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**ARCHAEOLOGICAL EVALUATION ON LAND
OFF STEPHENS WAY, SLEAFORD,
LINCOLNSHIRE(SSW99)**

City and County Museum Site Code: SLSW99



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Work Undertaken For
Mr A. Hancock
on behalf of
Advanta Seeds

September 1999

Report Compiled by
Tobin Rayner BSc (Hons)

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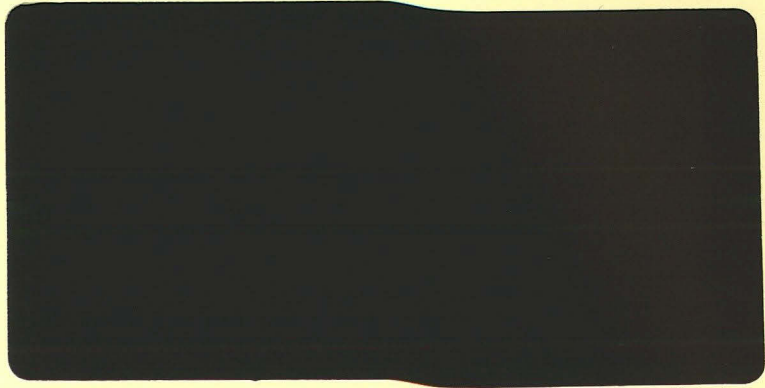
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1. SUMMARY

Geophysical surveys followed by trial trenching were undertaken as part of an archaeological evaluation to determine the archaeological implications of proposed development on land off Stephens Way, adjacent to Advanta Seeds, Sleaford, Lincolnshire. Previous archaeological work in the vicinity has revealed Middle Iron Age, Saxon, Roman and Medieval occupation.

Several linear, curvilinear and circular anomalies, thought to be archaeological features were detected by the geophysical survey.

The trial trenching identified a possible Middle Iron Age enclosure ditch with an apparent entrance on the east side. The discovery of this enclosure in proximity to a Middle Iron Age site identified 300m to the east, adds to the growing body of evidence for Sleaford acting as a focus for settlement during the period

A gully recorded during the trenching contained Roman pottery and may form part of an enclosure detected as a semicircular anomaly during the geophysical survey. A possible trackway or hedge line thought to date to the Roman period was also recorded.

Late Saxon pottery was retrieved from a ditch, appearing to respect the Middle Iron Age enclosure. This feature probably extended along the length of the western side of the development area and may have formed a land boundary during the Late Saxon period.

Medieval ridge and furrow, pits and post holes were recorded across the development area.

The archaeological remains were buried by up to 0.38m depth of topsoil, from which two

Roman coins and a quantity of post-medieval metalwork were retrieved during a metal detector survey.

2. INTRODUCTION

2.1 Background

Between the 18th and 31st August 1999, an archaeological evaluation was undertaken on land off Stephens Way, adjacent to Advanta Seeds, Sleaford, Lincolnshire. The evaluation was requested prior to the site owners, Advanta Seeds, submitting an outline planning application for residential development. The main aim of the evaluation was to assess the presence and character of the archaeological resource within the proposed development area. The archaeological investigation was commissioned by Mr. A. Hancock on behalf of Advanta Seeds UK. Archaeological Project Services carried out the work in accordance with the briefs set by the Heritage Officer for North Kesteven District Council (Appendix 1 and 2).

Archaeological Field Evaluation is defined by the Institute of Field Archaeologists (IFA) as 'a limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site. If such archaeological remains are present Field Evaluation defines their character and extent, and relative quality; and it enables an assessment of their worth in a local, regional, national or international context as appropriate.' (IFA 1994, 1).

2.2 Topography, Geology and Soils

Sleaford is situated 27km south of Lincoln and 26km west of Boston in the civil parish

of Sleaford, North Kesteven District, Lincolnshire (Fig. 1). The town stands on the River Sleas and its tributaries which flow northeastward to join the River Witham.

The area of investigation is located approximately 750m southeast of Sleaford town centre (Fig. 2, Plate 1), as defined by the parish church of St. Denys. The site is a grassed area of generally level land at a height of *c.* 14m OD.

The site is centred on National Grid Reference TF 07400 45550 and is 3.7 hectares in extent. Local soils are of the Ruskington Association, typically gleyic brown calcareous earths developed on glaciofluvial sand and gravel (Hodge *et al.* 1984, 304). These soils overlie a solid geology of Upper Jurassic limestones and Oxford Clays.

2.3 Archaeological Setting

The modern town of Sleaford has been developed over several archaeological sites dating from the prehistoric to the medieval periods, and the pre-application area is surrounded by important archaeology.

Prehistoric remains have been found in close proximity to the area of investigation. A scatter of worked flint and two Bronze Age axe heads have been recovered *c.* 200m south of the site (Fig. 2, NK57.5 and NK57.88).

Evidence for Iron Age settlement is recorded north and east of the development site. An excavation undertaken *c.* 350m to the east of the site has revealed part of a substantial Middle Iron Age palisaded enclosure (Elsdon 1997, 30; Fig. 2, NK57.62).

Excavations undertaken at a site 1km north of the development site in 1997 identified a Mid to Late Iron Age enclosure and

associated settlement features. Scored Ware pottery similar to that recovered from the Stephens Way site was also recovered (Herbert, 1997a).

Excavations during the early 1960's and in 1984 and 1985 recovered evidence of a major Late Iron Age centre in the area now occupied by Old Place in Sleaford, only 400m northeast of the proposed development.

The largest collection of Late Iron Age coin pellet mould fragments found in northern Europe was discovered at the Old Place site and suggests the presence of a mint. The recovery of high status pottery and the possibility of a mint at the site has led to some speculation that the site represents an Iron Age oppidum, serving as an administrative centre for the Corieltauvi tribe who occupied the region during this period (Elsdon 1997, 75-76).

Romano-British remains occur across a large area to the east of the modern town. The Old Sleaford Iron Age site was succeeded by an extensive Romano-British settlement situated in a similar location. Excavations at the New Police Station, Boston Road, northeast of the development site revealed early to mid 3rd century structures superseded by later buildings which fell into disuse during the late 4th century (Herbert 1999, 1). This was probably part of the small Roman town that was situated astride the Mareham Lane Roman road (Fig. 2, NK57.17), which runs in a south to north direction *c.* 350m to the east of the application site

Excavations at a site 450m to the west of the development in the late 19th century recorded a Saxon cemetery containing more than 600 burials (Elsdon 1997, 11), Fig. 2, NK57.14).

The former church of St. Giles, c. 450m to the northeast of the Stephens Way site, was probably founded during the Late Saxon period and became redundant during the early post-medieval period (Elsdon 1997, 43). A medieval manorial complex lies beneath Old Place (Fig. 2, no. 2), west of the former church. Evidence of ridge and furrow earthworks, also relating to the medieval period, have been located to the southeast of the site (Herbert 1997b, 2).

Old Sleaford was probably deserted at, or around, 1500 AD, and reverted to fields until post-war expansion of the town (Herbert 1999, 5).

Within the application area, a Bronze Age axe, Roman pottery and two Roman coins have been found (Fig. 2, NK57.93).

Geophysical surveys undertaken on the area have revealed linear and curvilinear features probably of archaeological origin. A possible north-south aligned large ditch, of unknown date, was observed by the Heritage Officer in 1998, when contaminated soil was removed from the southern part of the site.

3. AIMS

The aims of the archaeological evaluation, as outlined in the briefs (Appendix 1 and 2) set by the Heritage Officer for North Kesteven District Council, were: to gather information to establish the presence or absence, extent, condition, character, quality and date of any archaeological deposits. The brief required that trial trenches be positioned to investigate those anomalies which appeared on the geophysical survey and to discover if there are any further remains which have not been detected.

4. METHODS

Two geophysical surveys in 1997 and 1999 (Appendix 5 and 6) of the northern and the southern areas of the site respectively, were commissioned by APS and undertaken by Engineering Archaeological Services Ltd., in accordance with the project brief for geophysical survey (Appendix 1). The results of these surveys were used to position the evaluation trenches (Fig. 3).

Initially the trial trenching consisted of the excavation of a 1.5% sample of the 3.7 hectare site, as verbally agreed by the North Kesteven District Council Heritage Officer in a revision of the project brief for trial trenching (Appendix 2). This was achieved by the excavation of twenty-two trenches measuring on average 15.00m x 1.60m. Trenches 8, 9, 10, 11, 16 and 21 were positioned over possible archaeological features recorded as part of the geophysical surveys. Probable agricultural features, recorded during the geophysical surveys, were investigated with the positioning of Trenches 6, 12, 13, 14, 15, 17, 18 and 20. The remaining trenches were located in areas where no features had been recorded.

At the request of the Heritage Officer two additional trenches (Trenches 23 and 24) and an enlargement to the area of Trench 21 were excavated. This was undertaken to clarify the alignment and extent of two linear features (096 and 105), recorded within Trench 21.

Topsoil was stripped from the trenches by mechanical excavator to the level of the archaeological deposits or the undisturbed natural. The exposed surfaces of the trenches were then cleaned by hand and inspected for archaeological remains. A metal detector survey was undertaken of all trenches and spoil. Where present, features were excavated by hand in order to retrieve dateable artefacts and other remains.

Samples were retrieved from dated contexts thought to contain potential environmental evidence. These were flotation sieved off-site and the results compiled by the project environmentalist.

Each deposit exposed during the evaluation was allocated a unique reference number (context number) with an individual written description. A photographic record was compiled, and sections were drawn at a scale of 1:10 and plans at a scale of 1:20. Recording of deposits encountered during the evaluation was undertaken according to standard Archaeological Projects Services practice.

A survey of the excavated trenches and existing reference points was completed using a Geodolite Total Station Theodolite in conjunction with a Psion Datalogger.

5. RESULTS

5.1 The Stratigraphic Sequence

Finds recovered from the deposits identified during the evaluation were examined and a date assigned where possible (Appendix 9, 10, 11 and 12). Records of the deposits encountered during the evaluation were also examined. A list of all contexts and interpretations appears as Appendix 7. Phasing was based on the nature of the deposits and recognisable relationships between them, supplemented by artefact dating where relevant. Seven phases were identified:

- Phase 1: Natural deposits
- Phase 2: Middle Iron Age deposits
- Phase 3: Romano-British deposits
- Phase 4: Late Saxon deposits
- Phase 5: Medieval and Post-Medieval deposits
- Phase 6: Undated deposits

Phase 7: Modern deposits

Context numbers appear in brackets, and these refer to the individual cut and deposit descriptions recorded during excavation.

5.2 Phase 1: Natural deposits

The earliest recorded layers comprised a mid yellowish/reddish brown sand with a variable gravel content. These natural geological deposits were recorded to a maximum thickness of 0.60m during the excavation of archaeological features and were present within all of the trenches.

Natural features formed by root or animal disturbance were recorded within all the trenches.

5.3 Phase 2: Middle Iron Age deposits

Trench 21 (Figure 4 and 7 (section 34 and 39), Plate 5 and 6): A 1.10m wide and 0.50m deep U shaped curvilinear ditch (096), recorded on the west side of the trench, displayed a sharp change of alignment near the west limit of excavation. The north terminal of this ditch was recorded 2.50m south of the north limit of excavation, adjacent to a Late Saxon dated ditch (105). The ditch contained a mid blue grey sandy clay fill (095) from which three sherds of scored ware pottery were recovered. It is possible that the curvilinear ditch represents part of an enclosure located beyond the west limit of excavation.

Two environmental samples recovered from fill (095) were fairly rich in terrestrial and aquatic snail and ostracods were common in both. The aquatic fauna indicates that the ditch contained water but dried up seasonally. Damp ground and grassland are indicated by the terrestrial shells (Appendix 8).

A small collection of animal bone was collected from the fill (095) and is probably derived from whatever activities were undertaken within the area enclosed by ditch (105).

5.4 Phase 3: Romano-British deposits

Trench 3 (Figure 5 and 7 (section 1)): A northeast-southwest linear ditch (005) measuring 0.87m wide and 0.12m deep, running parallel to ditch (007), was recorded centrally within the trench. The mid yellowish brown silty fill (004) of ditch (005) contained the pottery base sherd of a Roman pottery vessel.

Trench 11 (Figure 5 and 7 (section 13), Plate 2): A single linear gully (066) located in the centre of the trench measured 0.90m wide and 0.22m deep and contained a single mid yellow brown sandy silt fill (065). Pottery retrieved from this fill has been dated to the Roman period.

5.5 Phase 4: Late Saxon deposits

Trench 12 (Figure 5 and 7 (section 3)): A northwest-southeast aligned ditch (013) recorded at the eastern end of the trench, filled with a mid grey brown silty sand (012), contained a pottery sherd dated to the Late Saxon period.

Trench 21 (Figure 5 and 7 (section 39), Plate 6): A 2.35m wide and 0.58m deep north-south aligned ditch (105) was recorded running centrally across the trench, parallel to ditch (096), located immediately to the west. A pottery sherd dated to the Late Saxon period was recovered from the mid brown grey sandy clay fill (106). A number of pieces of Roman pottery were also recovered from this deposit, suggesting substantial reworking of earlier deposits in this area. Two environmental samples recovered from the fill of ditch (105) were

rich in terrestrial and aquatic snails and one contained ostracods and freshwater crustaceans. The species represented suggest that the ditch contained water but dried up seasonally.

A small number of animal bones were recovered from the fill of ditch (105), although as indicated by the Roman pottery, there is a strong possibility that these represent reworked material from earlier deposits.

5.6 Phase 5: Medieval and Post Medieval deposits

Trench 4: Two linear gullies (078) and (080) containing similar fills were recorded within the trench. Gully (078) was located at the northern end of the trench on a northwest-southeast alignment. The second gully (080) was centrally located on an east-west orientation. Artefacts retrieved from the fills were dated to the Post Medieval period.

Trench 10: Three north-south aligned, evenly spaced parallel ditches (011), (039) and (045) revealed within the trench are likely to represent medieval plough furrows. These furrows may be the linear features recorded as part of the geophysical survey (Fig. 3) within this area of the site.

To the west of these furrows was a north-south aligned ditch (053), containing a fill (052) from which artefacts, including dumped pottery and building material dated to the Medieval and Post Medieval periods were retrieved. The mixed character of the bone assemblage (Appendix 8) from deposit (052) supports the interpretation that this material was dumped, possibly incorporating disturbed material from earlier contexts.

Trench 12 (Figure 5): Two linear features (047) and (051) revealed within the trench

have been interpreted as medieval furrows.

Trench 20 (Figure 6 (section 15), Plate 4): Two parallel northeast-southwest aligned ditches (027) and (029) were recorded in the northwest area of the trench. The ditches were filled with a similar mid brown sandy clay (026) and (028) respectively. Artefacts from fill (026) date to the Post Medieval period and although Middle Iron Age pottery was recorded within fill (028), the former date is most likely, based on the similarity of the two features.

5.7 Phase 6: Undated deposits

Trench 1: A rectangular feature (102) revealed at the northern end of the trench was interpreted as a pit or post hole.

Trench 3 (Figure 5): Running parallel to the Roman ditch (005) was a linear gully (007) containing a similar fill (006). These common attributes suggest that the features may be contemporary, and that gully (007) also dates to the Roman period.

To the northwest of gully (007) was a north-south aligned ditch (009) containing a mid brown silt fill (008).

Trench 5: A 0.58m wide and 0.36m deep rectangular feature (082) containing a dark brown sandy silt fill (081) was interpreted as a pit.

Trench 7: A sub-rounded pit (083) recorded at the west end of the trench contained two silty sand fills (084) and (085).

Trench 10: An oval pit (072) recorded near the centre of the trench contained a firm mid greyish brown sandy silt fill (071), very similar to the medieval furrows recorded across the site.

Trench 12 (Figure 5): In the centre of the

trench, a post hole (049) containing a mid grey brown silty sand (048) was recorded.

Trench 13: A post hole (076) recorded centrally within the trench contained a mid yellowish brown silty sand fill (075), similar to the fills recorded within the furrows in Trench 12, implying a medieval date.

Trench 14 (Figure 6): Three northwest-southeast aligned parallel ditches (031), (033) and (035) were recorded centrally within the trench, all containing a similar dark grey brown silty sand fill (030), (032) and (034) respectively. A gully terminal (037) was also revealed, located to the south of the three ditches

Trench 16: A 0.69m wide and 0.20m deep gully (070) located in the centre of the trench contained a mid grey brown silty sand fill (069). Two other features (068) and (074) recorded within the trench as a pit and a post hole respectively contained silty sand fills.

Trench 18: Two natural hollows (098) and (100) containing white grey sandy clay fills were recorded at the west end of the trench.

Trench 19 (Figure 6 and 7 (section 7), Plate 3): A north-south aligned ditch (088) revealed at the west end of the trench probably represents the northerly continuation of ditch (105) located in Trench 21. To the east of ditch (088) was a sequence of northeast-southwest aligned ditches (091) and (041), pit (061), gully terminal (043) and ditch (017), each containing a similar dark yellowish brown silty clay fill.

Trench 20 (Figure 6 and 7 (section 15), Plate 4): A 2.50m wide (to the limit of excavation) and 0.50m deep north-south linear ditch (025) recorded at the northern end of the trench appears to be the

continuation of the Late Saxon ditch (105) revealed in Trench 21.

To the east of ditches (027) and (029), near the centre of the trench, two gully terminals (057) and (059) and a probable post hole (021) were recorded. At the southern end of the trench a northeast-southwest aligned ditch (055) measuring at least 1.50m wide and 0.15m deep was interpreted as a medieval plough furrow.

Sealing features (025) and (027) at the northern end of the trench was a made deposit (023), presumably a levelling layer for the construction of the warehouse, to the west. Covering deposit (023) and all other features was a second dumped deposit (062).

Trench 21 (Figure 4, Plate 6): A small east-west aligned shallow gully (110), located to the eastern edge of the trench, was truncated by the Late Saxon ditch (105) and may be tentatively dated to the Middle Iron Age. To the northwest of gully (110) was an amorphous feature (104) of uncertain function. Sealing all the features within the trench was a buried soil (094) which contained Middle Iron Age and Medieval pottery.

Trench 23: A north-south aligned ditch (111) recorded within the trench probably represents the northerly continuation of ditch (105) located in Trench 21.

5.8 Phase 7: Modern deposits

A deposit of mid to dark brown sandy silt containing roots and overlain with weeds recorded within all of the evaluation trenches to a maximum thickness of 0.38m represents the modern topsoil. A metal detector survey of the topsoil within the trenches retrieved two Roman coins dated to the 4th century and an amount of post-medieval and undated metalwork. Also

recovered from the topsoil were pottery sherds dated to the Middle Iron Age (Trenches 3 and 10), and Medieval period (Trench 5).

Trenches 2, 6, 8, 9, 15, 17, 22, and 24 revealed a sequence of natural geology (phase 1) sealed by topsoil (phase 7) and contained no archaeological features.

6. DISCUSSION

Archaeological evaluation on land off Stephens Way, adjacent to Advanta Seeds, Sleaford, Lincolnshire, has revealed a sequence of natural geology, Middle Iron Age, Roman, Late Saxon and Medieval ditches, gullies, post holes and pits sealed by modern deposits. Some of the features have been recognised previously during the geophysical survey.

6.1 Phase 1: Natural Deposits

The earliest recorded deposits, found within all of the trenches, were sands and gravels. These are likely to have been deposited as part of a glaciofluvial process.

6.2 Phase 2: Middle Iron Age deposits

The north-south aligned curvilinear ditch (096) recorded within Trench 21 may represent an enclosure, with the ditch terminal defining an entrance. The east-west gully (110) also recorded in Trench 21 may be contemporary with the enclosure and denote the division of land immediately outside the compound. Pottery types recovered from the enclosure ditch were similar to that found during the 1990 excavations of a palisaded enclosure to the east (Elsdon 1997).

The environmental assessment of samples from the possible enclosure ditch show no

evidence of settlement activities nearby. However, pottery and animal bone recovered from the ditch are evidence of occupation nearby, although exactly what form this took is not clear.

6.3 Phase 3: Romano-British deposits

An undated ditch (007) recorded in Trench 3 contained a similar fill to the adjacent positively dated Roman ditch (005), and together probably define a north-south aligned trackway or hedge line. The ditches are on the same alignment as the Roman road, Mareham Lane, and are probably associated with the small Roman town to the northeast.

The Roman dated gully (066) in Trench 11 appears to represent the curvilinear feature recorded as part of the geophysical survey. The shape of the feature would suggest some form of enclosure, although the southern section appears to have been destroyed when a gas main, which crosses the site, was laid.

The majority of the Roman pottery sherds from the site were recovered from within Trench 21 on the west side of the site. These derive from context (105), dated to the Late Saxon period on the basis of two sherds of pottery of this date recovered from the deposit. If contamination is discounted, this suggests that the Roman pottery is reworked material from earlier contexts. However, the presence of the Roman pottery should be considered as additional evidence for the potential survival of *in-situ* deposits of this period on the site.

6.4 Phase 4: Late Saxon deposits

Two positively dated Late Saxon features were recorded during the evaluation. A north-south aligned ditch (105), recorded within Trenches 19, 20, 21 and 23, is probably part of a field boundary ditch. The

positioning of the ditch adjacent to the Middle Iron Age ditch (096) suggest that the earlier ditch may have been extant or that the landscape favoured the positioning of the boundary ditch in this location. A second ditch (013) located in Trench 12 would appear to be a smaller boundary ditch.

6.5 Phase 5: Medieval and Post Medieval deposits

Evidence of agriculture within the development area during the Medieval period comes from furrows recorded within Trenches 10, 12 and 20. The two parallel ditches (027) and (029), recorded in Trench 20, probably define a trackway or hedge line associated with this agricultural landscape. These and other features including gullies, pits and post holes recorded in Trenches 4, 10 and 13 suggest an intensive use of the land during this period.

6.6 Phase 6: Undated deposits

Many undated features were recorded throughout the development area. The layout of these features, including ditches, gullies, pits and post holes probably implies an agricultural landscape, the dearth of finds suggesting a pastoral use. Unfortunately, without any artefacts or occupation debris found associated with these remains their precise function is unclear, although they are unlikely to represent intensive or sustained domestic settlement within the development area.

6.7 Phase 7: Modern Deposits

A modern deposit of topsoil was recorded across the development site. Middle Iron Age pottery, two Roman coins and post-medieval artefacts, including a quantity of metal objects, were recovered from this deposit.

7. ASSESSMENT OF SIGNIFICANCE

For assessment of significance the *Secretary of State's criteria for scheduling ancient monuments* has been used (DoE 1990, Annex; See Appendix 4).

Period

Remains of Middle Iron Age, Late Saxon, Roman and Medieval ditches, gullies, pits and post holes were revealed. Remains of this nature are typical of these periods.

Rarity

Middle Iron Age, Late Saxon, Roman and Medieval deposits of the type recorded during this evaluation are not particularly scarce within the Sleaford area. However, at a regional level it would be uncommon to record deposits of this range of dates at a single site.

Documentation

Records of archaeological sites and finds made in the Seaford area are held in the Lincolnshire Sites and Monuments Record and the files maintained by the North Kesteven Heritage Officer. A synopsis of excavations of the area has previously been produced (Elsdon 1997).

Group value

The majority of the remains on the east side of the site probably served an agricultural or pastoral function, such as field boundaries. Therefore, the group value is limited, though this may be considerably enhanced by possible association with the features on the west side of the site which appear to be related to possible occupation during the Middle Iron Age, Roman and Late Saxon periods. At a larger scale, there is considerable Group Value with the contemporary deposits from Old Place.

Survival/Condition

The features recorded appeared to have survived well and showed little evidence of disturbance other than through later agricultural activity. No preserved organic remains were recorded at the site and any environmental remains would be associated with the recovery of charred or other non organic material. The survival of well preserved deposits cannot be ruled out if significantly deeper features were excavated.

Fragility/Vulnerability

Development of the site is likely to impact into natural deposits. Consequently, all archaeological remains present are vulnerable, especially as the archaeological remains appear to be widespread across the development site. As no organic remains were recorded, de-watering is unlikely to present a significant threat to the archaeological potential of the site.

Diversity

Middle Iron Age, Roman, Late Saxon and Medieval period ditches, gullies, pits and post holes, were revealed. Most of these are probably related to agricultural uses, although some of the features on the west side of the site may be related to occupation. A limited range of ecofactual and economic indicators were recovered during the processing of environmental samples.

Potential

There is high potential that Middle Iron Age, Late Saxon, Roman and Medieval period ditches, gullies, pits and post holes, as found during the archaeological evaluation, occur elsewhere on, and in the immediate vicinity of the site. Should further investigation of artefacts and environmental data be undertaken, new information may be forthcoming on the farming regime and economic base of communities in the Sleaford area.

8. EFFECTIVENESS OF TECHNIQUES

The technique of using trial trenches to locate and evaluate archaeological deposits was successful. Well-preserved archaeological deposits were identified across the area. Some of these could be equated with features identified as part of the geophysical survey. Moreover, manual excavation revealed other unknown archaeological features, including ditches, gullies, pits and post holes.

The metal detector survey of the topsoil from the trenches led to the recovery of two Roman coins and a quantity of post-medieval artefacts, which would not otherwise have been found.

The earlier programme of geophysical survey was moderately effective in identifying some of the linear sub-surface features, but did not record any pits or post holes.

9. CONCLUSIONS

Archaeological evaluation on land off Stephens Way, adjacent to Advanta Seeds, Sleaford, Lincolnshire has achieved the aims set by the Heritage Officer for North Kesteven District Council. Archaeological artefacts and deposits of Middle Iron Age, Roman, Late Saxon and Medieval dates were recorded.

Some of the features recorded as part of the geophysical survey were identified and investigated along with previously unrecorded features.

The earliest securely dated feature was the remains of a possible Middle Iron Age enclosure ditch, probably implying a continuation of land use between it and the

previously recorded settlement located in the adjacent field to the east. The discovery of a previously unknown Middle Iron Age site in this area adds to the growing body of evidence that, before emerging as major Late Iron centre, Sleaford acted as focus for occupation during the preceding period.

The evaluation also revealed several features dated to the Roman, Late Saxon and Medieval periods related to agriculture, and probably associated with their respective neighbouring occupation sites.

Modern ploughing of the site along with root and animal disturbance has caused some limited damage to the underlying deposits. However, archaeological remains were reasonably well preserved. Survival of well-preserved organic environmental remains is unlikely.

10. ACKNOWLEDGEMENTS

Archaeological Project Services would like to acknowledge the assistance of Mr. A. Hancock who commissioned the evaluation on behalf of Advanta Seeds. The work was coordinated by Gary Taylor and Dale Trimble, and this report was edited by Dale Trimble and Tom Lane. David Knight commented on the prehistoric pottery, Barbara Precious and Hilary Healey dated the Roman and Medieval ceramics. James Rackham produced the environmental assessment. The metal detector survey of the site was undertaken by Norman Riches. Kate Orr, the Heritage Officer for North Kesteven District Council, kindly permitted examination of the relevant parish files.

11. PERSONNEL

Project Coordinators: Gary Taylor and Dale Trimble

Project Officer: Neil Herbert
Site Supervisor: Tobin Rayner
Site Assistants: Denise Buckley, Rachael Hall, Andrew Munding, Julie Parker and Fiona Walker
Finds Processing: Denise Buckley
Illustration: Tobin Rayner
Photographic Reproduction: Sue Unsworth
Post-excavation Analyst: Tobin Rayner

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IFA, 1997 *Standard and Guidance for Archaeological Field Evaluations*

13. ABBREVIATIONS

APS Archaeological Project Services
IFA Institute of Field Archaeologists

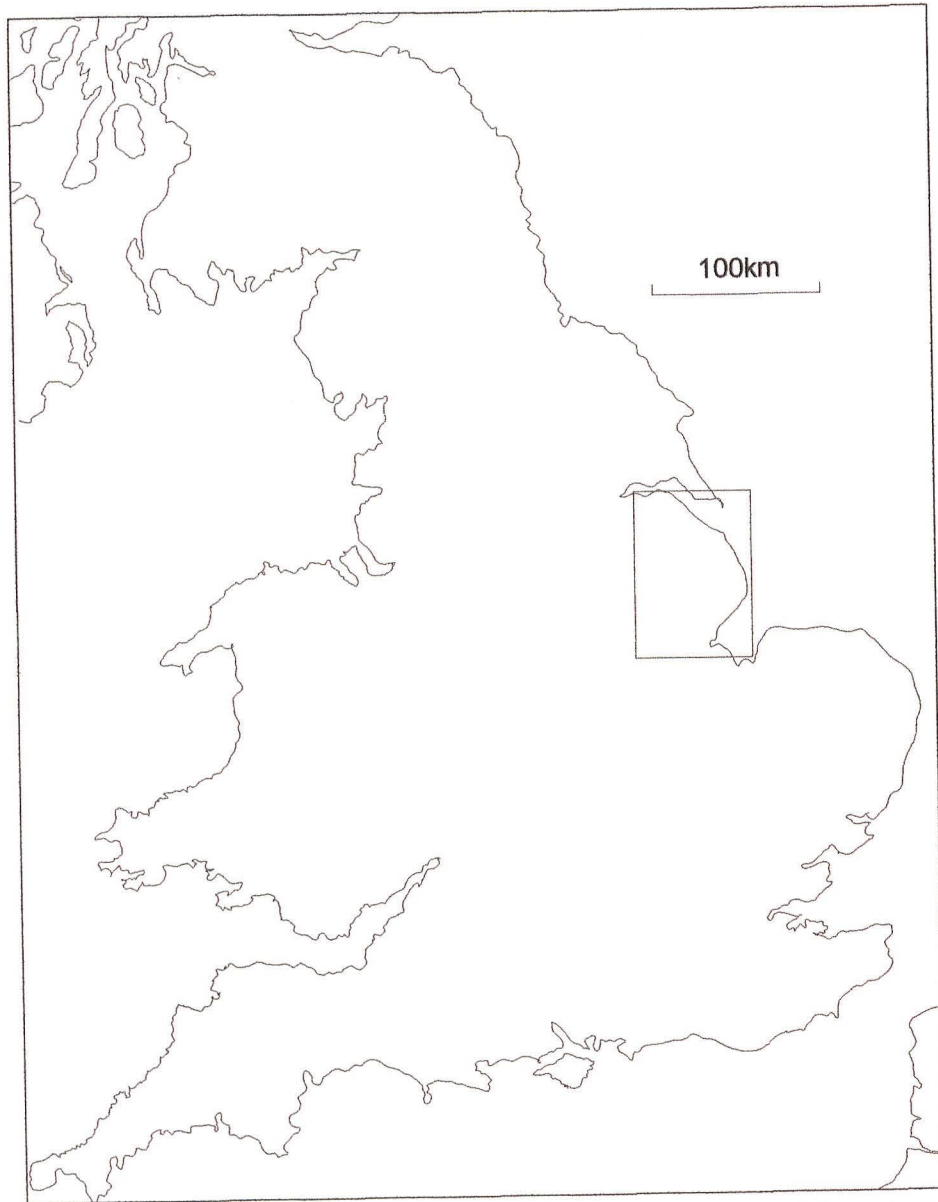
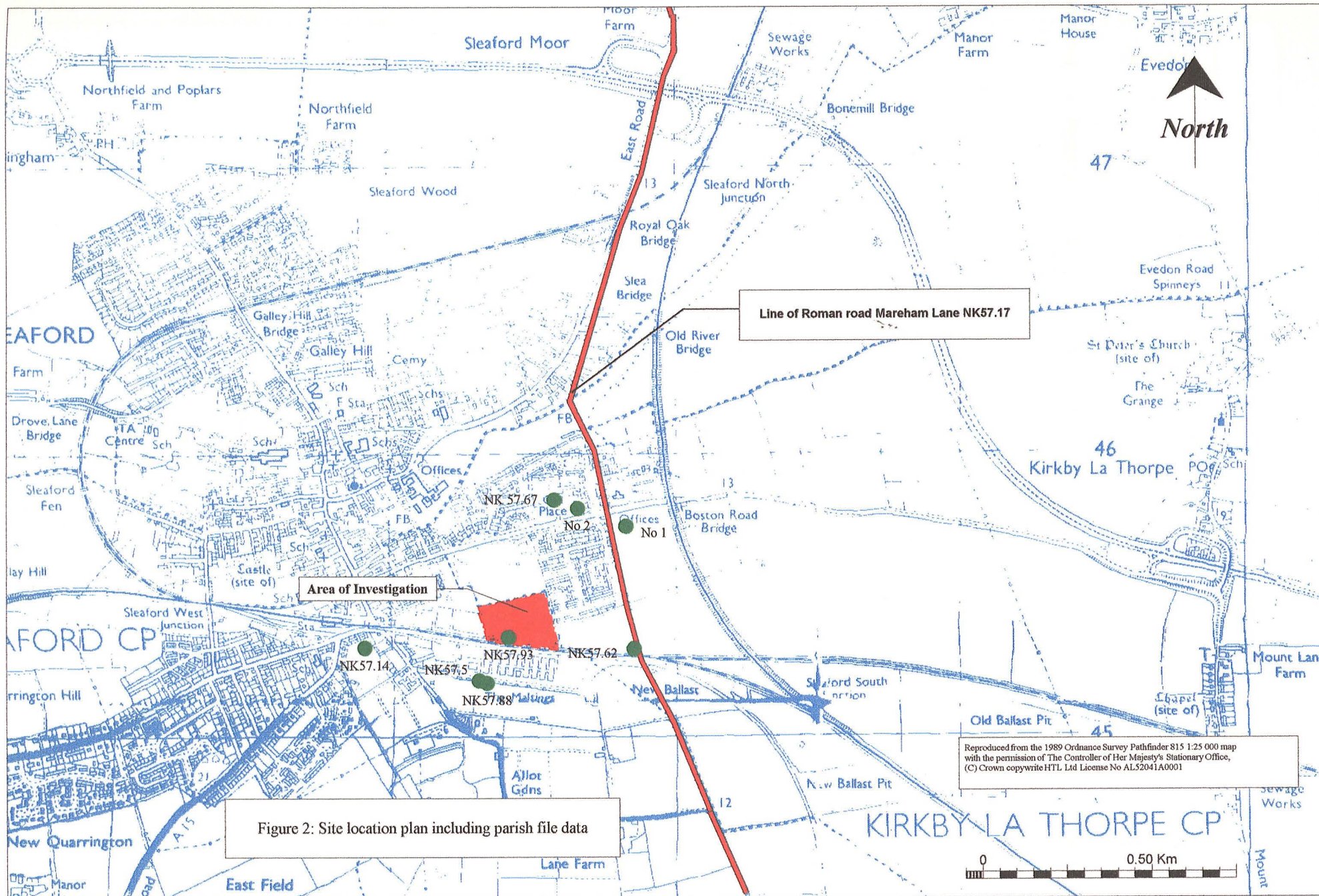


Figure 1: General location map



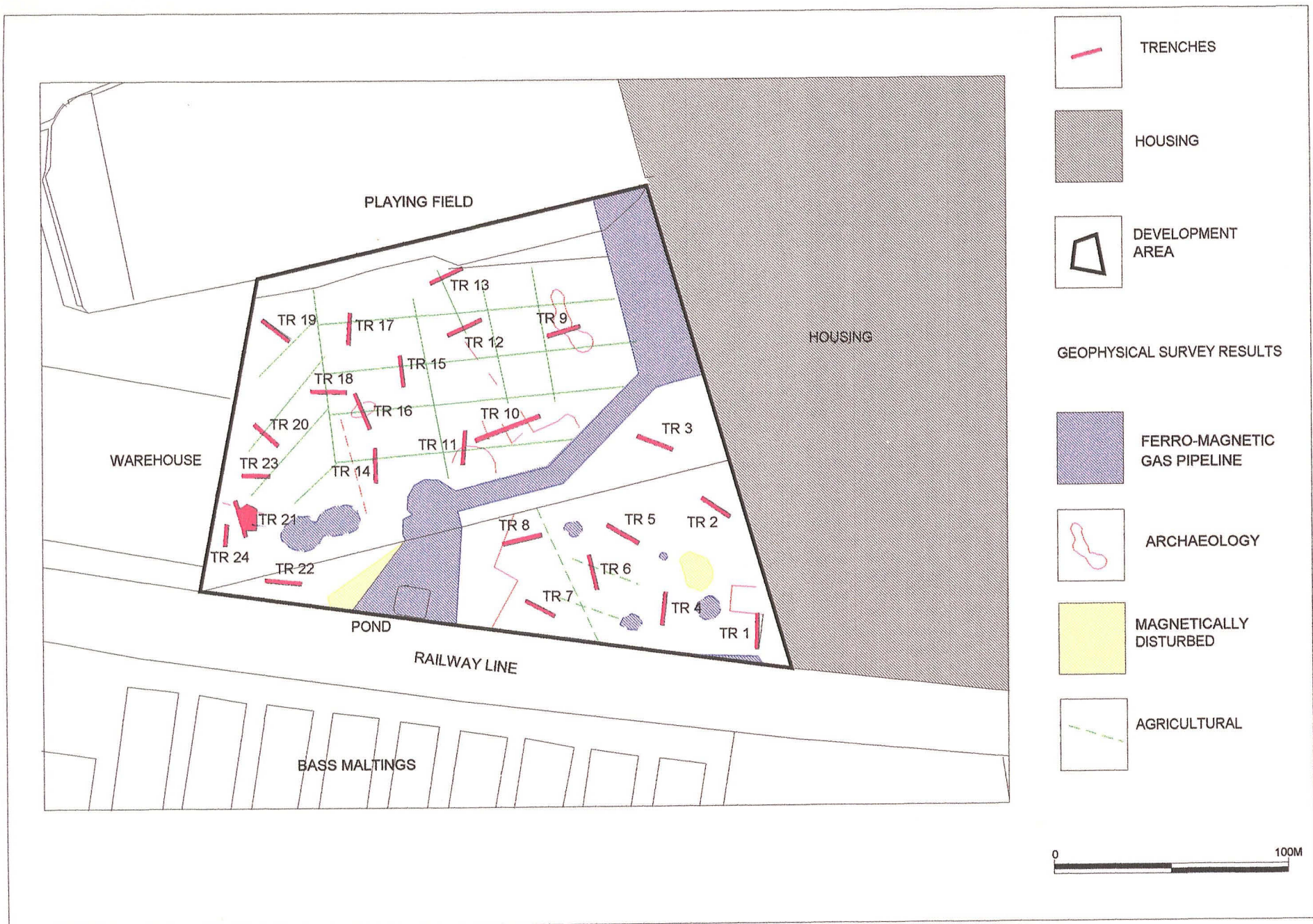


Figure 3: Trench location and geophysical survey plan

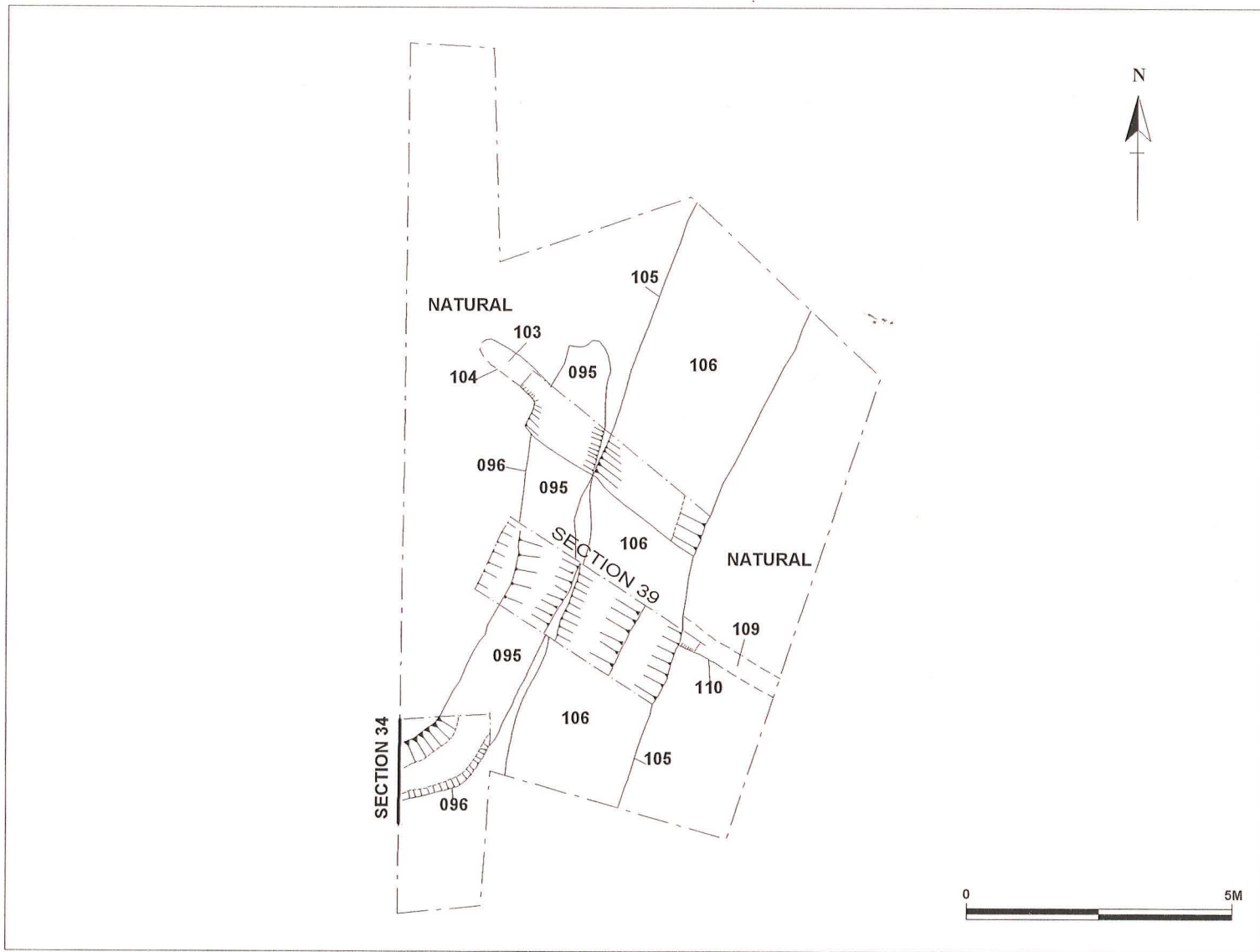


Figure 4: Trench 21

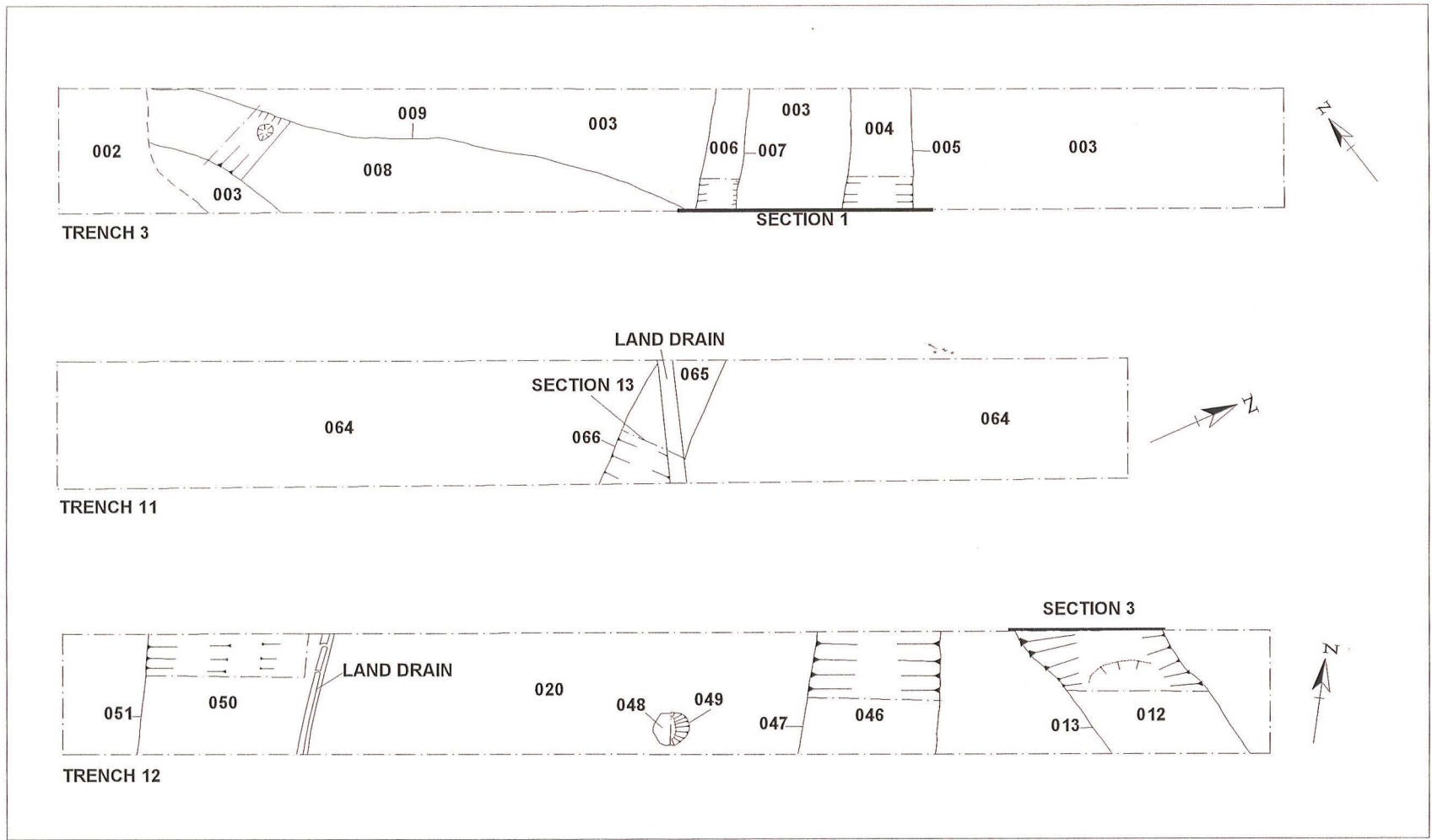


Figure 5: Trenches 3, 11 and 12

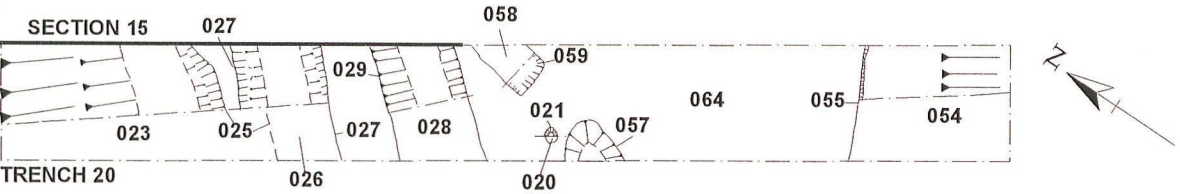
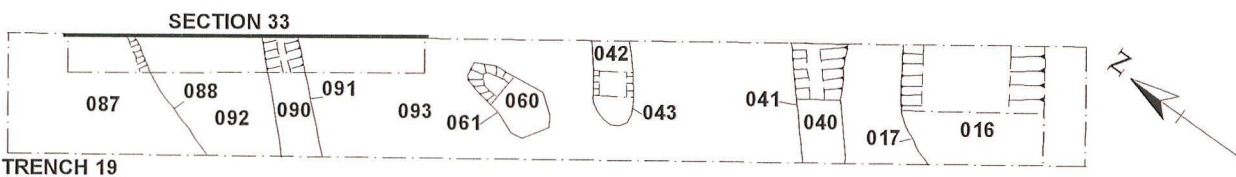
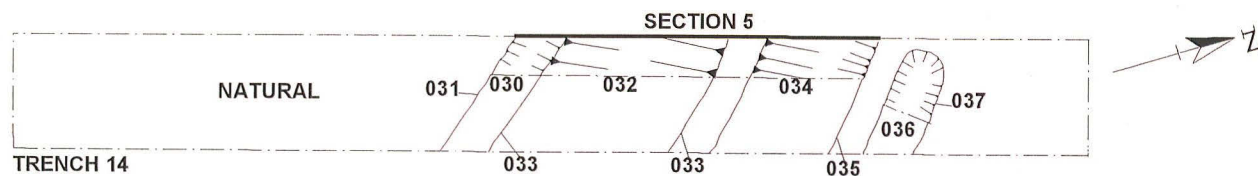


Figure 6: Trenches 14, 19 and 20

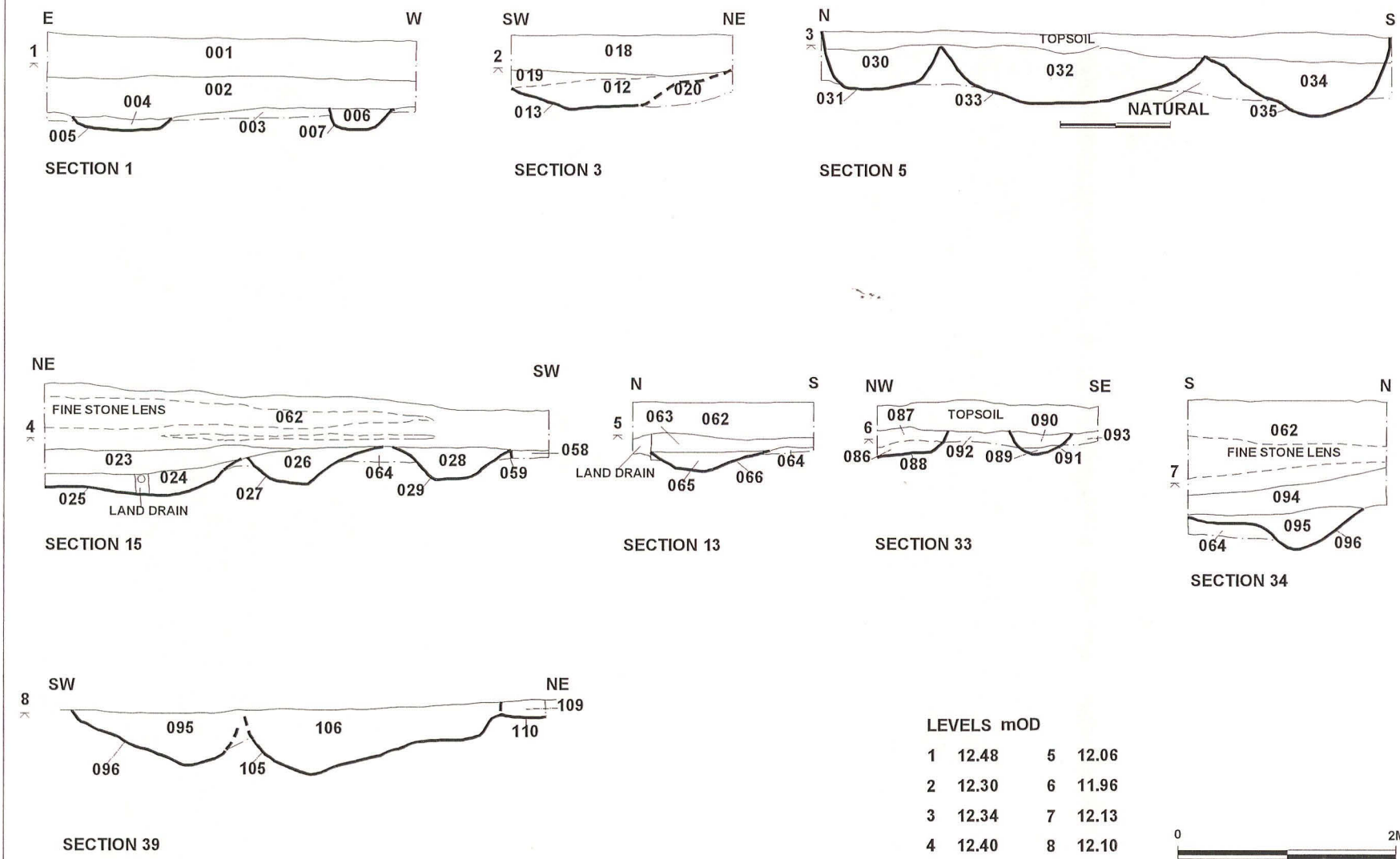


Figure 7: Sections 1, 3, 5, 13, 15, 33, 34 and 39



Plate 1 General view of site, looking northeast



Plate 2 Section through a Roman dated gully, looking west



Plate 3 Section 33 showing Late Saxon boundary ditch (088),
looking northeast



Plate 4 Trench 20 showing the excavated section through the
Late Saxon boundary ditch (back ground) and
undated gullies, looking northwest



Plate 5 Trench 21 showing excavated section through the Middle Iron Age enclosure ditch, looking north



Plate 6 Northwest view of Late Saxon boundary ditch (fore ground) located adjacent to the Middle Iron Age enclosure ditch (back ground)

Appendix 1

ARCHAEOLOGICAL PROJECT BRIEF FOR GEOPHYSICAL SURVEY AS PART OF AN EVALUATION

LAND OFF STEPHENS WAY, ADJACENT TO ADVANTA SEEDS,
SLEAFORD, LINCS

NGR: 507400 345550

Applicant: Advanta Seeds UK

Agent: Andrew Hancock
Planning and Development Consultancy
Stable Cottage
Gate Burton
Gainsborough
Lincs
DN21 5BA
01427 718490

1. Summary.

1.1 This document sets out the brief for archaeological fieldwork, recording and publication to be carried out land off Stephens Way. It sets out the requirements for a geophysical survey of the area as part of an evaluation of the site.

1.2 This brief should be used by archaeological contractors as the basis for the preparation of a detailed archaeological project specification providing details of the proposed scheme of work, to include the anticipated working methods, timescales and staffing levels.

1.3 All of the detailed specifications should be submitted by the developer to the Heritage Officer of North Kesteven District Council for approval. The client will then be free to choose between those specifications which have been approved.

2. Site Location and Description

2.1 Sleaford is located approximately 27km south of Lincoln. The 3.7 Ha. pre-application area is located on the east side of the town. It is bounded by a playing field to the north, the railway line to the south, Advanta seeds warehouses to the west and houses off Stephens Way to the east.

2.2 The field is overgrown and flat and lies at approximately 14m OD. Soils are the gleyic brown calcareous earth of the Ruskington Association developed on glaciofluvial sand and gravel (Hodge et al. 1984, 304).

2.3 Geophysical survey carried out on the northern part of this site as part of another application in 1997 revealed a pipeline running along its eastern and southern boundaries (see enclosed greyscale image).

3. Planning Background

3.1 Advanta Seeds, who own the site are about to submit an outline planning application for housing development. Before planning permission can be determined, the impact to any archaeological remains needs to be established. If archaeological remains are present on the site, priority should be given to their preservation in situ. If this is not possible, the remains will need to be excavated to preserve them 'by record' i.e. through excavation.

3.2 A geophysical survey has already been carried out on the northern part of the site as part of another planning application (N/57/557/97). A geophysical survey is now required on the southern part.

4. **Archaeological Background**

4.1 The pre-application area is surrounded by important archaeology. Old Sleaford, to the north-east was the site of a high status late Iron-Age settlement and mint, as well as an extensive Roman settlement. A middle Iron-Age site enclosed by a palisade (c.300-200BC) was excavated near the railway line 300m to the east in 1990. The Roman Road Mareham Lane runs in a south to north direction 300m to the east. It is possible that the Iron-Age and Roman settlement may extend into the pre-application area.

4.2 A scatter of worked flint and a Bronze-Age axe found just to the south of the Bass Maltings may indicate earlier prehistoric activity in this area.

4.3 In the actual pre-application area, Roman pottery has been found on the northern field as well as linear and curvilinear features showing on a geophysical survey (magnetic susceptibility and gradiometry). These features are probably archaeological in origin but it is impossible to define their form or function. On the southern field, a Bronze Age axe and 2 Roman coins have been found. The Heritage Officer monitored the excavation for the removal of contamination in this field in 1998 and observed a possible large ditch of unknown date running north to south. However the contamination prevented her from going into the trench to take a closer look.

5. **Requirement for work.**

5.1 The site is suitable for a geophysical survey and this is deemed necessary to establish where trial trenches need to be excavated. A separate brief for trial trenches has been written.

5.2 The southern , roughly triangular, part of the field is approximately 1.2ha in area and this is the area to be geophysically surveyed.

6. **Methods.**

The contractor's specification should be prepared according to requirements of this brief and the Lincolnshire Archaeological Handbook's section 'Standard Briefs for Archaeological Projects in Lincolnshire' (August 1997) and should include the following details:

6.1 A projected timetable must be agreed for the various stages of work (fieldwork and production of report).

6.2 The staff structure and numbers must be detailed including person hours for on-site work.

6.3 It is expected that all on-site work will be carried out in a way that complies with the relevant Health and Safety legislation and that due consideration will be given to site security.

6.4 A full description of the recovery and recording strategies to be used.

6.5 An estimate of time and resources allocated for the report production in the form of person hours.

6.6 The type of Geophysical survey to be used and the reason for choosing this method.

6.7. It is expected that an approved recording system will be used for all on-site and post-field work procedures.

6.8. The work should be carried out according to the guidelines in Research & Professional Services Guidelines No. 1 'Geophysical Survey in Archaeological Field Evaluation.' English Heritage 1995.

7. Monitoring Arrangements.

The Heritage Officer for North Kesteven District Council will be responsible for monitoring progress and standards throughout the project and will require at least fourteen days notice prior to the commencement of any fieldwork.

8. Reporting Requirements.

8.1 The final report should be produced to the level outlines in The Management of Archaeological Projects, Appendix 3, English Heritage, 1991 and within a timescale agreed with the Heritage Officer. The report should include:

8.1.1 Plans of the area which has been investigated.

8.1.2 Detailed Survey Results and interpretation of these.

8.1.3 Plans showing detailed and summary interpretation of results.

8.1.4. A consideration of the importance of the findings on a local, regional and national basis.

8.1.5 A critical review of the effectiveness of the methodology.

9. Archive Deposition.

9.1 Arrangements must be made with the land-owner(s) and/or the developers for the deposition of the paper archive. The landowner should be encouraged to deposit the project archive at the Lincolnshire City and County Museum.

9.2 Preliminary discussion must take place prior to fieldwork commencing and the receiving museum must be named at the tender stage of the project.

9.3 If the receiving museum is the City and County Museum Lincoln, then the archive should be produced in the form outlined in that Museum's Document 'Conditions for the Acceptance of project Archives,' See address below.

The City and County Museum should be contacted at the earliest possible opportunity, so that the full cost implications of the archive deposition can be taken into account.

10. Publication and Dissemination.

10.1. Copies of the final report must be deposited with the North Kesteven Heritage Officer, the Lincolnshire Sites and Monuments Record, The District Planning Authority and the developer.

10.2 The deposition of a copy of the report with the Lincolnshire Sites and Monuments Record and the Heritage Officer will be deemed to put all the information into the public domain, unless a special request is made for confidentiality. If material is to be held in confidence a timescale must be agreed with the Heritage Officer, but it is expected that this shall not exceed six months.

10.3 A summary of the findings of the investigation should be presented for publication to Lincolnshire History and Archaeology (Published by The Society for Lincolnshire History and Archaeology) within 12 months of the completion of the project.

11. Additional Information

11.1 This document attempts to define the best practice expected of an archaeological investigation but cannot fully anticipate the conditions that will be encountered as work progresses. However, changes to the approved programme of work are only to be made with the prior written approval of the Heritage Officer.

11.2 Further Contact Addresses.

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Heritage Lincolnshire
The Old School
Cameron Street
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Mr.T. Page
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Lincoln
LN2 5AL.

Planning Services
North Kesteven District Council Offices
PO Box 3
Kesteven St
Sleaford
NG34 7EF

Brief set by Kate Orr Heritage Officer 28/5/1999

This brief is only valid for one year from this date

Appendix 2

ARCHAEOLOGICAL PROJECT BRIEF FOR TRIAL TRENCHING AS PART OF AN EVALUATION

NGR: 507400 345550

Applicant: Advanta Seeds UK

Agent: Andrew Hancock
Planning and Development Consultancy
Stable Cottage
Gate Burton
Gainsborough
Lincs
DN21 5BA
01427 718490

1. Summary

This document sets out the brief for archaeological fieldwork, recording and publication to be carried out at land off Stephens Way. It sets out the requirements for a programme of trial trenching as part of an evaluation of the site.

This brief should be used by archaeological contractors as the basis for the preparation of a detailed archaeological project specification. In response to this brief, contractors will be expected to provide details of the proposed scheme of work, to include the anticipated working methods, timescales and staffing levels.

All detailed specifications will be submitted by the developer for approval by the Heritage Officer for North Kesteven District Council. The client will be free to choose between those specifications which are considered to adequately satisfy this brief.

2. Site Location and Description

Sleaford is located approximately 27km south of Lincoln. The 3.7 Ha. pre-application area is located on the east side of the town. It is bounded by a playing field to the north, the railway line to the south, Advanta seeds warehouses to the west and houses off Stephens Way to the east.

The field is overgrown and flat and lies at approximately 14m OD. Soils are the gleyic brown calcareous earth of the Ruskington Association developed on glaciofluvial sand and gravel (Hodge et al. 1984, 304).

Geophysical survey carried out on the northern part of this site as part of another application in 1997 revealed a pipeline running along its eastern and southern boundaries (see enclosed greyscale image).

3. Planning Background

Advanta Seeds, who own the site are about to submit an outline planning application for housing development. Before planning permission can be determined, the impact to any archaeological remains needs to be established. If archaeological remains are present on the site, priority should be given to their preservation in situ. If this is not possible, the remains will need to be excavated to preserve them 'by record' i.e. through excavation.

A geophysical survey has already been carried out on the northern part of the site as part of another planning application (N/57/557/97). A geophysical survey will be required on the southern part and a separate brief has been written for this work.

4. **Archaeological Background**

The pre-application area is surrounded by important archaeology. Old Sleaford, to the north-east was the site of a high status late Iron-Age settlement and mint, as well as an extensive Roman settlement. A middle Iron-Age site enclosed by a palisade (c.300-200BC) was excavated near the railway line 300m to the east in 1990. The Roman Road Mareham Lane runs in a south to north direction 300m to the east. It is possible that the Iron-Age and Roman settlement may extend into the pre-application area.

A scatter of worked flint and a Bronze-Age axe found just to the south of the Bass Maltings may indicate earlier prehistoric activity in this area.

In the actual pre-application area, Roman pottery has been found on the northern field as well as linear and curvilinear features showing on a geophysical survey (magnetic susceptibility and gradiometry). These features are probably archaeological in origin but it is impossible to define their form or function. On the southern field, a Bronze Age axe and 2 Roman coins have been found. The Heritage Officer monitored the excavation for the removal of contamination in this field in 1998 and observed a possible large ditch of unknown date running north to south. However the contamination prevented her from going into the trench to take a closer look.

5. **Requirement for Work**

The purpose of the archaeological evaluation should be to gather sufficient information to establish the presence/absence, extent, condition, character, quality and date of any archaeological deposits. The trial trenches need to be positioned to investigate those anomalies which appeared on the geophysical survey and to discover if there are any further remains which have not been detected.

This stage of the evaluation will consist of the excavation of a 2 % sample of the 3.7ha. area. The positioning of the trial trenches will be discussed with the Heritage Officer and Client and should seek to avoid the pipeline.

The site should not be treated in isolation and reference should be made to relevant historical sources and previous archaeological work in the area when interpreting the results.

The investigation should be carried out by a recognised archaeological body in accordance with the code of conduct of the Institute of Field Archaeologists.

6. **Methods**

6.1 In consideration of methodology the following details should be given in the contractor's specification:

A projected timetable must be agreed for the various stages of work (fieldwork and production of report).

The staff structure and numbers must be detailed including 'person' hours for on-site work.

It is expected that all on-site work will be carried out in a way that complies with the relevant Health and Safety legislation and that due consideration will be given to site security.

A full description of the recovery and recording strategies to be used.

An estimate of time and resources allocated for the post-excavation work and report production in the form of 'person' hours. This should include lists of specialists and their role in the project. It is expected that a variety of periods of activity could be encountered and therefore adequate provision should be made for specialists.

A contingency for unexpected costs e.g. due to more artefacts or ecofacts recovered than expected and a description of what is included. This should only be activated after discussion with the Heritage Officer and the client.

6.2 Excavation is a potentially destructive technique and the specification should include a detailed reasoning behind the application of this technique. The following factors should be borne in mind:

the use of an appropriate machine with a wide toothless ditching blade.

the supervision of all machine work by an archaeologist.

the machine should be used to remove topsoil down to the first archaeological horizon.

the most recent archaeological deposits are not necessarily the least important and this should be considered when determining the level to which machining will be carried out.

when archaeological features are revealed by machine these will be cleaned by hand.

a representative sample of every archaeological feature must be excavated by hand (although the depth of surviving deposits must be determined, it is not expected that every trench will be excavated to natural).

all excavation must be carried out with a view to avoiding features which may be worthy of preservation in situ.

any human remains encountered must be left in situ and only removed if absolutely necessary. The contractor must comply with all statutory consents and licences regarding the exhumation and interment of human remains. It will also be necessary to comply with all reasonable requests of interested parties as to the method of removal, re-interment or disposal of the remains or associated items. Attempts must be made at all times not to cause offence to any interested parties.

it is expected that an approved recording system will be used for all on-site and post-fieldwork procedures.

Under the new Treasure Act, any gold or silver items found which are thought to qualify as 'treasure' should be reported to the Sleaford Coroner's office within fourteen days.

7. Monitoring Arrangements

The Heritage Officer will be responsible for monitoring progress to ensure that fieldwork meets the specification. To facilitate this she should be contacted at least one week prior to the commencement of fieldwork.

Any adjustments to the brief for the evaluation should only be made after discussion with the Heritage Officer for North Kesteven District Council. If any major archaeological discovery is made it is hoped that this will be accommodated within the scheme, and preservation in situ be given due consideration.

8. Reporting Requirements

8.1 The evaluation report should be produced to the level outlined in The Management of Archaeological Projects, Appendix 3, English Heritage, 1991 and should be produced within two months of the completion of the fieldwork phase. If this is not possible then the Heritage Officer must be consulted at the earliest possible opportunity. The report should include:

plans of the trench layout and features therein.

tables summarising features and artefacts together with a full description and a brief interpretation.

section and plan drawings with ground level Ordnance Datum, vertical and horizontal scales

plans of actual and potential deposits.

a consideration of the evidence within the wider landscape setting.

a consideration of the importance of the findings on a local, regional and national basis.

a critical review of the effectiveness of the methodology;

8.2 A copy of the evaluation report must be deposited with Lincolnshire Sites and Monuments Record, the Heritage Officer, The District Planning Authority and the client.

9. Archive Deposition

Arrangements must be made with the landowner(s) and/or developers and an appropriate museum for the deposition of the object and paper archive. If the receiving museum is to be the City and County Museum, Lincoln then the archive should be produced in the form outlined in that museum's document 'Conditions for the Acceptance of Project Archives', see address below.

10. Publication and Dissemination

The deposition of a copy of the report with the Lincolnshire Sites and Monuments Record and with the Heritage Officer will be deemed to put all information into the public domain, unless a special request is made for confidentiality. If material is to be held in confidence a timescale must be agreed with the Heritage Officer but is expected this will not exceed six months.

Consideration must be given to a summary of the results being published in Lincolnshire History and Archaeology in due course.

11. Additional Information

This document attempts to define the best practice expected of an archaeological evaluation but cannot fully anticipate the conditions that will be encountered as work progresses. However, changes to the approved programme of evaluation work are only to be made with the prior written approval of the Heritage Officer.

Further contact addresses:

Kate Orr
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Planning Services
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PO Box 3
Kesteven St
Sleaford
NG34 7EF

Brief set by the North Kesteven Heritage Officer 26/5/1999

This brief is only valid for one year from this date

Appendix 3

**SPECIFICATION
FOR THE
GEOPHYSICAL SURVEY AND
ARCHAEOLOGICAL EVALUATION
OF LAND OFF
STEPHENS WAY,
SLEAFORD**

**PREPARED FOR
ANDREW HANCOCK
PLANNING AND DEVELOPMENT CONSULTANCY**

JULY 1999

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1 **SUMMARY**

- 1.1 *This document comprises a specification for the geophysical survey and field evaluation of land off Stephens Way, Sleaford.*
- 1.2 *Significant Iron Age and Roman remains are located near to the site and prehistoric flints and Bronze Age axes have been found close by. Additionally, Roman pottery has been found on the site, geophysical survey on part of the area has tentatively identified buried remains and a large but undated ditch was observed during a small excavation in the area.*
- 1.3 *A planning application is about to be submitted for residential development of the area. The archaeological works are being undertaken to provide information to assist the determination of the application.*
- 1.4 *The archaeological work will in the first instance consist of a geophysical survey of part of the site. A report will be produced which will show plans of the locations of any buried remains found. The results of this investigation will guide the location of trenches in the following evaluation programme which will examine the section and the previous surveyed sector of the site.*
- 1.5 *On completion of the fieldwork a report will be prepared detailing the results of the investigations. The evaluation report will consist of a text describing the nature of the archaeological deposits located and will be supported by illustrations and photographs.*

2 **INTRODUCTION**

- 2.1 This document comprises a specification for the geophysical survey and field evaluation of land adjacent to Advanta Seeds, off Stephens Way, Sleaford, Lincolnshire, national grid reference SK 074 455.
- 2.2 The document contains the following parts:
 - 2.2.1 Overview
 - 2.2.2 The archaeological and natural setting
 - 2.2.3 Stages of work and methodologies to be used
 - 2.2.4 List of specialists

2.2.5 Programme of works and staffing structure of the project

3 **SITE DESCRIPTION**

- 3.1 Sleaford is located approximately 27km south of Lincoln. Situated in the eastern part of the town, the site is located south of Boston Road and is bounded by a railtrack to the south, a playing field to the north, Advanta Seeds to the west and the residential area of Stephens Way to the east.
- 3.2 The site is a grassed area of 3.7ha lying at *c.* 14m OD at national grid reference SK 074 455.

4 **PLANNING BACKGROUND**

- 4.1 The site owners, Advanta Seeds, are about to submit an outline planning application for residential development of the site. Before planning permission can be granted information is required to determine the potential impact of the proposed development to any archaeological remains in the area. Briefs for the archaeological works required to provide this information were produced by the North Kesteven Heritage Officer.
- 4.2 A geophysical survey has already been undertaken on the northern part of the site and now a similar survey is required in the southern section. Evaluation by trial trenching is also required across both parts of the site.

5 **SOILS AND TOPOGRAPHY**

- 5.1 The site lies at approximately 14m OD on fairly flat and level land. Soils of the area are Ruskington Association gleyic brown calcareous earths developed on glaciofluvial sand and gravel (Hodge *et al.* 1984 304).

6 **ARCHAEOLOGICAL OVERVIEW**

- 6.1 Prehistoric flints and a Bronze Age axe have previously been found just to the south of the site while another Bronze Age axe has been found in the southern part of the investigation area.
- 6.2 A Middle Iron Age palisaded enclosure has been investigated 300m to the east of the site. Old Sleaford Late Iron Age settlement and mint has been the subject of numerous investigations and is located a little to the northeast of the site.
- 6.3 The Old Sleaford Iron Age site was succeeded by an extensive Romano-British

settlement in the same basic location. This probable Roman small town was situated astride the Mareham Lane Roman road which bypasses the present investigation area c. 300m to the east. Roman pottery has been found in the northern field of the site and two Roman coins have been recovered from the southern field. Previous geophysical survey on the northern field identified linear and curvilinear remains of probable archaeological origin. A large but undated north-south ditch was located in the southern field during minor excavations to remove contaminated soil.

7 AIMS AND OBJECTIVES

7.1 The aim of the investigation will be:

7.1.1 to gather sufficient information for the archaeological curator to be able to formulate appropriate policies for the management of the archaeological resource of the site.

7.2 The objectives will be to establish:

7.2.1 the location of archaeological remains in the area;

7.2.2 the type and form of archaeological remains that may be present within the site;

7.2.3 the likely extent of archaeological remains present within the site;

7.2.4 the spatial arrangement of the archaeological remains present within the site;

7.2.5 the density of archaeological features present in the investigation area;

7.2.6 the extent to which the surrounding archaeological remains extend into the application area;

7.2.7 the way in which the archaeological remains identified fit into the pattern of occupation and land-use in the surrounding landscape;

7.2.8 the date and function of the archaeological remains present on the site.

8 GEOPHYSICAL SURVEY

8.1 Reasoning for this technique

8.1.1 The geophysical survey of the site will use fluxgate gradiometer. This technique enables large areas to be investigated rapidly and the results facilitate the rapid identification of the likely archaeological potential of the site.

8.1.2 The effectiveness of the technique is limited by background magnetic susceptibility and the ground cover which ideally should be minimal.

8.2 Methodology

8.2.1 The entire specified area (1.2ha) of the site will be surveyed by an experienced operator to identify areas of enhanced magnetic activity. The survey areas will be divided into 20m squares and 800 readings will be logged per square.

8.3 Report

8.3.1 A report will be prepared on completion of the survey detailing the methodologies used and the results of the work. The areas and nature of archaeological activity will be shown on a series of computer generated plots and the anomalies encountered will be interpreted. The report will be prepared in accordance with the English Heritage (1995) document *Geophysical Survey in Archaeological Field Evaluations*, Research and Professional Services Guideline 1.

9 **LIAISON WITH THE ARCHAEOLOGICAL CURATOR**

9.1 Prior to the commencement of the excavation phase the arrangement of the trial trenches will be agreed with the archaeological curator to ensure that the proposed scheme of works fulfils their requirements.

10 **TRIAL TRENCHING**

10.1 Reasoning for this technique

10.1.1 Trial trenching enables the *in situ* determination of the sequence, date, nature, depth, environmental potential and density of archaeological features present on the site.

10.1.2 The trial trenching will consist of a 2% sample of the site, the locations of the trenches to be established in consultation with the archaeological curator and in consideration of the results of the geophysical surveys.

Should archaeological deposits extend below 1.2m depth then the trench sides will be stepped in, or shored, as appropriate. Augering may be used to determine the depth of the sequence of deposits present.

10.2 General Considerations

10.2.1 All work will be undertaken following statutory Health and Safety requirements in operation at the time of the evaluation.

10.2.2 The work will be undertaken according to the relevant codes of practice issued by the Institute of Field Archaeologists (IFA). *Archaeological Project Services* is an IFA Registered Archaeological Organisation (No. 21).

10.2.3 Any and all artefacts found during the investigation and thought to be 'treasure', as defined by the Treasure Act 1996, will be removed from site to a secure store and promptly reported to the appropriate coroner's office.

10.2.4 Excavation of the archaeological features exposed will only be undertaken as far as is required to determine their date, sequence, density and nature. Not all archaeological features exposed will be excavated. However, the evaluation will, as far as is reasonably practicable, determine the level of the natural deposits to ensure that the depth of the archaeological sequence present on the site is established.

10.2.5 Open trenches will be marked by hazard tape attached to road irons or similar poles. Subject to the consent of the archaeological curator and following the appropriate recording, the trenches, particularly those of excessive depth, will be backfilled as soon as possible to minimise any health and safety risks.

10.3 Methodology

10.3.1 Removal of the topsoil and any other overburden will be undertaken by mechanical excavator using a toothless ditching bucket. To ensure that the correct amount of material is removed and that no archaeological deposits are damaged, this work will be supervised by Archaeological Project Services. On completion of the removal of the overburden, the nature of the underlying deposits will be assessed by hand excavation before any further mechanical excavation that may be required. Thereafter, the trenches will be cleaned by hand to enable the identification and analysis of the archaeological features exposed.

- 10.3.2 Investigation of the features will be undertaken only as far as required to determine their date, form and function. The work will consist of half- or quarter-sectioning of features as required and, where appropriate, the removal of layers. Should features be located which may be worthy of preservation *in situ*, excavation will be limited to the absolute minimum, (*ie* the minimum disturbance) necessary to interpret the form, function and date of the features.
- 10.3.3 The archaeological features encountered will be recorded on Archaeological Project Services pro-forma context record sheets. The system used is the single context method by which individual archaeological units of stratigraphy are assigned a unique record number and are individually described and drawn.
- 10.3.4 Plans of features will be drawn at a scale of 1:20 and sections at a scale of 1:10. Should individual features merit it, they will be drawn at a larger scale.
- 10.3.5 Throughout the duration of the trial trenching a photographic record consisting of black and white prints (reproduced as contact sheets) and colour slides will be compiled. The photographic record will consist of:
- 10.3.5.1 the site before the commencement of field operations.
 - 10.3.5.2 the site during work to show specific stages of work, and the layout of the archaeology within individual trenches.
 - 10.3.5.3 individual features and, where appropriate, their sections.
 - 10.3.5.4 groups of features where their relationship is important.
 - 10.3.5.5 the site on completion of field work
- 10.3.6 Should human remains be encountered, they will be left *in situ* with excavation being limited to the identification and recording of such remains. The appropriate Home Office licences will be obtained and the local environmental health department and the police informed.
- 10.3.7 Finds collected during the fieldwork will be bagged and labelled according to the individual deposit from which they were recovered ready for later washing and analysis.

10.3.8 The spoil generated during the evaluation will be mounded along the edges of the trial trenches with the topsoil being kept separate from the other material excavated for subsequent backfilling.

10.3.9 The precise location of the trenches within the site and the location of site recording grid will be established by an EDM survey.

11 ENVIRONMENTAL ASSESSMENT

11.1 If appropriate, during the evaluation specialist advice may be obtained from an environmental archaeologist. The specialist will visit the site and will prepare a report detailing the nature of the environmental material present on the site and its potential for additional analysis should further stages of archaeological work be required. The results of the specialist's assessment will be incorporated into the final report

12 POST-EXCAVATION AND REPORT

12.1 Stage 1

12.1.1 On completion of site operations, the records and schedules produced during the trial trenching will be checked and ordered to ensure that they form a uniform sequence constituting a level II archive. A stratigraphic matrix of the archaeological deposits and features present on the site will be prepared. All photographic material will be catalogued: the colour slides will be labelled and mounted on appropriate hangers and the black and white contact prints will be labelled, in both cases the labelling will refer to schedules identifying the subject/s photographed.

12.1.2 All finds recovered during the trial trenching will be washed, marked, bagged and labelled according to the individual deposit from which they were recovered. Any finds requiring specialist treatment and conservation will be sent to the Conservation Laboratory at the City and County Museum, Lincoln.

12.2 Stage 2

12.2.1 Detailed examination of the stratigraphic matrix to enable the determination of the various phases of activity on the site.

12.2.2 Finds will be sent to specialists for identification and dating.

12.3 Stage 3

12.3.1 On completion of stage 2, a report detailing the findings of the evaluation will be prepared. This will consist of:

12.3.1.1 A non-technical summary of the results of the evaluation.

12.3.1.2 A description of the archaeological setting of the site.

12.3.1.3 Description of the topography and geology of the evaluation area.

12.3.1.4 Description of the methodologies used during the evaluation and discussion of their effectiveness in the light of the findings of the investigation.

12.3.1.5 A text describing the findings of the evaluation.

12.3.1.6 Plans of the trenches showing the archaeological features exposed. If a sequence of archaeological deposits is encountered, separate plans for each phase will be produced.

12.3.1.7 Sections of the trenches and archaeological features.

12.3.1.8 Interpretation of the archaeological features exposed and their context within the surrounding landscape.

12.3.1.9 Specialist reports on the finds from the site.

12.3.1.10 Appropriate photographs of specific archaeological features.

13 **ARCHIVE**

13.1 The documentation, finds, photographs and other records and materials generated during the evaluation will be sorted and ordered into the format acceptable to the City and County Museum, Lincoln. This sorting will be undertaken according to the document titled *Conditions for the Acceptance of Project Archives* for long term storage and curation.

14 **REPORT DEPOSITION**

- 14.1 Copies of the evaluation report will be sent to: the client, Andrew Hancock Planning and Design Consultancy; the North Kesteven Heritage Officer; North Kesteven District Council Planning Department; and the Lincolnshire County Sites and Monuments Record.

15 **PUBLICATION**

- 15.1 A report of the findings of the evaluation will be published in Heritage Lincolnshire's annual report and an article of appropriate content will be submitted for inclusion in the journal of the Society for Lincolnshire History and Archaeology. Notes or articles describing the results of the investigation will also be submitted for publication in the appropriate national journals: *Medieval Archaeology* and *Journal of the Medieval Settlement Research Group* for medieval and later remains, and *Britannia* for discoveries of Roman date.

16 **CURATORIAL MONITORING**

- 16.1 Curatorial responsibility for the project lies with the North Kesteven Heritage Officer. As much notice as possible, ideally at least 14 days written notification, will be given to the archaeological curator prior to the commencement of the project to enable them to make appropriate monitoring arrangements.

17 **VARIATIONS TO THE PROPOSED SCHEME OF WORKS**

- 17.1 Variations to the scheme of works will only be made following written confirmation of acceptance from the archaeological curator.
- 17.2 Should the archaeological curator require any additional investigation beyond the scope of the briefs for works, or this specification, then the cost and duration of those supplementary examinations will be negotiated between the client and the contractor.

18 **SPECIALISTS TO BE USED DURING THE PROJECT**

- 18.1 The following organisations/persons will, in principal and if necessary, be used as subcontractors to provide the relevant specialist work and reports in respect of any objects or material recovered during the investigation that require their expert knowledge and input. Engagement of any particular specialist subcontractor is also dependent on their availability and ability to meet programming requirements.

Task

Body to be undertaking the work

| | |
|-------------------------|--|
| Geophysical Survey | Engineering Archaeological Services |
| Conservation | Conservation Laboratory, City and County Museum, Lincoln. |
| Pottery Analysis | Prehistoric: Trent and Peak Archaeological Trust Roman: B Precious, independent specialist Anglo-Saxon: J Young, independent specialist Medieval and later: H Healey, independent archaeologist, or G Taylor, APS |
| Other Artefacts | J Cowgill, independent specialist, or G Taylor, APS |
| Human Remains Analysis | R Gowland, independent specialist |
| Animal Remains Analysis | Environmental Archaeology Consultancy, or P Cope-Faulkner, APS |
| Environmental Analysis | Environmental Archaeology Consultancy |

19 STAFFING LEVELS AND PROGRAMME

19.1 Geophysical Survey

19.1.1 Geophysical Survey fieldwork is dependent on site conditions and it is therefore not possible to specify person-hours for site work. However, the site work is likely to take 1-2 days, possibly for 2 people. Similarly, analytical time is dependent on the nature of the results of the survey and cannot be specified. However, the analysis and report production is expected to take from 3-5 days, possibly for up to 3 people.

19.2 Evaluation (Trial Trenching)

19.2.1 The fieldwork is expected to take in the vicinity of 8-10 days for approximately 5 people, giving between 300 to 375 person hours on site. However, the level of archaeological remains is unknown and the figure is a 'best estimate' that cannot be specified further.

19.2.2 Up to two half-days (8 person hours) have been allotted for an environmental archaeologist, though this is contingent on the quantity and quality of ancient environmental remains present on site.

19.2.3 Post-excavation analysis and report production have been allotted about 10 person days (75 person hours) plus specialist time of 8 person hours, though these are subject to the quantity, complexity and quality of archaeological remains encountered.

19.3 Contingency

19.3.1 Contingencies have been specified in the budget. These include: environmental sampling/analysis of waterlogged remains; pump (not expected as this area of Sleaford is relatively high); Iron Age pottery - moderate amounts (small quantities have been allowed for); Roman pottery - large amounts (moderate quantities expected and allowed for); Anglo-Saxon pottery (not expected); Medieval pottery - moderate-large quantities (small amount expected and allowed for); faunal remains - large quantities (moderate amounts expected and allowed for); Conservation and/or Other unexpected remains or artefacts.

20 BIBLIOGRAPHY

English Heritage, 1995 *Geophysical survey in archaeological field evaluation*, Research and Professional Services Guideline 1

Hodge, CAH, Burton, RGO, Corbett, WM, Evans, R, and Seale, RS, 1984 *Soils and their use in Eastern England*, Soil Survey of England and Wales 13

Appendix 4

SECRETARY OF STATE'S CRITERIA FOR SCHEDULING ANCIENT MONUMENTS Extract from *Archaeology and Planning* DoE Planning Policy Guidance note 16, November 1990

The following criteria (which are not in any order of ranking), are used for assessing the national importance of an ancient monument and considering whether scheduling is appropriate. The criteria should not however be regarded as definitive; rather they are indicators which contribute to a wider judgement based on the individual circumstances of a case.

i *Period*: all types of monuments that characterise a category or period should be considered for preservation.

ii *Rarity*: there are some monument categories which in certain periods are so scarce that all surviving examples which retain some archaeological potential should be preserved. In general, however, a selection must be made which portrays the typical and commonplace as well as the rare. This process should take account of all aspects of the distribution of a particular class of monument, both in a national and regional context.

iii *Documentation*: the significance of a monument may be enhanced by the existence of records of previous investigation or, in the case of more recent monuments, by the supporting evidence of contemporary written records.

iv *Group value*: the value of a single monument (such as a field system) may be greatly enhanced by its association with related contemporary monuments (such as a settlement or cemetery) or with monuments of different periods. In some cases, it is preferable to protect the complete group of monuments, including associated and adjacent land, rather than to protect isolated monuments within the group.

v *Survival/Condition*: the survival of a monument's archaeological potential both above and below ground is a particularly important consideration and should be assessed in relation to its present condition and surviving features.

vi *Fragility/Vulnerability*: highly important archaeological evidence from some field monuments can be destroyed by a single ploughing or unsympathetic treatment; vulnerable monuments of this nature would particularly benefit from the statutory protection that scheduling confers. There are also existing standing structures of particular form or complexity whose value can again be severely reduced by neglect or careless treatment and which are similarly well suited by scheduled monument protection, even if these structures are already listed buildings.

vii *Diversity*: some monuments may be selected for scheduling because they possess a combination of high quality features, others because of a single important attribute.

viii *Potential*: on occasion, the nature of the evidence cannot be specified precisely but it may still be possible to document reasons anticipating its existence and importance and so to demonstrate the justification for scheduling. This is usually confined to sites rather than upstanding monuments.

Appendix 5

*Survey Commissioned
by
Archaeological Project Services*

*Surveyed
by
John Price
Engineering Archaeological Services Ltd.*

*registered in England
Nº 2869678*

Boston Road Sleaford

Geophysical Survey

December 1997

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NGR

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*Techniques Of
Geophysical Survey*

Instrumentation

Methodology

Copyright

Boston Road Sleaford Geophysical Survey - Introduction:

NGR

Centred On TF 075 455

Location And Topography

The area surveyed lies to the south of the recreation ground and playing fields off Boston Road and to the north of the railway line. The land is flat and under a setaside regime and so is fairly overgrown.

Archaeological Background

The area is adjacent to a number of known sites and evaluations in the area have revealed features of late Iron Age and Romano-British date.

Aims Of Survey

It was hoped that a detailed magnetometer survey would detect and locate any possible features and activity areas and thus clarify the archaeological significance of the site.

SUMMARY OF RESULTS

A number of features were detected which might be archaeological in origin as well as features of agricultural origin.

Boston Road Sleaford Geophysical Survey -Results:

Survey Results:

Area

An area of approximately 2.9 Ha. was surveyed in detail.

Results:

Detailed Survey

Three areas were surveyed: a large block in the open area to the south of the playing fields and a narrow strip to either side of the playing fields.

The two narrow strips suffer from the proximity of boundary fences and in the case of the eastern area a gas pipeline which between them obscure almost all detail. There are indications of a linear feature aligned east west in the most northern part of the eastern strip, illustrated in red on the interpretation (Figure ?), however, this coincides with the approximate position of a footpath.

The main block of survey shows a number of features. A gas pipeline illustrated in blue on the interpretation (Figure 5) enters the area from the south turns east and then runs along the eastern edge of the site. Also illustrated in blue is a large area of ferro-magnetic disturbance in the south western part of the survey area.

Illustrated in green on the interpretation (Figure 5) is a recent drainage system in addition when processing the data a number of trends can be seen aligned approximately NNW to SSE which may represent former rig and furrow, these are also illustrated in green.

A number of feint features, illustrated in red on the interpretation (Figure 5) are probably archaeological in origin. They include both linear and curvilinear features and an area of diffuse though enhanced magnetic properties towards the eastern side of the area.

Additional Information

While carrying out the survey one of the employees of Sharpe's International who own the site related that when Sharpe's acquired the site the triangular area immediately to the south of the survey area had allotments on it and during the clearing of these he had picked up a Bronze Age axe and two Roman coins.

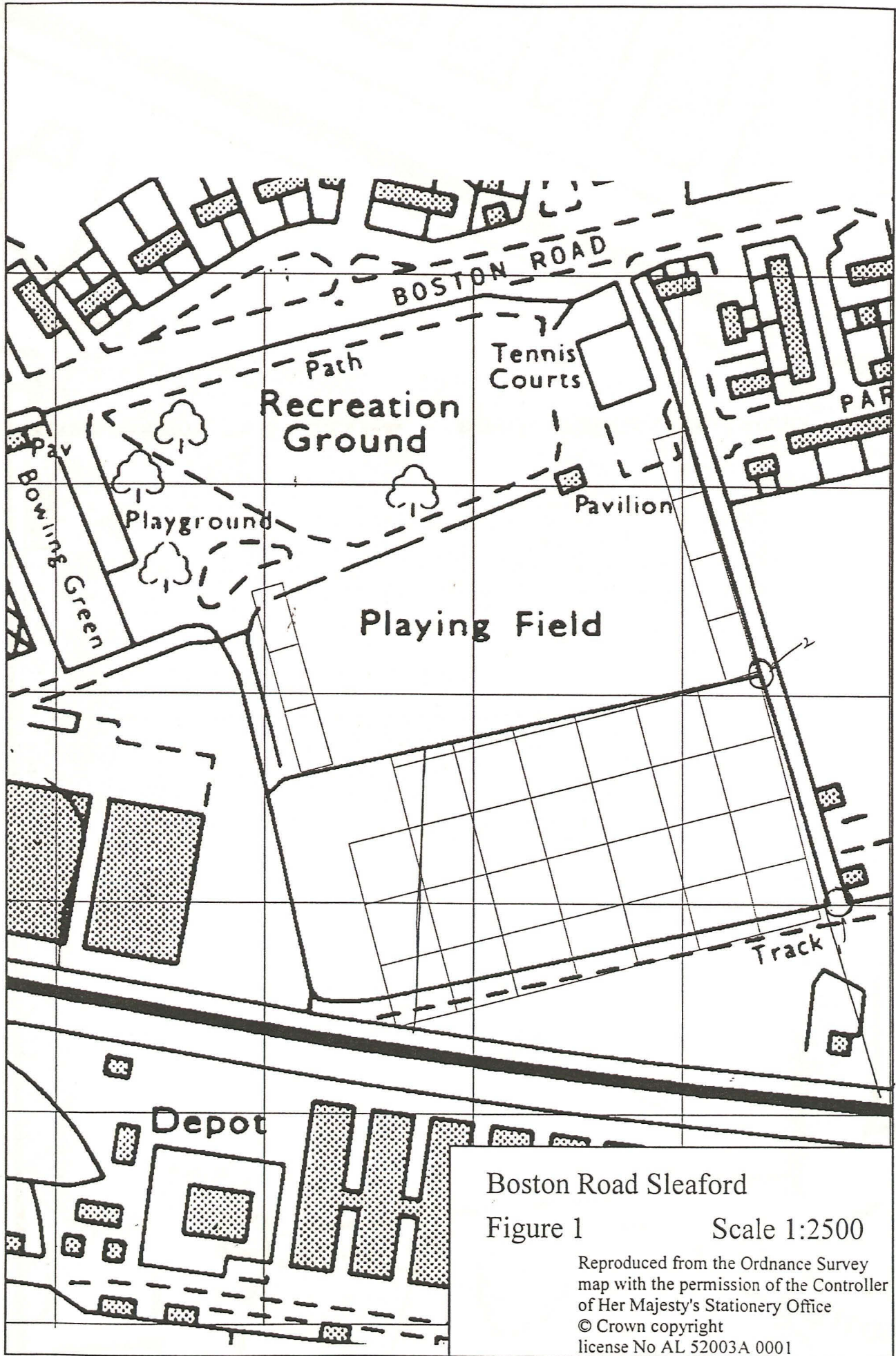
Magnetic Susceptibility

The susceptibilities as measured are in general fairly low, though a number are significantly higher but two of these come from areas associated with the gas pipeline so no conclusions can be drawn.

| Sample | Volume susceptibility χ_v | Mass susceptibility χ_m |
|---------|-----------------------------------|---------------------------------|
| Grid 1 | 23 | 18.7 |
| Grid 4 | 17 | 14.5 |
| Grid 6 | 15 | 13.2 |
| Grid 11 | 41 | 33.1 |
| Grid 13 | 25 | 21.4 |
| Grid 15 | 19 | 17.8 |
| Grid 20 | 32 | 26.9 |
| Grid 23 | 19 | 15.1 |
| Grid 26 | 18 | 14.9 |
| Grid 28 | 17 | 14.3 |
| Grid 29 | 46 | 37.4 |

Conclusions

A number of features were detected that are probably archaeological in origin, however, the diffuse nature of these makes it impossible to define their form or function.

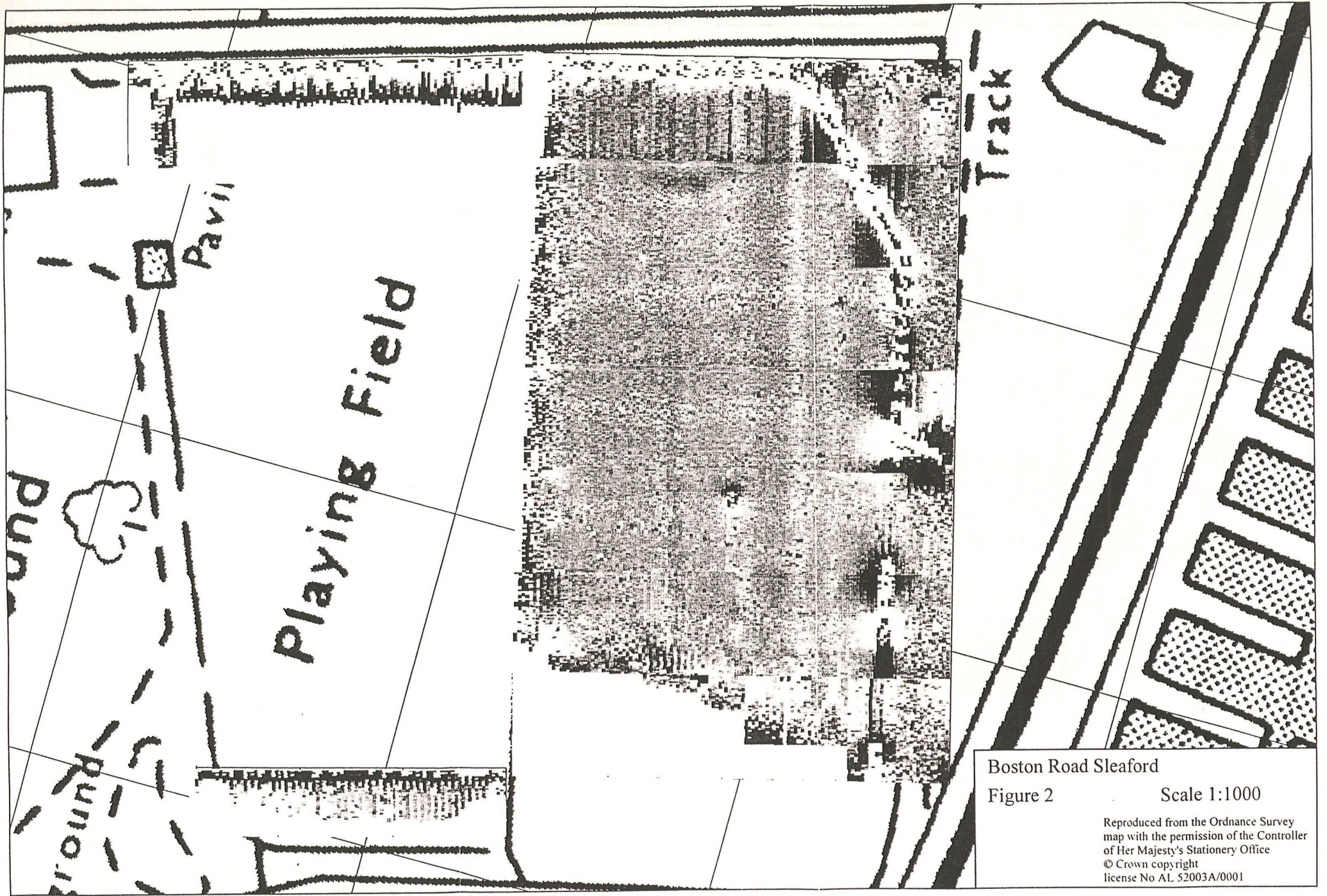


Boston Road Sleaford

Figure 1

Scale 1:2500

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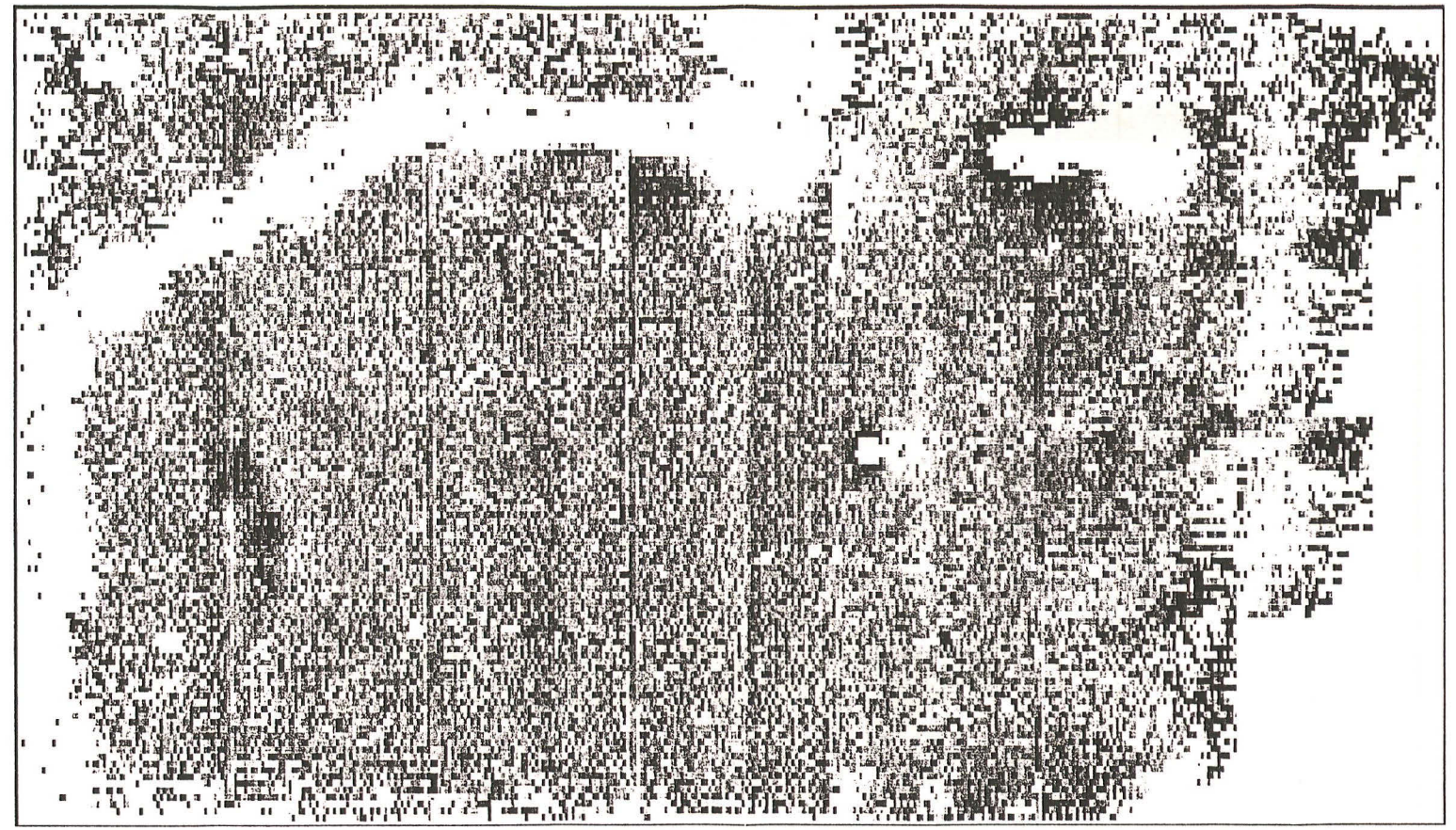
Boston Road Sleaford

Figure 2

Scale 1:1000

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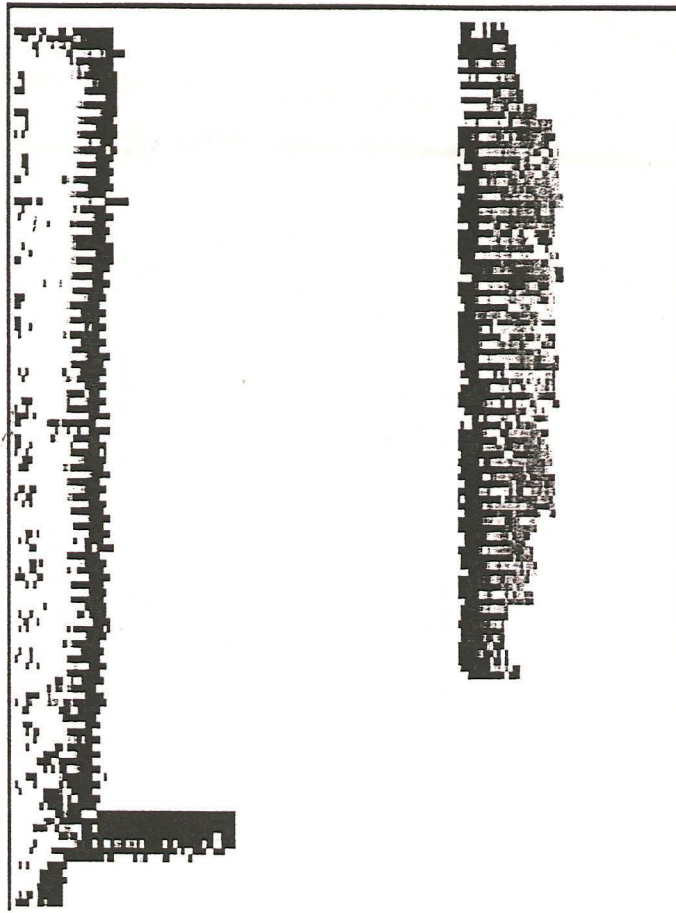


Boston Road Sleaford
Area 1 - Magnetometer Data

Scale 1:750

Figure 3

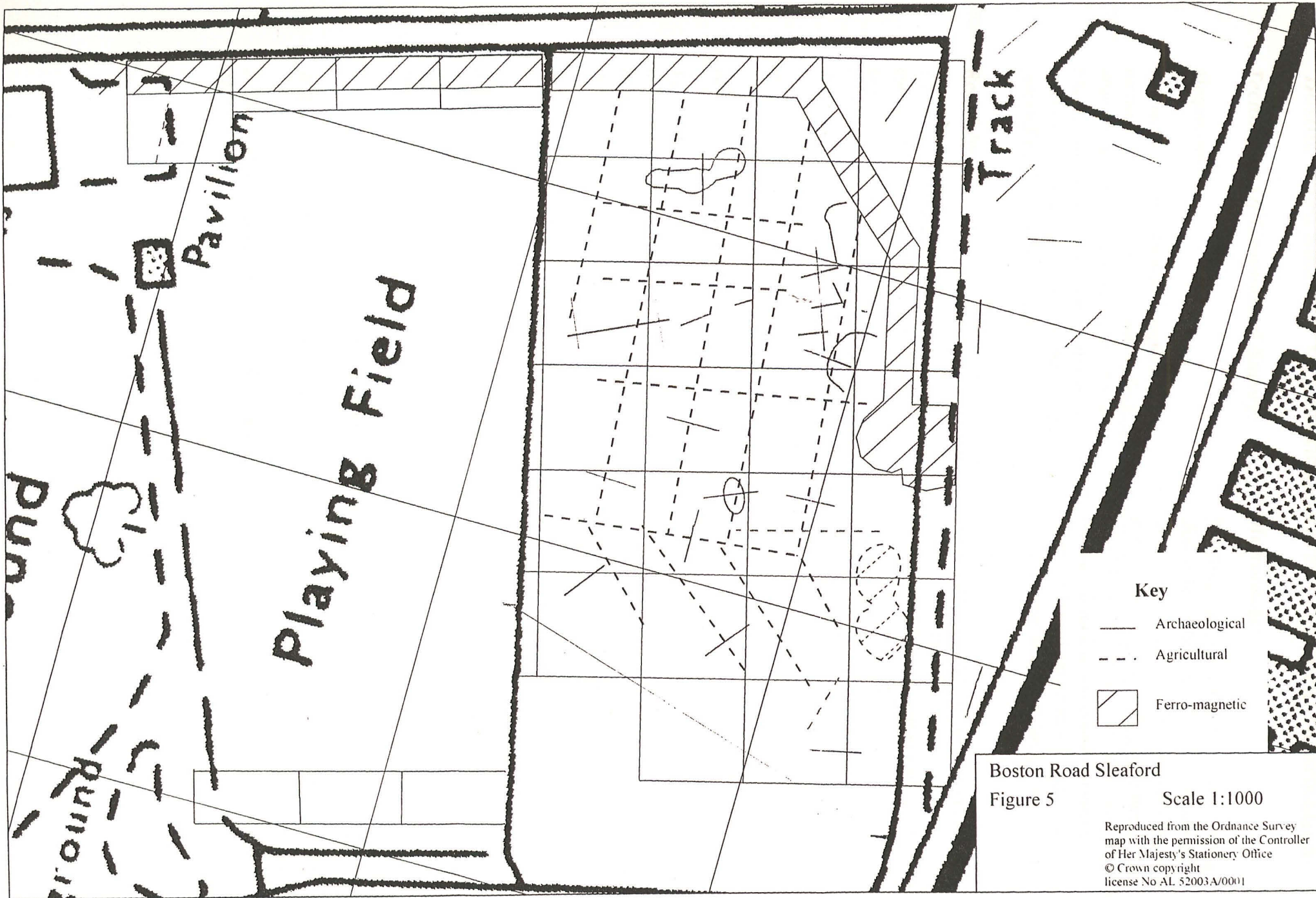
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Boston Road Sleaford
Area 2 - Magnetometer Data

Scale 1:750

Figure 4



Boston Road Sleaford

Figure 5

Scale 1:1000

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Boston Road Sleaford Geophysical Survey -Technical Information:

Techniques Of Geophysical Survey:

Magnetometry:

This relies on variations in soil magnetic susceptibility and magnetic remanence which often result from past human activities. Using a Fluxgate Gradiometer these variations can be mapped, or a rapid evaluation of archaeological potential can be made by scanning.

Resistivity:

This relies on variations in the electrical conductivity of the soil and subsoil which in general is related to soil moisture levels. As such, results can be seasonally dependant. Slower than Magnetometry this technique is best suited to locating positive features such as buried walls that give rise to high resistance anomalies.

Magnetic Susceptibility:

Variations in soil magnetic susceptibility occur naturally but can be greatly enhanced by human activity. Information on the enhancement of magnetic susceptibility can be used to ascertain the suitability of a site for magnetic survey and for targeting areas of potential archaeological activity when extensive sites need to be investigated. Very large areas can be rapidly evaluated and specific areas identified for detailed survey by gradiometer.

Instrumentation:

- 1. Fluxgate Gradiometer - Geoscan Fm36***
- 2. Resistance Meter - Geoscan Rm4/D110***
- 3. Magnetic Susceptibility Meter - Bartington Ms2***

Methodology:

For Gradiometer and Resistivity Survey 20m x 20m or 30m x 30m grids are laid out over the survey area. Gradiometer readings are logged at either 0.5m or 1m intervals along traverses 1m apart. Resistance meter readings are logged at 1m intervals. Data is down-loaded to a laptop computer in the field for initial configuration and analysis. Final analysis is carried out back at base.

For scanning transects are laid out at 10m intervals. Any anomalies noticed are where possible traced and recorded on the location plan.

For Magnetic Susceptibility Survey a large grid is laid out and readings logged at 20m intervals along traverses 20m apart, data is again configured and analysed on a laptop computer.

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Appendix 6

*Survey Commissioned
by
Archaeological Project Services*

*Surveyed
by
I.P. Brooks
Engineering Archaeological Services Ltd.*

registered in England

Nº 2869678

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NGR

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*Techniques of
Geophysical Survey*

Instrumentation

Methodology

Copyright

NGR

Centred on TF 07454535

LOCATION AND TOPOGRAPHY

The survey area was adjacent to the railway, opposite the New Quarrington maltings and to the east of the warehouses of Advanta Seeds. The area was generally flat and level, with a slight bank marking a previous field boundary and track way along its northern edge.

ARCHAEOLOGICAL BACKGROUND

The area immediately to the north was previously subjected to a magnetometer survey in December 1997 by Engineering Archaeological Services Ltd (Price 1997). Finds of both Bronze Age and Romano-British artefacts have come from the area.

AIMS OF SURVEY

To record any magnetic anomalies which might represent archaeological features.

SUMMARY OF RESULTS

Only a limited number of magnetic anomalies which could not be ascribed to modern activities were recorded.

SURVEY RESULTS:

Area

An area of approximately 1 Ha. was subjected to detailed magnetic survey

Display

The results are displayed as Grey Scale Image and as X-Y Trace Plots. (Figures 2 and 3)

RESULTS:

Complicating Factors

The east and south sides of the survey were bounded by metal fences and the area was crossed by a high pressure gas main.

Detailed survey:

The results of the survey are summarised in Figure 4. A range of ferro-magnetic anomalies (shown in blue) were found, the most obvious of these relates to the course of the high pressure gas main which bisects the survey area.

Two areas of magnetic disturbance (shown in red) were also found. The western of these relates to a pond filled in recent times with hard core rubble. This feature can also be seen in the field as a spread of tile, brick and post-medieval pottery. The eastern area of disturbance may relate to a hut and enclosure shown on the 1:10,000 Ordnance Survey Map. Related to this feature is a small enclosure extending beyond the survey area and an area of ferro-magnetic disturbance.

The only other feature of possible archaeological nature is a possible field boundary in the mid section of the survey.

Three faint features (shown in green) are probably agricultural in nature. The anomaly running NNW to SSE relates to an extant shallow ditch or gully crossing the survey area. The other two features are parallel and probably represent the direction of ploughing or remnant ridge and furrow.

Magnetic Susceptibility

Soil samples were taken from random locations across the area in order to assess the magnetic susceptibility of the soils. No sub-soil samples were obtained for comparison.

| Sample | Volume susceptibility χ_v | Mass susceptibility χ_m |
|---------|-----------------------------------|---------------------------------|
| Grid 1 | 45 | 36.3 |
| Grid 3 | 49 | 48 |
| Grid 5 | 41 | 48.8 |
| Grid 9 | 52 | 50.5 |
| Grid 12 | 29 | 29.6 |

There is some variability in the magnetic susceptibility with lower readings in grids 1 and 12. These are towards the eastern end of the survey and may reflect the activity associated with the hut shown on the Ordnance Survey 1:10,000 map.

CONCLUSIONS

It is a fundamental axiom of archaeological geophysics that the absence of features in the survey data does not mean that there is no archaeology present in the survey area only that the techniques used have not detected it.

Only a limited number of features were recorded. The majority of these relate to modern features including a filled pond, high pressure gas main and hut recorded on the 1:10,000 Ordnance Survey map. Only one possible field boundary was recorded.

REFERENCES

Price, J. 1997. Boston Road Sleaford Geophysical Survey. Unpublished report

TECHNIQUES OF GEOPHYSICAL SURVEY:

Magnetometry:

This relies on variations in soil magnetic susceptibility and magnetic remanence which often result from past human activities. Using a Fluxgate Gradiometer these variations can be mapped, or a rapid evaluation of archaeological potential can be made by scanning.

Resistivity:

This relies on variations in the electrical conductivity of the soil and subsoil which in general is related to soil moisture levels. As such, results can be seasonally dependant. Slower than Magnetometry this technique is best suited to locating positive features such as buried walls that give rise to high resistance anomalies.

Resistance Tomography :

Builds up a vertical profile or pseudosection through deposits by taking resistivity readings along a transect using a range of different probe spacings

Magnetic Susceptibility:

Variations in soil magnetic susceptibility occur naturally but can be greatly enhanced by human activity. Information on the enhancement of magnetic susceptibility can be used to ascertain the suitability of a site for magnetic survey and for targeting areas of potential archaeological activity when extensive sites need to be investigated. Very large areas can be rapidly evaluated and specific areas identified for detailed survey by gradiometer.

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- 2. Resistance Meter - Geoscan RM4/DL10**
- 3. Magnetic Susceptibility Meter - Bartington MS2**
- 4. Geopulse Imager 25 - Campus**

METHODOLOGY:

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For scanning transects are laid out at 10m intervals. Any anomalies noticed are where possible traced and recorded on the location plan.

For Magnetic Susceptibility survey a large grid is laid out and readings logged at 20m intervals along traverses 20m apart, data is again configured and analysed on a laptop computer.

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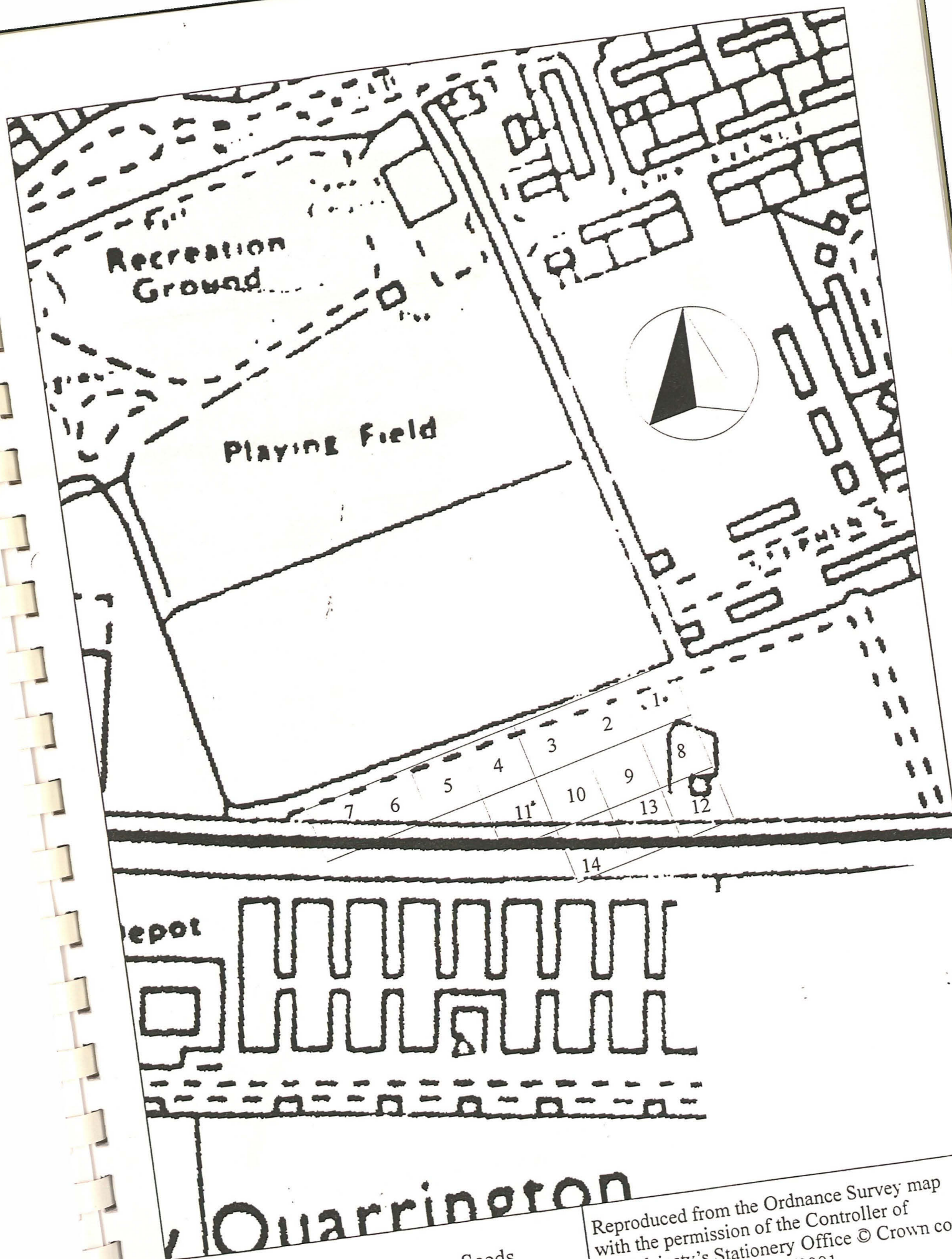


Figure 1: Sleaford Advanta Seeds
Location. Scale 1:2500

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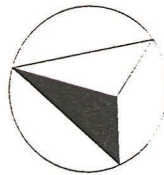
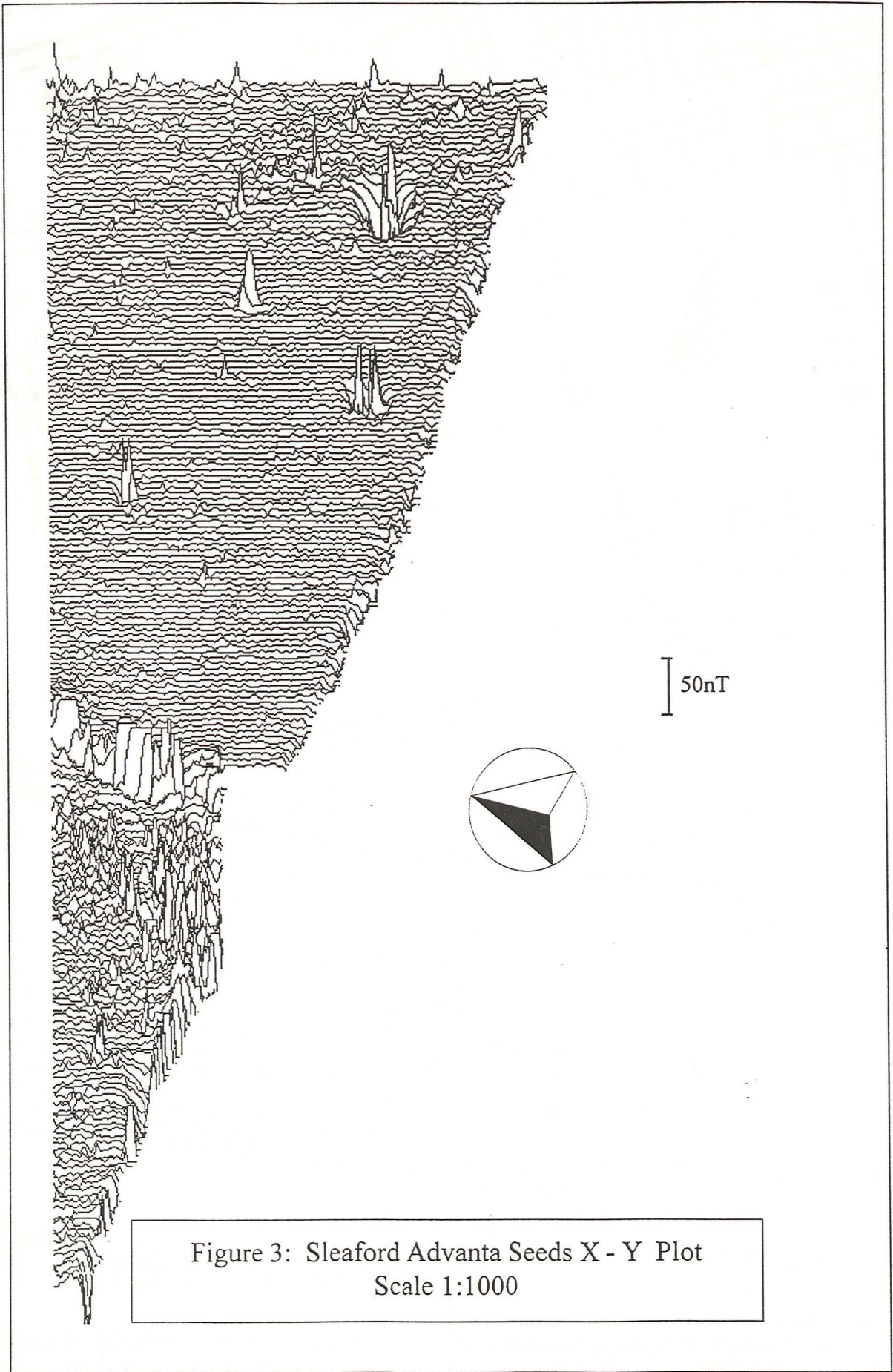
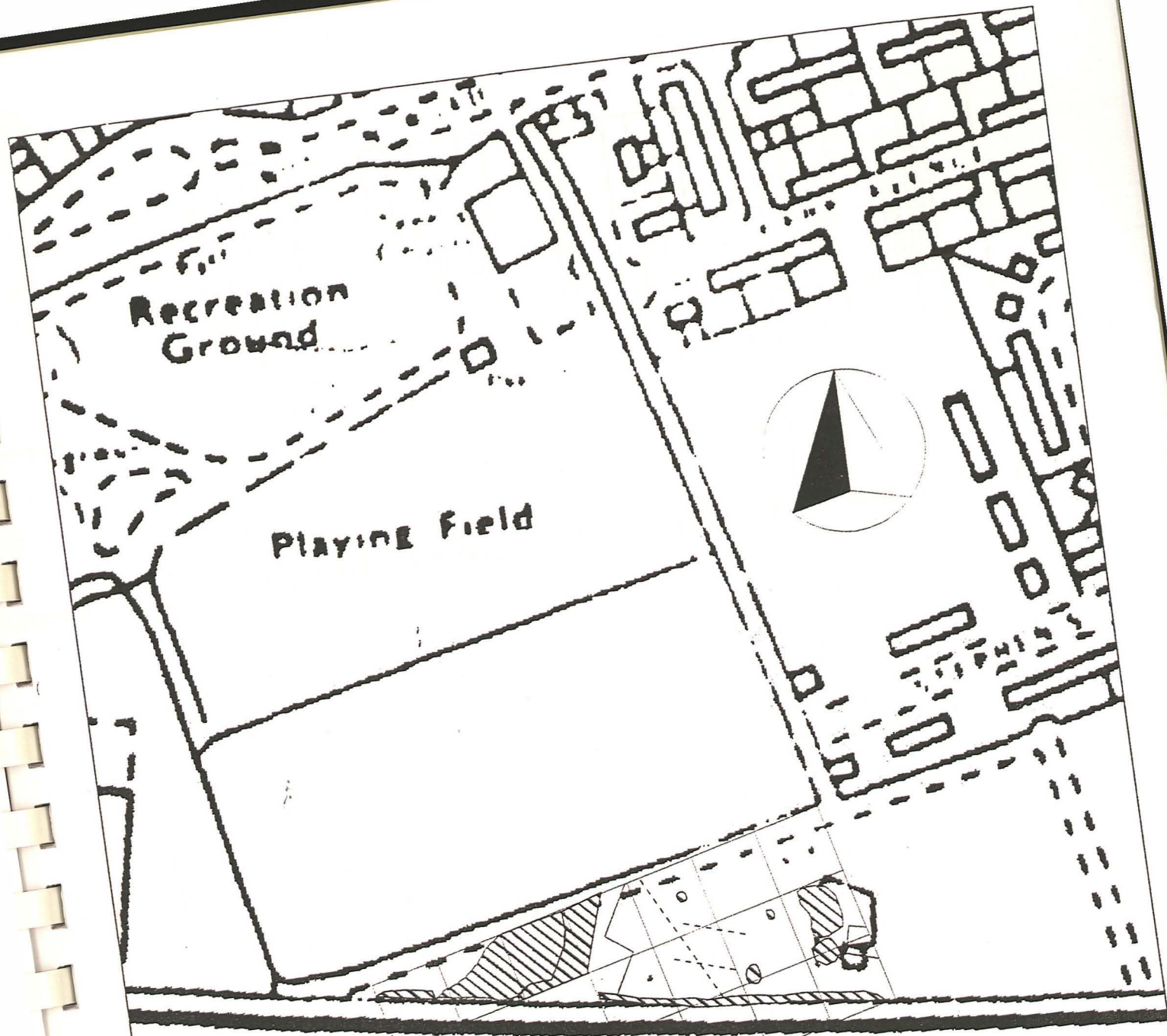
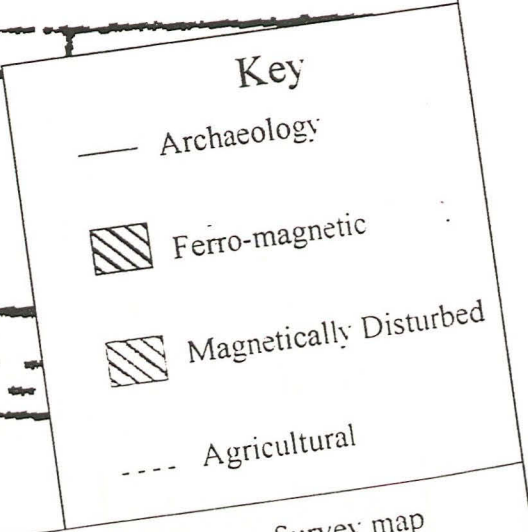


Figure 2: Sleaford Advanta Seeds Grey Scale Plot
Scale 1:1000





Depot



Quarrington

Figure 4: Sleaford Advanta Seeds Interpretation. Scale 1:2500

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Appendix 7

Context Summary

| Context | Trench | Description | Interpretation | Finds | Date |
|---------|--------|--|----------------|-------------------------|---------------|
| 001 | 3 | Mid-dark brown sandy silt, 0.33m thick | Topsoil | | |
| 002 | 3 | Mid yellowish brown sandy silt, 0.31m thick | Subsoil | | |
| 003 | 3 | Mid brownish yellow silty sand and limestone | Natural | | |
| 004 | 3 | Mid yellowish brown silt, 0.12m thick | Fill of 005 | Pottery | Roman |
| 005 | 3 | Linear cut with flat base and gradually sloping sides, width 0.87m, depth 0.12m | Ditch | | |
| 006 | 3 | Light- mid yellowish brown silt, 0.16m thick | Fill of 007 | | |
| 007 | 3 | Linear, with flat base and near vertical sides, width 0.55m, depth 0.16m | Gully | | |
| 008 | 3 | Mid brown silt, 0.14m thick | Fill of 009 | Bone | Undated |
| 009 | 3 | Linear, with concave base, width 0.98m, depth 0.14m | Ditch | | |
| 010 | 10 | Friable dark brown grey silty sand, 0.20m thick | Fill of 011 | Pottery/Bone/Shell/Coal | Medieval |
| 011 | 10 | Linear, with concave base and gradual sloping sides, width 0.80m, depth 0.30m | Ditch | | |
| 012 | 12 | Mid grey brown silty sand, 0.26m thick | Fill of 013 | Pottery/Bone | Late Saxon |
| 013 | 12 | Linear, with flat base and gently sloping sides, width 2.00m, depth 0.26m | Ditch | | |
| 014 | | | Void | | |
| 015 | | | Void | | |
| 016 | 19 | Dark yellowish brown silty clay, 0.32m thick | Fill of 017 | | |
| 017 | 19 | Linear, with an undulating base and concave sides, width 1.97m, depth 0.60m | Ditch | | |
| 018 | 12 | Dark grey brown sandy silt, 0.38m thick | Topsoil | | |
| 019 | 12 | Light grey brown silty sand, 0.16m thick | Subsoil | | |
| 020 | 12 | Dark yellow brown sand | Natural | | |
| 021 | 20 | Dark grey silty sand, 0.12m thick | Fill of 21 | Plastic | Modern |
| 022 | 20 | Circular cut with vertical sides and narrow blunt base, diameter 0.12m, depth 0.12m | Post hole | | |
| 023 | 20 | Friable light red brown sandy clay, 0.20m thick | Fill of 025 | Bone | Post Medieval |
| 024 | 20 | Soft mid brown grey sandy clay, 0.30m thick | Fill of 025 | Oyster shell | Post Medieval |
| 025 | 20 | Linear, with a broad slightly uneven base and steep sides, width 2.50m to LOE, depth 0.50m | Ditch | | |

| | | | | | |
|-----|----|--|----------------|--------------------------------|---------------|
| 026 | 20 | Friable mid brown grey sandy clay, 0.35m thick | Fill of 027 | Pottery/Bone/Fe key frag. | Post Medieval |
| 027 | 20 | Linear, with broad slightly concave base and steep sides, width 1.15m, depth 0.35m | Ditch | | |
| 028 | 20 | Friable mid brown grey sandy clay, 0.40m thick | Fill of 029 | Pottery/Bone | Post Medieval |
| 029 | 20 | Linear, with slightly concave base and steep sides, width 1.10m, depth 0.35m | Ditch | | |
| 030 | 14 | Loose dark greyish brown silty sand, 0.52m thick | Fill of 031 | | |
| 031 | 14 | Linear, with concave base and gradual sides, width 0.89m, depth 0.52m | Ditch | | |
| 032 | 14 | Loose dark greyish brown silty sand, 0.54m thick | Fill of 033 | Bone/Shell | Undated |
| 033 | 14 | Linear, with concave base and sides, width 1.20m, depth 0.54m | Ditch | | |
| 034 | 14 | Loose dark grey brown silty sand, 0.50m thick | Fill of 035 | Flint | Undated |
| 035 | 14 | Linear, with concave base and concave sides, width 1.90m, depth 0.50m | Ditch | | |
| 036 | 14 | Loose yellow brown sand, 0.17m thick | Fill of 037 | | |
| 037 | 14 | Linear, with irregular base and concave sides, width 0.70m, depth 0.17m | Gully terminus | | |
| 038 | 10 | Friable mid brown sandy silt, 0.30m thick | Fill of 039 | Pottery | Medieval |
| 039 | 10 | Linear, with concave base and gradual sides, width 1.00m, depth 0.30m | Furrow | | |
| 040 | 19 | Soft dark yellowish brown silty clay, 0.23m thick | Fill of 041 | | |
| 041 | 19 | Oblong cut, with flat base and concave sides, width 0.76m, depth 0.66m | Ditch | | |
| 042 | 19 | Soft dark yellowish brown silty clay, 0.18m thick | Fill of 043 | | |
| 043 | 19 | Linear, with flat base and concave sides, width 0.40m, depth 0.18m | Gully | | |
| 044 | 10 | Firm mid brown yellow sandy silt, 0.40m thick | Fill of 045 | Pottery/Bone | Medieval |
| 045 | 10 | Linear, with concave base and gradual sides, width 1.40m, depth 0.40m | Furrow | | |
| 046 | 12 | Soft dark yellow brown sandy silt, 0.24m thick | Fill of 047 | | |
| 047 | 12 | Linear, with flat base and even sides, width 1.80m, depth 0.24m | Furrow | | |
| 048 | 12 | Loose mid grey brown silty sand, 100mm thick | Fill of 049 | | |
| 049 | 12 | Circular cut with rounded base and even sides, diameter 0.45m, depth 100mm | Post hole | | |
| 050 | 12 | Loose dark yellow brown silty sand, width 2.00m, depth 0.25m | Fill of 051 | Pottery | Medieval |
| 051 | 12 | Linear, with uneven base and shallow sides, width 2.00m, depth 0.25m | Furrow | | |
| 052 | 10 | Loose mid- light brown grey silty sand, 0.50m thick | Fill of 053 | Pottery/Bone/CBM/Shell/Fe nail | Post Medieval |
| 053 | 10 | Linear, with concave base and gradual sides, width 3.20m, depth 0.50m | Ditch | | |
| 054 | 20 | Loose mid brown silty sand, 0.15m thick | Fill of 055 | | |
| 055 | 20 | Linear, with broad flat base and slightly concave sides, width 1.50m to LOE, depth 0.15m | Furrow | | |
| 056 | 20 | Loose mid grey brown silty sand, 0.30m thick | Fill of 057 | | |

| | | | | | |
|-----|----|---|-----------------------|------------------------|---------------|
| 057 | 20 | Sub circular cut with narrow flat base and steep sides, width 0.80m, depth 0.30m | Gully terminus | | |
| 058 | 20 | Loose mid brown grey silty sand, 0.10m thick | Fill of 059 | | |
| 059 | 20 | Linear, with irregular base and vertical sides, width 0.50m, depth 100mm | Gully terminus or pit | | |
| 060 | 19 | Soft dark yellowish brown silty clay, 100mm thick | Fill of 061 | | |
| 061 | 19 | Oval cut With flat base and concave sides, width 0.60m, depth 100mm | Gully | | |
| 062 | 11 | Moderate mid-dark brown sandy silt, 0.30m thick | Topsoil | 2 coins | Roman |
| 063 | 11 | Moderate light-mid brown sandy silt, 0.12m thick | Subsoil | | |
| 064 | 11 | Moderate light brown yellow gravel silt | Natural | | |
| 065 | 11 | Moderate light-mid yellow brown sandy silt, 0.22m thick | Fill of 066 | Pottery | Roman |
| 066 | 11 | Linear, with slightly concave base and smooth sides, width 0.90m, depth 0.22m | Gully | | |
| 067 | 16 | Loose mid yellow brown silty sand, 0.22m thick | Fill of 068 | | |
| 068 | 16 | Sub rectangular cut with irregular base and smooth sides, width 0.88m, depth 0.22m | Pit | | |
| 069 | 16 | Loose mid grey brown silty sand, 0.20m thick | Fill of 070 | | |
| 070 | 16 | Linear, with concave base and smooth sides, width 0.69m, depth 0.20m | Gully | | |
| 071 | 10 | Firm mid greyish brown sandy silt, 0.15m thick | Fill of 072 | | |
| 072 | 10 | Oval cut with concave base and steep sides | Pit | | |
| 073 | 16 | Loose mid grey yellow silty sand, 0.32m thick | Fill of 074 | | |
| 074 | 16 | Circular cut with concave base and irregular sides, diameter 0.50m, depth 0.32m | Post hole | | |
| 075 | 13 | Friable mid yellow brown silty sand, 0.11m thick | Fill of 076 | | |
| 076 | 13 | Circular cut with rounded base and even sides, length 0.62m, width 0.55m, depth 0.11m | Post hole | | |
| 077 | 4 | Loose light brown grey silty sand, 0.30m thick | Fill of 078 | Bone/CBM/Coal | Post Medieval |
| 078 | 4 | Linear, with narrow base and steep sides, width 0.60m, depth 0.30m | Gully | | |
| 079 | 4 | Loose light yellow grey silty sand, 100mm thick | Fill of 080 | Fe nail/Fe object/Coal | Post Medieval |
| 080 | 4 | Linear, with broad concave base and shallow sides, width 0.80m, depth 100mm | Gully | | |
| 081 | 5 | Soft dark brown sandy silt, 0.36m thick | Fill of 082 | | |
| 082 | 5 | Rectangular cut with slightly concave base and steep sides, width 0.58m, depth 0.36m | Pit | | |
| 083 | 7 | Sub rounded cut with concave base and smooth sides, width 0.80m depth 0.40m | Pit | | |
| 084 | 7 | Friable dark grey brown silty sand, 0.20m thick | Primary fill of 083 | | |

| | | | | | |
|-----|----|--|-----------------------|----------------------------|--------------------------|
| 085 | 7 | Loose mid grey silty sand, 0.20m thick | Secondary Fill of 083 | | |
| 086 | 19 | Soft dark yellow grey silty clay, 0.20m thick | Primary fill of 088 | | |
| 087 | 19 | Soft dark yellowish brown silty clay, 0.20m thick | Secondary fill of 088 | | |
| 088 | 19 | Linear, with flat base and concave sides, width 1.10m, depth 0.30m | Ditch | | |
| 089 | 19 | Soft dark brownish grey silty clay, 0.15m thick | Primary fill of 091 | | |
| 090 | 19 | Soft dark yellow brown silty clay, 0.30m thick | Secondary fill of 091 | | |
| 091 | 19 | Oblong cut with flat base and concave sides, width 0.80m, depth 0.40m | Ditch | | |
| 092 | 19 | Soft dark yellow brown silty clay, 0.25m thick | Fill | | |
| 093 | 19 | Soft dark yellow brown silty clay, 0.20m thick | Fill | | |
| 094 | 21 | Friable mid brown silty clay, 0.20m thick | Buried soil or fill | Pottery/Bone/Shell/Fe nail | Post Medieval |
| 095 | 21 | Friable mid blue grey sandy clay, 0.50m thick | Fill of 096 | Pottery/Bone/Shell | Middle Iron Age |
| 096 | 21 | Curvilinear cut with narrow slightly concave base and steep sides, width 1.10m, depth 0.50m | Ditch | | |
| 097 | 18 | Hard white grey sandy clay, 0.13m thick | Fill of 098 | | |
| 098 | 18 | Irregular cut with irregular base and steep sides, Width 1.02m, depth 0.13m | Natural hollow | | |
| 099 | 18 | Hard white grey sandy clay, 90mm thick | Fill of 100 | | |
| 100 | 18 | Irregular cut with irregular base and vertical sides, width 1.02m, depth 0.13m | Natural hollow | | |
| 101 | 1 | Moderate light- mid yellow brown sandy silt, 0.16m thick | Fill of 102 | | |
| 102 | 1 | Rectangular cut with slightly concave base and steep sides, length 0.62m, width 0.58m, depth 0.16m | Post hole or pit | | |
| 103 | 21 | Friable mid yellowish brown sandy silt, 0.40m thick | Fill of 104 | Bone | Middle Iron Age or later |
| 104 | 21 | Cut, shape unknown, Concave base and steep sides, width 0.40m, depth 0.30m | Ditch terminus or pit | | |
| 105 | 21 | Linear, with uneven base and steep sides, depth 0.50m | Ditch | | |
| 106 | 21 | Soft mid brown-grey sandy clay with occ. rounded stones and mod. sub-angular stones | Fill of 105 | Pottery/Bone | Late Saxon |
| 107 | 21 | Friable mid greyish brown silty sand, 0.60m thick | Fill of 108 | Pottery/Bone | Middle Iron Age |
| 108 | 21 | Linear, with concave base and gradual sides, width 1.00m, depth 0.60m | Ditch | | |
| 109 | 21 | Friable mid brown silt, 0.17m thick | Fill of 110 | | |
| 110 | 21 | Linear, with flat base and vertical sides, width 0.40m, depth 0.17m | Gully | | |
| 111 | 23 | Linear, with uneven base and steep sides, depth 0.50m | Ditch | | |

| | | | | | |
|-----|----|---|-------------|--|--|
| 112 | 23 | Soft mid brown-grey sandy clay with occ. rounded stones and mod. sub-angular stones | Fill of 111 | | |
|-----|----|---|-------------|--|--|

Appendix 8

St Stephens Way, Sleaford - SSW99

Environmental Archaeology Assessment

Introduction

An archaeological evaluation conducted by Archaeological Project Services at St Stephens Ways, Sleaford uncovered archaeological remains of Iron Age, Roman, Late Saxon, Medieval and Post-Medieval date. During the excavation four samples were collected for environmental analysis (Table 1) and a small assemblage of animal bones was recovered by hand.

Table 1: Samples taken for environmental analysis

| site | sample | context | volume in l. | description | date |
|-------|--------|---------|--------------|-------------|------------|
| SSW99 | 1 | 105 | 20 | ditch fill | Late Saxon |
| SSW99 | 2 | 095 | 13 | ditch fill | Iron Age |
| SSW99 | 3 | 105 | 16 | ditch fill | Late Saxon |
| SSW99 | 4 | 095 | 10 | ditch fill | Iron Age |

Methods

The soil samples were processed in the following manner. Sample volume and weight was measured prior to processing. The samples were washed in a 'Siraf' tank (Williams 1973) using a flotation sieve with a 0.5mm mesh and an internal wet-sieve of 1mm mesh for the residue. Both residue and float were dried, and the residues subsequently re-floated to ensure the efficient recovery of charred material. The dry volume of the flots was measured, and the volume and weight of the residue recorded. A total of 59 litres of soil was processed in this way.

The residue was sorted by eye, and environmental and archaeological finds picked out, noted on the assessment sheet and bagged independently. A magnet was run through each residue in order to recover magnetised material such as hammerstone and prill. The residue was then discarded. The float of each sample was studied under a low power binocular microscope. The presence of environmental finds (ie snails, charcoal, carbonised seeds, bones etc) was noted and their abundance and species diversity recorded on the assessment sheet. The float was then bagged. The float and finds from the sorted residue constitute the material archive of the samples.

The individual components of the samples were then preliminarily identified and the results are summarised below in Tables 2-4.

Results

Samples 1 and 3, context 105, Late Saxon ditch

The residue from these samples was comprised of small and medium limestone gravel with some flint and pebbles and a small amount of iron concreted soil. Interestingly the residue from sample 1 comprised 5% by volume of the original sample while that from sample 3 was 11% indicating a much larger gravel component. Sample 1 presumably derived from a largely silty fill of the ditch while that from sample 3 was taken from a fill in which gravel from the ditch bank or eroding ditch sides contributed to the deposit.

One tiny fragment of pottery was recovered from sample 1 along with a small sherd of glass that could be intrusive (having moved down through the soil as a result of natural processes). Sample 3 produced no archaeological finds. These finds and tiny fragments of bone, mussel and eggshell and two badly preserved charred cereal grains (Table 3) are the only evidence of human activity or occupation. The densities of charcoal and other charred plant material are very low and likely to reflect a 'background' of material that was being blown around or washed down the ditch from elsewhere.

Table 2: Finds from the samples

| Sample | cont | vol | residue vol in l. | pot * | glass * | bone in g. | marine shell g. | residue description |
|--------|------|-----|----------------------|----------|------------|---------------|--------------------|---|
| 1 | 105 | 20 | 0.85 | 1 | 1 | <1 | <1 | limestone gravel with occasional flint and pebbles and iron rich soil concretions |
| 2 | 095 | 13 | 3.25 | | | 11 | | limestone gravel with occasional flint and pebbles and iron rich soil concretions |
| 3 | 105 | 16 | 1.75 | | | <1 | | limestone gravel with occasional flint and pebbles and iron rich soil concretions |
| 4 | 095 | 10 | 2.0 | 1 | | 58 | | limestone gravel with occasional flint and pebbles and iron rich soil concretions |

(* - sherd no.)

Both samples were rich in terrestrial and aquatic snails (Table 4) and ostracods, freshwater crustaceans, were present in sample 3. It is clear that the ditch carried water, although it probably dried up seasonally since the fauna includes abundant shells of *Planorbis leucostoma* and also *Aplexa hypnorum*, both species typically found in ditches and small bodies of water that dry up. *Lymnaea truncatula* is also common and can be found along the edges of ditches, streams and damp places in fields (Macan 1977). This damp habitat continues to be indicated by the terrestrial snails which include many shells of *Vallonia pulchella* and also *Carychium minimum* and *Succinea* sp. The remaining terrestrial species are broadly indicative of grassland although a few shells of shade loving species are present (Cameron and Redfern 1976; Evans 1972).

Table 3: Environmental finds from the samples

| Sample | con | vol | flot vol | snail */# | ch'd grain * | ch'd seed * | Charcoal * | egg- shell * | small mammal * | comment |
|--------|-----|-----|-------------|--------------|--------------------|-------------------|---------------|--------------------|----------------------|----------------------------------|
| 1 | 105 | 20 | 15 | 5/3 | 1 | | 1 | 1 | | burnt bone |
| 2 | 095 | 13 | 5 | 4/3 | | | 2 | | | sheep, ostracods |
| 3 | 105 | 16 | 20 | 5/3 | 1 | 1 | 2 | 1 | | oat/grass, ostracods |
| 4 | 095 | 10 | 2 | 3/2 | 1 | | 2 | | 1 | cattle, field vole, ostracods |

* frequency of items: 1=1-10; 2= 11-100; 3=101-250; 4=251-500; 5=>500

diversity of molluscs as follows: 1=1-3; 2=4-10; 3=11-25; 4=26-50 taxa.

Samples 2 and 4, context 95, Iron Age ditch

The residue from these samples was comprised of small and medium limestone gravel with some flint and pebbles and between 10 and 20% iron concreted soil in the less than 7mm fractions. One very small fragment of pottery was recovered from sample 4 (Table 2) but no other archaeological objects. Small quantities of animal bone, charcoal and a single charred cereal grain, in sample 4, were

the only other evidence for nearby domestic occupation. The bone included a cattle astragalus and a radius from a small gracile sheep typical of the Iron Age in Lincolnshire.

Both samples were fairly rich in terrestrial and aquatic snails (Table 4) and ostracods were common in both. Shells are less abundant in the fills of this ditch than the Late Saxon ditch although aquatic elements are still common and a similar ditch environment is suggested. The terrestrial fauna is similar indicating damp ground and grassland although the Zonitidae are more common in sample 4 than the other samples, perhaps suggesting a greater degree of shade, although this may just be local.

Table 4: Mollusc from the soil samples

| Period | Late Saxon | ditch | Iron Age | ditch |
|-----------------------------|------------|-------|----------|-------|
| context | 105 | 105 | 095 | 095 |
| sample | 1 | 3 | 2 | 4 |
| flot vol.(ml) | 15 | 5 | 20 | 2 |
| <i>Carychium</i> sp. | ++ | +++ | + | + |
| <i>Carychium minimum</i> | + | + | | |
| <i>Succinea</i> sp. | + | + | | |
| <i>Cochlicopa</i> sp. | ++ | + | + | + |
| <i>Vertigo</i> sp. | + | + | + | + |
| <i>Pupilla muscorum</i> | +++ | +++ | + | |
| <i>Vallonia costata</i> | | + | | |
| <i>Vallonia excentrica</i> | | + | | + |
| <i>Vallonia pulchella</i> | +++ | +++ | + | + |
| <i>Vallonia</i> sp. | + | + | + | + |
| Clausiliidae | + | | | |
| <i>Oxychilus</i> sp. | | | + | + |
| <i>Retinella radiatula</i> | + | + | + | |
| Zonitidae | | | + | |
| <i>Hygromia hispida</i> | ++ | +++ | + | ++ |
| <i>Lymnaea truncatula</i> | +++ | + | + | + |
| <i>Planorbis leucostoma</i> | + | ++ | + | |
| <i>Planorbis planorbis</i> | + | + | + | |
| <i>Valvata macrostoma</i> | | | + | |
| <i>Aplexa hypnorum</i> | + | + | | |
| <i>Pisidium</i> sp. | + | | | |

(+ present; ++ common; +++ abundant)

Animal Bone

A small collection of animal bone was hand collected during the evaluation and a total of 113 fragments were catalogued, although many of these were broken into two or more pieces. The bone was recorded using the standard recording methods of the Environmental Archaeology Consultancy (see attached Archive catalogue and key) and the catalogue is presented in the appendix.

The condition of the bone varied and some was poorly preserved with considerable surface erosion and pitting and in one or two contexts it is possible that some bone had been lost through corrosion and leaching in the soil. The number of fragments in poor and relatively good condition for each phase is indicated in Table 5. There appears to be no pattern in this data which is surprising. In calcareous soils of the sort present on the site levels of erosion are normally relatable to the length of time the bone has been in the ground. It is possible that the Iron Age material became partially mineralised and therefore has been less effected by solution in the soil than more recent bones. The medieval/post-medieval assemblage which derives from context 52, the fill of a medieval ditch (53), surprisingly contains bones in both poor and good condition which suggests that this may be a mixed

assemblage, and is perhaps unlikely to be of exclusively medieval or post-medieval date. A sheep innominate from context 77, phased as post-medieval, is in a condition which is very poor and appears unlikely to be as recent as this, perhaps suggesting that there is some residual material or mixing taking place.

Table 5: Number of bone fragments in different preservational state

| preservation | Iron Age | IA or later | Late Saxon | Med. | Med/Postmed | Post-med | undated |
|--------------|----------|-------------|------------|------|-------------|----------|---------|
| 2 | | | | | | 1 | |
| 3 | 5 | | 6 | 3 | 31 | 6 | 4 |
| 4 | 20 | 1 | 7 | 2 | 26 | | 1 |

The bone finds are summarised in Table 6. Only cattle and horse bones were identified from the Iron Age contexts, while sheep (or goat), pig, red deer and dog have been identified from other contexts. A number of the bones showed evidence of butchery and a proportion, particularly from contexts 95 and 105 had been gnawed by dogs. The bulk of the sample was recovered from Trench 10, context 52, with trenches 20 and 21 producing most of the remainder of the sample. This suggests that occupation is likely to be located near these areas of the site.

Table 6: Number of identified bone fragments from different phases

| species | Iron Age | IA or later | Late Saxon | Med. | Med/Postmed | Post-med | undated |
|----------------|----------|-------------|------------|------|-------------|----------|---------|
| Human | | | | 1 | | | |
| Horse | 3 | | 3 | | | 1 | |
| Cattle | 11 | 1 | 5 | 2 | 11 | 1 | 1 |
| Sheep/goat | | | 1 | 1 | 14 | 2 | 1 |
| Pig | | | 1 | | 5 | | |
| Red deer | | | | | 3 | | |
| Dog | | | | | 1 | | |
| Cattle size | 11 | | 1 | | 11 | 1 | 1 |
| Sheep size | | | | 1 | 7 | 2 | |
| Unidentifiable | | | 2 | | 5 | | 2 |

Discussion

Preservation of environmental evidence on the site was fairly poor. No preserved organic (waterlogged) remains survived in the samples, charred material was infrequent and even the animal bone showed marked variations in preservation, with the potential for the complete loss of some bone from some contexts. The most abundant remains were the mollusca, which occurred in large numbers in the samples.

These appear to show that the immediate environment was probably one of damp grassland with the field ditches seasonally water filled. There is no obvious difference between the mollusc assemblages from the Iron Age and the Late Saxon ditch, although these were not quantified. The density of finds relating to occupation in these two ditch fills was low, with a few fragments of bone being the only significant element, although eggshell, mussel shell, charred cereals, charcoal and bone clearly indicate some contemporary domestic activity in the vicinity, a conclusion supported by the frequency of bone finds from trenches 20 and 21. The relatively large assemblage of bone (see Appendix) from the fill (52) of ditch 53 in Trench 10 along with medieval and post-medieval pottery

suggests dumping of domestic rubbish into this ditch and may indicate adjacent settlement. It is not possible from the available data to explain why this feature includes bone in both eroded and relatively uneroded condition, but the re-working of earlier material is a possibility.

Recommendations

Any future archaeological work at the site has a limited environmental potential. The main categories of data likely to be preserved are charred plant remains, animal bone, marine shell and terrestrial molluscs. Only the latter are likely to contribute significantly to interpretations of the palaeoenvironment of the site, the other remains largely relevant to a palaeoeconomic reconstruction. The condition of the animal bone is clearly important and it will be necessary to establish whether these contexts contain mixed and re-worked assemblages or whether the burial conditions are responsible for the range of preservation. There is a potential for the molluscan evidence, if suitable deposits are uncovered, to determine whether the local environment underwent any significant changes between the Iron Age and Post-medieval period, a potential that is suggested by the occurrence of deposits of Iron Age, Roman, Late Saxon, Medieval and post-Medieval on the site.

Acknowledgments

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St Stephens Way, Sleaford - SSW99 - Animal Bone Archive Catalogue

| cont. | species | bone | no. | side | fusion | zone | butchery | gnawing | tooth wear | measurement | path | comment | preservation |
|-------|---------|------|-----|------|--------|-------|----------|---------|------------|----------------------------|------|--|--------------|
| 008 | BOS | PH2 | 1 | F | PF | | | | | | | BROKEN-LATERAL FRAG- 3 PIECES | 4 |
| 011 | OVCA | HUM | 1 | L | DF | 67890 | | | | BT-30.4 HT-20.2 SD-16.1 | | DISTAL END AND SHAFT- 2 PIECES- BRITTLE | 3 |
| 012 | BOS | MTT | 1 | F | | | | | | | | SHAFT FRAG- 4 PIECES - CONSIDERABLE SURFACE EROSION | 3 |
| 012 | CSZ | UNI | 1 | F | | | | | | | | INDET--POSS FRAG OF DIST CONDYLE OF HORSE HUMERUS | 3 |
| 012 | EQU | HUM | 1 | L | | 69 | | | | SD-28 | | DISTAL HALF SHAFT- 4 PIECES - SMALL HORSE-CONSIDERABLE SURFACE EROSION | 3 |
| 012 | UNI | UNI | 2 | F | | | | | | | | INDET FRAGS | 3 |
| 023 | EQU | MAN | 1 | L | | | | | | | | 3 TEETH FROM SAME JAW-P4-M2? | 3 |
| 026 | BOS | HUM | 1 | R | DF | 679 | | | | | | DISTAL END-CONDYLE BROKEN | 3 |
| 028 | BOS | MTT | 1 | F | | | | | | | | PROXIMAL SHAFT FRAG | 3 |
| 028 | CSZ | UNI | 1 | F | | | | | | | | INDET-POSS AXI OR LONG BONE ARTICULAR FACET | 3 |
| 028 | OVCA | SCP | 1 | L | | 5 | | | | | | DISTALBLADE FRAG-CAUDALMARGIN- 8 PIECES | 3 |
| 028 | SSZ | UNI | 2 | F | | | | | | | | INDET | 3 |
| 032 | CSZ | LBF | 1 | F | | | | | | | | 15 PIECES OF SHAFT-ERODED WONT RECONSTRUCT-POSS BOS MTT | 3 |
| 045 | BOS | INN | 1 | R | | | | | | | | ACETABULAR FRAGMENT OF ISCHIUM- SLIGHT SURFACE EROSION | 3 |
| 045 | MAN | MTC | 1 | W | DF | | | | | | | COMPLETE | 4 |
| 045 | SSZ | RIB | 1 | F | | | | | | | | SHAFT FRAGMENT | 4 |
| 052 | BOS | AXI | 1 | F | | | | | | | | POST FRAG NEURAL ARCH | 4 |
| 052 | BOS | CPR | 1 | W | | 1 | | | | | | COMPLETE | 3 |
| 052 | BOS | HUM | 1 | L | | | | | | | | DISTAL SHAFT FRAG- 2 PIECES | 4 |
| 052 | BOS | HUM | 1 | L | DF | 689 | CH | | | HT40.3 | | DISTAL HALF-EPIPHYSIS DAMAGED- CONDYLE CHOPPED | 3 |

| | | | | | | | | | | | | |
|-----|------|-----|---|---|------|-------|----|------|-----------------|--|---|---|
| 052 | BOS | INN | 1 | L | | 2 | | DG | | | ANT FRAGMENT ILIAL SHAFT WITH PART SCAR-CHEWED | 3 |
| 052 | BOS | INN | 1 | R | | | KN | | | | ISCHIALFRAG ACETABULUM-CUT | 4 |
| 052 | BOS | MTT | 1 | F | | | | | | | FRAGMENTED SHAFT- 8 PIECES-NOT RECONSTRUCTED | 3 |
| 052 | BOS | PH1 | 1 | L | PF | | | | | | SPLIT DOWN MIDDLE-LEFT SIDE ONLY | 3 |
| 052 | BOS | PH1 | 1 | R | PF | 12 | | | | | COMPLETE-SUPERFICIAL DAMAGE | 3 |
| 052 | BOS | PH1 | 1 | L | PF | 12 | | | | | COMPLETE | 4 |
| 052 | BOS | PH1 | 1 | L | PF | 12 | | | | | COMPLETE | 4 |
| 052 | CAN | TIB | 1 | R | | 4 | | | | | MIDSHAFT- LARGE AND ROBUST-WELL DEVELOPED POST RIDGE | 3 |
| 052 | CER | TRV | 1 | F | CFAF | 2345 | | | | | CENTRUM AND ARCH- 2 PIECES | 4 |
| 052 | CER | TRV | 1 | W | CFAF | 12345 | | | | | COMPLETE- 3 PIECES | 4 |
| 052 | CER | ULN | 1 | R | | 23 | | | | | SEMILUNARIS AND PART PROX END-ROOT ETCHED | 4 |
| 052 | CSZ | LBF | 1 | F | | | | | | | SHAFT FRAG | 3 |
| 052 | CSZ | LBF | 1 | F | DN | | | | | | POSS DISTAL SHAFT BOS FEMUR | 4 |
| 052 | CSZ | LBF | 2 | F | | | | | | | SHAFT FRAG | 3 |
| 052 | CSZ | LBF | 1 | F | | | | | | | SHAFT FRAG | 3 |
| 052 | CSZ | LMV | 1 | F | | | | | | | ANT ZYGAPOPHYSIS | 3 |
| 052 | CSZ | RIB | 1 | F | | | | | | | SHAFT FRAG | 4 |
| 052 | CSZ | UNI | 4 | F | | | | | | | INDET | 4 |
| 052 | OVCA | FEM | 1 | F | | | | | | | MIDSHAFT | 3 |
| 052 | OVCA | FEM | 1 | R | DF | 47 | | | SD-17.4 | | DISTAL END AND SHAFT-END BROKEN | 3 |
| 052 | OVCA | HUM | 1 | R | DF | 6789 | | | BT-28.7 HT-19.3 | | DISTAL END AND SHAFT | 3 |
| 052 | OVCA | INN | 1 | R | | 4 | | | | | PUBIC FRAG ACETAB-POSS SAME BONE AS ISCHIUM-SMALL | 4 |
| 052 | OVCA | INN | 1 | R | | 7 | | | | | ISCHIAL SHAFT-SMALL | 4 |
| 052 | OVCA | LM2 | 1 | L | | | | J10 | | | COMPLETE | 4 |
| 052 | OVCA | MAN | 1 | R | | 2 | | gh12 | | | ANT RAMUS WITH DEC PM3 AND 4-SMALL-DP4 LENGTH-17.5 - 2 PIECES | 4 |
| 052 | OVCA | RAD | 1 | F | | | | | | | PROX SHAFT FRAG | 3 |
| 052 | OVCA | RAD | 1 | L | | | | | | | PROX SHAFT-DIFFERENT FROM ABOVE | 3 |
| 052 | OVCA | RAD | 1 | L | | 3 | | | | | PROX SHAFT | 3 |

| | | | | | | | | | | | | |
|-----|------|-----|---|---|------|------|----|----|----------------|--|---|---|
| 052 | OVCA | SCP | 1 | R | | 23 | | | | | GLENOID AND NECK | 3 |
| 052 | OVCA | TIB | 1 | L | | | | | | | DISTAL SHAFT | 3 |
| 052 | OVCA | TIB | 1 | R | | | | | | | MIDSHAFT | 3 |
| 052 | OVCA | TIB | 1 | R | DF | 567 | CH | | | | DISTAL END-SHAFT CHOPPED | 3 |
| 052 | SSZ | FEM | 1 | F | | | | | | | SHAFT FRAG | 3 |
| 052 | SSZ | LBF | 4 | F | | | | | | | INDET SHAFT FRAGS | 3 |
| 052 | SSZ | LMV | 1 | F | AF | 34 | | | | | CENTRUM | 3 |
| 052 | SSZ | RIB | 1 | F | | | | | | | SHAFT FRAG | 4 |
| 052 | SUS | ATL | 1 | R | | | | | | | MOST OF LEFT HALF | 4 |
| 052 | SUS | HUM | 1 | L | DF | 6789 | | DG | | | DISTAL HALF-CONDYLE CHEWED | 3 |
| 052 | SUS | LM1 | 1 | W | | | | | I12 | | COMPLETE | 3 |
| 052 | SUS | SKL | 1 | F | | | | | | | PARIETAL FRAG-SUTURE OPEN | 4 |
| 052 | SUS | SKL | 1 | F | | | | | | | SUPRA-ORBITAL FRAG | 4 |
| 052 | UNI | SKL | 1 | F | | | | | | | INDET | 4 |
| 052 | UNI | UNI | 3 | F | | | | | | | INDET | 4 |
| 052 | UNI | UNI | 1 | F | | | | | | | INDET | 3 |
| 077 | OVCA | INN | 1 | R | | 3 | | | | | ILIAL SHAFT- 8 PIECES-PART RECONSTRUCTED | 3 |
| 094 | BOS | HUM | 1 | R | DF | 689 | CH | | HT-37 | | DISTAL END-PART CONDYLE BROKEN OFF-SHAFT CHOPPED | 3 |
| 094 | BOS | MTT | 1 | F | | | | | | | SHAFT FRAGMENT | 4 |
| 094 | BOS | RAD | 1 | L | PF | 2 | | | | | FRAGMENT OF PROXIMAL END | 4 |
| 094 | BOS | SKL | 1 | L | | | | | | | ZYGOMATIC FRAG | 4 |
| 094 | BOS | UMI | 1 | R | | | | | I16 | | COMPLETE | 4 |
| 094 | CSZ | HUM | 1 | F | | | | | | | SHAFT FRAG | 4 |
| 094 | CSZ | UNI | 1 | F | | | | | | | INDET | 4 |
| 095 | BOS | FEM | 1 | R | PNDN | 34 | | | | | SHAFT MINUS EPIS- JUV- 3 PIECES | 4 |
| 095 | BOS | MAN | 1 | R | | 13 | | DG | | | ANT HORI RAMUS-POST CHEWED | 4 |
| 095 | BOS | MAN | 1 | L | | 123 | | | GH12I 16J15 | | ANT HALF- 11 PIECES-SAME ANIMAL AS ABOVE MANDIBLE-LOSE INCISORS | 4 |
| 095 | BOS | RAD | 1 | L | DF | 13 | | DG | | | PROX END AND SHAFT-DISTAL CHEWED-PROX EPI BROKEN | 4 |
| 095 | BOS | SCP | 1 | L | DF | 123 | CH | | | | PART GLENOID-NECK AND BASE SPINE-CHOPPED ON VENTRAL SIDE | 3 |

| | | | | | | | | | | | | | |
|-----|------|-----|---|---|----|-------|----|----|-----|--|--|--|---|
| 095 | BOS | SCP | 1 | L | DF | 123 | | | | GLP-61.7 LG-51.3 | | GLENOID AND NECK | 4 |
| 095 | CSZ | CEV | 1 | F | CF | 45 | | | | | | CENTRUM AND ARCH | 3 |
| 095 | CSZ | LBF | 1 | F | | | | | | | | SHAFT FRAG | 4 |
| 095 | CSZ | RIB | 1 | F | | | | DG | | | | PROX SHAFT-CHEWED-?HORSE | 4 |
| 095 | CSZ | RIB | 3 | F | | | | | | | | SHAFT FRAG-POSS HORSE | 4 |
| 095 | CSZ | UNI | 3 | F | | | | | | | | INDET | 4 |
| 095 | EQU | CAL | 1 | R | | 23 | | DG | | | | DISTAL HALF-PROX END CHEWED OFF | 3 |
| 095 | EQU | MTT | 1 | R | DF | 12345 | KN | | | GL-237 Bp-46 SD-26.4 DD-21.3 Bd-43 | | COMPLETE-SL DAMAGE- GRACILE-PROX SHAFT WITH CUTS ACROSS ANT-SURFACE ETCHED | 3 |
| 095 | EQU | TIB | 1 | R | DF | 4567 | | DG | | SD-36.8 Bd-65 Dd-42 | | DISTAL END AND SHAFT- 5 PIECES-PROX CHEWED | 4 |
| 104 | BOS | MTC | 1 | R | | | KN | DG | | | | PROX SHAFT-PROX END CHEWED OFF- CUTS ACROSS POST PROX SHAFT | 4 |
| 105 | BOS | HUM | 1 | L | | 9 | | | | | | DISTAL SHAFT-QUITE CHUNKY | 3 |
| 105 | BOS | HUM | 1 | L | | 09 | | DG | | | | DISTAL SHAFT FRAGMENT-DIST CHEWED- 2 PIECES | 4 |
| 105 | BOS | SCP | 1 | L | | | | DG | | | | FRAGMENT OF NECK AND GLENOID- 2 PIECES-CHEWED | 4 |
| 105 | BOS | UM2 | 1 | L | | | | | J14 | | | COMPLETE | 4 |
| 105 | EQU | AST | 1 | R | | 1 | | DG | | | | ANT HALF- 2 PIECES-CHEWED | 4 |
| 105 | EQU | TAR | 1 | W | | 1 | | | | | | PAIR OF FUSED TARSAL | 4 |
| 105 | OVCA | INN | 1 | L | EF | 3579 | | | | | | ILIAL AND ISCHIAL SHAFT WITH PART ACETAB-GRACILE- 2 PIECES | 4 |
| 105 | SUS | SCP | 1 | R | | 3 | | DG | | | | NECK AND DISTAL BLADE-DISTAL CHEWED | 4 |
| 999 | OVCA | SCP | 1 | R | | | | | | | | DISTAL BLADE- 2 PIECES- TRENCH 9 | 3 |
| 999 | UNI | UNI | 2 | F | | | | | | | | INDET- TRENCH 5 | 3 |

THE ENVIRONMENTAL ARCHAEOLOGY CONSULTANCY

Key to codes used in the cataloguing of animal bones

| SPECIES | BONE | SIDE | FUSION |
|--------------------|--------------------------------------|---------------------|---|
| BOS cattle | SKL skull | W - whole | Records the fused/unfused condition of the epiphyses |
| CSZ cattle size | TEMP temporal | L - left side | P - proximal; D - distal; E - acetabulum; |
| SUS pig | FRNT frontal | R - right side | N - unfused; F - fused; C - cranial; A - posterior |
| OVCA sheep or goat | PET petrous | F - fragment | |
| OVI sheep | PAR parietal | | TOOTH WEAR - Codes are those used in Grant, A. 1982 <i>The use of tooth wear as a guide to the age of domestic animals</i> , in B.Wilson, C.Grigson and S.Payne (eds) <i>Ageing and sexing animal bones from Archaeological sites, 91-108.</i> |
| SSZ sheep size | OCIP occipital | | Teeth are labelled as follows in the tooth wear column: |
| EQU horse | ZYG zygomatic | | h ldpm4/dupm4 f ldpm2/dupm2 |
| CER red deer | MAN mandible | | H lpm4/upm4 g ldpm3/dupm3 |
| CAN dog | MAX maxilla | | I lm1/um1 |
| MAN human | ATL atlas | | J lm2/um2 |
| UNI unknown | AXI axis | | K lm3/um3 |
| CHIK chicken | CEV cervical vertebra | | |
| GOOS goose, dom | TRV thoracic vertebra | | |
| LEP hare | LMV lumbar vertebra | | |
| UNB indet bird | SAC sacrum | | |
| MALL duck, dom. | CDV caudal vertebra | ZONES | - zones record the part of the bone present. |
| GULL gull sp. | SCP scapula | | The key to each zone on each bone is on page 2 |
| FISH fish | HUM humerus | | |
| UNIB bird indet | RAD radius | | |
| UNIF fish indet | MTC metacarpus | | |
| GSZE goose size | MC1-4 metacarpus 1-4 | MEASUREMENTS | - Any measurements are those listed in A.Von den Driesch (1976) <i>A Guide to the Measurement of Animal Bones from Archaeological Sites</i> , Peabody Museum Bulletin 1, Peabody Museum, Harvard, USA |
| BEAV beaver | INN innominate | | |
| CORV crow or rook | ILM ilium | | |
| | PUB pubis | | |
| | ISH ischium | PRESERVATION | 1 - enamel only surviving |
| | FEM femur | | 2 - bone very severely pitted and thinned, tending to break up teeth with surface erosion and loss of cementum and dentine |
| | TIB tibia | | 3 - surface pitting and erosion of bone, some loss of cementum and dentine on teeth |
| | AST astragalus | | 4 - surface of bone intact, loss of organic component, material chalky, calcined or burnt |
| | CAL calcaneum | | 5 - bone in good condition, probably with some organic component |
| | MTT metatarsus | | |
| | MT1-4 metatarsus 1-4 | | |
| | PH1 1st phalanx | | |
| | PH2 2nd phalanx | | |
| | PH3 3rd phalanx | | |
| | LM1-LM3 Lower molar 1 - molar 3 | | |
| | UM1-UM3 upper molar 1 - molar 3 | | |
| | LPM1-LPM4 lower premolar 1-4 | | |
| | UPM1-UPM4 upper premolar 1-4 | | |
| | DLPM1-4 deciduous lower premolar 1-4 | | |
| | DUPM1-4 deciduous upper premolar 1-4 | | |
| | MNT mandibular tooth | | |
| | MXT maxillary tooth | | |

| | |
|------|------------------|
| LBF | long bone |
| UNI | unidentified |
| STN | sternum |
| INC | incisor |
| TTH | indet. tooth |
| CMP | carpo-metacarpus |
| SKEL | skeleton |

ZONES - codes used to define zones on each bone

| | | | | |
|----------|--|--|---------------|--|
| SKULL - | <ol style="list-style-type: none"> 1. paraoccipital process 2. occipal condyle 3. intercornual protuberance 4. external acoustic meatus 5. frontal sinus 6. ectorbitale 7. entorbitale 8. temporal articular facet 9. facial tuber 0. infraorbital foramen | | METACARPUS - | <ol style="list-style-type: none"> 1. medial facet of proximal artciulation, MC3 2. lateral facet of proximal articulation, MC4 3. medial distal condyle, MC3 4. lateral distal condyle, MC4 5. anterior distal groove and foramen 6. medial or lateral distal condyle |
| | | | FIRST PHALANX | <ol style="list-style-type: none"> 1. proximal epiphysis 2. distal articular facet |
| | | | INNOMINATE | <ol style="list-style-type: none"> 1. tuber coxae 2. tuber sacrale + scar 3. body of illium with dorso-medial foramen 4. iliopubic eminence 5. acetabular fossa 6. symphyseal branch of pubis 7. body of ischium 8. ischial tuberosity 9. depression for medial tendon of rectus femoris |
| MANDIBLE | <ol style="list-style-type: none"> 1. Symphyseal surface 2. diastema 3. lateral diastemal foramen 4. coronoid process 5. condylar process 6. angle 7. anterior dorsal ascending ramus posterior M3 8. mandibular foramen | | | |
| | | | FEMUR | <ol style="list-style-type: none"> 1. head 2. trochanter major <ol style="list-style-type: none"> 3. trochanter minor 4. supracondyloid fossa 5. distal medial condyle 6. lateral distal condyle <ol style="list-style-type: none"> 7. distal trochlea 8. trochanter tertius |
| VERTEBRA | <ol style="list-style-type: none"> 1. spine 2. anterior epiphysis 3. posterior epiphysis 4. centrum 5. neural arch | | | |
| | | | TIBIA | <ol style="list-style-type: none"> 1. proximal medial condyle 2. proximal lateral condyle 3. intercondylar eminence 4. proximal posterior nutrient foramen 5. medial malleolus <ol style="list-style-type: none"> 6. lateral aspect of distal articulation 7. distal pre-epiphyseal portion of the diaphysis |
| SCAPULA | <ol style="list-style-type: none"> 1. supraglenoid tubercle 2. glenoid cavity 3. origin of the distal spine 4. tuber of spine 5. posterior of neck with foramen 6. cranial angle of blade 7. caudal angle of blade | | | |
| | | | CALCANEUM | <ol style="list-style-type: none"> 1. calcaneal tuber 2. sustentaculum tali 3. processus anterior |
| HUMERUS | <ol style="list-style-type: none"> 1. head 2. greater tubercle 3. lesser tubercle 4. intertuberal groove 5. deltoid tuberosity 6. dorsal angle of olecranon fossa 7. capitulum 8. trochlea | | | |
| | | | METATARSUS | <ol style="list-style-type: none"> 1. medial facet of proximal artciulation, MT3. 2. lateral facet of proximal articulation, MT4 3. medial distal condyle, MT3 <ol style="list-style-type: none"> 4. lateral distal condyle, MT4 5. anterior distal groove and foramen 6. medial or lateral distal condyle |
| RADIUS | <ol style="list-style-type: none"> 1. medial half of proximal epiphysis 2. lateral half of proximal epiphysis 3. posterior proximal ulna scar and foramen 4. medial half of distal epiphysis 5. lateral half of distal epiphysis | | | |

6. distal shaft immediately above distal epiphysis

ULNA

1. olecranon tuberosity
2. trochlear notch- semilunaris
3. lateral coronoid process
4. distal epiphysis

Appendix 9

Prehistoric pottery by Dale Trimble

A small collection of prehistoric pottery was recovered during an evaluation at Stephens Way, Sleaford, Lincolnshire. Four of the sherds from contexts in Trench 20 displayed decoration typical of Middle Iron Age East Midlands Scored Ware. A number of shell tempered sherds from other contexts may also be of Middle Iron Age date (D. Knight Pers. Comm).

Scored ware pottery of this type was retrieved from an evaluation undertaken in 1990 within the adjacent field to the east (Trimble 1997). Here the pottery was mainly found within the fills of post holes of a large palisaded enclosure, thought to be associated with a high status settlement. Similar Middle Iron Age pottery was also recovered during the evaluation of a site on the east side of Sleaford in 1997. The collection from this site was derived chiefly from a ditched enclosure and internal post holes, ditches and gullies.

Pottery of this kind is found over much of the East Midlands and is thought to have been in use from the Middle to the Late Iron Age. However, a major Late Iron Age site, thought to represent an *Oppidum* of the local Iron Age tribe known as the Corieltauvi, is located within the area currently known as Old Sleaford, approximately 1km north-east of the Stephens Way site. As little scored ware was recovered during excavations at the Old Place site, it seems unlikely that this type of pottery continued in use far beyond the Middle Iron Age in the Sleaford area.

| Context | Area | No | Comments | Date |
|---------|-------|----|---|-----------------|
| 028 | Tr 20 | 1 | 1 shell tempered body sherd | Middle Iron Age |
| 094 | Tr 21 | 1 | 1 large shelly tempered body sherd displaying light scoring | Middle iron Age |
| 095 | Tr 21 | 7 | 4 very small shell tempered fragments probably recent breaks off larger pieces below 3 shell tempered body sherds displaying 'scoring' | Middle Iron Age |
| 107 | Tr 21 | 3 | 3 small shell tempered body sherds | Middle Iron Age |
| Tr 3 US | Tr 3 | 8 | 8 shell tempered body sherds, 4 probably from recent fragmentation | Middle Iron Age |

References

Trimble D., 1997, In Elsdon 1997, *Old Sleaford Revealed*

Appendix 10

The Roman Pottery,
By Barbara Precious

| CONTEXT | DESCRIPTION | DATE |
|---------|---|--|
| 004 | 1x Grey ware jar/beaker, base with moulded footring | 2 nd century |
| 012 | 1x Grey ware body sherd 1x shell-tempered jar/beaker body sherd | Late Iron Age/Early Roman |
| 065 | 1x Grey ware body sherd, form B334?- bowl with sharp angle at girth, flaked internally | 2 nd century |
| 105 | 2x Grey ware wide mouthed bowls rims, short neck, water worn 18x Grey ware narrow- necked jar, rim and body sherds, all same fabric 3x Grey ware body sherds, abraded 1x medieval glazed rim sherd 1x medieval shell-tempered body sherd | mid 3 rd -early 4 th century for Roman pot, though context dated by medieval pot within group |

Because of the small size of the collection, the Roman pottery assemblage is too small to be more informative than providing dating evidence.

Appendix 11

Medieval Pottery *By Hilary Healey*

Provenance

All of the medieval pottery was recovered from ditches or furrows and occurred randomly across the site.

All of the identifiable pottery was produced in the region, with pieces made in Lincoln and Potterhanworth, both about 20-25km to the north, Toynton All Saints 35km to the northeast, Stamford 40km to the south and Nottingham 50km to the west.

Range

The range of material is detailed in the table. Stamford ware of 9th-11th century Saxo-Norman date is the earliest material in the group, but there is a broad continuum of pottery throughout the medieval period. The later material of 13th-15th century date is more common than the earlier Saxo-Norman pottery.

| Context | Trench | No. | Comments | Date | Period Date |
|---------|--------|--------|--|--|----------------------|
| u/s | 5 | 3 | Unidentified | Medieval | Medieval |
| 010 | 10 | 1 | Unglazed jug rim | 13 th -14 th century | Medieval |
| u/s | 10 | 1 | Potterhanworth ware | 13 th century | Medieval |
| 012 | 12 | 1 | Unidentified, with sagging bottom | 9 th -11 th century | Late Saxon |
| 026 | 20 | 1 | Potterhanworth ware Toynton All Saints ware | 13 th century 14 th -15 th century | Medieval Medieval |
| 038 | 10 | 1 | Unglazed | 13 th -14 th century | Medieval |
| 045 | 10 | 1 | Nottingham splashed glaze ware | 13 th -14 th century | Medieval |
| 050 | 12 | 2 | Nottingham ware jug, same vessel | 13 th century | Medieval |
| 052 | 10 | 3 1 | Lincoln ware pipkin, linked sherds Unidentified | 14 th -15 th century Medieval | Medieval Medieval |
| 094 | 21 | 1 | Unidentified | Medieval | Medieval |
| 105 | 21 | 1 | Stamford ware | 9 th -11 th century | Late Saxon |
| u/s | 21 | 1 | Lincoln ware | 14 th century | Medieval |

Condition

All of the material is abraded but in otherwise good condition.

Potential

As a small collection that occurs randomly and is abraded, it is likely that the medieval pottery represents manuring scatter. As such, the group is of limited significance, though does indicate that the site area was agricultural land in the medieval period.

Appendix 12

Metal Objects By Gary Taylor MA

Provenance

The material was recovered from gullies, ditches and topsoil and occurred randomly across the site. The majority of the material was recovered by the use of a metal detector.

Range

The range of material is detailed in the table.

| CONTEXT | DESCRIPTION | DATE |
|--------------------|--|-----------------------------------|
| 026, Trench 20 | 1x iron key | post-medieval |
| 052, Trench 10 | 1x iron, square-sectioned, square-headed nail, post-medieval | post-medieval |
| Topsoil, Trench 10 | 1x Constantine (307-37) Follis coin obverse: IMP CONSTANTINVS PF AUG reverse: SOLI INVICTO COMITI (Arles mint) | 315-16 |
| Topsoil, Trench 10 | 1x 'Constantine I' coin obverse: CŌNSTANTINOPOLIS reverse: victory on prow | c. 341-46 |
| 079, Trench 4 | 1x iron, square-sectioned, square-headed nail/tack, post-medieval | post-medieval |
| | 1x iron object, U-profile bar, bent through 120°, broken into 2 pieces at bend | post-medieval |
| 094, Trench 21 | 1x iron, square-sectioned, square-headed nail, in 3 pieces, post-medieval | post-medieval |
| U/S Trench 10 | 1x copper alloy cast letter M ('medieval script'), horse furniture or belt mount | late medieval-early post-medieval |
| | 1x copper alloy circular disc | 18th-20th century |
| | 1x copper alloy cast button, gilded | 19th-early 20th century |
| | 1x copper alloy thimble | 18th century |
| | 1x copper alloy ferrule | ?19th century |
| | 1x copper alloy hollow screw | 19th-early 20th century |
| | 4x lead pieces, sheet/lumps | |
| | 1x white metal cast button | 19th century |
| U/S Trench 21 | 1x iron nail | |
| | 1x ferrous corrosion concretion | |

The two Roman coins from (062), Trench 10, are the earliest datable objects, with most of the material being of post-medieval date. The lead pieces could be as early as the Roman period, though there are no distinguishing

features to indicate the date.

Condition

Although the iron is corroded all of the material is in good condition and presents no long-term storage problems. Archive storage of the assemblage is by material class. None of the material has been X-rayed.

Documentation

Numerous archaeological investigations in Sleaford, particularly near the present investigation site in the Old Sleaford area, have previously been undertaken and reported (eg, Trimble 1997; Herbert 1999).

Potential

The assemblage has limited-moderate potential. The two coins probably relate to the known Roman buildings in the immediate vicinity of the site.

References

Herbert, N., 1999 *Archaeological Investigations at the New Police Station, Boston Road, Sleaford, Lincolnshire*, Unpublished APS Report No **30/98**

Trimble, G., 1997 *Archaeological Investigations of a Pipeline along St. Giles' Avenue, Sleaford, Lincolnshire (SSG96)*, Unpublished APS Report No **16/97**

Appendix 13

Glossary of Terms

| | |
|---------------------------|---|
| Context | An archaeological context represents a distinct archaeological event or process. For example, the action of digging a pit creates a context (the cut) as does the process of its subsequent backfill (the fill). Each context encountered during an archaeological investigation is allocated a unique number by the archaeologist and a record sheet detailing the description and interpretations of the context (the context sheet) is created and placed in the site archive. Context numbers are identified within the report text by brackets, <i>e.g.</i> (004). |
| Cut | A cut refers to the physical action of digging a posthole, pit, ditch, foundation trench, <i>etc.</i> Once the fills of these features are removed during an archaeological investigation the original 'cut' is therefore exposed and subsequently recorded. |
| Fill | Once a feature has been dug it begins to silt up (either slowly or rapidly) or it can be back-filled manually. The soil(s) which become contained by the 'cut' are referred to as its fill(s). |
| Geophysical Survey | Essentially non-invasive methods of examining below the ground surface by measuring deviations in the physical properties and characteristics of the earth. Techniques include magnetometry and resistivity survey. |
| Iron Age | A period characterised by the introduction of Iron into the country for tools, between 800 BC and AD 50. |
| Layer | A layer is a term to describe an accumulation of soil or other material that is not contained within a cut. |
| Medieval | The Middle Ages, dating from approximately AD 1066-1500. |
| Natural | Undisturbed deposit(s) of soil or rock which have accumulated without the influence of human activity. |
| Post-medieval | The period following the Middle Ages, dating from approximately AD 1500-1800. |
| Prehistoric | The period of human history prior to the introduction of writing. In Britain the prehistoric period lasts from the first evidence of human occupation about 500,000 BC, until the Roman invasion in the middle of the 1st century AD. |
| Romano-British | Pertaining to the period dating from AD 43-410 when the Romans occupied Britain. |
| Late Saxon | Pertaining to the period dating from AD 850-1150 when England was largely settled by tribes from northern Germany |

Appendix 14

The Archive

The archive consists of:

| | |
|-----|------------------------------|
| 112 | Context records |
| 43 | Scale drawing sheets |
| 5 | Context record sheets |
| 3 | Photographic record sheets |
| 1 | Plan record sheet |
| 2 | Section record sheets |
| 1 | Bag of finds |
| 1 | Small finds register |
| 1 | Sample record sheet register |
| 4 | Sample record sheets |
| 1 | Level sheet |
| 1 | Box of finds |

All primary records and finds are currently kept at:

Archaeological Project Services
The Old School
Cameron Street
Heckington
Sleaford
Lincolnshire
NG34 9RW

The ultimate destination of the project archive is:

Lincolnshire City and County Museum
12 Friars Lane
Lincoln
LN2 1HQ

The archive will be deposited in accordance with the document titled *Conditions for the Acceptance of Project Archives*, produced by the Lincolnshire City and County Museum.

Lincolnshire City and County Council Museum Accession Number: 208.99
Archaeological Project Services Site Code: SSW99

The discussion and comments provided in this report are based on the archaeology revealed during the site investigations. Other archaeological finds and features may exist on the development site but away from the areas exposed during the course of this fieldwork. *Archaeological Project Services* cannot confirm that those areas unexposed are free from archaeology nor that any archaeology present there is of a similar character to that revealed during the current investigation.

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