by association/ relationship to other features or directly from the pottery (see **6.11.2**). Two of these; hearth **F.109** and burnt stone pit **F.83** (Figure 7) were located within Enclosure A and are associated with Structure A. The second hearth **F.117** is loosely associated with Structure B and Enclosure B. The well **F.120** may represent an earlier phase of activity within the settlement area as it is truncated by the ditches which form potential Enclosure C, however it is also possible that the well may actually be associated with Enclosure B as the ditches from both Enclosures A and B were also truncated by Enclosure C. In contrast, small pit **F.94** represents the latest Iron Age activity revealed, as it truncates the last Enclosure, C.

Enclosures

One enclosure and a further two potential enclosures were identified within Area 3, these varied in appearance, mainly due to the proportion of the enclosure exposed within the excavation area. They may also represent different forms of activity and/ or phases of activity (see summary table below). The pottery recovered from all the enclosure ditches was Mid - Late Iron Age in date, phasing within this period was by physical relationships between features.

Enclosure	NW-SE (m)	NE-SW (m)	Features	Width of ditches		Depth of ditches	
				min (m)	max (m)	min (m)	max (m)
A	13 +	40	29, 66, 84, 111, 112	1.7	2.3	0.66	1.19
B	7 +	n/a	119	1.8	1.8	0.7	0.7
C	11 +	7 +	93, 121	0.86	1.3	0.55	0.78

Table 5: Summary of Iron Age Enclosures

Key: + = partially exposed measurement, (only complete widths and depths were used)

The majority of the southern half of Enclosure A was exposed within the excavation area which appeared to be sub-circular in plan with the entrance slightly curving in on itself. The ditches forming the enclosure were of a substantial depth, (Table 5 and Figure 7), however they were unlikely to have been utilised for drainage as the enclosure is situated on a high point within the landscape and the environmental analysis revealed no waterlogged deposits at the bases of the ditches. Small amounts of non-industrial slag, burnt clay and vitrified clay hearth lining were recovered from the enclosure ditches. This was most likely discarded waste from the hearth/ pits and house (Structure A) located within the boundaries of the enclosure, suggesting it was used for domestic activities, as opposed to being used for livestock or industry, as Enclosures B or C may have been. A crouched skeleton was revealed within ditch **F.66** of Enclosure C (Figure 7), which was placed southwest-northeast in alignment with the ditch at this point. There was no discernable grave cut, instead the body was placed within the half silted up ditch and covered almost immediately. The ditches themselves have been re-cut at least once, this was identified in two places; in the evaluation slot (**F.29** and **F.30**), and **F.84**, the earlier cut of **F.66**, in both cases on the outside edge. This suggests two things; that the settlement was substantial/ long lived enough to necessitate this effort, and that this may be indicative of a bank on the inside of the enclosure.

Enclosures B and C were only partially exposed and therefore their existence and function is less clear. The ditch forming Enclosure B (**F.119**) was similar in size and fill deposition to Enclosure A suggesting that these may be contemporary. With Structure B potentially situated inside Enclosure B, the return of the ditch would have to lie to the south and east of the excavation area, making this potentially a much larger enclosure than A, perhaps its function was also different. However Structure B could also have been a small grain store situated to the south (outside) of Enclosure B, as a result the remainder of the enclosure would lie to the north of Area 3. Alternatively the ditch may not have formed part of an enclosure. The predominant species of animal bone within Area 3 were sheep and goats which were used for both meat and by products, suggesting small scale farming of livestock as part of a farmstead. Enclosure C's ditch was less substantial in depth than A and B, and from what was revealed within the trench, has a squarer shape in plan. Enclosure C truncates Enclosure A and may truncate Enclosure B north of Area 3, representing the last phase of Iron Age activity. Any structures contained within Enclosure C and the majority of the ditches would extend north and northwest of the excavation area.

The Early Iron Age boundary ditch, **F.64**, represents the earliest activity on site. However its relationship to other Iron Age features on site and its function remains unknown.

4.3.2 Phase 2: Romano British

Romano British settlement activity was identified within excavation Areas 1 and 2 which produced material from the 1st – 4th C AD, with a notable increase of intensity from the mid/ late 2nd into the 4th C. The most visible component of this activity were the enclosure ditches which join a large boundary ditch that continued to develop up to and including the 4th C. Only a small portion of these potential enclosures have been exposed within the excavation areas, however it is likely that the features are part of a substantial settlement (Figures 8 and 10).

Boundaries and Enclosures

There are potentially a number of enclosures on site which all appear to share an edge with one large continuously re-cut boundary ditch. Due to the limited dimensions of the excavation areas, which were targeted along the pipeline route and easement, only short segments of linears with the potential to be enclosures were visible, with no clear connection to each other. Realistically only three enclosures can be identified, which, along with the main boundary are summarised in the table below.

Enc/ B'dry	Phase	NW-SE (m)	NE-SW (m)	Features	Width of ditches (m)		depth of ditches (m)		Material Culture
					min	max	min	max	
B'dry	2	/	29+	23, 58, 59, 60, 61	0.4	2.9	0.34	1.53	pottery, Fe chisel, Fe bar, Fe nails, slag, quern, anvil, animal bone, burnt clay, oyster shell
D	2b	69+	42	99, 35 (eval), plus b'dry	1.62	2.4	0.52	0.72	pottery, part articulated cow, slag,
E	2b	10+	9+	87, 89, 90, 91, 92, 96, 98	0.32	1.1	0.31	0.78	pottery, animal bone, oyster shell
F	3	67+	22+	56, 78, 95	0.97	1.6	0.22	0.66	pottery, animal bone, burnt clay, oyster shell

Table 6: Summary of Romano-British Boundaries and Enclosures

Key: Enc/ B'dry = main enclosure or boundary; + = partially exposed measurement

(only complete widths and depths were used, enclosure dimensions are an approximation)

Rectangular Enclosure D was the initial enclosure and comprised of the principle (largest) ditches on site, it is likely that it formed the outer boundary of the settlement at the time of its construction (see Figure 8). The extrapolated eastern corner of 'D' lies approximately 30m (northeast) of excavation Area 1 however it is not possible to know how far the enclosure extends to the northwest only that **F.35** stops before it reaches the A428 (St Neots Road). Potentially a comparable enclosure may have existed to the southwest of 'D' utilising two of the same principle ditches as its borders; **F.99** as its north eastern edge, and the boundary ditch as its south eastern edge.

The southern corner of potential Enclosure E was exposed within Area 2, which was located within the extremities of 'D' suggesting that land was then sub-divided into smaller parcels. The ditches that formed these internal enclosures were less substantial

in size but were re-cut several times indicating long term usage. This continued into the 4th C when **F.95** was cut forming the south western border of Enclosure F. A series of northwest-southeast and northeast-southwest aligned ditches were also cut at this time, which truncate the earlier boundaries. This indicates either a change in the use of the land, or more likely that the focus of the settlement had shifted. The 4th C ditch **F.106** may represent a change in the alignment of the settlement as it runs north – south (as opposed to northeast – southwest or northwest – southeast). The focal point of this new phase of activity may lay to the south of the excavation areas as no other linears of this alignment were identified within the excavation areas.

It is likely that these enclosures had different functions and that as the phases of the settlement developed so did the diversity of activities. The predominant species of animal bone recovered from site was bovine, implying that farming of cattle was taking place within the boundaries of the settlement. It is also evident that some form of metal working and carpentry was taking place on site as implied by the finds retrieved from the boundary ditch. It is not possible to say however in which enclosure this occurred as the enclosure ditches from D, E and F contained only general domestic waste (see Table 6). The quantity of material recovered from the boundary ditch in particular **F.23**, suggests it was frequently used for the disposal of refuse (potentially from small scale industry associated with domestic activities). It also suggests that whatever activity was occurring was taking place nearby. This ditch was still in use into the 3rd – 4th C as it was re-cut several times (**F.58**, **F.59**, **F.60** and **F.61** see section 8.1) and each time the material was probably re-deposited onto middens (see below).

Middens and Layers

As well as the main boundary ditch, (**F.23** as discussed above), middens appear to have been the main focus for waste disposal on site. Two middens were exposed, which were heavily truncated and survived as shallow hollows, however a large quantity of material was still recovered from them, in particular **F.104**. In addition, a thin layer of re-deposited material [324] was situated between the middens. The material recovered is a typical domestic assemblage rather than industrial as there was a high percentage of both pottery and animal bone in addition to building materials (tile, stone and burnt clay), see table 7 below.

Feature	Pottery		Tile		Burnt Clay		An. Bone		Metalwork		Wkd Stone		Shell	
	no	(kg)	no	(kg)	no	(g)	no	(kg)	no	(g)	no	(g)	no	(g)
88	89	1.26	/	/	1	14	13	0.45	2	10	/	/	/	/
104	375	10.1	51	2.55	9	86	191	9.07	1	38	1	916	12	247
[324]	7	0.23	/	/	/	/	6	0.29	/	/	/	/	/	/

Table 7: Summary of Material Culture from Romano-British Middens

Key: wkd = worked; An. = animal; no = quantity; / = none found

The material recovered from **F.88** was abraded and not as abundant as in **F.104**, in which less material was contained within a greater volume of fill. Midden **F.88** appears to have been created using re-deposited material from elsewhere. This was most evident in the ceramics which survived in small sherds, (Anderson **6.2**), and were mixed in date. The midden contained material from the 2nd - 4th C in no particular arrangement or sequence of deposition. Midden **F.104** showed contrasting

evidence, abundant material was identified within a smaller volume of fill and a clear sequence of deposition was discernable. There was a distinction between the 2nd - 3rd C pottery which was abraded and survived in smaller sherds, (re-deposited), and the later 3rd - 4th C pottery which survived in excellent condition, (in-situ). This suggests the middens were not contemporary and/ or they were not used in the same way. The type and quantity of tile recovered from them is indicative of buildings in the vicinity (Anderson 6.3), which taken together with the presence of metal tools, quern stones and abundant evidence of butchery provided by the animal bone, suggests they are part of a substantial farmstead.

The act of continuously re-excavating the main boundary ditch would have created a large volume of waste material and fill, the obvious place to re-deposit this material would be within a series of middens. As one midden reached capacity (F.88), it is likely that material started to be deposited on another (F.104), and as the boundary ditch became full (within the 3rd - 4th C), and was no longer useful, material would have been deposited straight onto the midden rather than re-deposited from the ditch. It is likely that the spread of material, ([324]), within the two shallow middens would have originally connected them and was in fact a midden itself which was truncated. This bank of material would have created a northeast-southwest boundary on the same alignment as the old boundary ditch which by this time had become redundant.

Later Curvilinears

The last phase of activity on site was a series of curvilinears that truncated the earlier settlement ditches and were dug after the majority of the enclosure ditches had gone out of use and silted up. The use of these features, (F.46, F.52, F.100 and F.101) remains ambiguous however they were likely to be segments of ring ditches associated with structures as small amounts of daub were found within them. The small fragments of iron hammer recovered suggest they may have had an industrial use. The ring ditches were not consistent in their orientation with openings in the northeast, southwest and west and were also fragmented which suggests they were not houses. Although 3rd - 4th C pottery was recovered from one of the ring ditches, it was residual, meaning this phase can only be broadly dated to the 4th C or later, and would perhaps be better thought of as Sub-Roman

Other Features

A small cluster of pits (F.42, F.43 and F.44) was identified nestled into what could be the southern corner of Enclosure D; their use is unknown as they contained a minimal amount of material culture typical of settlement activity. Pits F.40 and F.45 lie to the southeast of Enclosure D, the later of which was slightly exceptional as it contained a large amount of 1st - 2nd C pottery, making it the only solely Early Roman feature on site, its function remains unknown. A further ring ditch (F.97) and tree throw/solution hollow (F.79) were also identified to the southwest of Enclosure D, potentially inside another enclosure. This separation of pits and discrete features may not be just a difference in geographical location, but an indication that different activities were occurring within different enclosures.

Area 3 also exposed evidence of albeit limited Romano-British activity, four linears aligned northwest-southeast and northeast-southwest were identified which were broadly dated to the Romano-British period using material culture. The three parallel ditches are spaced approximately 4m apart, and **F.63** appears to respect the Late Iron Age enclosure ditch which suggests they are early Roman, perhaps utilised for arable farming, showing a continuation in the use of the settlement.

4.3.3 Phase 3: post-Medieval

The excavation revealed numerous post-Medieval and modern features, the majority of which were field drains and were located within all three excavation areas, none of these drains were recorded with the exception of one which truncated Romano-British features (Figure 8, Section 3). Two further post-Medieval features were excavated and recorded: a furrow **F.85** (which truncates the same ditches as the field drain above **F.81** and **F.91**), within Area 2; and a hedgerow **F.118** within Area 3 (Figure 9). The use of ceramic field drains demonstrate that the land has been subject to farming over an extensive period of time which is reinforced by the presence of furrows that were also identified within the evaluation trenches (discussed in 4.7). Furthermore the presence of the hedgerow, which remained as a steep sided V-shaped linear in profile, demonstrates how the field's boundaries have changed/ evolved to suit the technology of the time. The hedge itself was removed in the 1960's by the landowner at Two Pots Farm, to open up two fields into a single larger field more efficient for modern farming techniques.

4.4 Discussion

The evaluation and excavations between Coton and Bourn have uncovered pockets of settlement on the clay uplands to the west of Cambridge, more specifically; Iron Age at Two Pots Farm (Bourn) and Romano British either side of Long Road (Comberton). A small amount of worked flint from residual contexts and Late Neolithic/ Early Bronze Age activity at the far east of the investigation area demonstrates that earlier activity, however ephemeral, existed on the clay ridge. Prior to this investigation very little evidence of pre Iron Age activity existed along the ridge, however recent excavations along the new route of the A428 revealed similar sporadic evidence. This consisted mainly of residual flints and two small undiagnostic pits. The pits were situated within site 2 of the A428 investigations (Abrams and Ingham 2008), which lies to the west of the PR demonstrating that short term or transient pre - Iron Age activity may span the entire ridge from Knapwell to Coton.

By the Later Prehistoric period people had begun to settle at Two Pots Farm as was evidenced by the presence of at least two enclosures and their associated internal structures and domestic pits. The geophysical survey was successful in identifying the very deepest features (see 6.1) however not all the features within Area 3 were picked up by the survey, including some substantial ditches. Site 3 of the A428 investigations (which lies to the immediate south) revealed a Mid - Late Iron Age enclosure, irregular in shape which appears to have been designed specifically for corralling animals (Abrams and Ingham 2008). These could potentially be associated with the

domestic enclosures identified at Two Pots Farm (in Area 3). A further Mid - Late Iron Age farmstead was identified along the clay ridge at Site 7 of the A428 investigation. The profiles of the enclosures ditches are almost identical to those at Two Pots in Area 3, suggesting they are contemporary and that the clay ridge was deemed ideal for settlement at this time. There is evidence to suggest that settlement activity continued to develop from the Late Iron Age into the Romano British period. This was particularly noticeable at Two Pots (Area 3) where a series of small Romano British segmented linears (possibly related to arable farming), respected the earlier Iron Age enclosures. This continuation is again reflected within Site 3 of the A428 (to the south) where a complex of enclosures from the 1st - 3rd C and an associated driveway were identified. Unfortunately environmental analysis at Two Pots, Area 3 revealed no plant macro remains which would have helped characterize the site; however this lack of material may also be indicative of seasonal occupation. Area 3 may therefore represent the northern extremity of a complex of continuous Iron Age and Romano British settlement.

Settlement activity along the clay ridge appears to have reached a peak within the Romano British period as further evidence of a sizeable settlement was found at Long Road (Areas 1 and 2). Good sequencing of deposition within features, (boundary ditch and middens), showed that the settlement was developing from the 1st into the 4th century with a particular increase in activity from the 2nd - 3rd centuries (figure 11). As is often the case with Romano British farmsteads or villas, the key to understanding the settlements development came from the pottery recovered from the middens (Anderson 6.2). The assemblage was not wealthy but showed evidence of a wider trade network which was linked to a much broader landscape than the scatter of settlements along the ridge.

The settlement appears to have incorporated a range of activities including the farming of livestock, small scale industry, potentially carpentry and metalworking, as well as evidence for domestic activities provided by pottery, shell and daub from potential buildings. The exploitation of both wild and domestic species on site and the presence of mature cows, suggests that the settlement was self sufficient and not solely dependant on meat for food. The older cows would have been used for traction in arable farming and their bones were also used as tools (6.4). What remains unclear is the location of all of these activities, for example; although it is possible to suggest that industrial activity occurred within Enclosure D from the metalwork contained within the enclosure ditch, the majority of the enclosure was not revealed and the pits within contained no such evidence.

The enclosures and boundary ditch are potentially a mixture of the so called 'washing line' enclosure system typically found in south Lincolnshire and the sinuous trackways with attached perpendicular axial field systems typically found further into the fens (Taylor 2007). However only a limited part of the settlement was exposed. Heading into the 3rd - 4th C the boundary ditch was filled/ became full and the middens became the most prominent features for deposition on site. The focus of activity appears to shift south at this time, with the bank of midden material becoming the main boundary. It is possible that this settlement may have connected to an established road or track-way along the clay ridge. An Early to Middle Roman Driveway and associated livestock enclosures were found within Site 3 of the A428

investigation showing a similar form of construction, it is likely that they are part of the same extended community.

After the 4th century the settlement appears to wind down, the latest activity on site were a series of curvilinears which truncate all previous boundaries and appear to re-open the enclosed land. Within Site 5 of the A428 investigation a single open enclosure, larger in area but identical in shape was excavated, also dated sub-Roman. Abrams and Ingham (2008) suggest that little work appears to have been carried out to restructure or maintain the site after the middle of the 4th C, with the ditches becoming in-filled and the landscape reverting back to a more open, less enclosed form. It is clear that this landscape was becoming less populated at this time.

By the post-Medieval period farming activity reached a new peak within the vicinity. Furrows were found at irregular intervals and alignments which became more frequent towards the east, perhaps representing several phases of farming. Field boundaries and hedgerows were changing/ being removed to allow for larger areas to be farmed at one time. There were evidently also issues with water at this time as field drains were also placed at regular interval throughout the PR to allow for drainage of fields. This is not un-expected as similar patterns of ridge and furrow have been identified along the entire length of the A428 investigations.

4.5 Statement of Potential

In recent years the parishes between Coton to Bourn have seen much archaeological investigation which is beginning to build a pattern of early settlement along the clay ridge to the west of Cambridge. Recent work on the A428 road scheme highlighted Late Neolithic/ Early Bronze Age, Iron Age, Romano British and Medieval and post Medieval activity. The excavation areas within the PR have exposed elements of all these phases of activity with particular reference to the development of the Iron Age and Romano British settlement. When considered within the known surrounding Iron Age and Romano British activity, it is possible to suggest that a substantial settlement of middling status developed here, perhaps incorporating several farmsteads. The evidence suggests that this was a mixed economy.

The excavation has shown that there were three principle phases of occupation, later prehistoric, (Iron Age), Romano British and Medieval/ post-Medieval. Allowing comparisons of how the ridge was occupied and utilised at different periods in time, and comparing the continual activity from the later prehistoric through to the apparent abandonment after the fourth century AD, before re-utilisation during the Medieval and post-Medieval periods.

The principle phases have been resolved with sub-phasing identified for the Later Prehistoric and Romano British periods. Further clarification between the Romano-British and Iron Age sub-phases in reference to the stratigraphy and artefacts associated with industrial technology would provide an even better understanding of the depositional sequence, although it is uncertain how this would be obtained. Similarly the sub-phasing of the continual development between the Iron Age and Romano British settlement may also benefit from a closer examination; again it is not

clear how this would be obtained due to the limited size of the excavation areas, which targeted the PR and easement.

5 REVISED RESEARCH AIMS

The original research design as specified by CAPCA was to define the Iron Age and Romano-British settlement activity within three targeted areas identified during the evaluation stage of the investigation. This was to be lead by a series of research aims;

- To further define the extent, character and date of the archaeological deposits and features revealed.
- To determine, as far as possible, the origins, development, function, character and status of the site.
- To establish the stratigraphic sequence of the targeted areas, the date of the features and the nature of the activities carried out at the sites during the phases of its occupation.
- To place the findings of the excavations within both regional and national research contexts.

The excavations between Coton to Bourn have elucidated a number of these original research aims, however, in the process it has created a few further questions and theories. These revised research aims are;

- 1 The two principle phases of activity identified; Iron Age and Romano-British, provides the potential to compare activities and land use at different times.
- 2 To articulate how the three phases of Later Prehistoric and Romano British activity relate to each other.
- 3 Most aspects of the phasing have now been resolved; the sub-phasing of the Iron Age and Romano-British periods may benefit from further clarification, particularly in reference to the depositional sequence with a full analysis of the pottery, although it is unclear how much more can be said due to the limited size of the excavation areas, which targeted the PR and easement.
- 4 Most aspects of Romano British activities have now been resolved; a closer examination of the location of artefacts may clarify where these activities occurred, although again it is unclear how much more can be said.

The archaeological investigations between Coton to Bourn have added to the growing picture of settlement on the clay ridge to the west of Cambridge. In particular these investigations have added to our knowledge of the development of Later Prehistoric and Romano British settlement.

6 APPENDICES

6.1 Archaeogeophysical Survey

F.S.M. Prince with A.D.H. Bartlett (Bartlett-Clark Consultancy)

Introduction

This report discusses findings from a geophysical survey carried out along the route of a proposed new water main in Cambridgeshire. The survey was commissioned by Cambridge Archaeological Unit on behalf of the contractors and Cambridge Water Company to test for evidence of archaeological sites or remains in advance of trenching. Fieldwork for the survey was carried out between 21-23 May 2008.

The Proposed Route

The pipe route extends westwards from Coton Reservoirs (NGR TL406590) and terminates at a booster station at Bourn (NGR TL337599). In total some 4.2km of the pipe route was surveyed across largely flat cultivated farmland. The width of the survey corridor was constrained by the pipe working widths which were already marked out on the ground by fencing at the time of the survey. The width of the surveyed strip therefore varies according to the fence locations, and at times it was necessary to offset survey blocks by varying amounts relative to the pipe alignment to remain within the fenced areas.

We have given arbitrary numbers (1-12) to fields along the surveyed sections of the route to aid discussion in this report. The un-numbered section of the route (between fields 1 & 2) will make use of existing pipes, and so no survey coverage was required. A further section through fields 2-4 was not surveyed as it was previously evaluated by Albion Archaeology when the new A428 road was constructed. A further short section of route through a tree plantation (field 5) was also omitted from the geophysical survey.

All fields were under cultivation at the time of survey, and contained either wheat or bean crops. These did not greatly hinder the survey because most of the crops within the fenced working width had been cut immediately prior to the fieldwork.

Geology

The eastern part of the route (approximately fields 10 to 12) lies on a Chalk bedrock, and is apparently free of drift deposits. Conditions on chalk-based soils are usually favourable for the magnetic detection of archaeological features. The remaining western part of the route lies on a bedrock of Upper and Lower Greensand beneath drift deposits of Boulder Clay. Glacial drift deposits vary widely in composition, but often provide reasonably satisfactory conditions for magnetometer surveying. Magnetic anomaly strengths are sometimes weak when there is a high clay content, and there may be difficulties of interpretation on gravels containing naturally magnetic stones. These can give rise to magnetic anomalies not always immediately

distinguishable from small archaeological features. There may be some locations in the present survey where geological effects of this kind contribute to the observed magnetic response.

Archaeology

It is not clear to us whether any previously recorded archaeological sites or findings are present along the proposed route, although it would be unusual for an exploratory survey of this length not to identify at least some subsurface features of potential archaeological origin or significance.

Survey Procedure

The methodology for the survey is one which has been widely and successfully employed in previous surveys of water and gas pipeline routes. The procedure is based on recorded magnetometer coverage of a continuous sample strip along the route, supplemented by magnetic susceptibility readings.

Such surveys are often carried out to a standard width of 20m, or wider, but in this case the width had to be adjusted as necessary to remain within the fenced strip. Coverage to a width of 15m or 21m was achieved along most of the surveyed sections of the route. The survey was carried out using Bartington 1m fluxgate magnetometers, with readings plotted at 25cm intervals along transects 1m apart. The results are presented as grey scale plots at 1:2000 scale in figures 2-8, and as graphical or x-y trace plots (at 1:1000) in figures 9-10. The plots show the readings after standard processing operations including adjustments to the line spacing to correct for variations in the instrument zero setting, and slight numerical smoothing to reduce background noise levels.

The interpretation of the magnetometer survey which is shown in the lower half of each 1:2000 survey plan includes a selection of magnetic anomalies, but not all the features as indicated are archaeologically significant. The interpretation as marked is intended to be schematic and illustrative, and not to reproduce the detail of the grey scale plots. Features are indicated by broken lines or continuous outlines. The interpretation is selective in part; anomalies which are strong or narrow in profile, asymmetrical, or which have a prominent negative peak are likely to be caused by buried stones, bricks or iron objects, and are often excluded.

Colour coding has been used to try and distinguish different effects. Magnetic anomalies of possible archaeological, or at least non-geological origin are outlined in red, with potential geological and other disturbances in orange. This division is not absolute, and features outlined in orange may still need further investigation to establish their archaeological relevance.

There are strong magnetic disturbances along parts of the route, and particularly in fields 10-12, from an existing iron water pipe which is located near to or just outside the northern edge of the surveyed area. Areas of the survey which are affected by strong positive magnetic anomalies caused by the pipe, and also by boundary fences,

are indicated on figures 2-8 by blue outlines. Possible cultivation effects are shown in green,

The 1:20000 location plan (figure 1) shows the position of figures 2-8 in relation to the (DXF) background mapping, as supplied to us by the client. The survey was positioned in each field by reference to OS co-ordinates measured from the digital mapping supplied by the client, and located with a differential GPS system. The OS coordinates of detected features can be read directly from digital copies of the AutoCAD plans.

Magnetic susceptibility readings were collected along the proposed pipe alignment using a Bartington susceptibility meter. The susceptibility readings are presented in the form of a graph of readings superimposed on the 1:2000 scale survey plans. Susceptibility surveying can provide a useful complement to a magnetometer survey, and indicates the strength of response which is likely to be obtained. It can also be used to provide a broad indication of previously occupied or disturbed areas in which burning associated with past human occupation has enhanced the magnetic susceptibility of the topsoil, although the readings may be affected by a number of non-archaeological factors, including geology and land use.

The magnetometer responds to cut features such as ditches and pits when they are silted with topsoil, which usually has a higher magnetic susceptibility than the underlying natural subsoil. It also detects the thermoremanent magnetism of fired materials, notably baked clay structures such as kilns or hearths, and so responds preferentially to the presence of ancient settlement or industrial remains. It is also strongly affected by ferrous and other debris of recent origin.

Results

Findings are described by fields from west to east in the sequence as numbered.

Field 1

The western section of the route crosses this single large field, and is approximately 1km in length. The potentially most significant finding is a group of magnetic anomalies at A in the centre of the field (as labelled on figure 2). The features detected here could well represent part of a ditched enclosure with internal features. There is a corresponding localised increase in susceptibility readings, which would be consistent with the presence of settlement features.

A few other magnetic anomalies have been outlined in the western half of Field 1. Some could perhaps, individually, be small silted pits of possible archaeological interest, but they do not form any significant group or cluster. Elsewhere in Field 1 there are strong magnetic disturbances caused by concrete-filled metal drums used to mark overhead cables.

Further east in Field 1 some areas of magnetic noise are present, which may indicate naturally magnetic gravel in the topsoil. A concentrated area of magnetic disturbances

near to a change of direction in the pipe corresponds to a grass farm track, which perhaps has a base of rubble or other imported material.

In the final eastern section of Field 1 there is a series of linear markings (B) which must represent cultivation effects, and may indicate traces of ridge and furrow. There is a further group of such features near the eastern field boundary at C.

Fields 2-4

These fields were the subject of a previous archaeological evaluation by Albion Archaeology when the new A428 road was constructed, and therefore no survey was required.

Field 5

This is a tree plantation, and could not be surveyed.

Fields 6-7

There are no clearly significant findings in Field 6. There is magnetic interference (as outlined in blue) from a wire fence along the southern boundary. A group of small magnetic anomalies near to the track at the east end of the field could be of recent (or natural) origin. A few other magnetic anomalies have been outlined in the interpretation but, as to the west of Field 1, they remain too isolated to be of any clear significance.

The magnetic anomalies as outlined in Field 7 are mainly strong narrow features which could be caused by modern debris.

Fields 8-9

Features detected in Field 8 include various probably recent disturbances near boundaries, and perhaps one weak linear magnetic anomaly as indicated at D. This is not very clearly defined, but it aligns with the eastern field boundary. It could perhaps be a former boundary, or a land drain.

In Field 9 there are disturbances, as are often found in field entrances, near the gateway in the western corner of the field. The pipe route then turns 90 degrees to the south in Field 9, and continues along the eastern boundary. There may be an isolated pit-like feature (in red) near the north east corner, and then a series of parallel linear markings (in green) towards the south of the survey. These linear disturbances must be a cultivation effect, and probably represent ridge and furrow. A further linear feature (outlined in red at E) cuts through the parallel markings on a different alignment at the southern end of the survey. This could perhaps be a former ditch or boundary.

Field 10

There are magnetic disturbances associated with an area of hard standing at the field entrance from Long Road. A strong linear feature at F could be a former ditch (if it is not a modern pipe or cable). It aligns with the ditch-like feature at E in Field 9.

There are linear cultivation effects to the east of F (at G). These change direction at the linear anomaly H, which could perhaps therefore be a former boundary.

Much of the remaining length of the survey in Field 10 is affected by magnetic interference from the existing pipe, although some interpretable data is visible alongside these disturbances throughout the survey. There do not appear to be any significant findings here, and only small isolated magnetic anomaly has been outlined.

Field 11

There do not appear to be any significant findings in Field 11. Other than the disturbances from the existing pipe, which again affect part of the survey width. One ill-defined possible linear feature has been outlined in orange.

Field 12

Most of the magnetic disturbances outlined in Field 12 (other than the interference from the existing pipe) are strong small magnetic anomalies which probably indicate the presence of recent debris or disturbances. A possible exception is a linear sequence of disturbances at J. This is at a 90 degree angle to the existing western field boundary, and so could perhaps also be a former boundary.

Conclusions

The potentially most significant feature detected by the survey is the apparent ditched enclosure in Field 1. Other findings elsewhere in the survey appear, at most, to represent former field boundaries and cultivation effects.

Results from Field 1, in addition to the enclosure at A, include probably natural and recent disturbances in the eastern part of the field, perhaps with traces of ridge and furrow at B and C.

There are only minimal and probably recent magnetic disturbances in Fields 6-8, other than a weak linear feature at D. In Field 9 there appears to be ridge and furrow, perhaps intersected by a ditch at E. There is more ridge and furrow, perhaps on two alignments, in the western part of Field 10. The linear pattern changes direction at the ditch-like linear feature H. The linear magnetic anomaly at F is strong enough for it perhaps to indicate a pipe or cable, although it could also be a former ditch.

Little was detected alongside the interference from the existing pipe across the remainder of field 10, and only an ill-defined possible linear feature is indicated in

field 11. Disturbances in field 12 appear mainly to be recent, but there could be a former boundary or drain at J, perhaps with largely natural disturbances across the remainder of the field.

Report on Archaeogeophysical Survey of Proposed Water Pipeline 2008

Surveyed by:

Bartlett-Clark Consultancy
25 Estate Yard, Cuckoo Lane,
North Leigh,
Oxfordshire OX29 6PW
01865 200864

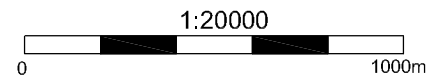
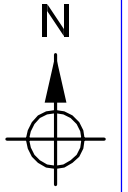
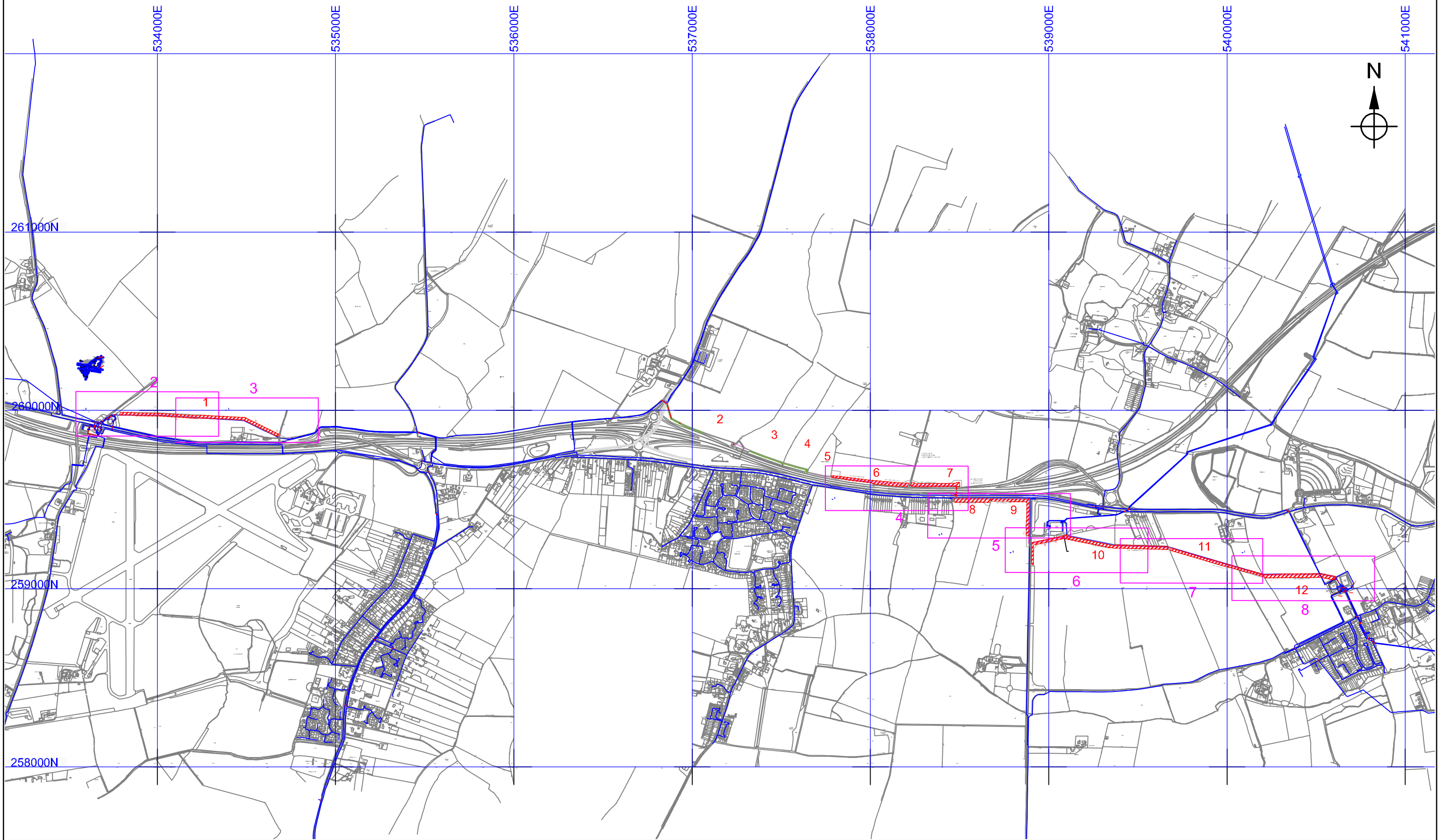
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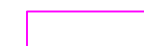


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on behalf of:

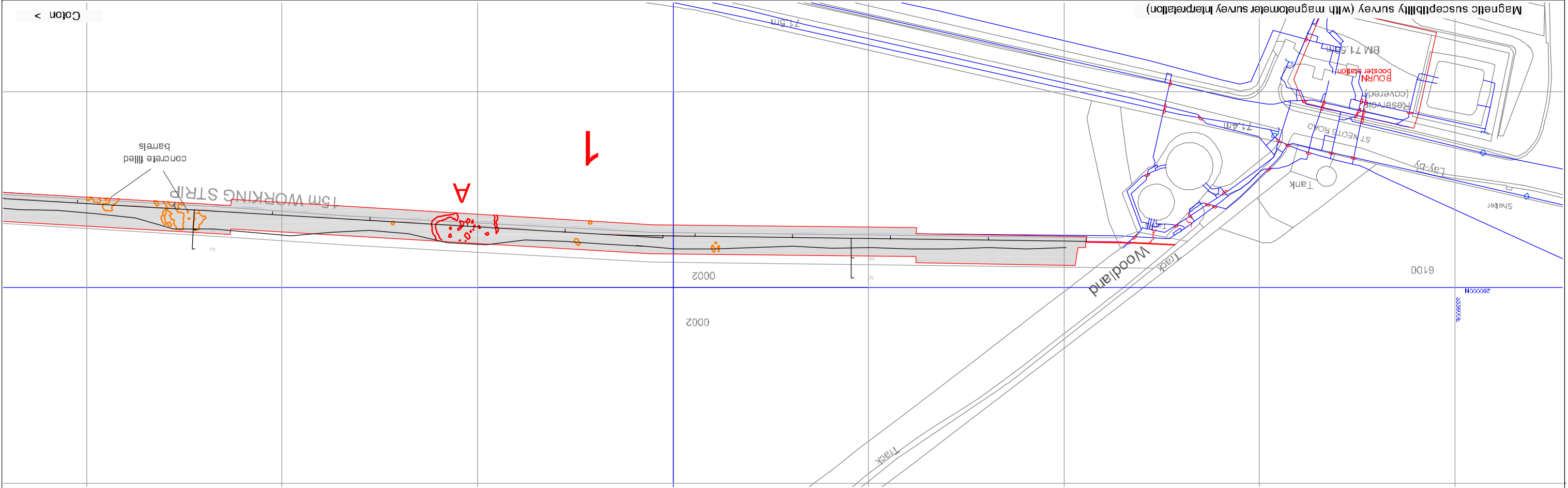
Cambridge Water Company

Fieldwork carried out by P.Cottrell and F. Prince

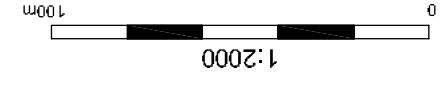
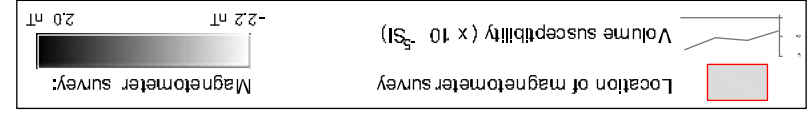


-  Location of magnetometer survey
-  Location of 1:2000 figures 2-8
-  Figure numbers
-  Field numbers

Coton to Bourn (Cambridgeshire)
Proposed Water Pipe
Geophysical Survey 2008
Figure 1: Key map showing location of figures 2-8



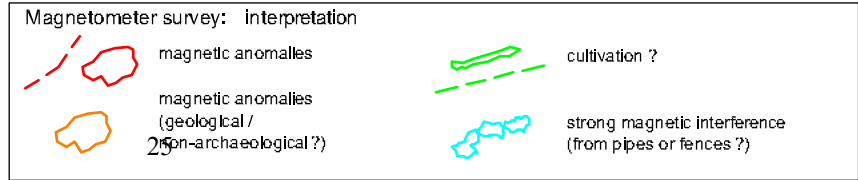
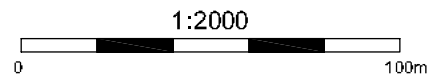
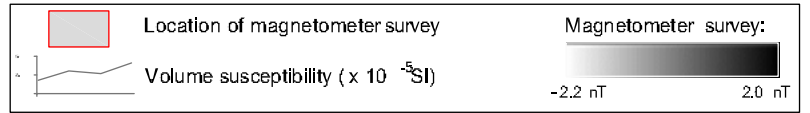
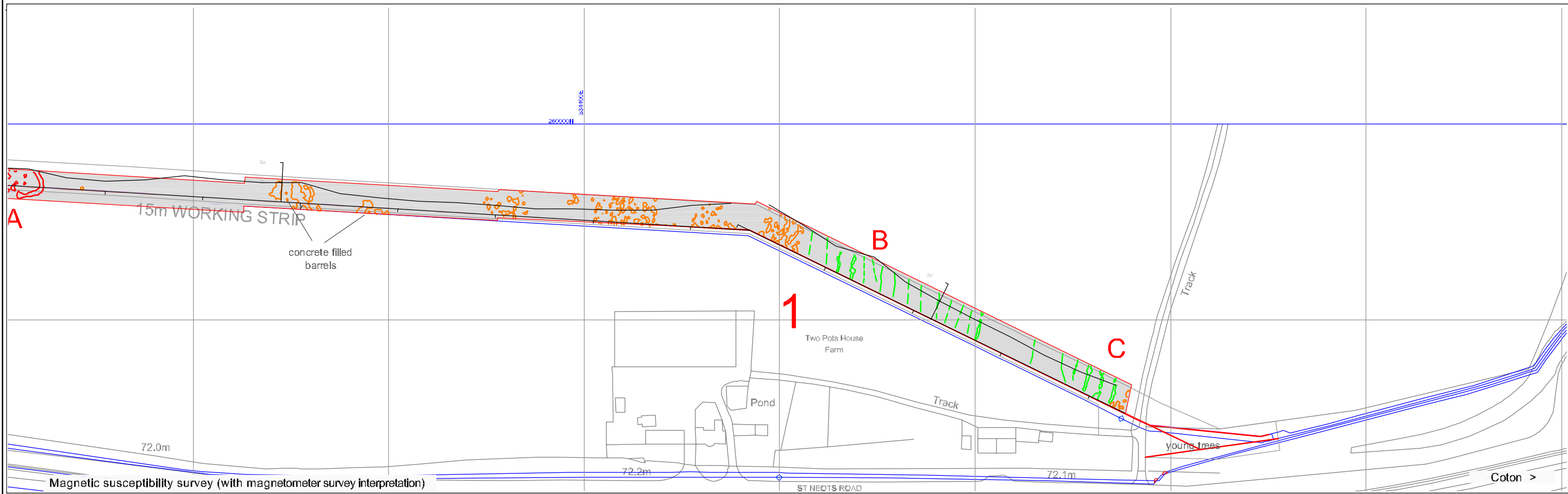
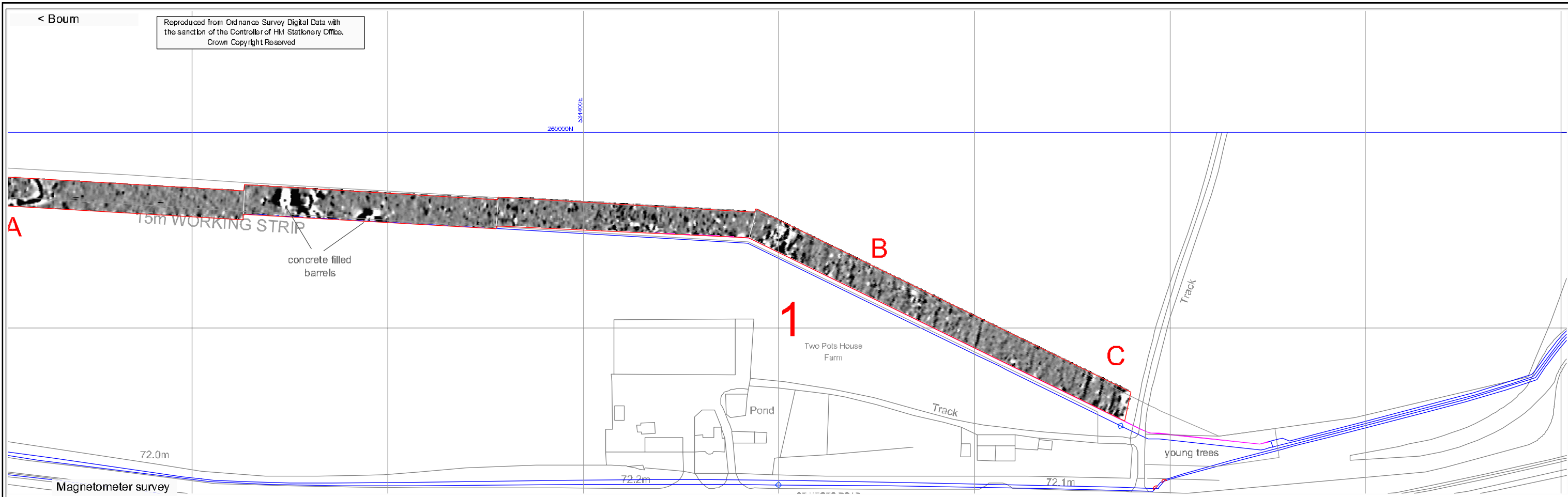
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Coton to Bourn (Cambridgeshire)
 Proposed Water Pipe
 Geophysical Survey 2008
 Figure 2: Magnetometer and Magnetic Susceptibility Surveys with Interpretation

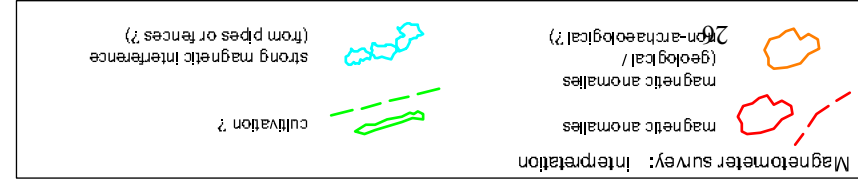
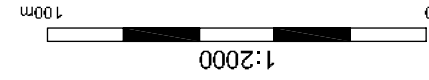
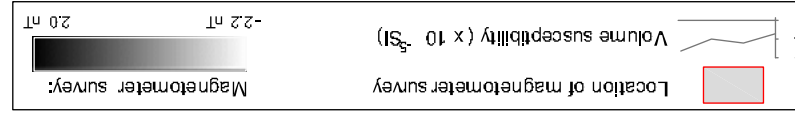
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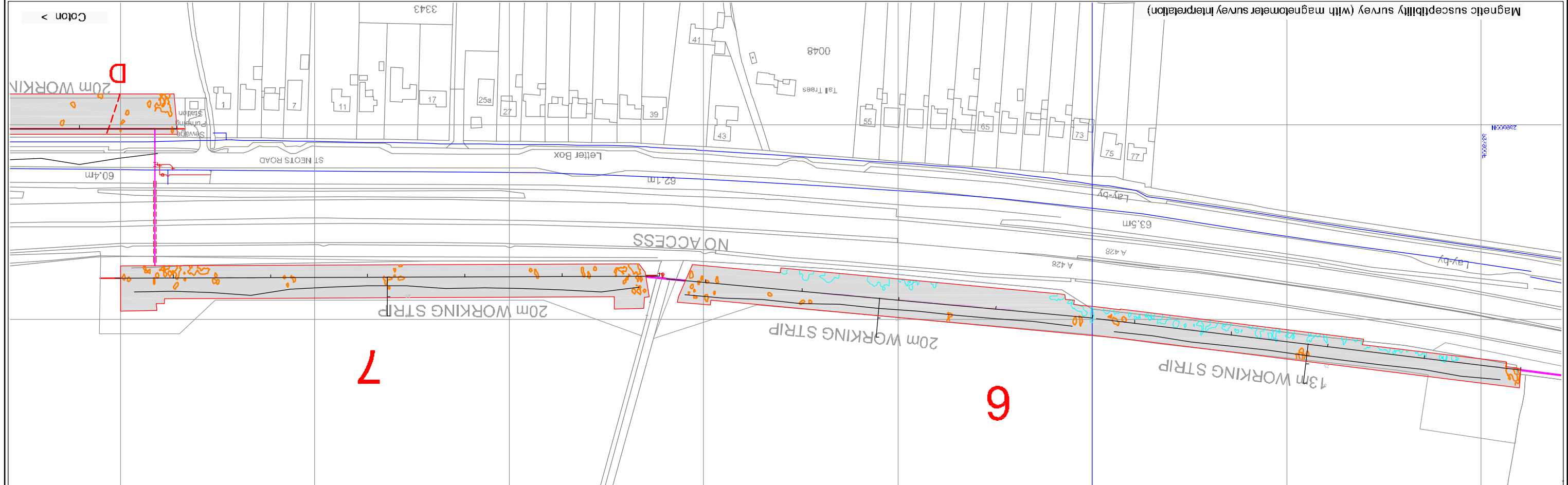


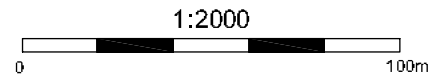
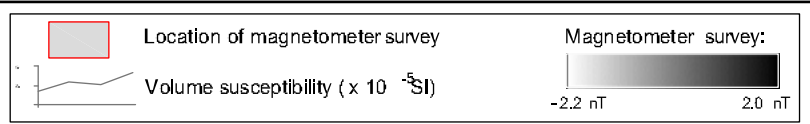
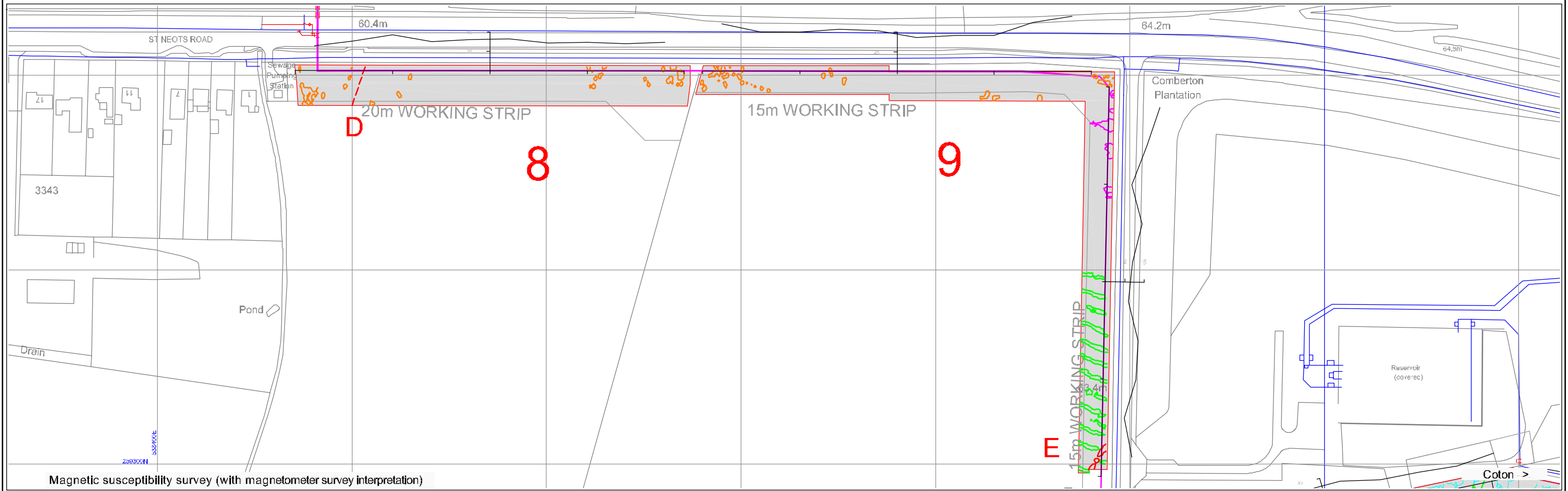
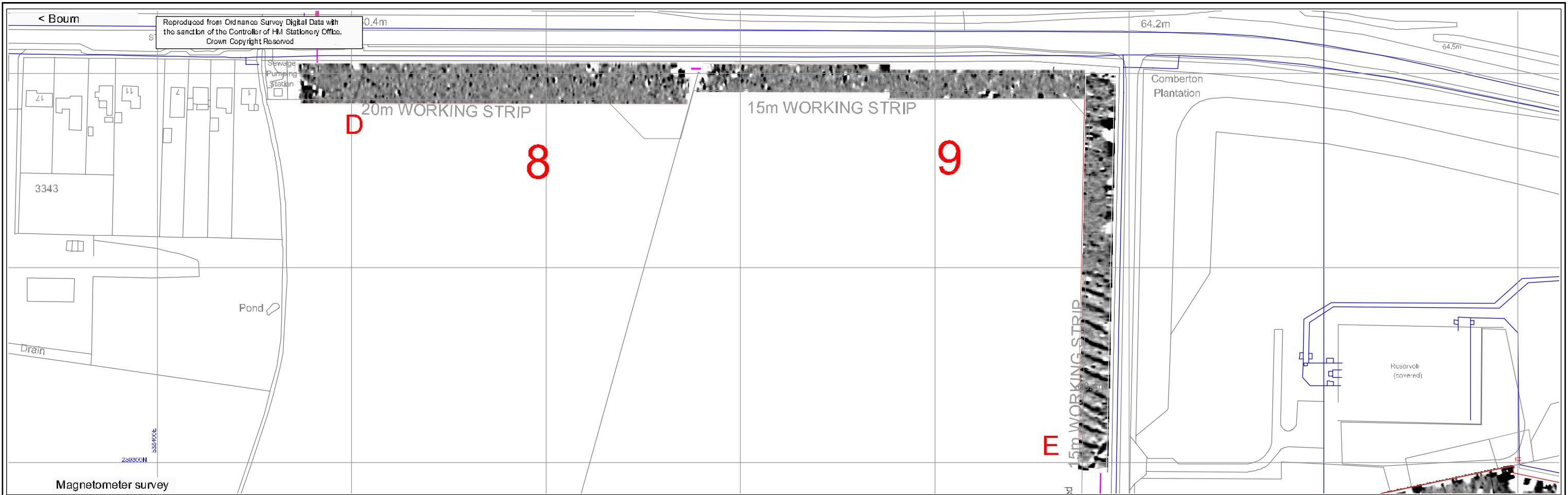
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Coton to Bourn (Cambridgeshire)
Proposed Water Pipe
Geophysical Survey 2008
Figure 3: Magnetometer and Magnetic Susceptibility
Surveys with Interpretation



Coton to Bourn (Cambridgeshire)
 Proposed Water Pipe
 Geophysical Survey 2008
 Figure 4: Magnetometer and Magnetic Susceptibility
 Surveys with Interpretation



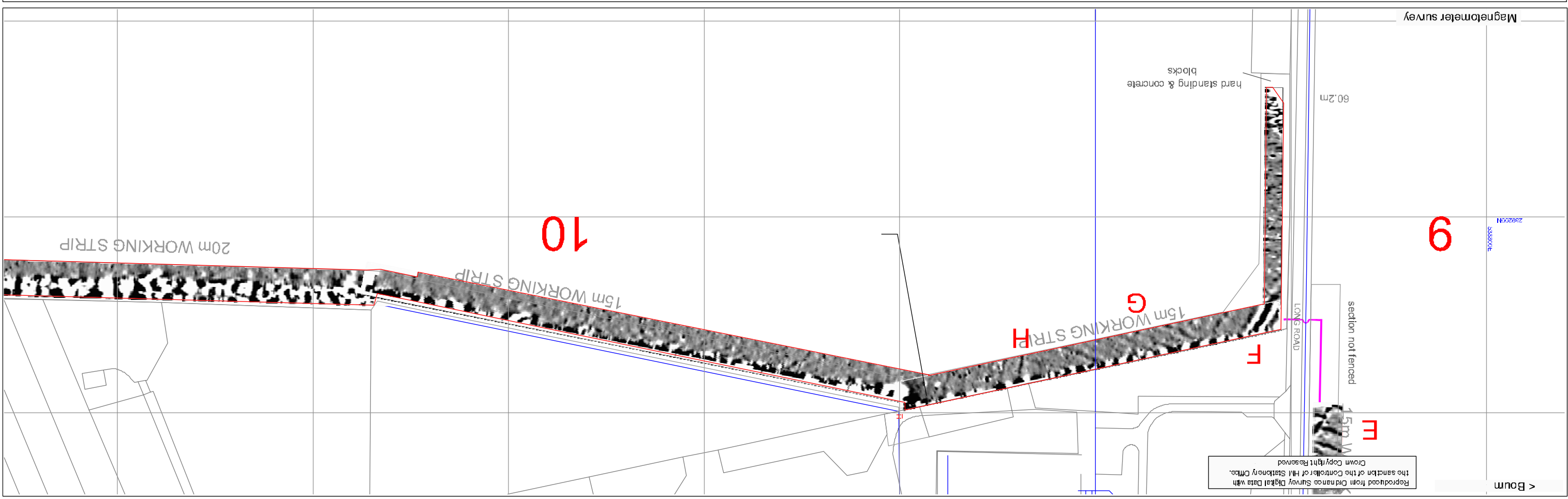
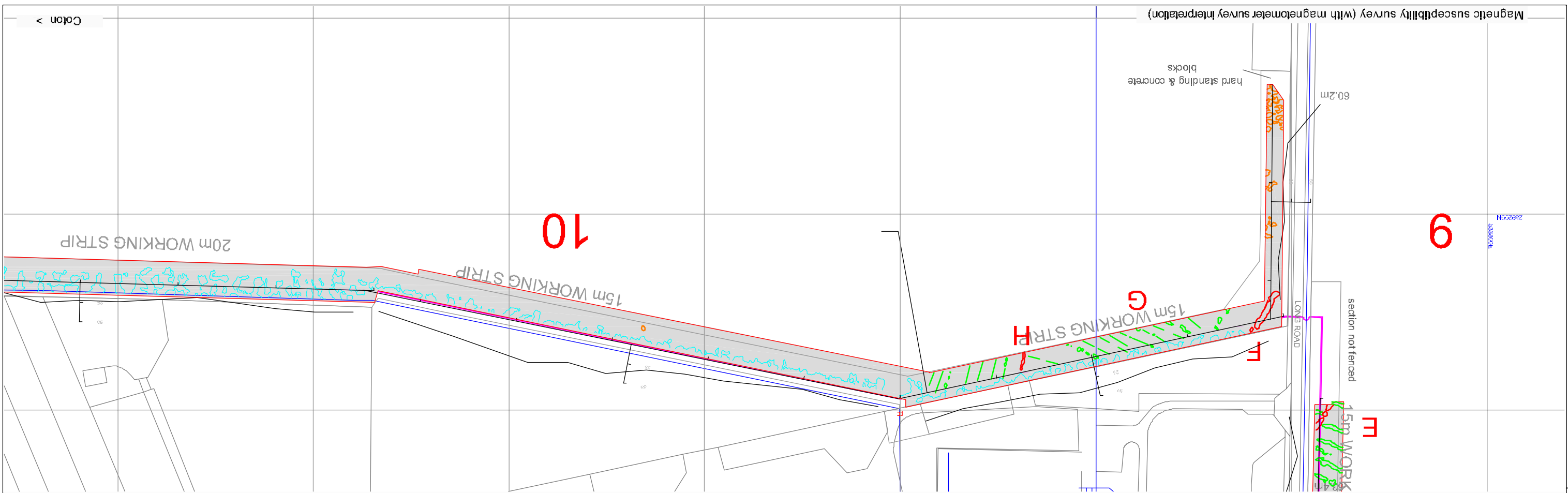
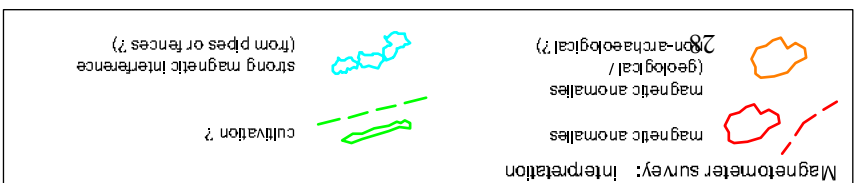
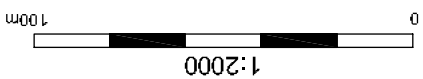
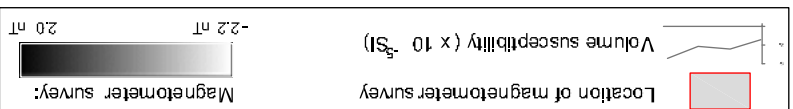


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Coton to Bourne (Cambridgeshire)
Proposed Water Pipe
Geophysical Survey 2008
Figure 5: Magnetometer and Magnetic Susceptibility
Surveys with Interpretation

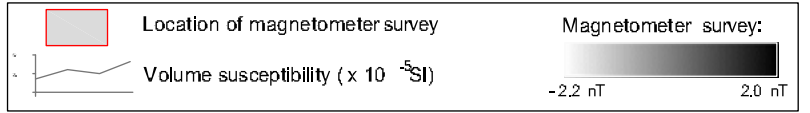
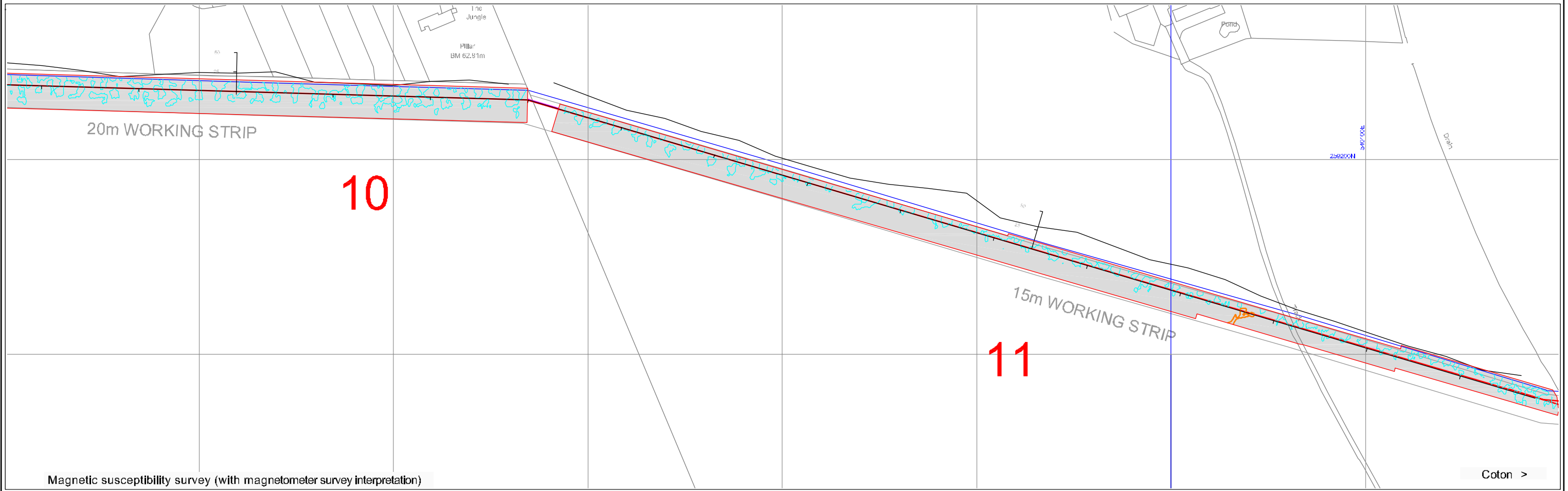
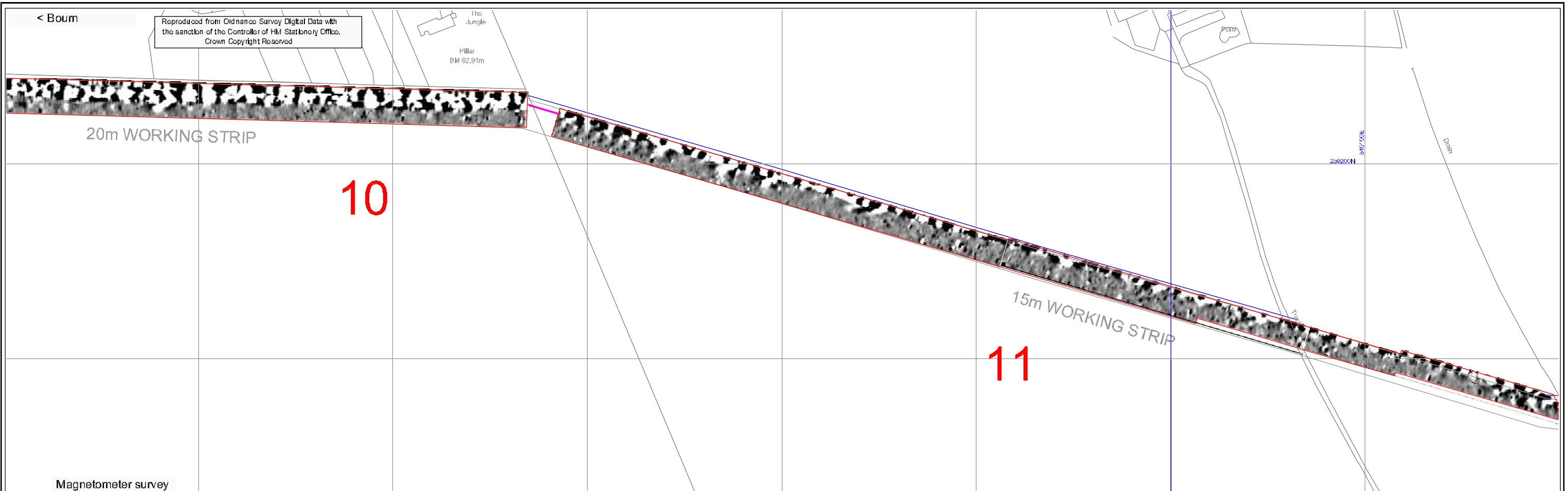
Coton to Bourn (Cambridgeshire)
 Proposed Water Pipe
 Geophysical Survey 2008
 Figure 6: Magnetometer and Magnetic Susceptibility
 Surveys with Interpretation

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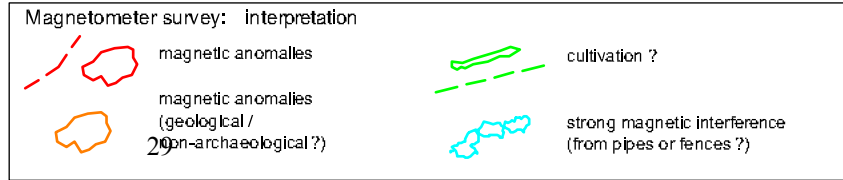
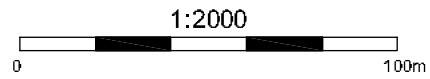


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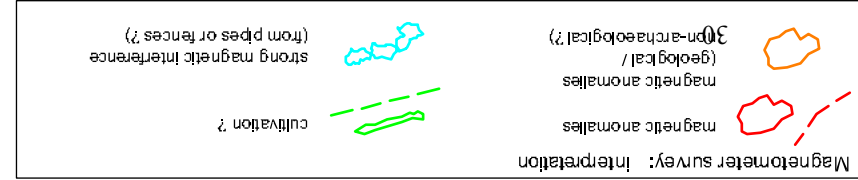
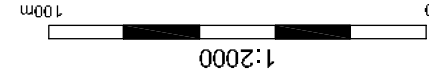
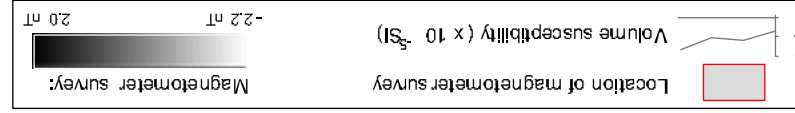
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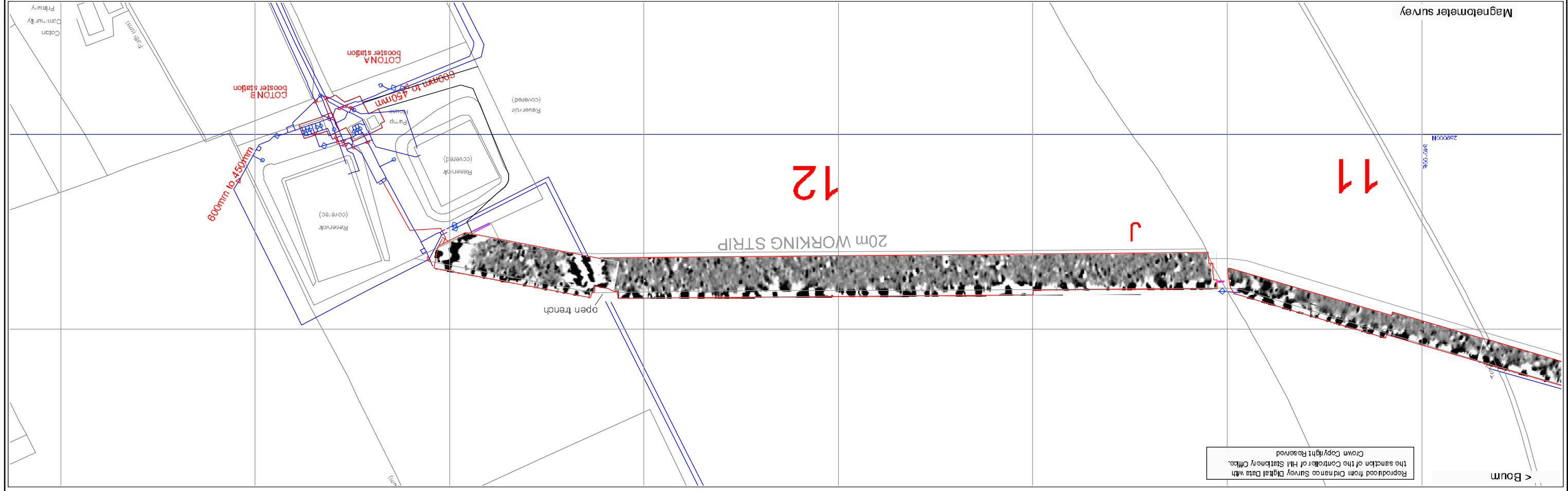
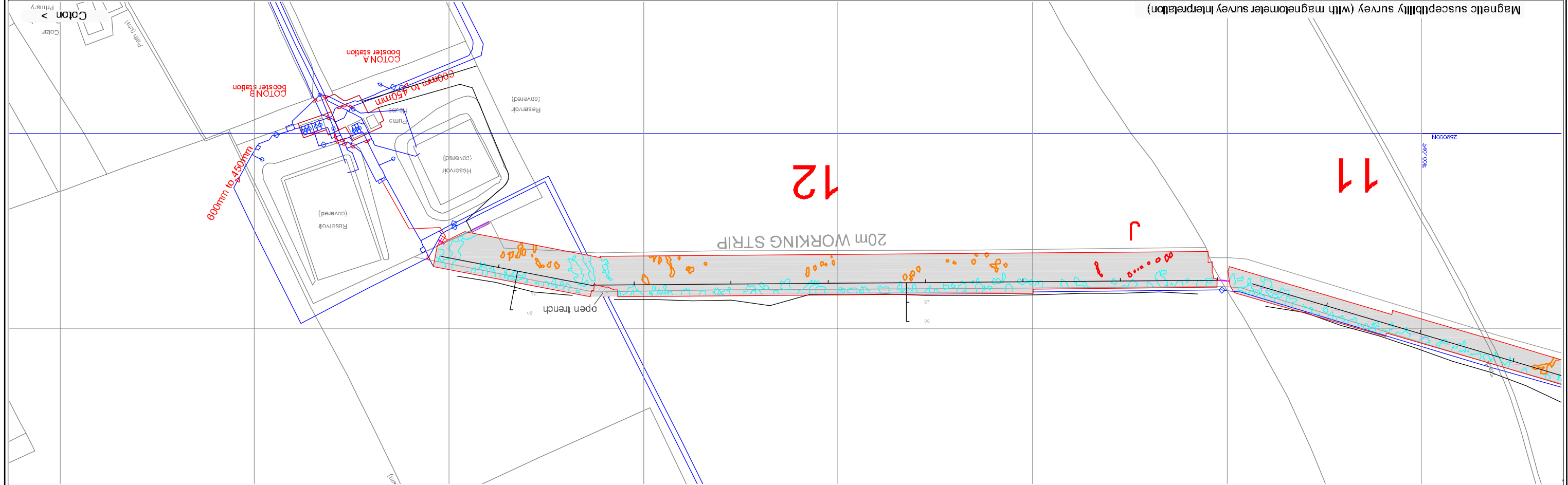
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Coton to Bourn (Cambridgeshire)
Proposed Water Pipe
Geophysical Survey 2008
Figure 7: Magnetometer and Magnetic Susceptibility Surveys with Interpretation



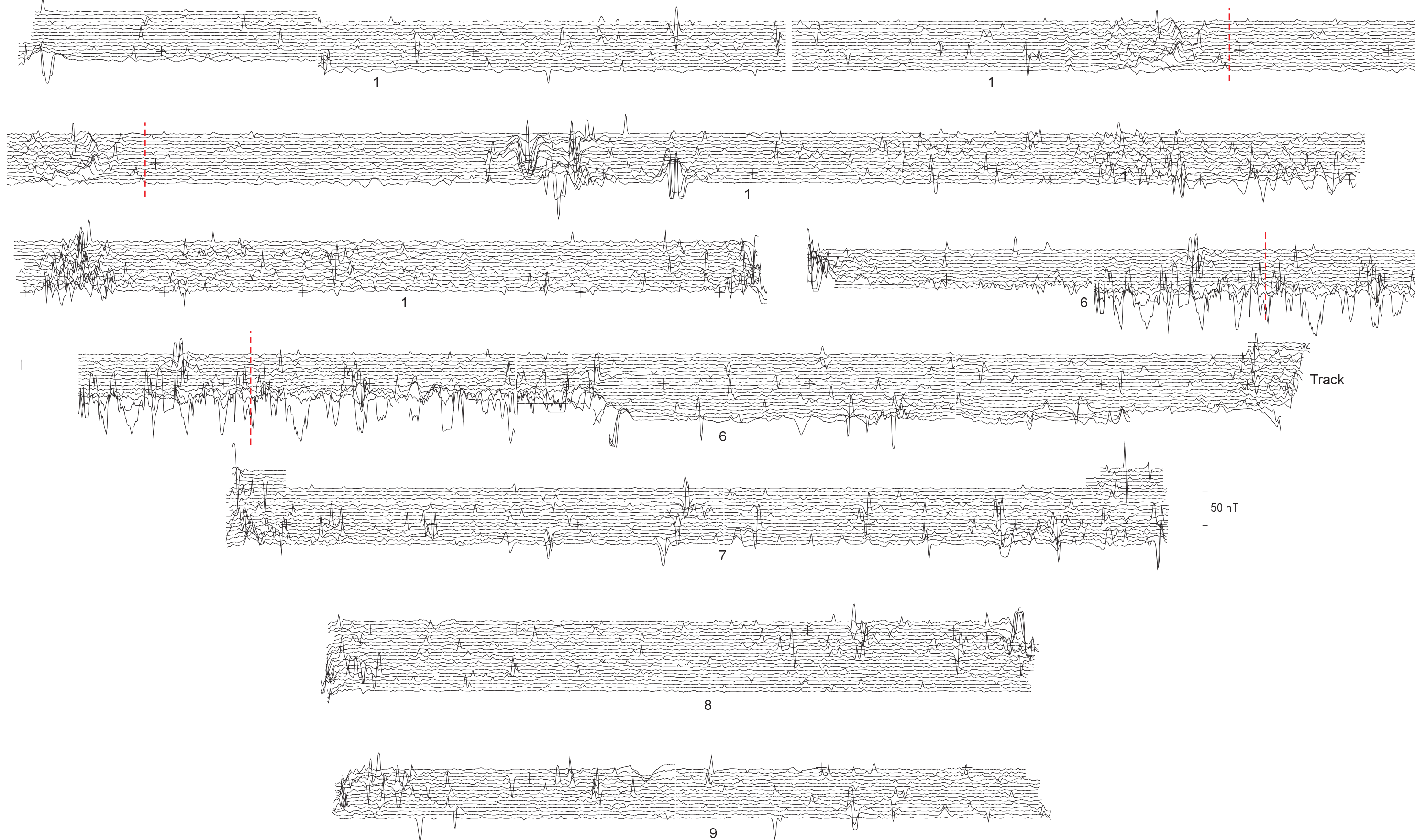
Coton to Bourn (Cambridgeshire)
Proposed Water Pipe
Geophysical Survey 2008
Figure 8: Magnetometer and Magnetic Susceptibility
Surveys with Interpretation



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> Bourn

← Bourn



Track

50 nT

Coton →

1 Field numbers (as used in report)

1:1000

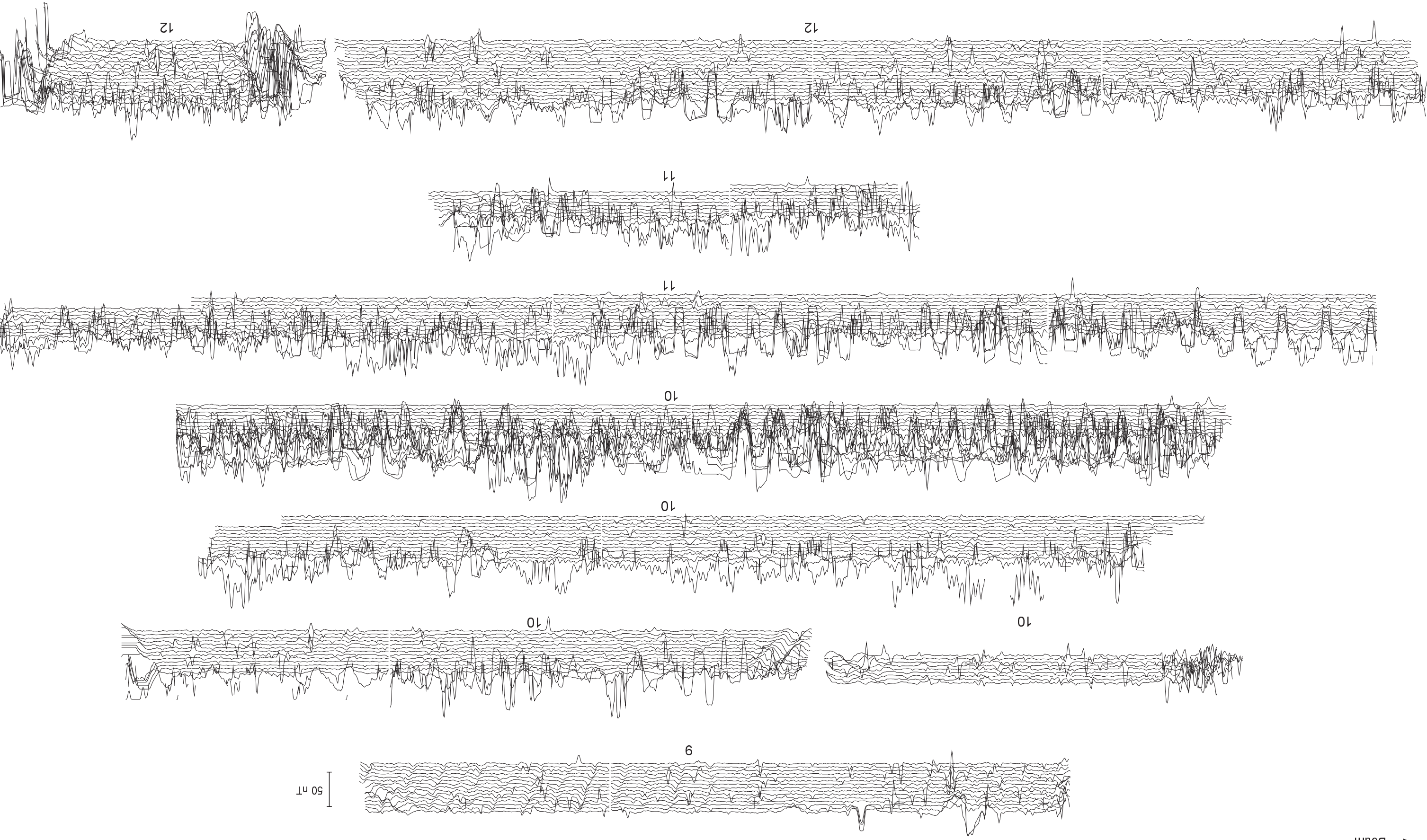


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Coton to Bourn (Cambridgeshire)
Proposed Water Pipe
Geophysical Survey 2008
Magnetometer Survey Data Archive: Figure 9

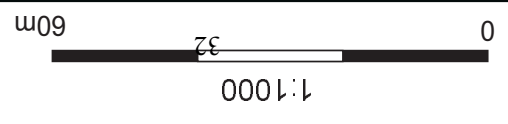
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1 Field numbers (as used in report)

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Coton to Bourn (Cambridgeshire)
Proposed Water Pipe
Geophysical Survey 2008
Magnetometer Survey Data Archive: Figure 10

6.2 The Later Prehistoric and Roman Pottery

Katie Anderson

Two phases of investigation were carried out. For the purposes of this report the evaluation material will initially be considered separately from the excavation assemblage, although there will be a discussion of all of the material as a whole.

6.2.1 Evaluation

Assemblage Composition

The assemblage totalled 567 sherds, weighing 7330g and representing 8.96 EVEs. The pottery ranged in date from the Middle Iron Age to the Late Roman period. 72 sherds of prehistoric pottery were identified, occurring in four different fabric types (see Table 8). Shell-tempered wares were the most commonly occurring, followed by chalk-tempered wares, all of which are likely to have been produced locally.

	No.	Wt(g)
MIA/LIA	73	750
Roman	494	6580
TOTAL	567	7330

Table 8: All pottery from evaluation by period

Fabric	No.	Wt(g)
Chalk-tempered	19	174
Grog-tempered	6	221
Sandy	8	44
Shell-tempered	39	308
TOTAL	72	747

Table 9: All prehistoric pottery from evaluation by fabric

The prehistoric fabrics and forms identified in the evaluation assemblage broadly date Middle Iron Age-Late Iron Age. However it is suggested that for the bulk of the prehistoric pottery, a 3rd-1st century BC date is appropriate, with a small amount of Late Iron Age material (50BC-AD50).

The bulk of the assemblage was Roman in date, totalling 494 sherds and weighing 6580g, with a mean weight of 13.3g. The material dated from the early to the late Roman period, although there is a peak in the later 2nd-4th century AD.

A wide range of Roman vessel fabrics were identified (see Table 10), although locally made coarseware fabrics dominated the assemblage. This included sandy greywares which represented 42% of the total assemblage. Shell-tempered wares were also well represented (23% of the assemblage). Although the exact sources of most of these wares is unknown, it is likely that most were made locally, as is the nature with Roman pottery production. Finewares represented 22% of the assemblage, with Hadham red-slipped wares and Nene Valley colour-coated vessels the most commonly occurring. Other finewares included Oxfordshire red-slipped wares and a single Central Gaulish Samian sherd. This was the only imported ware identified in the evaluation.

Fabric	No.	Wt(g)
Black-slipped ware	30	323
Buff sandy ware	1	10
Central Gaulish Samian	1	11
Coarse sandy greyware	199	2373
Hadham red-slipped	35	674
Horningsea greyware	10	596
Micaceous black-slipped	7	67
Nene Valley greyware	8	118
NVCC	32	381
Oxford red-slipped	3	133
Oxidised sandy	17	208
Red slipped	33	390
Shell-tempered	112	1041
Whiteware – Nene Valley	6	255
TOTAL	494	6580

Table 10: All Roman pottery from evaluation by fabric

A variety of vessel forms were identified in the assemblage. The prehistoric pottery was limited to jars and bowls (see Table 11), although within these groups there was some variety in form types, including slack-shouldered jars with beaded rims and slack-shouldered jars with plain rims. Several vessels were scored, while a further three were combed and three burnished. One jar had slashed decoration on the rim and was also scored. The scored wares are in the Middle Iron Age tradition, while the combed wares are in the Late Iron Age tradition. One sherd had evidence of burnt residues on the interior.

Form	No.	Wt(g)
Bowl	3	70
Jar	12	273
Unknown	57	404
TOTAL	72	747

Table 11: All Prehistoric pottery from evaluation by form

A greater range of Roman forms were identified in the assemblage (see Table 12), although the majority of the assemblage was non-diagnostic (75%). Of the vessel forms identified jars were the most commonly occurring form, representing 17%. This included a variety of different sized jars, from small cooking jars to large storage jars. Bowls were moderately well represented and included one Samian Dr37, several late beaded, flanged bowls and an Oxfordshire red-slipped imitation Dr45. Three straight-sided dishes were recorded, along with one convex dish, which dates to the 4th century AD. Small numbers of beakers, flacons and mortaria were also identified.

A small number of sherds showed evidence of sooting, suggesting use over a fire. Several were noted as being burnt, although it is unclear whether this was post-depositional.

The composition of the assemblage suggests a typical domestic assemblage with a range of vessels for the storage, preparation and serving of foodstuffs.

Form	No.	Wt(g)
Beaker	4	31
Bowl	24	654
Dish	8	164
Flagon	2	59
Jar	80	1821
Mortaria	5	266
Storage jar	3	460
Unknown	369	3128
TOTAL	495	6583

Table 12: All Roman pottery from evaluation by form

Feature Analysis

Pottery was recovered from 13 different features on the site, albeit in varying quantities. A number of features have been selected for more in-depth discussion.

Ft	No.	Wt(g)	EVE	Date
1	2	1	0	RB
11	3	19	0.1	2nd-4th AD
12	1	1	0	RB
23	449	6169	7.55	2nd-4th AD
25	3	18	0	RB
26	1	2	0	Mid 1st-2nd AD
29	33	233	0.1	MIA/LIA
30	39	514	0	MIA/LIA
34	1	39	0	2nd-4th AD
35	25	202	0.09	2nd-4th AD
36	2	13	0	2nd-4th AD
37	1	8	0	2nd-4th AD
40	7	111	1.12	2nd-4th AD
TOTAL	567	7330	8.96	x

Table 13: Pottery from evaluation by feature

Feature 23, a ditch, contained the largest quantity of material, totalling 449 sherds weighing 6169g, thus representing approximately 79% of the assemblage. The pottery from this feature ranged in date from the 2nd-4th century AD and was recovered from five sequential contexts. The upper fill [079] contained material dating 2nd-4th century AD, with a significant number of sherds which dated 3rd-4th century AD, including a convex dish and an imitation Dr45 mortaria, both of which date to the 4th century AD. Contexts [080] and [081], contained material which was similar in composition to the upper fill, with 3rd-4th century AD and 2nd-4th century AD material, although neither contained any definite 4th century AD pottery. The lower fills [082] and [083] contained pottery which broadly dated 2nd-4th century AD, but with a lack of definite 3rd-4th century AD material, which suggests a 2nd-3rd century AD date is more appropriate.

The pottery from this feature suggests a series of filling events, starting in the 2nd-3rd century AD and ending in the 4th century AD. Although there are mixed dates for the upper fills, it is suggested that there was little in the way of re-cutting and/or re-

deposition, since the pottery does form a fairly neat stratigraphy. The quantity of material increased with each fill, perhaps reflecting an increase in activity at the site from the 2nd-4th centuries AD.

A wide range of vessel forms and fabrics were collected from this feature, including 54 jar sherds, 24 bowl sherds, eight dishes, four beakers and a flagon. This feature therefore appears to have acted as a key place for the disposal of domestic refuse.

33 sherds weighing 233g were collected from Feature 29. The material from this feature dated Middle-Late Iron Age and included several scored ware sherds. Feature 30 contained 39 sherds, weighing 514g, dating Middle Iron Age/Late Iron Age, which included a small number of Late Iron Age combed sherds, and both shell and grog-tempered vessels. It is suggested that Feature 29 is slightly earlier in date, having no evidence of the Late Iron Age combed ware vessels, identified in Feature 30. However there is no evidence that the pottery goes as late as the late pre-Roman Iron Age (LPRIA), suggested by the lack of wheel-thrown vessels and also the occurrence of grog, which tends to be replaced by sand-tempered sherds in the LPRIA (Webley 2008)

The remaining features contained only small quantities of pottery, all of which are Roman in date, with a peak in the 2nd-4th centuries AD.

Discussion

The pottery recovered from the evaluation shows evidence from the Middle Iron Age to the Late Roman period; although there is no evidence that this was a continuation of activity, since there is no definite LPRIA material and only a very small amount of early Roman pottery. The evaluation also implies that these phases of occupation took place in separate areas with no apparent overlap, thus are considered as separate sites.

The Prehistoric pottery suggests fairly small scale domestic activity. The Roman pottery, although also domestic in nature, is at a much greater scale, thus suggesting a more intensive period of occupation, with a greater level of activity, although it should be acknowledged that Roman pottery was produced in much larger quantities. Roman activity appears to have peaked between the 2nd-4th centuries AD, with a clear Late Roman phase, which included some 4th century AD pottery forms.

6.2.2 Excavation

Introduction

The excavation yielded a large assemblage of 1542 sherds, weighing 23645g and representing 35.25 EVEs. The material dated from the Middle Iron Age to the Late Roman period, although this represents two distinct phases and two different sites, rather than a continuation of activity across a single site. Therefore for the purposes of this report, the sites will be considered separately.

Area 3 – Middle/Late Iron Age

Assemblage Composition

Area 3 produced an assemblage totalling 232 sherds, weighing 1916g, which was recovered from five features. A variety of fabric types were identified (see Table 14). Sandy wares were the most commonly occurring vessel fabric, representing 64% of the assemblage. Other fabric types featured less prominently, such as grog which represented 15.5% and chalk and sand which represented 9%. This is common for Middle/Late Iron Age ceramics in Cambridgeshire, which show predominance for sand-tempering over grog (Thompson 1982; 17). It has been speculated that sites with a higher incidence of grog-tempering are slightly earlier in date than those which produce sand dominated assemblages (Webley 2008). However, in this instance the grog-tempered sherds only account for a small proportion of the assemblage, and also more significantly, only occur alongside larger numbers of sandy sherds. Therefore this assemblage provides no evidence that grog-tempering reflects an earlier phase of activity than sand-tempered vessels.

Fabric	No.	Wt(g)
Chalk and sand	21	174
Flint and sand	1	12
Grog tempered	36	584
Micaceous sandy	1	76
Reduced sandy	2	24
Sand and shell	14	105
Sandy	145	869
Shell-temp	12	72
TOTAL	232	1916

Table 14: All prehistoric pottery from excavation by fabric

The fabrics present in the assemblage are indicative of local production, including the chalk-tempered and shell-tempered sherds. Sites in the vicinity, such as Cambourne, produced assemblages with similar fabric compositions; dominated by sandy wares but with shell and chalk featuring in significant quantities (Leivers 2009).

The bulk of the assemblage comprised non-diagnostic sherds (76%); however, a small number of vessel forms were identified. Jars were the most commonly occurring, representing 80% of all diagnostic sherds. There were several different types identified, including a slack-shouldered jar, a flat beaded rim jar, dating to the Middle Iron Age, and a jar with a neck cordon, dating Middle/Late Iron Age. A variety of bowl/jars were also recorded, including three examples of plain rim vessels, two with everted rims and one with an inverted rim. All of the bowl/jars are Middle Iron Age in date. Three bowls were identified, comprising one plain rim bowl with fingernail decoration, one slack-shouldered bowl, both of which are Middle Iron Age in date, and one corrugated/rippled bowl, dating to the Late Iron Age.

Form	No.	Wt(g)
Bowl	3	118
Bowl/jar	8	122
Jar	44	797
Unknown	177	879
TOTAL	232	1916

Table 15: All Prehistoric pottery from excavation by form

Approximately 15% of the assemblage was decorated, including 22 burnished sherds and ten scored sherds. Two vessels had cordon decoration, while two had tooled diagonal line decoration, and one vessel had finger nail decoration on the rim. Usewear evidence was recorded on seven of the vessels, comprising burnt residues on the interior of sherds, suggesting a cooking function.

Feature Analysis

Prehistoric pottery was recovered from five different features across Area 3 (see Table 16). Feature 93, a curvilinear feature, contained the largest quantity of material, totalling 92 sherds, weighing 1131g and representing 0.5 EVEs, with a relatively high mean weight of 12.3g. This comprised 55 sand-tempered sherds, 32 grog-tempered sherds and five shell-tempered sherds. Vessel forms identified included seven jars, five bowl/jars and two bowls. This included 30 sherds (239g) from a single sandy vessel (form unclear) and 16 sherds (280g) from a grog-tempered jar. Five sherds were burnished and two had cordons. The bulk of the pottery is Middle Iron Age in date, however a number of sherds were Middle/Late Iron Age, and a small number were Late Iron Age. This therefore suggests a Middle/Late Iron Age date for the feature, with a 3rd-1st century BC date suggested, although the presence of a small number of Late Iron Age sherds could suggest a 3rd century BC-AD50 date.

Ft	No.	Wt(g)	EVE
29	78	361	0.1
66	4	84	0.35
93	92	1131	0.5
111	23	184	0.06
119	33	132	0

Table 16: All prehistoric pottery from excavation by Feature

Feature 93 cuts an earlier curvilinear ditch, Feature 29. 78 sherds of pottery were recovered from Feature 29, weighing 361g and representing 0.1 EVEs, with a low mean weight of 4.6g. This included a range of different fabric types, although sandy wares dominated, with 48 sherds. 12 chalk and sand tempered sherds were identified, along with nine sand and shell-tempered sherds, six shell-tempered wares and two grog tempered. Only five vessel forms were identified, comprising three jars, one bowl/jar and one bowl. Five sherds were burnished, one was scored and one had tooled decoration. The pottery from this feature dated to the Middle Iron Age and Middle/Late Iron Age, although there was no definite Late Iron Age material. Therefore a 3rd-1st century BC date is appropriate. The pottery and the relationship between Features 93 and 29 suggest Feature 29 is slightly earlier, although there is a possibility that material from Feature 29 had been redeposited, or that pottery from Feature 93 was redeposited into Feature 29.

Feature 111 contained 23 sherds, weighing 184g and representing 0.06 EVEs. The material all dated to the Middle Iron Age and included 11 sandy sherds, nine chalk and sand tempered sherds and one grog-tempered sherd. Five jars were identified, included one slack-shouldered jar and one necked jar. Nine of the sherds were scored and two had burnt residue on the interior.

33 sherds weighing 132g were recovered from Feature 119, a ditch. The pottery included one bowl/jar with a plain rim and one burnished sherd. The material from this Feature is primarily Middle Iron Age in date, with a single Middle/Late Iron Age example. Finally Feature 66 contained four sherds, weighing 84g and representing 0.35 EVEs. This included a flat base sherd from a micaceous sandy ware vessel, dating Middle/Late Iron Age.

Discussion

The small assemblage of later prehistoric pottery recovered from Area 3 is typical of small-scale domestic activity, as is highlighted by the vessel forms present and the usewear evidence of burnt residues on the interior of a small number of sherds.

The pottery recovered from the site is all of a similar date, thus understanding the relationship between different features is problematic, except in the case of Feature 93 which cuts Feature 29. It is unclear whether the remaining features were contemporary with one or are of different dates. The lack of any Late Pre-Roman Iron Age (LPRIA) wheel made sherds suggest the site did not continue beyond the early 1st century AD.

Areas 1 and 2 – Romano British

Assemblage Composition

Areas 1 and 2 produced an assemblage totalling 1310 sherds, weighing 21729g and representing 34.24 EVEs. The pottery had a relatively high mean weight of 16.6g and was recovered from 39 features and an occupation layer.

A range of vessel fabrics were identified (see Table 17), although coarseware fabrics dominated the assemblage, representing 85%, with finewares representing 15%. The most commonly occurring fabric group were sandy greywares, which represented 53% of the total assemblage. The majority of these were unsourced, although the nature of Roman pottery production and supply indicates that these are likely to be from local sources. Horningsea greywares (from kilns to the north of Cambridge) totalled 137 sherds (5696g), as well as a further six black-burnished sherds, making them the largest group of sourced wares. These were produced throughout the Roman period; however, they peak between the 2nd-4th centuries AD. Shell-tempered wares were well represented, totalling 11.7% of the assemblage. These wares are known throughout the Roman period, although as with Horningsea wares, there is a peak in production between the 2nd-4th centuries AD. The exact source of this pottery is unclear (it is likely to represent more than one production site); however, it is likely to have come from local sources.

Fabric	No.	Wt(g)
Black burnished - Horningsea	6	162
BB2?	1	11
Black-slipped	65	499
Buff sandy	13	118
Central Gaulish Samian	11	128
Colour coat (unsourced)	7	96
Coarse sandy greyware	551	6241
East Gaulish Samian	24	735
Fine buff sandy	4	12
Fine sandy greyware	14	87
Greyware micaceous	3	8
Hadham red-slipped	83	798
Horningsea greyware	137	5696
Imitation black-burnished	23	567
Late Baetican amphora	1	159
Lezoux Samian	1	2
Lincoln Marker Fine reduced	1	17
London fine reduced?	4	60
Micaceous greyware	1	4
Micaceous black-slipped	8	78
Nene Valley greyware	15	235
Nene Valley colour-coat	59	1281
Oxford imitation Samian	7	65
Oxidised sandy	95	965
Pakenham colour-coat	6	23
Red-slipped ware	1	3
Shell-tempered ware	153	2950
Wattisfield greyware	3	94
Whiteware	4	45
Whiteware Nene Valley	9	590
TOTAL	1310	21729

Table 17: All Roman pottery from excavation by Fabric

Imported wares represented just 3% of the assemblage, comprising 24 East Gaulish Samian sherds (798g), 12 Central Gaulish Samian sherds (130g) and one Baetican amphora sherd (159g), which all broadly date to the 2nd and 3rd centuries AD. One of the Samian vessels had a partial stamp ‘...VCIAN’ which dates the vessel to between AD140-190 (Anon 2009). Although only a relatively small number of imported wares were recovered, the mean weight of the imported wares was high, particularly the East Gaulish Samian sherds which had a mean weight of 33g. This is perhaps evidence of curation; these vessels being better preserved.

Finewares represented 15% of the total assemblage, of which Hadham red-slipped wares were the most commonly occurring with 83 sherds weighing 798g. These sherds are Late Roman in date (3rd-4th century AD). Nene Valley colour-coated sherds totalled 59 sherds (1281g), also giving a high mean weight of 21.7g, dating mid 2nd-4th century AD. Seven unsourced colour-coated sherds were identified, along with six Pakenham colour-coats, broadly dating 2nd-4th century AD. Seven Oxfordshire red-slipped wares were identified, which broadly date to the late Roman period (3rd-4th century AD).

The fabrics present in this assemblage show a preference for locally produced coarsewares, as is typical for Roman assemblages. However, there were a number of non-local wares present, which although occurring in small quantities, are evidence of access to wider trade networks.

A range of vessel forms were identified in the assemblage (see Table 18), although 71% of the assemblage was non-diagnostic. Jars were the most commonly occurring representing 57% of all diagnostic sherds (16.4% of the total assemblage). With this category there was a great deal of variation in forms, with rim diameters ranging from 10cm to 40cm, reflecting different vessel functions, from small cooking jars, to large storage vessels. The jars range in date from the 2nd-4th century AD.

Form	No.	Wt(g)
Beaker	23	438
Beaker/jar	1	1
Bowl	44	2148
Cup	2	10
Dish	69	1662
Flagon	4	75
Handle	1	7
Jar	215	7681
Lid	5	116
Mortaria	13	745
Unknown	933	8846
TOTAL	1310	21729

Table 18: All Roman forms from excavation

Dishes were moderately well represented totalling 18% of all diagnostic sherds. Of these 60% were coarsewares, while 40% were finewares. This included 13 Samian sherds, comprising four Dr18/31s, one Dr32, one Dr36 and one Dr31 dish, which broadly date 2nd and 3rd centuries AD. Seven Nene Valley colour-coated sherds were also identified, including a 4th century convex shallow dish. Bowls totalled 44 sherds, and as with dishes, included both fineware and coarseware examples. A 3rd-4th century AD imitation black-burnished ware bowl had a repair hole and rivet, implying that this vessel was considered important enough to repair rather than discard. 23 beaker sherds were identified, 11 of which were Nene Valley colour-coated sherds, which dated mid 2nd-4th century AD. There were also two pedestal base sherds from two Hadham red-slipped vessels, dating 3rd-4th century AD.

13 mortaria were recorded, comprising eight Nene Valley whiteware sherds (2nd-4th century AD), but also two East Gaulish Samian sherds (late 2nd-3rd century AD), as well as a Hadham red-slipped vessel, which dates 3rd-4th century AD. Other vessel forms occurred less frequently, such as flagons and cups, however, the overall composition of the assemblage is typical of a domestic assemblage, with a range of vessels for the preparation and serving of food and drink.

Feature Analysis

Pottery was recovered from a total of 39 features as well as an occupation layer, the quantities of material from each feature can be seen in Table 19. However, for the

purposes of this report a small number of features have been selected for more detailed study.

Feature 45 contained 30 sherds of pottery, weighing 141g and representing 0.2 EVEs. This feature consisted of a large pit to the east of a large ditch, Feature 34. This feature is the only one on the site to contain exclusively earlier Roman pottery, comprising several coarse and fine sandy greyware sherds and one black-slipped vessel. Only one vessel form was identifiable, which was a jar. The fabrics however, suggest a mid 1st-2nd century AD date. Although the assemblage in itself is not of particular interest, the date of the material makes the feature stand out as being the only definite earlier Roman feature on the site.

Feature 23 contained 130 sherds, in addition to the 449 sherds collected from this feature during the evaluation. The majority of sherds came from the middle fill of the ditch [154], and dated 2nd-3rd century AD. One 4th century AD sherd from a convex dish was collected from one of the upper fills [153]. The pottery dating from the excavation therefore fits neatly together with that from the evaluation, which shows a sequence of filling events from the mid/late 2nd/early 3rd century AD to the 4th century AD, suggesting the ditch was left open for the duration of occupation at the site.

The only site to produce more material than this ditch was Feature 104, a midden. This feature contained 375 sherds, weighing 10101g and representing 15.99 EVEs. The material had a particularly high mean weight of 26.9g, and included some large and unabraded sherds. The material was mixed in date, with pottery from the 2nd to the 4th century AD, without any obvious spatial patterning. This is not unexpected from a midden feature. There were some subtle differences in the condition of the earlier versus the later material, for example 2nd-3rd century AD pottery had a mean weight of 26g, while the 3rd-4th century AD pottery had a much higher mean weight of 72g. This suggests that a higher level of breakage for the earlier material, which may be due to two different factors. The first is that the midden included redeposited material from earlier features, with only the late Roman material being freshly deposited. The second explanation is that the earlier material may have been left lying about on the surface for a longer period of time; however the relatively high mean weight of this would suggest that the former is the most likely explanation.

It is interesting to consider the roles of Features 23 and 104, which both appear to have acted as primary features for the disposal of rubbish. The sequence of the fills in Feature 23 suggests that by the late 3rd/4th century AD the feature was full, which is the date at which the midden is likely to have been formed, given the excellent condition of many of the Late Roman sherds. It is therefore possible that the midden took over the role of Feature 23.

Ft	No.	Wt(g)	EVE
11	1	5	0
23	130	1969	4.03
34	63	549	0.64
43	1	6	0
44	45	550	0.6
45	30	141	0.2
48	9	68	0
49	60	521	0.44
54	13	40	0
56	2	61	0
59	40	444	0.32
60	2	21	0
61	3	78	0
62	15	46	0.1
63	2	24	0
68	3	5	0
71	1	1	0
73	1	7	0
74	14	179	0.56
75	1	28	0.1
76	36	435	0.52
78	44	701	1.44
79	15	79	0
81	45	638	0.6
86	11	231	0.34
87	1	6	0
88	89	1258	2.97
90	6	83	1
91	1	7	0
92	12	176	0
95	64	912	0.65
97	19	161	0.22
98	15	146	0
99	31	445	1.29
100	28	395	0.52
102	2	74	0.07
103	4	22	0
104	375	10101	15.99
106	69	891	1.54
Occupation layer	7	225	0.1
TOTAL	1310	21729	34.24

Table 19: All Roman pottery from excavation by Feature

Feature 88 was a further midden, containing 89 sherd of pottery, weighing 1258g and representing 2.97 EVEs. As with Feature 104, the material was fairly mixed in date, ranging from the 2nd-4th century AD. The pottery in this feature had a much smaller mean weight of 14g, although there were still some larger sherds, including the repaired imitation black-burnished bowl. The material from this midden does not have the same composition as that from Feature 104 in terms of quantity and condition of the sherds. However, the mixed nature of the pottery is similar and suggests the bulk of pottery from this feature had perhaps been redeposited from elsewhere.

Discussion

The excavation produced a sizable assemblage of Roman pottery, which although including material from the 1st-4th century AD, does show an increase in activity from the mid/late 2nd-3rd century AD onwards, as shown in Figure 11. The ceramic evidence suggests small-scale activity in the early Roman period, with material dating to this period coming from a single feature (Feature 45).

The quantity of material recovered from what is a relatively small area, suggests a fairly intensive level of activity, from the mid/late 2nd century AD, into the 4th century AD. The presence of a number of definite 4th century AD vessels, suggests that the site was still very active in this period.

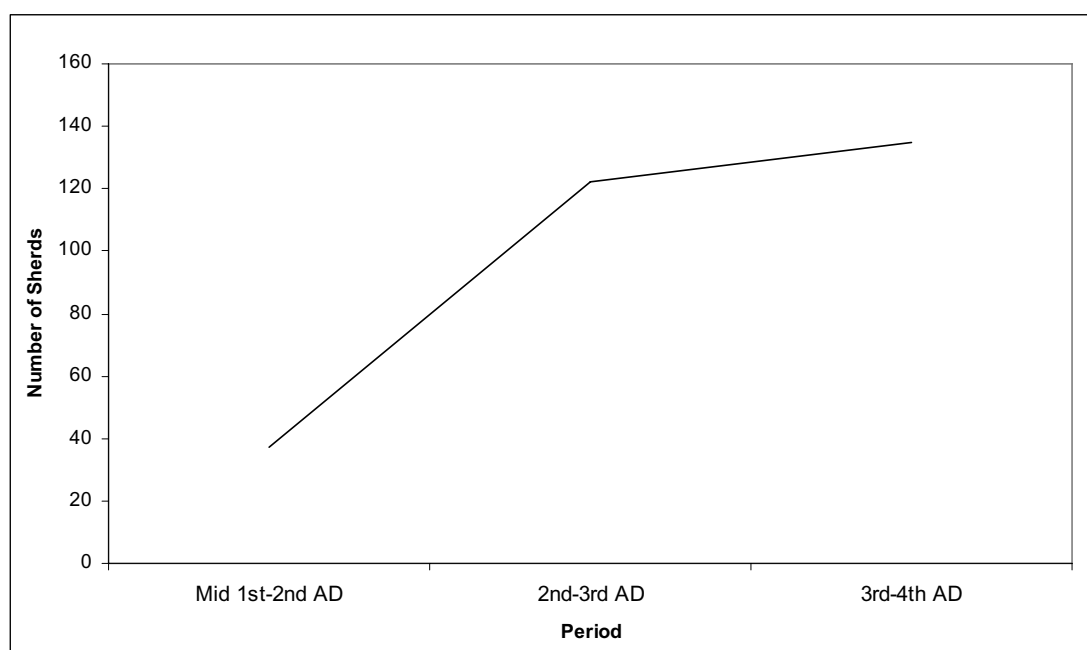


Figure 11: Graph showing frequency of pottery overtime in Areas 1 and 2

The way in which the material has been deposited is of interest, in particular the middens. These features contained pottery which was mixed in date which suggests either that these areas had been in use for some time, or else material had been redeposited there from elsewhere. If the latter is the case, than these features are likely to have been deposited towards the end of activity at the site, as often seems to be the case with middens (Anderson 2008). Understanding the development of the middens is important for understanding the development of the site.

The fabrics and forms present in the assemblage, although fairly typical of a Rural domestic site, also show evidence that the site had access to wider trade networks, which provided pottery from outside of the local area. The site assemblage would not be described as 'wealthy', despite the presence of imported wares and other finewares, since coarsewares and local fabrics dominate. The repaired bowl from Feature 81 perhaps highlights this. It is perhaps the quantity of material recovered, from what is a relatively small area, which highlights the potential importance of this site, by suggesting a high level of activity, especially in the later Roman period.

6.3 The Roman Tile

Katie Anderson

A sizable assemblage of Roman tile, totalling 86 pieces and weighing 4054g were collected from the excavation. All of the material was examined and details of fabric and form were recorded.

Box flue tile, recognisable from the combing that often occurs on the exterior, were the most commonly occurring form, with a total of 45 pieces weighing 1746g. Six tegula roof tiles were identified (1471g), including one which was half complete, as well as a single imbrex (113g).

Feature 104 contained the largest quantity of material, totalling 51 pieces, weighing 2546g. 27 pieces were collected from Feature 23 (869g), four pieces weighing 61g were recovered from Feature 106 and one piece came from Feature 90.

Specific dating of tile is problematic, and is best done through its association with pottery. The tile from this assemblage was recovered alongside later Roman pottery (3rd-4th century AD), therefore this suggests any building in the vicinity is likely to be pre 3rd-4th century AD.

The tile forms and quantity of material recovered from what was a relatively small area, is indicative of a building(s) in the immediate area, specifically one that had some form of warm air heating system. The tiles association with pottery suggests a 2nd-3rd century AD date for this material.

6.4 The Faunal Remains

Vida Rajkovača

Introduction

A faunal assemblage totalling 1400 bones was recovered during the evaluation and the excavation carried out in 2008. This report offers an overview of the results following the zooarchaeological analysis of the assemblage. The faunal material involved in the analysis included both sieved remains and the hand-recovered material. Areas 1 and 2 have been dated to the Romano-British period and effectively represent the same site with the modern road cutting across, for the purpose of this report, these two areas will be considered and quantified as one assemblage. Area 3 is Iron Age in date and it will be studied separately. Table 20 provides the exact quantities of bones recovered during the field work. The report will first outline the results of the evaluation, followed by the results from the excavations.

Area	Date	Evaluation: context count	Evaluation: fragment count	Excavation: context count	Excavation: fragment count
Trenches 1-9	n/a	6	72		
Trenches 10-44	n/a	18	397		
Area 1	Romano-British			24	257
Area 2	Romano-British			36	521
Area 3	Iron Age			18	153

Table 20: Sub-division of faunal assemblage based on the chronology

Methods: Identification, quantification, ageing and biometry

The zooarchaeological investigation followed the system implemented by Bournemouth University with all identifiable elements recorded (NISP: Number of Identifiable Specimens) and diagnostic zoning (amended from Dobney & Reilly 1988) used to calculate MNE (Minimum Number of Elements) from which MNI (Minimum Number of Individuals) was derived. Identification of the assemblage was undertaken with the aid of Schmid (1972), Hillson (1999) and reference material from the Cambridge Archaeological Unit, Grahame Clark Zooarchaeology Laboratory at the Department of Archaeology in Cambridge. Although most of the ovicaprid bones are difficult to identify to species, it was possible to identify a selective set of elements as sheep from the assemblage, using the criteria of Boessneck (1969). Ageing of the assemblage employed both mandibular tooth wear (Grant 1982; Payne 1973) and fusion of proximal and distal epiphyses (Silver 1969). Where possible, measurements have been taken (Von den Driesch 1976). Withers height calculations follow the conversion factors of Fock for cattle and Teichert for ovicaprids (see Von den Driesch and Boessneck 1974). Taphonomic criteria including indications of butchery, pathology, gnawing activity and surface modifications as a result of weathering were also recorded when evident.

Preservation

Hand-recovered assemblages tend to be biased in favour of large, easily observed fragments and therefore the bones from larger species, whilst small fragments and

therefore the bones from smaller species tend to be overlooked (Payne 1992). The assemblage is not an exception having a high percentage of bones which were only possible to assign to a size category (Large, Medium and Unidentified Mammal) and that is due in part to the relatively high numbers of fragmented limb bones. Material recovered from Trenches 1-9 and Area 3 has exhibited quite poor overall preservation whereas bones from Trenches 10-44 and Areas 1 and 2 demonstrated moderate preservation, indicating that some weathering and other erosive damage had occurred to the bone.

6.4.1 Evaluation

Trenches 1-9 (Two Pots Farm)

Faunal remains include material found in Trenches 1-9, these trenches have yielded 72 moderately preserved fragments of bone recovered from six contexts, 62 (86.1%) of which were identifiable to element and further 21 (28.8%) to species (Table 21). Butchery marks were noted on cow axis at the mid-line of the vertebral body, suggesting rough division of the beef carcass into sides, perhaps for storage, transportation or distribution.

Species	NISP	%NISP	MNI
Ovicaprid	10	47	1
Cow	8	38	1
Pig	1	5	1
Horse	1	5	1
Dog	1	5	1
ULM	10	-	-
UMM	33	-	-
USM	1	-	-
UUM	7	-	-

Table 21: NISP and MNI counts for contexts in trenches 1-9

Key: UMM & ULM = Unid. Medium and Large Mammal / UUM = Unid. Fragment. NB: Species percentages are out of 21. These differ from the unidentified counts as these are calculated on the basis of element identification (for UMM & ULM) and total fragments (for UUM) (corresponding to Σ in brackets).

Trenches 10-44 (Park Farm and Long Road)

The state of the preservation ranged from moderate to quite good, although there are bone fragments that suffered some erosive damage. The feature with the abundant animal bone material (288 bone fragments) was F. 23, a ditch dated to 2nd to 4th century AD. The majority of the bone from this feature was recovered from the fills [79] and [80] totalling 226 bone fragments. Fills [81], [82] and [83] produced 62 fragments of bone. Similar findings are reflected in the results from the pottery assemblage. This feature produced the largest quantity of pottery material totalling 449 sherds representing c. 79% of the assemblage (see Anderson).

Species	NISP	%NISP	MNI
Cow	110	60	3
Ovicaprid	47	25.5	5
Sheep	1	0.5	1
Pig	7	4	1
Horse	12	6	1
Dog	4	3	1
Domestic goose	1	0.5	1
Red deer	1	0.5	1
ULM	82	81 ($\Sigma=364$)	-
UMM	96	96 ($\Sigma=364$)	-
USM	1	1 ($\Sigma=364$)	-
UUM	35	3 ($\Sigma=397$)	-

Table 22: NISP and MNI counts for contexts in trenches 10-44

Key: UMM & ULM = Unid. Medium and Large Mammal / UUM = Unid. Fragment. NB: Species percentages are out of 183. These differ from the unidentified counts as these are calculated on the basis of element identification (for UMM & ULM) and total fragments (for UUM) (corresponding to Σ in brackets).

Three main meat species are very well represented and the remains of a domestic goose represents the only evidence for keeping and consuming poultry on site (Table 22). Considerable amount of ageable specimens were noted in this subset: 13 for cattle and four in ovicaprid category. Age range for cattle demonstrated the slaughter in their second or third year of life (Silver 1969). It would seem that the majority of cattle were managed primarily for beef and that the demand for prime beef intensified throughout the Romano-British period. Ageing data for sheep/goat component was derived from mandibular tooth wear (Grant 1982) giving the age at death of *c.* 12 months and one specimen of 6 years. Sheep was positively identified based on a complete radius (Boessneck 1969: 343). Significant butchery evidence (10 specimens or *c.* 6.5%) was noted mostly demonstrating primary dismemberment and bone breaking or splitting. Biometrical data was available from this subset: shoulder height estimates based on a complete horse metacarpal are at the bottom of the range (13 hh), demonstrating it was a pony-sized horse by modern standards (Kiesewalter in Von den Driesch and Boessneck 1974). Biometrical data was also available for cattle and withers calculations derived from these measurements were 125cm for one individual and 135cm for other individual which positively identified as male (see Fock in Von den Driesch and Boessneck 1974).

6.4.2 Excavation

Areas 1 and 2

Surprisingly, open area excavation did not produce the same amount of bone material as the evaluation phase. Cattle are a dominant component, being the main meat providers (Table 23). This was followed by ovicaprids, which are also a multi-purpose animal kept for their secondary products. Other species are represented with the minimum of one individual animal on site: pheasant, red deer, pig and dog. MNI count for cattle was quite high demonstrating the importance of this animal in the site's economy.

Being the richest in animal bone material of all three areas, this sub set has produced a considerable amount of ageable and measurable specimens. Nineteen cattle specimens were aged ranging from juvenile to adult individuals, with the majority of cattle being

slaughtered in their second or third year (Silver 1969). Age profile for cattle seems to show that cattle were culled to produce prime beef, before the meat becomes too tough. It is likely that these results reflect the high requirement for beef. It should also be mentioned that cattle were kept for milk, hide and traction, so it not surprising that some individuals were kept after they reach maturity. Killing profile for ovicaprids was based on five specimens showing the age at death around 12-18 months, with only one senile individual present (Grant 1982). Only one ageable pig specimen was aged to three years. Of all ovicaprid elements, sheep was positively identified in five cases, all based on post-cranial elements (Boessneck 1969: 339-355), so this might mean that sheep were kept in larger numbers than goat.

Butchery evidence was quite considerable, mainly demonstrating the use of large blades and cleaver for managing large carcasses such as cattle. A couple of interesting notes on the butchering practice should be made: On one of the cattle scapulae, the removal of spina was a noted characteristic of meat curing process; Cow femur was recorded bearing an interesting mark which looked like an arrowhead mark, breaking through the surface of the bone, suggesting slaughter; There was also a red deer antler sawn off the skull. In addition to butchery, four worked bone fragments were recorded, all four pieces look like the same type of tool: a shaft fragment of a metapodial bone has been sawn off, polished and the distal end was shaped into a chisel or a leather-working tool. On all four fragments, the distal end was chipped implying this might have been a working surface of a tool.

Withers estimates for cattle follow the conversion factors of Matolsci and Fock (see Von den Driesch and Boessneck 1974) and range from 115 cm- 126 cm. Also, two ovicaprid elements were measured giving the shoulder height calculations of 59 cm- 63 cm.

Species	NISP	%NISP	MNI
Cow	163	62	9
Ovicaprid	67	26	4
Sheep	5	2	1
Horse	14	5	1
Pig	4	1.5	1
Dog	2	1	1
Red deer	3	1	1
Pheasant	4	1.5	1
ULM	237	231 ($\Sigma=691$)	-
UMM	183	180 ($\Sigma=691$)	-
USM	5	5 ($\Sigma=691$)	-
UUM	91	13 ($\Sigma=778$)	-

Table 23: NISP and MNI counts for contexts from Areas 1 and 2

Key: UMM & ULM = Unid. Medium and Large Mammal / UUM = Unid. Fragment. NB: Species percentages are out of 262. These differ from the unidentified counts as these are calculated on the basis of element identification (for UMM & ULM) and total fragments (for UUM) (corresponding to Σ in brackets).

Area 3

Excavation of the open area has yielded 153 bone fragments from 18 contexts and the state of preservation ranged from moderate to poor. Of 153 bones, 113 (73.8%) were possible to assign to element and only further 36 (23.5%) to species level. Three main domesticates dominate the assemblage, with the ovicaprids being the most significant

species (Table 24). It was possible to differentiate between sheep and goats and this was based on two post-cranial elements. Sheep was positively identified on a basis of a complete radius (Boessneck 1969: 343) and goat was identified based on a complete humerus (Boessneck 1969: 340). Very little ageing data was available: pig first phalanx was aged to 0-2 years and cow tibia was aged to *c.*2 years. No butchery activities or cases of pathology were noted in this sub set.

Species	NISP	%NISP	MNI
Ovicaprid	20	55	2
Sheep	1	3	1
Goat	1	3	1
Cow	12	33	1
Pig	2	6	1
ULM	43	-	-
UMM	40	-	-
UUM	34	-	-

Table 24: NISP and MNI counts for contexts in the Area 3

Key: UMM & ULM = Unid. Medium and Large Mammal / UUM = Unid. Fragment. NB: Species percentages are out of 36. These differ from the unidentified counts as these are calculated on the basis of element identification (for UMM & ULM) and total fragments (for UUM) (corresponding to Σ in brackets).

Discussion

The predominance of livestock species on this site is in common with most archaeologically recovered animal bone assemblages in Britain. Two dominant species are cattle and sheep or goat, being kept for their secondary products, as well as for their meat. Pig seem to be of very little importance overall, followed by horse which becomes more important in the late Roman component of the assemblage. The ranges in the relative proportions vary from the evaluation to the open area excavations and the material has been quantified in separate tables.

Assemblages	Cow %	Ovicaprid %	Pig %	Horse %
<i>Iron Age-Area 3</i>	33% - 38%	48% - 55%	5% - 6%	0 - 5%
<i>Romano-British-Areas 1 and 2</i>	60% - 62%	25%-26%	2% - 4%	5% - 6%

Table 25: Major species relative proportions by period

The importance of sheep and goats in the Iron Age economy is well known (Cunliffe 2005: 415) and the results from this site fit well with this view (Table 25). It looks likely that arable farming at that scale at the time was not possible without large flocks and herds to produce manure for the fields and the predominance of the two main domesticates certainly matches this idea. The Iron Age period sees cattle and sheep as the main two species reared in large numbers, with pigs playing a subsidiary role (Maltby 1996). There seems to be an increase in the sheep percentages in the first millennium and the general trend for sheep husbandry seems clear enough, although it is possible that the assemblages are affected to some extent by different site functions or by the environment (Cunliffe 2005: 416). The presence of both sheep and goats has been positively identified on the site, but unfortunately, very little ageing data is available which we can derive kill off profile from, hindering our chances of interpreting site economy. Also, Area 3, dated to the Iron Age, did not produce any measurable specimens, or signs of pathology. Although having a poor species representation, the Iron Age component of the assemblage has proved to be typical for

the period and in keeping with the results from the contemporary sites in the proximity (Abrams and Ingham 2008: 25). Also, the relative scarcity of pig bones is reflected in the assemblages from the middle Iron Age farmstead at Scotland Farm (Abrams and Ingham 2008: 32) and the results from this assemblage fit well with these results.

As for the Romano-British subset of this assemblage, cattle are a dominant species and they account for more than all three main livestock species together. When MNI method of quantifying is used, ovicaprids seem to be a dominant species with up to six individual animals on site in some of the subsets. However, overall count has demonstrated the predominance of cattle on the site. Dietary preference for beef is believed to have come from the continent with Roman legions populating Britain and it was suggested that military and, therefore, Romanised sites would have higher proportions of cattle than rural civilian sites, which are likely to continue with the native Iron Age tradition (King 1999: 180). The relative proportions of species in Areas 1 and 2 certainly imply the site was Romanised and the pottery dating evidence showed it was predominantly late Roman (3rd to 4th century AD). More importantly, the greatest number of bones was recovered from late Roman features perhaps reflecting intensifying activities at the site from the 3rd to 4th century AD. Similar species representation was recorded on a contemporary site in the area- Childerley Gate ladder system (Site 5), where there is a copious amount of bone material, dominated by the two main domesticates-cattle and sheep/ goat (Abrams and Ingham 2008: 77).

The midden excavated within the area 2 (F.104) with abundant animal bone material (191 of 521 bones in the area 2) has produced a considerable amount of ageable and measurable specimens, as well as some significant butchery marks. Butchers were skilled at using cleavers and large blades to perform a variety of actions, predominantly primary dismemberment. Chop marks are more common than cut marks, possibly implying the managing of large carcasses such as cattle. The usage of cleavers recorded on this site has been seen as a characteristic of Roman butchery where it was used to facilitate and improve carcass dismemberment (Seetah 2006: 109). Pheasant was positively identified from this context, which is not surprising as it is known that pheasant was a Roman introduction. Red deer remains also confirm the exploiting of wild faunal resources of the area.

Several young individuals were recorded and it is likely cattle were bred on site. Kill off profile for cattle shows the age between two and three years at which they were culled, suggesting they were killed to produce prime beef. This, and extensive butchering, might imply that the meat has been prepared for the market to be imported. However, body part distribution shows that all parts of the beef carcass are represented, suggesting local slaughter and consumption. The size of the assemblage precludes any further conclusions about the husbandry regimes of the site's economy. Nevertheless, coupled with the results from the contemporary sites in the region, this faunal assemblage certainly holds promise for the future research in the area. The majority of the ovicaprids were positively identified as sheep, hinting at the relative importance this animal played in the area.

6.5 The Flint

Lawrence Billington

6.5.1 Evaluation

A total of 11 worked flints (57.9g) were recovered from the evaluation trenches and test pits. Four pieces were recovered from cut features probably representing residual material, whilst seven pieces were recovered from buried soil deposits. Most of the flint work consists of undiagnostic waste flakes. The only retouched piece was a broken end scraper from ditch F. 8, carefully made on a thin flake blank this is probably of Neolithic date. A single flake recovered from pit F.17 bears technological traits characteristic of Mesolithic/earlier Neolithic technologies. The remaining flakes are all small waste flakes struck with hard hammers from unprepared platforms. These pieces are not diagnostic but taken at face value probably represent low levels of flint working activity dating to the later Neolithic or Early Bronze Age.

Trench/Test Pit No.	Feature/context No.	Feature Type	Tertiary flake	Secondary Flake	Primary Flake	Scraper	Totals
TP1	[16]	Buried soil		1			1
TP1	[17]	Buried soil	1				1
TP2	[16]	Buried soil		1			1
TP2	[17]	Buried soil	1				1
Tr39	F. 12	Pit		1			1
Tr39	F. 8	Ditch		1		1	2
Tr41	[16]	Buried soil		2	1		3
Tr44	F. 17	Pit		1			1
		Totals	2	7	1	1	11

Table 26: Worked flints from evaluation by type and feature

6.5.2 Excavation

Areas 1 and 2

Excavation of Areas 1 and 2 recovered six worked flints (48.5g) and three unworked burnt fragments of flint (2.2g). All of the worked flint is residual, having been inadvertently incorporated into ditch infill and midden deposits. No retouched or utilised pieces were recovered, all of the flakes appear to represent knapping waste. The flakes are small broad pieces detached with a hard hammer. A notable characteristic was a high number of flakes with cortical platforms (from F. 81 and F.104). This probably relates to the use of relatively small nodules of flint as raw material. Such material is difficult to date but probably relates to later Neolithic/Bronze Age activity.

Area	Feature/context No.	Feature Type	chunk	Secondary Flake	Primary Flake	Unworked burnt chunk	Totals
1	F. 23	Ditch	1				1
2	F. 104	Midden		1		1	2
2	F. 88	Midden		2			2
2	F. 78	Ditch		1		2	3
2	F.100	Ditch			1		1
		Totals	1	4	1	3	9

Table 27: Worked flints from Areas 1 & 2 by type and feature

Area 3

Ditch F. 29 was the only feature to produce flint in Area 3, consisting of a single undiagnostic partly cortical flake (19.1g) and a fragment of unworked burnt flint (10.1g).

Area	Feature/context No.	Feature Type	Secondary Flake	Unworked burnt chunk	Totals
3	F. 29	Ditch	1	1	2
		Totals	1	1	2

Table 28: Worked flints from Area 3 by type and feature

6.6 Assessment of the Human Bone

Natasha Dodwell

A single crouched skeleton was identified in an Iron Age enclosure ditch, F.66 in Area 3 of the excavation. The skeleton lay on her left side and was orientated southwest-northeast (the same alignment as that section of the ditch) with her head in the south. No grave cut was observed and it would seem that the body had been carefully placed in the partially filled ditch which then silted up. Although poorly preserved, the skeleton itself is fully articulated and there is no evidence on the cortical surfaces that the body was exposed for a long period. This suggests that it was covered (either naturally or deliberately) relatively quickly. The skeleton was poorly preserved and very fragmentary. Most of the left arm is missing as are the majority of ribs and vertebrae, none of the limb shafts are complete and few joint surfaces survive. Sexually dimorphic traits on the pelvis and the skull, the pattern of molar attrition (Brothwell 1972) suggest that the skeleton is a female, aged between the 25 and 35 years. Although the bones themselves are gracile the muscle attachment for the deltoid on the surviving right humerus is pronounced.

An area of eburnation and porosity, changes to the joint which are characteristic of osteoarthritis, were recorded on the posterior of the right patella. Slight marginal osteophytes and porosity were observed in the right hip joint. Both upper and lower jaws are damaged and many of the surviving teeth are loose

-	7	6	5	4	3	/	1		-	-	-	-	-	-	-	-
8	7	6	-	-	-	-	1		2	3	4	5	6	7	NP	

In addition, 10 loose teeth were also recorded. Slight to medium deposits of calculus were recorded on all of the surviving teeth and large caries (up to 8mm) were observed on 4 teeth (3 molars and a premolar) at the junction of the crown and the roots.

6.7 Assessment of Bulk Environmental Samples

Anne de Varielles

Methodology

Ten bulk soil samples from Romano-British areas 1 and 2, and seven samples from Iron Age area 3 were chosen for analysis. They were processed by Frances Cox using an Ankara-type flotation machine at the Cambridge Archaeological Unit, using 300µm aperture meshes for collecting the flots and a 1mm mesh for the heavy residues. Both flots and residues were dried prior to analysis. For this assessment, only heavy residue components greater than 4mm were sorted by eye; the plant remains are listed with those from the flots, other recovered finds can be found in the finds catalogue. The smaller fractions have been stored for future reference. Sorting of the flots was carried out under a low power binocular microscope (x6–40) in the George Pitt-Rivers Laboratory, McDonald Institute, University of Cambridge. Nomenclature follows Zohary and Hopf (2000) for cereal, Stace (1997) for all other flora and an updated version of Beedham (1972) for molluscs. All macro-remains are listed in tables 29 and 30.

Preservation

All plant macro remains, other than a little duckweed (*Lemna* sp.) in features F.23 and F.109, were preserved through carbonisation. The mineral-rich outer-coat of the duckweed seed has enabled them to survive untransformed from a once waterlogged medium. The cereal caryopses have been badly damaged which has made identification difficult and resulted in large categories of cereal fragments and Poaceae fragments (when the pieces could not be separated into wild grass seed or cultivated grain). Mollusc shells were found in all samples, though rarely in important quantities so it was not felt necessary to discuss them further in this report. They are listed in tables 29 and 30. Although the extent of their disturbance can not be quantified, modern rootlets clearly interfered in all contexts sampled.

Results and Discussion

Iron Age, Area 3

Pit F.83 [251], Pit/Hearth F.109 [338], Post-hole F.113 [358], Ditch F.93 [258], Well/Pit F.120 [383], Ditch F.29 [356] and F.84 [255]

None of the seven Iron Age samples contained any plant-macro remains of any significance. Charcoal was never found in abundance, grains were scarce and wild plant seeds infrequent. The lack of material does not appear to be a result of preservation factors since the few plant macro-remains recovered are in good condition. It may be that little processing took place on site or simply that, if waste was discarded in designated areas, these areas were not sampled.

Romano-British, Areas 1 and 2

Pit F.45 [115]

Sample 17 was taken from the only feature with a date restricted to the early Romano-British period. The only plant-macro recovered was a piece of grass seed, either wild or cultivated. The sample contained no charcoal and no snail shells.

Ditch F.23 [155], Ditch F.61 [163], Pit or Ditch F.62 [171], and Midden F.104 [322]
These four features had similar samples rich in spelt wheat (*Triticum spelta*). The grain and chaff is most likely to be all spelt, though levels of preservation have precluded finer definition in all cases. Features F.23 and F.61 are by far the richest but all four samples have at least 3x more chaff than grain (the normal ratio of spelt glume base to grain is 1). Wild plant seeds occurred in similar quantities to cereal grain (except in the midden) and were probably all arable weeds except for the two hazel nut shell fragments (*Corylus avellana*) found in F.61 and F.104.

Ditch F.90 [266]

The sample contained spelt grains and 3-4x more chaff and a few arable weed seeds, but not in as high quantities as in the features described above.

Ditch F.81 [286], Ditch F.100 [320], Ditch F.78 [238] and Ditch F.90 [266]

These ditches were in area 2 and adjacent, or very close to one-another. The samples appear to be of the same constitution as the sample previously described (i.e. dominated by spelt chaff with a little grain and some arable weed seeds), but absolute counts are low which suggests that the remains were not in primary contexts.

Conclusion

Apart from the early Romano-British pit F.45, all the features sampled clearly indicate that spelt wheat was the dominant, if not the only, cereal crop used on site. The chaff surrounding the grains was removed, charred and then discarded in the south of areas 1 and 2, namely in midden F.104 and ditches F.23, F.61 and F.62. Spelt wheat is a hulled cereal very common in Romano-British sites of southern Britain (*cf.* Grieg 1991). It is best stored hulled and de-husk, sieved and sorted from large weed seeds on a small scale before cooking. This site is unusual in its apparent exclusivity to spelt and compares well to an excavation at Papworth Everard, Cambridge (Patten 2009) where spelt occurred in abundance, though a little free-threshing wheat (*T. aestivum sl.*) and hulled barley (*Hordeum vulgare sl.*) were also found (see de Vareilles in Patten 2009). Papworth Everard also had some evidence for the early stages of crop processing which indicated that cereals were produced and processed locally (*ibid.*). In areas 1 and 2 of this site however, no straw, awns or any other chaff relating to threshing and winnowing were discovered. Unfortunately, the dimensions of the excavation do not allow for an accurate estimate of the site's full extent, and one cannot say how representative of the whole the samples are. It would not be unusual for waste from earlier stages of crop processing to be scattered elsewhere, perhaps at the periphery of the settlement where there would be more open space. The current nature of the evidence however, does not rule out the possibility that cereal crops were bought and brought from other production zones.

Sample number	18	35	36	41	42	43	46
Context	251	338	358	258	383	356	255
Feature	83	109	113	93	120	29	84
Feature type	Pit	Pit?	P.hole	Ditch	well/pit	Ditch	Ditch
Excavation area	3	3	3	3	3	3	3
Sample volume - litres	4	0.5	0.5	7	7	6	6
Flot volume - millilitres	7	2	2	3	<1	1	<1
Flot fraction examined - %	100	100	100	100	100	100	100
large charcoal (>4mm)	+		+		+	+	
med. charcoal (2-4mm)	++	+	+	-	-	+	
small charcoal (<2mm)	+++	++	+++	+	++	+++	+
Cereal grains							
<i>Triticum</i> cf. <i>spelta</i> L. - spelt wheat							
<i>Triticum spelta</i> / <i>dicoccum</i> - spelt or emmer wheat grain				1			
cereal grain fragments indet.							
Cereal chaff							
<i>Triticum spelta</i> glume base - spelt chaff			1				
<i>Triticum</i> sp. glume base - glume wheat chaff							
Non Cereal seeds							
<i>Medicago</i> / <i>Trifolium</i> sp. - medics or clover							
<i>Lemna</i> sp. - duckweeds		+ WL					
<i>Chenopodium album</i> L. - fat-hen						1	
<i>Montia fontana</i> ssp. <i>minor</i> Hayw. - blinks					2	3	
large Poaceae indet. - wild grass seed		1				1	
small Poaceae indet. - wild grass seed							
Poaceae fragment indet. - wild or cultivated grass seed							
Modern intrusive seeds	-				+		
Mollusca							
<i>Lymnaea peregra</i>						-	-
<i>Lymnaea truncatula</i>	+						-
<i>Anisus leucostama</i>							
<i>Vertigo antvertigo</i>		-		-			
<i>Vertigo</i> sp.				-			
<i>Lauria</i> / <i>Pupilla</i> sp.				-			
<i>Vallonia excentrica/pulchella</i>	+						
<i>Ceciloides acicula</i> - blind burrowing snail							-
<i>Trichia</i> sp.				-		+	
<i>Oxychilus</i> / <i>Aegopinella</i>				-			-

Table 29: Charred Plant Macro-Remains and Mollusca from Iron Age Bulk Soil Samples
Key: '-' 1 or 2, '+' <10, '++' 10-50, '+++>50 items. WL = waterlogged
(n) = seeds found in the heavy residues >4mm fraction

Sample number	12	14	15	16	17	19	21	23	24	26
Context	155	163	171	138	115	322	286	320	238	266
Feature	23	61	62	54	45	104	81	100	78	90
Feature type	Ditch	Ditch	Pit	Ditch	Pit	Midden	Ditch	Ditch	Ditch	Ditch
Excavation area	1	1	1	1	1	2	2	2	2	2
Sample volume - litres	8	7	8	6	7	9	6	5	5	6
Flot volume - millilitres	15	34	5	5	5	7	5	1	3	2
Flot fraction examined - %	100	100	100	100	100	100	100	100	100	100

large charcoal (>4mm)			+		-		++		+		
med. charcoal (2-4mm)	+	++	-	+			+	+	+	+	-
small charcoal (<2mm)	++	++	++	++			++	+	++	++	+
parenchyma frags - undifferentiated plant storage tissue	+										
Cereal grains											
<i>Triticum cf. spelta</i> L. - spelt wheat	13	43	6	1			19 (3)		1		
<i>Triticum spelta</i> / <i>dicoccum</i> - spelt or emmer wheat grain	14	26	5	2			9 (1)		1	(1)	
<i>Triticum</i> sp. - indeterminate wheat grain	8	20	2	1			1				
<i>Triticum</i> / <i>Hordeum</i> sp. - wheat or barley grain	1	14	1				4 (1)				
Total whole grain count	36	103	14	4			38				
cereal grain fragments indet.	38	68	3	5			28		1	4	
Cereal chaff											
<i>Triticum spelta</i> glume base - spelt chaff	364	600-700	43	5			50	2	7	5	
<i>T. spelta</i> / <i>dicoccum</i> glume base - spelt or emmer chaff	27	50-100	22	5			15				
<i>Triticum</i> sp. glume base - glume wheat chaff	412	700-800	50	7			41	1	6	7	
Total glume base count	803	1350-1600	115	17			106	3			
Non Cereal seeds											
<i>Corylus avellana</i> L. - hazel nut shell fragment		1					1				
<i>Atriplex patula</i> L. / <i>prostrata</i> Boucher ex DC. - Oraches		1					1				
<i>Rumex conglomeratus</i> / <i>obtusifolius</i> / <i>sanguineus</i> - dock	2	5									
<i>Rumex</i> sp. - dock		3					1				
<i>Brassica nigra</i> type - black mustard								1			
<i>Brassica</i> / <i>Sinapis</i> sp. - cabbage or mustard		1									
<i>Medicago</i> / <i>Trifolium</i> sp. - medics or clover							1			1	
<i>Plantago lanceolata</i> L. / <i>media</i> L. - ribwort / hoary plantain	1						2				
<i>Odontites vernus</i> (Bellardi) Dumort. - red bartsia			1								
<i>Anthemis cotula</i> L. - stinking chamomile	2	1									
<i>Lemna</i> sp. - duckweeds	+++ WL										
large Poaceae indet. - wild grass seed	20	65	9	2			5	1	2	4	
medium Poaceae indet. - wild grass seed	3	5	4								
small Poaceae indet. - wild grass seed	2								1		
Poaceae fragment indet. - wild or cultivated grass seed	+++	+++	45	24	1		+++		6	3	2
seed indet.	1		1	1							
Modern intrusive seeds			-				+				
Mollusca											
<i>Lymnaea peregra</i>	-										-
<i>Lymnaea truncatula</i>				+			-			-	++
<i>Anisus leucostama</i>	++		-				+++	+++	-		
<i>Cochlicopa lubrica</i> / <i>lubricella</i>							+	-			
<i>Vertigo antivertigo</i>		+	-	-			+		-		
<i>Vertigo</i> sp.				+							-
<i>Lauria</i> / <i>Pupilla</i> sp.	-	-									
<i>Vallonia excentrica</i> / <i>pulchella</i>	+	+		++				+	-		+
<i>Ceciloides acicula</i> - blind burrowing snail			-	-			+		+		
<i>Trichia</i> sp.		+	+	++			++	+	-	+	+
<i>Helicella itala</i>				-							-

Table 30: Charred Plant Macro-Remains and Mollusca from Romano British Bulk Soil Samples
Key: '-' 1 or 2, '+' <10, '++' 10-50, '+++>50 items. WL = waterlogged
(n) = seeds found in the heavy residues >4mm fraction

6.8 Metalwork

Grahame Appleby

During the course of fieldwork a total of 64 pieces of iron work (total weight 716g) were recovered from 14 features; 59 pieces – 92% – (674g; 94%) were recovered from features dated by pottery association to the 3rd – 4th century, the remainder pre-dating this period. The vast majority of the objects are nails (min. 51; 372g), staples, studs and tacks and unidentifiable lumps and fragments (including possible blade and hook/suspension loop fragments). Nails ranged in size from 76.3mm in length and to a few millimetres in length and between <1g and 28g in weight and conforming to Manning's type series (excluding hobnails). 35 (308g) objects were recovered from ditch F.23, and included the larger nails and two objects that are most likely related to woodworking and carpentry. These two objects are described in detail below in addition to a possible handle recovered from F.59 and chisel from F.104.

<898> F.52 [165]. Fragment of a well made small straight pane hammer, with a transverse break close to where head would originally have been hafted. The tine is slightly waisted and chamfered, broadening to a narrow edge 27.73mm. Total length 62.33mm, weight 117g.

<900> F.23 [79]. Concreted but well preserved paring chisel *c.* 164mm long, with rounded 'bun-shaped' head and narrow neck, widening to a rounded four-sided handle before tapering to a thin rectangular blade. Similar examples are reported from London (Ulrich 2007: 21, Fig. 3.10) and Great Chesterford (Manning 1985: 23, B29) and would have been used with only hand pressure.

<913> F.104 [322] Very concreted and refitting pieces of a small chisel *c.* 93mm long with a rolled, battered head and broadening to a flat, but complete cutting edge 16.4mm wide; weight 35g. Similar examples have been recovered from Camerton (Jackson 1996) and Hod Hill (Manning 1985) and may have been used for hot metal working or in carpentry.

<914> F.59 [159] Corroded and concreted rectangular cross-sectioned bar 8.2mm thick with a right-angled bend at one end and a round flat thin disk at the other off-set to one side creating a continuous flat surface; the disk measures *c.* 25mm x 29mm and a square-headed iron rivet is present, inserted from the flat side of the object. A thin fragment or lug with a transverse break is present on the other side of the disk opposite the bar. Attributing a function to this object is problematic due to its broken nature; however, it was clearly attached to another object, probably wood, and used to fix or connect two items, into which it was most likely recessed. Uses for this object could thus include a staple, binding strip, or a building, box, furniture or cart fitting.

Although not described in detail, the presence of nails exceeding 70mm in length, and woodworking tools suggest these may have been part of a carpenter's tool-set and suggest that a building or construction of considerable size or robustness was located nearby or in the close environs. The discovery of farmsteads along the ridgeline (Abrams & Ingham 2008) certainly indicates that other buildings such as granaries and barns would have formed part of the suite of buildings that could be expected to be found here.

6.9 Slag and Industrial, Burnt Clay and Stone

Simon Timberlake

6.9.1 Evaluation

Slag and Industrial

<069> F.33 [77] x2 fragments of fused clay and slag, probably from near the tip of the tuyere associated with a slag smithing hearth. 6g. found within the fill of a post Medieval field drain, therefore most likely re-deposited (Roman?) within this context.

<075> F.23 [80] x8 fragments of slag smithing lump 284g. At least one of these appears to be a proto-smithing hearth base. Moderately high iron content, 2nd-4th century AD ditch.

<093> F.35 [87] x3 small pieces of iron smithing slag, 22g, within 2nd-4th century AD ditch.

<097> F.23 [81] x1 large piece plus two smaller detached fragments of a vitrified and fused clay smithing hearth lining. Fused to this base is another collapsed fragment of a sandy hearth lining. 100g within 2nd-4th century AD ditch.

<504> F.23 [79] x20 fragments of hearth or slag smithing lumps, probably part of a broken-up smithing hearth 594g. These include several small pieces of iron metal waste (strongly magnetic), some silica-rich welding spatter, and approximately half of a broken up smithing hearth base, the latter included traces of charcoal and wood ash replaced by iron oxides. Represents Roman iron smithing debris c. 2nd-4th century AD

Burnt Clay

<015> F.7 [14] x2 pieces of buff-pink coloured (fired) fine silty daub with impressions of straw/ wood wattling 16g. Context for ditch fill is Post Medieval, this is probably re-deposited.

<050> F.29 [63] x12 fragments of brick-red coloured fired daub (largest piece had 80mm diameter) most well gritted with chalk inclusions 252g. Middle-Late Iron Age.

<056> F.29 [64] x1 fragment of gritted burnt clay 8g, dated Mid-Late Iron Age.

<062> F.30 [67] x3 fragments of brownish-red coarsely gritted daub. The grit includes flint and chalk; an exterior coating, 48g. Mid-Late Iron Age.

<068> F.33 [77] x7 small crumb-like fragments of reddish coloured daub, 8g. A post Medieval ditch, therefore probably re-deposited.

<068> F.33 [77] x5 crumbs of burnt red daub, 10g. Within a post Medieval ditch, therefore probably re-deposited.

<073> F.23 [80] >20 small fragments of daub pieces with inclusions of burnt out straw and some fine grit, most of this fine grained and buff to light red in colour, 164g. 2nd-4th century AD.

<080> F.23 [81] x4 fragments consisting of a fairly coarse and lumpy, finely chalk gritted burnt daub, ranging in colour from buff to dark grey 42g. 2nd-4th century AD.

<084> F.23 [82] x8 fragments of hard red-brown to dark grey burnt daub pieces, chalk gritted, 82g, 2nd-4th century AD.

<103> F.38 [96] x13 fragments (crumbs) of mostly coarse sandy reddish (burnt) daub, weighed 24g. Referred to as a post Medieval context, therefore this is probably a re-deposited context.

<108> F.40 [104] x1 lump of very dark red-brown, hard, fired gritted daub, 20g, 2nd-4th century AD.

<107> F.40 [103] x4 small crumbs of pink fine grained daub, 6g, 2nd-4th century AD.

Worked Stone

<503> F.23 [79] beehive type rotary quern: 115mm (diameter) x 150mm x 40-100mm (thick), weight 2.392kg. A fragment of the upper stone of a beehive type rotary quern made of Hertfordshire puddingstone, a Lower Eocene conglomerate containing well rounded clasts of flint pebbles, a rock which outcrops intermittently in Hertfordshire from South Mimms to Aldenham near Watford (Robinson 1988) and St. Albans. This was formerly quarried for quernstone manufacture at Abbington Piggotts, Hertfordshire (Curwen 1941). The latter site was one of the main sources of these beehive puddingstone pudding-stone querns in the Iron Age, moreover, these quarries were known to have been exploited from the Late Iron Age into the Early Roman period (Wilkes & Elrington 1978; Peacock 1987). This trade in beehive pudding-stone querns may have passed north-eastwards along the Icknield Way into East Anglia, and then perhaps north and westwards into the Fens along the tributaries of the River Ouse. This use of puddingstone quern continued into the Roman period (1st-2nd centuries AD); the continuation perhaps of a pre-Roman tradition of use still adhered to amongst far-flung rural Romano-British communities. An example of such can be seen at the Babraham Romano-British settlement, where the use of puddingstone quern seems to be associated with the early phases of settlement, mass-produced Millstone Grit rotary querns becoming the norm for milling by the 2nd-3rd centuries AD. This fragment of quern possesses an incomplete radius – the probable diameter of this would originally have been about 250-260mm. A cut-away section through the eyehole and axle of the quern can be seen in the centre of the stone; the latter slightly hour-glass in shape as a result of wear (45 – 55mm in diameter). Probably Early Roman (1st century AD) in date.

<505> F.23 [80] a possible quern fragment (uncertain): 230mm x 160mm x 90mm, 2.994kg. An unevenly worked fragment of a calcareous (carbonate) cemented sandstone, most probably from the Cretaceous Greensand, most likely fabricated from a small boulder that has been glacially transported. Alternatively this could have been from a traded item, such as quern from the calcareous Upper Greensand of SW England. If part of a non-diagnostic fragment from a rotary quern, the arc of curvature on the rim suggests an original diameter of about 500-600mm and a thickness of around 100mm (max.). If so this there would have been a concave companion (upper stone?) to this lower (?) stone. The nearest parallel to this crude disc-shaped stone might be a pre-Roman Wessex type (see Curwen 1941; Figure 28).

<089> F.23 [84] small hammer/anvil stone and possible hone: 85mm x 85mm x 50mm (thick), 540g. A small sub-rounded to square-shaped cobble of dolerite with flattened lower and upper faces. This has been casually used as a hand-held hammer stone at one end, whilst the upper (flattened) surface has been ever so lightly indented in the middle as a result of similar casual use as an anvil stone, there also being faint traces of rubbing or smoothing in this area, perhaps associated with sharpening. From a 2nd-4th century AD context; this could well be a re-deposited object.

Burnt stone and stone

<038> F.15 [39] x3 fragments of a burnt cobble 538g. A well-rounded burnt, sooted and cracked cobble of cream coloured quartzitic sandstone with two small detached fragments. From a Romano-British ditch; may be re-deposited.

<042> F.18 [44] x24 fragments of burnt and cracked fragments of stone, 1.73kg. Some 21 of these small and mostly fairly equi-dimensional fragments of burnt stone are composed of sandstone(s) with another being a dolerite or other crystalline igneous rock, a crystal volcanic tuff, a dark metaquartzite pebble, and a fragment of flint or chert. The size of these fragments ranged from 40-80mm, with the average size of these being around 60mm. Most of the sandstones were calcareous and contained some fossil material (perhaps being Jurassic-Cretaceous in age); these pebble fragments were cracked, partly calcined, and possessed an external red patina, suggesting that these had been used for boiling water, as well as having been heated in a hearth. The material came from an undated feature referred to as a tree-

throw, yet the recorded presence within this of charcoal and this used 'cooking pit' assemblage of burnt stone raises the question as to whether F.18 could be something else, or whether it is a disturbed earlier feature.

<052> F.29 [63] x14 fragments of burnt stone, 872g. This includes six small fragments of an altered amygdaloidal basalt, three fragments of a crystalline andesitic tuff (both of these may derive from the Borrowdale Volcanic Series of the English Lake District), one small fragment of a metaquartzite pebble (ex-Bunter pebble from Trias?), and five assorted cobbles or fragments of micaceous sandstones. These come from a Mid-Late Iron Age context, and may represent re-deposited material.

<057> F.29 [64] x16 fragments of burnt stone, 1.06kg. Mostly fragments of heavily burnt and cracked rock, probably the debris of intentional burning, such as for the purposes of cooking. These include a high proportion of igneous rock types including some six fragments of dolerite/basalt and one fine grained diorite or microgranite, some four fragments of various dark greywacke rocks (Carboniferous?), a fragment of a rounded quartzitic sandstone (sarsen) cobble, and four fragments of calcareous sandstone. All of these erratic cobbles will have been collected from the local gravels, and there seems to be some suggestion of the collection of some of the harder and more heat-retaining lithologies.

<089> F.23 [84] x8 burnt and un-burnt cobbles and fragments, 6.77kg. Cobbles of un-worked stone include a near local erratic of Callovian Oxfordian sandstone with fossil belemnite guards (*Cylindroteuthis* sp), oyster and *Gryphea* sp. shells and greenish coprolitic inclusions with fish scales, an unburnt small sarsen boulder, at least two burnt sarsen cobble fragments, a larger burnt and fractured cobble fragment of a Palaeozoic quartzite or quartzitic sandstone, and a small burnt cobble fragment of a spheroidally weathered dolerite, presumably all of the latter collected as glacial erratics from the gravels. These all come from a 2nd-4th century AD feature, so if the burnt stone does have a prehistoric origin, it is re-deposited within this context.

<089> F.23 [84] x9 fragments of burnt and un-burnt stone, 4.25kg. The significance of these finds is uncertain; some of these may be part of a natural stone distribution associated with a scatter of glacial erratic cobbles. A large heat-cracked lump of sparry oomicrite limestone is an identical lithology to <732> found within the Area 2 excavation, whilst two naturally fractured micritic limestone fragments (possibly of Jurassic Portlandian age) appear to be identical with <772> (Area 2). Other pieces include another fragment of the same Callovian-Oxfordian sandstone, a small cobble of a dark grey far-travelled gneiss, a coarsely recrystallized cream coloured metaquartzite, a spherical flint nodule, and a piece of ?local carstone (ferruginous Lower Greensand).

6.9.2 Excavation Areas 1 and 2

Slag and Industrial

<527> F.34 [128] x2 fragments from a small detached piece of less dense iron smithing slag, the latter with traces of what could be an un-fused clay hearth lining beneath 34g 2nd-4th century AD ditch.

<532> F.54 [137] x6 fragments or pieces of slag smithing lump, possibly part of a broken-up hearth base 308g. These are heavy, with a fairly high iron content (magnetic), some of the fused hammer scale being detectable on the basal surface, though completely welded into drops mixed with the impressions of charcoal pieces on the reverse. The loss of the charcoal inclusions on the surface plus the degree of oxidation suggests weathering and exposure on the surface, and perhaps transport over a short distance. 3rd-4th century AD ditch.

<535> F.54 [138] x1 fragment of weathered iron smithing slag. Roman 14g.

<556> F.23 small find no. 15 x1 iron smithing hearth base: c.80mm diameter (base) and 100mm long (including tail). The degree of oxidation on the upper surface, and the presence of oxidation cracking suggests a fairly significant period of exposure and weathering *in situ*. (perhaps at surface). However,

numerous charcoal inclusions present on the underside suggest partial burial. 310g 2nd-4th century AD boundary ditch.

<612> F.23 [154] x1 moderately large iron smithing hearth base: c. 80mm diameter and 110mm long 506g. An iron smithing hearth base composed of melted hammer scale with a moderately high iron and low silicate content (magnetic). The slightly offset tail, reflecting the attachment to a tuyere, suggests an acentric position for the hearth base to the left. The layering of accreted scale indicates at least three iron smithing events before this melted scale was snapped off and discarded. Small inclusions of charcoal are visible within the oxidised mass. Fairly un-weathered, suggesting fairly rapid burial. 2nd-4th century AD Roman.

<654> F.74 [223] NOT SLAG - a natural iron pyrites nodule.

<675> F.76 [244] x1 proto-smithing hearth base 72g. A small lump of accreted iron smithing debris representing the initial accumulation broken off from the tip of a tuyere – discard from an iron smithing hearth. 2nd-4th century AD ditch.

Burnt Clay

<502> F.23 [79] x21 pieces of mixed buff-pink coloured fine grained silty daub plus 6 pieces of very well fired dark grey-red daub, some of this gritted 106g. 2nd-4th century AD.

<511> F.44 [112] x2 pieces of pale pink-buff coloured fired daub, fine grained and silty 24g. 2nd-4th century AD pit.

<515> F.45 [115] x1 piece of fine grained pink coloured daub 20g, Mid 1st-2nd century AD.

<519> F.49 [124] x3 pieces of buff-pink coloured fired daub 6g, 3rd-4th century AD.

<526> F.34 [128] x4 small pieces of reddish to pale buff-coloured daub, one with impression of ?straw stalk 8g, 2nd-4th century AD.

<531> F.54 [137] x1 piece of reddish gritted fired daub 4g, 3rd-4th century AD.

<555> F.23 SF no.16 x1 piece of pale buff-brown fine silty daub (fired) 4g, 2nd-4th century AD.

<602> F.23 [152] x3 lumps of daub, the largest an uneven crust of sooted (burnt) clay, the others being detached fragments of this 42g, 2nd-4th century AD.

<611> F.23 [154] x4 lumps of burnt daub; the largest brown daub piece with the impressions of wattle (sticks) along one face, soot on the other, the remaining three bright red in colour with inclusions of flint grit 60g, 2nd-4th century AD.

<616> F.23 [155] x1 lump of fired daub – brown and with soot satins 12g. 2nd-4th century AD.

<619> F.59 [159] x6 lumps of daub with grit inclusions and impressions of straw or wattle – some of it brown and some bright red (burnt) 82g, 3rd-4th century AD.

<626> F.61 [163] x1 lump of fired clay (with grit inclusions) 16g, 3rd-4th century AD.

<627> F.61 [163] crumbs of burnt daub recovered from the >4mm fraction of environmental. sample. 14 2g. 3rd-4th century AD.

<637> F.62 [171] x4 pieces of fired clay 48g, 2nd-4th century AD.

<665> F.78 [238] x2 pieces of daub 10g, 3rd-4th century AD.

<678> F.76 [245] x1 piece of burnt daub 4g, 2nd-4th century AD.

- <678> F.76 [245] x1 piece of burnt daub 4g.
- <718> F.95 [275] x6 fragments of daub 22g, Variably burnt; sandy showing large inclusions of grit.
- <749> F.101 [312] x1 piece of burnt clay 2g, Burnt sandy clay (daub) within a 3rd-4th century AD context.
- <747> F.88 [310] x1 piece burnt clay 14g. Burnt daub – this shows the imprint of bunt-out straw or thin woven wattling, 2nd-4th century AD.
- <753> F.103 [316] x1 piece of heavily fired daub 2g, 2nd-3rd century AD.
- <761> F.100 [320] x6 pieces of daub, ranging from a very dark grey coarse flint-gritted fabric to a smoother pale pink-buff coloured one, which in one sample includes the impressions of sticks (wattling) 98g 3rd-4th century AD.
- <766> F.100 [320] x7 crumbs of burnt daub recovered from the >4mm fraction of enviro sample no.23.
- <793> F.104 [322] a large lump of dark grey, well-fired burnt clay 62g, 3rd-4th century AD.
- <831> F.104 [322] one small lump of buff-pinkish gritted fired clay 12g.
- <834> F.104 [322] x7 small lumps or crumbs of burnt daub recovered from the >4mm fraction of enviro sample no.19 12g.

Worked Stone

<512> F.44 [112] x7 small non-diagnostic fragments of a gritstone quern. Total weight 264g. Fragments of a broken up and possibly burnt quernstone, perhaps originally from a rotary quern hand mill. The rock type consists of a coarse arkosic grit composed of angular-sub-rounded quartz, white and pink feldspar (orthoclase), and rare fine grained lithic clasts. There appears to be some hematite staining throughout, though this may also relate to burning. Whilst it is possible that this is of Millstone Grit (therefore Carboniferous and from a Southern Pennine quarry source), the lithology is in some ways reminiscent of some of the arkosic sandstones present within the Devonian Old Red Sandstone of SW England which were also quarried for quernstone manufacture during the Roman Period.

<772> F.104 [322] x1 fragment of fractured limestone; an unlikely but possible mortar or quern: 160mm x 115mm x 5 – 45mm thick 916g. Part of a weathered slab of a fine grained micritic limestone (possibly an Upper Jurassic Portlandian limestone) possessing a slightly conchoidal fracture. It seems most likely, given the slightly uneven and apparently un-worked (or very lightly worked) concave surface of this stone, that we are looking at a ‘pot-lid’ type natural freeze-thaw fracture within the stone rather than any sort of worked hollow. In fact this would not have been a suitable stone to use for the milling of grain, and there is no evidence either for its domestic use as a mortar or other implement. Found within a c. 4th century AD or later quarry or rubbish pit. If used as a quern, this object is very unlikely to be Roman in age.

Building Stone

<109> F.23 a large slab of stone with lime or mortar accreting to it: 280mm x 170mm x 60mm 3.418kg. This is very angular. It appears as if it is quarried rock, but is most probably a far-travelled glacial erratic; it appears to be something akin to a Lower Palaeozoic volcanic, perhaps a volcanic tuff. Accreting to the underside and to the sides of this is a lime deposit, which may well be the remnants of a mortar bonding. There is no evidence of any facing or shaping of the stone. It seems likely that this represents the discard of opportunistically collected rough building stone into a ditch.

<638> F.62 [171] x2 fragments or pieces of stone floor? tile: both 60mm x 60mm x 20-25mm weight 196g and 233g. Two equi-dimensional tablets of squared stone, both fabricated from split slabs of a cream coloured micritic limestone, possibly Upper Jurassic (Portlandian?), regionally but not immediately local. These may have been used as floor tiles, perhaps broken to infill gap in flooring, though the possibility that these are coincidental similar shaped pieces of naturally split stone cannot be completely discounted. For instance, the latter show very little evidence of surface wear, and are probably too thick to be considered as fragments of stone roof tiles. However, these lithologies are very typical of the type chosen during the Roman period for the manufacture (splitting) of tiles (NB the Jurassic Stonefield Slate of Oxfordshire).

<732> F.97 [300] rough building stone?: 210mm x 110mm x 90mm weight 1.84kg. A broken fragment from a larger boulder of limestone, possibly rough building stone such as might be associated with walling. The stone may be of Lincolnshire Limestone – composed of a creamy yellow sparry oomicrite containing some very small fragmented shell debris. Probably associated with Roman occupation layer.

<739> F.99 [304] piece of stone tile: 140mm x 100mm x 20mm 634g. A single piece of what is probably a stone (floor?) tile showing no faced or squared edges. Composed of a fine grained laminated calcareous (carbonate cemented) micaceous sandstone. Outcrops such as the Shenley Limestone (Lower Greensand, Bedfordshire) would be a possible source of this. Roman.

Burnt stone and stone

<109> F.23 x2 large cobbles (un-burnt) 1.512kg + 0.8 kg. Two quite different cobbles, presumably deposited here as glacial erratics. The largest stone has a lithology identical with <089> recovered from F.23 within the evaluation, thus a sandstone probably derived from a Bedfordshire or East Anglian outcrop of Callovian – Oxfordian rocks, and thus a near glacially transported stone. The smaller cobble is more rounded – a probable sarsen of quartzitic sandstone. There is no reason to think that these stones are not just part of a natural distribution.

<516> F.45 [115] x1 fragment of burnt rock 86g. One very reddened fragment of a burnt and fractured quartzite pebble.

<780> F.104 [322] pebble of un-burnt stone 166g. A pebble of un-burnt micaceous sandstone, possibly natural.

<786> F.104 [322] fragment of burnt cobble 200g. A broken cubic fragment of a burnt fine grained micaceous sandstone/ greywacke cobble. From a 3rd-4th century AD context, therefore quite possibly re-deposited.

6.9.2 Excavation Area 3

Slag and Industrial

<692> F.66 [253] x6 small fragments of vesicular cindery material 20g. Crumbs of a very lightweight frothy slag, the internal gas bubbles being coated with a yellowish sublimate deposit. Seemingly industrial, though not obviously associated with metal production (it may yet be), the result of something having become fused within a very hot hearth. It is possible, however, that the formation of this was accidental. From a Middle-Late Iron Age enclosure ditch.

<858> F.111 [347] x1 small fragment of a highly fused and vitrified clay hearth lining 4g Middle-Late Iron Age enclosure ditch.

Burnt Clay

- <595> F.29 SF no.54 x1 lump of gritted burnt (reddened) clay 20g, Middle-Late Iron Age.
- <598> F.29 SF no.55 x3 lumps of coarse sandy and heavily gritted burnt clay 164g, Middle-Late Iron Age.
- <646> F.69 [200] x8 small fragments of burnt daub 10g, Prehistoric?
- <647> F.70 [203] x1 small fragment of daub 4g, Prehistoric?
- <688> F.83 [251] recovered from the >4mm sieved fraction of environmental sample no. 18. The context for this is 'prehistoric'.
- <697> F.93 [257] x4 fragments of burnt daub 34g. Has a sandy/gritty fabric and is quite burnt. Context is Middle-Late Iron Age.
- <851> F.93 [342] x2 fragments of reddened burnt daub 4g, Mid-Late Iron Age.
- <861> F.29 [353] x16 fragments of fired red gritted clay (daub) 98g, Middle-Late Iron Age.
- <866> F.29 [354] x2 pieces of red sandy gritted daub 18g, Middle-Late Iron Age.
- <877> F.93 [378] x1 large lump of yellow-pink gritted (fired) daub with external surface 24g, Middle-Late Iron Age.

Worked Stone

- <693> F.83 [251] saddle quern: 245mm x 210mm x 60mm 4.862kg. A flat waterworn slab-like boulder of sarsen stone, consisting of a silica cemented ortho-quartzitic sandstone, either of a Lower Greensand faces of the Cretaceous, or else a true sarsen, such as from the Lower Eocene (Reading Beds), thus almost certainly a glacial erratic, perhaps collected locally. A reddish patina and slightly crazed (cracked) appearance on the underside suggests burning, perhaps its use as a hearthstone following disuse of the quern. The grinding surface of this is very slightly domed and subtly rounded down at the edges, with an equal amount of use over the whole area, yet no directional evidence in the form of wear, suggesting changing, eccentric, or rotational use of a rubbing stone. Its context suggests Iron Age, which would be in accord with the 'well-developed' type of saddle quern described (see Curwen Plate II, 1937), the absence any 'saddle' or concavity within this either reflecting its mode of use, or else the robustness of the moderately coarse and cemented form of quartzitic sandstone.
- <693> F.83 [251] rubbing stone?: 150 x 100 x 80mm 1.9kg. A split fragment of a naturally flattened cobble which may have been used as a rubbing stone on its more flattened surface. The lithology of this is similar to that of the saddle quern above, though is more fine grained. Small cylindrical hollows within the stone are almost certainly natural, and represent the casts of fossil rootlet horizons within the sandstone. Following any use, the stone seems to have been burnt, and thus is cracked at both ends. If a rubbing stone, then this may well be the rubber for the saddle quern above.

Building Stone

- <856> F.111 [346] fragment of roofing slate: 120mm x 110mm x 10mm 222g. A fragment of what is clearly a roofing slate manufactured from a thinly split fissile slab of fine grained laminated micaceous sandstone. The absence of a carbonate cement distinguishes this from the above (<739>) rock type. Almost certainly non-local, the source of this rock may have been quarried some distance away.

Burnt stone and stone

<693> F.83 [251] x2 rounded cobbles : 440g and 332g. Labelled as ‘worked stone’, though there is no evidence for this at all. Neither stone is fragmented or cracked, though the reddened patina on these suggests burning.

<698> F.93 [257] x1 small fragment of burnt sandstone 12g. A sooted fragment of dark grey micaceous sandstone.

<852> F.93 [342] x1 fragment of burnt stone 66g. A burnt and reddened fragment of a micaceous quartzitic sandstone.

<862> F.29 [353] x3 fragments of burnt stone 158g. Some sooted and cracked fragments of burnt sandstone including a far-travelled dark grey volcanogenic sandstone, a dark grey micaceous sandstone, and a small fragment of part calcined calcareous sandstone. This comes from a mid-late Iron Age context, and as such may be re-deposited, originating in an earlier burnt stone feature.

<867> F.29 [354] x1 burnt stone 80g. A burnt and sooted fragment of dark grey micaceous sandstone, identical to that in <862>.

6.9.4 Discussions

Slag and Industrial

Some 56 fragments of iron smithing slag were recovered during investigations on the pipeline route (total weight 1.998kg). What seems clear from this rather limited assemblage is the association of iron smithing debris (all of which appears to be of contemporary Roman (2nd-4th century AD) date) with a number of features (F.23, F.33 and F.35) found within neighbouring evaluation trenches (Trenches 24, 26 & 27) and in Area 1 (F.23, F.34 and F.54); the general area of activity associated with a kink in the pipeline route near Long Road. Narrowing down the probable source of this and proximity of the ironworking, the recovery of complete smithing hearth bases from the fill of the boundary ditch F.23 (one of which these well preserved and seemingly buried quickly) suggests a possible location for this somewhere in between ditches F.23 and F.54. Such hearth bases are unlikely to have travelled far unless there is clear evidence for intentional backfill of such features with rubble-like material.

The iron smithing debris reflects the sort of smithing one would expect to find within a small farmstead/ villa smithy (i.e. small tool repair, manufacture of nails etc.), and doesn’t really include any waste suggestive of larger scale production, and in particular of iron welding and tool/ ironwork manufacture where we find evidence for the use of sand to remove oxidised scale in the form of more silicate-rich slags (Cowgill 2008).

The very small amount of ‘slag’ recovered from the Middle – Late Iron Age enclosure ditch (F.66 and F.111) within excavation Area 3 of the pipeline route is somewhat puzzling, yet this may derive from some sort of industrial (possibly metallurgical) activity, but not necessarily from iron working. In fact, given the type of slag, the latter seems quite unlikely.

Burnt Clay

A total of 7.684 kg of burnt clay was recovered from the archaeological investigation, most of this coming from just two features, the 2nd-4th century AD boundary ditch F.23 (512g), and the Middle-Late Iron Age curvilinear enclosure ditch F.29 (561g).

Although there appears to be no clear-cut distinction between the types of fabrics making up the fired clay (or burnt daub) assemblages recovered from the different sites, we do see some differences in fabric type between the assemblages of burnt daub recovered from prehistoric Middle – Late Iron Age features (such as F.29 and F.30 within evaluation Trench 4 and the same or related features (F.29, F.69, F.70, F.83 and F.93) within the excavation Area 3) and Roman features (most of these being 2nd-4th century AD date, the majority of it coming from Areas 1 and 2). Gritted daub (with chalk and crushed/burnt flint) inclusions can be found within both of assemblages, though the occurrence of a fine grained pink – buff coloured fine grained silty loess - like biscuit type fabric is very typical of the later Roman material, perhaps indicative of an exterior smooth coat of clay added to the outside of walls or other structures. In contrast to this, the assemblage recovered from Iron Age features, most of which was fired, all seems to represent original daub which was generally coarser in make-up, and often sandier, this becoming oxidised on firing to a much deeper red colour.

No really convincing relationships can be drawn between the distribution of the burnt daub scatters/ spreads and possible source features or structures. However, there does seem to be an association within Area 3 between the burnt daub finds and the Iron Age curvilinear enclosure ditch (F.29), as with the posthole groupings which are enclosed by it (F.69, F.70 and F.83); this may suggest the presence of houses somewhere inside of it, some examples of which may have been burnt down. Another concentration of burnt daub appears to be associated with a Romano-British three-sided square enclosure ditch within Area 2 (F.100), as well as with a midden (F.104) some 20-30m distant from it. Within Area 1 we find a rather similar finds association reminiscent of local settlement, perhaps clay-wattled houses or barns, the traces of which have ended up within this large boundary ditch (F.23). However, it is impossible often to distinguish between the fired or baked exterior layers of wattled clay ovens, or even furnaces, and the fired daub traces of the hut walls. The wide variations in colour and texture between the oxidised and reduced fired clay fragments of daub recovered might imply that some of this material comes from enclosed hearths or ovens, or else from the burning down of enclosed and still-standing structures. The imprint of sticks (maximum width 15mm) suggestive of woven wattle walled structures, but also of straw or grass (as bonding material for the daub), can be seen within some of the fired and preserved fragments. These are very typical of such assemblages, yet this still doesn't conclusively distinguish between the presence of hut walling and the walls of domestic structures such as ovens.

Worked Stone

A total of 12.95kg of worked stone was recovered, most of this consisting of saddle quern, the majority of this coming from F.23, a Roman or Romano-British boundary ditch.

Building stone

Only 6.54kg of possible building stone (either walling or stone floor/ roof tiles) was recovered from the entire investigation. Given that none of this was found *in situ*, and also that none of it showed any evidence for having been worked, it is difficult to be certain whether some could be natural, given the occurrence of glacial erratic cobbles and also of naturally split stone.

Burnt stone and stone

Most of the un-worked/ non-building stone collected (15.22 kg) appears to be of burnt stone, yet some 5kg+ of the un-burnt cobbles may just have been part of the natural distribution of glacial erratic stones, subsequently incorporated within features. No burnt stone features as such were encountered here, though a feature (F.18) referred to as a tree throw might conceivably have been one, or else this may have disturbed an earlier such pit. The burnt stone appears to be equally distributed throughout certain of the Iron Age and Roman features, thus re-deposition of this sort of material would seem to be widespread across much of the site, attesting perhaps to an earlier Bronze Age presence.

All Stone

The occurrence of Iron Age or Early Roman/ Romano-British type querns (such as the beehive puddingstone quern and pre-Roman Wessex type quern (Curwen 1941)) within later (2nd – 4th century AD) Roman features such as the boundary ditch F.23 is interesting, if not problematical, when compared to the much less ambiguous pottery dates. In fact, those fragments of Millstone Grit/ Old Red Sandstone quern found within Area 1 (<512> F.44) represent the sort of rotary hand mill quern one might expect to see within rubbish deposits of this date. However, the continuing use of these sorts of objects, which conceivably could have had a currency of use in excess of a hundred years, may be more typical of the more isolated and rural Romano-British settlements, such as we have found at Babraham (see Timberlake et al. *forthcoming*). Much more appropriate, culturally, is the find of these developed sorts of saddle querns which are made from what are most probably locally collected glacial erratic sarsens or large Lower Greensand cobbles/ small boulders (Curwen 1941; Watts 2002). The discovery of one of these, plus a possible rubbing stone within the fill of a small pit or posthole (F.83) in the middle of a small Middle-Late Iron Age enclosure (F.29 Area 3), the latter features also containing burnt daub, would appear to support the interpretation of this being some sort of enclosed settlement.

There is very limited evidence here for the use of stone as a building material, though some fragments of split limestone slab (possible floor tiles) along with a fragment of fissile sandstone used as roofing slate suggests the probable presence somewhere within the general vicinity of Sites 1-3 of at least one well-constructed building. It seems probable that the extraction sites for tiles and slates may have been regionally local; examples of these being the Shenley Limestone (Lower Greensand) and Portlandian limestones (Bedfordshire and Buckinghamshire).

The ubiquity of burnt stone features and sometimes spreads of burnt and fractured cobbles associated with Bronze Age cooking sites in the East Anglian landscape has been discussed in some detail within Timberlake (*forthcoming*). The evidence for slight calcination as well as severe cracking within various of the burnt calcareous sandstone cobbles examined suggests these may have been associated with the use of boiling troughs (or pits). A fairly high degree of selection which seems to include the collection of some much better quality cobbles (such as those consisting of hard metaquartzite and crystalline dolerite (a dense igneous rock)), alongside the use of the much more common Cretaceous and Jurassic sandstones from the Drift gravels, is still very evident, despite the apparently re-deposited context of this material within well dated Iron Age and Roman features.

6.10 Shells

Frankie Cox and Kerry Murrell

All shells were washed, quantified and weighed; species was then attributed where possible. Table 31 shows all shells by feature and type.

Feature	Context	Species	Whole	Frag	Weight (g)	Eval/ Area
23	80	Ostr.	8		71	Eval
23	83	Ostr.	2		44	Eval
23	154	Ostr.	2		30	Area 1
23	SF. 9	Ostr.	1		17	Area 1
34	128	Ostr.	1		21	Area 1
78	248	Ostr.	1		17	Area 2
81	286	Ostr.	3		90	Area 2
92	272	Ostr.	1		15	Area 2
95	275	Ostr.	1	1	14	Area 2
100	320	C.M.	1	2	2	Area 2
100	320	Ostr.	10		113	Area 2
100	SF. 31	Ostr.	1		9	Area 2
103	316	Ostr.	1		9	Area 2
104	322	Ostr.	12		247	Area 2
TOTAL			45		699	

Table 31: All Shell by Feature and Type.

Key: Ostr. = Oyster shell, C.M. = Common mussel

A total of 44 oyster shells and 1 common mussel shell were recorded, which had a combined net weight of 699g. Table 32 shows total weight and percentage of each species identified.

Species	Total Weight	% weight
Oyster (<i>Ostrea edulis</i>)	697	99.71%
Common mussel (<i>Mytilus edulis</i>)	2	0.29%

Table 32: All Shell by Species.

The ratio of upper to basal shells within the oyster collection is roughly even, suggesting the presence of complete shells as opposed to a large quantity of oyster halves. No shells showed any signs of working and very few suffered heavy post depositional erosion.

6.11 Feature Descriptions

6.11.1 Evaluation

Trench 1		
General Description Trench contained no archaeological features. Natural was a mottled bluish grey and brown clay, with occasional small chalk pebbles.	Orientation	E-W
	Avg. Topsoil Depth (m)	0.23
	Avg. Subsoil Depth (m)	0.19
	Width (m)	2.00
	Length (m)	20.50

Trench 2							
General Description Trench contained two small ditches/ gullies. Natural was a mottled bluish grey and brown clay, with occasional small chalk pebbles.	Orientation	E-W					
	Avg. Topsoil Depth (m)	0.22					
	Avg. Subsoil Depth (m)	0.19					
	Width (m)	2.00					
	Length (m)	19.80					
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/ Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
24	gully NNW-SSE	53	f				post-Med
		54	c	0.44	0.10		
25	small ditch NW-SE	55	f			pottery	Rom-Brit
		56	c	0.42	0.06		

Trench 3		
General Description Trench contained no archaeological features. Natural was a mottled bluish grey and brown clay, with occasional small chalk pebbles.	Orientation	E-W
	Avg. Topsoil Depth (m)	0.24
	Avg. Subsoil Depth (m)	0.17
	Width (m)	2.00
	Length (m)	18.60

Trench 4							
General Description Trench contained two adjacent parallel ditches, and one northwest-southeast aligned modern field drain. Natural was a brownish yellow silty clay, with moderate small chalk pebbles.	Orientation	E-W					
	Avg. Topsoil Depth (m)	0.28					
	Avg. Subsoil Depth (m)	0.14					
	Width (m)	2.00					
	Length (m)	18.20					
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/ Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
29	ditch NNW-SSE	63	f			pottery	Mid/ Late Iron Age
		64	f			pottery	Mid/ Late Iron Age
		65	f			pottery	Mid/ Late Iron Age
		66	c	2.70	1.00		
30	ditch NNW-SSE	67	f			pottery	Mid/ Late Iron Age
		68	f			pottery	Mid/ Late Iron Age
		69	c	1.32	0.44		trunc'd by mod field drain

Trench 5							
General Description Trench contained one ditch, two northwest-southeast aligned modern field drains. Natural was a mottled bluish grey and brown clay, with moderate small chalk pebbles.						Orientation	E-W
						Avg. Topsoil Depth (m)	0.23
						Avg. Subsoil Depth (m)	0.20
						Width (m)	2.00
						Length (m)	18.30
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/ Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
26	ditch N-S	57	f			pottery	Mid 1st - 2nd C. AD
		58	c	1.80	0.48		

Trench 6							
General Description Trench contained one ditch. Natural was a mottled bluish grey and brown clay, with occasional small chalk pebbles.						Orientation	E-W
						Avg. Topsoil Depth (m)	0.29
						Avg. Subsoil Depth (m)	0.23
						Width (m)	2.00
						Length (m)	17.80
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/ Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
27	ditch NW-SE	59	f				un-dated
		60	c	0.65	0.24		

Trench 7							
General Description Trench contained no archaeological features. Natural was a mottled bluish grey and brown clay, with occasional small chalk pebbles.						Orientation	E-W
						Avg. Topsoil Depth (m)	0.25
						Avg. Subsoil Depth (m)	0.25
						Width (m)	2.00
						Length (m)	18.30

Trench 8							
General Description Trench contained one ditch truncated by one furrow. Natural was a mottled bluish grey and brown clay, with occasional small chalk pebbles.						Orientation	NW-SE
						Avg. Topsoil Depth (m)	0.25
						Avg. Subsoil Depth (m)	0.26
						Width (m)	2.00
						Length (m)	18.20
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/ Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
31	furrow NE-SW	70	f				post-Med
		71	c	1.40	0.18		
32	ditch ENE-WSW	72	f			pottery	Rom-Brit
		73	c	0.70	0.18		

Trench 9							
General Description Trench contained one ditch and one northwest-southeast aligned modern field drain. Natural was a mottled bluish grey and brown clay, with occasional small chalk pebbles.						Orientation	NW-SE
						Avg. Topsoil Depth (m)	0.25
						Avg. Subsoil Depth (m)	0.26
						Width (m)	2.00
						Length (m)	19.20
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/ Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
28	ditch ENE-WSW	61	f				Rom-Brit by assoc. with F.32 Tr8
		62	c	0.70	0.22		

Trench 10		
General Description Trench contained no archaeological features, but one north-south aligned modern field drain. Natural was a mottled yellow and light blue clay, with frequent very small chalk pebbles and occasional medium chalk pebbles.	Orientation	E-W
	Avg. Topsoil Depth (m)	0.21
	Avg. Subsoil Depth (m)	0.25
	Width (m)	2.00
	Length (m)	19.00

Trench 11		
General Description Trench contained no archaeological features, but one north-south aligned modern field drain. Natural was a mottled yellow and light blue clay, with frequent very small chalk pebbles and occasional medium chalk pebbles.	Orientation	E-W
	Avg. Topsoil Depth (m)	0.22
	Avg. Subsoil Depth (m)	0.19
	Width (m)	2.00
	Length (m)	19.00

Trench 12		
General Description Trench contained no archaeological features, but two north-south aligned modern field drain. Natural was a mottled yellow and light blue clay, with frequent very small chalk pebbles and occasional medium chalk pebbles.	Orientation	E-W
	Avg. Topsoil Depth (m)	0.23
	Avg. Subsoil Depth (m)	0.22
	Width (m)	2.00
	Length (m)	20.80

Trench 13		
General Description Trench contained no archaeological features, but two north-south aligned modern field drains. Natural was a mixed greyish blue, chalky clay with flint and a mid-orangey brown, sandy clay.	Orientation	E-W
	Avg. Topsoil Depth (m)	0.26
	Avg. Subsoil Depth (m)	0.30
	Width (m)	2.00
	Length (m)	20.00

Trench 14		
General Description Trench contained no archaeological features. Natural was a mixed greyish blue, chalky clay with flint and a mid-orangey brown, sandy clay.	Orientation	E-W
	Avg. Topsoil Depth (m)	0.22
	Avg. Subsoil Depth (m)	0.19
	Width (m)	2.00
	Length (m)	23.00

Trench 15		
General Description Trench contained no archaeological features, but one north-south aligned modern field drain. Natural was a mixed greyish blue, chalky clay with flint and a mid-orangey brown, sandy clay.	Orientation	E-W
	Avg. Topsoil Depth (m)	0.27
	Avg. Subsoil Depth (m)	0.22
	Width (m)	2.00
	Length (m)	19.70

Trench 16		
General Description Trench contained no archaeological features, but two modern field drains, aligned northeast-southwest and northwest-southeast. Natural was a mix of greyish blue, chalky clay with flint and mid-orangey brown, sandy clay.	Orientation	E-W
	Avg. Topsoil Depth (m)	0.27
	Avg. Subsoil Depth (m)	0.35
	Width (m)	2.00
	Length (m)	18.00

Trench 17							
General Description Trench contained one ditch, one linear?, and two northeast-southwest aligned modern field drains. Natural was a blue clay with abundant orange mottling, with frequent small chalk pebbles.						Orientation	E-W
						Avg. Topsoil Depth (m)	0.27
						Avg. Subsoil Depth (m)	0.27
						Width (m)	2.00
						Length (m)	18.30
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
01	ditch NE-SW	01	f			pottery	Rom-Brit pot is resid., post-Med hedgerow
		02	c	0.55	0.15		
02	linear? NNE-SSW	03	f				un-dated
		04	c	0.06	0.09		

Trench 18							
General Description Trench contained two ditches and one east-west aligned modern field drain. Natural was a blue clay with abundant orange mottling, with frequent small chalk pebbles.						Orientation	E-W
						Avg. Topsoil Depth (m)	0.22
						Avg. Subsoil Depth (m)	0.23
						Width (m)	2.00
						Length (m)	18.80
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
04	ditch N-S	07	f			pottery	post-Med
		08	c	0.60	0.16		
05	ditch NE-SW	09	f				Un-dated
		10	c	1.60	0.37		

Trench 19							
General Description Trench contained one small ditch and two east-west aligned modern field drains. Natural changed from a white chalky clay, with abundant orangey mottling and frequent small chalk pebbles in the east to a blue clay with abundant orange mottling and frequent small chalk pebbles in the west.						Orientation	E-W
						Avg. Topsoil Depth (m)	0.18
						Avg. Subsoil Depth (m)	0.20
						Width (m)	2.00
						Length (m)	18.60
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
03	small ditch NW-SE	05	f				post-Med, due to nature of fill
		06	c	0.42	0.31		

Trench 20							
General Description Trench contained one furrow and one northwest-southeast aligned modern field drain. Natural was very changeable, predominantly a yellowish white sandy chalk.						Orientation	E-W
						Avg. Topsoil Depth (m)	0.39
						Avg. Subsoil Depth (m)	0.17
						Width (m)	2.00
						Length (m)	17.20
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
39	furrow NE-SW	98	f				post-Med
		99	c	3.10	0.34		

Trench 21		
General Description	Orientation	E-W
	Avg. Topsoil Depth (m)	0.23
	Avg. Subsoil Depth (m)	0.20
	Width (m)	2.00
	Length (m)	18.30
Trench contained no archaeological features, but contained two tree throws. Natural was a yellow clay with frequent blue mottling, with moderate small chalk pebbles.		

Trench 22		
General Description	Orientation	NW-SE
	Avg. Topsoil Depth (m)	0.23
	Avg. Subsoil Depth (m)	0.21
	Width (m)	2.00
	Length (m)	18.70
Trench contained an east-west aligned Post-Medieval furrow. Natural was a mottled yellow and light blue clay, with frequent small chalk pebbles and some chalky patches.		

Trench 23		
General Description	Orientation	N-S
	Avg. Topsoil Depth (m)	0.24
	Avg. Subsoil Depth (m)	0.16
	Width (m)	2.00
	Length (m)	18.80
Trench contained two parallel furrows. Natural was changeable from grey clay to yellow clay to chalk, with frequent small chalk pebbles.		

Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/ Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
38	furrow NW-SE	96	f			pottery	post-Med
		97	c	2.25	0.21		

Trench 24		
General Description	Orientation	N-S
	Avg. Topsoil Depth (m)	0.22
	Avg. Subsoil Depth (m)	0.22
	Width (m)	2.00
	Length (m)	27.00
Trench contained five features: two large ditches (one unexcavated, NE-SW); one small ditch, a post hole, and a NW-SE aligned furrow). Natural was changeable from a bluish orange to a greyish yellow silty clay, with frequent small chalk pebbles.		

Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/ Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
35	ditch NW-SE	87	f			pottery	2nd - 4th C. AD
		88	f			part. artic. cow, pottery	2nd - 4th C. AD
		89	f			pottery	2nd - 4th C. AD
		90	f			pottery	2nd - 4th C. AD
		91	c	2.40	0.72		
36	small ditch NE-SW	92	f			pottery	2nd - 4th C. AD
		93	c	0.85	0.34		
37	posthole	94	f			pottery	2nd - 4th C. AD
		95	c	0.50	0.28		

Trench 25							
General Description						Orientation	N-S
Trench contained one ditch. Natural varied from a dark to a light greyish brown clay. A test pit was excavated at the northern end of the trench to a depth of 1m to test the nature of the natural.						Avg. Topsoil Depth (m)	0.29
						Avg. Subsoil Depth (m)	0.25
						Width (m)	2.00
						Length (m)	20.50
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/ Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
21	ditch	51	f			pottery	post-Med
		52	c	0.90	0.22		

Trench 26							
General Description						Orientation	E-W
Trench contained five features; two ditches, two pits, and one NW-SE aligned post-Medieval furrow. Natural was changeable from a bluish orange to a greyish yellow silty clay, with frequent small chalk pebbles.						Avg. Topsoil Depth (m)	0.24
						Avg. Subsoil Depth (m)	0.21
						Width (m)	2.00
						Length (m)	24.80
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/ Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
23	ditch NE-SW	79	f			pottery & Fe	2nd - 4th C. AD
		80	f			pottery & Fe	2nd - 4th C. AD
		81	f				
		82	f			pottery	2nd - 4th C. AD
		83	f			pottery	2nd - 4th C. AD
		84	c	6.25	1.42		
34	ditch N-S	85	f			pottery	2nd - 4th C. AD
		86	c	0.65	0.82		trunc'd by F.23
40	pit	100	c	1.75	0.55		
		101	f			pottery	2nd - 4th C. AD
		102	f				
		103	f			pottery	2nd - 4th C. AD, charcoal abund.
		104	f				
		105	f				
41	pit	106	f				
		107	c	0.80	0.19		trunc'd by F.40

Trench 27							
General Description						Orientation	NE-SW
Trench contained one furrow and one field drain. Natural was changeable from a bluish orange to a greyish yellow silty clay, with frequent small chalk pebbles.						Avg. Topsoil Depth (m)	0.23
						Avg. Subsoil Depth (m)	0.24
						Width (m)	2.00
						Length (m)	19.50
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/ Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
22	furrow NW-SE	74	f				
		75	f				
		76	c	5.37	0.45		post-Med
33	field drain N-S	77	f			drain	post-Med
		78	c	1.10	0.65		

Trench 28							
General Description						Orientation	NW-SE
Trench contained one ditch, one three throw, and one north-south modern field drain. Natural was a clayey chalky marl, which was mixed in colour.						Avg. Topsoil Depth (m)	0.25
						Avg. Subsoil Depth (m)	0.22
						Width (m)	2.00
						Length (m)	18.00
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/ Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
18	tree throw	44	f				freq. charcoal
		45	f				
		46	c	1.10	0.55		un-dated
19	ditch N-S	47	f				post-Med due to nature of fill
		48	c	1.20	0.45		

Trench 29			
General Description		Orientation	NW-SE
Trench contained no archaeological features. Natural was a clayey chalky marl, which was mixed in colour		Avg. Topsoil Depth (m)	0.17
		Avg. Subsoil Depth (m)	0.18
		Width (m)	2.00
		Length (m)	18.30

Trench 30			
General Description		Orientation	E-W
Trench contained no archaeological features, but one northwest-southeast aligned modern field drain. Natural was a clayey chalky marl, which was mixed in colour		Avg. Topsoil Depth (m)	0.29
		Avg. Subsoil Depth (m)	0.22
		Width (m)	2.00
		Length (m)	18.00

Trench 31			
General Description		Orientation	E-W
Trench contained no archaeological features. Natural was a clayey chalky marl, which was mixed in colour.		Avg. Topsoil Depth (m)	0.13
		Avg. Subsoil Depth (m)	0.21
		Width (m)	2.00
		Length (m)	19.10

Trench 32							
General Description		Orientation	E-W				
Trench contained one gully. Natural was a clayey chalky marl, which was mixed in colour.		Avg. Topsoil Depth (m)	0.20				
		Avg. Subsoil Depth (m)	0.20				
		Width (m)	2.00				
		Length (m)	19.10				
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/ Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
06	gully NW-SE	11	f				
		12	c	0.43	0.15		un-dated

Trench 33							
General Description				Orientation		E-W	
Trench contained one ditch. Natural was a whitish yellow clayey chalky marl.				Avg. Topsoil Depth (m)		0.16	
				Avg. Subsoil Depth (m)		0.24	
				Width (m)		2.00	
				Length (m)		18.00	
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/ Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
07	ditch N-S	13	f				
		14	f			pottery	post-Med
		15	c	1.35	0.70		

Trench 34			
General Description		Orientation	NW-SE
Trench contained no archaeological features, but three northwest-southeast aligned modern field drains. Natural was a whitish yellow, clayey chalky marl.		Avg. Topsoil Depth (m)	0.29
		Avg. Subsoil Depth (m)	0.22
		Width (m)	2.00
		Length (m)	18.60

Trench 35			
General Description		Orientation	NW-SE
Trench contained no archaeological features, but one northwest-southeast aligned modern field drain. Natural was a whitish yellow clayey chalky marl.		Avg. Topsoil Depth (m)	0.20
		Avg. Subsoil Depth (m)	0.19
		Width (m)	2.00
		Length (m)	17.70

Trench 36			
General Description		Orientation	NW-SE
Trench contained no archaeological features, but one northwest-southeast aligned modern field drain. Natural was a whitish yellow clayey chalky marl.		Avg. Topsoil Depth (m)	0.28
		Avg. Subsoil Depth (m)	0.22
		Width (m)	2.00
		Length (m)	18.00

Trench 37			
General Description		Orientation	NW-SE
Trench contained no archaeological features. Natural was a whitish yellow clayey chalky marl.		Avg. Topsoil Depth (m)	0.29
		Avg. Subsoil Depth (m)	0.75
		Width (m)	2.00
		Length (m)	16.60

Trench 38			
General Description		Orientation	NW-SE
Trench contained no archaeological features. Natural was a whitish yellow clayey chalky marl.		Avg. Topsoil Depth (m)	0.26
		Avg. Subsoil Depth (m)	0.42
		Width (m)	2.00
		Length (m)	17.80

Trench 39							
General Description Trench contained eight features: three quarry pits (one un-excavated); one pit; one curvilinear; two ditches; and a cobbled surface. Thick colluvium was revealed along the length of trench, deepest where it overlay features, natural was a whitish yellow clayey chalky marl.						Orientation	E-W
						Avg. Topsoil Depth (m)	0.31
						Avg. Subsoil Depth (m)	0.00
						Width (m)	2.00
						Length (m)	16.00
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
08	curvilinear ditch N-S to E-W	18	f				Rom-Brit (ante quem), overlain by F.11
		19	f				
		20	c	0.90	0.35		
11	cobbled surface	33	L	n/a	0.14-0.24	pottery	2nd - 4th C. AD, overlies F.8, F.14, F.15
12	quarry pit	25	f			pottery	Romano-British truncated by F.13
		26	f				
		27	c	1.90	0.45		
13	quarry pit	28	f				Romano-British due to association with F.12
		29	f				
		30	c	1.10	0.30		
14	ditch N-S	36	f				Rom-Brit (ante quem), overlain by F.11
		37	f				
		38	c	0.50	0.45		
15	ditch N-S	39	f				Rom-Brit (ante quem), overlain by F.11
		40	c	n/a	n/a		
16	pit	34	f				un-dated
		35	c	0.20	0.20		trunc's F.11
n/a	Layer	31	L				overlies F.16, F.13, F.12, F.11
n/a	Colluvium	32	L		0.55-1.20		

Trench 40							
General Description Trench contained two drainage ditches (one un-excavated) and one post hole. Natural was a whitish yellow clayey chalky marl.						Orientation	E-W
						Avg. Topsoil Depth (m)	0.25
						Avg. Subsoil Depth (m)	0.24
						Width (m)	2.00
						Length (m)	18.00
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
09	drainage gully NW-SE	21	f				post-Med
		22	c	0.22	0.20		
10	posthole	23	f				post-Med
		24	c	0.18	0.13		

Trench 41							
General Description Trench contained two buried soil layers which were test pitted (test pits 1-6). Thick colluvium was revealed along the length of trench between 0.55-0.61m deep. Natural was a whitish yellow clayey chalky marl.						Orientation	E-W
						Avg. Topsoil Depth (m)	0.34
						Avg. Subsoil Depth (m)	0.75
						Width (m)	6.00-stepped
						Length (m)	12.80
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
n/a	buried soil	16	L		0.03-0.17	worked flint	Late Neo/ Early Br Age
n/a	buried soil	17	L		0.12-0.17	worked flint	Late Neo/ Early Br Age

Trench 42		
General Description	Orientation	E-W
	Avg. Topsoil Depth (m)	0.31
	Avg. Subsoil Depth (m)	0.66
	Width (m)	2.00
	Length (m)	15.00
Trench contained no archaeological features. Natural was a whitish yellow clayey chalky marl		

Trench 43			Judgemental				
General Description	Orientation	NE-SW					
	Avg. Topsoil Depth (m)	0.30					
	Avg. Subsoil Depth (m)	0.12					
	Width (m)	2.00					
	Length (m)	19.00					
Trench contains two parallel gullies (one un-excavated). Natural was a whitish yellow, chalk/ chalk marl.							
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/ Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
20	drainage gully NW-SE	49	f			pottery	post-Med
		50	c	0.45	0.20		

Trench 44			Judgemental				
General Description	Orientation	E-W					
	Avg. Topsoil Depth (m)	0.27					
	Avg. Subsoil Depth (m)	0.19					
	Width (m)	2.00					
	Length (m)	11.00					
Trench contained one pit and one north-south aligned modern field drain. Natural was a yellowish sandy clay, with flint and chalk pebbles.							
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/ Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
17	pit	41	f			pottery	Prehist (Neo/ Br Age)
		42	f				
		43	c	3.00	1.32		

6.11.2 Excavation

Area 1							
General Description	Orientation	N-S - NE-SW					
	Avg. Topsoil Depth (m)	0.25					
	Avg. Subsoil Depth (m)	0.20					
	Width (m)	n/a					
	Length (m)	n/a					
	Area (m ²)	619.15					
Area contained twenty six features which included: five inter-cutting boundary ditches, a further seven ditches, five gullies, one ring gully, six pits (including F.40 found within trench 26), one large pit/ spread, and one posthole. The natural was changeable from a bluish orange to a greyish yellow, silty clay, with frequent small chalk pebbles.							
Contexts							
Feature No.	Feature Type	Context No.	Cut/Fill/ Layer	Width (m)	Depth (m)	Selected Artefacts	Comments
23	boundary ditch NE-SW	152	f			pottery, Fe	mid 2nd - 4th C. AD
		153	f			pottery, Fe	mid 2nd - 4th C. AD
		154	f			pottery	2nd - 3rd C. AD, freq.
		155	f			pottery	mid 2nd -early 3rd C. AD
		156	c	2.90	1.52		trunc'd by F.59
		169	f			pottery	2nd - 4th C. AD
		170	c	n/a	0.35+		
		225	f			pottery	2nd - 4th C .AD
		226	f				
227	c	n/a	0.55+				
34	ditch NE-SW	128	f			pottery, Fe	2nd-4th C. AD
		129	c	0.80+	0.50+		trunc'd by F.23

42	pit	108	f				Rom-Brit in assoc. with F.43
		109	c	0.81	0.12		
43	pit	110	f			pottery	Rom-Brit
		111	c	1.59	0.28		
44	pit	112	f			pot, Fe, quern	2nd - 4th C. AD
		113	f				
		114	c	1.90	0.43		
45	pit	115	f			pottery	Mid 1st - 2nd C. AD
		116	c	2.02	0.31		
46	ring gully	117	f				Rom-Brit by assoc.
		118	c	0.58	0.20		
47	gully NW-SE	119	f				trunc'd by F.48, therefore 2nd-4th C. AD (ante quem)
		120	c	0.80	0.05		
48	ditch NE-SW	121	f				
		122	f				
		123	c	2.00	0.65		trunc's F.47
		214	f			Fe	Rom-Brit.
		215	f				
		216	c	0.90+	0.50		contemp. to F.75
		220	f			pottery	2nd - 4th C. AD
49	gully NW-SE	221	f				
		222	c	1.00+	0.35		
50	gully NW-SE	124	f			pottery	3rd - 4th C. AD
		125	c	0.42	0.20		trunc's F.23
51	posthole	126	f			pottery	2nd - 4th C. AD
		127	c	0.50	0.06		truncates F.23
52	curvilinear gully NW-SE to NE-SW	130	f				Rom-Brit by assoc.
		131	c	0.40	0.14		
		132	f				
		133	f				
		134	c	0.55	0.34		trunc's 4th C. F.56
		150	f				
		151	c	0.60	0.05		trunc's 4th C. F.56
53	gully NW-SE	165	f			Fe	hammer frag.
		166	c	0.53	0.16		trunc's 4th C. F.56
54	ditch NE-SW	135	f				trunc'd by 3rd-4th C. AD F.54
		136	c	0.65	0.05		
		137	f			pottery	3rd - 4th C. AD
		138	f			pottery	3rd - 4th C. AD
		139	c	1.40+	0.55		trunc's F.53
55	ditch NE-SW	140	f			pottery	3rd - 4th C. AD
		141	f				
56	ditch NE-SW	142	c	1.42	0.43		trunc's F.56
		143	f				3rd-4th C. AD in assoc. with F.54
57	pit	144	c	0.97	0.27		
		145	f				
		146	c	0.84	0.17		trunc'd by F.54
		147	f			pottery	4th C. AD
58	boundary ditch NE-SW	167	f				
		168	c	1.19	0.28		
		148	f				4th C. AD as trunc's F.56
59	boundary ditch NE-SW	149	c	0.55	0.32		
		157	f				trunc'd by F. 59 & F.60 2nd - 4th C. AD (ante quem)
59	boundary ditch NE-SW	158	c	0.40	0.45		
		159	f			pottery, Fe	3rd - 4th C. AD, trunc's F.23 & F. 58, trunc'd by F.60
		160	c	0.90	0.36		

60	boundary ditch NE-SW	161	f			pottery	2nd - 4th C. AD
		162	c	0.70	0.34		trunc's F. 59, trunc'd by F.61
61	boundary ditch NE-SW	163	f			pottery	3rd - 4th C. AD
		164	c	1.44	0.48		trunc's F.60
62	pit	171	f			pottery	2nd - 4th C. AD
		172	c	8.00+	0.45		trunc'd by F.23
74	ditch NW-SE	223	f			pottery	3rd - 4th C. AD
		224	c	1.60	0.55		trunc's F. 23
75	ditch NE-SW	217	f			pottery	2nd - 4th C. AD
		218	f				
		219	c	0.90	0.27		contemp. to F.48

Area 2									
General Description						Orientation			
Area contained thirty features which included: two inter-cutting boundary ditches, a further sixteen ditches (of which seven may also be boundary ditches, and one was excavated within the evaluation), a ditch terminus, two curvilinear ditches, two straight gullies and a ring gully, two middens, one furrow, one tree throw and one unknown linear, and one layer that had filled a natural hollow. The natural was changeable from a bluish orange to a greyish yellow silty clay, with frequent small chalk pebbles						N-S			
						Avg. Topsoil Depth (m)		0.22	
						Avg. Subsoil Depth (m)		0.23	
						Approx. Width (m)		11.34-12.00	
						Length (m)		99.08	
						Area (m ²)			
						1101.28			
Contexts									
Feature No.	Feature Type	Context No.	Cut/Fill/ Layer	Width (m)	Depth (m)	Selected Artefacts	Comments		
73	ditch terminus	211	f						
		212	f			pottery	2nd - 4th C. AD		
		213	c	0.92	0.26				
76	ditch NW-SE	244	f			pottery	2nd - 4th C. AD		
		245	f			pottery	2nd - 4th C. AD		
		246	f				trunc'd by F.100, trunc's F.78		
		247	c	0.5+	0.65				
77	gully NW-SE	228	f				2nd - 4th C. AD (ante quem), trunc'd by F.78 and F.36/ 101		
		229	c	0.47	0.10				
		234	f						
		235	c	0.77	0.14				
78	ditch NE-SW	230	f			pottery	3rd - 4th C. AD		
		231	c	1.15	0.22				
		232	f			pottery	3rd - 4th C. AD		
		233	c	1.32+	0.30+		trunc's F.77		
		236	f						
		237	f						
		238	f			pottery	3rd - 4th C. AD		
		239	c	1.60	0.66		trunc'd by F.36/ 101		
		248	f			pottery	3rd - 4th C. AD		
		249	f						
79	tree throw	250	c	0.60+	0.47				
		240	f			pottery	mid 2nd - 4th C. AD		
		241	c	0.65	0.12				
80	gully NE-SW	308	f				Rom-Brit pot is resid.		
		242	f			pottery	3rd - 4th C. AD		
81	boundary ditch NW-SE	243	c	0.35	0.16				
		284	f						
81	boundary ditch NW-SE	285	f			pottery	3rd - 4th C. AD		
		286	f			pottery	3rd - 4th C. AD discrete dump of pot		
		287	c	3.30	1.10		trunc's F.98		
		282	f				trunc's F. 81 & F.98,		

85	narrow N-S	283	c	2.07	0.20		trunc'd by mod. field drain	
86	boundary ditch NW-SE	291	f			pottery	2nd - 3rd C. AD	
		292	f				trunc'd by mod. field drain	
		293	c	0.90	0.55			
		294	f			pottery	2nd - 3rd C. AD	
		295	f					
		296	c	0.42+	0.57			
87	ditch NE-SW	297	f			pottery	2nd - 4th C. AD	
		298	f					
		299	c	n/a	0.40			trunc'd by F.86
		325	f					
		326	c	0.32	0.31			trunc's F.105
88	midden	309	f			pottery, Fe	2nd - 4th C. AD	
		310	f			pottery	2nd - 4th C. AD	
		311	c	3.75+	0.40			assoc. with layer [324]
89	ditch NW-SE	263	f				2nd - 4th C. AD, trunc's F.90	
		264	c	0.54	0.36			
90	ditch NW-SE	265	f			pottery	2nd - 4th C. AD	
		266	f			pottery	2nd - 4th C. AD	
		267	c	1.10	0.78			trunc'd by F.89 & F.92, trunc's F.91
91	ditch	270	f			pottery	2nd - 4th C. AD	
		271	c	n/a	n/a			trunc'd by F.90 & F.92
92	ditch NW-SE	272	f			pottery	2nd - 4th C. AD	
		273	f					
		274	c	1.00	0.78			trunc's by F.90 & F.91, contemp. to F.96, trunc'd by F.95
95	ditch NW-SE	275	f			pottery, Fe	3rd - 4th C. AD	
		276	c	0.97	0.36			trunc's F.92 & F.96
		318	f			pottery	3rd - 4th C. AD	
		319	c	n/a	n/a			
96	ditch NW-SE	278	f					
		279	c	0.88	0.55			2nd - 4th C. AD, contemp. to F.92, trunc'd by F.95
		280	f					
		281	f					
97	ring gully NE-SW to SE NW	300	f			pottery, BS	2nd - 4th C. AD	
		301	c	0.73	0.40			
		302	f			pottery	2nd - 4th C. AD	
		303	c	0.75	0.30			
98	ditch NW-SE	288	f			pottery	2nd - 4th C. AD	
		289	f					trunc'd by F.81 & F.85 & mod. field drain
		290	c	n/a	0.45			
99	ditch NW-SE	304	f			pottery	2nd - 3rd C. AD	
		305	c	1.62	0.52			trunc's layer [324]
100	curvilinear ditch E-W to NE-SW	306	f			pottery	3rd - 4th C. AD	
		307	c	1.00	0.23			trunc's F.81 F.86 F.87 F.89 F.90 F.95 F.96 F.98 F.103 F.105
		320	f			pottery	3rd - 4th C. AD	
		321	c	0.55	0.31			
101/ 36	curvilinear ditch NE-SW to NW-SE	312	f					3rd - 4th C. AD (post quem), as trunc's F.77 & F.78
		313	c	0.69	0.15			
102	ditch NW-SE	314	f			pottery	2nd - 4th C. AD	
		315	c	0.35	0.08			trunc's layer [324]
103	ditch NNW-SSE	316	f			pottery	2nd - 3rd C. AD	
		317	c	0.50	0.20			trunc'd by F.95 & F.100

104	midden	322	L		0.23	pottery, An. Bn., tile, Fe chisel, shell	3rd - 4th C. AD, abund. artefacts = 10kg pot, 9kg An. Bn.
		323	L		0.08		assoc. with layer [324]
105	linear?	327	f				2nd - 4th C. AD (ante quem) as is trunc'd by F.87 & 100
		328	c	0.35	0.08		
106	ditch N-S	329	f			pottery	3rd - 4th C. AD
		332	f			pottery	3rd - 4th C. AD
		333	f			pottery	3rd - 4th C. AD
		334	c	4.30	0.98		assoc. with F.107
107	ditch N-S	330	f				3rd - 4th C. AD, is assoc. with F.106
		331	c	0.50	0.29		
n/a	occupation layer	324	L		0.02	pottery	3rd - 4th C. AD

Area 3								
General Description						Orientation	E-W	
Area contained twenty nine features which included: twelve ditches, one linear segment, ten post holes (creating a four post structure and a six post structure), two pits, two hearth pits, one well and one hedgerow. Four of the ditches created one enclosure which contained a post hole structure, a hearth and a further pit. The natural was a brownish yellow silty clay with moderate small chalk pebbles.						Avg. Topsoil Depth (m)	0.30	
						Avg. Subsoil Depth (m)	0.12	
						Approx. Width (m)	11.42-12.00	
						Length (m)	102.34	
						Area (m ²)	1155.78	
Contexts								
Feature No.	Feature Type	Context No.	Cut/Fill/Layer	Width (m)	Depth (m)	Selected Artefacts	Comments	
29	enclosure ditch NNW-SSE to E-W	344	f					
		345	c	n/a	n/a			
		353	f				pottery	Mid/ Late Iron Age
		354	f				pottery	Mid/ Late Iron Age
		355	f					
		356	f				pottery	Mid/ Late Iron Age
		357	c	2.10	1.19			
		390	f				pottery	Mid/ Late Iron Age
		391	f					
		392	f				pottery	Mid/ Late Iron Age
63	linear segment NW-SE	393	c	2.15	1.05		3rd - 1st C. BC, trunc'd by F.93	
		173	f					
		174	c	0.52	0.21			
		175	f				pottery	Late Iron Age (residual)
		176	c	0.40	0.23			
		177	f					
		178	c	0.50	0.30			
		187	f				pottery	Late Iron Age (residual)
		188	c	0.45	0.15			
64	ditch NNW-SSE	179	f					
		180	f					
		181	f				pottery	Early Iron Age
		182	c	1.00	0.55			
65	ditch NW-SE	183	f					
		184	c	0.70	0.23			
		185	f					
		186	c	0.77	0.15			
66	enclosure ditch NE-SW to NW-SE	189	f					
		190	c	1.70	0.90			
		253	f				pottery	Mid/ Late Iron Age
		254	c	2.30	0.66			
		372	O					skeleton
		388	f				pottery	Mid/ Late Iron Age

		389	c	n/a	n/a		
		394	f				
		395	f				
67	ditch NW-SE	191	f				Rom-Brit, by assoc. with F.68
		192	f				
		193	c	n/a	n/a		
		196	f				
		197	c	0.47	0.14		
68	ditch NE-SW	194	f				contemp. with F.67
		195	c	n/a	n/a		Rom.-Brit.
		198	f			pottery	
69	posthole	199	c	0.50	0.20		
		200	f			daub	Prehist. by assoc. with F.71
		201	f				
70	posthole	202	c	0.27	0.15		
		203	f			daub	Prehist. by assoc. with F.71
		204	f				
71	posthole	205	c	0.23	0.13		
		206	f				
		207	f			pottery	prehist. (Iron Age?)
72	posthole	208	c	0.18	0.06		
		209	f				Prehist. by assoc. with F.71
83	pit	210	c	0.23	0.10		
		251	f			pottery & Quern st.	Mid Iron Age, more stone than fill
84	enclosure ditch NW-SE	252	c	0.85	0.22		
		255	f			pottery	Mid/ Late Iron Age re-cut by F.66
93	curvilinear ditch NE-SW to NW-SE	256	c	0.85+	0.58		
		257	f			pottery	Mid/ Late Iron Age
		258	f			pottery	Mid/ Late Iron Age
		259	c	0.86	0.55		3rd C. BC - 50AD
		342	f			pottery	Mid/ Late Iron Age
		343	c	n/a	0.50		
		378	f			pottery	Mid/ Late Iron Age
		379	f			pottery	Mid/ Late Iron Age
94	pit	380	c	0.70 = half	0.50		
		260	f			pottery	Mid/ Late Iron Age
		261	f				
108	posthole	262	c	0.80	0.22		
		335	f				Prehist. by assoc. with F.71
		336	f				
109	hearth pit	337	c	0.36	0.13		
		338	f				Prehist. by assoc. with F.71
110	posthole	339	c	0.40	0.07		
		340	f				Prehist. by assoc. with F.71
111	enclosure ditch ENE-WSW	341	c	0.20	0.08		
		346	f			pottery	Mid/ Late Iron Age
		347	f				
112	ditch terminus N-S?	348	c	n/a	0.60		trunc's F.112
		349	f				trunc'd by F.111, therefore Mid/ Late Iron Age (ante quem)
		350	f				
		351	f				
113	posthole	352	c	1.80	0.97		
		358	f				Prehist. by assoc. with F.119
114	posthole	359	c	0.37	0.14		
		360	f				Prehist. by assoc. with F.119
		361	c	0.39	0.16		
		362	f				Prehist. by assoc. with

115	posthole	363	f				Prehist. by assoc. with F.119
		364	c	0.39	0.22		
116	posthole	365	f				Prehist. by assoc. with F.119
		366	f				
		367	c	0.40	0.15		
117	hearth pit	368	f				Prehist. by assoc. with F.119
		369	c	0.45	0.08		
118	Hedgerow	370	f				post-Med
		371	c	1.00	0.45		
119	ditch NE-SW	373	f			pottery	Mid/ Late Iron Age
		374	f				
		375	f				
		376	f			pottery	
		377	c	1.80	0.70		
120	well	381	f				trunc'd by F.93 and F.121 therefore Mid/ Late Iron Age (ante quem)
		382	f				
		383	f				
		384	c	1.50	1.30		
		396	f				
121	ditch NE-SW?	385	f				trunc'd by F.93 therefore Mid/ Late Iron (ante quem)
		386	c	1.30	0.78		
		387	f				

KEY

Abbreviation	Meaning
+	not complete width/ depth
abund.	abundant
ante quem	terminus ante quem
artic.	articulated
assoc.	associated/ ion
Bn	bone
Br Age	Bronze Age
BS	building stone
contemp.	contemporary
Fe	iron
frag.	fragment
freq.	frequent
Mid	middle
Mod	modern
Neo	Neolithic
part.	partially
post-Med	post Medieval
post quem	terminus post quem
Prehist.	Prehistoric
pot	pottery
resid.	residual
Rom-Brit	Romano British
st.	stone
trunc'd	truncated
trunc's	truncates

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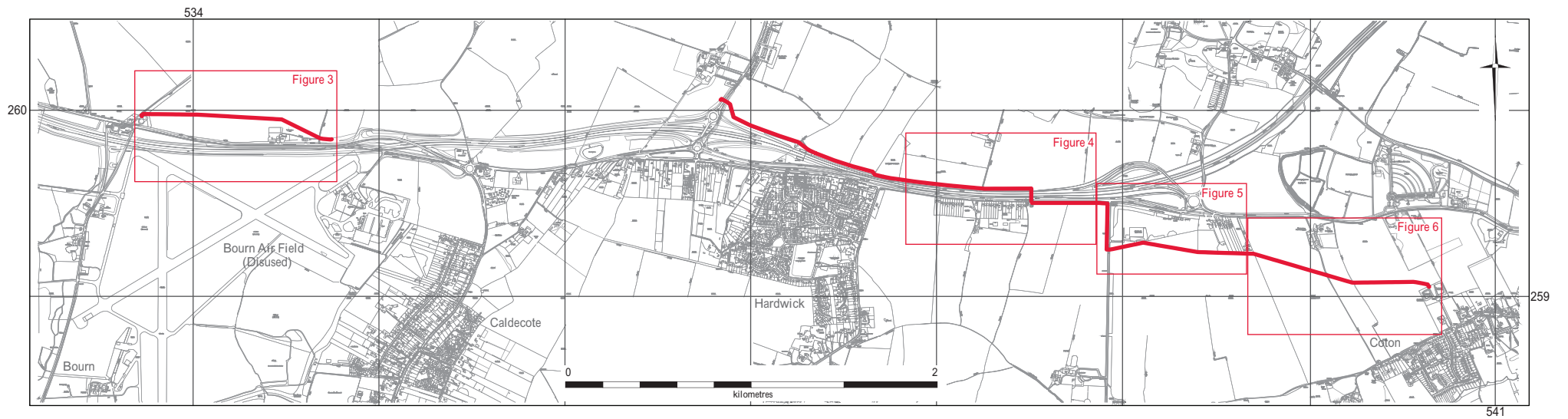
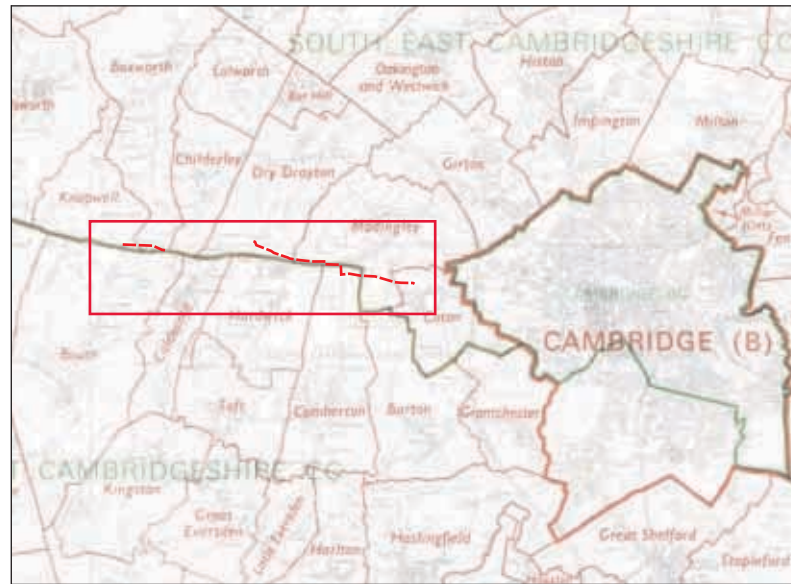


Figure 1. Location Plan and Pipeline Route

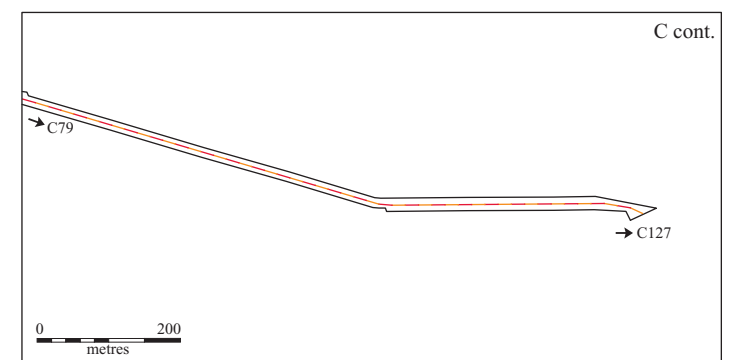
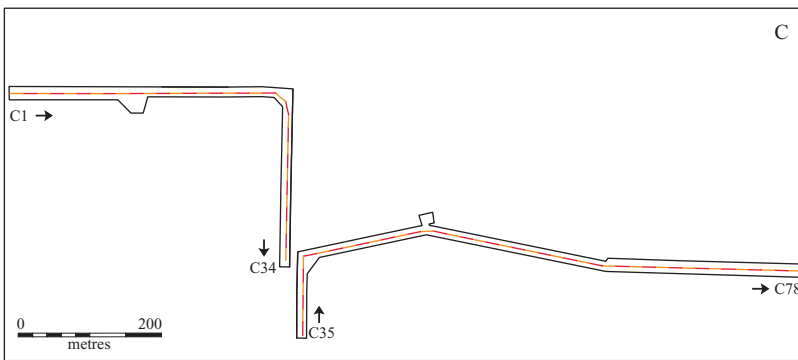
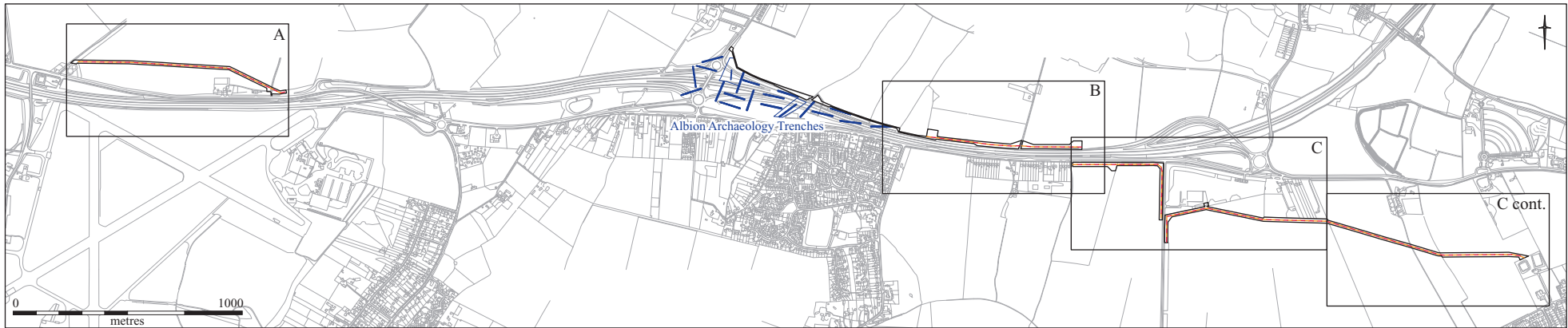
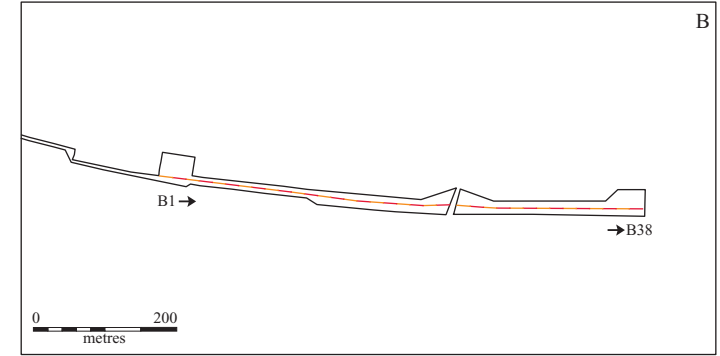
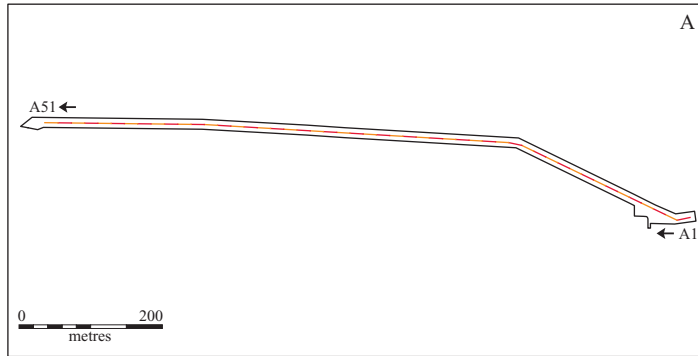


Figure 2. Field Survey Areas

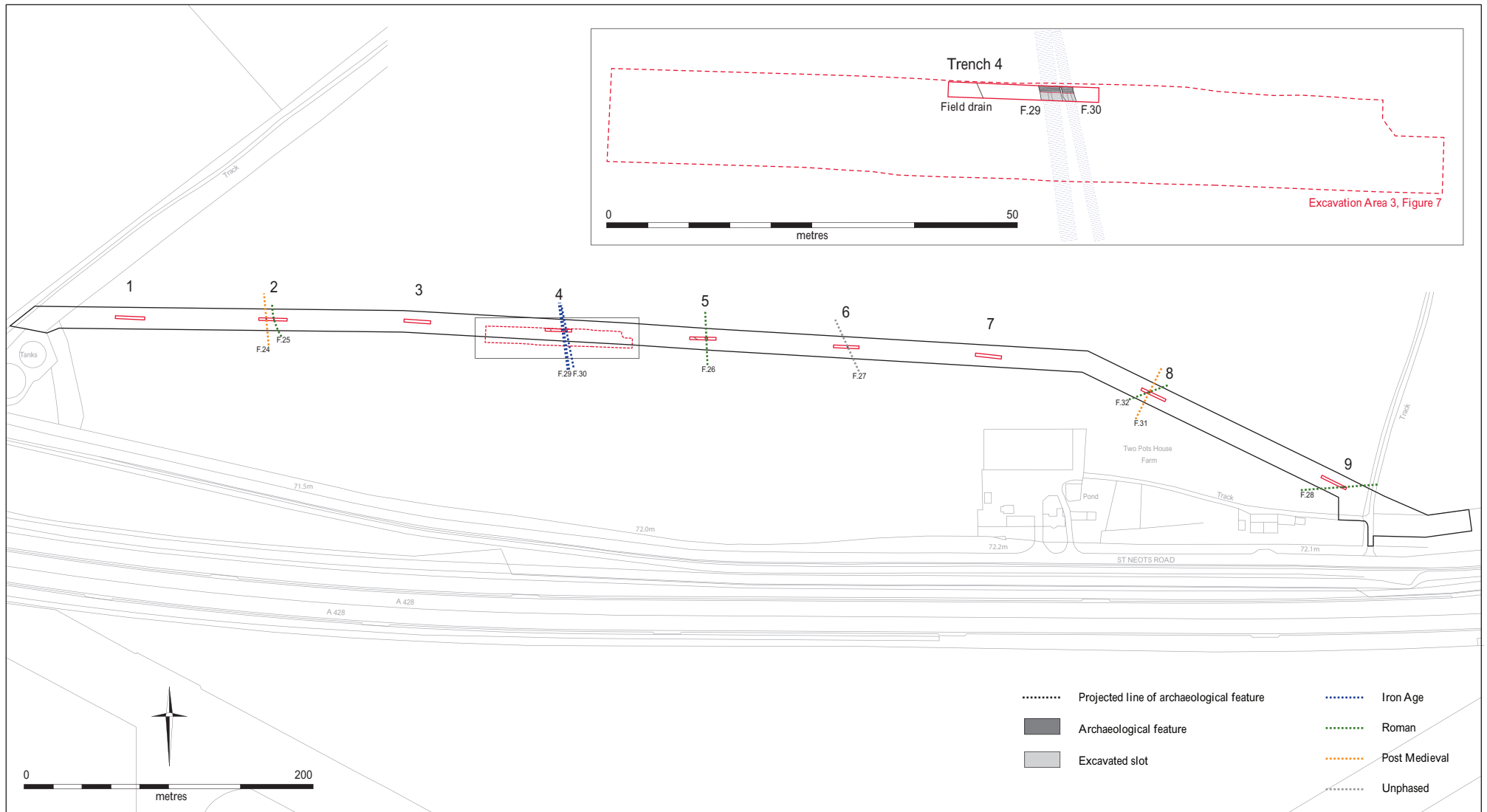


Figure 3. Evaluation Trenches 1 - 9

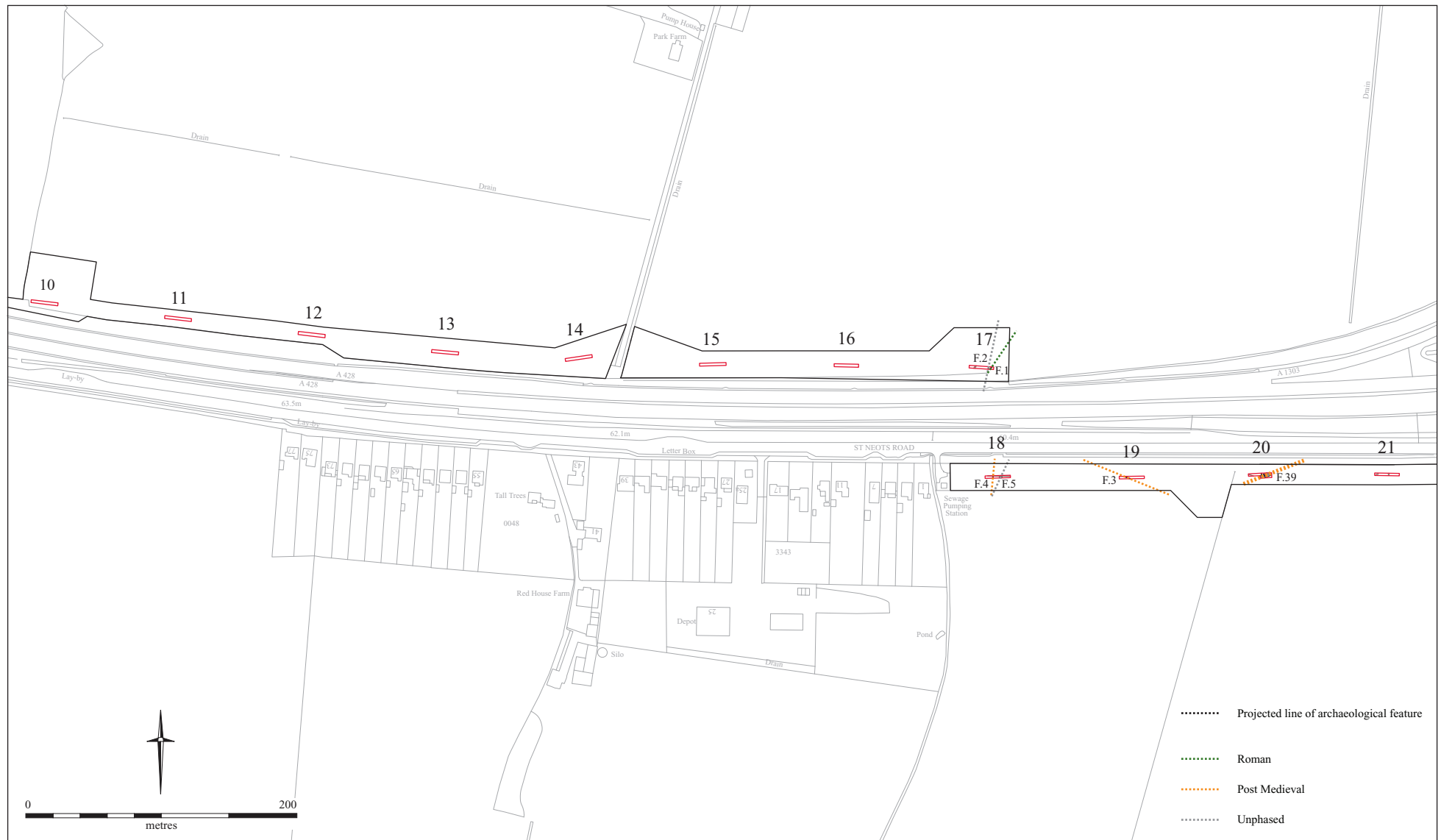


Figure 4. Evaluation Trenches 10 - 21

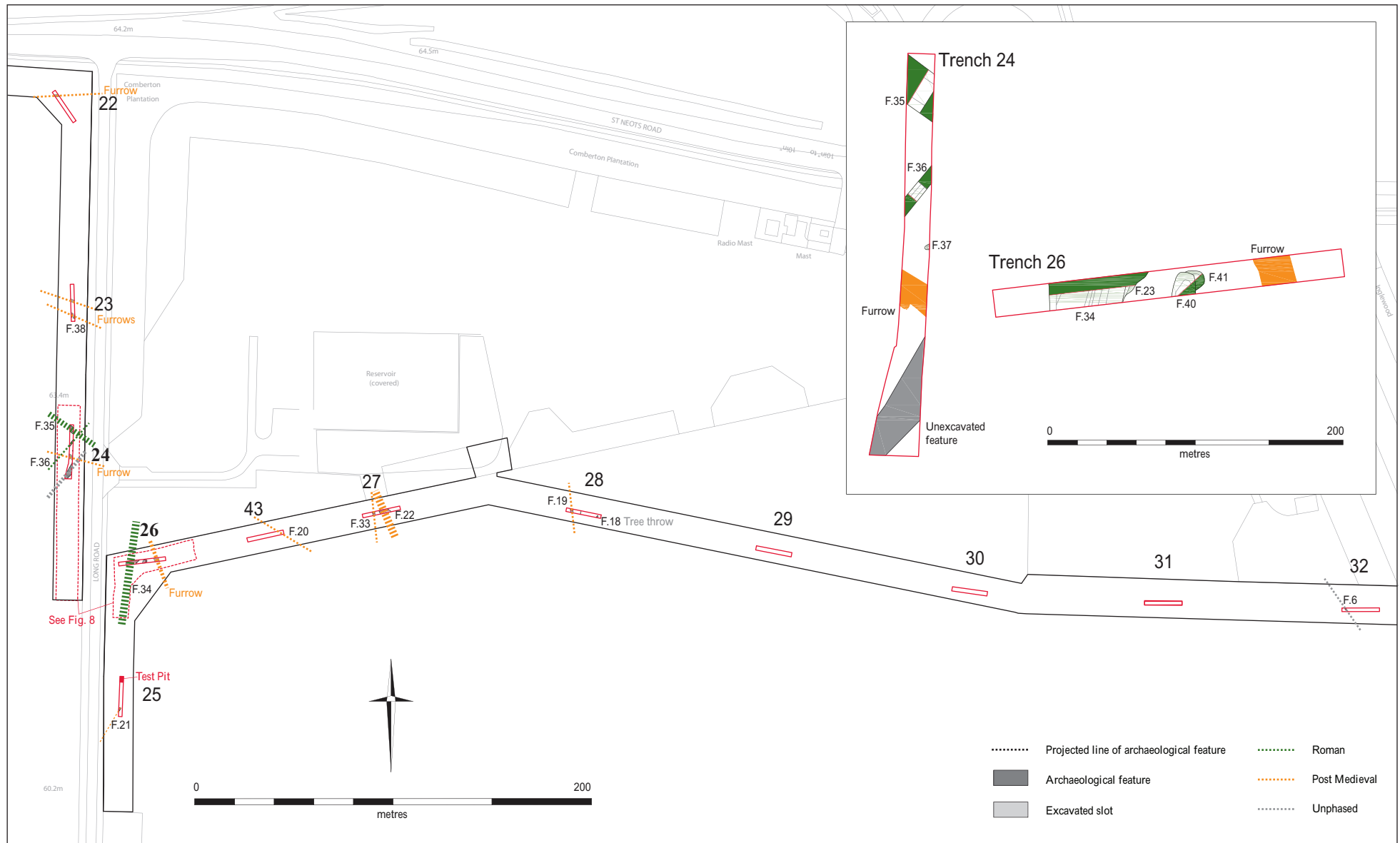


Figure 5. Evaluation Trenches 22 - 32 and 43

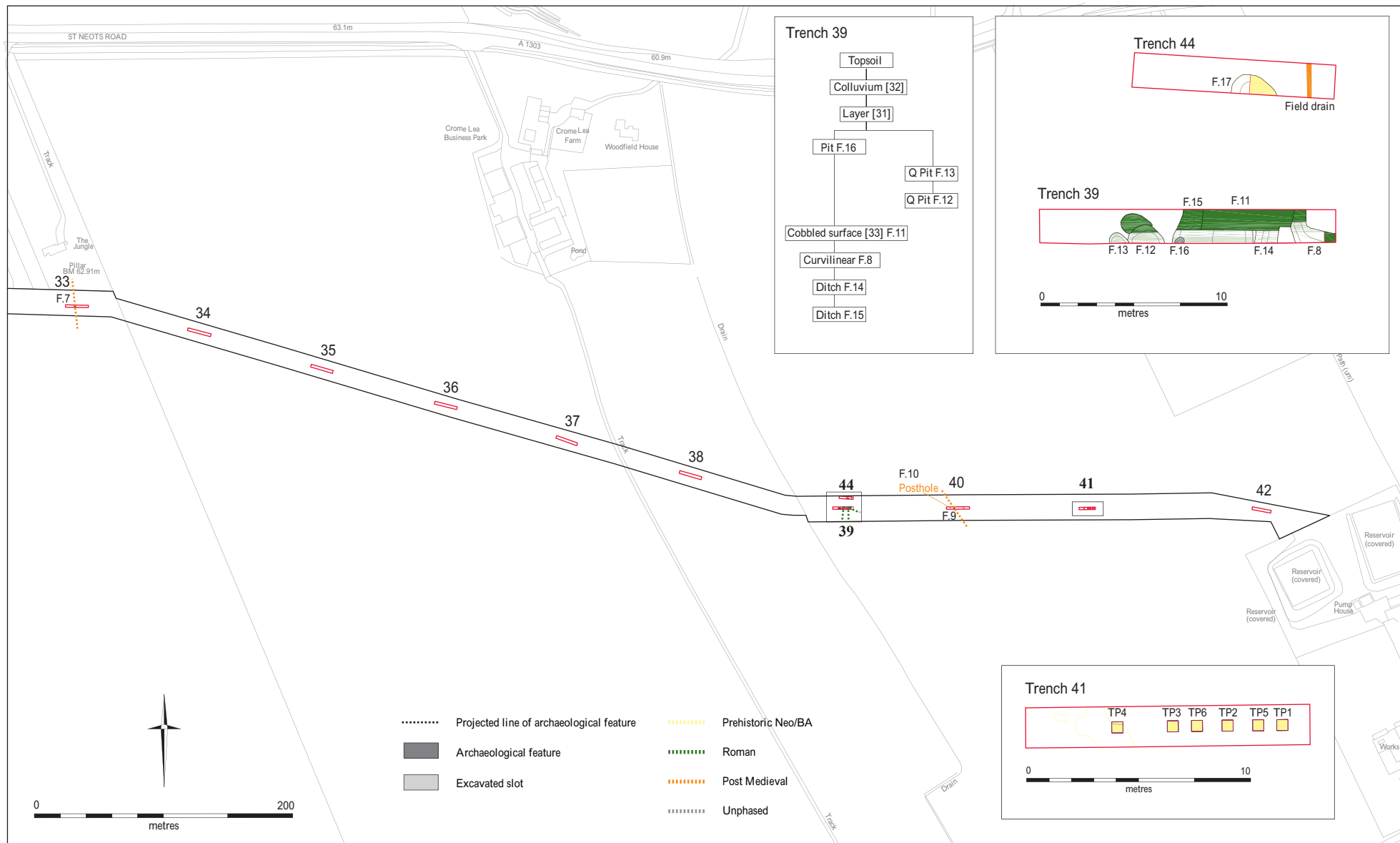


Figure 6. Evaluation Trenches 33 - 42 and 44

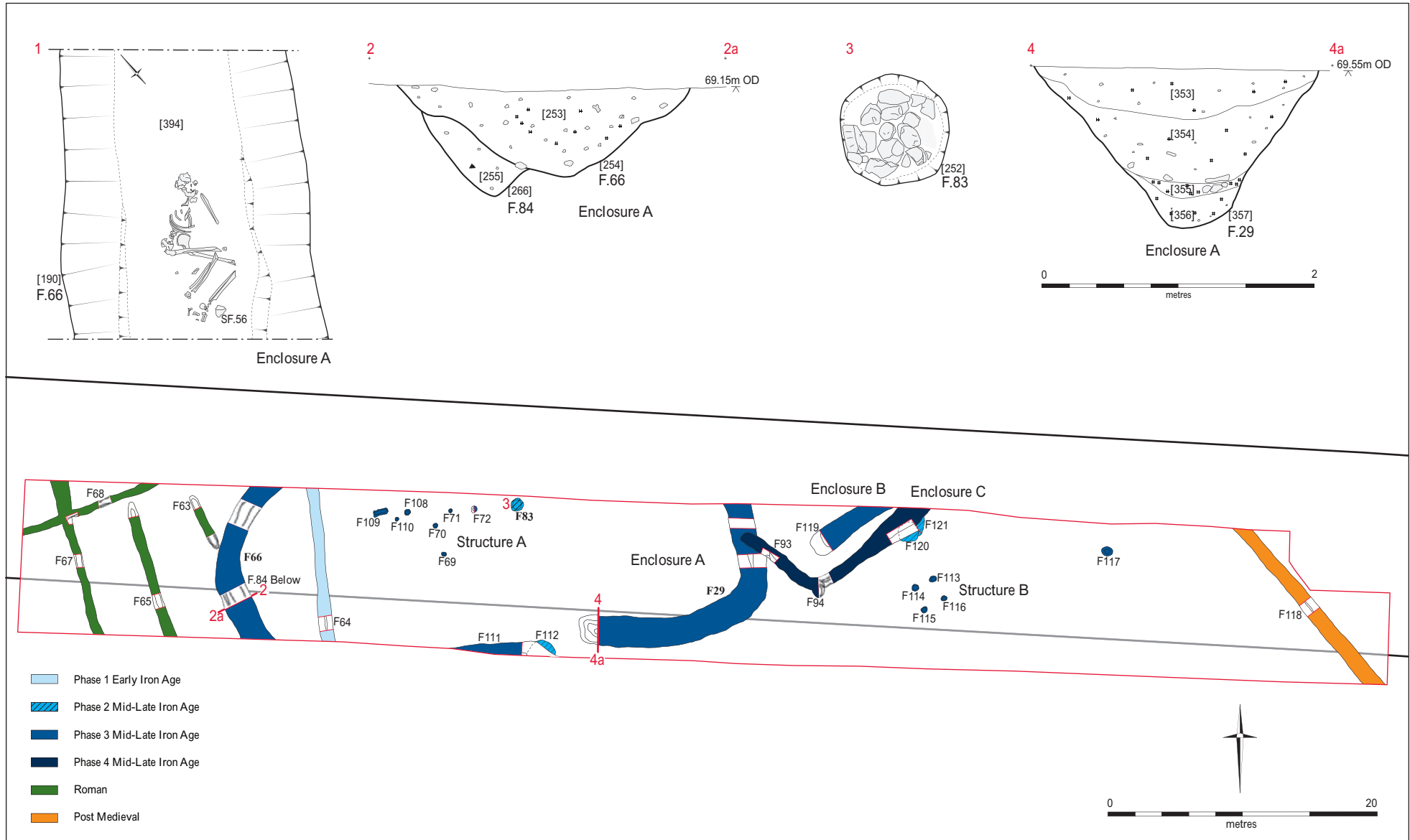


Figure 7. Excavation Area 3; Plans and Sections

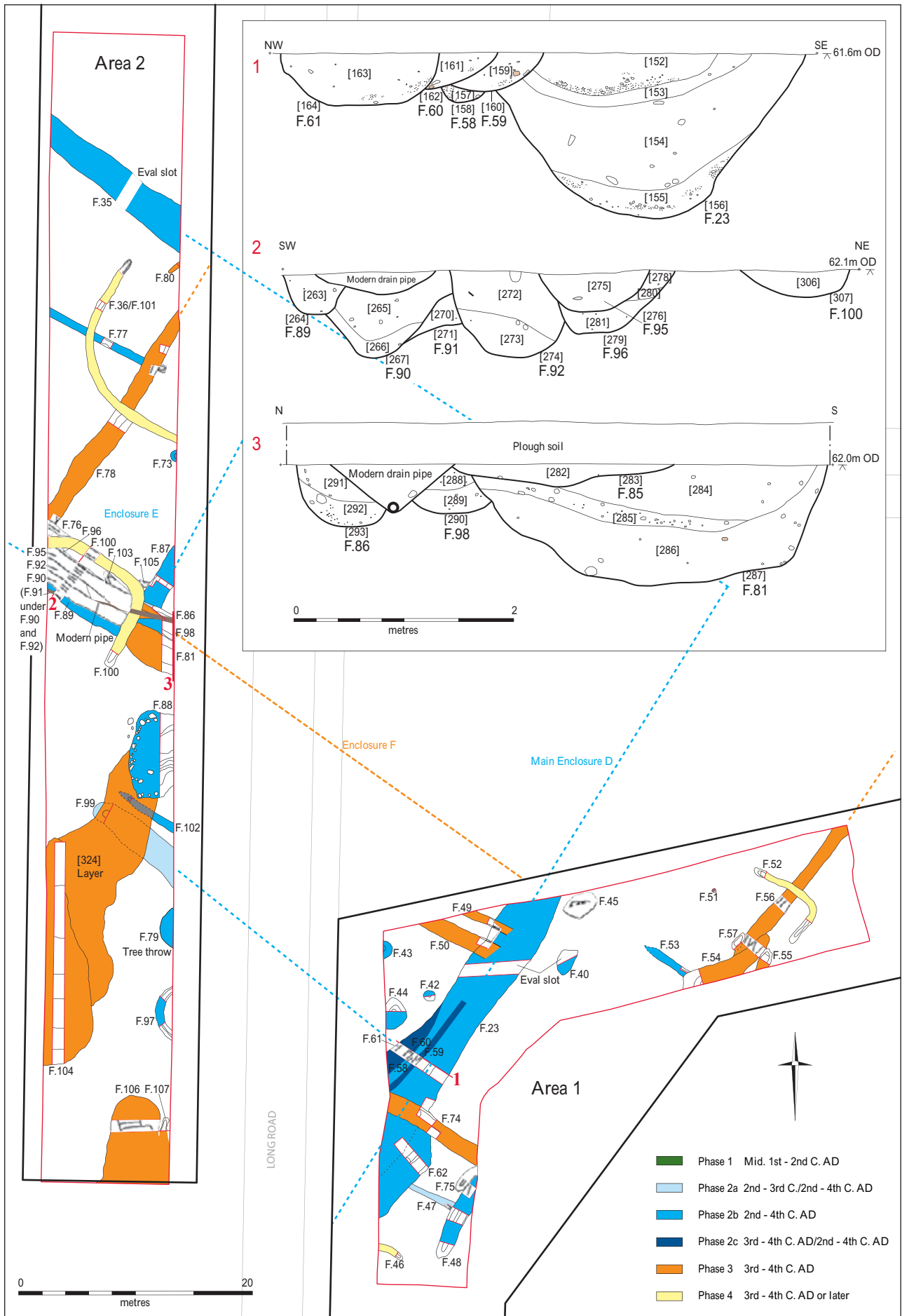


Figure 8. Excavation Areas 1 and 2, Plans and Sections

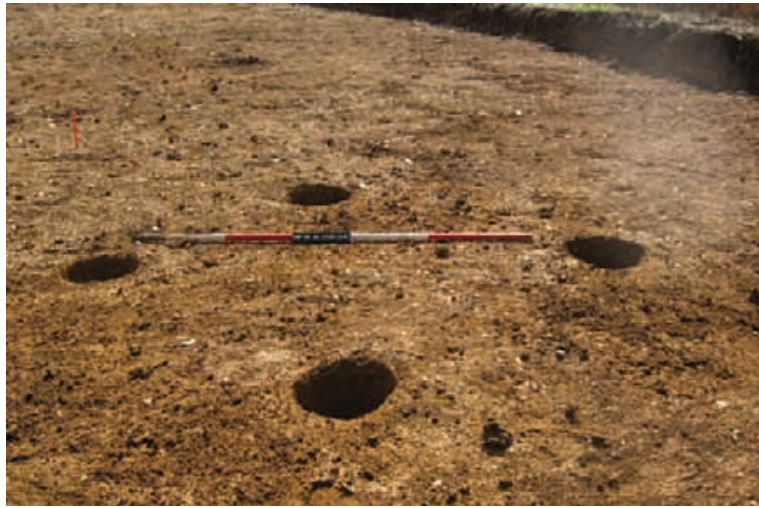


Figure 9. Photographs of Excavation Area 3.
Four Post Structure F.113-116 (top), the Well F.120 (middle),
and Burial F.66 (bottom)



Figure 10. Photographs of Excavation Areas 1 and 2. Ditch section of F.23 and F.58-61 (top), Ditches in plan F.76, 81, 86-7, 89-90, 92, 95-6, 98, 100, 103, 105 (middle), and Pot from F.81 during excavation (bottom)

OASIS DATA COLLECTION FORM

OASIS ID: cambridg3-70265

Project details

Project name	Coton to Bourn Booster Pipeline, Cambridgeshire: An Archaeological Evaluation and Excavation
Short description of the project	This report is the assessment of the results from an archaeological evaluation comprised of a geophysical survey, field survey and trial trenching, followed by the resulting excavations. The project was undertaken between the villages of Coton to Bourn, Cambridgeshire between May and August 2008 and was commissioned by Cambridge Water Company. The pipeline route (PR) lies to the north of the adjacent A428, opposite Bourn Airfield, and further east, from Scotland Farm to the A1303/ A428 slip road, south of Park Farm before continuing south of the A428 to Coton. The pipeline originates at TL 3370 5990 and terminates at TL 4060 5900. The programme of works followed on from the results of a desk based assessment (DBA), (Appleby, G. A. and Beadsmoore, E. 2008), which identified the potential for prehistoric, Roman, Medieval and post-Medieval settlement activity. The evaluation confirmed these findings and identified four zones of significant archaeological activity. The excavation then expanded three of these zones into archaeological excavations, providing substantial evidence of Romano British (Areas 1 and 2), and Iron Age (Area 3) settlement. The fourth area comprised of Late Neolithic/ Early Bronze Age and Romano British activity and was preserved in situ.
Project dates	Start: 21-05-2008 End: 14-08-2008
Previous/future work	Yes / Not known
Any associated project reference codes	CBP08 - Sitecode
Any associated project reference codes	ECB32942 - HER event no.
Type of project	Recording project
Site status	None
Current Land use	Cultivated Land 2 - Operations to a depth less than 0.25m
Monument type	BURIED SOIL Late Neolithic
Monument type	SETTLEMENT Middle Iron Age
Monument type	SETTLEMENT Roman
Significant Finds	WORKED FLINT Late Neolithic
Significant Finds	POTTERY Middle Iron Age
Significant Finds	POTTERY Late Iron Age

Significant Finds	POTTERY Roman
Significant Finds	HUMAN REMAINS Middle Iron Age
Significant Finds	METAL WORK Roman
Investigation type	'Full excavation','Geophysical Survey','Systematic Field Walking','Systematic Metal Detector Survey','Test-Pit Survey'
Prompt	Direction from Local Planning Authority - PPG16
Solid geology	CHALK (INCLUDING RED CHALK)
Drift geology	BOULDER CLAY AND MORAINIC DRIFT
Techniques	Magnetic susceptibility
Techniques	Magnetometry
Project location	
Country	England
Site location	CAMBRIDGESHIRE SOUTH CAMBRIDGESHIRE BOURN Coton to Bourn Booster Pipeline
Postcode	CB3 7
Study area	0.40 Hectares
Site coordinates	TL 3370 5990 52.2206429603 -0.04253416776150 52 13 14 N 000 02 33 W Point
Site coordinates	TL 4060 5900 52.2108338905 0.05804408870080 52 12 39 N 000 03 28 E Point
Height OD / Depth	Min: 45.00m Max: 70.00m
Project creators	
Name of Organisation	Cambridge Archaeological Unit
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Emma Beadsmoore
Project director/manager	Emma Beadsmoore
Project supervisor	Kerry Murrell
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Cambridge Water Company

Project archives

Physical Archive recipient	Cambridge Archaeological Unit
Physical Archive ID	CBP08
Physical Contents	'Animal Bones','Ceramics','Environmental','Human Bones','Industrial','Metal','Worked bone','Worked stone/lithics'
Digital Archive recipient	Cambridge Archaeological Unit
Digital Archive ID	CBP08
Digital Contents	'Animal Bones','Ceramics','Environmental','Human Bones','Industrial','Metal','Worked bone','Worked stone/lithics'
Digital Media available	'Geophysics','Images raster / digital photography','Spreadsheets','Survey','Text'
Paper Contents	'Animal Bones','Ceramics','Environmental','Human Bones','Industrial','Metal','Worked bone','Worked stone/lithics'
Paper Media available	'Context sheet','Correspondence','Map','Notebook - Excavation',' Research',' General Notes','Plan','Report','Section','Survey '

Project bibliography

Publication type	Grey literature (unpublished document/manuscript)
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