LINDSEY ARCHAEOLOGICAL SERVICES
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MAIN ROAD STICKFORD TF3560 6028
Planning Application S168/2120/93
Archaeological Assessment

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Introduction

Lindsey Archaeological Services undertook an archaeological assessment of the above site on behalf of J.C. and W. Chatterton and R.Scarborough desktop study to fulfill a planning requirement of East Lindsey District Council. This has been prepared in accordance with the requirements of the County Archaeological Officer as outlined in the Brief dated September 27th 1993.

Site Location

The proposed development site is a building plot lying adjacent to the new by-pass and immediately south of Manor Farm, which is surrounded by earthworks indicating the presence of extensive former settlement remains (Fig. 1). These lie some distance from the medieval church, suggesting either that the settlement has shifted since the Middle Ages or possibly that there were two foci of settlement.

Background

Stickford is an ancient village, dating back at least to the Saxon period. At the time of the Domesday Survey the village was part of the Soke of Bolingbroke, which was held by Ivo de Taillebois, a major landholder in the county. It is the most northerly of a string of villages which lie at the south end of the Wolds on two islands of higher ground which project into the Fens (Fig. 2).

Stickford was one of the parishes investigated by the Fenland Survey Project in the mid-1980s. This Survey, funded by English Heritage, involved extensive fieldwalking of fen edge parishes. Stickford was in Phase 2 of the project and the results are not yet published but the finds are listed in Appendix 1. Land to the west of the proposed development site was examined and

material dating from the Neolithic through to the Roman periods was discovered. One site (SKD 10) also produced Anglo-Saxon and medieval pottery. Land close to the village and under pasture could not be investigated. However, the results from the Fenland Survey show that potentially there could be prehistoric and/or Roman remains on the proposed development site.

I. DESKTOP STUDY

Records from Stickford parish lodged at the Lincoln Sites and Monuments Record (SMR) were examined and sites plotted onto a 1:25,000 map (Fig. 1). Aerial photographs and a few additional records, held at the offices of LAS, were also incorporated into the list (see Appendix 1). Examination of records in the Local Collection of the Lincoln Reference Library provided no additional information about the village relevant to the purpose of this study.

Cartographic evidence at the Lincolnshire Archives Office was examined. Apart from the general map of the area in 1662, by Dugdale,(fig.2b) the earliest surveys of Stickford were made to record the extent of the estate belonging to the Coltman family. A map of 1768 does not show the proposed devlopment area but the survey of 1839 (LAO MISC. DON. 505/2) records the site as an open field belonging to Thomas Coltman. There are a few few properties dotted along the main roads, with a cluster close to the church and a few near to the Manor Farm (Fig. 3). A map of 1869 (LAO 2ANC 5/16/3) shows the same plot of land, which is held by Mrs Zealand and William H.Hill. A 1906 survey (LAO MCD 851) shows the site as part of a parcel of freehold land with a footpath running north-south along the west side of the field. This may still be seen as a hollow way (see below).

Aerial Photography

The records of the Cambridge University Collection of Aerial Photographs (CUCAP) and National Air Photographic Library (Swindon) were investigated but neither had oblique specialist

coverage of the proposed development site. Vertical air photographs of the county taken in 1971 are held at the Highways and Planning Department of Lincolnshire County Council. These showed surviving earthworks and medieval ploughing (ridge and furrow) in pasture around the modern village which are sketched on Fig.1 (ref. HSL UK 71 185, Run 35/0788).

The only substantial earthwork remains lie on the north side of Church Rd to the west of Manor Farm where there appears to be a rectangular enclosure with a smaller square enclosure in its north-east corner. Further west are the remains of toft boundaries fronting onto Church Rd (Pl.6 and 7). All these features are butted to their north by further ridge and furrow, marking the limit of settlement. Further tofts were identified east of the by-pass, fronting onto the old fen road. Little was seen around the older part of the village near to the church and west of the proposed development site because of modern development.

The proposed development site is covered in ridge and furrow, running approximately north-south, with a more pronounced furrow on its west side which was probably used as a path (or hollow way) (Pl. 2 and 3). To the south of the development area is more ridge and furrow, running east-west. Over the top of the plough furrows are traces of later enclosures and a trackway leading to a pond south-west of the school (Pl. 4 and 5). There is no evidence of settlement remains lying within the loop of the road.

Further vertical coverage dating to 1975 is held at Cambridge University (ref. RC 8 BF 04) but inspection of a photocopy suggested that it contained no significant information additional to that on the photographs held in Lincoln.

II. SITE EVALUATION

The proposed development area is currently pasture and was therefore not suitable for fieldwalking. Examination of disturbed ground close to the entrance on the north side of the plot did not reveal any pottery or other artefacts.

Examination of the earthworks in the field confirmed the air photographic evidence that they comprised ridge and furrow. It was felt that they were not of sufficient importance to merit a measured survey.

Geophysical Survey

In order to establish the presence of archaeological remains on the land non-intrusive survey techniques were used to identify buried archaeological features. It is possible to define areas of human activity by means of magnetic survey. Topsoil is normally more magnetic than the subsoil or parent bedrock and human activity further enhances the magnetic properties of soils. The most common technique used to detect magnetic anomalies produced by buried features is magnetometry which can locate buried ditches, pits, hearths, kilns etc.

Resistivity survey measures the electrical resistance between two probes placed in the ground, which varies according to the moisture content of the soil. It is particularly good for identifying buried brick or stone structures such as building foundations. Both techniques were used at Stickford to ensure maximum retrieval of data from the site (Pl.1).

Magnetometer & Resistivity Survey

Summary :
A magnetometer and resistivity survey was carried out by the Landscape Research Centre Ltd for Lindsay Archaeological Services, as part of an archaeological assessment of a proposed housing development in Stickford, Lincolnshire. The proposed development area had at least one visible feature on the ground, (a linear depression, possibly a ditch), which was picked up on both surveys. Both the magnetometer and resistivity surveys detected anomalies, and these are discussed below. However, due to the small size of the survey area and a number of interfering factors, both the magnetic and resistivity responses were generally low.

Enclosed :
The report consists of this document, and several plans and images, numbered below. All plans have north pointing to the top of the page and all have a grid at ten metre intervals.

2) An A4 sheet at a scale of 1:500 showing the magnetometer data displayed as an image.

3) An A4 sheet at a scale of 1:500 showing the resistivity data displayed as an image.

4) An A4 sheet at a scale of 1:300 showing the digitised position of the resistivity anomalies detected, numbered 1 to 6. These anomalies are discussed in more detail below.

5) An A4 sheet at a scale of 1:300 showing the digitised position of the magnetometer anomalies detected, numbered 1 to 4. These anomalies are discussed in more detail below.

Report :
The subject of this report is the discussion of the results of a magnetometer and resistivity survey carried out on behalf of the Lindsay Archaeological Services. The site in question is a proposed housing development to the south of Manor Farm, Stickford, Lincolnshire. The magnetometer survey was conducted using a *Geoscan Research* fluxgate gradiometer (model FM36), hereafter referred to as a magnetometer. The zigzag traverse method of survey was used. The survey was conducted by taking readings every 25cm along the north/south axis and every metre along the east/west axis (thus 3600 readings foe every 30m grid). The resistivity survey was conducted using a *Geoscan Research* resistance meter (model RM15). The zigzag traverse method of survey was used. The survey was conducted by taking readings every 50 cm along the north/south axis and every metre along the east/west axis (thus 1800 readings for every 30m grid). The data has been processed and presented using the programs GeoImage (a program dealing with the processing of geophysical data) and Geosys (a program which can display, process and present digitised plans and images).

The survey was carried out on the 25th October, 1993. The personnel involved were James Lyall and Heather Clemence. The survey area was the area fenced off as being part of the development. The area covered was 1529 square metres for each of the surveys.

The magnetometer data:
The magnetometer data is displayed both as an image (Plan four) and as a digitised interpretation (Plan six). Plan two is presented as a greyscale image. The anomalies are the areas of lighter and darker grey, which indicate areas of high and low magnetic susceptibility. In all, 4 magnetic anomalies were detected, and these will be discussed below. The magnetic response of the site was generally low, and this problem was exacerbated by the presence of brick rubble and metal fencing on the perimeter of the survey area, both of which give exceptionally high magnetic readings. The areas of white and black on the image can thus be explained by the proximity of the metal fences and by the electricity pole.

1) This anomaly is visible on the ground as a linear feature and may be a ditch. The feature was also picked up on the resistivity survey and is number one on the interpreted resistivity plan.

2) This strong anomaly is explained by the presence of a metal water tank next to the fence.

3) This anomaly occurs in the extreme north\west of the area and may relate to cables underground to the school house next door.

4) This linear anomaly was also detected by the resistivity survey (resistivity number six). However the trace is so slight that no interpretation can be offered on the basis of geophysical survey alone.

The resistivity data :

The resistivity data is displayed both as a greyscale image (Plan five) and as a digitised interpretation (Plan seven. The resistivity anomalies detected were numbered one to six and are discussed in detail below. The presence of brick rubble tends to obscure the data, however, the resistivity survey did pick up certain anomalies. It should be remembered that because of the position of the electricity pole, some of the anomalies detected may be associated with this pole and be of a relatively recent date, and thus of limited archaeological interest.

1) This strong anomaly equates with magnetometer anomaly 1, and is visible on the ground as a linear depression, possibly a ditch. The feature continued into the remainder of the field to the south and there is a possibility that this anomaly is of an agricultural nature.

2) This curvilinear anomaly has an east\west orientation, curving to a north\south orientation. No further interpretation as to function can be attempted.

3) This linear anomaly has a north\south orientation (the same general size and orientation of anomaly 1). It is possible that the two features could be the remnants of ridge and furrow ploughing, but the small size of the survey does not allow for definite interpretation.

4) This anomaly appears to have some interaction with anomaly 3. The signal strength is lower than that of the other anomalies, and this may either be because of the greater depth of the feature or because it is not as receptive to resistivity survey as the other features in the area.

5) This anomaly is a fainter trace than any of the other anomalies and further interpretation cannot be attempted on the basis of geophysical survey alone.

6) This anomaly appears to equate with magnetometer anomaly 4, but the trace is so slight as to allow for no further interpretation.

Conclusion :

In conclusion, the site was generally of a low magnetic susceptibility and due to the presence of brick rubble, of a medium resistivity susceptibility. That being said, the results of the resistivity survey still allowed interpretation with a reasonable level of confidence. The plans should allow any archaeological investigation (if such is deemed to be necessary) of the area to concentrate in the specific areas believed to be significant. The United Kingdom latitudes are such that there can be a distortion of up to half a metre in position between the magnetic anomalies shown and the position of the actual features themselves.

Report by James Lyall

Landscape Research Centre Ltd.

III. DISCUSSION

The desk top study has shown that the potential for medieval remains being found on the proposed development site is low. The importance of the Stickford area within the Fen environment must be considered and there is a possibility that prehistoric and/or Roman remains may be found. The geophysical results were disappointing given the intensity of the survey. Only faint traces of human activity were detected on the magnetometer survey, with the most striking feature being the hollow way. This same feature was picked up by the resistivity survey together with a second linear feature, possibly another plough furrow. Of the four other anomalies located by the resistivity survey only the curving feature (2) will be disturbed by the building work. No interpretation of this anomaly was offered but it may be a ditch.

The current development proposal is for a single dwelling, whose position is marked on Fig.7. Anticipated depth of foundations is 900mm. Ground disturbance is likely to be limited but a watching brief during groundworks may locate feature (2) and evidence for its date and function retrieved.

Acknowledgement

Dave Andrew Building Contractor kindly supplied a location plan of the proposed building development.

Naomi Field
November 29th 1993

APPENDIX 1

Archaeological remains in the vicinity of the proposed development site

No known archaeological finds have been recorded from the site itself

Abbreviations
NGR National Grid Reference
LM Lincoln Museum. Alphabetical refences. Some records have been computerised by the SMR and have 5 figure number references
Fenland Ref. Number allocated by Fenland Survey
B.A. Bronze Age
R-B Romano-British

NGR	LM Ref.	Fen Ref.	Description
380 593	A (41002)		B.A. looped palstave
357 588	E (40585)		2, possibly 4, looped palstaves
343 591	G (41028)		Late Bronze Age axe
343 593	H (41027)		Neolithic flint axe
36 60	AL ---		perforated axe hammer
3528 5932		STD 1	R-B pottery
3578 5888		STD 2	R-B pottery
3637 5951		STD 3	Neolithic Flint
3418 6018		SKD 1	Early Bronze Age pottery
3425 6023		SKD 2	Flint
3440 6056		SKD 3	Early Bronze Age Pottery and flints.
3395 5893		SKD 4	Neolithic/Bronze Age flints.
3452 6022		SKD 5	Prehistoric flints
3405 5900		SKD 6	Late Neolithic/Early Bronze Age flints
3457 6075		SKD 7	Bronze Age pottery
3483 6090		SKD 8	R-B pottery

3495 6026	SKD 9A	Medieval pottery
3495 6015	SKD 9B	Medieval pottery
3487 6004	SKD 10	Major multi-period site prehistoric to medieval
3492 6126	SKD 11	R-B pottery and quern fragments

Fig. 1. Stickford, location of site and finds recorded at the Lincoln SMR with sketch plotting of earthwork remains. Based upon the O.S. 1:10,560 survey of 1958 with the permission of HMSO, Crown copyright (licence no. AL50425A) ● prehistoric sites

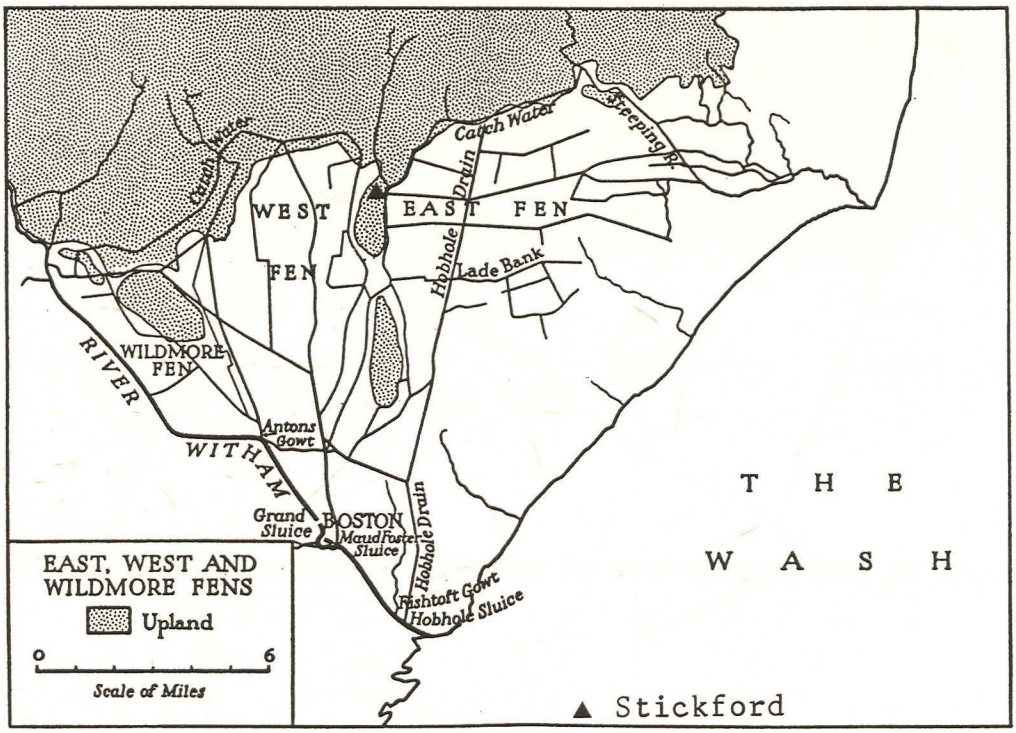
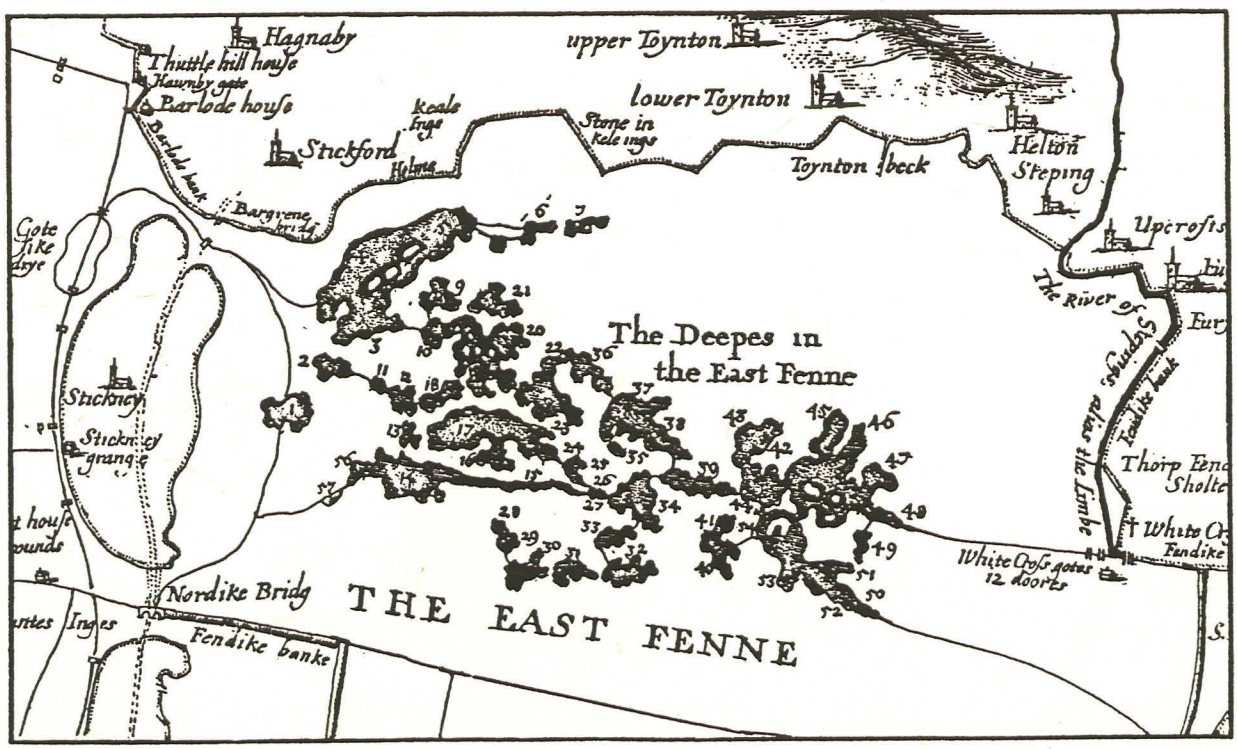


Fig. 2a Location of Stickford showing its position in relation to the West and East Fens. Based on W.H.Wheeler's survey published 1896.

Fig. 2b Part of Dugdale's map History of Imbanking and Drayning (1662).

Both maps reproduced from H.C.Darby The Drainage of the Fens 1956



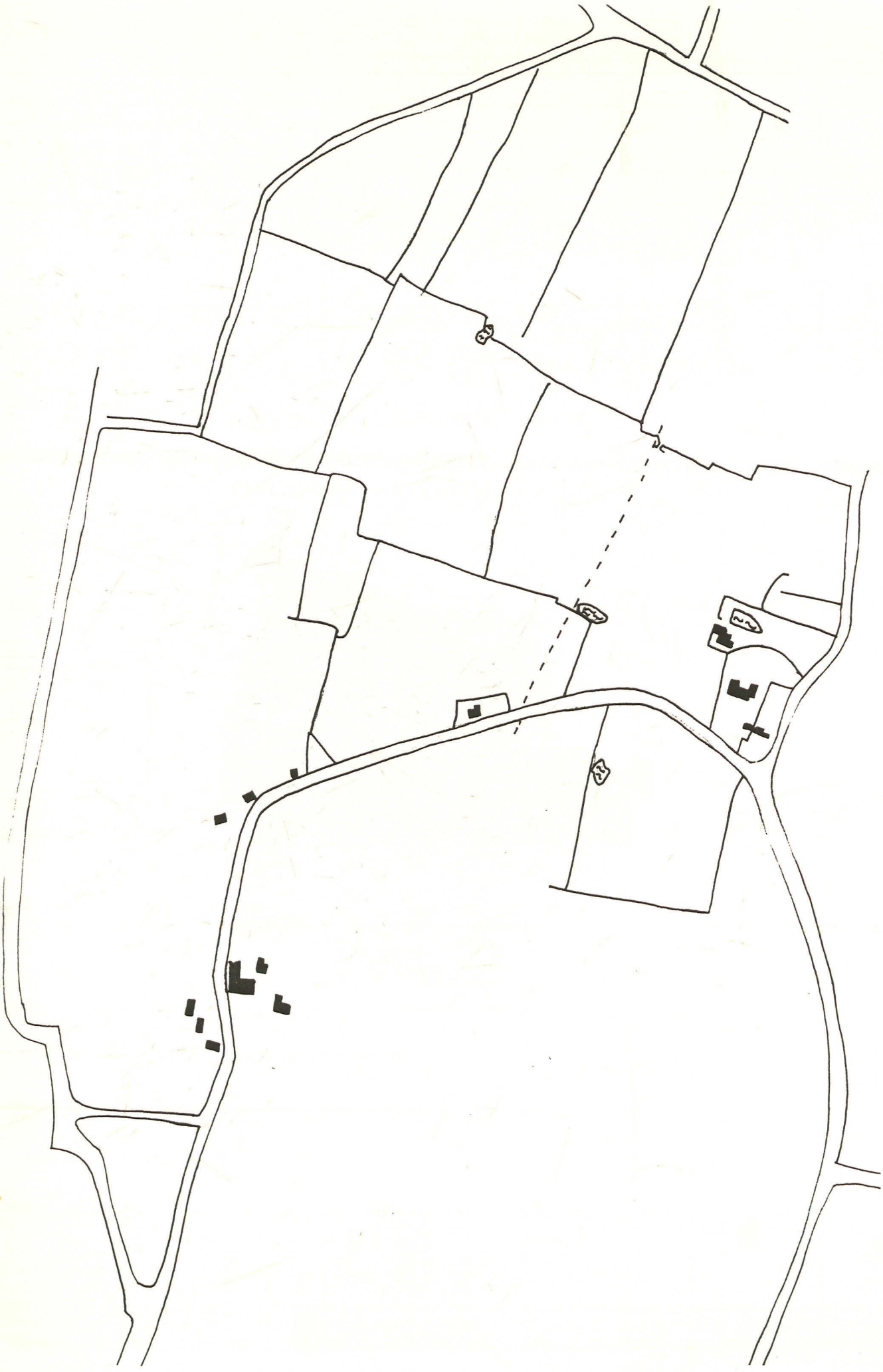


Fig. 3 Tracing of a survey showing lands belonging to Thomas Coltman (1839). Original held at the Lincolnshire Archives Office. Scale 6 chains = 1".

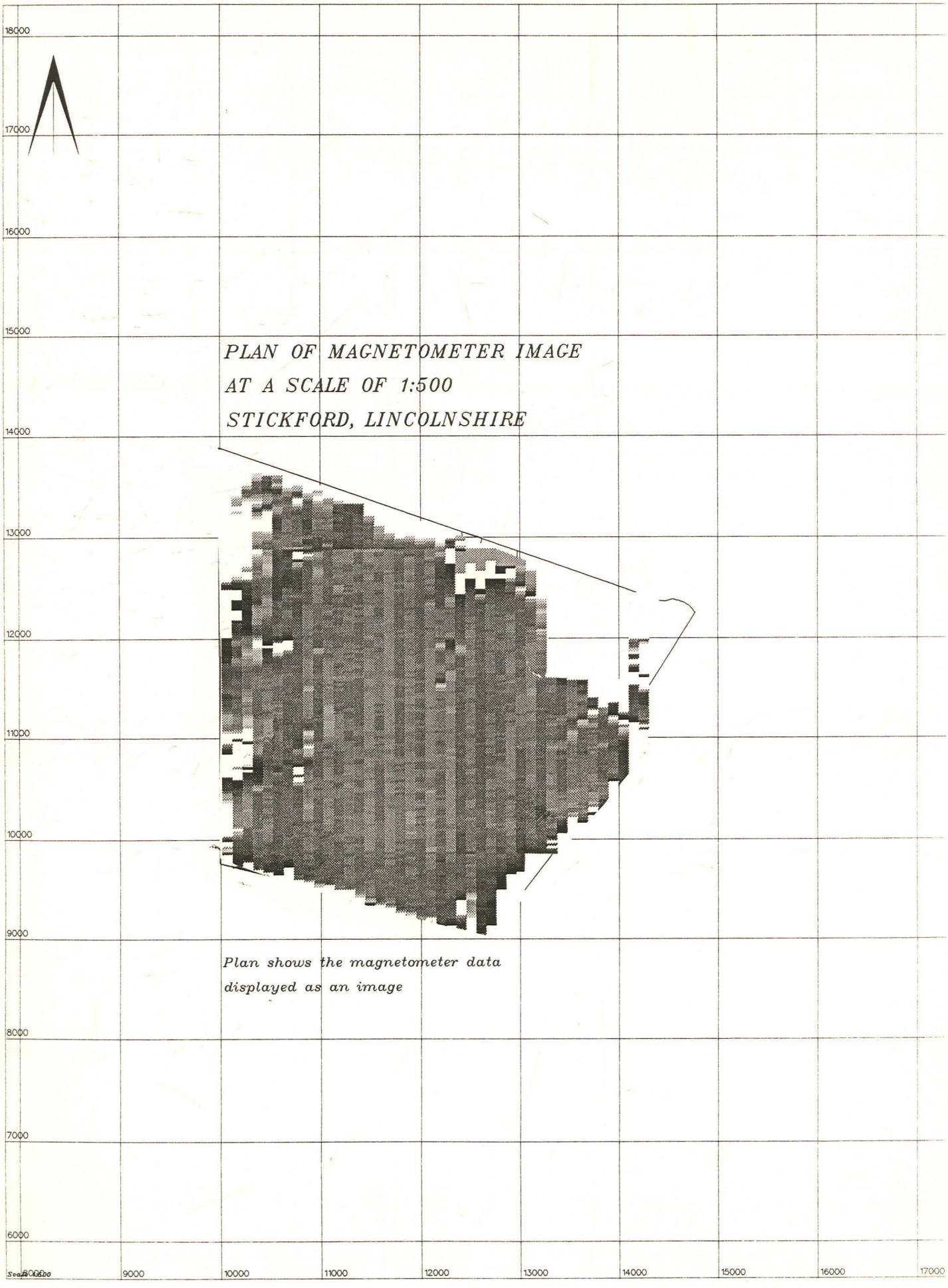


Fig. 4 Results of the magnetometer survey (Scale 1:500, grid at 10m intervals)

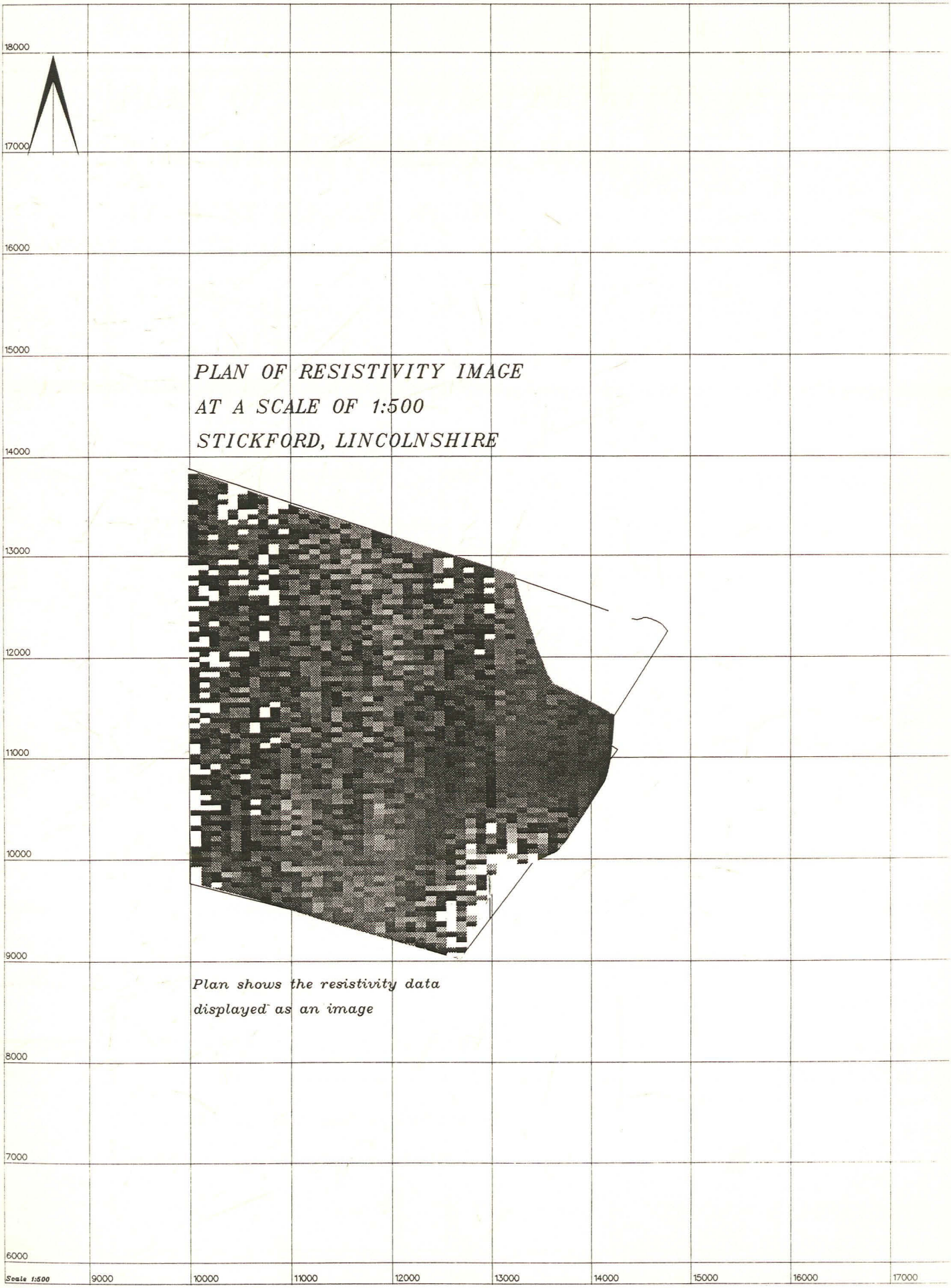


Fig. 5 Results of the resistivity survey (Scale 1:500)

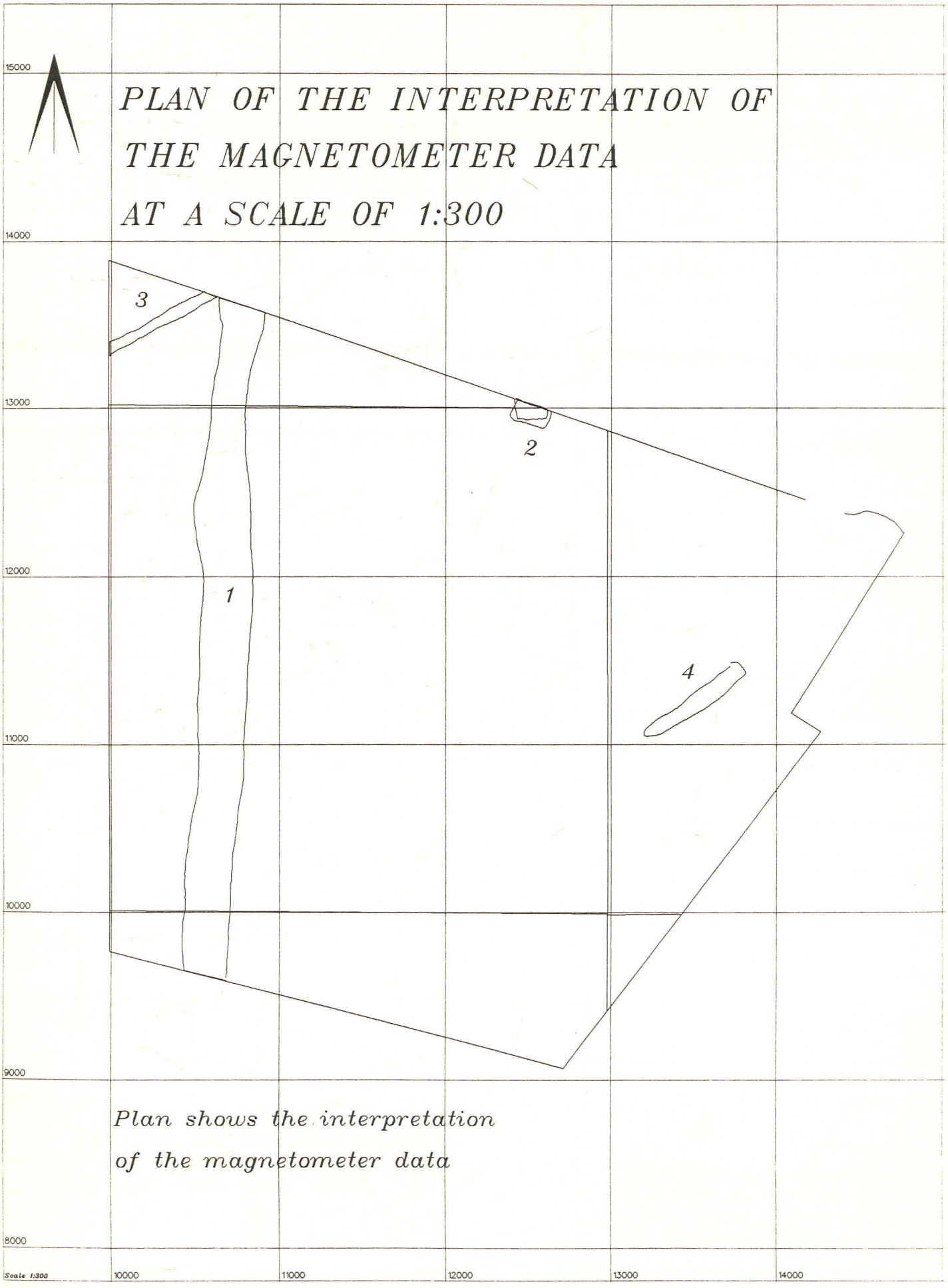


Fig. 6 Interpretation of the magnetometer results (Scale 1:300)

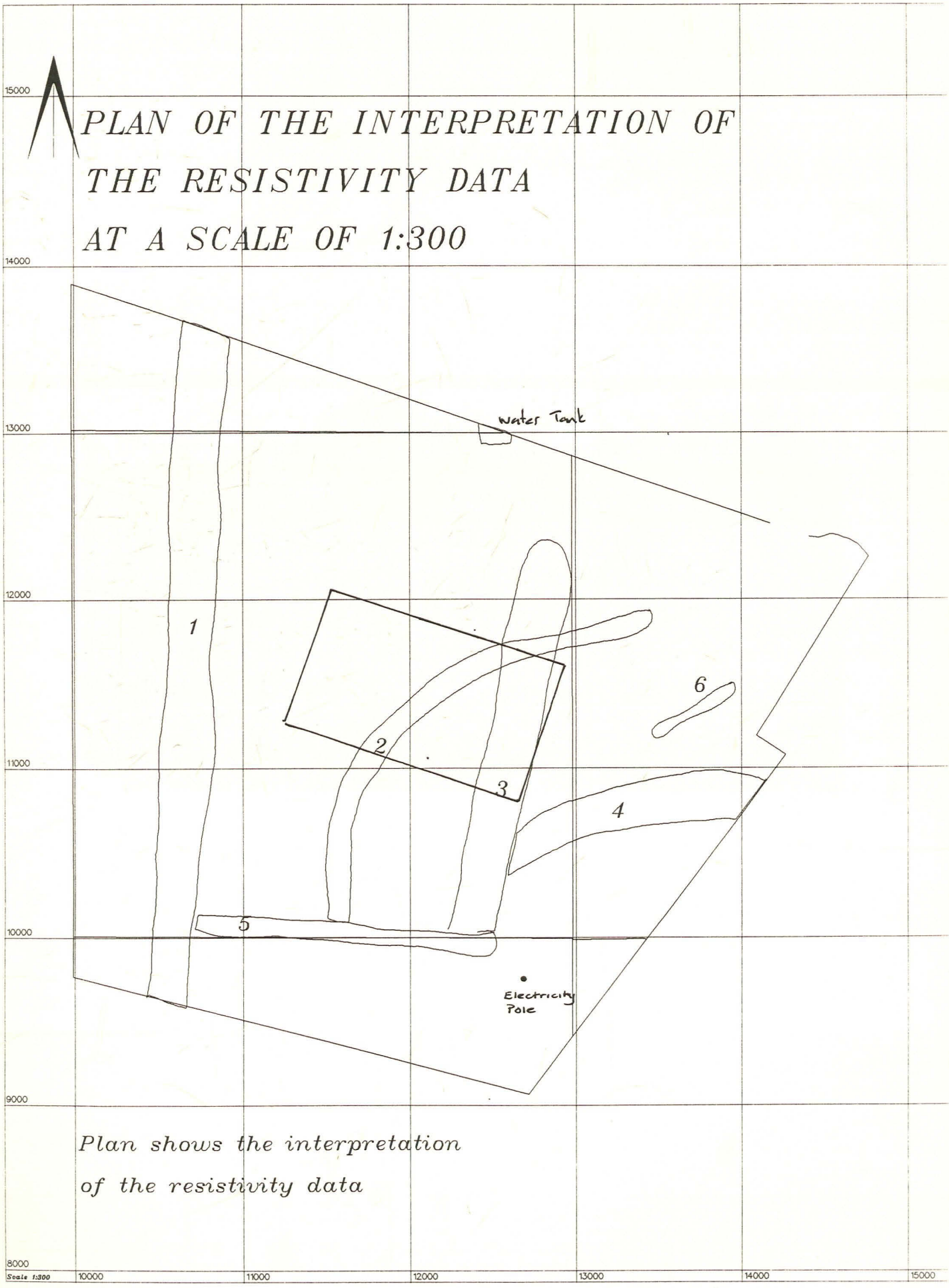


Fig. 7 Interpretation of the resistivity results with position of the proposed house superimposed. (Scale 1:300)

Pl.1 Survey area looking west

Pl.2 Survey area, showing hollow way, looking south

Pl.3 Survey area, showing hollow way, looking north

Pl.4 Ridge and furrow earthworks in field to south of survey area, looking north-west

Pl.5 Same view as Pl.4 at a slightly different angle, showing slight earthwork remains on top of the ridge and furrow (in field to south of survey area, looking north-west).

Pl.6 Village earthworks in field to north of survey area (Keal Hill in background)

Pl.7 Closer view of village earthworks in field to north of survey area (Keal Hill in background)