

# NORTHAMPTONSHIRE ARCHAEOLOGY

**A GEOPHYSICAL SURVEY  
OF LAND ADJACENT CASEWICK LANE,  
TALLINGTON, LINCOLNSHIRE**

**AUGUST 1994**

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TALLINGTON, Lincs. 1994

ABSTRACT

**NORTHAMPTONSHIRE COUNTY COUNCIL  
NORTHAMPTONSHIRE ARCHAEOLOGY**

**December 1994**

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### ABSTRACT

*Geophysical survey was undertaken over an area of c. 6ha of land adjacent Casewick Lane, Tallington, in order to establish the presence, nature and extent of any buried archaeological remains within the site (Fig 1). A single cropmark in the south east corner of the property had been identified previously by the South Kesteven Community Archaeologist as the possible remains of a hengiform monument. This was the only known potential archaeological feature within the site but separate desk-top study has since indicated that other features may also be present (Northamptonshire Archaeology 1994).*

### 2. TOPOGRAPHY AND GEOLOGY

2.1 The modern field is fairly flat with the remains of two former hedge boundaries still discernible as slight ridges running from north-east to south-west across the centre. Traces of the pre-enclosure field system can be seen in the southern hedge boundary which marks the edge of the properties beside the present A16. The ridges roughly follow a northerly course towards the former hedge boundary which they respect.

2.2 The geology of the survey area is situated on the drift deposits of the first river terrace gravels of the River Welland. Iron concretions which occur naturally in these deposits may create magnetic anomalies (spikes) similar to those from some archaeological features.

### 3. METHODOLOGY

Geophysical survey was carried out using two Geoscan Fluxgate Gradiometers (FM18/FM36). A

total of 142 grids, each 20m x 20m (c.6ha), was surveyed with individual readings logged at 1m intervals along parallel traverses set 1m apart (Fig 2). The readings were recorded in the 1nT range. The sensor alignment or balance was checked upon the completion of survey within each grid square. All data were downloaded in the field into a Toshiba lap-top computer and stored on 3.5" diskettes.

#### 4. ANALYSIS AND INTERPRETATION OF THE RESULTS (Figs 3-4)

4.1 The data were analysed using the computer program Geoplot 2.01. Low magnetism is represented as white and high magnetism as black in the resultant plot (Fig 3). The data were processed using zero mean functions in order to give a smoother graphical appearance. The data were also despiked, thereby reducing extreme readings as caused by stray iron fragments and spurious effects due to the inherent magnetism of certain soils.

4.2 The plot in Fig 3 is characterised by weakly magnetic responses with readings between  $\pm 2$ nT.

4.3 Period defects which were induced during data collection and appeared as regular straight lines in the plot, have been suppressed using an algorithm which by adding a positive or negative constant value to the data gives a smoother appearance.

4.4 Very faint traces of ridge and furrow cultivation may be seen in the southern half of the site.

4.5 In the south-east corner of the site, immediately behind "Greystones", an area of both very high and low magnetic readings may denote a former building, but the nearby possible hengiform monument known from aerial photographs cannot be conclusively identified.

4.6 Two positive anomalies to the west of the possible building may indicate pits.



- 4.7 A positive linear anomaly running approximately from east to west in the centre of the plot indicates a former hedge-line. At its south-west, a circular area of high magnetic readings may denote an infilled pond. Another circular anomaly occurring to the north is caused by a nearby telegraph pole.

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Northamptonshire Archaeology,  
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Planning and Transportation Department. 7 December 1994

## SCHEDULE BIBLIOGRAPHY REFERENCES

Clark, A J, 1990 Seeing Beneath the Soil.

Fig 2. Site plan

Northamptonshire Archaeology, 1994 An archaeological assessment of land adjacent to Casewick Lane, Talington, Lincolnshire, August 1994

Tite, M S, 1972 The influence of geology on the magnetic susceptibility of soils on archaeological sites, Archaeometry, 14: 2 (1972), 229-36.

## SCHEDULE OF ILLUSTRATIONS

Fig 1: Site location

Fig 2: Site grid

Fig 3: Dot-density plot.

Fig 4: Interpretation.

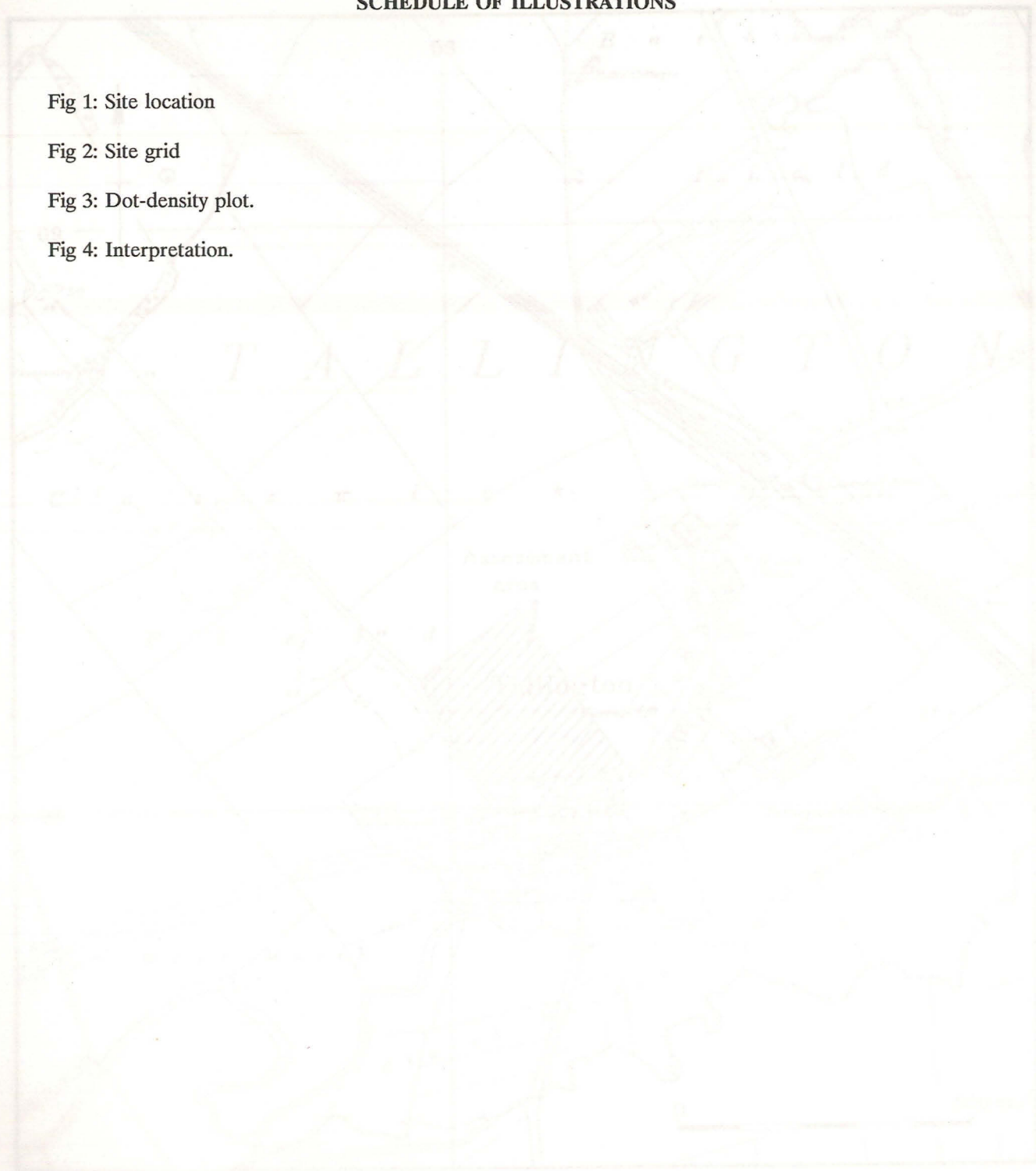


Fig 1: Tallington, the application area



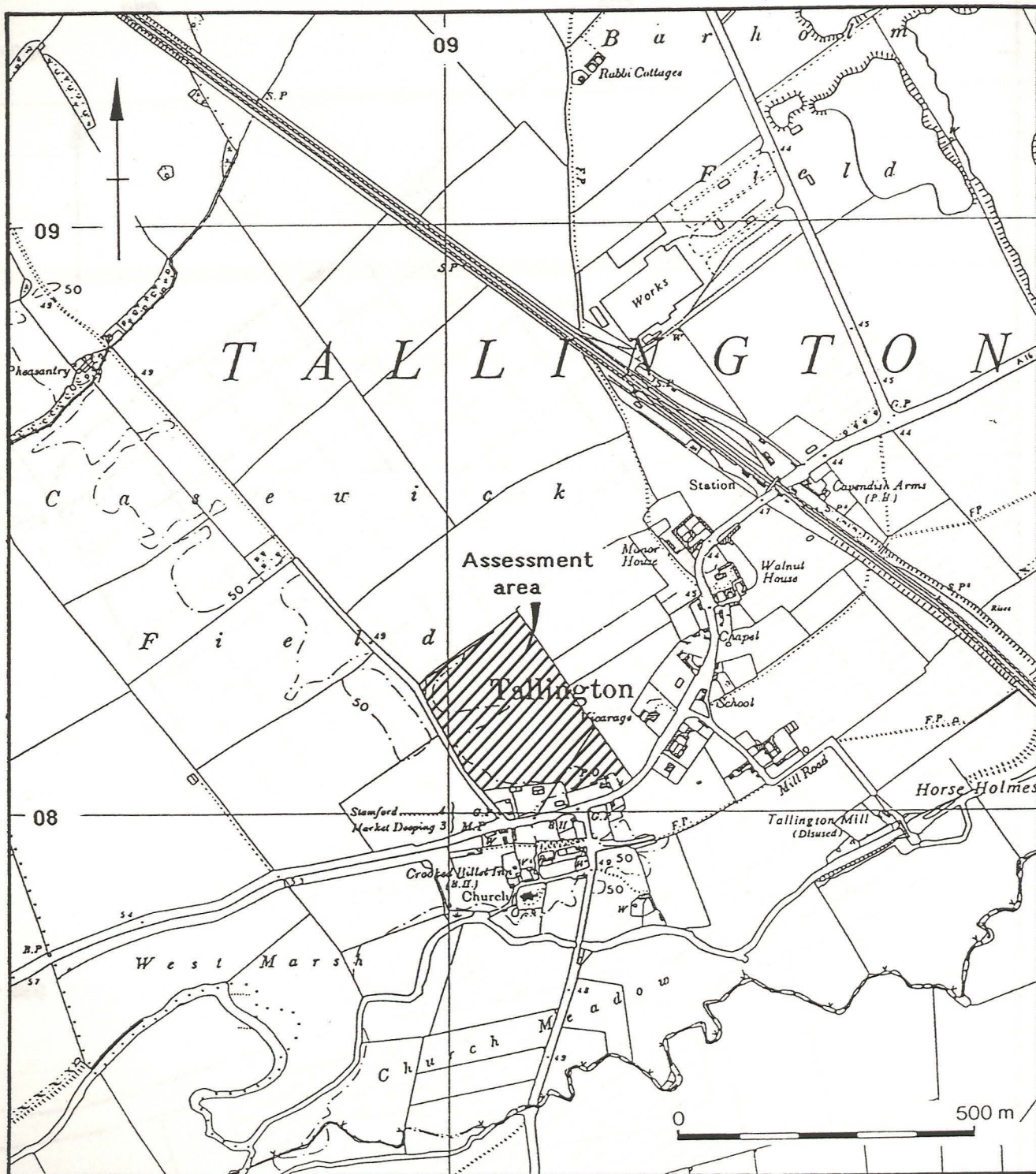


Fig 1: Tallington, the application area



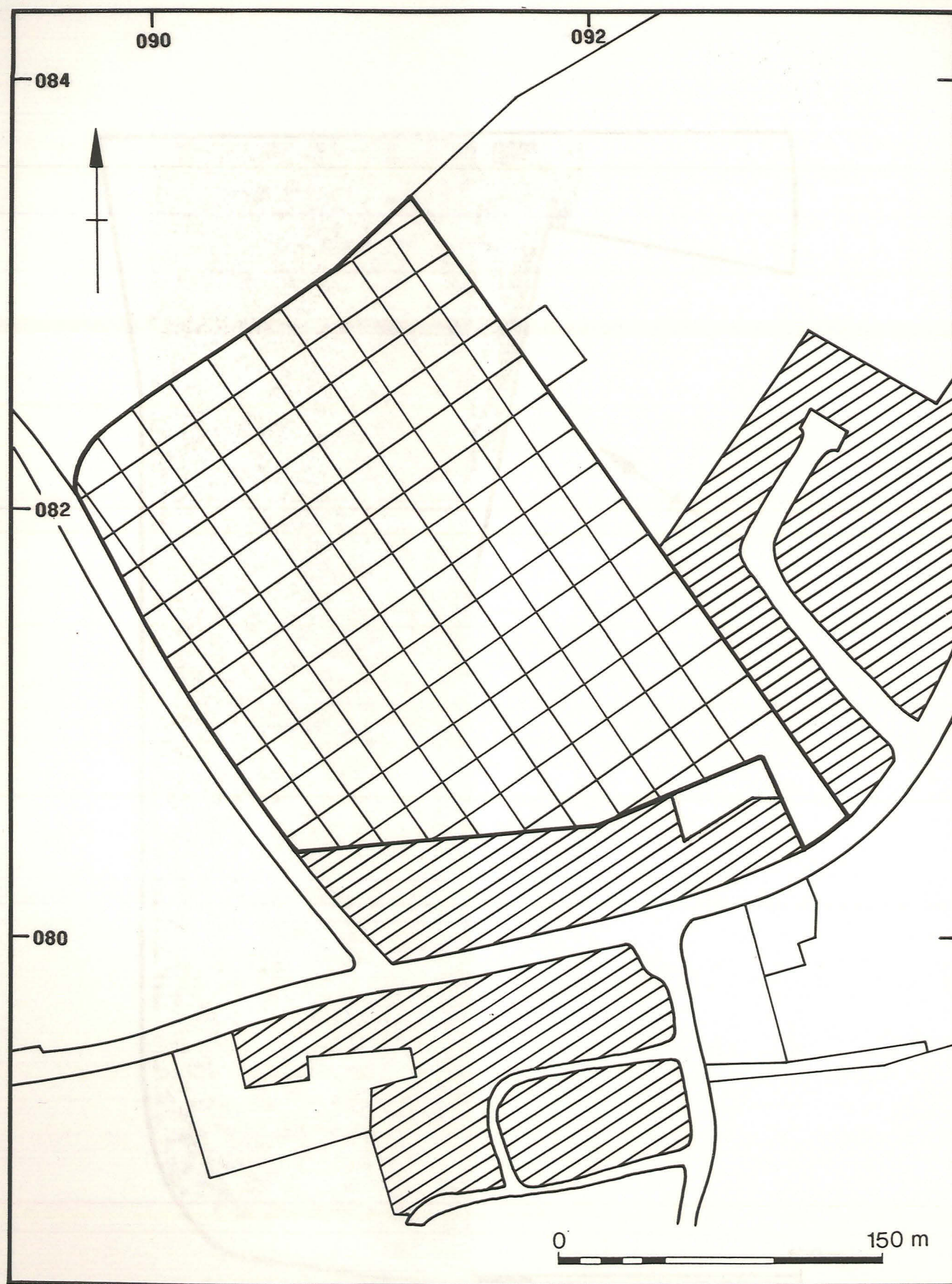


Fig 2: Site grid



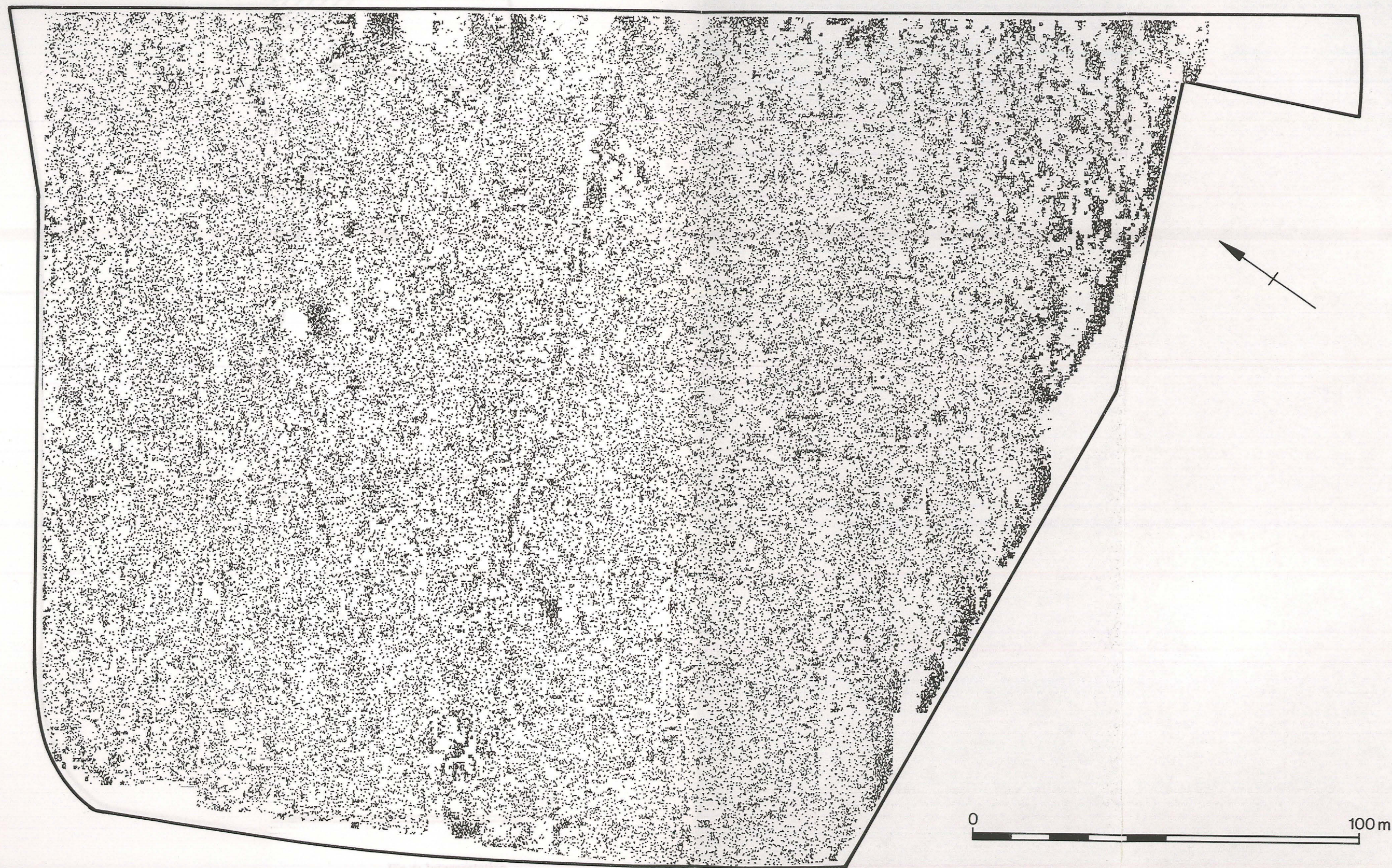


Fig 3: Dot-density plot.



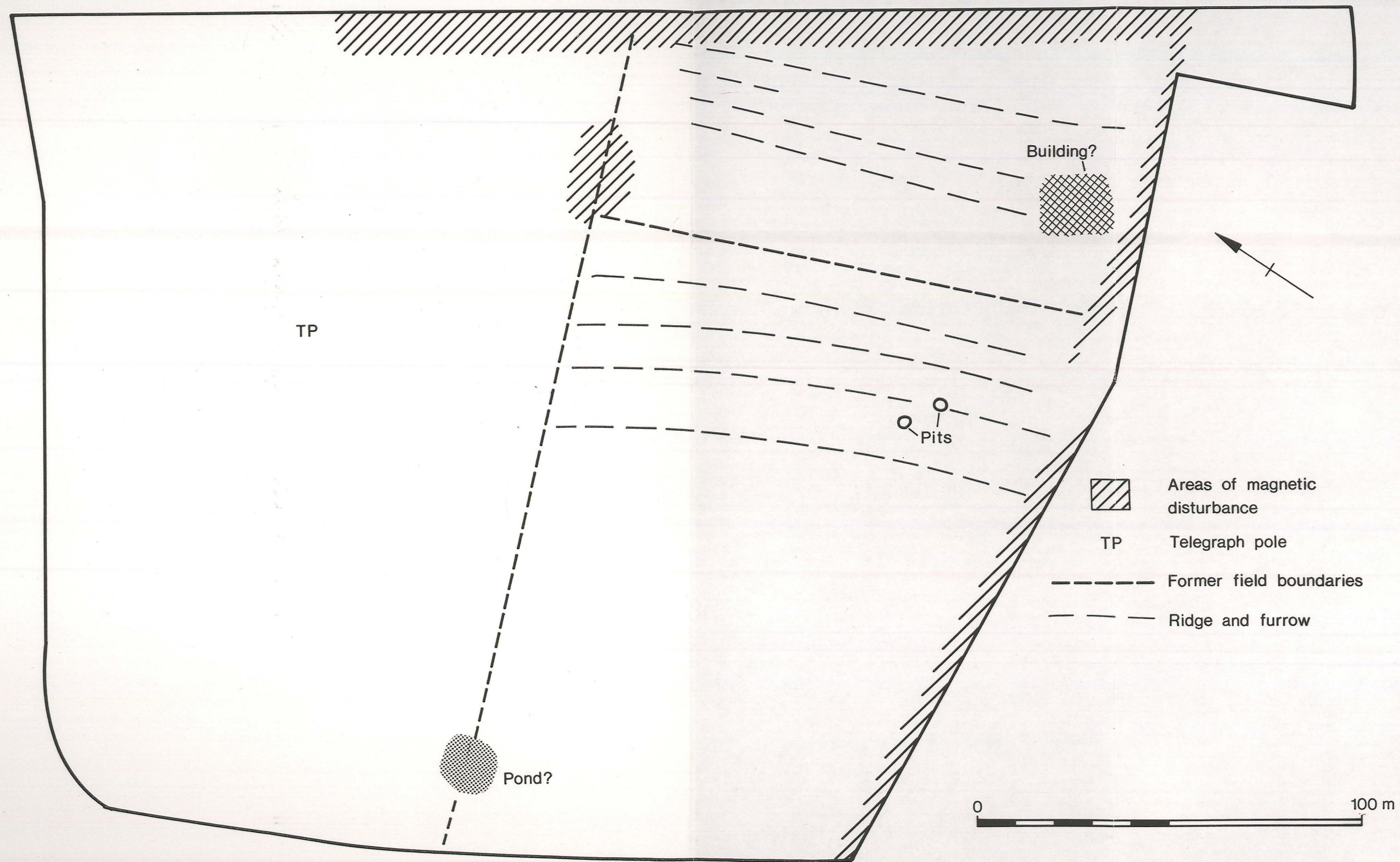


Fig 4: Interpretation.