NYCC HER	
SNY	501
ENY	60
CNY	1600
Parish	3088/3119
Rec'd	27/03/2001

BP CHEMICALS LIMITED.
TEESSIDE TO SALTEND ETHYLENE PIPELINE. SITE 709.

EVALUATION REPORT
OSA REPORT No: OSA00EV02

February 2001

OSA

ON SITE ARCHÆOLOGY

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501

Recd 27/3/1

OSA 709 Evaluation

Sherff Hutton. OOEV02.

Fig 2: Key to Geology.

Figs 8-13: which sections illustrated.
some lines green, some red?

Archive
Mather MWS
Letter in York MWS?

List MWS in back of publication.

Would help if Figs 3, 4 and/or 5 showed AP info & trench posn or pipeline route together

Did the pipe actually go in at this posn?

Explanation for presence of AP ditches indicating enclosure straddling the road.
Did pipeline actually cross the relevant area?
Road locally thought to follow Roman rd - but no evid - should state this. WB where cut trenches or drilled? document.

Teaching Support Staffing Structures	Hours per school per week			Hours per pupil per week		
	Average	Minimum	Maximum	Average	Minimum	Maximum
Number of Scale 1 hours	56.69	0.00	169.50	0.04	0.00	0.12
Number of Scale 2 hours	132.67	67.00	274.00	0.09	0.04	0.18
Number of Scale 3 hours	50.78	0.00	111.00	0.03	0.00	0.09
Number of Scale 4 hours	33.28	0.00	134.00	0.02	0.00	0.08
Number of Scale 5 hours	22.78	0.00	111.00	0.02	0.00	0.07
Number of SO1/2 and above hours	4.11	0.00	37.00	0.00	0.00	0.02
Total Teaching Support hours	300.31					

Average Age of Staff	Average	Minimum	Maximum
Male	42.93	38.82	47.27
Female	40.99	38.57	42.27
Total	41.82	38.68	44.42

Average length of time in Current Post	Average	Minimum	Maximum
Time in Years	11.01	9.28	12.43

Turnover during the 1999/2000 Financial Year	Average	Minimum	Maximum
Number of Starters per School	12.44	7.00	19.00
Number of Leavers per School	11.89	4.00	24.00

Analysis of Sickness Absences	Average Number of Days per Absence	Average Absences per Teacher
Absences up to one day	0.91	1.17
Absences between two and five days	2.72	0.63
Absences between six and ten days	8.17	0.04
Absences between eleven and fifteen days	13.50	0.01
Absences over fifteen days	49.88	0.06
Total Absences	3.30	1.91

Report Summary

REPORT NO:	OSA00EV02 ~ Evaluation Report
SITE NAME:	BPTSEP 709
COUNTY:	North Yorkshire
PARISH:	Lillings Ambo
NATIONAL GRID REFERENCE:	SE 6350 6485
ON BEHALF OF:	BP Chemicals Limited Building 134/307 Chertsey Road Sunbury on Thames Middlesex. TW16 7LN
switchboard	(01932) 762000
TEXT:	Guy Hopkinson
GRAPHICS:	Marie-Claire Ferguson
FIELDWORK:	Maria Beck Guy Hopkinson Faye Palmer Gerry Twomey
ENQUIRIES TO:	Nick Pearson On Site Archaeology 25A Milton Street York YO10 3EP
tel	(01904) 411673
fax	(01904) 414522
e-mail	mail@onsitearchaeology.co.uk
PERIODS REPRESENTED:	unknown, Medieval.
MUSEUM ACCESSION NO:	not yet known

Table of Contents

List of Figures

1.0 Abstract

An archaeological evaluation, comprising the excavation of 4 trenches was carried out on behalf of BP Chemicals Ltd, at a site known as BPTSEP 709, near Sheriff Hutton in North Yorkshire (NGR SE 6350 6485). The objective of this investigation was to evaluate a number of anomalies located through the interpretation of aerial photographs and a geophysical survey undertaken in advance of a pipeline construction. This evaluation commenced on 29th February 2000 and was completed on 17th March 2000.

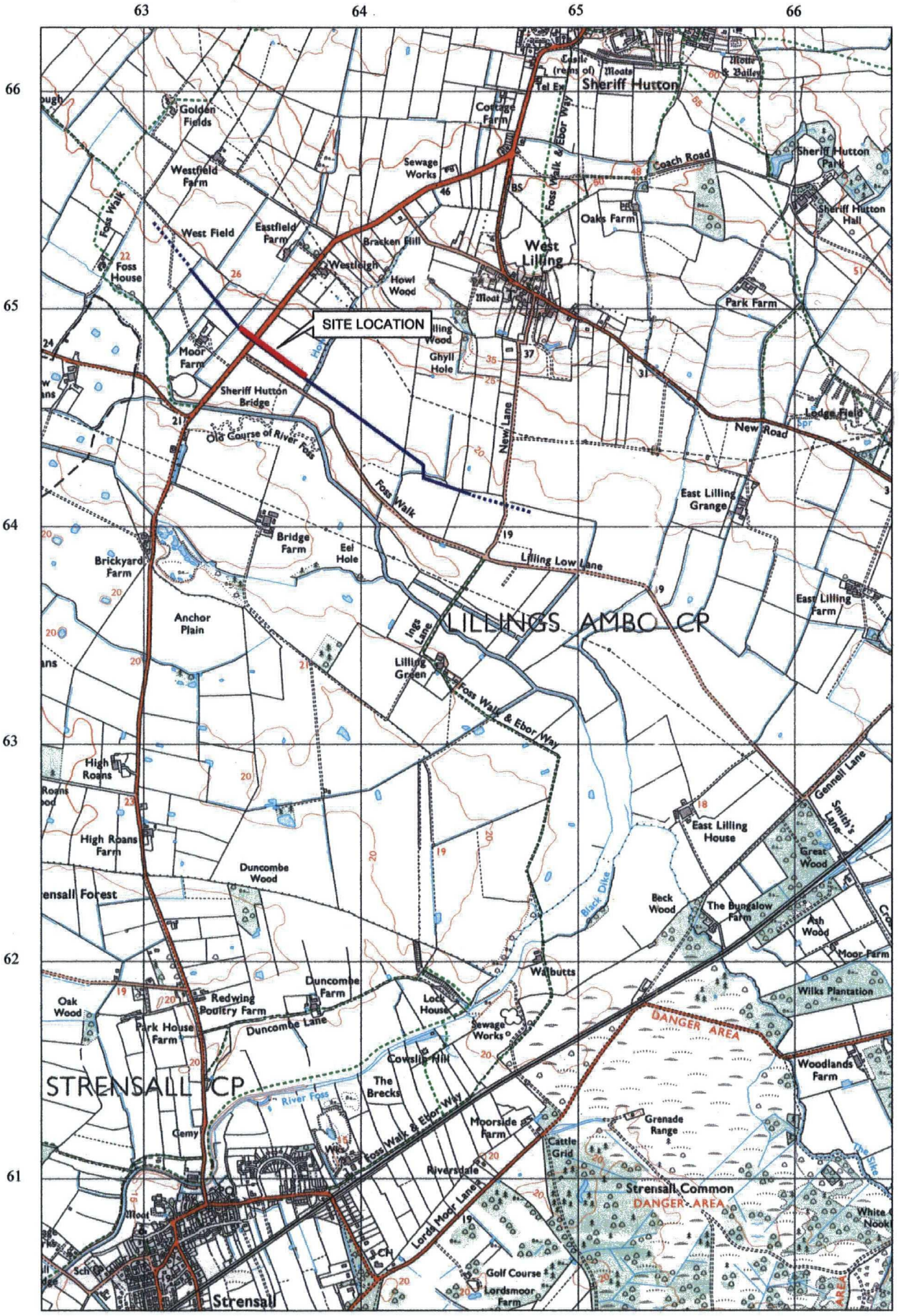

Figure 1. Site Location (NGR SE 6350 6485)

2.0 Site Location and Archaeological Background

2.1 Site Location & Geology

The site lies to the north of Lilling Low Lane *c*.0.9km southwest of the village of West Lilling in the County of North Yorkshire (NGR SE 6350 6485, see Figure 1). The site is partially located on a discrete area of sand and gravel surrounded by warp and lacustrine clay, which overlies Bunter and Keuper Sandstone (see Figure 2, below). The site is situated at the foot of the Howardian Hills, which rise to the north, and some 200 metres from the River Foss, to the south and west. The area is currently arable land.

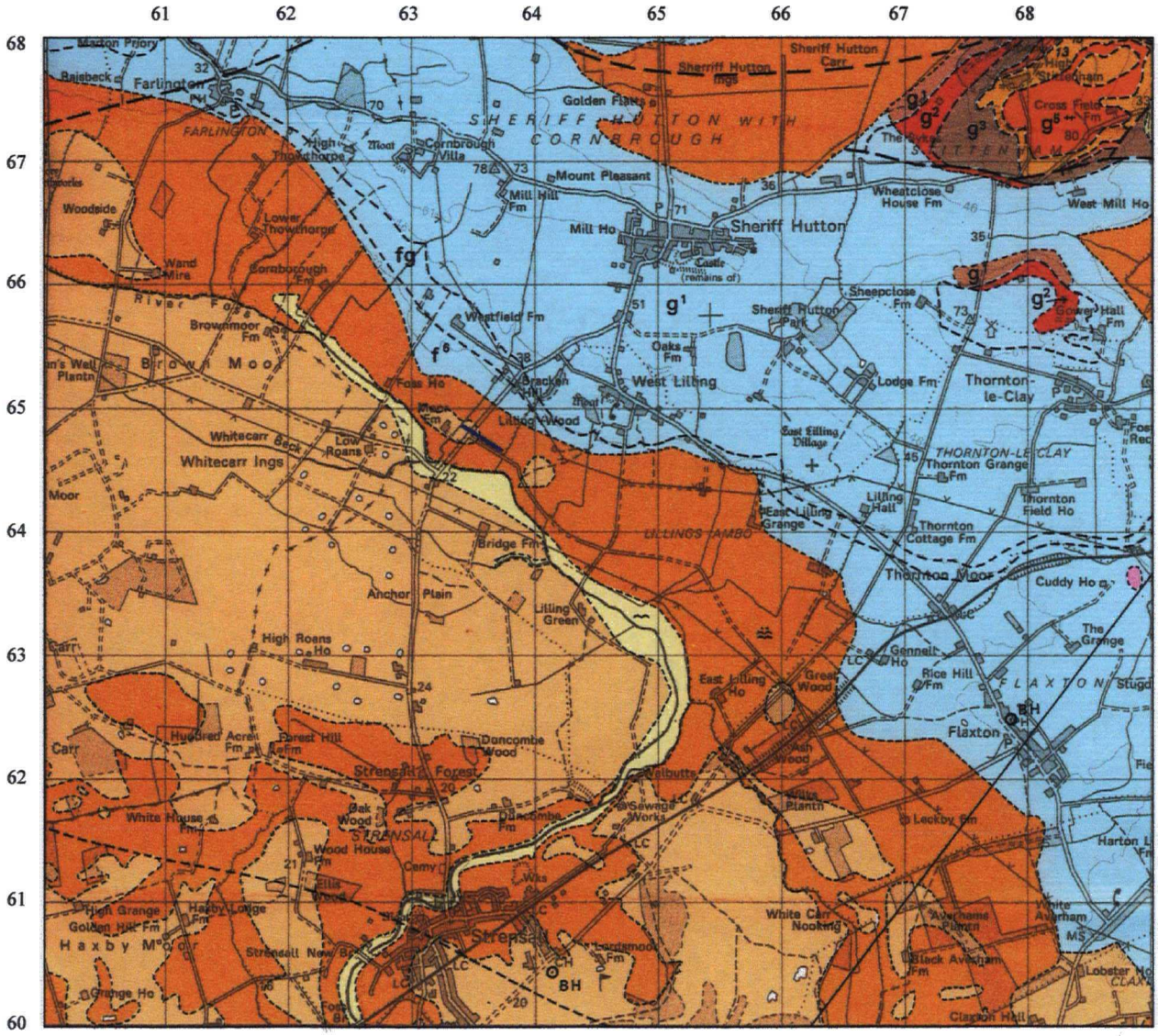

Figure 2. Geology of immediate vicinity. Extract from British Geological Survey Sheet 63. Blue line indicates site location.

7 KM

2.2 *Archaeological Background*

The site lies in an area of known archaeological significance. An aerial photograph (NYCC AP: DNR 1269/20) of the field immediately to the east (BPTSEP 169, the subject of an evaluation, see Hopkinson & Tyler, 1999, and an excavation, yet to be published) shows a large curvilinear cropmark (NGR SE 640644) with a contiguous northeast-southwest aligned linear spur on the southern side.

The area has previously been the focus of research.

We should quote Vivian Swans research paper

A sketch plot of the area produced by the Royal Commission on the Historical Monuments of England (RCHME), and based on a variety of aerial photographs, indicates the presence of a rectilinear enclosure spanning the junction of Lilling Low Lane and the minor road between Sheriff Hutton and Strensall (NGR SE 63456480, the subject of this evaluation). A small subcircular enclosure is also illustrated on the RCHME plot immediately to the south of the rectilinear enclosure, and a further two, in a similar location, are illustrated on Map 12, Cox and Cottrell (1998). See Figures 3 and 4.

The RCHME plot also records parts of a double-ditched road or trackway. One fragment runs north – south (NGR SE 63746417 - SE 63756395), *c.*200m long, to the south of the area currently under investigation and the River Foss. The road transects the eastern part of Bulford Tofts Close and has probably forded the river at some point. The pre-1856 course of the River Foss formed a series of meanders, indicative of a sluggish flow, and thus a suitable place for a ford (Swan, Jones & Grady, 1993). Further to the south is a longer section, *c.*700m long, aligned approximately northeast – southeast (NGR SE 63616336 - SE 63356271). The latter section of the road runs within 300m of the Lilling Green Romano-British farmstead. The farmstead comprises a large rectilinear enclosure, partitioned internally into various-sized compounds; outside it is a co-axial complex of fields and associated trackways. Limited field-walking at Lilling Green has produced a small amount of Roman pottery, including 4th century sherds (Swan, Jones & Grady, 1993).

To the east of the site an area of ridge and furrow trending approximately north - south (centred on NGR SE 646645) has been identified (Cox & Cottrell, 1998). The medieval background of the area has been comprehensively researched by Swan, Jones & Grady (1993). The data outlined above has been used to create Figure 3, over, which illustrates the immediate archaeological environs of the site.

As part of the BP pipeline archaeological works, a geophysical survey of part of this field has been undertaken. This shows a possible former field boundary to the west of the Sheriff Hutton - Strensall road and a number of less clear anomalies which may be caused by palaeochannels or modern ferrous debris (Weston, 1999).

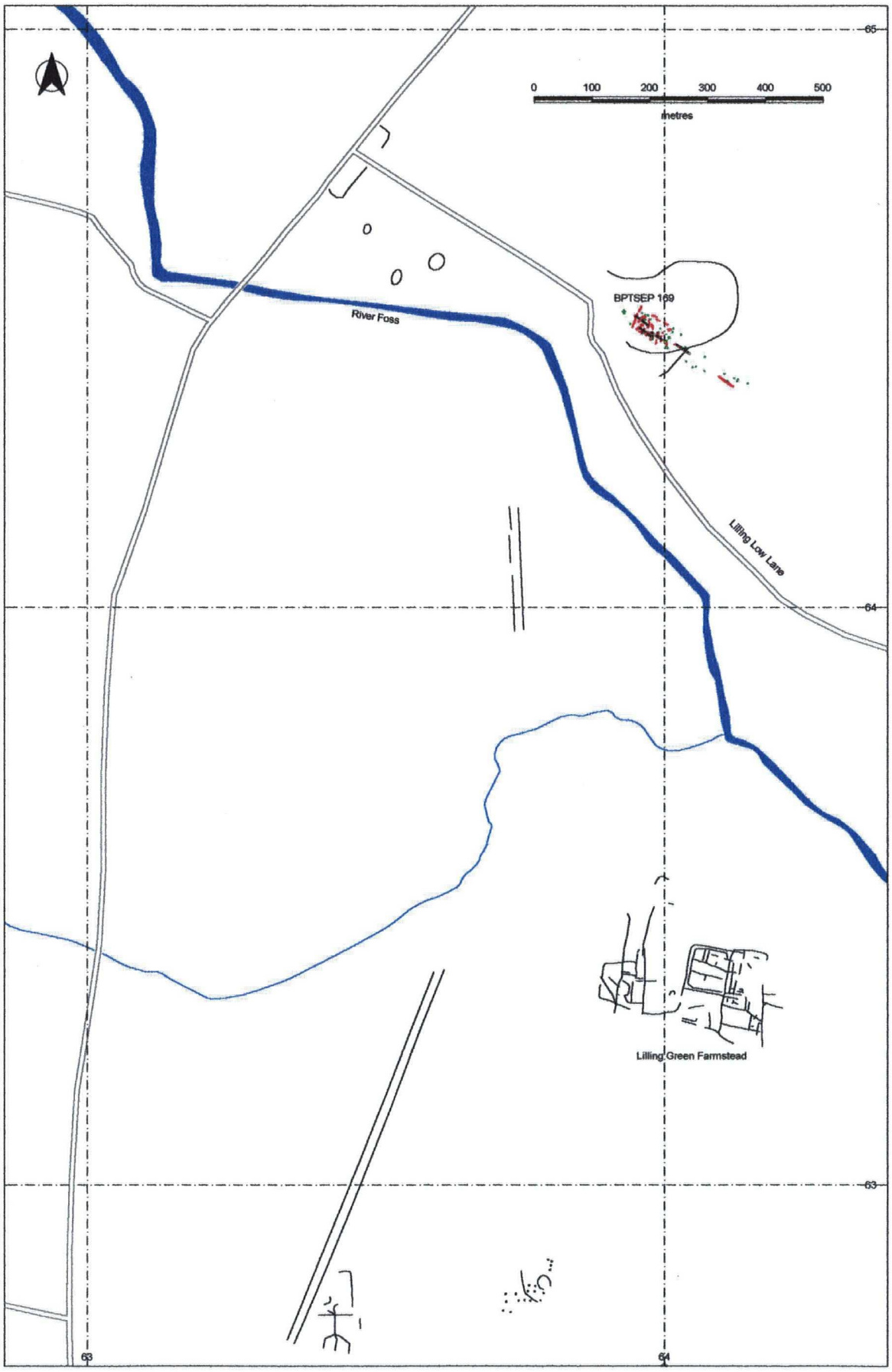

Figure 3. The archaeological environs of BPTSEP 709. Scale 1:10,000
(based on Figure 5 in Swan, Jones & Grady (1993), and Map 12 in Cox & Cottrell (1998))

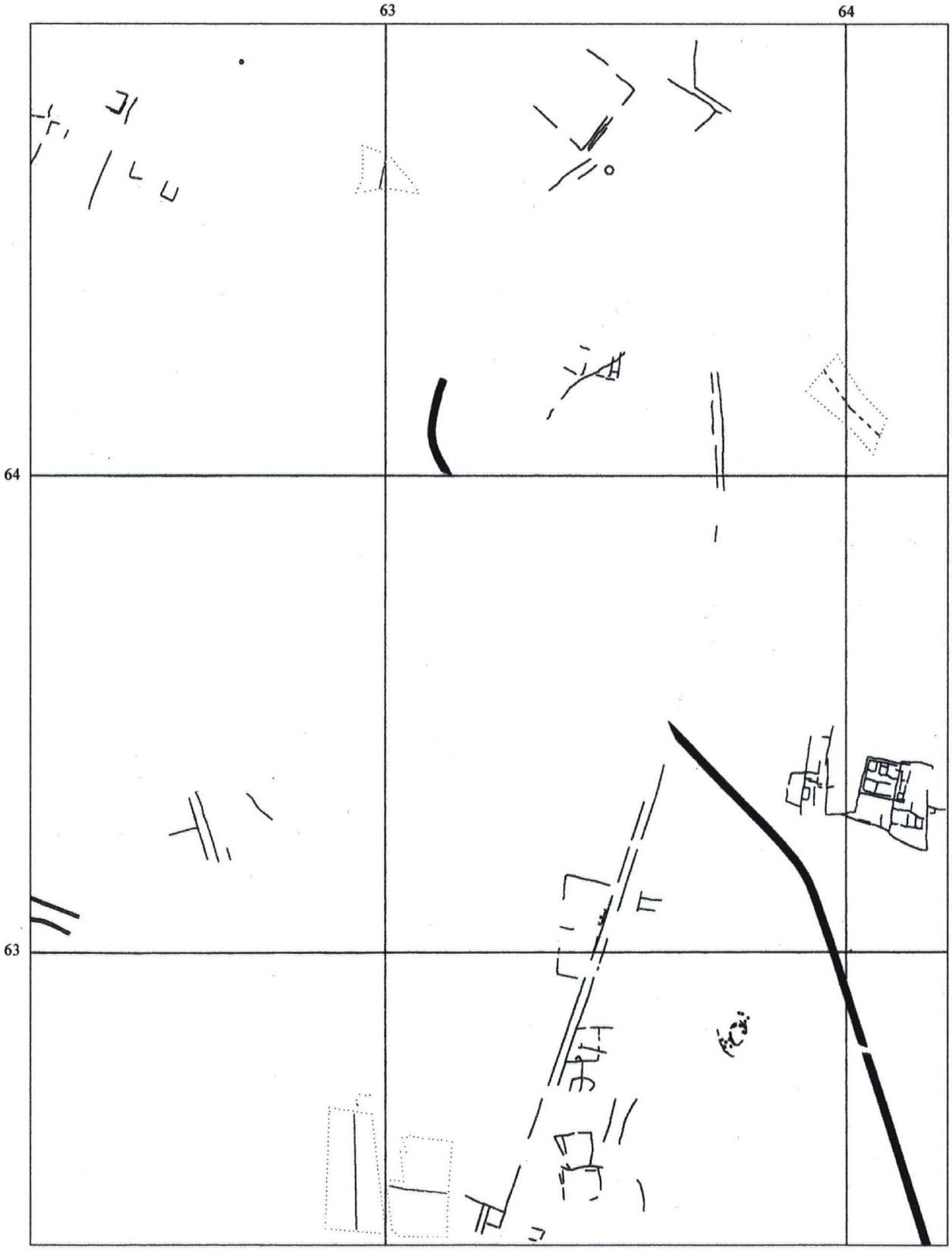

Figure 4. Reproduction of RCHME plot. Not to a particular scale.

Should there not be a base plan showing the outline of the plots?

3.0 Methodology

Four trenches were excavated as part of the evaluation program. Trench 1 measured approximately 300 metres by 1.80 metres, aligned along the centre of the proposed pipe cut trench. Trenches 2 and 3 each measured 30 metres by 3.60 metres, and were aligned perpendicular to the pipe cut trench. Trench 4 measured 40 metres by 1.80 metres, and was aligned along the centre of the proposed pipe cut trench. The location of the four trenches is illustrated in figure 5.

All four trenches were excavated by a back acting excavator fitted with a toothless bucket down to the level of the first archaeological horizon or to sterile natural. The exposed surfaces were then cleaned by hand in order to detect any archaeological features revealed through textural or colour changes in the deposits. Once this had been completed, sections were hand excavated through the potential archaeological features that had been identified.

Standard *On-Site Archaeology* techniques were followed throughout the excavation. This involved the completion of a context sheet for each deposit or cut encountered, along with plans and/or sections drawn to scale. Heights above Ordnance Datum (AOD) were calculated by taking levels from a Temporary Benchmark (TBM) which was then tied in with an existing Ordnance Survey benchmark located on Sheriff Hutton bridge (value 22.10m AOD). A photographic record of the deposits and features was also maintained.

A sample of the land drains across the site were excavated to ascertain their form, but they were not assigned context numbers.

The method statement for the evaluation work is included as Appendix 2 of this report.

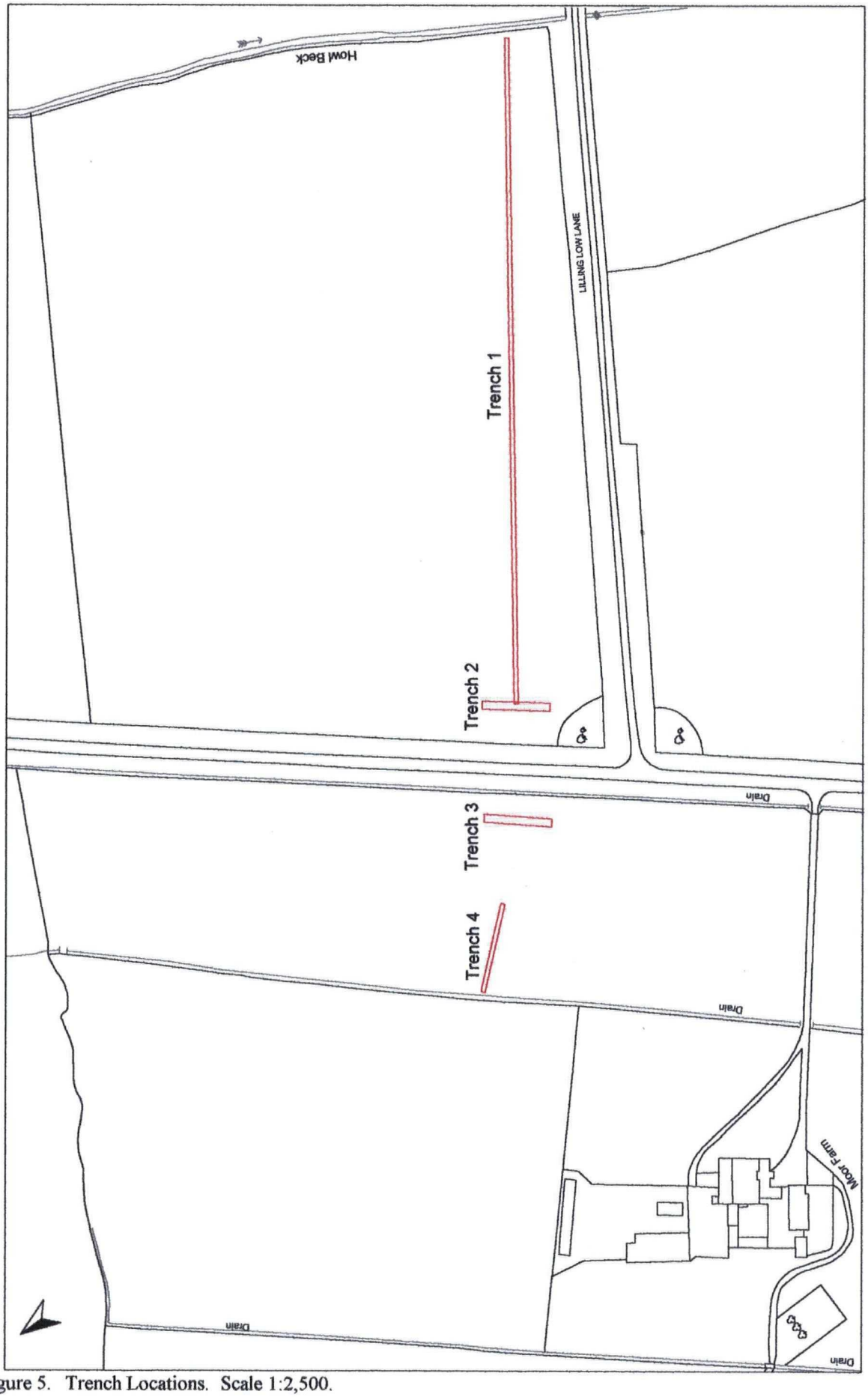

Figure 5. Trench Locations. Scale 1:2,500.

4.0 Results & Interpretation

4.1 Trench 1.

Context	Description	Interpretation
1000	Soft mid grey brown silty sand with very occasional charcoal & CBM flecks	Ploughsoil
1001	Soft mid reddish brown silty sand	Subsoil
1002	Variable, but generally firm slightly sandy silty clay. Colour varied between light yellowish and dark reddish brown.	Natural
1003	Soft mid reddish brown silty sand (very slight clay fraction) with rare 'coal' fragments and very occasional degraded flecks of CBM/tile	Upper fill of ditch [1007]
1004	Weakly cemented/soft light brownish grey silty sand with occasional 'coal' frags and rare CBM/tile flecks	Fill of ditch [1007]
1005	Stiff mid greyish yellow (slightly sandy) clay	Fill of ditch [1007]
1006	Weakly cemented/soft mid greyish black silty sand (very slight clay fraction) with very rare charcoal flecks	Fill of ditch [1007]
1007	Linear cut, sharp break of slope at W, gradual at E; moderate/steep sides to concave base. Aligned NE-SW	Ditch cut, possibly boundary ditch, runs parallel to main road
1008	Friable mid greyish brown sand with iron pan frags	Fill of gully [1009]
1009	Linear cut, sharp break of slope at top to shallow concave sides, gradual break of slope to concave base. Aligned E-W	Gully cut
1010	Soft mid yellowish grey slightly silty sand with rare small stones and iron pan frags.	Fill of furrow [1011]
1011	Linear cut, sharp break of slope to moderate straight sides, gradual break of slope to concave base. Aligned NE-SW	Furrow cut
1012	Loose mid brownish grey sand (slight clay fraction) with rare charcoal/coal frags and iron panning	Fill of ditch [1013]
1013	Linear cut, gradual break of slope to moderate concave sides, gradual break of slope to concave base. Aligned NE-SW	Ditch
1014	Soft mid yellowish grey slightly silty sand with occasional small stones	Fill of furrow [1015]
1015	Linear cut, gradual break of slope to moderate slightly concave sides, gradual break of slope to concave base. Aligned NE-SW	Furrow cut
1016	Friable mid yellowish grey slightly silty sand with rare small stones	Fill of furrow [1017]
1017	Linear cut, gradual break of slope to moderate slightly concave sides, gradual break of slope to concave base. Aligned NE-SW	Furrow cut
1018	Soft mid yellowish grey slightly silty sand with rare small stones and iron pan frags	Fill of furrow [1019]
1019	Linear cut, gradual break of slope to moderate slightly concave sides, gradual break of slope to concave base. Aligned NE-SW	Furrow cut
1020	Soft mid yellowish grey slightly silty sand with occasional small stones and iron pan frags	Fill of furrow [1021]
1021	Linear cut, gradual break of slope to moderate slightly concave sides, gradual break of slope to concave base. Aligned NE-SW	Furrow cut
1022	Soft mid yellowish grey silty sand with rare small stones and iron pan frags	Fill of furrow [1023]
1023	Linear cut, gradual break of slope to moderate slightly concave sides, gradual break of slope to concave base. Aligned NE-SW	Furrow cut
1024	Soft mid yellowish grey slightly silty sand with rare small stones and iron pan frags	Fill of furrow [1025]
1025	Linear cut, gradual break of slope to moderate slightly concave sides, gradual break of slope to concave base. Aligned NE-SW	Furrow cut
1026	Friable dark yellowish grey slightly clayey silty sand	Fill of ?cut [1027]
1027	Linear cut, 6.50m wide and 0.17m deep. Moderate break of slope to moderate slightly concave sides and concave base. Aligned NE-SW	Natural depression/ palaeochannel/?furrow
1028	Friable mid yellowish grey slightly silty sand	Fill of ?cut [1029]
1029	Irregular linear cut, 12.30m wide and max 0.55m deep. Moderate break of slope to irregular moderate angled slightly concave sides and concave base. Aligned approximately NE-SW	Natural depression/ palaeochannel/?furrow

Trench 1 contained twelve features cut into the natural, these being two ditches, [1007] and [1013], a gully, [1009], seven furrows, [1011], [1015],[1017], [1019], [1021], [1023] and [1025], and two ?natural depressions / ?palaeochannels, [1027] and [1029]. None of these features bore any stratigraphic relationship with each other. Although the two ditches are thought to represent previous field boundaries, no dating evidence was recovered from either of them. Ditch [1007] measured almost 4.00m in width, and 0.70m in depth, while ditch [1013] was less substantial, measuring 1.80m in width and 0.40m in depth. These ran parallel to each other, approximately 1.70m apart. Given the irregular plan form of gully [1009], this may be of natural origin, caused by animal burrowing.

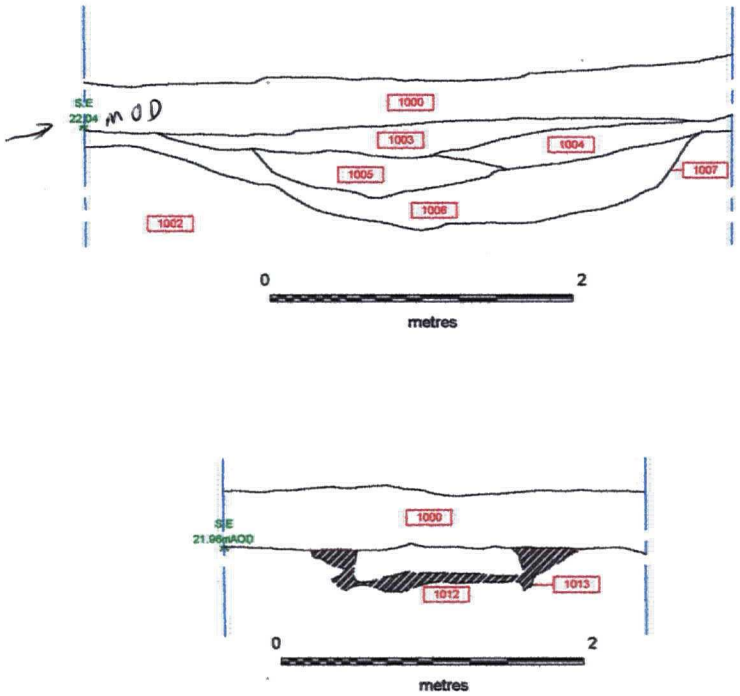

Figure 6. Sections through ditches [1007] and [1013]. Scale 1:50

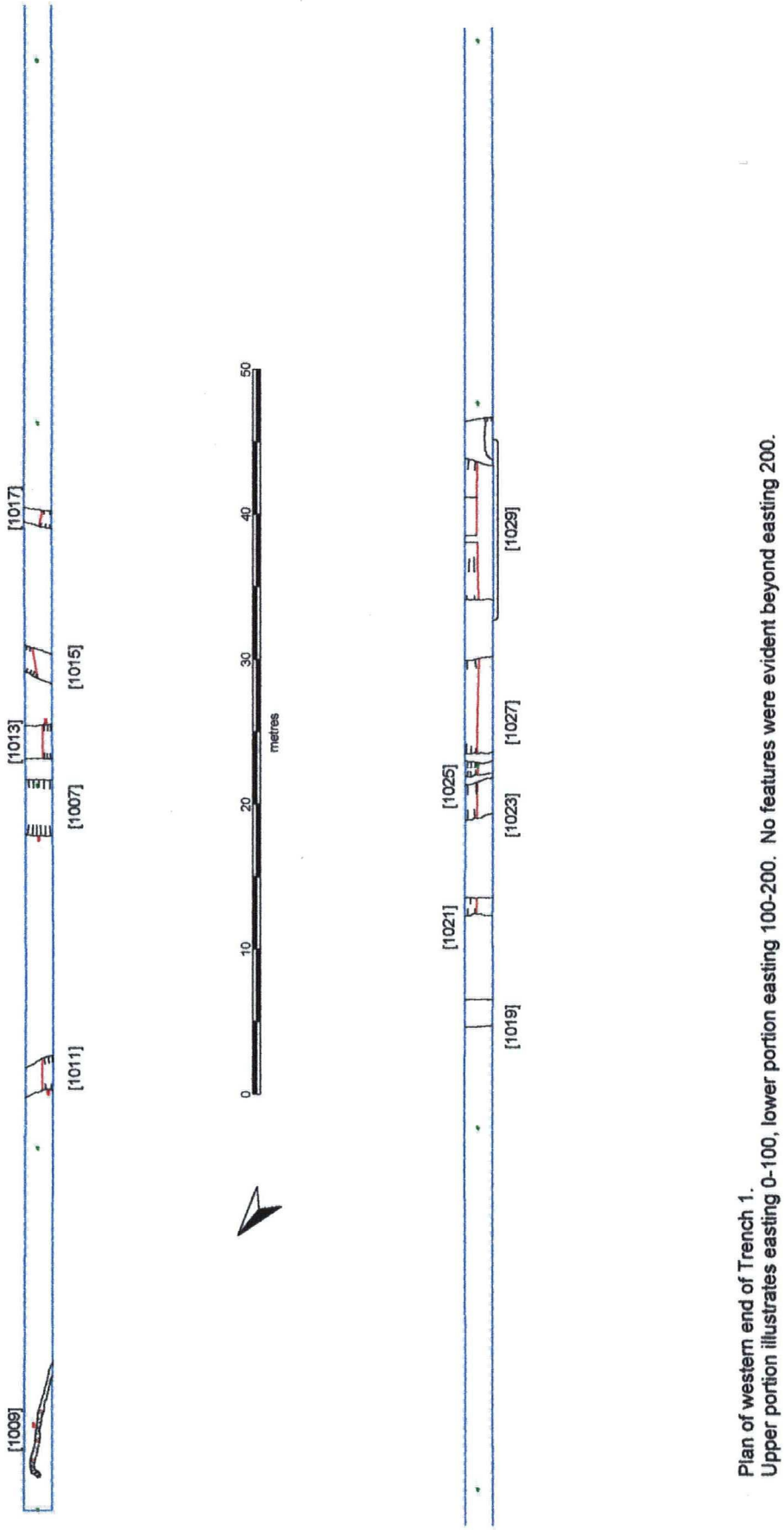

Figure 7. Trench 1, plan. Scale 1:450

4.2 *Trench 2.*

Context	Description	Interpretation
2000	Very soft light brownish grey silty sand, patches of heavy iron panning	Natural
2001	Soft dark greyish brown sandy silt, rare limestone frags	Ploughsoil
2002	Linear cut, gradual break of slope to moderate concave sides, gradual break of slope to sloping base. Aligned NW-SE	Ditch (?modern)
2003	Firm mid yellowish brown sandy silt with isolated pockets of yellowish grey sand	Upper fill of ditch [2002]
2004	Loose light brownish grey silty sand, iron panning towards base of deposit	Primary fill of ditch [2002]

Trench 2 contained a single cut feature, ditch [2002], measuring 2.45 metres in width and 0.37 metres in depth. This was presumed to be of modern origin, probably an old field boundary. No dating evidence was recovered from the fills of the ditch. This ditch contained two fills; the primary fill, [2004], consisted of a light brownish grey silty sand, the upper fill, [2003], consisted of a mid yellowish brown sandy silt.

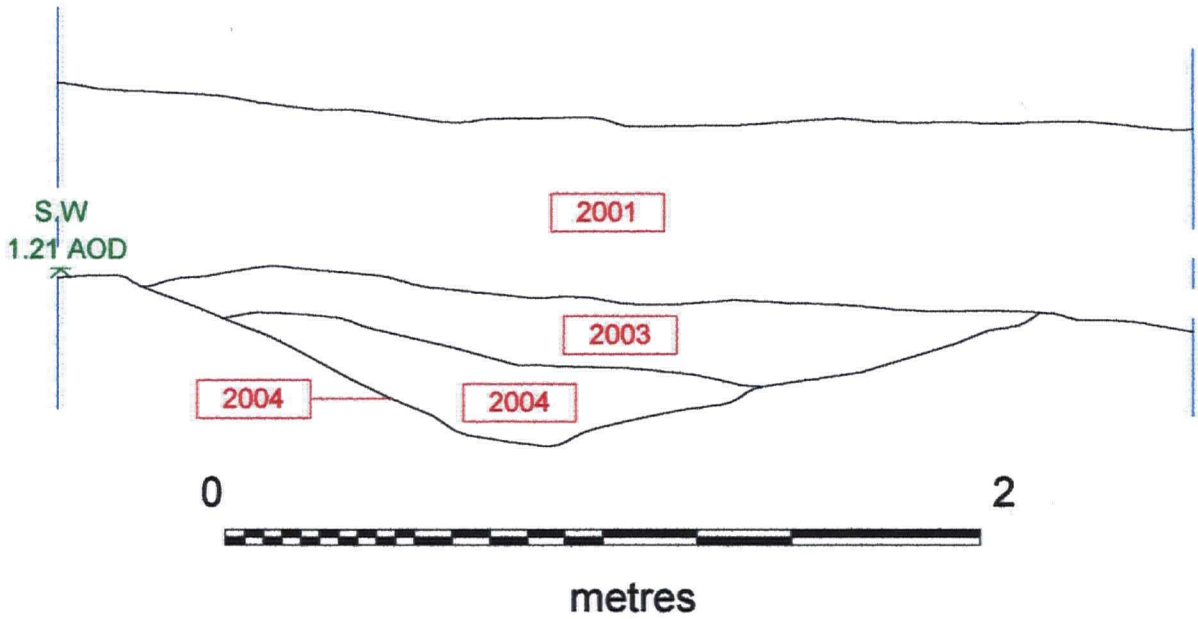

Figure 8. Section through ditch [2002]. Scale 1:20

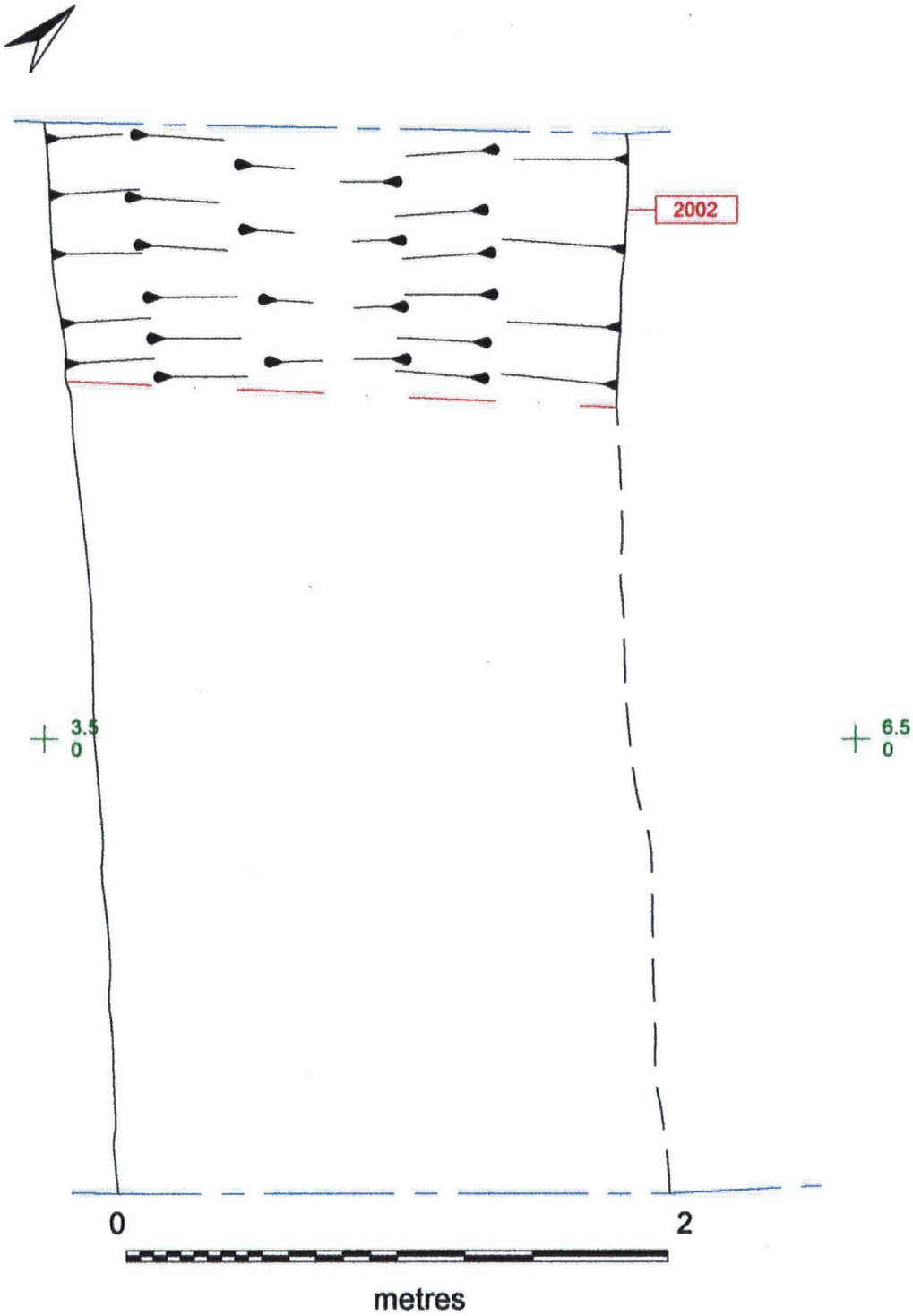

Figure 9. Ditch [2002], plan. Scale 1:25

4.3 *Trench 3.*

Context	Description	Interpretation
3000	Loose light yellowish grey silty sand, large areas of iron panning	Natural
3001	Soft mid greyish brown sandy silt with occasional limestone flecks	Ploughsoil
3002	Linear cut, sharp break of slope to steep irregular sides, gradual break of slope to irregular base. Aligned NW-SE	Ditch
3003	Loose mid greyish brown silty sand with iron panning towards base of deposit	Upper fill of ditch [3002]
3004	Loose mid brownish grey medium/coarse sand	Primary fill of ditch [3002]

Trench 3 contained a single cut feature, ditch [3002], measuring 1.6 metres in width and 0.45 metres in depth. This ditch contained two fills; the primary fill, [3004], consisted of a mid brownish grey sand, the upper fill, [3003], consisted of a mid greyish brown silty sand. No dating evidence was recovered.

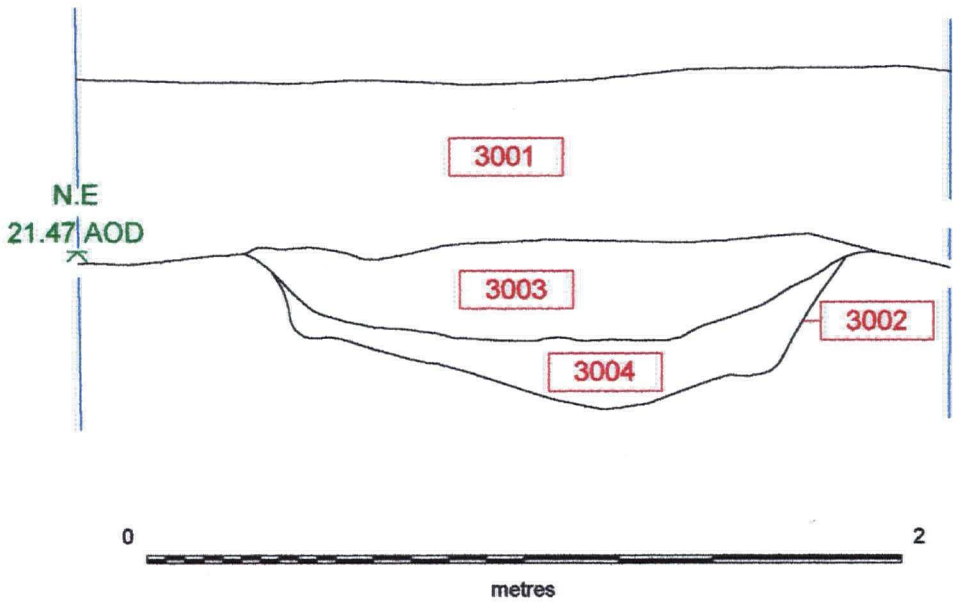

Figure 10. Section through ditch [3002]. Scale 1:20

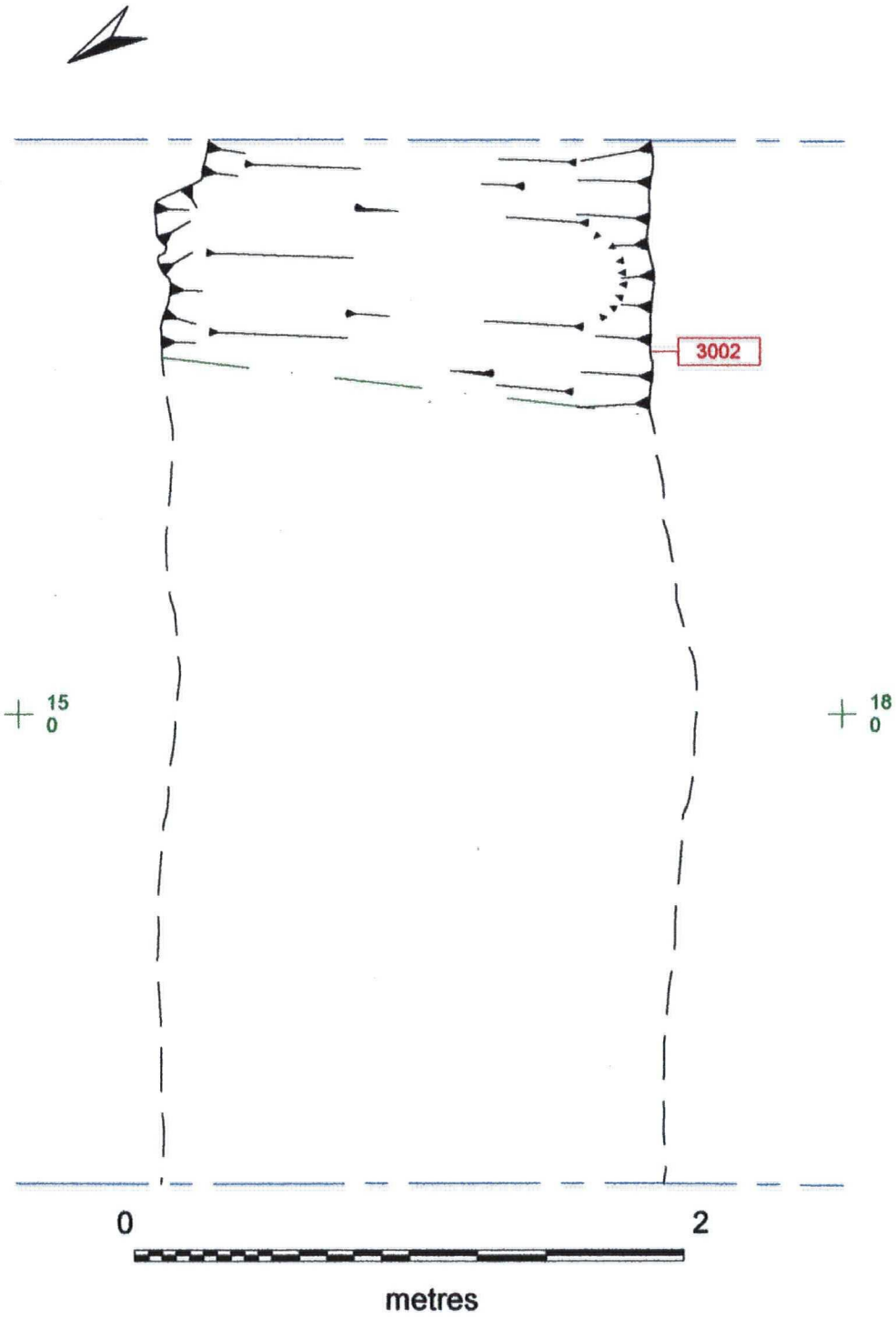

Figure 11. Ditch [3002], plan. Scale 1:25

4.4 *Trench 4.*

Context	Description	Interpretation
4000	Very soft mid yellowish grey medium fine sand.	Natural
4001	Soft dark greyish brown sandy silt, 2%iron staining through out	Ploughsoil
4002	Linear cut, gradual break of slope to moderate sloping sides not perceptible break of slope to flat base, Aligned NE/SW	Ditch cut
4003	Very soft mid greyish brown silty sand, 1% iron staining towards the western edge	Upper fill of ditch [4002]
4004	Very soft light yellowish grey medium-coarse sand	Primary fill of ditch [4002]

Trench 4 contained a single cut feature, ditch [4002], measuring 1.45 metres in width and 0.26 metres in depth. This contained two fills; the primary fill, [4004], consisted of a light yellowish grey sand, and the upper fill, [4003], consisted of a mid greyish brown silty sand. No dating evidence was recovered.

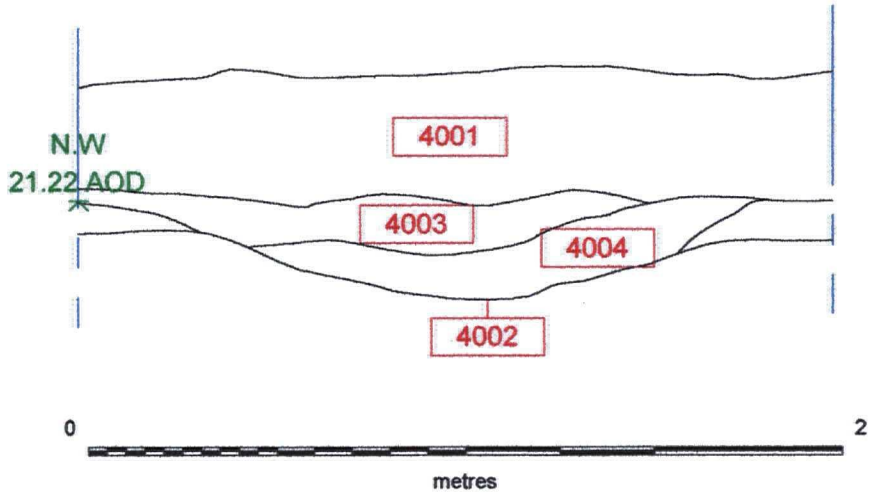

Figure 12. Section through ditch [4002]. Scale 1:20

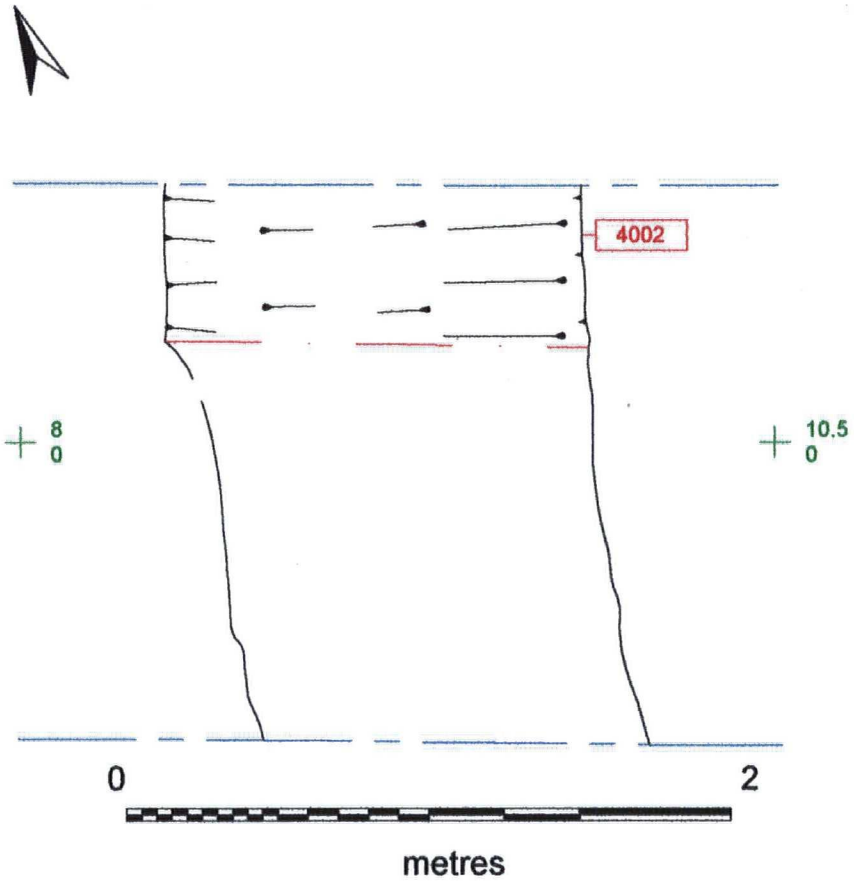

Figure 13. Ditch [4002], plan. Scale 1:25