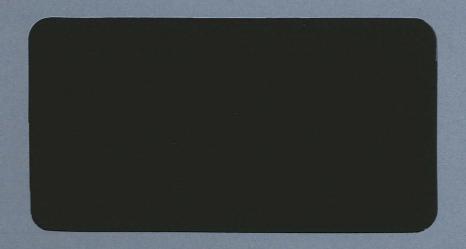
ARCHAEOLOGICAL WATCHING BRIEF REPORT LAND NORTH OF WARDENTREE LANE, PINCHBECK, LINCOLNSHIRE

Site code: WTL98 LCNCC Acc No: 188.98

NGR: TF 2522 2521 Planning Ref: H14/1183/97



0 4. NOV 98

Oute 4/11/98

Oute 4/11/98

Lincolnshire County Council Archaeology Section

Event W12866 Sowe 17558 Mon 482097 23716 LI 82 407 23732

ARCHAEOLOGICAL WATCHING BRIEF REPORT LAND NORTH OF WARDENTREE LANE, PINCHBECK, LINCOLNSHIRE

Site code: WTL98

LCNCC Acc No: 188.98

NGR:

TF 2522 2521

Planning Ref: H14/1183/97

Report prepared for Elsoms Seeds Ltd. by M Ridsdale and C Palmer-Brown November1998

Pre-Construct Archaeology (Lincoln) 61 High Street Newton on Trent Lincoln LN1 2JP Tel. & Fax. 01777 228155

Contents

1.0	Non-technical summery			
2.0	Introduction			
3.0	Planning background			
4.0	Location and description			
5.0	Geology and topography			
6.0	Archaeological and historical background			
7.0	Methodology			
8.0	Results 8.1 Horizontal stratigraphy 8.2 Archaeological remains 8.2.1 Ditches exposed within the new access road area 8.2.2 Ditches exposed within the new east-west drainage channel 8.2.3 Ditches exposed within the rising main area	4 4 5 5 7 7		
9.0	Summary and conclusion	10		
10.0	Acknowledgements	11		
11.0	References			
12.0	Appendices			

Appendix 1: List of relevant entries in the County Sites and Monuments Record

Appendix 2: Colour photographs

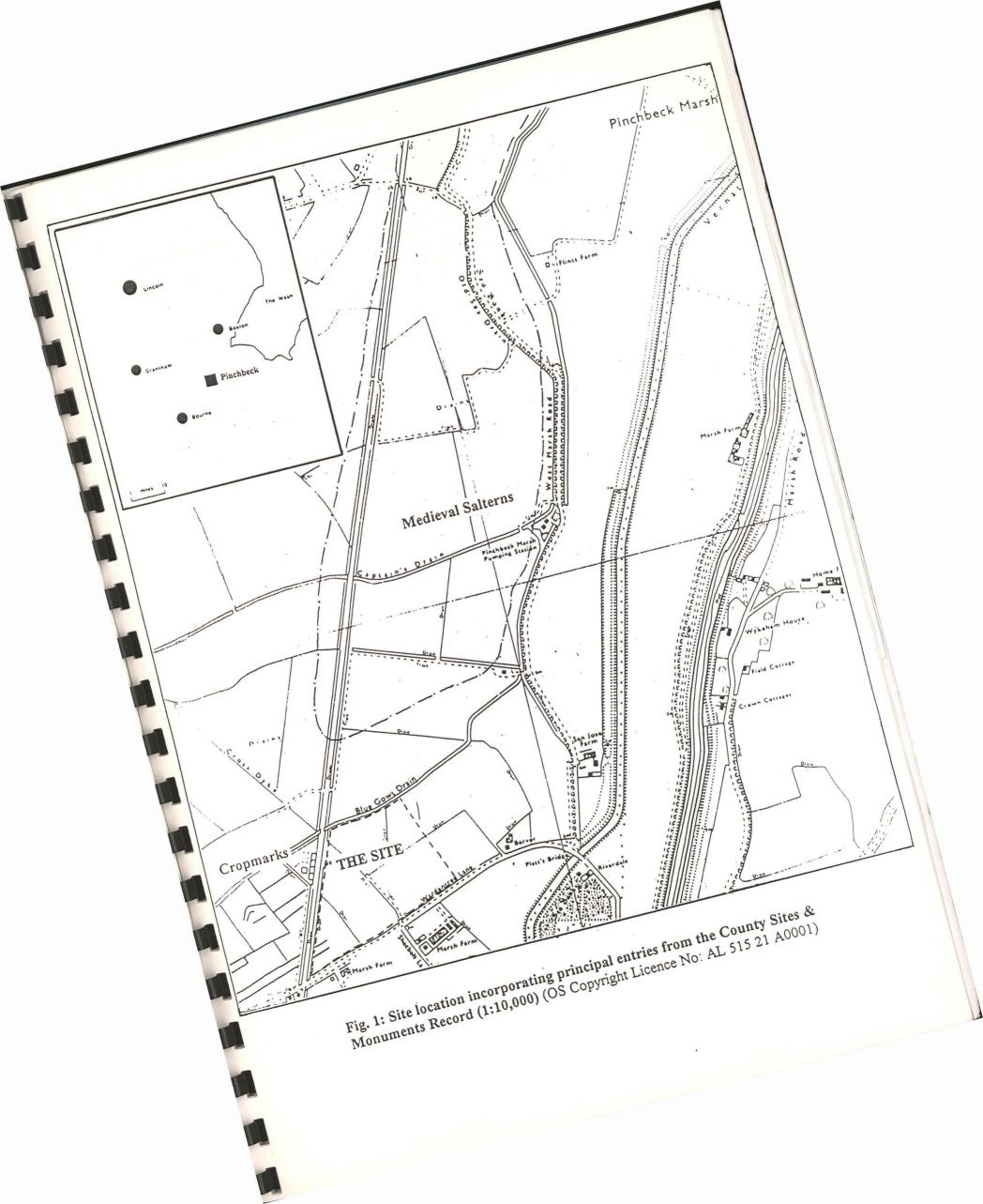
Appendix 3: List of archaeological contexts

Illustrations

Fig. 1	1:10,000 site location, incorporating relevant entries from the County SMR
Fig. 2	Simplified development plan, showing archaeological features exposed
Fig. 3	East facing section through ditch [104]
Fig. 4	East facing section through ditch [104]
Fig. 5	East facing section through ditch [110], showing re-cut [115]
Fig. 6	North-west facing section through ditch [123]
Fig. 7	North-west facing section through ditch [125]/[126]
Fig. 8	North-west facing section through ditch [127]

1.0 Non-technical summary

- * An archaeological watching brief took place during the groundworks for a new access road and associated infrastructure on land north of Wardentree Lane, Pinchbeck, Spalding, (Fig. 1).
- * These works were carried out due to the proximity of medieval salt making remains and possible medieval field ditches.
- * Medieval linear ditches were exposed and mapped during the brief, and it is assumed that these features form part of a complex that has been recorded as cropmarks to the south-west of the present development.
- * The site central national grid reference is TF 2522 2521



2.0 Introduction

The watching brief took place between September 7th and October 10th 1998 on the site of a new access and associated works on land north of Wardentree lane, Pinchbeck, Spalding. These works were commissioned by Elsoms Seeds Ltd and centred on a project specification prepared by Pre-Construct Archaeology (Lincoln).

Information derived from the County Sites and Monuments Record for Lincolnshire (SMR) suggested that overall archaeological potential was moderate; limited to possible medieval field ditches (recorded as cropmarks) which enter the south-west corner of the site (beyond the access), and a large zone to the north containing remains associated with medieval salt making (briquetage scatters etc).

Elementary fieldwork carried out earlier in the year revealed an abraded and sparse scatter of medieval pottery - the remains were not interpreted as an indication of direct human settlement, but rather the unintentional inclusion of pottery sherds within manuring scatters.

The groundworks were monitored intermittently over a period of six weeks.

3.0 Planning background

Planning permission was granted for the construction of an access road off Wardentree lane. The permission was granted subject to conditions, with condition 5 reading as follows:-

"Arrangements shall be made for an archaeologist recognised by the Local Planning to monitor all stages of the development involving ground disturbance in accordance with a scheme to be submitted to and approved by the authority before development is commenced. A report of the archaeologist's findings shall be submitted to the Local Planning Authority within one month of the last day of the watching brief, and shall include arrangements for the conservation of artefacts removed from the site."

4.0 Location and description

Pinchbeck lies in the administrative district of South Holland, approximately 3km north of Spalding, 20km south-west of Boston. The site is south-east of the village, immediately north of Wardentree lane (NGR: TF 2550 2530). It covers approximately 12 hectares total area, and its boundaries are defined by Wardentree Lane to the south, the Blue Gowt Drain to the north, a disused railway to the west and arable land to the east. It is divided by Scragg's Drain which runs across the site in a north-east to south-west direction.

Until recently the whole of the site was used for crop trials by the client company.

Two field boundary ditches, running north-west to south-east were filled in approximately ten years ago. These features were relocated by M Ridsdale during the watching brief, as were a series of modern land drains.

5.0 Geology and topography

The most recent geology consists almost entirely of alluvial silts: Upper Fen silts of marine origin overlying the Upper Fen peat. Lenses of estuarine Buttery Clay and peat are common throughout the silt. A 10m depth of these deposits is common near to the coast, but this thins considerably inland (source Lindsey Archaeological Services).

The site lies between the rivers Welland and Glen, and is characteristically flat. The modern soil surface lies at an altitude approximately 3m OD.

6.0 Archaeological and historical background

An archaeological overview of the area has been established by the Fenland Survey (Hall and Coles 1994). Within the parish, the survey was restricted to the fen areas in the west (Hayes and Lane 1992, 110-118;143-151). It has produced extensive settlement evidence from the prehistoric to Romano-British periods. In late Saxon and medieval times the west parish area was inundated with water and became freshwater fen (ibid.).

An undated cropmark complex, comprising suspected regular enclosures, field ditches and droveways, has been recorded entering an area close to the south-west corner of the present site. The bulk of the cropmark lies to the west of the railway line and was built over approximately 10 years ago. The area of the disused railway line has been developed in recent times.

The proximity of the current site to the above suggested that the features associated with the cropmarks would extend into the development area itself; presenting an opportunity, therefore to section, date and interpret some of them.

A substantial area to the north of the site contains remains associated with medieval salt-making (see Fig. 1). This industry was extremely important on the Lincolnshire Coast and its origins can be traced as far back as the late Bronze Age.

The disused railway forming the western boundary of the site was part of the Great Northern Railway. This line was part of the Lincolnshire loop on the main London to York line which it left at Peterborough and ran through Spalding, Boston, Lincoln and Gainsborough to rejoin at Doncaster. This line was opened in 1848 (Wright 1982, 133).

7.0 Methodology

Day-to-day monitoring was the responsibility of Mr M Ridsdale and Mr J Snee, who were present to observe and record all deep excavations (the access road and service trenches / manholes; a ditch extending eastwards from the north-east edge of the road to Scraggs Dyke; and a rising main extending north-west from the tip of the new road and then following the course of the disused railway line, leaving the north-west corner of the site).

On each occasion that the site was inspected, a watching brief daily account sheet was completed to provide a general diary and overview. In addition, important data was entered on context record sheets, and significant contexts were drawn at appropriate scales and were photographed. A selection of these drawings and photographs have been reproduced in this report, with the remainder forming part of the long-term project archive.

Small quantities of stratified and unstratified artefacts were recovered and retained for post-fieldwork assessment. These finds were washed and/or processed and were then submitted for specialist appraisal and incorporation within this report (Appendix 13.4).

A detailed site archive has been prepared, and it is anticipated that the paper and physical element will be deposited at the City and County Museum, Lincoln, within one month of the last day of the watching brief.

8.0 Results

8.1 Horizontal stratigraphy

The natural stratigraphy was characterised by widespread deposits of fen silt and intermittent horizons of clay (indicators of periodic flooding).

The topsoil, [100], measured approximately 20cm in depth and was common to a wide area. It comprised dark grey/brown, firm, humic silty clay, and supported sparse weed vegetation. A moderate quantity of medieval pottery sherds were recovered from this horizon, with these making up most of the artefact assemblage.

Beneath the topsoil was approximately 20cm of dark orange clay-silt, [101]. Although laminated bands within this horizon were not defined, it is suggested this was a cumulative deposit; formed as a result of low intensity agricultural use and possibly episodic flooding. No finds of any date were recovered from this layer.

Underlying the above was a layer of light yellow-orange sand-silt, approximately 1.05m deep, [107]; interpreted as a natural stratum. Directly beneath this was a horizon of mid blue-grey sand, [108] - the difference in colour between the two may have been a function of the modern water table, although textural variation was also noted.

8.2 Archaeological remains

At least twelve linear ditches (some of which were of two discrete phases) were exposed during the groundworks, with these being orientated north-west to south-east, north to south, or north-east to south-west (Fig 2). These ditches appear to have been associated with a medieval drainage system (one sherd of Romano-British pottery was recovered from the topsoil, and one sherd (presumed residual) was recovered from the fill of a ditch).

Ditches were exposed in each of the three areas investigated, suggesting that the network does extend over the entire site. A summary account on each of these features is presented below.

8.2.1 Ditches exposed within the new access road area

Ditch [104]

The feature was exposed in the storm drainage trenches. It had a slightly irregular flattened U-shaped profile and was filled mainly with a mid-brown sandy clay-silt [102]. This incorporated fragments of medieval pottery and roof tile. The base of the channel was filled with blue and brown clay, [103], [105], confirming that the ditch once held standing water and was associated with land drainage, probably for agricultural purposes.

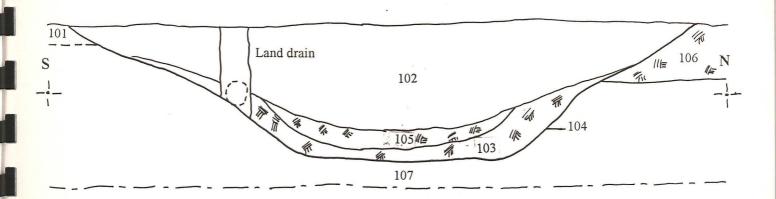


Fig. 3 East facing section through ditch [104], located within foul drainage trench. Scale 1:20.

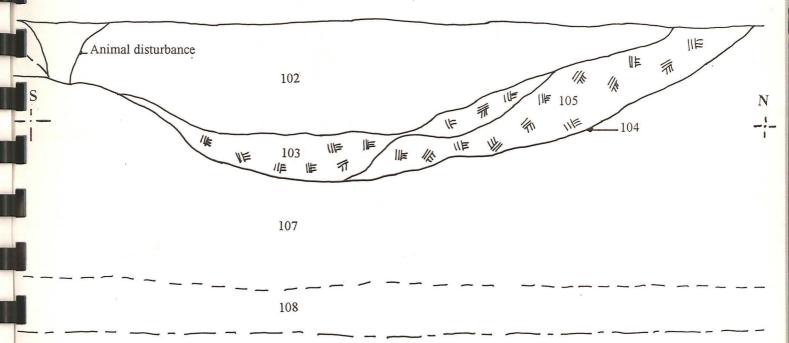


Fig. 4. East facing section through ditch [104], located within storm drainage trench. Scale 1:20

Ditch [110]/[115]

North of the above, a second ditch was exposed, [110]. It was oriented roughly north-north-west to south-south-east, (see Fig 2) and incorporated clear evidence of re-cutting, [115], (see Fig 5).

The profile of [110] was similar to that of ditch [104], although the north slope was irregular and the base flatter. The bulk fill [114], comprised dark brown/orange sandy clay, but the base of the ditch was filled with blue (ie reduced) clay, [112]; suggesting deposition in a slow-moving or standing water environment. Separating the two deposits was a thin layer of blue clay-silt [113].

The profile of the re-cut [115] was not dissimilar to that of its precursor, the south slope being slightly steeper and the base more erratic. The bulk fill [109] consisted of dark grey/brown clay-silt which produced a single sherd of Romano-British pottery; the only datable artefact from either phase. Lining the base of [115], again, was a familiar blue clay deposit [111].

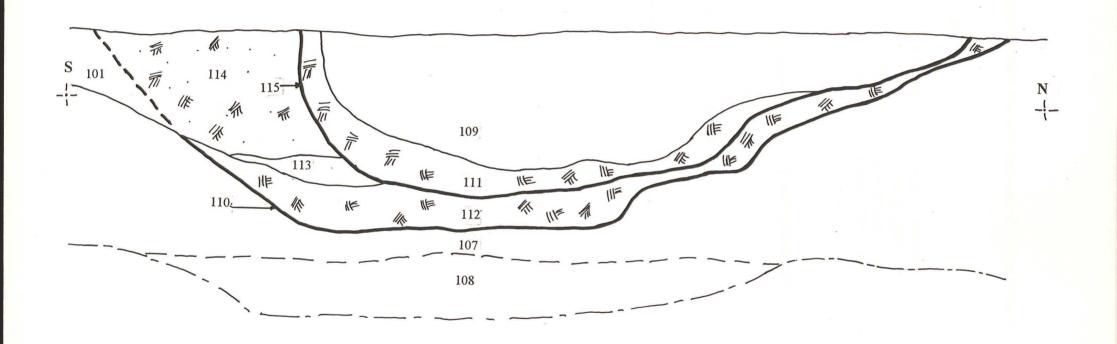


Fig. 5 East-facing section through ditch [110] and recut [115]. Scale 1:20

8.2.2 Ditches exposed within the new east-west drainage channel

Ditches [116] to [120]

A group of five ditches were exposed during excavations for a substantial drainage channel between the new access road and Scraggs Dyke (see Fig. 2). Regrettably, due to the speed at which this element of the development progressed, it was not possible to make any detailed drawings of these features (neither was it possible to recover any artefacts, assuming such remains to have been present). However, it was possible to locate and establish their orientation.

Three of the ditches, [117], [118], and [119] were parallel and were orientated north-west to south-east. The other two (outside) ditches were orientated more north-north-east to south-south-west. Summary details as follows:

[116]: orientated north-north-east to south-south-west; 2.5m wide (oblique section)

[117]: orientated north-west to south-east; 1.5m wide (oblique section)

[118]: parallel with above; 2.0m+ wide (oblique section)

[119]: parallel with above; 2.0m wide (oblique section)

[120]: similar orientation to [116]; 3.0m wide (oblique section)

8.2.3 Ditches exposed within the rising main area

A further five ditch sections were exposed during excavations for the rising main, which extended north-west from the road cutting, turned north-eastwards to parallel the railway embankment, and then left the site to the north-west. Only one sherd of pottery was recovered from the group (ditch [121]) which, again, suggests a date in the medieval period for its use/backfilling. The location and orientation of these features is indicated on Fig. 2, and a summary account is presented below.

Ditch [123]

This was the most westerly of the group. It was orientated broadly north-south, and its base was filled with reduced blue/grey clay. It was 0.66m deep, and 2.8m wide in section (which was oblique). No finds were recovered.



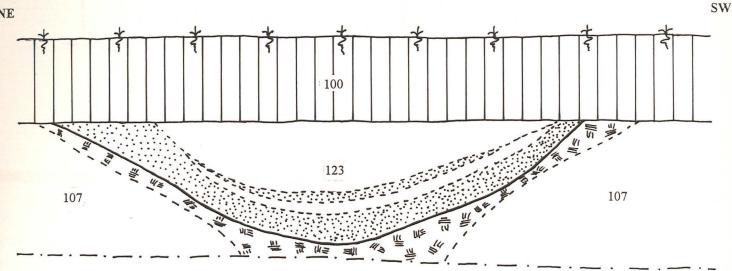


Fig. 6. North-west facing section through ditch [123], located within storm drainage trench. Scale 1:20

Ditch [121]/[124]

Two sections of a ditch orientated broadly north-south were intercepted in two areas of the rising main: it was assumed that these two sections matched, making one extensive north-south ditch. The oblique width measurements recorded varied between 4.0m and 1.8m, and depth varied between 0.3m and 1.0m. Two distinct fills were observed, with the upper section of [121] producing a single sherd of medieval pottery.

Ditch [125]/[122]

A third, parallel, ditch (approximately 20m east of the above) was exposed in two sections of the rising main (again, these features were assumed to be part of the same). Recorded widths (oblique) varied between 1.3 and 2.5m.

Although the alignments of [125] and [122] can be broadly projected, it was noted that the most westerly section exposed, [125], incorporated clear evidence of a second phase/re-cut. Therefore, the direct association between the two areas is not positive, although the alignments do seem to conform.

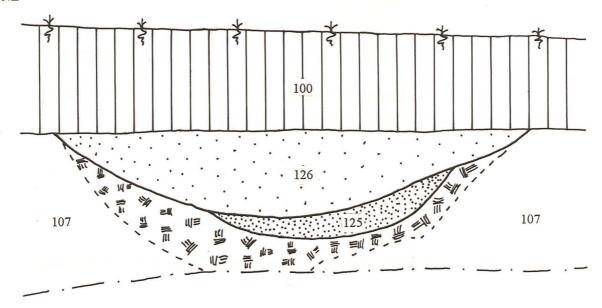


Fig. 7. North-west facing section through ditch [125]/[126], located within storm drainage trench. Scale 1:20

Ditch [127]

Another ditch, again on a north-south orientation, was exposed approximately 55m north-east of the above. Its (oblique) width was 2.4m, and its fill resembled that contained by [123].

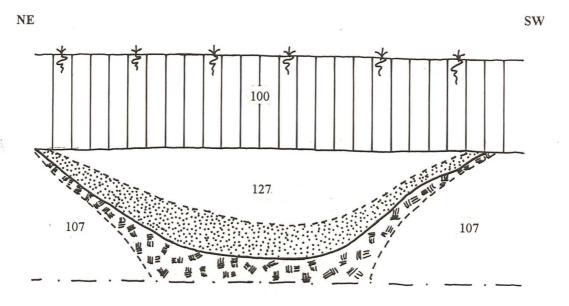


Fig. 8. North-west facing section through ditch [127], located within storm drainage trench. Scale 1:20

Ditch [128]

A final linear ditch was exposed approximately 25m north-east of the above. Its oblique width was 2.0m, its depth 0.56m. It resembled other features in the group.

9.0 Summary and conclusions

Prior to this watching brief, the archaeological potential of the immediate area was limited to undated cropmarks to the south-west of the site and medieval salterns to the north (identified by surface scatters). Abraded 13th/14th century pottery has been recovered from over the development area itself, although these have been interpreted as residual scatters of material; brought in from elsewhere, perhaps as a result of manuring

The results of the brief have increased our understanding of the agrarian landscape during the medieval period. Clearly, the ditches described above relate to a much wider pattern of land management that cannot readily be mapped using aerial techniques (which tend to work better against a gravel or solid geology).

Fig. 1 incorporates a sketch plot of cropmarks recorded from aerial photographs. This system comprises a regular network of ditches orientated north-west to south-east and north-east to south-west. The ditches cannot be dated on the basis of morphology alone, although surface artefacts suggest a medieval origin.

The ditches identified during the present investigation appear broadly to respect the alignment of the regime already known from aerial photography. The excavated remains appear to date to the medieval period, although very few artefacts were recovered from any of the ditches, and one feature contained only a single sherd of Romano-British pottery: assumed to be residual.

It is suggested on the basis of the evidence that the whole system (ie the cropmark remains to the south-west and the ditches exposed during the present investigation) must date to the medieval period (it is tenuously suggested that the remains expressed as cropmarks could overly a localised geology more conducive to the production of such features, although this has not been proved).

In summary, the results of the brief, taking into consideration other lines of evidence, suggest that this zone was extensively settled and utilised during the medieval period. Exploitation of the landscape may have been based on an integrated economy consisting primarily of mixed farming, but also the processing of coastal salt (with the latter probably being a seasonal activity of the late spring and summer months). Clearly, this must be viewed as a rather simple and superficial overview.

10.0 Acknowledgements

PCA would like to thank Mr J Keeton of Elsoms Seeds Ltd, for commissioning this watching brief. Thanks are also due to Jane Young for identifying the pottery and to Mark Bennett and Sarah Grundy for their assistance at the County Sites and Monuments Record. Thanks are expressed to the site contractors, UCS Ltd and to Aspern Borough Crocker Ltd., the Consulting Engineers.

11.0 References

Edmonds, D. & Cox, C.	1986	My Village: Pinchbeck
Ekwall, E.	1989	The Concise Oxford Dictionary of English Place-names.
Hall, D. & Coles, J.	1994	Fenland Survey: An Essay in Landscape and Persistence.
Hayes, P.P. & Lane, T.W.	1992	The Fenland Project No. 5. The Lincolnshire Survey: The South-West Fens. EAA 55
Morris, J. (gen. ed.)	1986	'Lincolnshire' Domesday Book.
Wright, N.R.	1982	Lincolnshire Towns and Industry 1700-1914.

13.0 Appendices

13.1 List of Entries in the County Sites and Monuments Record

Record No.	NGR	Description
23584	TF25202520	Undated cropmarks
23633	TF26102700	Medieval salterns

13.2 Colour photographs



P1. General view of site showing topsoil stripping, looking north



P2. Section through north-west to south-east orientated ditch [104], looking west.



P3. Section through north-west to south-east orientated ditch [110], looking west.

13.3 List of archaeological contexts

Context	Type	Description
100	Layer	Mid grey-brown clayey-silt. Topsoil, depth 0.22m.
101	Layer	Dark orange/brown clayey silt. Subsoil, depth 0.10m.
102	Fill	Mid brown sandy clayey silt with occasional pot frags.
103	Fill	Blue clay primary fill.
104	Cut	Slightly irregular U-shaped Profile running north-west / south east.
105 above.	Fill	Grey/Blue silty clay intermediate fill for the
106	Deposit	Light brown clay deposit.
107	Layer	Yellow/orange sand silt. Natural subsoil.
108	Layer	Blue sand. Waterlogged sand below [107].
109	Fill	Dark grey/brown clayey silt containing one pot fragment.
111	Fill	Brown-blue clay; primary fill of re-cut [115].
115	Cut	Re-cut ditch
114	Fill	Brown/orange sandy clay fill.
113	Fill	Blue clayey sandy silt fill
112	Fill	Blue clay, primary fill of ditch [110].

110	Cut	Ditch cut.
111	Fill	Lower fill of ditch recut [115]
112	Fill	Lower fill of ditch [110]
113	Fill	Within ditch [110] (secondary)
114	Fill	Bulk fill of ditch [110]
115	Cut	Recut of ditch [110]
116	Ditch	Linear ditch orientated N - S
117	Ditch	Linear ditch orientated N/W - S/E
118	Ditch	As above
119	Ditch	As above
120	Ditch	Linear ditch orientated N/E - S/W
121	Ditch	Linear ditch orientated N - S
122	Ditch	As above
123	Ditch	As above
124	Ditch	As above; possibly same feature as [121]
125/126	Ditch	Two phases; possibly associated with [122]
127	Ditch	Linear ditch orientated N - S
128	Ditch	As above

Appendix 13.4

(WTL98)

Post-Roman pottery archive: ware types by context

By Jane Young

Context	Ware	Sherds	Form	Comments
109 102 Date: EMH; 19/	ROMAN LGRTH TOY MEDLOC MEDLOC 20th century	1 1 1 1	BS GARDEN POT JUG/JAR BOWL? JUG/JAR	19/20TH BASE; VERY WORN INT GLZE; WORN BS; WELL WORN
Date. Elvin, 197	20th century			
100	BL CIST BOU TB	1 1 1	? CUP JUG/JAR JUG	18/19TH BS; WORN X2 HANDLE; WELL WORN; PROB MED; EMH; 18/19TH
	TB TB TOY	1 1 1	JUG/JAR JAR JUG/JAR	BASE; WELL WORN NECK; WORN BS; WELL WORN; X2
	TOY NOTG ROMAN	1 1 1	JAR? JUG	BASE; WELL WORN BS; WORN
	ROMAN	1	-	BS; VERY WORN; NO EXT SURFS; GREY BS: VERY WORN, NO EXT SURES.
			- WIGHT	BS; VERY WORN; NO EXT SURFS; BUFF
	BOUA MEDLOC MEDLOC MEDLOC MEDLOC MEDX	1 1 1 1 1	JUG/JAR JUG JUG JUG; SMALL JUG/JAR JUG/JAR	NO GLZE; WELL WORN; ?ID THIN BASE; WELL WORN BASE; WELL WORN CUFF RIM; WELL WORN BS; WELL WORN; NO GLZE; X7 BASE/BS; WELL WORN; GRITTY GREY FABRIC WITH WHITE SURFS
102	RID BRK	1	TILE BRICK	PROB QUITE MODERN RIDGE OR DRAIN TILE MODERN BRICK
	Didi	•	DIGCK	MODELIN DICCI

A small group of mainly medieval material. The pottery is in a well worn condition and this precluded the identification of much of the material. Identifiable sherds come from Toynton, Bourne and Nottingham.

