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i



West Fen Farm, March

Archaeological Evaluation Report

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Contents

List o	f Figures v
List o	f Platesv
Sumr	nary vii
Ackno	owledgementsviii
1	INTRODUCTION1
1.1	Scope of work1
1.2	Location, topography and geology1
1.3	Archaeological and historical background1
2	EVALUATION AIMS AND METHODOLOGY3
2.1	Aims
2.2	Methodology
3	RESULTS
3.1	Introduction and presentation of results4
3.2	General soils and ground conditions4
3.3	Bucket Sampling4
3.4	Metal Detecting
3.5	Trench 14
3.6	Trench 34
3.7	Trench 5
3.8	Trench 66
3.9	Trench 12
3.10	Trench 156
3.11	Trench 177
3.12	Trench 197
3.13	Finds summary7
4	DISCUSSION



4.1	Reliability of field investigation							
4.2	Interpretation							
4.3	Significance		.9					
APPI	ENDIX A	TRENCH DESCRIPTIONS AND CONTEXT INVENTORY	.0					
APPI	ENDIX B	FINDS REPORTS1	.6					
B.1	Ceramic Fir	nds	16					
APPI	ENDIX C	ENVIRONMENTAL REPORTS1	.7					
C.1	Environmental	Samples	17					
APPI	ENDIX D	BIBLIOGRAPHY 1	.9					
APPI	ENDIX E	OASIS REPORT FORM	20					



List of Figures

Fig. 1	Site location map
Fig. 2	Site Plan
Fig. 3	LiDAR image showing site and its position on the roddon
Fig. 4	Extract from "Map of Bedford Levels", S. Wells 1929, with approximate site
	location (after Wooler, 2012)
Fig. 5	Extract from 1st Edition Ordnance Survey Map 1885, with site plan overlaid
	(based on mapping data provided by Cambridgeshire County Council)
Fig. 6	Extract from 2nd Edition Ordnance Survey Map 1901, with site plan overlaid
	(based on mapping data provided by Cambridgeshire County Council)
Fig. 7	Extract from 3rd Edition Ordnance Survey Map 1926, with site plan overlaid
	(based on mapping data provided by Cambridgeshire County Council)
Fig. 8	Selected Sections

List of Plates

- Plate 1 Trench 3, looking north
- Plate 2 Trench 6, looking south
- Plate 3 Trench 12, looking east
- Plate 4 Trench 17, looking west
- Plate 5 Ditches 27 and 31, looking west (Trench 6)
- Plate 6 Ditch **48**, looking west (Trench 17)



Summary

Between the 14th and 19th of January 2019, Oxford Archaeology East (OA East) undertook a trial trench evaluation at West Fen Farm, Whitemoor Road, March, Cambridgeshire (TL 5365 2983) on behalf of RKE Biogroup. A total of 19 trenches, each 30 metres long, were opened.

The site lies directly on top of a roddon, thought to be an old channel of the river Nene. The evaluation revealed a series of natural creeks/water channels cut into the surface of the roddon. Additionally, three field boundary ditches, all probably dating to the late 19th or early 20th century, were revealed on an east to west alignment. A single fragment of animal bone and fragments of three iron horseshoes were recovered from these boundary ditches, while a small assemblage of pottery was recovered from the topsoil.



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The project was managed for Oxford Archaeology by Aileen Connor. The fieldwork was directed by the author, who was supported by James Green and Rebecca Pridmore. Survey and digitizing was carried out by Katie Hutton. Thank you to the teams of OA staff that cleaned and packaged the finds under the management of Natasha Dodwell, processed the environmental remains under the management of Rachael Fosberry, and prepared the archive under the supervision of Katherine Hamilton.



1 INTRODUCTION

1.1 Scope of work

- 1.1.1 Oxford Archaeology (OA) was commissioned by RKE Biogroup to undertake a trial trench evaluation at the site of West Fen Farm, March (Fig. 1).
- 1.1.2 The proposed development is for the construction of a bio fertiliser anaerobic digestion plant on land c6 hectares in area.
- 1.1.3 The work was undertaken as a condition of Planning Permission (planning ref. F/2001/18/CW). A brief was set by Kasia Gdnaniec outlining the Local Authority's requirements for work necessary to inform the planning process (Gdnaniec, 2018). A written scheme of investigation was produced by OA detailing the methods by which OA proposed to meet the requirements of the brief (Drummond-Murray, 2018).

1.2 Location, topography and geology

- 1.2.1 The site lies within Fenland, on the northern tip of a large, partly drowned peninsula between two embayments. The Fens cover a large area of land that drains towards the Wash. Fenland comprises very low lying land, much of it lying below sea level. Until the 17th century, most of the Fens lay beneath water, although some drainage had been attempted, this was sporadic and localized. In the 17th century, large scale drainage began to change to landscape on a large scale, allowing former wetlands to be used for summer grazing, and later for intensive arable agriculture. Drainage has continued and now, most of Fenland is used for agriculture.
- 1.2.2 The underlying drift geology is characterised by peat deposits, and clay deposits derived from successive marine inundations of the region during the middle to later Holocene. The specific area of the development is located on the surface of a roddon. Roddons are the sinuous linear remains of former watercourses. Over time the rivers silted up with layers of silts, sands and clays, creating sinuous linear outcrops of harder sandy material contrasting with the surrounding softer clay and peat deposits. (http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html) (Accessed 23rd January 2019)

1.3 Archaeological and historical background

- 1.3.1 A brief summary of the archaeological and historical background is provided here with reference to the Cambridgeshire Historic Environment Record (CHER) which lists all known sites, monuments, finds and events for the county. Information is also drawn from a Desk-Based Assessment that was prepared for the site (Wooler, 2012).
- 1.3.2 A geoarchaeological assessment of the site was undertaken by Wardell Armstrong Ltd (O'Meara, 2012). The assessment comprised a walk-over and hand auger survey that identified that the site is located on the sandy remains of an estuarine roddon. A geotechnical ground investigation was carried out in 2014 (Discovery CE Ltd, 2014) and whilst not of direct relevance to the archaeological assessment of the site, the bore hole logs provide descriptions and depths of deposits encountered across the site. There has been no other work in the immediate vicinity of the site.



- 1.3.3 Only a few known heritage assets lie within a 1km distance of the site.
- 1.3.4 Approximately 1km to the north of the site is the projected course of The Fen Causeway Roman road (CB15033). Cropmarks showing a Roman canal and associated ditch crossed by the Fen Causeway lie to the north of the site (HER 08891).
- 1.3.5 The Twenty Foot River runs just to the north of the Fen Causeway. It is one of a number of artificial watercourses that form the Middle Level Navigations between the Rivers Nene and Great Ouse. Originally built for drainage they form a network of navigable waterways.
- 1.3.6 Undated cropmarks (HER 03921) showing enclosures and a linear feature lie to the north- west of the site and south of Rookery Farm. Field walking over the site, however, has produced no artefacts.
- 1.3.7 The remains of post-medieval farms and a house lie to the north and south of the site (MCB 24678, 24679 and 21331).



2 EVALUATION AIMS AND METHODOLOGY

2.1 Aims

- 2.1.1 The project aims and objectives were as follows:
 - i. To establish the character, date, state of preservation of archaeological remains within the proposed development area.
 - ii. Particular study of the presence/absence of palaeosoils and old land surface soils/deposits, the character of deposits and their contents within negative features and any palaeochannels

2.2 Methodology

- 2.2.1 The methodology follows that set out in the WSI (Drummond-Murray, 2018).
- 2.2.2 Initially, a total of 18 trenches measuring 2x30m were excavated, equating to approximately 3% of the development area were excavated. An additional trench was opened in addition following consultation with the Cambridgeshire Historic Environment Team (CHET) (Fig. 2). The trenches were excavated using a mechanical excavator with a toothless ditching bucket, under the supervision of a suitably qualified and experienced archaeologist.
- 2.2.3 The trenches were excavated in 0.1m spits down to the depth of the geological horizon/upper interface of any archaeological features or deposits.
- 2.2.4 Spoil was stored alongside the sides of the trenches, with topsoil and subsoil being separated to allow for sequential backfilling. Trenches were only backfilled after approval from the CHET.
- 2.2.5 The tops of archaeological deposits were first cleaned by machine, and then by hand. All excavation of features was done by hand.
- 2.2.6 Metal detecting was carried out after the overburden had been removed and throughout the excavation.
- 2.2.7 Surveying was done using a survey-grade differential GPS (Leica CS10/GS08) fitted with "smartnet" technology with an accuracy of 5mm horizontal and 10mm vertical.
- 2.2.8 Where appropriate, feature sections were drawn at 1:20 or 1:10 scale and trench plans at 1:50 scale. All drawings included the following information: site name, site code, scale, plan or section number, context or feature numbers, orientation, date and the name of the archaeologist who prepared the drawings.
- 2.2.9 The photographic record comprises of high resolution digital photographs.
- 2.2.10 Registers of all contexts, trenches, drawings and photographs was kept.
- 2.2.11 All archaeological features and deposits were issued unique context numbers and documented on context sheets.



3 RESULTS

3.1 Introduction and presentation of results

3.1.1 The results of the evaluation are presented below, and include a stratigraphic description of the trenches which contained archaeological remains or natural features. The full details of all trenches with dimensions and depths of all deposits form the content of Appendix A. Finds reports have been collated in Appendix B, and environmental reports collated in Appendix C.

3.2 General soils and ground conditions

- 3.2.1 The soil sequence between all trenches was fairly uniform. The natural geology of silt sand (the uppermost deposit of the roddon) was overlain by a clay silt, peaty deposit, which in turn was overlain by topsoil/plough soil.
- 3.2.2 Ground conditions throughout the evaluation were generally good, and the trenches remained dry throughout. Archaeological features, where present, were easy to identify against the underlying natural geology.

3.3 Bucket Sampling

3.3.1 Bucket sampling of 90 litres of soil was undertaken in all the trenches and hand sorted for retrieval of artefacts. A small assemblage of post medieval pottery and clay pipe fragments was recovered from the topsoil of trenches 1, 3 and 7 (Appendix B.1), all post medieval in date and likely representing a 18th-19th century background scatter, perhaps deriving from manuring/rubbish disposal.

3.4 Metal Detecting

3.4.1 Metal detecting was undertaken over the spoil heaps and over the features in the trenches. No artefacts were recovered during the metal detecting survey.

3.5 Trench 1

- 3.5.1 Trench 1 contained two features, both small natural creeks/water channels on the surface of the roddon (**3** and **5**; Fig. 2).
- 3.5.2 Feature 3 was linear in plan measuring 0.34m wide and 0.06m in depth, on a north to south alignment, with gentle sloping sides that gradually break into a concave base. Feature 3 was filled solely by deposit (4); a mottled light orange grey, silt sand. No finds were recovered from this feature.
- 3.5.3 Feature **5** was sub-circular in plan measuring 1.68m in length, 0.42m wide and 0.2m deep, with steep sides that broke onto a concave base. Feature **5** was filled by a single deposit of mottled light orange grey, silt sand (6). No finds were recovered from this feature.

3.6 Trench **3**

3.6.1 Trench 3 contained a series of natural creeks/water channels cut into the roddon surface (9, 12, 14, 16, 18 and 34; Fig. 2; Plate 1). With the exception of one feature (34), all the features were identified in the same one metre slot. Features 9, 12 and



14 were identified in the west facing section (Fig. 8, Section 2), and features **16** and **18** were identified in the east facing section. No finds were recovered from any of the features.

- 3.6.2 Feature **12** was linear in plan, on an east to west alignment, and measured 0.6m wide and 0.18m in depth. Both sides of this feature were truncated by later features, leaving only a flat base. The creek/water channel was filed solely by a mottled mid grey brown silt sand (13).
- 3.6.3 Creek/water channel **9**, which truncated feature **12** on its northern side, was linear in plan, on an east to west alignment, and measured 1.12m wide and 0.38m in depth, with gently sloping sides that broke gradually onto a concave base. This feature was filled by a single deposit of mottled orange grey silt sand (10). An environmental sample of this fill yielded foraminifera and ostracods indicative of an aquatic (marine/intertidal) environment (Sample no. 3, see Appendix C).
- 3.6.4 Cutting feature **12** on its southern side, and also cutting the fill of feature **9**, was creek/water channel **14**, an east to west aligned linear feature, measuring 1.6m wide and 0.52m in depth, with sloping sides and a concave base. The feature was filled by a mottled orange grey silt sand (15). Sampling of this fill also produced foraminifera and ostracods indicative of a marine/intertidal environment (Sample no. 4, see Appendix C).
- 3.6.5 Creek/water channel **16** was linear in plan, on an east to west alignment, measuring 0.66m wide and 0.46m in depth, with steeply sloping sides and a concave base. It was filled by a single deposit (17), a mottled light orange brown silt sand.
- 3.6.6 Cutting **16**, to the south, was feature **18**, a linear feature on an east to west alignment, measuring 1.5m wide and 0.52m in depth, with steep sides that broke sharply onto a concave base. This feature was filled solely by a mottled mid orange brown silt sand (19).
- 3.6.7 All of these intercutting features were overlain and sealed by a layer of mid grey clay silt, measuring up to 0.26m in thickness (layer 11; see Fig. 8, Section 2).
- 3.6.8 Approximately five metres to the north of these features, was a further narrow creek/water channel (**34**), which was linear in plan, on a northwest to southeast alignment. It measured 0.5m wide and 0.19m in depth, with gently sloping sides that gradually broke onto a concave base. Creek/water channel **34** was filled by a single deposit of mottled mid orange brown silt sand (35).

3.7 Trench 5

3.7.1 Trench 5 contained a single natural creek/water channel (7; Fig. 2). This linear feature was on a northeast to southwest alignment, and measured 1.22m wide and 0.58m in depth, with gentle sloping sides and a concave base. Creek/water channel 7 was filled solely a mottled mid grey brown silt sand (8). No finds were recovered from this feature.



3.8 Trench 6

- 3.8.1 Trench 6 contained a pair of parallel ditches (27 and 31), and a single natural creek/water channel (37) (Fig. 2; Plates 2 and 5).
- 3.8.2 Ditch 27 was linear in plan, on an east to west alignment, measuring 1.36m wide and 0.4m in depth, with steep sides and a flat base. The ditch was filled by four deposits (36, 28, 29 and 30). The basal fill (36) was a mid grey yellow silt sand, measuring 0.08m thick. This was in turn overlain by a dark brown clay silt, measuring 0.08m thick (28). Fill (29) overlay 28 and was a mid yellow brown silt sand, measuring 0.3m thick. The uppermost fill was a dark grey brown clay silt, measuring 0.38m thick (30). No finds were recovered from this feature. An environmental sample of deposit 28 produced untransformed seeds of water-crowfoot indicating that the feature had held standing water alongside foraminifera and ostracods perhaps originating from the roddon deposits, and charred seeds (including black bindweed and mustard/cabbage) (Sample no. 2, see Appendix C).
- 3.8.3 Located 0.89m south of **27**, was ditch **31**, also linear in plan and sharing the same east to west alignment. It measured 1.57m wide and 0.39m in depth, with gentle sloping sides and a concave base. The ditch was filled by two deposits (32 and 33). The basal fill was a light grey brown clay silt, measuring 0.09m thick (32). This deposit contained a single fragment of animal bone (0.006kg), as well as two heavily corroded iron artefacts subsequently identified as horseshoes (SF1 and SF2). The upper fill (33) was a mid grey yellow silt sand, measuring 0.32m thick, and contained no finds. A sample of basal fill 32 yielded similar remains to that of the fill of ditch 27 (see above; Sample no. 3, Appendix C).
- 3.8.4 Located approximately 6.2m north of 27, was creek/water channel 37, a linear feature on a northwest to southeast alignment, measuring 1.56m wide and 0.29m in depth, with gently sloping sides and a concave base. The feature was filled by two deposits (38 and 39). The basal deposit (38) was a mottled mid grey brown clay silt, measuring 0.14m thick. The upper fill (39) was a mottled mid brown grey silt clay, measuring 0.15m thick. Neither fill contained any finds.

3.9 Trench 12

3.9.1 Trench 12 contained a single natural creek/water channel (**40=42=44**; Fig. 2, Plate 3), a broadly linear feature on a northwest to southeast alignment, with moderately steeply sloping sides and a concave base. This feature was exposed for a length of approximately 20m and measured up to 0.41 to 0.75m wide and 0.07 to 0.26m in depth, becoming narrower and shallower to the southeast. It was filled by a single deposit (41=43=45), a mottled light yellow grey silt sand. This feature contained no finds.

3.10 Trench 15

3.10.1 Trench 15 contained a single natural creek/water channel (**46**; Fig. 2). This east to west aligned linear feature measured 0.83m wide and 0.26m in depth, with sloping sides and a concave base. The feature was filled solely by a mottled light yellow grey silt sand (47). No finds were recovered from this feature.



3.11 Trench 17

3.11.1 Trench 17 exposed a single linear ditch (**48**; Fig. 2; Fig. 8, Section 10; Plates 4 and 6) on an east to west alignment. It measured 1.8m wide and 0.58m in depth, with sloping sides that gradually broke onto a flat base. The ditch was filled by a single deposit of dark grey brown clay silt (49). This feature contained no finds.

3.12 Trench 19

- 3.12.1 Trench 19 contained a single unexcavated natural creek/water channel and two parallel ditches (**50** and **53**; Fig. 2; Fig. 8, Section 11), representing the continuation of the pair of ditches revealed in Trench 6 (see above).
- 3.12.2 Ditch **50** was linear in plan, on an east to west alignment. It measured up to 1.46m wide and 0.51m in depth, with sloping sides that gradually broke onto a flat base. The ditch was filled by two deposits (51 and 52). The lower fill (51) was a dark grey, clay silt, measuring 0.16m thick. The upper fill (52) was a light brown yellow sand silt, measuring 0.36m thick. No finds were recovered from this feature.
- 3.12.3 Ditch 53 was linear in plan, on an east to west alignment, and was located 0.67m north of ditch 50. The ditch measured 1.74m wide and 0.5m in depth, with sloping sides that broke gradually onto a flat base. The ditch was filled by two deposits (54 and 55). The lower fill (54) was a dark grey clay silt, measuring 0.18m thick. The upper fill (55) was a dark brown grey clay silt, measuring 0.36m thick. A single iron horseshoe (SF3) was recovered from fill 55.

3.13 Finds summary

- 3.13.1 A single fragment of animal bone (0.006kg) was recovered from context (32). The fragment is a sheep/goat ulna. The bone is in good condition, yet is fragmentary as missing the olecranon process (Hayley Foster pers comm).
- 3.13.2 Three metal artefacts were recovered from site. Two iron objects (SF1 and SF2) from context 32 of the southern of the two parallel ditches in Trench 6 were submitted for X-raying, which demonstrated that both are horseshoes. SF3 from context 55 of the northern of the two parallel ditches in Trench 19 is also a horseshoe fragment.
- 3.13.3 A total of 0.049kg of ceramics (pot, clay pipe and CBM) was recovered from the topsoil, all dating to the post medieval period.



4 **DISCUSSION**

4.1 Reliability of field investigation

- 4.1.1 Archaeological features were clearly distinguishable against the sand geology of the roddon surface. The creeks/water channels that were also present on the roddon surface were also easily distinguishable by their grey silt fills against the sand geology of the roddon surface.
- 4.1.2 The absence of rain, and good ground conditions ensured that standing water did not hinder the archaeological investigation.
- 4.1.3 For the above reasons, the results of this evaluation are believed to be reliable.

4.2 Interpretation

- 4.2.1 The site was situated directly over a large roddon to the west of March (Fig. 3). Roddons are old water channels that have been blocked or silted up, and form areas of firm raised land. These areas became good places for settlement amidst the wet, unstable peat fens of the region. The roddon on which the site is located is thought to be an old channel of the river Nene (Hall, 1987, p38)
- 4.2.2 Only three ditches were found during the evaluation trenching; the majority of features excavated were natural creeks/water channels cut into the top of the roddon. These creeks/water channels are likely to represent small natural drainage channels that developed across the silted up roddon when the land was covered by peat and became wet fenland. The roddon had silted up by the time of the Iron Age (Hall, 1987, p40), meaning that these channels could date to any time from the Bronze Age up to when the fens were drained in the 17th century. The presence of ostracods and foraminifera from the environmental samples indicates marine water incursion in the landscape; not surprising given the sea level changes that have impacted the fenland landscape through the centuries.
- 4.2.3 The pair of parallel ditches (**27** and **31**) (Plate 5) that were seen in Trenches 6 and 19, were initially thought to potentially relate to a trackway that is shown on an 1829 map (Fig. 4) as 'Ireton's Way', Henry Ireton being a key figure on the Parliamentarian side of the English Civil War (1642-1651). However as shown in Fig. 4, the ditches actually lie some way south of the mapped course of Ireton's Way, which appears to follow the same line as the Roman Fen Causeway this suggest the possibility that Ireton's Way may have been an old name for the Fen Causeway, and not a separate road dating to the civil war period. In any case, the distance between the two ditches is far too small (less than a metre) for them to have formed a functional trackway.
- 4.2.4 It is more likely that these ditches are 20th century field boundaries. Further examination of historic maps shows that there is no boundary equating to these ditches marked on the first or second edition Ordnance Survey (OS) maps (1885 and 1901 respectively: Figs 5 and 6), but that the third edition map (1926) does show a boundary which closely corresponds to these ditches (Fig. 7).
- 4.2.5 Ditch **48** in Trench 17 also appears to be field boundary, and while it does not appear on the first edition (1885) OS map (Fig. 5), a field boundary on the same alignment and



in roughly the same location (not exactly, possibly due to the inaccuracies of historic maps) does appear on the second edition map (1901; Fig. 6), indicating that the boundary was probably established sometime in the late 19th century. The same boundary is also observed on the third edition OS map (1926; Fig. 7). These field boundaries were presumably backfilled sometime in the later 20th century to establish the current field boundaries.

4.3 Significance

- 4.3.1 The evaluation revealed evidence of natural creeks/water channels in the surface of the roddon, likely representing natural drainage channels from when the roddon was covered in peat and wet fenland at the end of the Bronze Age up to the drainage of the fens in the 17th century.
- 4.3.2 A series of east to west aligned boundary ditches were also revealed, however based on historic maps it is likely these boundaries date to the 20th century and have limited archaeological significance.



APPENDIX A TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

Trench 1									
General o	descriptio	Orientation	E-W						
Trench re	evealed ty	wo natur	al creeks	s/water channels. Consists of	Length (m)	30			
topsoil ar	nd subsoil	overlying	natural g	geology of silty sand.	Width (m)	2			
					Avg. depth (m)	0.39			
Context	Туре	Width	Depth	Description	Finds	Date			
No.		(m)	(m)						
1	Layer	-	0.42	Topsoil	Pot and CBM	p-med			
2	Layer	-	0.03	Subsoil	-	-			
3	Cut	0.34	0.06	Natural creek/water channel	-	-			
4	Fill	-	0.06	Fill of 3	-	-			
5	Cut	1.68	0.42	Natural creek/water channel	-	-			
6	Fill	-	0.42	Fill of 5	-	-			

Trench 2									
General o	descriptio	n	Orientation	N-S					
Trench d	evoid of	Length (m)	30						
overlying	natural g	eology of	silty sand	d.	Width (m)	2			
					Avg. depth (m)	0.54			
Context	Туре	Width	Depth	Description	Finds	Date			
No.		(m)	(m)						
1	Layer	-	0.44	Topsoil	-	-			
2	Layer	-	0.2	Subsoil	-	-			

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Trench 3							
General o	descriptio	n	Orientation	N-S			
Trench re	vealed a s	series of I	natural cr	eeks/water channels. Consists	Length (m)	30	
of topsoil	overlying	natural g	geology o	f silty sand.	Width (m)	2	
					Avg. depth (m)	0.34	
Context	Туре	Width	Depth	Description	Finds	Date	
No.		(m)	(m)				
1	Layer	-	0.37	Topsoil	Pot	p-med	
9	Cut	1.12	0.38	Natural	-	-	
10	Fill	-	0.38	Fill of 9	-	-	
11	Layer	1.68	0.26	Layer	-	-	
12	Cut	0.6	0.18	Natural creek/water channel	-	-	
13	Fill	-	0.18	Fill of 12	-	-	
14	Cut	1.6	0.52	Natural creek/water channel	-	-	
15	Fill	-	0.52	Fill of 14	-	-	
16	Cut	0.66	0.46	Natural creek/water channel	-	-	
17	Fill	-	0.46	Fill of 16	-	-	
18	Cut	1.5	0.52	Natural creek/water channel	-	-	
19	Fill	-	0.52	Fill of 18	-	-	
34	Cut	0.5	0.19	Natural creek/water channel	-	-	
35	Fill	-	0.19	Fill of 34	-	-	

Trench 4								
General of	descriptio	n	Orientation	E-W				
Trench d	evoid of a	archaeolc	Length (m)	30				
natural g	eology of s	silty sand			Width (m)	2		
			Avg. depth (m)	0.33				
Context	Туре	Width	Depth	Description	Finds	Date		
No.		(m)	(m)					
1	Layer	-	0.35	Topsoil	-	-		

Trench 5								
General of	descriptio	Orientation	E-W					
Trench re	evealed a	single na	itural cre	ek/water channel. Consists of	Length (m)	30		
topsoil ar	nd subsoil	overlying	natural g	geology of silty sand.	Width (m)	2		
					Avg. depth (m)	0.49		
Context	Туре	Width	Depth	Description	Finds	Date		
No.		(m)	(m)					
1	Layer	-	0.49	Topsoil	-	-		
2	Layer	-	0.1	Subsoil	-	-		
7	Cut	1.22	0.58	Natural creek/water channel	-	-		
8	Fill	-	0.58	Fill of 7	-	-		



Trench 6								
General o	descriptio	Orientation	N-S					
Trench re	evealed tv	vo parall	el east to	o west aligned ditches, and a	Length (m)	30		
single nat	tural creel	k/water d	channel.	Consists of topsoil and subsoil	Width (m)	2		
overlying	natural ge	eology of	silty sand	d.	Avg. depth (m)	0.55		
Context	Туре	Width	Depth	Description	Finds	Date		
No.		(m)	(m)					
1	Layer	-	0.44	Topsoil	-	-		
2	Layer	-	0.15	Subsoil	-	-		
27	Cut	1.36	0.4	Cut of Ditch	-	-		
28	Fill	-	0.08	Fill of 27	-	-		
29	Fill	-	0.3	Fill of 27	-	-		
30	Fill	-	0.38	Fill of 27	-	-		
31	Cut	1.57	0.39	Cut of Ditch	-	-		
32	Fill	-	0.09	Fill of 31	Animal Bone,	-		
					SF1, SF2			
33	Fill	-	0.32	Fill of 31	-	-		
36	Fill	-	0.08	Fill of 27	-	-		
37	Cut	1.56	0.29	Natural creek/water channel	-	-		
38	Fill	-	0.14	Fill of 37	-	-		
39	Fill	-	0.15	Fill of 37	-	-		

Trench 7								
General o	descriptio	n	Orientation	E-W				
Trench de	evoid of a	rchaeolog	Length (m)	30				
geology c	of silty san	d.	Width (m)	2				
					Avg. depth (m)	0.44		
Context	Туре	Width	Depth	Description	Finds	Date		
No.		(m)	(m)					
1	Layer	-	0.46	Topsoil	Pot and clay pipe	p-med		

Trench 8								
General of	descriptio	Orientation	N-S					
Trench de	evoid of ar	Length (m)	30					
geology c	of silty san	d.	Width (m)	2				
			Avg. depth (m)	0.40				
Context	Туре	Width	Depth	Description	Finds	Date		
No.		(m)	(m)					
1	Layer	-	0.4	Topsoil	-	-		



Trench 9								
General o	descriptio	n			Orientation	N-S		
Trench de	evoid of ar	chaeolog	y. Consis	ts of topsoil overlying natural	Length (m)	30		
geology c	of silty san	d.			Width (m)	2		
					Avg. depth (m)	0.45		
Context	Туре	Width	Depth	Description	Finds	Date		
No.		(m)	(m)					
1	Layer	-	0.49	Topsoil	-	-		

Trench 10								
General o	descriptio	n	Orientation	E-W				
Trench de	evoid of ar	chaeolog	Length (m) 30					
geology c	of silty san	d.	Width (m) 2					
					Avg. depth (m)	0.45		
Context	Туре	Width	Depth	Description	Finds	Date		
No.		(m)	(m)					
1	Layer	-	0.51	Topsoil	-	-		

Trench 11							
General description					Orientation E-W		
Trench d	evoid of	archaeol	ogy. Con	sists of topsoil and subsoil	Length (m) 30		
overlying	natural g	eology of	silty sand	d.	Width (m)	2	
					Avg. depth (m)	0.43	
Context	Туре	Width	Depth	Description	Finds	Date	
No.		(m)	(m)				
1	Layer	-	0.48	Topsoil	-	-	

Trench 12								
General o	descriptio	Orientation	E-W					
Trench r	evealed a	single ı	natural c	reek/water channel, through	Length (m)	30		
which th	ree slots v	were exc	avated. (Consists of topsoil and subsoil	Width (m)	2		
overlying	natural ge	eology of	silty sand	d.	Avg. depth (m)	0.42		
Context	Туре	Width	Depth	Description	Finds	Date		
No.		(m)	(m)					
1	Layer	-	0.38	Topsoil	-	-		
2	Layer	-	0.15	Subsoil	-	-		
40	Cut	0.75	0.25	Natural creek/water channel	-	-		
41	Fill	-	0.25	Fill of 40	-	-		
42	Cut	0.56	0.26	Natural creek/water channel	-	-		
43	Fill	-	0.26	Fill of 42	-	-		
44	Cut	0.41	0.07	Natural creek/water channel	-	-		
45	Fill	-	0.07	Fill of 44	-	-		



Trench 13								
General of	descriptio	n			Orientation	N-S		
Trench d	evoid of	archaeol	ogy. Con	sists of topsoil and subsoil	Length (m)	30		
overlying	natural g	eology of	silty sand	d.	Width (m)	2		
					Avg. depth (m)	0.42		
Context	Туре	Width	Depth	Description	Finds	Date		
No.		(m)	(m)					
1	Layer	-	0.41	Topsoil	-	-		
2	Layer	-	0.09	Subsoil	-	-		

Trench 14								
General o	lescriptio	n	Orientation	E-W				
Trench de	evoid of ar	chaeolog	Length (m) 30					
geology o	of silty san	d.	Width (m) 2					
					Avg. depth (m)	0.42		
Context	Туре	Width	Depth	Description	Finds	Date		
No.		(m)	(m)					
1	Layer	-	0.46	Topsoil	-	-		

Trench 15								
General o	descriptio	Orientation	N-S					
Trench re	evealed a	single na	tural cre	ek/water channel. Consists of	Length (m)	30		
topsoil ov	erlying na	atural geo	logy of s	ilty sand.	Width (m)	2		
		Avg. depth (m)	0.48					
Context	Туре	Width	Depth	Description	Finds	Date		
No.		(m)	(m)					
1	Layer	-	0.51	Topsoil	-	-		
46	Cut	0.83	0.26	Natural creek/water channel	-	-		
47	Fill	-	0.26	Fill of 46	-	-		

Trench 16							
General of	descriptio	n	Orientation E-W				
Trench de	evoid of ar	chaeolog	Length (m) 30				
geology c	of silty san	d.	Width (m) 2				
					Avg. depth (m)	0.39	
Context	Туре	Width	Depth	Description	Finds	Date	
No.		(m)	(m)				
1	Layer	-	0.47	Topsoil	-	-	



Trench 17								
General o	descriptio	n			Orientation	E-W		
Trench re	evealed a	single ea	ist to we	est aligned ditch. Consists of	Length (m)	30		
topsoil ar	nd subsoil	overlying	natural g	geology of silty sand.	Width (m)	2		
					Avg. depth (m)	0.53		
Context	Туре	Width	Depth	Description	Finds	Date		
No.		(m)	(m)					
1	Layer	-	0.48	Topsoil	-	-		
2	Layer	-	0.18	Subsoil	-	-		
48	Cut	1.8	0.58	Cut of Ditch	-	-		
49	Fill	-	0.58	Fill of 48	-	-		

Trench 18								
General of	descriptio	n	Orientation	SE-NW				
Trench de	evoid of ar	chaeolog	Length (m)	30				
geology c	of silty san	d.		Width (m)	2			
					Avg. depth (m)	0.49		
Context	Туре	Width	Depth	Description	Finds	Date		
No.		(m)	(m)					
1	Layer	-	0.54	Topsoil	-	-		

Trench 19								
General o	descriptio	n	Orientation	N-S				
Trench re	evealed tv	vo paralle	el east to	west aligned ditches and a	Length (m)	30		
natural c	reek/wate	er chann	el (unexo	avated). Consists of topsoil	Width (m)	2		
and subso	oil overlyiı	ng natura	l geology	of silty sand.	Avg. depth (m)	0.46		
Context	Туре	Width	Depth	Description	Finds	Date		
No.		(m)	(m)					
1	Layer	-	0.37	Topsoil	-	-		
2	Layer	-	0.11	Subsoil	-	-		
50	Cut	1.46	0.51	Cut of Ditch	-	-		
51	Fill	-	0.16	Fill of 50	-	-		
52	Fill	-	0.36	Fill of 50	-	-		
53	Cut	1.74	0.5	Cut of Ditch	-	-		
54	Fill	-	0.18	Fill of 53	-	-		
55	Fill	-	0.36	Fill of 53	SF3	-		



APPENDIX B FINDS REPORTS

B.1 Ceramic Finds

By Carole Fletcher

Introduction and Methodology

B.1.1 Archaeological works produced a small assemblage of ceramic finds, recovered from topsoil deposits in Trenches 1, 3 and 7. The finds were weighed and rapidly recorded, with description and weight recorded in the table below. The assemblage and archive are curated by Oxford Archaeology East until formal deposition or dispersal.

Trench	Context	Feature	Fabric and description	Count	Weight (kg)	Date
1	1	Topsoil	Post-medieval Redware, abraded, unglazed rim sherd	1	0.006	c.1550-1800
			Moderately abraded body sherd from a Yellow ware vessel	1	0.007	<i>c</i> .1820-1900
			Sub-rectangular fragment of flat tile in a hard- fired pink, pale yellow and red swirled fabric	1	0.015	Post-medieval
3	1	Topsoil	Post-medieval Redware, abraded, unglazed rim sherd	1	0.007	c.1550-1800
7	1	Topsoil	Moderately abraded clay tobacco pipe stem. 37mm long, slightly oval, 7.1 x 7.6mm	1	0.003	Mid-late 16th century onwards
			Abraded, undecorated, Pearlware ?rim sherd	1	0.003	c.1770-1850
			Abraded, undecorated, Pearlware base sherd with foot ring	1	0.002	c.1770-1850
			Moderately abraded body sherd from a late slipped kitchenware (cream slip with iron- mottled decoration) bowl	1	0.006	<i>c</i> .1800+

5 Table 1: Quantification

Retention, dispersal or display

B.1.2 The total assemblage is fragmentary, and no trench produced ceramic finds from features. Overall, the assemblage produced small fragments of mostly 18th-19th century pottery, undiagnostic clay pipe stem and flat tile. The ceramic assemblage represents background noise from 18th-19th century rubbish disposal, most likely redistributed by ploughing. This statement acts as a full record and the finds may be dispersed prior to archive deposition.



APPENDIX C ENVIRONMENTAL REPORTS

C.1 Environmental Samples

By Rachel Fosberry

Introduction

C.1.1 Four bulk samples were taken from features within the evaluated area at West Fen Farm, March, Cambridgeshire to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations. Samples were taken from undated ditches and natural creeks/water channels encountered within Trenches 3 and 6.

Methodology

- C.1.2 The total volume (up to 16L) of each of the samples was processed by tank flotation using modified Siraff-type equipment for the recovery of preserved plant remains, dating evidence and any other artefactual evidence that might be present. Samples from Trenches 1, 5 and 10 required soaking in sodium carbonate for 24 hours prior to processing. The floating component (flot) of the samples was collected in a 0.3mm nylon mesh and the residue was washed through 10mm, 5mm, 2mm and a 0.5mm sieve.
- C.1.3 The dried flots were scanned using a binocular microscope at magnifications up to x 60 and an abbreviated list of the recorded remains are presented in Table 1. Identification of plant remains is with reference to the Digital Seed Atlas of the Netherlands (Cappers et al. 2006) and the authors' own reference collection. Nomenclature is according to Stace (1997).

Quantification

C.1.4 For the purpose of this initial assessment, items have been scanned and recorded qualitatively according to the following categories:

= 1-5, ## = 6-25, ### = 26-100, #### = 100+ specimens

Results

C.1.5 Preservation of plant remains is sparse; carbonised seeds are present in both samples from ditches 27 and 31 in Trench 6 and include mustard/cabbage (*Brassica* sp.), black-bindweed (*Fallopia convolvulus*), orache (*Atriplex* sp.) and nipplewort (*Lapsana communis*). It is not clear if these seeds are contemporary with the deposits as both samples also contain numerous rootlets and it possible that these seeds are the result of stubble burning. Microcharcoal was noted in all of the samples. Untransformed seeds of water-crowfoot (*Ranunculus* subgenus *Batrachium*) are also present in the ditches contained water. This is further supported by the presence of foraminifera and



ostracods, both of which are aquatic organisms. Shells of wetland snails are frequent in Sample 1 but are absent from the other samples.

C.1.6 Foraminifera are present in both samples from Trench 3. Sample 2, fill 15 of creek **14** also contains ostracods and occasional untransformed seeds of rush (*Juncus* sp.) both of which are absent in Sample 3, fill 10 of creek **9**.

Sample No.	Context No.	Feature No.	Trench No.	Foraminifera	Ostracods	Molluscs	Untransformed seeds	Charred seeds	Micro-charcoal
1	32	31	6	##	###	###	##	#	#
2	28	27	6	###	##	0	#	#	#
3	10	9	3	#####	0	0	#	0	#
4	15	14	3	####	#	0	0	0	#

C.1.7 No finds were recovered from the sample residues.

Table 1: Environmental samples from MARWEF19

Discussion

- C.1.8 Preserved plant remains are scarce in the samples from this site which may indicate that the deposits have de-watered. The presence of mollusc shells, foraminifera and ostracods indicates that there is excellent potential for further study of these organisms. The diversity of mollusc species is low but at least four species of foraminifera and three species of ostracods were noted. Ostracods are aquatic bivalve crustaceans that are found in both freshwater and marine water whereas foraminifera are only found in marine environments. This indicates a marine incursion into this area.
- C.1.9 If further excavation is planned for this area, it is recommended that environmental sampling is carried out in accordance with Historic England guidelines (2011).



APPENDIX D BIBLIOGRAPHY

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OASIS REPORT FORM APPENDIX E

Project Details

OASIS Number	oxfordar3-340811
Project Name	West Fen Farm, March
-	

Start of Fieldwork 14 Previous Work N

4/01/19	End of Fieldwork	18/01/19
one	Future Work	None

Project Reference Codes

•			
Site Code	ECB5773	Planning App. No.	F/2001/18/CW
HER Number	ECB5773	Related Numbers	N/A

Prompt	NPPF
Development Type	Commercial/Industrial
Place in Planning Process	After full determination (eg. As a condition)

Techniques used (tick all that apply)

	Aerial Photography – interpretation		Grab-sampling		Remote Operated Vehicle Survey
	Aerial Photography - new		Gravity-core		Sample Trenches
	Annotated Sketch		Laser Scanning		Survey/Recording of Fabric/Structure
	Augering		Measured Survey	\boxtimes	Targeted Trenches
	Dendrochonological Survey	\boxtimes	Metal Detectors		Test Pits
	Documentary Search		Phosphate Survey		Topographic Survey
\boxtimes	Environmental Sampling		Photogrammetric Survey		Vibro-core
	Fieldwalking		Photographic Survey		Visual Inspection (Initial Site Visit)
	Geophysical Survey		Rectified Photography		

Monument	Period	Object	Period
Ditch	Post Medieval	Pottery	Post Medieval (1540 to
	(1540 to 1901)		1901)
Natural Feature	Uncertain	Metal work	Post Medieval (1540 to
			1901)
	Choose an item.	Animal Bone	Post Medieval (1540 to
			1901)

Insert more lines as appropriate.

Project Location

County	Cambridgeshire
District	Fenland
Parish	March
HER office	ССС
Size of Study Area	6ha
National Grid Ref	TL 5365 2983

Address (including Postcode)

West Fen Farm Whitemoor Road March Cambridgeshire PE15 OAF



Project Originators

Organisation	Oxford Archaeology East
Project Brief Originator	Kasia Gdaniec
Project Design Originator	James Drummond-Murray
Project Manager	Aileen Connor
Project Supervisor	Dan Firth

Project Archives

	Location	ID
Physical Archive (Finds)	CCC	ECB5773
Digital Archive	OAE	MARWEF19
Paper Archive	CCC	ECB5773

Physical Contents	Present?		Digital files associated with Finds	Paperwork associated w Finds	/ith
Animal Bones	\boxtimes		\boxtimes	\boxtimes	
Ceramics	\boxtimes		\boxtimes	\boxtimes	
Environmental					
Glass					
Human Remains					
Industrial					
Leather					
Metal	\boxtimes		\boxtimes	\boxtimes	
Stratigraphic					
Survey					
Textiles					
Wood					
Worked Bone					
Worked Stone/Lithic					
None					
Other					
Digital Media			Paper Media		
Database		\boxtimes	Aerial Photos		
GIS			Context Sheets		\boxtimes
Geophysics			Correspondence		
Images (Digital photos)		\boxtimes	Diary		
Illustrations (Figures/Plat	tes)	\boxtimes	Drawing		
Moving Image			Manuscript		
Spreadsheets			Мар		
Survey			Matrices		
Text		\boxtimes	Microfiche		
Virtual Reality			Miscellaneous		
			Research/Notes		
			Photos (negatives/prints)	/slides)	

Plans



Report	\boxtimes
Sections	\boxtimes
Survey	

v. 1

Further Comments





Figure 1: Site location showing archaeological trenches (black) in development area (red). Scale 1:10000





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Contains Environment Agency LiDAR data and OS data © Crown copyright and database right (2019) Figure 3: LiDAR image showing site and it's position on the rodden



Figure 4: Extract from 'Map of Bedford Levels', S. Wells 1929, with approximate site location (after Wooler 2012)

east east east

© Oxford Archaeology East





east

east

Figure 5: Extract from 1st Edition Ordnance Survey Map 1885, with site plan overlayed (based on mapping data provided by Cambridgeshire County Council)





east

east

Figure 6: Extract from 2nd Edition Ordnance Survey Map 1901, with site plan overlayed (based on mapping data provided by Cambridgeshire County Council)





east

east

Figure 7: Extract from 3rd Edition Ordnance Survey Map 1926, with site plan overlayed (based on mapping data provided by Cambridgeshire County Council)





Figure 8: Selected sections

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Plate 3: Trench 12, looking east



Plate 4: Trench 17, looking west





Plate 5: Ditches 27 and 31, looking west



Plate 6: Ditch 48, looking west









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