Fig. 3. Site location showing limits of proposed development area, gradiometer survey areas and trench outlines (1:2500)

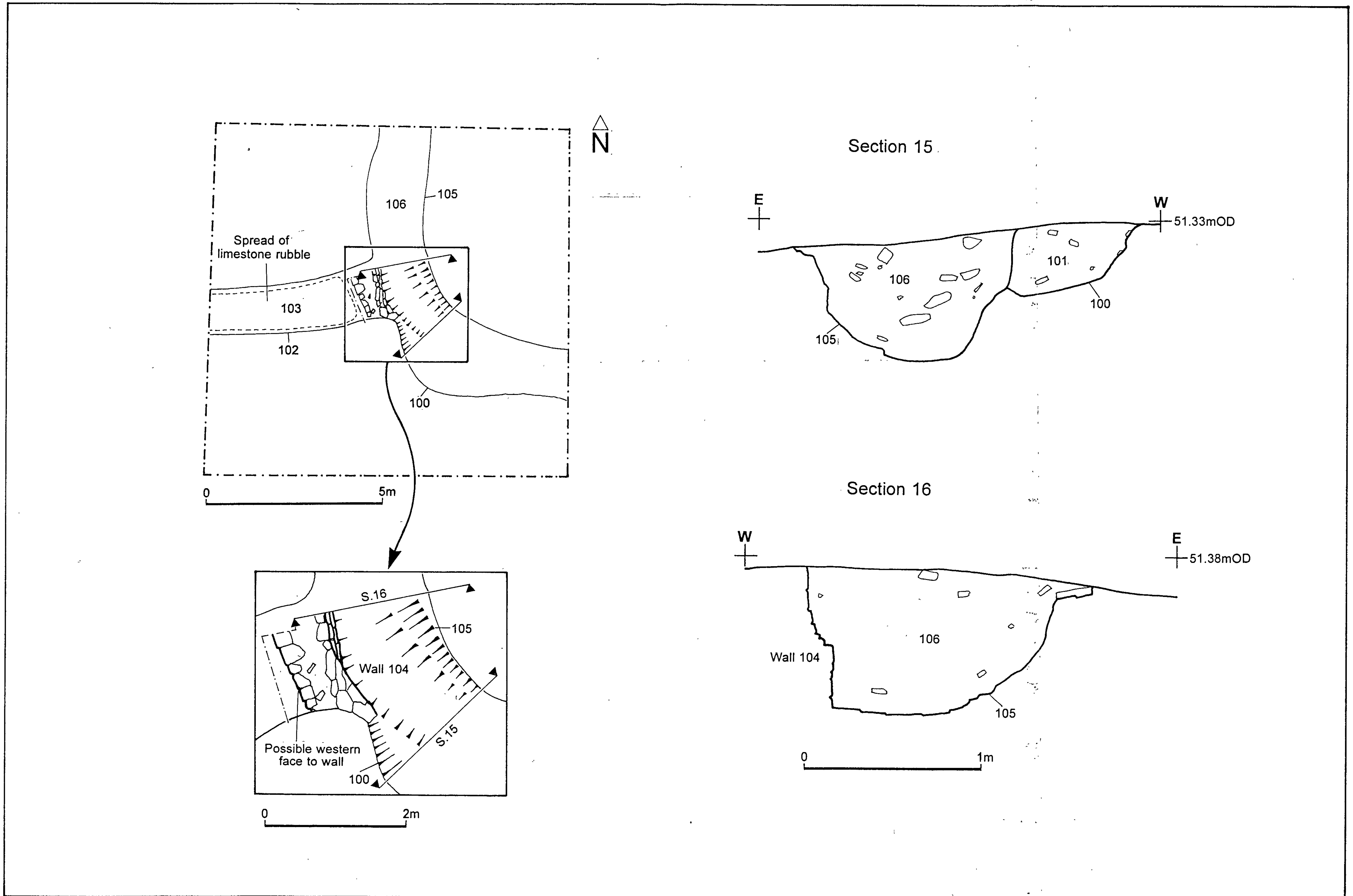


Fig. 4 Trench A: Plan and sections

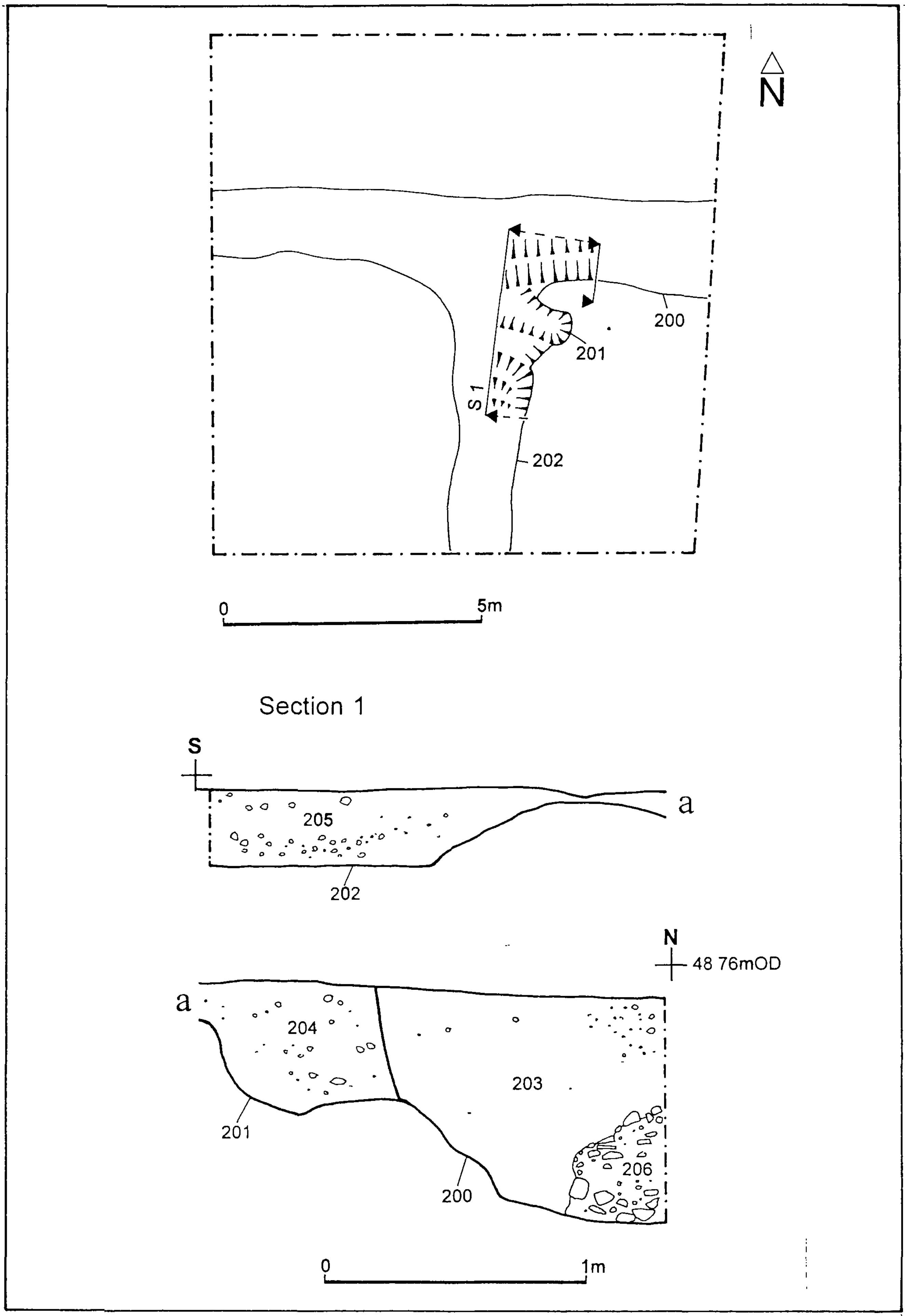


Fig 5 Trench B· Plan and sections

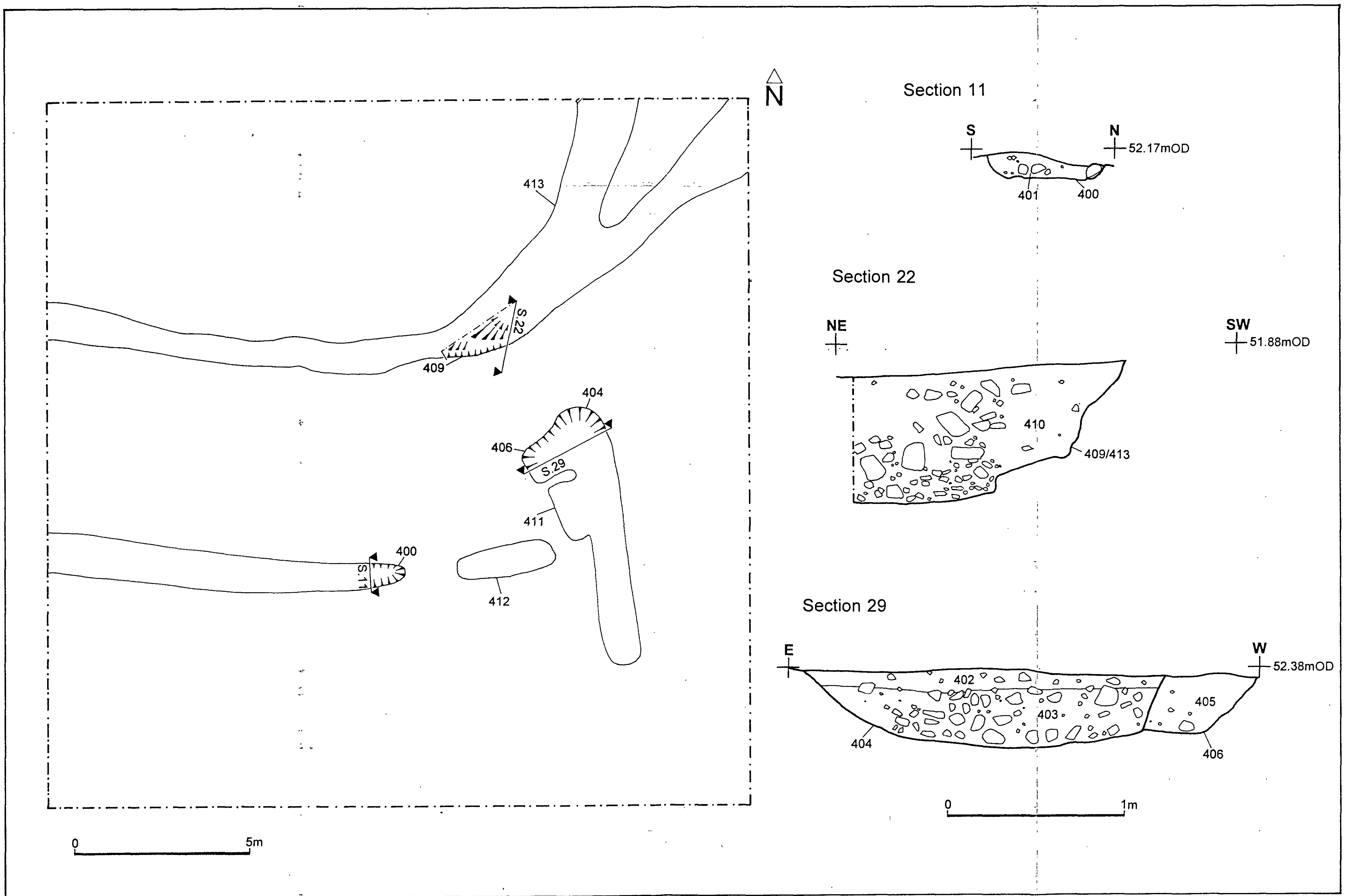


Fig. 6 Trench D: Plan and sections

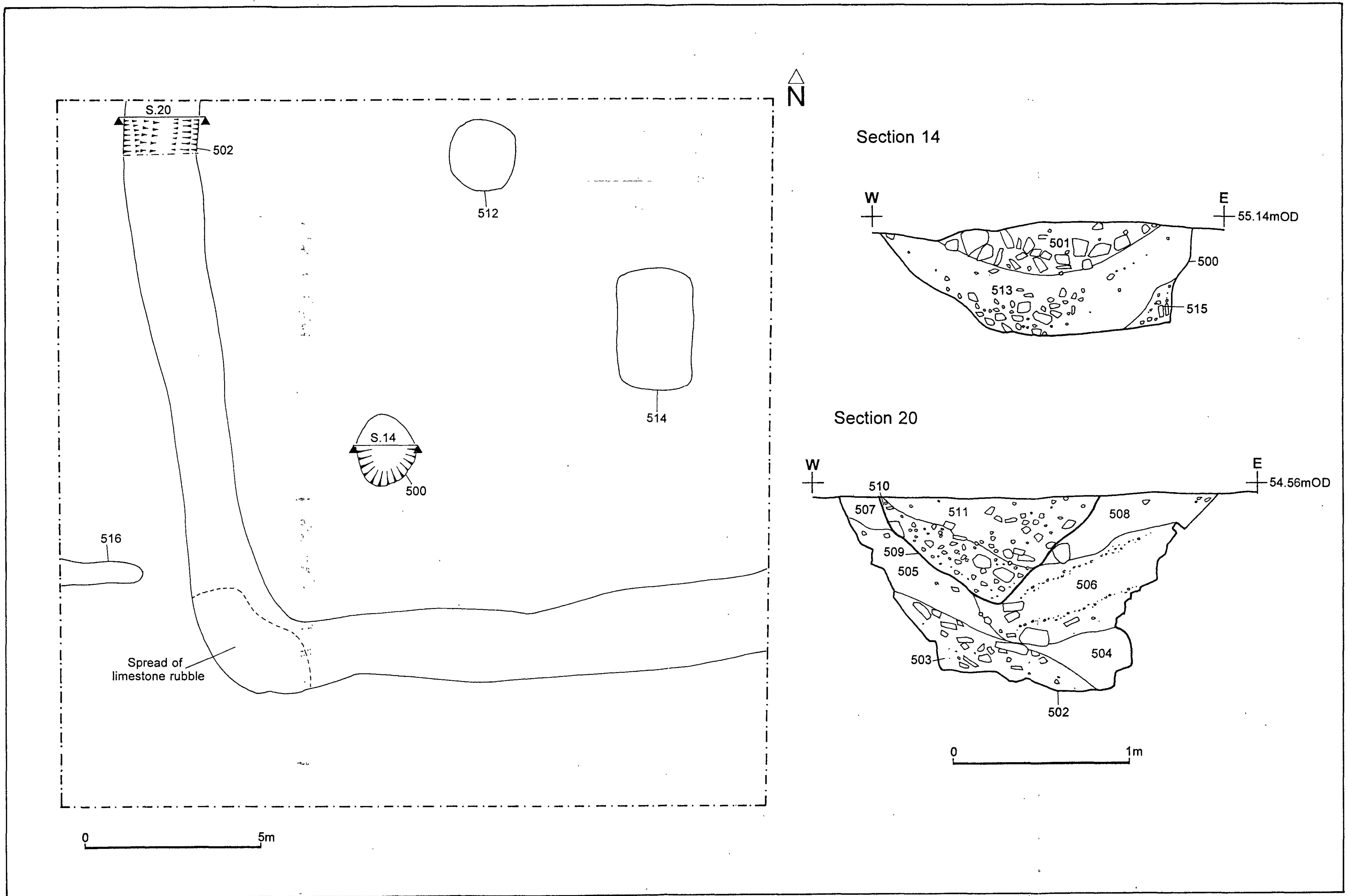


Fig. 7 Trench E: Plan and sections

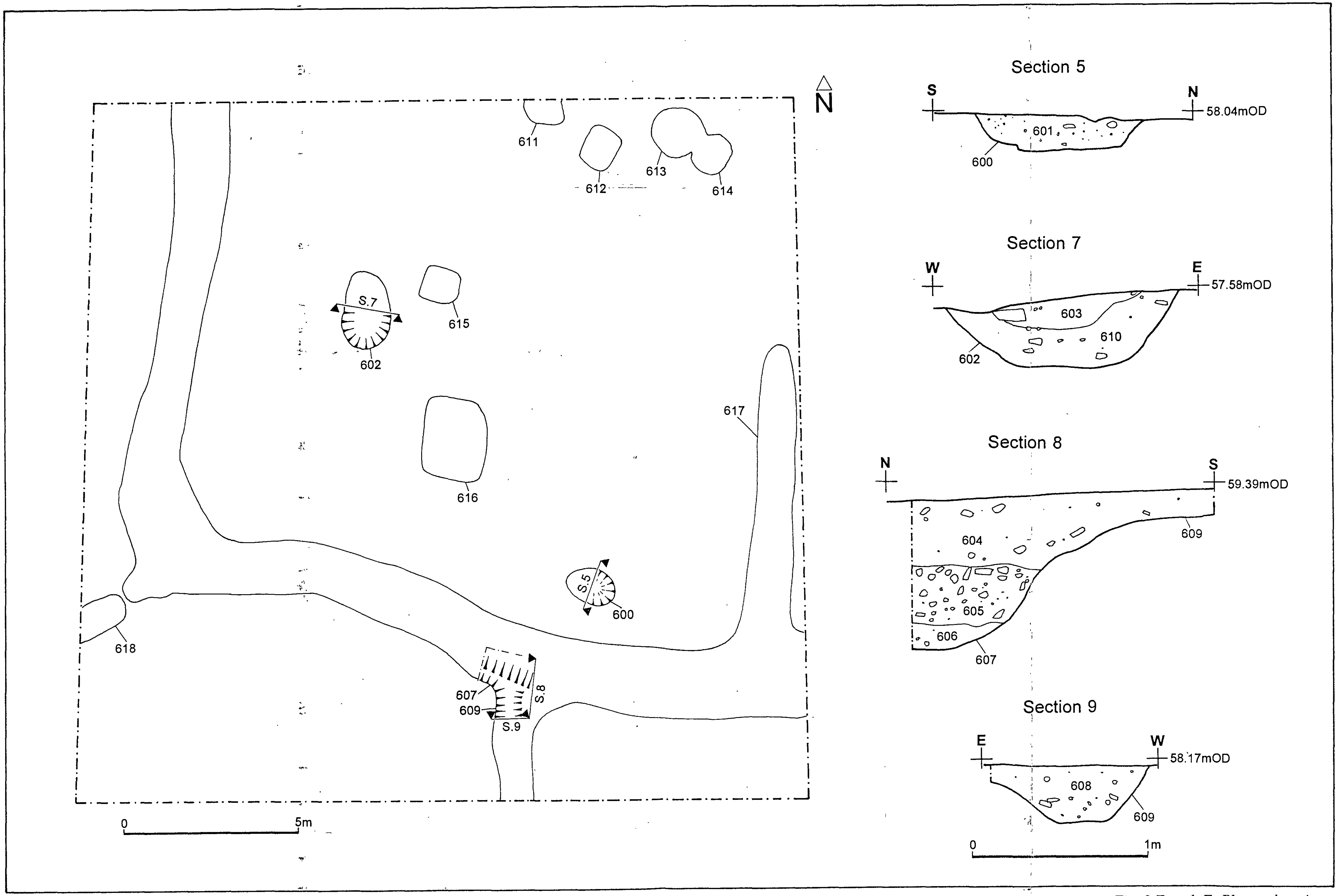


Fig. 8 Trench F: Plan and sections

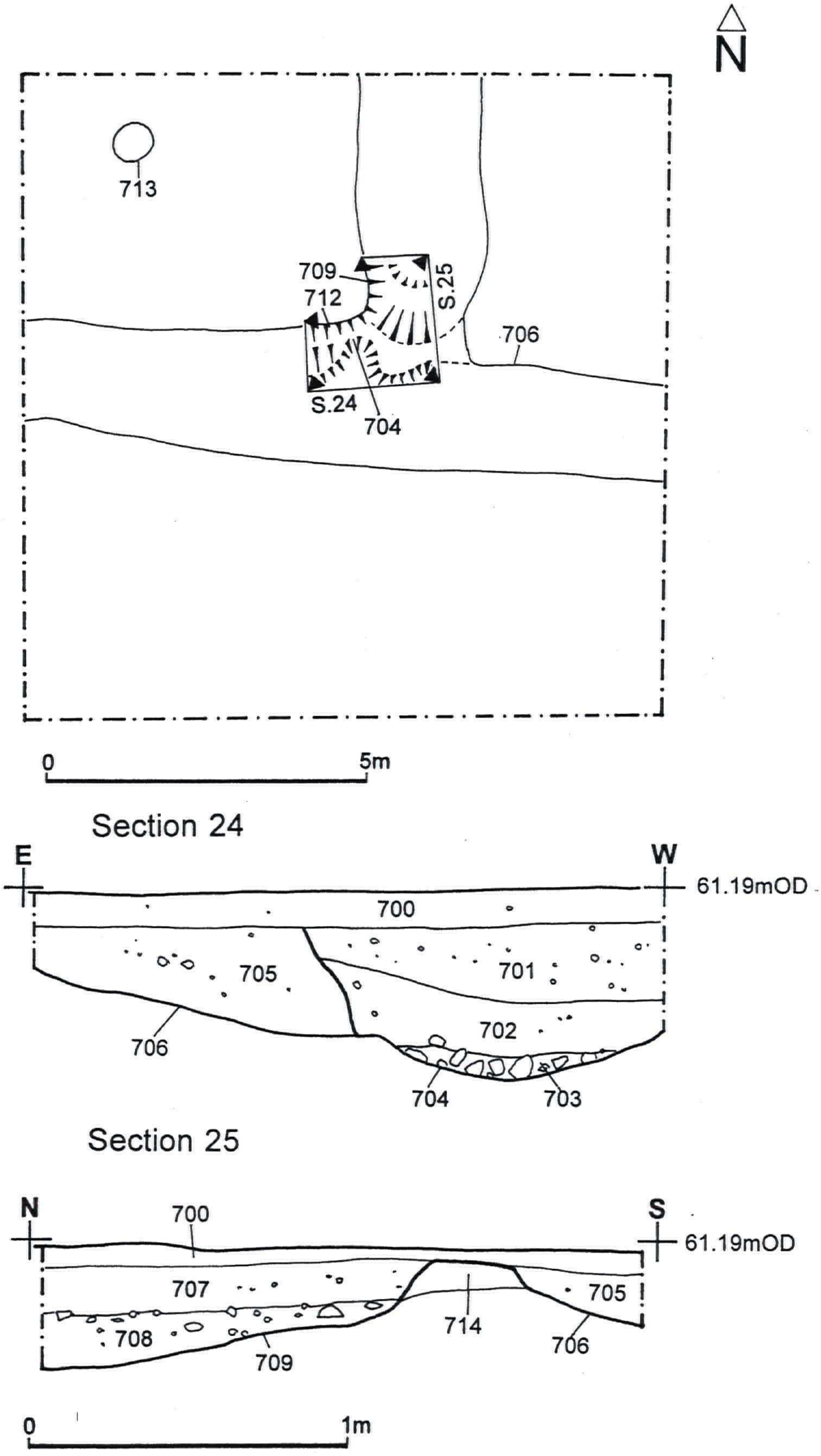


Fig. 9 Trench G: Plan and sections

KEY

TYPE OF ANOMALY	INTERPRETATION
DIPOLAR, ISOLATED	FERROUS MATERIAL IN TOPSOIL
POSITIVE, LINEAR	AGRICULTURAL
POSITIVE/NEGATIVE, LINEAR	FIELD BOUNDARY
AREA OF MAGNETIC ENHANCEMENT	GEOLOGICAL/ARCHAEOLOGICAL?
POSITIVE, ISOLATED	GEOLOGICAL/ARCHAEOLOGICAL?
POSITIVE, LINEAR	ARCHAEOLOGICAL?

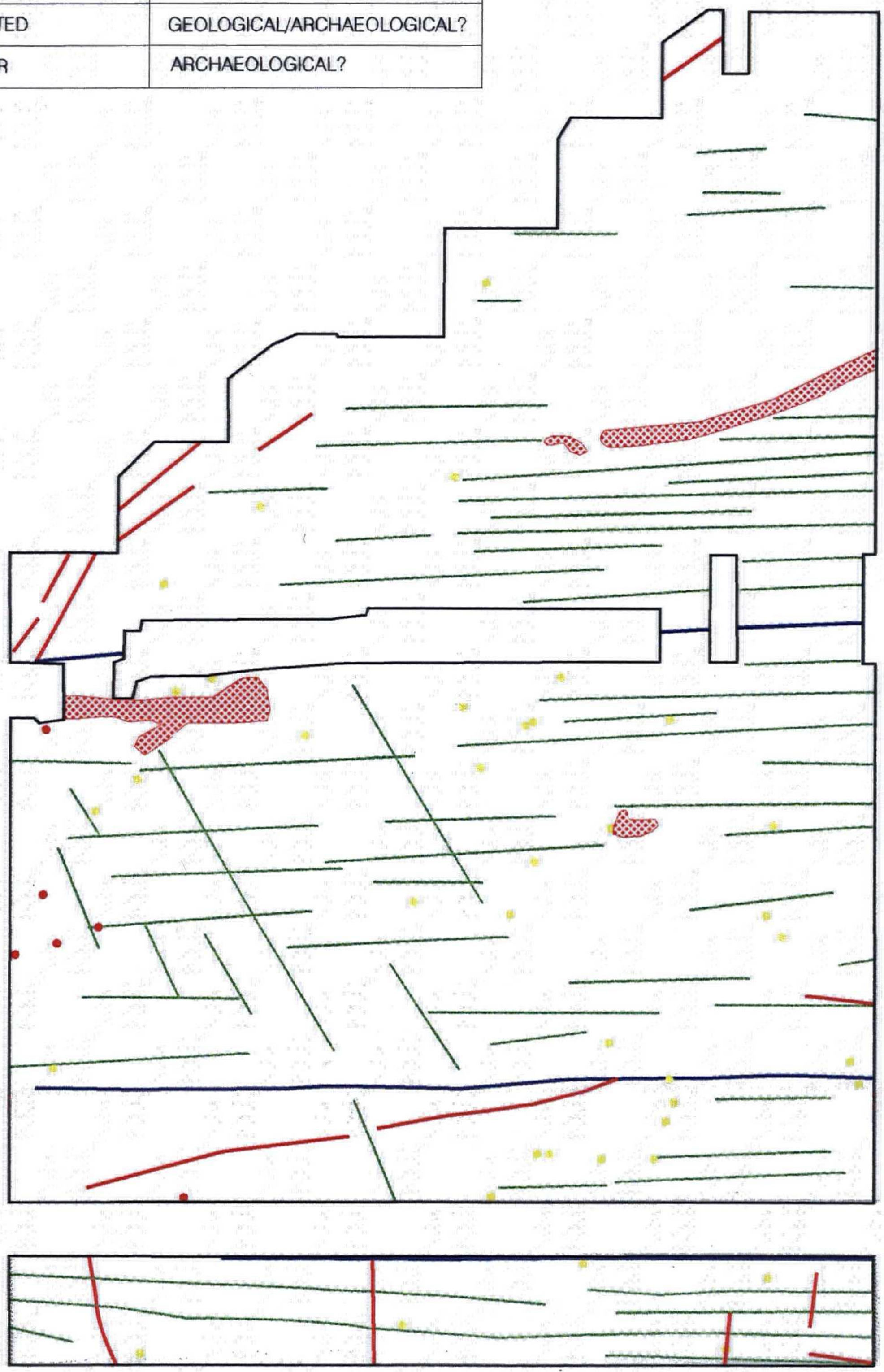


Fig. 10. Interpretation of gradiometer data

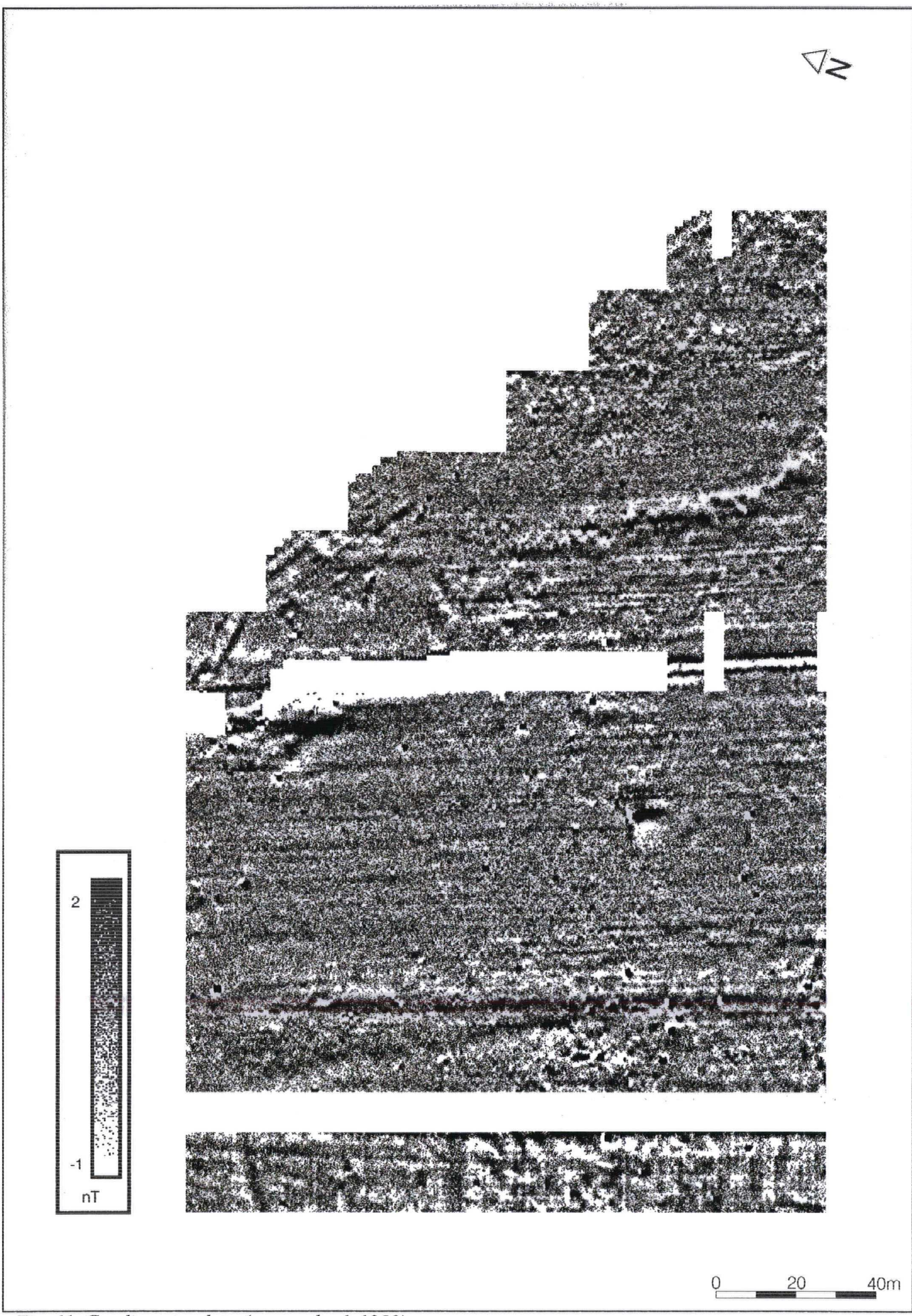


Fig. 11. Gradiometer data (greyscale, 1:1250)

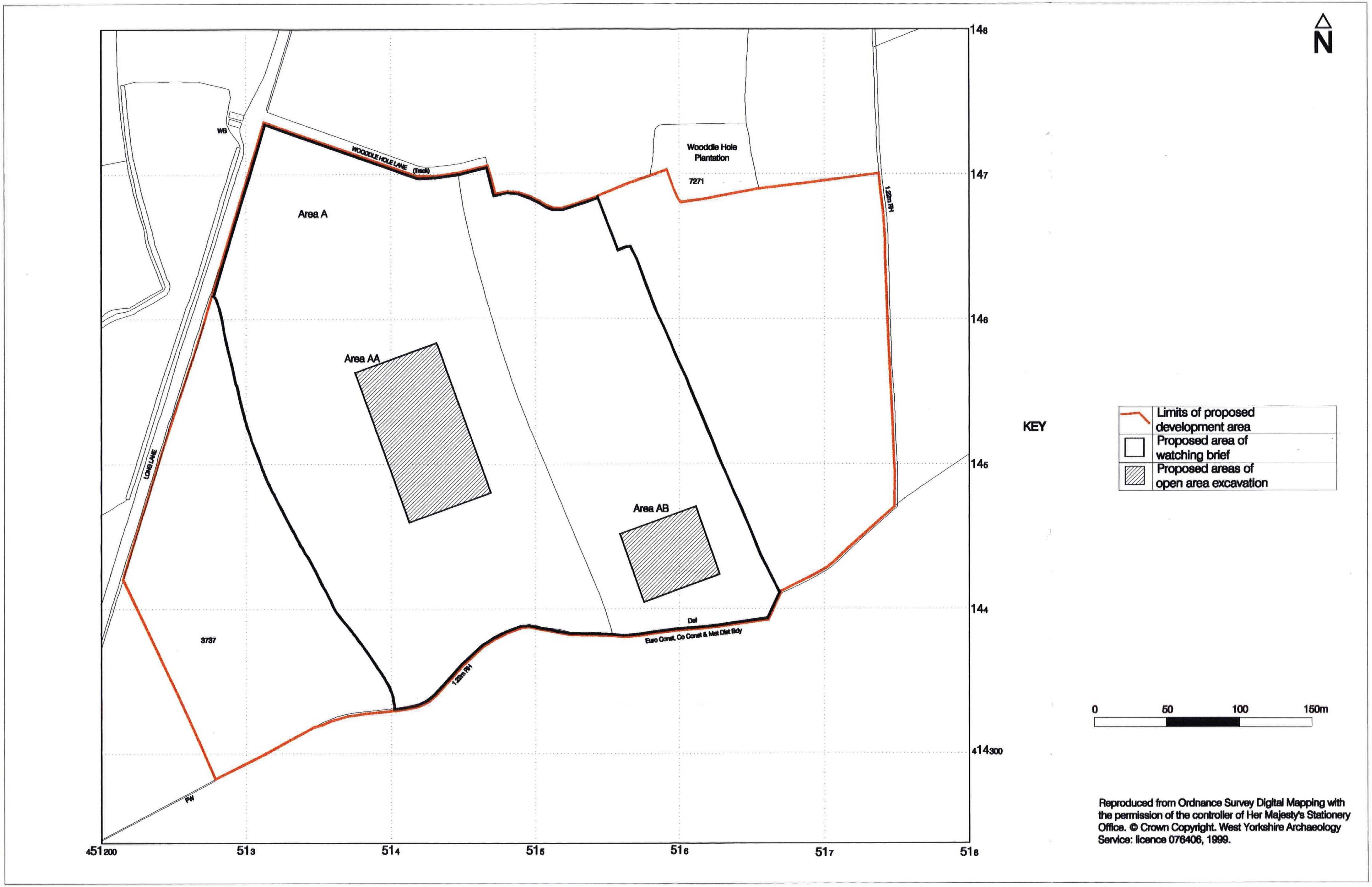
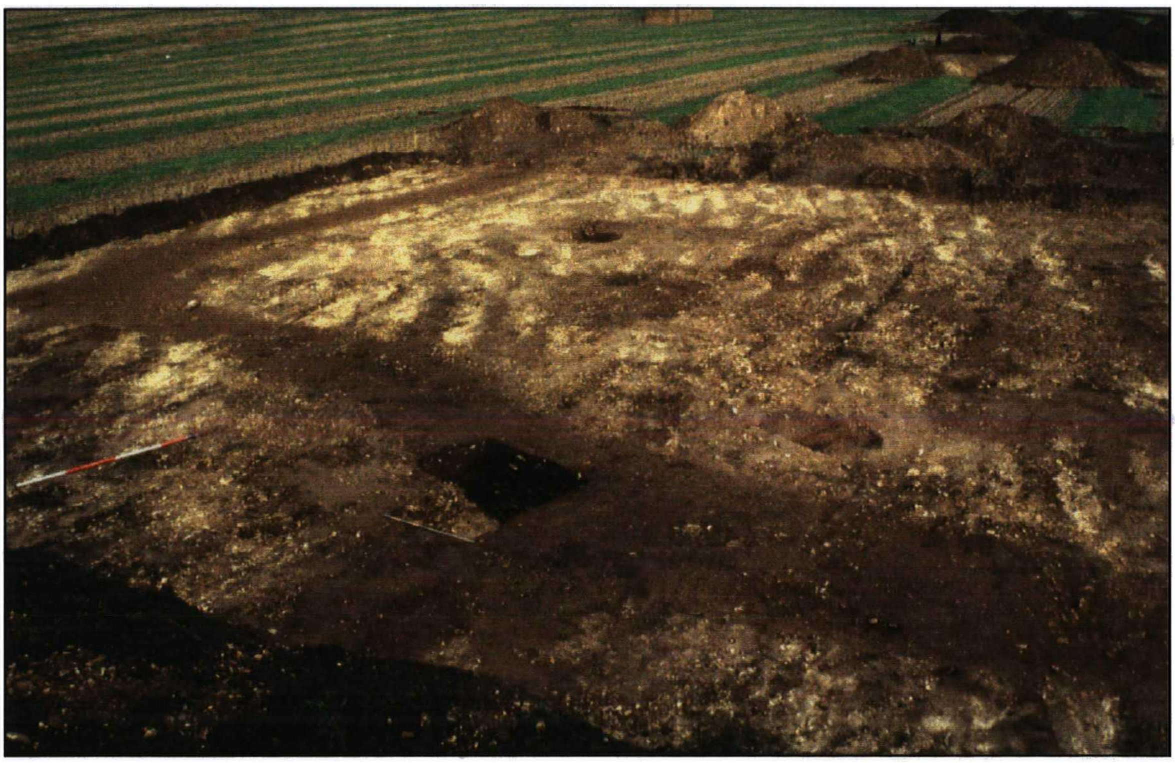


Fig. 12. Proposed area of watching brief (Area A) and open area excavations (Areas AA and AB), 1:2500

Pl. 1. Trench A: Wall 104 in ditch intersection

Pl. 2. Trench E: South-west corner of enclosure

Pl. 3. Trench E: Enclosure ditch 502



Pl. 4. Trench F: South-west corner of enclosure

Appendix I

Archaeological Evaluation: Inventory of Primary Archive

1 x A4 ring binder: - (File 1)

- 9 x context registers
- 67 x context sheets* (Trenches A – G)
- 1 x environmental samples catalogue
- 1 x environmental sample sheet
- 1 x small finds register
- 1 x small finds location plan
- 1 x finds registration form 'B'

1 x large ring binder: - (File 2)

- 4 x drawing catalogue
- 26 x Permatrace sheets of plans and sections
- 1 x inventory of film numbers
- 3 x monochrome contact sheets
- 3 x colour transparencies
- 6 x associated photograph registers

1 x levels book: - (File 3)

*– denotes double–sided

Appendix II

Archaeological Evaluation: Inventory of Contexts

Context	Description	Trench
100	Cut of ditch	A
101	Fill of ditch 100	A
102	Cut of ditch	A
103	Fill of ditch 102	A
104	Structure: wall	A
105	Cut of ditch	A
106	Fill of ditch 105	A
200	Cut of ditch	B
201	Cut of ditch	B
202	Cut of ditch	B
203	Fill of ditch 200	B
204	Fill of ditch 201	B
205	Fill of ditch 202	B
206	Fill of ditch 200	B
300	Cut of ditch	C
301	Fill of ditch 300	C
302	Fill of ditch 300	C
400	Cut of segmented ditch	D
401	Fill of ditch 400	D
402	Fill of ditch 404	D
403	Fill of ditch 404	D
404	Cut of ditch	D
405	Fill of pit 406	D
406	Cut of pit	D
407	Cut of natural hollow	D
408	Fill of natural hollow	D
409	Cut of ditch	D
410	Fill of ditch 409	D
411	Possible pit	D
412	Possible ditch segment	D
413	Cut of ditch	D
500	Cut of pit	E
501	Fill of pit 500	E

Context	Description	Trench
502	Cut of ditch	E
503	Fill of ditch 502	E
504	Fill of ditch 502	E
505	Fill of ditch 502	E
506	Fill of ditch 502	E
507	Fill of ditch 502	E
508	Fill of ditch 502	E
509	Recut of ditch 502	E
510	Fill of recut 509	E
511	Fill of recut 509	E
512	Cut of possible pit	E
513	Fill of pit 500	E
514	Cut of possible pit	E
515	Fill of pit 500	E
516	Cut of possible gully	E
600	Cut of pit	F
601	Fill of pit 600	F
602	Cut of pit	F
603	Fill of pit 602	F
604	Fill of ditch 607	F
605	Fill of ditch 607	F
606	Fill of ditch 607	F
607	Cut of ditch	F
608	Fill of ditch 609	F
609	Cut of ditch	F
610	Fill of pit 602	F
611	Possible pit	F
612	Possible pit	F
613	Possible pit	F
614	Possible pit	F
615	Possible pit	F
616	Possible pit	F
617	Possible internal ditch	F
618	Possible gully	F
700	Layer	G
701	Fill of pit 704	G
702	Fill of pit 704	G

Context	Description	Trench
703	Fill of pit 704	G
704	Cut of pit	G
705	Fill of ditch 706	G
706	Cut of ditch	G
707	Fill of ditch 709	G
708	Fill of ditch 709	G
709	Ditch	G
710	Fill of ditch 712	G
711	Fill of ditch 712	G
712	Cut of ditch	G
713	Possible pit	G
714	Layer of degraded natural	G

Appendix III

Archaeological Evaluation: Inventory of Artefacts

Small find	Trench	Context	Material	Quantity
1		U/S	Flint	1
2		U/S	Flint	1
3		U/S	Flint	1
4		U/S	Flint	1
5		U/S	Flint	1
6		U/S	Pottery	1
7		U/S	Pottery	2 (joining)
8		U/S	Flint	1
9		U/S	Flint	1
10		U/S	Flint	1
11		U/S	Flint	1
12	C	301	Flint	1
13	A	106	Slag	Several (joining)
14	F	604	Flint	1
15	G	705	Fe. nail	1
16	D	410	Slag	1

Appendix IV

Gradiometer Survey: Technical Information and Methods

Technical Information

Iron makes up about 6% of the Earth's crust and is mostly dispersed through soils, clays and rocks as chemical compounds. These compounds have a weak, measurable magnetic response which is termed its magnetic susceptibility. Human activities can redistribute these compounds and change (enhance) others into more magnetic forms. These anthropogenic processes result in small localised anomalies in the Earth's magnetic field which are detectable by a gradiometer

In general, it is the contrast between the magnetic susceptibility of deposits filling cut features, such as ditches or pits, and the magnetic susceptibility of topsoils, subsoils and rocks into which these features have been cut, which cause the most recognisable responses. This is primarily because there is a tendency for the more magnetic compounds to concentrate in the topsoil, thereby making it more magnetic than the subsoil or the bedrock. Linear features, such as ditches, that were cut into the subsoil and/or bedrock and which have subsequently silted up or have been backfilled with topsoil will, therefore, usually produce a positive magnetic response relative to the background soil levels. Discrete feature, such as pits, can also be detected. Less magnetic material such as masonry or plastic service pipes which intrude into the topsoil will tend to give a negative magnetic response relative to the background level.

The magnetic susceptibility of the soil can also be enhanced significantly by heating. This can lead to the detection of features such as hearths, kilns or burnt areas.

High, sharp responses are usually due to iron objects in the topsoil. These produce a rapid change from positive to negative readings ("iron spikes").

The types of response mentioned above can be divided into five main categories which are described below:

Iron Spikes (Dipolar Anomalies)

These responses are referred to as dipolar and are caused by buried or surface iron objects. Little emphasis is usually given to such responses as iron objects of recent origin are common on agricultural sites. Occasionally, however, iron spikes can indicate the presence of smithing activity by detecting hammerscale.

Rapid, strong variations in magnetic response

Also referred to as areas of magnetic disturbance, these can be due to a number of different types of feature. They are often associated with burnt material, such as industrial waste or other strongly magnetised material. It is not always easy to determine their date or origin without supporting information.

Positive, linear anomalies

The strength of these responses varies depending on the underlying geology. They are commonly caused by ancient ditches or more recent agricultural features.

Isolated positive responses

These usually exhibit a magnitude of between 2nT and 300nT and, depending on their response, can be due to pits, ovens or kilns. They can also be due to natural features on certain geologies. It can, therefore, be very difficult to establish an anthropogenic origin without an intrusive means of examining the features.

Negative linear anomalies

These are normally very faint and are commonly caused by objects/features such as plastic water pipes which are less magnetic than the surrounding soils and geology. They too can be caused by natural features on some geologies.

Methodology

There are two main methods of using the fluxgate gradiometer for commercial evaluations. The first of these is referred to as *scanning* and requires the operator to identify visually anomalous responses whilst covering the site in widely spaced traverses, typically 10-15m apart. The instrument logger is not used and there is therefore no data collection. This method is generally used as a means of selecting areas for detailed survey when only a percentage sample of the whole site is to be surveyed. Scanning can also be used to map out the full extent of features located during a detailed survey.

The second method is referred to as *detailed survey* and employs the use of a sample trigger to take readings automatically at predetermined points, typically at 0.5m intervals, on zig-zag traverses 1m apart. These readings are stored in the memory of the instrument and are later dumped to computer for processing and interpretation.

During this survey Geoscan FM36 fluxgate gradiometers with ST1 sample triggers were used to take readings at 0.5m intervals on zig-zag traverses 1m apart within 20m by 20m grids. Eight hundred readings were taken in each grid. In-house software (Geocon 9) was used to process and interpolate the data and Contors to produce the dot density images. In-house software (XY3) was also used to process and present the X -Y trace plots.

Appendix V

Gradiometer Survey: Survey Information

A baseline was established parallel with the western field boundary and the site laid out in blocks measuring 60m by 60m using a Geotronics Geodimeter 600 series total station theodolite. Intermediate 20m points were put in using tapes.

The site grid was tied in relative to the field boundaries and to the centre of three borehole covers using the Geodimeter. The survey data was tied to the previous site grid and both were then super-imposed on a 1:2500 Ordnance Survey digital map base using this reference datum.

It should be noted that the Ordnance Survey co-ordinates for 1:2500 digital maps have an error of +/- 1.08m at a 99% degree of confidence.
If measurements for location purposes are taken from Figure 3 this error should be taken into account.

Appendix VI

Gradiometer Survey: Geophysical Archive

The geophysical archive comprises:-

> archive disks containing the raw data, survey tie-in information and grid location information, the report text (Word 6), and compressed CorelDraw 6 and AutoCAD R14 files of the illustrations
>
> a full copy of the report

At present these are all held by Archaeological Services (WYAS).

Appendix VII

Gradiometer Survey: Gradiometer Data Plots (1:500)

SEV 687 OVERSIZE FIGURES NOT SCANNED
SEE ORIGINALS.