Appendix 1: Colour Plates

Plate 1: Panoramic view of the site, prior to topsoil stripping (looking south-west).

Plate 2: View of the northern end of the area prior to topsoil stripping (looking north from beside Composition Lane).

Plate 3: View across the monitored area, after topsoil removal (looking north-west).

Plate 4: Soil layers below the modern ground surface, recorded at the eastern edge of the stripped area (looking south-east, scales 1m and 0.3m).

Plate 5: Deposits visible in the backfill of post-medieval or modern pit [035], after the excavation of its south-east quadrant and part of the south-west quadrant. (Looking north-west, scales 1m, and 0.3m).

Plate 6: Undated pit [033] after excavation of its south-east and north-west quadrants. (Looking south-east, scales 1m, and 0.3m).

Plate 7: Undated pit [039] after removal of fill from its western side (looking north-east, scale 1m).

Plate 8: View across the stripped site, along the line of the putative Iron Age or Roman trackway. The darker soil (left) is the fill of northern ditch [023]. (Looking south-east).

Plate 9: The excavation of a slot across the putative trackway and its flanking ditches revealed the profiles of the multiple adjacent features (looking south-west, scales 1m and 0.5m).

Plate 10: Excavated slot across the putative trackway and ditches, at the eastern edge of the stripped area. (Looking south-west, scale 1m).

Plate 11: Backfill deposits filling ditches [053], [058], and [063] at the southern side of the putative trackway (looking south-west, scale 1m).

Plate 12: Deposits filling southern 'trackway' ditch [023], visible in a section excavated across the ditch. (Looking west, scale 1m).

Plate 13: Excavated section across backfilled Iron Age or Roman enclosure gully [009] (looking south-west, scale 1m).

Plate 14: Excavated section across backfilled Roman enclosure ditch [029] (looking north-east, scale 1m).

Plate 15: Post-hole [100] after removal of fill from its eastern side (looking north-east, scale 1m). The feature was adjacent to the northern terminal of enclosure ditch [011] and cut the soil layer (003), which may be of prehistoric formation.

Plate 16: Deposits filling prehistoric or Roman ditch [005], recorded in a slot excavated against the eastern edge of the monitored area (looking east, scale 1m).

Plate 17: Enclosure ditch [015], with its excavated southern terminal (foreground). The junction with an earlier ditch [013] has been investigated beside the photographic scale. (Looking north, at the western edge of the stripped area; scale 1m).

Plate 18: Excavated section across backfilled enclosure ditch [015] (looking south, scale 1m).

Plate 19: Excavated section at the intersection of east-west aligned ditch [013] and the later enclosure ditch [015]. (Looking south, at the western edge of the stripped area; scale 1m).

Plate 20: Excavated section showing the surviving profile of ditch [013] after topsoil removal (looking west, scale 1m).

Appendix 2: Context Summary

Context	Type	Relationships	Description	Length (m)	Width (m)	Max Thickness/ Depth (m)	Finds
001	Layer	Above 002, 038,086,095,097/098	Topsoil, very dark grey sandy silt			0.3 - 0.4	
002	Layer	Below 001	Upper part of subsoil, dark brown sandy silt			0.7	
003	Layer	Above 004	Lower part of subsoil, light yellow/orange silty sand			0.3	1 x struck flint flake, Meso/ENeo
004	Layer	Below 003,096	Natural sand, orange/yellow				
005	Cut	Cuts 010/079/089/090/093; filled by 031	East-west aligned ditch, concave base	0.6	1.4	0.42	
006	Fill	Upper fill of 005, above 073, below 068, same as 006/070/071/072	Dark grey/brown silty sand			0.2	
007	Cut	Cuts 032, 014/049/050; filled by 008/091	North-south aligned plough furrow		1.8	0.25	
008	Fill	Fill of 007; same as 091, below 002	Orange/brown sandy silt			0.15	
009	Cut	Cuts 003, filled by 010/079/089/090/093	North-east/south-west aligned ditch, concave base	0.37	1.1	0.48	
010	Fill	Fill of 009; same as 079/089/090/093; cut by 031	Orange/brown silty sand			0.38	
011	Cut	Cuts 003, filled by 012/099	North-east/south-west aligned gully	7.5	0.7	0.14	
012	Fill	Fill of 011; same as 099; below 002	Dark grey/brown silty sand			0.1	20 x ?LIA pot sherds
013	Cut	Cuts 003; filled by 014/049/050	East-west aligned ditch, concave base	30	1.75	0.75	
014	Fill	Fill of 013; same as 049/050; cut by 015	Dark grey/brown silty sand			0.75	
015	Cut	Cuts 105,014/049/050; filled by 016/046/047/048; ?same as 017	North-south aligned ditch, pointed-concave base	15.8	1.15	0.43	
016	Fill	Fill of 015; same as 046/047/048; below 002	Dark grey/brown silty sand		1	0.38	

Context	Type	Relationships	Description	Length (m)	Width (m)	Max Thickness/ Depth (m)	Finds
017	Cut	Cuts 003; filled by 052; ?same as 015	North-south aligned ditch, concave base	1.5	1	0.36	
018	Fill	Fill of 017; above 052; below 002	Dark grey/brown silty sand			0.24	7 x animal bone
019	Cut	Cuts 003; filled by 020/051/122	East-west aligned ditch, flat base	16	1.6	0.45	
020	Fill	Fill of 019; same as 051/122; below 002	Dark grey/brown silty sand			0.45	1 x animal bone
021	Cut	Cuts 113,114; same as 110; filled by 111/22	West-north-west/east-south-east aligned southern ditch of trackway	57			3 x Roman pot sherds
022	Fill	Cut by 125, fill of 021; same as 111					
023	Cut	Cuts 003, ?same as 109; filled by 084/085	northern ditch of west-north-west/east-south-east aligned trackway; flat base	1	3.3	1.3	
024	Fill	Upper fill of 023; above 080/120; below 002	Dark grey/brown silty sand			0.44	2 x Roman pot sherds
025	Cut	Cuts 003; filled by 026/043/044	North-south aligned plough furrow, uneven base	1	3	0.3	
026	Fill	Fill of 025; same as 043/044; below 002	Grey/brown silty sand			0.3	1 x Roman pot sherd
027	Cut	Cuts 003; filled by 028/045	Possible north-south aligned plough furrow, concave-flat base	1	1.3	0.2	
028	Fill	Fill of 027; same as 045; below 002	Grey/brown silty sand			0.2	2 x 13/14thC pot sherds; 2 x 16/17thC pot sherds
029	Cut	Cuts 113; filled by 030/114,021/110	North-north-east/south-south-west aligned ditch, concave base	15	2.6	0.6	
030	Fill	Fill of 029; same as 114, below 002	Dark grey/brown silty sand			0.48	1 x Roman pot sherd; 3 frags. undated tile
031	Cut	Cuts 010/079/089/090/093; filled by 032	Circular pit, concave base		1.9	0.25	
032	Fill	Fill of 031; cut by 007	Grey/brown silty sand			0.25	
033	Cut	Cuts 003; filled by 087	Sub-circular pit with flat base	2.8	2.5	0.55	
034	Fill	Upper fill of 033; above 087, below 002	Grey/brown silty sand	2.8	2.2	0.44	1 x IA pot sherd

Context	Type	Relationships	Description	Length (m)	Width (m)	Max Thickness/ Depth (m)	Finds
035	Cut	Cuts 003; filled by 088	Sub-circular pit with concave base		2.85	1.35	
036	Fill	Upper fill of 035; above 092, below 001	Grey/brown sandy silt with rare charcoal flecks		2.1	0.4	1 x med pot sherd; 9 x post-med pot sherds; 4 x post-med brick
037	Cut	Cuts 003, filled by 038	Sub-oval modern pit	5	2	not exc	
038	Fill	Fill of 037; below 001	Dark brown/grey sandy silt-clay	5	2	not exc	
039	Cut	Cuts 003, filled by 040	Oval pit with concave base	1.1	0.9	0.25	
040	Fill	Fill of 039; below 002	Dark grey/brown silty sand			0.25	
041	Cut	Cuts 105, 014/049/050; filled by 042	Sub-circular pit with concave base	0.8	0.7	0.15	
042	Fill	Fill of 041; below 002	Orange/brown silty clay			0.15	
043	Fill	Fill of 025; same as 026/044; below 002	Grey/brown silty sand			0.2	
044	Fill	Fill of 025; same as 026/043; below 002	Grey/brown silty sand			0.15	
045	Fill	Fill of 027; same as 028, below 002	Grey/brown silty sand			0.2	
046	Fill	Fill of 015; same as 016/047/048; below 002	Dark grey/brown silty sand		1	0.36	2 x Roman pot sherds; 2 x ?IA/Rom pot frags from soil samples
047	Fill	Fill of 015; same as 016/046/048; below 002	Dark grey/brown silty sand		0.55	0.43	2 x animal bone
048	Fill	Fill of 015; same as 016/046/047; below 002	Dark grey/brown silty sand			0.28	1 x animal bone
049	Fill	Fill of 013; same as 014/050; cut by 015	Dark grey/brown silty sand			0.55	
050	Fill	Fill of 013; same as 014/049; cut by 015	Dark grey/brown silty sand			0.45	
051	Fill	Fill of 019; same as 020/122; below 002	Grey/brown silty sand			0.26	
052	Fill	Fill of 017, below 018	Dark brown/orange silty sand			0.12	

Context	Type	Relationships	Description	Length (m)	Width (m)	Max Thickness/ Depth (m)	Finds
053	Cut	Cuts 103; ?same as 106; filled by 054	East-west aligned ditch, part of trackway	1.15	1.9	1.22	
054	Fill	Fill of 053; below 055	Dark brown sandy silt	1.15	0.8	0.28	6 x ?LIA pot sherds; 2 x ?IA/Rom pot frags from soil samples
055	Fill	Fill of 053; above 054; below 056	Light yellow brown sandy silt	1.15	1.3	0.92	
056	Fill	Fill of 053; above 055; below 057	Brown silty sand with clay lens	1.15	1.06	0.2	
057	Fill	Fill of 053; above 056; cut by 058/107/125	Brown - grey/brown sandy silt	1.15	1.3	0.22	
058	Cut	Cuts 057; ?same as 107,125; filled by 059, 061	East-west aligned recut of trackway ditch, concave base	1.15	3.4	0.94	
059	Fill	Fill of 058; below 060	Brown - grey/yellow/brown sandy silt	1.15	1.64	0.36	2 x 2ndC Rom pot sherds
060	Fill	Fill of 058; above 059; below 061	Brown - grey/yellow/brown sandy silt	1.15	1.08	0.16	
061	Fill	Fill of 058; above 060; cut by 133	Dark brown silt	1	0.9	0.02	
062	Fill	Fill of 133, cut by 063	Brown - grey/brown silty sand	1.15	2.5	0.4	
063	Cut	Cuts 062; ?same as 108, 123; filled by 064	East-west aligned recut of recut trackway ditch	1.15	1.96	0.8	
064	Fill	Fill of 063; below 065	Yellow/orange-brown sand	1.15	1.28	0.44	
065	Fill	Fill of 063; above 064; below 066	Brown slightly sandy silt	1.15	1	0.56	
066	Fill	Fill of 063; above 065; ?same as 118,124; below 067	Brown silty sand	1.15	1.9	0.42	1 x Rom pot sherd; 1x dubious struck flint
067	Fill	Upper fill of 063; above 066, below 002	Brown silty sand	1.15	5	0.2	3 x 2nd C Rom pot sherds
068	Cut	Cuts 006/070/071/072; filled by 069	North-north-west/south-south-east aligned plough furrow	3	2	0.4	
069	Fill	Fill of 068; below 002	Dark grey/brown silty sand			0.4	1 x med pot sherd; 1 x 17/18thC pot sherd
070	Fill	Upper fill of 005; above 073; same as 006/071/072; cut by 068	Dark grey/brown silty sand		1.4	0.34	
071	Fill	Upper fill of 005; above 073; same as 006/070/072; cut by 068	Dark grey/brown silty sand		1.4	0.3	

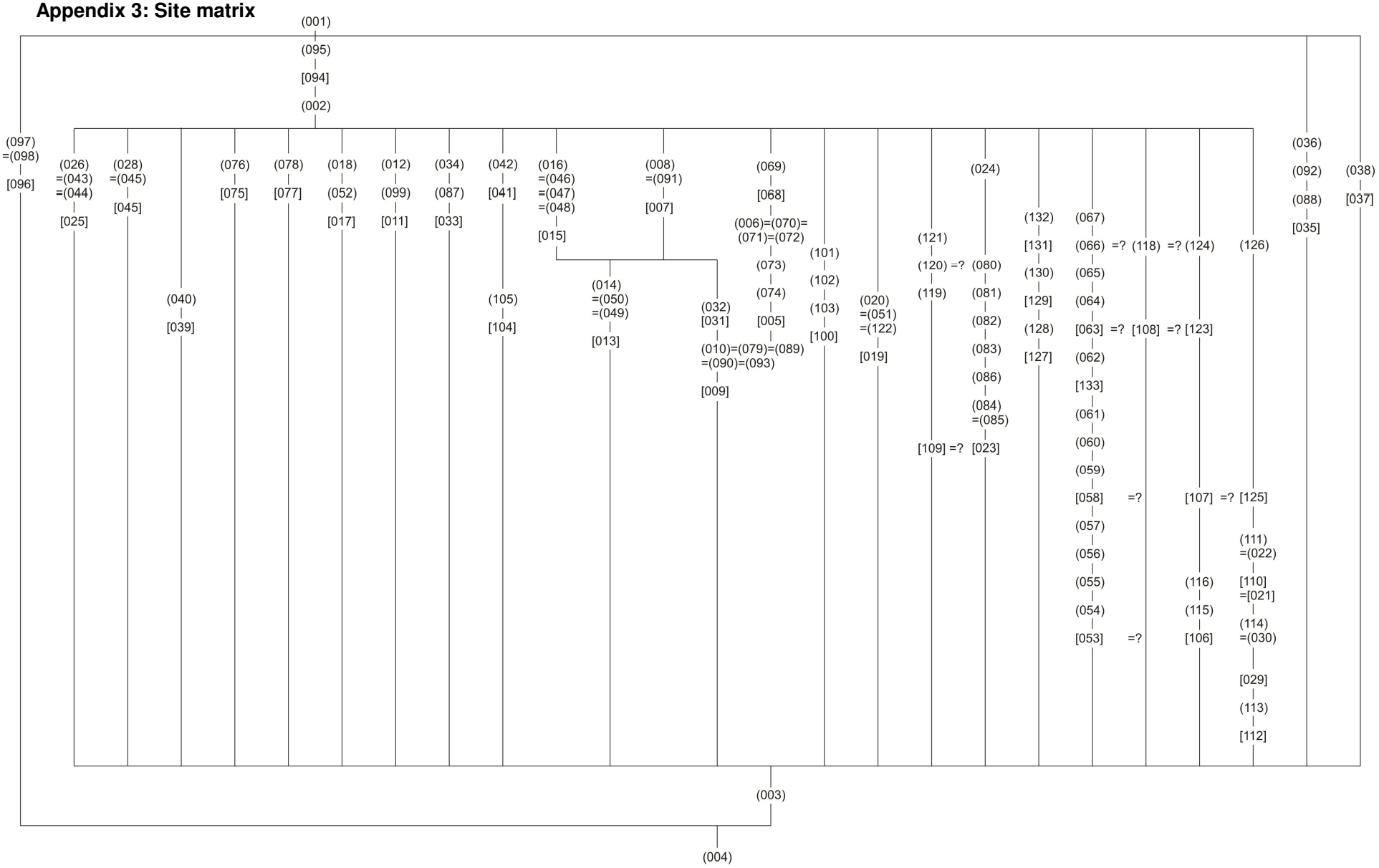
Context	Type	Relationships	Description	Length (m)	Width (m)	Max Thickness/ Depth (m)	Finds
072	Fill	Upper fill of 005; above 073; same as 006/070/071; cut by 068	Dark grey/brown silty sand		0.22	0.1	
073	Fill	Fill of 005; above 074; below 006/070/071/072	Mid-light yellow sand		0.4	0.2	
074	Fill	Fill of 005; below 073	Dark grey/brown silty sand			0.38	
075	Cut	Cuts 003, filled by 076	North-north-west/south-south-east aligned plough furrow		2		
076	Fill	Fill of 075; below 002	Orange/brown silty sand				
077	Cut	Cuts 003; filled by 078	North-north-west/south-south-east aligned plough furrow				
078	Fill	Fill of 077; below 002	Orange/brown silty sand				
079	Fill	Fill of 009; same as 010/089/090/093; cut by 031	Orange/brown silty sand			0.38	20 x ?LIA pot sherds; 2 x undated tile frags from soil sample
080	Fill	Fill of 023; ?same as 120; above 081, below 024	Dark grey/brown silty sand			0.45	
081	Fill	Fill of 023; above 082, below 080	Dark grey/brown silty sand; frequent charcoal flecks			0.15	
082	Fill	Fill of 023; above 083, below 081	Dark grey/brown sand			0.24	
083	Fill	Fill of 023; above 086, below 082	Dark grey/brown clayey sand			0.32	
084	Fill	Fill of 023; same as 085; below 086	Brown silty sand			0.35	
085	Fill	Fill of 023; same as 084; below 086	Brown silty sand			0.5	
086	Fill	Fill of 023; above 084, below 083	Orange/yellow sand			0.2	
087	Fill	Fill of 033; below 034	Yellow/brown sandy silt, with rare charcoal flecks	2.4	2.3	0.5	
088	Fill	Fill of 035	Orange/brown sandy silt, with rare charcoal flecks		1.6	0.7	
089	Fill	Fill of 009; same as 010/079/090/093; cut by 031	Orange/brown sandy silt			0.45	

Context	Type	Relationships	Description	Length (m)	Width (m)	Max Thickness/ Depth (m)	Finds
090	Fill	Fill of 009; same as 010/079/089/093; cut by 031	Orange/brown silty sand			0.18	
091	Fill	Fill of 009; same as 008; above 007; below 002	Orange/brown sandy silt			0.25	
092	Fill	Fill of 035; above 088, below 036	Brown/grey sandy silt, rare charcoal flecks		2.85	0.8	
093	Fill	Fill of 009; same as 010/079/089/090; cut by 031	Orange/brown silty sand			0.1	
094	Cut	Cuts 002; filled by 095	Irregular hollow	6	3	0.55	
095	Fill	Fill of 094; below 001	Brown/grey sandy silt; fired clay fragment	6	3	0.55	fired clay fragment
096	Cut	Cuts 004; filled by 097/098	Possible animal burrow	1.2	0.55	0.4	
097	Fill	Fill of 096; contains 098; below 001	Brown/grey sandy silt, rare charcoal flecks	1.2	0.55	0.4	1 x 14-16thC pot sherd
098	Fill	Fill of 096; contained by 098; below 001	Animal burial	1.2	0.55	0.4	24 x animal bone (burial)
099	Fill	Fill of 011; same as 012; below 002	Dark grey/brown silty sand			0.14	8 x ?LIA pot sherds; 2 x undated tile frags from soil sample
100	Cut	Cuts 003; filled by 101,102,103; below 103	Circular pit	0.8	0.8	0.2	
101	Fill	Fill of 100; above 102, below 002	Yellow/brown sandy silt, with charcoal flecks			0.1	
102	Fill	Fill of 100; above 103, below 101	Dark grey/brown silty sand with charcoal flecks and fragments			0.1	
103	Fill	Fill of 100; below 102	Yellow/brown silty sand			0.03	
104	Cut	Cuts 003; filled by 105	East-west aligned ditch	1	1.15	0.3	
105	Fill	Fill of 104; cut by 041	Dark grey/brown silty sand			0.3	
106	Cut	Cuts 003; ?same as 053; filled by 115	West-north-west/east-south-east aligned southern ditch of trackway	1	2.1	0.56	
107	Cut	Cuts 116; ?same as 058,125; filled by 117	West-north-west/east-south-east aligned southern ditch of trackway	1	2.2	0.64	

Context	Type	Relationships	Description	Length (m)	Width (m)	Max Thickness/ Depth (m)	Finds
108	Cut	Cuts 117; ?same as 063,123; filled by 118	West-north-west/east-south-east aligned southern ditch of trackway	1	1.72	0.82	
109	Cut	Cuts 003; ?same as 023; filled by 119	West-north-west/east-south-east aligned northern ditch of trackway	1	2.37	0.84	
110	Cut	Cuts 114; same as 21; filled by 111	West-north-west/east-south-east aligned southern ditch of trackway	3	1.4	0.3	
111	Fill	Fill of 110; ?same as 022, cut by 125	Dark grey/brown silty sand			0.3	1 x IA/Rom pot sherd
112	Cut	Cuts 003, filled by 113	North-south aligned gully	1	0.4	0.15	
113	Fill	Fill of 112; cut by 029	Dark grey/brown silty sand			0.15	
114	Fill	Fill of 029; same as 030, below 002	Dark grey/brown silty sand			0.6	16 x ?LIA pot sherds
115	Fill	Fill of 106; below 116	Yellow/brown sandy silt	1	1.4	0.52	
116	Fill	Fill of 106; above 115, cut by 107	Grey/brown sandy silt	1	1.26	0.55	
117	Fill	Fill of 107; cut by 123	Grey/brown sandy silt	1	2.2	0.64	
118	Fill	Fill of 108; ?same as 066,124; below 002	Grey/brown sandy silt, rare charcoal flecks	1	1.72	0.82	1 x 3-4thC Rom pot sherd; 1 x undated tile frag from soil sample
119	Fill	Fill of 109; below 120	Orange/brown sandy silt	1	1.2		
120	Fill	Fill of 109; above 119, below 121	Grey/brown gritty silt, rare charcoal flecks	1	2.4	0.4	
121	Fill	Fill of 109; above 120, below 002	Grey/brown sandy silt	1	1.49	0.39	2 x undated tile frags from soil sample
122	Fill	Fill of 019; same as 020/051; below 002	Dark grey/brown silty sand	1	1.24	0.3	
123	Cut	Cuts 117; ?same as 063,108; filled by 124	West-north-west/east-south-east aligned southern ditch of trackway	1	2.35	0.65	
124	Fill	Fill of 123; ?same as 066,118; below 002	Dark grey/brown silty sand			0.65	1 x 2ndC Rom pot sherd
125	Cut	Cuts 111; ?same as 058,107; filled by 126	West-north-west/east-south-east aligned southern ditch of trackway	1	1.8	0.4	
126	Fill	Fill of 125; below 002	Dark grey/brown silty sand			0.4	

Context	Type	Relationships	Description	Length (m)	Width (m)	Max Thickness/ Depth (m)	Finds
127	Cut	Cuts 003; filled by 128	West-north-west/east-south-east aligned northern ditch of trackway	1	1.2	0.5	
128	Fill	Fill of 127; cut by 129	Dark grey/brown silty sand			0.5	
129	Cut	Cuts 128; filled by 130	West-north-west/east-south-east aligned northern ditch of trackway	1	1.25	0.56	
130	Fill	Fill of 129; cut by 131	Dark grey/brown silty sand			0.56	
131	Cut	Cuts 130; filled by 132	West-north-west/east-south-east aligned northern ditch of trackway; northernmost and latest ditch recut	1	2.25	0.45	
132	Fill	Fill of 131; below 002	Dark grey/brown silty sand			0.45	
133	Cut	Filled by 062; cuts 061	South-west/north-east aligned gully?			0.4	

Appendix 3: Site matrix



Appendix 4: Lithic Materials Catalogue

By J. Rylatt

1.0 Introduction

This report concerns two pieces of worked flint recovered during a programme of archaeological strip, map and record at Eastfield Farm, Winteringham.

2.0 Method of study

The lithic artefacts were physically examined in order to create an archive catalogue. Attributes were noted in order to determine their places in the reduction sequence, describe observable characteristics of the lithic technology utilised and to provide an assessment of functional potential. The catalogue also records the presence of patination, cortex and whether pieces have been burnt. Artefacts were weighed and metrical data is recorded if any piece is a complete flake, tool or core. Additionally, selected artefacts were examined with a x3 hand-lens to determine whether there is any evidence of localised modification that could be indicative of use.

3.0 Catalogue

Context	Type	Dimensions	Description
003	flake	44x15x6mm 4.3g	Tertiary flake with v. small flat platform, diffuse bulb and feathered termination; small irregular trimming flakes detached from platform edge; dorsal scars indicate removal of 2 similar flakes from same platform creating pronounced dorsal ridge; poss. use-wear, regular micro-chipping along proximal half one lateral edge, chipping along other margins is more irregular & poss. the result of rolling/post-dep. damage; greyish-brown semi- translucent flint Mes/E.Neo?
066	b-l flake	14x6x2mm 0.2g	Very small tertiary bladelet/blade-like flake with irregular platform, no definable bulb and tip of distal end detached; has dorsal ridge suggesting two prior removals dorsal (from same or opposed platform?); some post-depositional damage to lateral margin; mottled pale-grey opaque Wolds flint (overall, characteristics suggest natural flake, although possibility that unintentional by-product of Mes/E.Neo industries)

NB: measurements are only given for complete flakes, tools and pieces - the first figure relates to the maximum length, measured perpendicular to the striking platform; the second to maximum breadth, measured at a right angle to the length; the third to maximum thickness.

4.0 Comments

The flake from (003) provides an indication of a prehistoric presence on the site. Its morphological traits are characteristic of earlier Neolithic core reduction strategies, specifically a very small platform indicating carefully directed force during removal and a diffuse bulb suggesting soft hammer percussion. The platform edge trimming is relatively crude and unstructured; indicating that precise isolation of the platform was not a priority. However, an earlier (Mesolithic) date cannot be discounted.

The form of the other small blade-like flake from (066) is broadly consistent with the products of Mesolithic/early Neolithic industries – i.e. a small bladelet or trimming flake. However, there are no clear indicators of deliberate working, so the balance of evidence suggests that this is a natural flake.

The recovery of only one or two pieces of worked lithic material suggests that there was only relatively brief and ephemeral human activity on the site during the Mesolithic and/or early Neolithic. The flake was recovered from the subsoil, (003), suggesting truncation of a prehistoric land surface or feature fill and probably accounting for some/all of the very small chipping along the flake margins. There is no lithic evidence for a later Neolithic or Bronze Age presence.

Appendix 5: A report on Iron Age and Roman Pottery from excavations on land off Composition Lane, Eastfield Farm, Winteringham, North Lincolnshire

By I. M. Rowlandson

The pottery has been archived using count and weight as measures according to the guidelines laid down for the minimum archive by The Study Group for Roman Pottery (Darling 2004) using the codes developed by the City of Lincoln Archaeological Unit-CLAU (see Darling and Precious forthcoming) and the fabric series under development for North Lincolnshire (Rowlandson forthcoming). Rim equivalents (RE) have been recorded and an attempt at a 'maximum' vessel estimate has been made following Orton (1975, 31). The pottery has been bagged by fabric and vessels selected as suitable for illustration have been bagged separately for ease of future reference. The archive record (Appendix 1) is an integral part of this report and will be curated in an Access database, available from the author in a digital format. The report was produced on the basis of site information provided by PCAS Ltd. The pottery illustration is the work of this author.

CONDITION

The ceramics presented for totalled 89 manually retrieved sherds, weighing 550g, RE 0.6, from 17 contexts from a scheme of archaeological monitoring and excavation. The majority of the pottery is abraded and small. No evidence of wear patterns or sooting was evident during recording. The average sherd weight was low at 6.18g per sherd. The other pottery, fired clay and ceramic building material fragments are not considered by this author. The pottery should be deposited with the relevant museum.

The pottery presented for study mostly consists of small abraded sherds. Many of the features can only be tentatively dated on the basis of the ceramics retrieved largely due to the low density of finds. This suggests that much of the Roman pottery found within the features could be deposited in extant earlier features and that area was marginal to settlement during the Roman period. The largest homogenous groups present consist of fragments from large vessels or trays. These sherds, despite their fragmentary nature, are some of the freshest from the site and might suggest the possibility of specialist processing or perhaps storage activities on the site.

DATING

The detailed archive is presented as Appendix 1. Table 1 provides a quantified spot dating summary by context. It should be noted that nearly all of the groups are dated on a small number of vessels.

Table 1- Dating summary

F No	Context	Feature Type	Spot date	Comments	Sherd	Weight (g)	RE %
009	079	Ditch	PREHIST+	A small group of fragments of a tray or large vessel	20	76	0
011	012	Gully	PREHIST+	A small group of fragments of a tray or large vessel	20	175	0
011	099	Gully	PREHIST-ROM	A small group of fragments of a tray or large vessel and a single sherd	8	36	0
015	046	Ditch	ROM	Small scraps of oxidised ?Roman pottery	2	2	0
021	021	Ditch	ROM	Small abraded group	3	9	0

Table 1- Dating summary							
F No	**Context**	**Feature Type**	**Spot date**	**Comments**	**Sherd**	**Weight (g)**	**RE %**
023	024	Ditch	ROM	A small group	2	9	0
025	026	Furrow	ROM	A single abraded sherd	1	3	0
029	030	Ditch	ROM	A single abraded sherd	1	5	0
029	114	Ditch	PREHIST+	A small group of fragments of a tray or large vessel	16	29	0
033	034	Pit	IA	A single rim sherd	1	8	0
053	054	Ditch	PREHIST+	A small group of fragments of a tray or large vessel	6	30	0
058	059	Ditch	2C+	A small, abraded group	2	38	0
063	066	Ditch	ROM	A single abraded sherd	1	9	0
063	067	Ditch	EM2+	A small fresh group	3	77	0
108	118	Ditch	3-4C	A single abraded sherd	1	22	0
110	111	Ditch	IA-ROM	A single abraded sherd	1	4	0
123	124	Ditch	2C+	A small, abraded group	1	18	0

Ditches/ gullies 009, 011 and 029

The fragments from these features appear to be from large vessels or trays. It is very difficult to be sure of the form of this vessel and as such a broad date range probably from the beginning of the first millennium BC onwards would be appropriate. These vessels are discussed further below. A single sherd retrieved from a soil sample from context 099 and a Roman sherd from the fill of ditch 029 might suggest that the other large vessels may be of Roman date.

Pit 033, fill 034

The only rim sherd presented for study suitable for illustration was retrieved from pit 033. The sherd is a small fragment of a flat top rim and would fit with an Iron Age date (D1). Similar vessels include an example from the early- middle Iron Age site at Weelsby Avenue, Grimsby and from the middle Iron Age site at Ancaster, Lincolnshire (Elsdon 1996a, C6a middle left and D.13) although there is also a possibility that the form could stretch back further into the first millennium BC perhaps into the later Bronze Age (cf. the rim illustrated by Allen 2009, Fig. 4.7.114).

D1. Rim sherd from context 034, Scale 1:4

Trackway ditches feature numbers- 021/053/110, 108 023, 058, 063, 123

The pottery from these features was retrieved from the main trackway ditches. The groups only contain a small number of sherds which are small and mostly abraded. They vary in date through out the Iron Age and Roman periods. The Roman pottery might conceivably have derived from manuring scatter from the main settlement to the east of this site and it is possible that these features may have silted up during the Roman period or sometime after. This leaves the possibility that the features may have been a long lived part of the landscape perhaps stretching back into to prehistory.

Ditch 015 and 058

A single scrap of Roman pottery was retrieved from context 015, ditch 046. Context 059 within ditch 058 produced a small abraded group of Roman pottery dating to the 2nd century AD or later.

Furrow 025, fill 026

A single abraded sherd of Roman pottery was presented for study from context 026

OVERVIEW OF FABRICS & FORMS

Table 2- Fabric Summary

Fabric	Fabric details	Sherd	Sherd %	Weight (g)	Weight %	RE %
GREY	Miscellaneous grey wares	2	2.25%	31	5.64%	0
NWLGR	NW Lincs Greyware	2	2.25%	74	13.45%	0
OX	Misc. oxidized wares	8	8.99%	11	2.00%	0
OXL	Light oxidised fabrics	2	2.25%	9	1.64%	0
SFGR	South Ferriby Greyware	1	1.12%	18	3.27%	0
SFGR?	South Ferriby Greyware	2	2.25%	38	6.91%	0
SHEL	Miscellaneous undifferentiated shell-tempered	3	3.37%	9	1.64%	0
SHSC	Shell- sparse coarse shell	1	1.12%	8	1.45%	4
VESIC	Vesicular fabric	68	76.40%	352	64.00%	0

Table 3- Form Summary

Form	Form Type	Form Description	Sherd	Sherd %	Weight (g)	Weight %	RE %
BL?	Bowl	Large	63	70.79%	318	57.82%	0
CLSD	Closed	Form	4	4.49%	49	8.91%	0
JFT	Jar	Flat-topped rim	1	1.12%	8	1.45%	4
J?	Jar	Unclassified form	2	2.25%	74	13.45%	0
JBL?	Jar/bowl	Large	3	3.37%	27	4.91%	0
OPEN?	Open	Open form	3	3.37%	47	8.55%	0
-	Unknown	Form uncertain	13	14.61%	27	4.91%	0

The large vessels or 'trays'

As discussed above the fragments from large vessels or trays are perhaps the most interesting element of the assemblage. It is not possible to establish a diameter for the vessels and many appear to only curve along one axis, perhaps suggesting a large cylindrical form, but the majority of sherds are flat suggesting that the vessels may have only had curved sides. The vegetable tempering evident in some of the fragments is not common in Iron Age or Roman pottery from this area with sherds considered Bronze Age to Early Iron Age from Barnetby Wold Farm being one of the few examples, in that instance containing chaff (Didsbury and Steedman 1992). It should be noted though that the organic filler need not be an indicator of date as other late Bronze Age sites in the area appear to favour utilising the local shelly Jurassic clays for potting (eg Hibaldstow- Allen and Knight 2001). Other pre-Roman pottery from the Old Winteringham area has typically been grog or shell tempered. It may be the case that the vessels from the WGMCY site may have been produced

with organic filler to produce greater rigidity during construction this method is evident in the Iron Age briquetage from Cowbit (Morris 2001). The tray like form also raises the possibility that the fragments might be from saltmaking vessels although their findspot was some distance from the shore line.

Examples of briquetage have been found inland sites at the Iron Age and Roman site of Dragonby where it has been considered to represent fragments imported with salt for domestic or salt licks for livestock (Barford 1996, 337) and Rudston, East Yorkshire (Stead 1980, 107). There is no convincing surviving evidence of salt production or residue on the fragments presented, the site was probably not immediately on the shore line and the typical 'stands' common on salt production sites of the Iron Age and Roman periods were not retrieved. It is therefore unlikely that the vessels were used for salt processing on this site. It is perhaps more likely that they may represent a similar technology to briquetage manufacture being utilised to produce a specialist large vessel for carrying salt or for another processing task. An Iron Age or Roman date would conform with much of the other pottery present although this hypothesis is speculative.

The other pottery

The pottery is mostly abraded and contains a range of fabrics and forms typical of what could be expected from an Old Winteringham group. The sherds range broadly in date from possible Iron Age sherd (D1, above) through to late Roman greywares. The most notable inclusion is jar with burnished lattice decoration (context 067) with a fabric similar to other groups from Old Winteringham (unpublished pottery North Lincolnshire Museum- WGM81, Ditch Z). The fragmentary condition of the Roman pottery is suggestive that the site was marginal to the main settlement at Old Winteringham.

DISCUSSION

Clearly the ceramics do not help greatly in dating the trackway feature as it is possible that it was a prehistoric feature still extant in the Roman period. The low sherd weight and abrasion evident on many of the sherds suggest that this site may have been at a distance from the main area of dwelling but the small quantities of pottery present in some of the large ditches and the presence of some specialist vessels suggest a landscape utilised by people for a variety of reasons. It remains possible that future investigations may recognise settlement evidence associated with these land divisions.

CONCLUSIONS

All of the pottery should be retained and deposited in the relevant museum to enable future scrutiny.

The more fragmentary fragments from contexts 012, 021, 034, 054, 099, 079 and 114 should all be carefully packaged for storage due to their fragile condition.

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Appendix 1- Pottery Archive

Context	Fabric	Form	Decoration	Vessels	Alt	Drawing	Comments	Join	Sherd	Weight	Rim diam	Rim eve
012	VESIC	BL?		1			BASE AND BS BASAL ANGLE HAS LITTLE SIGN OF A DIAMETER- PERHAPS A RECTANGULAR TRAY OR VESSEL; OX/R; FABRIC AS 054- NO OBVIOUS JOINS		20	175	0	0
021	SHEL	-		1	ABR		BS; R/OX/R/OX/R; HARD ROMAN SHELL TEMPERED; SHSF; MODERATE QU 0.3-0.5MM		3	9	0	0
024	OXL	CLSD		1	ABR		BS; LIGHT OXIDISED FLAGON TYPE FABRIC; MOD QUARTZ 0.3MM; SOURCE?		2	9	0	0
026	OX	-		1	VAB		BS; SCRAP; SIMILAR TO GREY SHERDS FROM 059 WITH OXID SURFACE		1	3	0	0
030	OX	-		1	ABR		BS; OX/R/OX; SMOOTH SPARSE QU SAND		1	5	0	0
034	SHSC	JFT		1	SOOT EXT	D1	RIM; BLACK/REDUCED; LEECHED SHELL; FLAT TOPPED RIM		1	8	20	4
046	OX	-	B	1	VAB		BURNISHED SCRAPS OF OXIDISED ?ROMAN SHERDS; SAMPLE 7		2	2	0	0
054	VESIC	BL?		1			BS OR BASE? LARGE OPEN BOWL OR TRAY; OX/R; COMMON VEG VESIC UP TO 5MM ?SOME CALC?; SPARSE SUB ANG FE & QU		6	30	0	0
059	SFGR?	OPEN?	SDG	1	ABR		BS; COARSE VARIENT OF SFGR; ZONE OF LIGHTLY SCORED DIAGONAL LINES		2	38	0	0
066	GREY	OPEN?		1	ABR		BS; PALE GREY SIMILAR TO CONTEXT 118 WITH MORE 0.3MM SAND		1	9	0	0
067	VESIC	-		1	ABR		FORMLESS SIMILAR TO A SHERD FROM 099		1	3	0	0
067	NWLGR	J?	LA	1			BS SHLDR; R/OX/R; TYPICAL OF VESSELS FROM THE WGM81 DITCH Z DEPOSIT; QU AND MICA		2	74	0	0
079	VESIC	BL?		1	ABR		BS; LARGE OPEN BOWL OR TRAY- LITTLE CURVATURE; OX/R; COMMON VESIC UP TO 3MM ?VEG SOME CALC- PROBABLY SHELL; SPARSE SUB ROUNDED QU & FE UP TO 0.5MM		20	76	0	0
099	OX	-		1	VAB		SCRAPS OF OXIDISED POTTERY FROM SAMPLE 5		4	1	0	0

Appendix 1- Pottery Archive												
Context	**Fabric**	**Form**	**Decoration**	**Vessels**	**Alt**	**Drawing**	**Comments**	**Join**	**Sherd**	**Weight**	**Rim diam**	**Rim eve**
099	VESIC	JBL?		1	VAB		BASE?; OX/R/?; LARGE VESSEL?SMOOTH SURFACE; VESIC SPARSE 2-4MM; QU COMMON 0.2-0.8MM; QU RARE 2-4MM		2	12	0	0
099	VESIC	JBL?		1			BS? WALL SHERD- LITTLE CURVATURE; ?LARGE VESSEL IRREGULAR FIRING; COMMON VESICULES VEG ?GRASS & CALC?; REDUCED GROG SPARSE >4MM; SPARSE QU ROUNDED 0.5MM		1	15	0	0
099	VESIC	BL?		1	ABR		BS? OX/R AS CONTEXT 054; SAMPLE 5		1	8	0	0
111	VESIC	-		1	ABR		BS; R/OX/R; LEECHED SHELL		1	4	0	0
114	VESIC	BL?		1	ABR		BS ?RIM; OX/R AS CONTEXT 054		16	29	0	0
118	GREY	CLSD		1	ABR		BS; VERY FINE HARD FABRIC WITH SPARSE FE GRAINS SIMILAR TO A LATE HOSM PRODUCT?		1	22	0	0
124	SFGR	CLSD	SHG	1	ABR		BS; JAR?; GLASSY QUARTZ		1	18	0	0

Appendix 6: Post-Roman Pottery archive

By Jane Young

context	cname	full name	sub fabric	form type	sherds	vessels	weight	part	ref no	description	date
28	PMLOC	Post-medieval Local fabrics	oxid fine sandy	bowl	2	1	15	base & BS		light firing streaks; int glaze;light ext slip	16th to 17th
28	NLFMSW	North Lincolnshire Fine to Medium Sandy ware		jug	1	1	3	BS		very abraded	13th to 14th
28	NLFMSW	North Lincolnshire Fine to Medium Sandy ware		jug	1	1	12	base		very abraded	13th to 14th
36	TOYII	Toynton Late Medieval ware		small bowl ?	1	1	5	BS		int & ext glaze	mid 15th to mid 16th
36	MEDLOC	Medieval local fabrics	oxid;fine-med sandy fabric with occ ca; red ext slip; spots brown glaze	jug/jar	1	1	10	BS		very abraded; micaceous	13th to 15th
36	BL	Black-glazed wares	coarse oxid + ca	large bowl	1	1	18	BS		int glaze;hard fired	18th to 19th
36	BL	Black-glazed wares	coarse oxid + ca	large bowl	1	1	70	rim		int glaze;hard fired	18th to 19th
36	PEARL	Pearlware		large plate	3	1	22	rim			late 18th to mid 19th
36	YY	Yorkshire Yellow		jar ?	1	1	6	BS		int & ext glaze	mid 16th to early 18th
36	LHUM	Late Humber-type ware		large bowl	1	1	20	rim		int glaze;red ext slip	17th to 18th
36	BL	Black-glazed wares	fine oxid	bowl	1	1	12	BS		int glaze	late 17th to 18th
46	MISC	Unidentified types	fine oxid	?	2	1	1	BS	sample 7	bright oxid; highly burnished surface	Iron Age to Roman
54	MISC	Unidentified types	med-coarse shell	?	2	1	1	BS	sample 1	abraded; leached; abundant med-coarse shell	Iron Age to Roman
69	HUM	Humberware		drinking jug	1	1	17	base		soot; well made	late 14th to mid 16th
69	GRE	Glazed Red Earthenware		large bowl	1	1	42	rim		int glaze	17th to 18th
97	LMLOC	Late Medieval local fabrics		small jar/pipkin	1	1	11	BS		int & ext glaze; soot incl breaks	14th to mid 16th

Appendix 7: Ceramic Building Material Archive

By Jane Young

context	cname	full name	fabric	frags	weight	ref no	description	date
030	RTMISC	Roman or post-Roman tile	fine oxid	3	1	sample 11	tiny very abraded scraps below 1gm	?
036	BRK	Brick	purple calcareous	1	28		yellow salts in fabric; hand made	14th to 18th
036	BRK	Brick	fine orange	3	37		? Calcareous fabric; handmade micaceous	14th to 18th
079	RTMISC	Roman or post-Roman tile	oxid med sandy	2	0	sample 4	tiny very abraded scraps below 1gm	?
099	RTMISC	Roman or post-Roman tile	fine-med oxid	2	1	sample 5	tiny very abraded scraps below 1gm	?
118	RTMISC	Roman or post-Roman tile	fine oxid	1	1	sample 10	tiny very abraded scrap below 1gm	?
121	RTMISC	Roman or post-Roman tile	fine oxid	2	1	sample 12	tiny very abraded scraps below 1gm	?

Appendix 8: The Faunal Remains

By Jennifer Wood

Introduction

A total of 93 (312g) refitted fragments of animal bone were recovered by hand during archaeological works undertaken by Pre-Construct Archaeological Services Ltd.

The remains were recovered from a post-medieval/modern animal burial [096], a possible Romano-British enclosure ditch [015] and [017], and an undated ditch [019].

Methodology

The entire assemblage has been fully recorded into a database archive. Identification of the bone was undertaken with access to a reference collection and published guides. All animal remains were counted and weighed, and where possible identified to species, element, side and zone (Serjeantson 1996). Ribs and vertebrae were only recorded to species when they were substantially complete and could accurately be identified. Undiagnostic bones were recorded as micro (rodent size), small (rabbit size), medium (sheep size) or large (cattle size). The separation of sheep and goat bones was done using the criteria of Boessneck (1969) and Prummel and Frisch (1986) in addition to the use of the reference material. Where distinctions could not be made the bone was recorded as sheep/goat (S/G).

The quantification of species was carried out using the total fragment count, in which the total number of fragments of bone and teeth was calculated for each taxon. Where fresh breaks were noted, fragments were refitted and counted as one. The data produced the basic NISP (Number of Identified Specimen) counts.

The condition of the bone was graded using the criteria stipulated by Lyman (1996). Grade 0 being the best preserved bone and grade 5 indicating that the bone had suffered such structural and attritional damage as to make it unrecognisable. Also fusion data, butchery marks (Binford 1981), gnawing, burning and pathological changes were noted when present.

Tooth eruption and wear stages were measured using a combination of Halstead (1985), Grant (1982), Levine (1982) and Payne (1973), and fusion data was analysed according to Silver (1969). Measurements of adult, that is, fully fused bones were taken according to the methods of von den Driesch (1976), with asterisked (*) measurements indicating bones that were reconstructed or had slight abrasion of the surface.

Results

The remains were generally of a moderate overall condition, averaging at grade 3 on the Lyman criteria (1996).

Taphonomy

No evidence of butchery, gnawing, burning or pathological conditions were noted on any of the remains.

Species Representation

Table 1, Summary of Identified Bone (NISP)

	Romano-British?		**Post-Medieval/ Modern**	**Undated**	**Total**
Taxon	Enclosure Ditch [015]	Enclosure Ditch [017]	Animal Burial [096]	Ditch [019]	
Cattle	3		8	1	12
Large Mammal		1	16		17
Unidentified		6	58		64
N=	3	7	82	1	93

As can be seen from Table 1, the majority of the remains were identified as cattle and large mammal sized, with a number of bone fragments unidentifiable to taxa.

Enclosure Ditches [015] and [017]

As can be seen in Table 1, both enclosure ditches contained a minimal amount of animal bone. The identifiable cattle remains were a single tooth fragment and a possible pair of mandibles. One mandible recovered from ditch [015] provided a tooth wear score age, suggesting the remains were from an animal aged approximately 30-36 months.

Animal Burial [096]

The animal burial recovered from possible post-medieval/ modern feature [096] represented the partially complete remains of a calf skeleton. No teeth were present to provide a tooth wear age score, however, all of the epiphyses were unfused and the size of the remains would suggest that the animal was in infancy at the time of death. No evidence for butchery, gnawing, burning or pathological conditions was noted on the remains.

Undated Ditch [019]

A single fragment of cattle metatarsal was recovered from the fill of the undated ditch [019].

Discussion

The assemblage recovered from Winteringham was rather small in size, and mostly dominated by an animal burial from a post-medieval/modern feature. The assemblage is too small to provide any detailed information on the underlying husbandry and economy practices that may have been undertaken on site, save the presence of the species identified. Due to the lack of animal bone recovered from enclosure ditches [015] and [017], it may suggest that these ditches were on the periphery of archaeological activity and not subject to large scale rubbish disposal. Therefore there is possible that more intensive activity may be uncovered in future schemes of work.

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Ctxt No	Sample No	Taxon	Element	Side	Z1	Z2	Z3	Z4	Z5	Z6	Z7	Z8	Prox	Dist	Path	Butch	Work	Burnt	Gnaw	Fresh Break	Assoc'd	Meas'd	Tooth Wear	Surface	Cond	No	(g)	Notes
20	0	Cattle	Metatarsal	L	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	N	N	Y	N	N	N	X	3	1	52	
18	0	Large Mammal	Thoracic	B	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	Y	N	N	N	X	3	1	12	
18	0	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	4	6	5	
48	0	Cattle	Mandible	L	N	N	Y	N	N	N	N	N	X	X	N	N	N	N	N	Y	N	N	N	X	3	1	33	Fragmentary M1 and broken M2 present
47	0	Cattle	Mandible	R	N	N	Y	Y	N	N	N	N	X	X	N	N	N	N	N	Y	N	N	Y	X	3	1	79	M1=j, M2=f, M3=b
47	0	Cattle	Tooth	L	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	3	1	22	Upper molar
98	0	Cattle	Tibia	L	N	N	Y	Y	Y	Y	N	N	X	U	N	N	N	N	N	N	Y	N	N	X	3	1	16	Infant/juv
98	0	Cattle	Tibia	L	Y	Y	N	N	N	N	N	N	U	X	N	N	N	N	N	Y	Y	N	N	X	3	1	7	Infant/juv
98	0	Cattle	Innominate	L	N	Y	Y	Y	N	N	N	N	U	X	N	N	N	N	N	N	Y	N	N	X	3	1	5	Infant/juv
98	0	Cattle	Astragalus	L	N	Y	N	Y	N	Y	N	Y	X	X	N	N	N	N	N	Y	Y	N	N	X	3	1	5	Infant/juv
98	0	Large Mammal	Rib	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	Y	N	N	X	3	6	4	Infant/juv
98	0	Cattle	Tibia	L	N	N	N	N	N	N	Y	Y	X	U	N	N	N	N	N	N	Y	N	N	X	2	1	2	Infant/juv
98	0	Cattle	Innominate	L	N	N	N	N	N	N	Y	N	U	X	N	N	N	N	N	N	Y	N	N	X	3	1	3	Infant/juv
98	0	Large Mammal	Vertebra	B	N	N	N	N	N	N	N	N	U	U	N	N	N	N	N	N	Y	N	N	X	3	6	7	Infant/juv
98	0	Large Mammal	Vertebra	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	Y	N	N	X	3	4	4	Neural arches Infant/juv
98	0	Cattle	Metatarsal	L	N	N	Y	Y	Y	Y	N	N	F	X	N	N	N	N	N	N	Y	N	N	X	4	1	10	infant/juv
98	0	Cattle	Femur	L	N	N	Y	Y	Y	Y	N	N	X	X	N	N	N	N	N	N	Y	N	N	X	3	1	6	infant/juv
98	0	Unidentified	Unidentified	X	N	N	N	N	N	N	N	N	X	X	N	N	N	N	N	N	N	N	N	X	4	58	40	

Key: Codes and references used in cataloguing animal bone

Taxon: Species, family group or size category.

Non-species specific codes: -

: Equid- Horse Family

: Gadidae- Cod Family

: Passer- Passerine, Small songbirds i.e. Sparrow or Finches

: Turdid- Turdidae, Blackbird/Thrush family

: Corvid- Covidae, Crow family i.e. Crow, Rook or Jackdaw

: Galliform- Fowl or Pheasant

: Large Mammal – Cattle, Horse, Red Deer size

: Medium Mammal- Sheep/Goat, Pig, Dog, Roe Deer size

: Small Mammal- Cat, Rabbit size

: Micro Mammal- Mouse sized

: Unidentified- Not identified to species

Element: Skeletal element represented.

: Unidentified- Not identified to element

Side: L-Left, R- Right, B- Both

Zones: Records presence/absence of individual areas of the bone.

Based on Zone illustrations in Serjeantson, D, 1996 The Animal Bones, in Refuse and Disposal at Area 16, East Runnymede: Runnymede Bridge Research Excavations, Vol. 2, (eds) E S Needham and T Spence, British Museum Press, London.

Prox & Dist: Fusion of proximal and distal epiphyses

: X- Not present, F- Fused, U- Unfused, B- Unfused diaphysis and epiphysis present, V- Fusion Line visible.

Age Range: Age range based on age at fusion. Based on

Silver, I, A, 1969, *The Ageing of Domestic Animals, in D. Brothwell and E.S. Higgs, Science in Archaeology*, Thames and Hudson.

Path: Presence of pathology, details in notes column.

Butch: Presence of butchery, details in notes column.

Burnt: Presence of burning, details in notes column.

Gnaw: Presence of gnawing, details in notes column.

Work: Fragment shows evidence of working, details in the notes column.

Fresh Break: Fresh break noted, fragments re-fitted as one bone.

Associated: Articulating or adjoining bones.

Measured: Measurements taken as according to Von den Driesch, A, 1976 A Guide to the Measurement of Animal Bones from Archaeological Sites, Peabody Museum.

Tooth Wear: Tooth wear score for aging data, taken as according to:

Grant, A, 1982 ‘The Use of Tooth Wear as a Guide to the Age of Domestic Ungulates’, in B Wilson et al. *Ageing and Sexing Animal Bones from Archaeological Sites, BAR British Series 109, 91-108*, Oxford

Halstead, P, 1985 A Study of Mandibular Teeth from Romano-British Contexts at Maxey, in F Pryor, *Archaeology and Environment in the Lower Welland Valley, East Anglian Archaeology Report 27:219-224*

Levine, M A, 1982 The Use of Crown Height Measurements and Eruption-Wear Sequences to Age Horse Teeth. In Wilson, B et al. *Ageing and Sexing Animal Bones from Archaeological Sites. BAR British Series 109. 223 – 250*

Surface: Taphonomies noted on the bone surface:

W- Weathered

A- Abraded

R- Rootlet etched

D- Chemical etching from digestion

Cond: Grades 0-5, where 0 = pristine and 5= indicating that the bone had suffered such structural and attritional damage as to make it unrecognisable. Based on Lyman, R L, 1996 Vertebrate Taphonomy, Cambridge Manuals in Archaeology, Cambridge University Press, Cambridge

No.: Number of individual bones/fragments

(g): Weight in grams

Notes: Notes on observed taphonomies, differences and associations.

Appendix 9: Palaeoenvironmental Assessment

By Archaeological Services, Durham University

1.0 Summary

The project

1.1 This report presents the results of palaeoenvironmental assessment of 13 bulk samples taken during archaeological works by Pre-Construct Archaeological Services Ltd, at land to the north of Composition Lane, Eastfield Farm, Winteringham, North Lincolnshire.

Results

1.2 Charred plant remains, though small in number and generally in very poor condition, were recorded in 11 of the samples. The results suggest that spelt wheat and barley identified from contexts (30) and (54), were used at the site. These were the major field crops at the time of the Roman occupation in Britain.

1.3 The charred tubers of false oat-grass were present in pit fill (32), ditch fill (70) and gully fill (99), which may indicate a prehistoric date for these features. The tubers may represent ritual activity, the burning of turves, kindling, or food waste. A charred hazelnut shell fragment in context (18) suggests gathered foods were used at the site.

1.4 The redeposited material from context (81) was made up entirely of coal shale, which is likely to have a natural origin.

Recommendations

1.5 No further analysis is required for these samples due to the small amounts of charred plant remains recorded, and as all the contexts were fully processed and scanned in their entirety. The presence of charred plant remains (albeit limited) indicates that other features on the site may have the potential to provide further information about diet and crop husbandry practices. If additional works are undertaken on the site, the results from this assessment should be added to any further environmental data produced.

2.0 Project background

Location and background

2.1 Thirteen bulk environmental samples were taken by Pre-Construct Archaeological Services Ltd following archaeological works at land to the north of Composition Lane, Eastfield Farm, Winteringham, North Lincolnshire. The site lies within 300m of the northern limit of the Roman settlement of Old Winteringham, which was at the north end of Ermine Street. This report presents the results of environmental assessment of samples taken from a range of features including pits, ditches, enclosure ditches, a gully and a trackway.

Objective

2.2 The objective was to establish the potential of the samples to provide information about diet, land use and the palaeoenvironment of the site.

Dates

2.3 Samples were received by Archaeological Services Durham University on 8th October 2009. Assessment and report preparation was conducted between 17th – 20th November 2009.

Personnel

2.4 Sample processing was undertaken by Janet Beveridge, Charlotte Henderson, and Tudor Skinner. Assessment and report preparation was by Lorne Elliott.

Archive

2.5 The site code is WGMCY. The flots are currently in the Environmental Laboratory at Archaeological Services Durham University. The small finds have been returned to Pre-Construct Archaeological Services Ltd.

3.0 Methods

3.1 The bulk samples were manually floated and sieved through a 500µm mesh. The residues were examined for shells, fruitstones, nutshells, charcoal, small bones, pottery sherds, flint and industrial residues, and were scanned using a magnet for ferrous fragments. The flots were examined at up to ×60 magnification for charred and waterlogged botanical remains using a Leica MZ7.5 stereomicroscope. Identification of these was undertaken by comparison with modern reference material held in the Environmental Laboratory at Archaeological Services Durham University. Plant nomenclature follows Stace (1997).

4.0 Results

Pits

4.1 Three pit fills (32), (34) and (102) were sampled for palaeoenvironmental assessment. Small numbers of charred plant macrofossils occurred in all three contexts, although preservation was generally poor, with many grains having a pitted and degraded appearance. Context (32) was the most productive of the three, comprising a few charred remains of barley, wheat, and indeterminate cereal grains, a pod of the arable weed wild radish, a grass seed and two tubers of false oat-grass. Oak charcoal was abundant in context (102), which also comprised a wheat grain and four indeterminate grains. Two indeterminate cereal grains and a fragment of charcoal from the cherry family (Prunus spp) were noted in context (34).

The Trackway

4.2 Four samples were taken from a series of parallel ditches interpreted as flanking an east-west aligned trackway. Contexts (81) and (121) were from ditch fills to the north of the trackway. Context (81) was composed entirely of coal shale, with charred plant remains absent. Context (121) contained a charred indeterminate

cereal grain and tiny fragments of calcined bone and charcoal, which were too small to either identify or radiocarbon date. Contexts (54) and (118) were from ditch fills to the south of the trackway. Charred plant remains were again few in number and poorly preserved for both contexts. Context (54) comprised a grain each of barley and wheat, two indeterminate cereal grains, and a grass seed. Chaff in the form of a single spelt wheat glume base and an indeterminate spikelet fork of either spelt or emmer wheat, were also recorded in context (54). Context (118) comprised a single grain of both wheat and barley.

Ditches/Gullies [9], [11] and [29]

4.3 Three fills were sampled from a group of possibly associated ditches and/or gullies, aligned northeast-southwest at the southwest corner of the site. Context (79) was the fill of ditch [9], context (99) was the fill of gully [11] and context (30) was the fill of ditch [29]. A small number of charred remains occurred in contexts (30) and (99). A grain of barley, two indeterminate cereal grains, a spelt wheat glume base, an indeterminate spikelet fork of either spelt or emmer wheat, and a weed seed of ribwort plantain occurred in context (30). Context (99) comprised three barley grains (one of which was of the hulled variety), a single grain each of wheat and oat and a tuber of false oat-grass. Charred plant macrofossils were absent from context (79). Oak charcoal occurred in contexts (30) and (79), while several fragments of ash charcoal were noted in context (99).

Ditches/Gullies [5] and [19]

4.4 Context (70) was the fill of an east-west aligned ditch [5], which was earlier than the ridge and furrow, but did not obviously respect the trackway. The only charred plant macrofossil from this fill was a tuber of false oat-grass. Small fragments of oak charcoal and a tiny fragment of Maloideae (Apple, hawthorn or whitebeams) charcoal were also recorded.

Enclosure [15] / [17]

4.5 Ditch fills (46) and (18) were taken from the southeast corner of a rectilinear enclosure, ditches [15] and [17] respectively. Context (18) comprised the largest number of plant remains of all the assessed samples, although due to their poor preservation, the majority of these were indeterminate cereal grains. Grains of wheat and barley, a hazelnut shell fragment, and weed seeds of grasses, sedge, and vetch were also recorded. Fragments of oak charcoal were noted from both contexts.

4.6 An abundance of flint occurred in all the residues reflecting the local geology. Some of this may have been struck or possibly fire-cracked. Indeterminate fragments of unburnt and/or calcined bone were recorded in the residues or flots of nine contexts (18), (30), (32), (34), (46), (70), (79), (99) and (121). Context (99) comprised two sherds of pottery, and small fragments of glass were recorded in contexts (34) and (118). The flots comprised varying amounts of charcoal, clinker/cinder, coal, coal shale, insects, roots, uncharred seeds and uncharred vegetative material. The well-drained nature of the site, and the presence of modern roots and uncharred vegetative material in several of the contexts, suggest the uncharred seeds are recent introductions. The presence of coal and coal shale is more likely to reflect the local geology rather than the use of coal as fuel. Material suitable for radiocarbon dating was present in nine of the samples (18), (32), (34), (46), (54), (70), (99), (102) and (118) although the material in contexts (70), (102) and (118) may be of insufficient weight. The results are presented in Appendix 1.

5.0 Discussion

5.1 Charred plant remains, though small in number, were recorded in 11 of the samples. The results suggest that wheat and barley crops were used at the site. The poor condition of the majority of the grains and the lack of diagnostic chaff in most of the samples prevent further identification, although a barley grain from context (99) appeared to be of the hulled variety. A fragment of spelt chaff was identified in each of contexts (30) and (54), along with grains of barley. Barley and spelt wheat were the major field crops at the time of the Roman occupation in Britain (Greig 1991). The oat grain in context (99) may be from the wild species, as oats was not widely cultivated before the early medieval period (ibid).

5.2 The charred tubers of false oat-grass were present in pit fill (32), ditch fill (70) and gully fill (99). As these tubers are often recorded on prehistoric sites, their presence may indicate an early date for these features. These tubers frequently occur in cremations, where it has been suggested that this grass was used for kindling for the funeral pyre, as the dry, dead stems remain upstanding for much of the year (Robinson 1988). However, it has also been suggested that they may have been used in the past as a source of food (Godwin 1975), or they could reflect the burning of turves. A charred hazelnut shell fragment in context (18) suggests gathered foods were used at the site.

5.3 The redeposited material from context (81) was made up entirely of coal shale, which is likely to have a natural origin.

6.0 Recommendations

6.1 No further analysis is required for these samples due to the small amounts of charred plant remains recorded, and as all the contexts were fully processed and scanned in their entirety. The presence of charred plant remains (albeit limited) indicates that other features on the site may have the potential to provide further information about diet and crop husbandry practices. If additional works are undertaken on the site, the results from this assessment should be added to any further environmental data produced.

7.0 Sources

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Stace, C, 1997 *New Flora of the British Isles*, 2nd Edition, Cambridge

Sample		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
Context		**54**	**81**	**102**	**79**	**99**	**18**	**46**	**34**	**70**	**118**	**30**	**121**	**32**
Feature		**Ditch**	**Ditch**	**Pit**	**Ditch**	**Gully**	**Ditch**	**Ditch**	**Pit**	**Ditch**	**Ditch**	**Ditch**	**Ditch**	**Pit**
Material available for radiocarbon dating		□	-	(□)	-	□	□	□	□	(□)	(□)	-	-	□
Volume processed (l)		15	26	46	19.5	20	18	17	20	19	20	18	19.5	24
Volume of flot assessed (ml)		4	850	420	6	8	25	30	30	12	30	20	25	15
Residue contents (relative abundance)														
Bone (calcined)	indet. frags	-	-	-	1	1	1	1	1	1	-	1	-	1
Bone (unburnt)	indet. frags	-	-	-	-	-	-	1	-	-	-	-	-	-
CBM		1	-	-	1	1	-	1	-	-	1	1	1	-
Coal shale		-	1	-	-	-	-	-	-	-	-	-	-	-
Daub		1	-	-	-	-	-	-	-	-	-	-	-	-
Flint		3	3	4	3	3	4	3	3	3	3	3	3	3
Glass (total no.)	shard	-	-	-	-	-	-	-	1	-	1	-	-	-
Metal object (total no.)		-	-	-	-	-	-	-	1	-	-	-	-	-
Pottery (total no.)	sherd	-	-	-	-	2	-	-	-	-	-	-	-	-
Flot matrix (relative abundance)														
Bone (calcined)	indet. frags	-	-	-	-	-	1	1	-	-	-	-	1	-
Bone (unburnt)	indet. frags	-	-	-	-	1	1	1	-	-	-	-	-	-
Charcoal		1	-	4	2	1	2	3	1	1	-	2	1	1
Clinker / cinder		-	-	-	1	1	-	1	1	1	1	2	1	1
Coal		-	-	-	-	1	1	-	-	1	-	-	-	1
Coal shale		1	5	-	-	-	1	-	-	-	2	2	-	-
Insecta / Insect egg case		-	-	1	1	1	1	1	-	1	-	1	-	1
Roots (modern)		-	-	-	-	-	-	-	-	1	-	1	2	-
Seeds (uncharred)		1	-	2	1	2	1	2	1	2	1	2	1	2
Vegetative material (uncharred)		-	-	-	-	-	-	-	2	1	-	-	-	-
Charred remains (total number)														
(a) Raphanus raphanistrum (Wild Radish)	pod	-	-	-	-	-	-	-	-	-	-	-	-	1
(a) Thlaspi arvense (Field Penny-cress)	seed	-	-	-	-	-	-	1	-	-	-	-	-	-
(c) Avena spp (Oat species)	grain	-	-	-	-	1	-	-	-	-	-	-	-	-
(c) Cerealia indeterminate	grain	2	-	4	-	-	32	8	2	-	-	2	1	8
(c) Hordeum spp (Barley species)	grain	1	-	-	-	2	6	3	-	-	1	1	-	3
(c) Hordeum spp (Hulled Barley)	grain	-	-	-	-	1	-	-	-	-	-	-	-	-

Sample		**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
Context		**54**	**81**	**102**	**79**	**99**	**18**	**46**	**34**	**70**	**118**	**30**	**121**	**32**
Feature		**Ditch**	**Ditch**	**Pit**	**Ditch**	**Gully**	**Ditch**	**Ditch**	**Pit**	**Ditch**	**Ditch**	**Ditch**	**Ditch**	**Pit**
(c) Triticum spelta (Spelt Wheat)	glume base	1	-	-	-	-	-	-	-	-	-	1	-	-
(c) Triticum spelta or Triticum dicoccum (Spelt/Emmer Wheat)	spikelet fork	1	-	-	-	-	-	-	-	-	-	1	-	-
(c) Triticum spp (Wheat species)	grain	1	-	1	-	1	7	-	-	-	1	-	-	2
(g) Arrhenatherum elatius ssp bulbosum (False Oat-grass)	tuber	-	-	-	-	1	-	-	-	1	-	-	-	2
(r) Galium aparine (Cleavers)	seed	-	-	-	-	-	-	2	-	-	-	-	-	-
(r) Plantago lanceolata (Ribwort plantain)	seed	-	-	-	-	-	-	-	-	-	-	1	-	-
(t) Corylus avellana (Hazelnut)	nutshell fragment	-	-	-	-	-	1	-	-	-	-	-	-	-
(w) Carex spp (Sedges)	biconvex nutlet	-	-	-	-	-	1	-	-	-	-	-	-	-
(x) Poaceae undiff. <2mm (Grass family)	caryopsis	-	-	-	-	-	1	-	-	-	-	-	-	-
(x) Poaceae undiff. >2mm (Grass family)	caryopsis	8	-	-	-	-	6	-	-	-	-	-	-	1
(x) Vicia spp (Vetch)	seed	-	-	-	-	-	1	2	-	-	-	-	-	-