

**REPORT ON A PROGRAMME OF  
ARCHAEOLOGICAL TRIAL TRENCHING  
LINCOLN EASTERN BYPASS,  
LINCOLNSHIRE.**

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Report prepared for Babtie Group,  
on behalf of Lincolnshire County Council

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(on attached CD)

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## Summary

- *A programme of archaeological trial trenching has been undertaken along the proposed route of the Lincoln Eastern Bypass, which runs for 7.5km between the A158 (Wragby Road) at Bunkers Hill and the A15 at Bracebridge Heath, Lincolnshire. A total of 153 trenches were examined and archaeological features or deposits were uncovered in twenty-one of the thirty-one fields that were crossed by the route.*
- *Trenches located in Field D1, Field D2, Field D3 and Field E uncovered areas of a prehistoric land surface that had been buried beneath peat deposits and reworked by acidic soil chemistry. Large quantities of worked flint typical of later Mesolithic and early Neolithic technologies were recovered from this soil horizon, along with a smaller proportion of Late Neolithic to Early Bronze Age lithic material that indicated activity continued until the onset of peat formation.*
- *Pits and linear features identified in Trench 144 (Field D2) represent the residues of later Mesolithic activity focussed upon a levee running along the northern edge of the River Witham. A charred hazelnut shell recovered from one of these features produced a radiocarbon date of 7740-7580 calibrated BC.*
- *A small concentration of Late Mesolithic worked flint was recovered from the northern half of Field I9. The same area appears to have been subsequently occupied by a Beaker period settlement.*
- *Two curvilinear features were identified in Trench 34 (Field E). They appear to have formed part of a ditch encircling a small round barrow of Late Neolithic, or Early Bronze Age date. Earthworks or cropmarks attest to the presence of further round barrows in Field D1, Field D2, Field D3 and Field E. There are also additional round barrows and an Early Neolithic long barrow in Field C2.*
- *Two groups of features identified at the centre of Field D1 represent the remains of further prehistoric activity.*
- *Elements of a major boundary system that divided the limestone escarpment to the south of the Witham Valley were exposed in Trench 78 (Field H3), Trench 87 (Field I1) and Trench 115 (Field I6). These large ditches are all likely to be Late Bronze Age or Iron Age in date. Elements of associated Late Iron Age settlements were identified in the centre of Field I1 and at the north-east corner of Field I2.*
- *Elements of a Late Iron Age to early Romano-British settlement occupied the central and southern parts of Field A5. Relatively large quantities of domestic waste were recovered from ditches that formed two large enclosures. Evidence of iron working was also recovered, which could indicate that this was a relatively high status settlement.*
- *The remains of a complex of high status Romano-British buildings have been identified in Field F. Materials recovered indicate that these structures had limestone walls and tile roofs. Additionally, pieces of flue tile provide evidence for the presence of a hypocaust system, while semi-circular bonding tiles indicate that there were some columns, or pilasters. The geophysical survey results suggest that this building covered approximately 4,600m<sup>2</sup> of land, but the overall form and function of this complex was not established. The results of the trial trenching suggest that it was either a villa, or a directly comparable cluster of buildings such as a shrine complex. Associated pottery indicates that the site may have been occupied in the Late Iron Age and there was secure*

*evidence of activity spanning the period between the late 1<sup>st</sup> century AD and the end of the 4<sup>th</sup> century AD.*

- *Some evidence was recovered to suggest that the remains of another complex of Romano-British stone buildings may have been located toward the northern end of Field D2. The sharpened bases of a north-south aligned row of wooden posts were also identified in Field D2. Sapwood from one of these waterlogged timbers produced a calibrated radiocarbon date of 20-260 AD, thus indicating that they represented part of a structure created during the Late Iron Age or earlier Roman period.*
- *Part of a late prehistoric or Romano-British field system extended across Field G2 and Field G3. A ring gully identified at the centre of Field G2 probably represents the remains of an associated round house.*
- *Features defining part of another Romano-British settlement were identified in the northern half of Field I9.*
- *A small quantity of Middle Anglo-Saxon pottery was recovered from Field F. This suggests that some of the abandoned Roman buildings were re-utilised between the late 7<sup>th</sup> century and the end of the 9<sup>th</sup> century AD.*
- *Vestiges of Sheepwash Grange, a medieval monastic farm and its post-medieval successor, occupy a mound situated in the eastern half of Field E and Field F. Trenches were not opened across the site of the grange itself, but the excavations conducted elsewhere in Field F suggested that it was constructed from materials salvaged from the adjacent ruined Roman buildings. It appears likely that this complex was founded toward the end of the 12<sup>th</sup> century or beginning of the 13<sup>th</sup> century, and was abandoned at around the end of the 18<sup>th</sup> century.*
- *Evidence was recovered that suggested some form of medieval settlement occupied the southern edge of Field I8.*
- *Two limekilns were exposed at the northern edge of Field G1 and another example was uncovered at the eastern edge of Field G3. None of these features were associated with any datable materials, but they are most likely to be the products of medieval, post-medieval or early modern activity. The limekilns in Field G1 were probably processing rubble from the ruined Roman and/or medieval structures situated in Field F, but the location of the other structure may explain the presence of a series of small and medium sized quarry pits in the same area (Field G2, Field G3 and Field H1).*
- *Former boundaries, isolated features and residual ceramic material were identified in many of the fields crossed by the proposed route of the bypass. Together they provide some indication of the extent of the Romano-British, medieval and early modern field systems.*

## 1.0 Introduction

Pre-Construct Archaeology (Lincoln) were commissioned by Lincolnshire County Council to undertake a programme of archaeological evaluation along the proposed route of the Lincoln Eastern Bypass. The works were designed and overseen by Babbie Group. This road will run for 7.5km between the A158 (Wragby Road) and the A15 at Bracebridge Heath (fig. 1). These investigations consisted of two components, a fieldwalking survey (Clay, 2003) and a scheme of trial trenching, that were designed to complement and enhance data already gathered by a desk-based assessment (Babbie, 2003) and a geophysical survey (Pre-Construct Geophysics - Bunn & Masters, 2003). The information collected by these different techniques has established the archaeological potential of the favoured route and will be utilised in the creation of an Environmental Impact Assessment, which will in turn inform the planning process.

This report details the results of the trial trenching, 153 trenches having been opened between Wragby Road, Bunker's Hill, Lincoln, and the A15 at Bracebridge Heath. This document also incorporates a series of assessments by specialist researchers who have studied the archaeological materials recovered during these excavations. The text follows current national guidelines produced by the Institute of Field Archaeologists (IFA, 1999) and local guidelines set out in the Lincolnshire County Council publication *Lincolnshire Archaeological Handbook: a manual of archaeological practice* (LCC, 1998).

### 2.1 Location and description

The northern end of the proposed route of the bypass, Area A, will adjoin the southern side of the roundabout situated at the junction of Wragby Road East (A15/A158) and the eastern end of the existing bypass (TF 0050 7335) (fig. 2). From the roundabout it runs south-eastward for c. 800m, traversing relatively level land used for arable production; it also crosses Hawthorn Road, which links Bunker's Hill and the village of Reepham. The route then turns toward the south-south-west at TF 0080 7260 and continues in this direction for approximately 1000m (fig. 3). The central part of this second section crosses a relative pronounced hill and the planned road will run through a cutting up to 70m wide. The southern part of this hilltop has been removed and forms the eastern end of a redundant quarry (centred on TF 0075 7205), while the remainder of this section is currently utilised for arable production. The ground surface across the majority of the northern part of the route is situated at between 30 and 35m OD. It is slightly higher across the crest of the hill and falls from 30m OD to 18m OD to the south of Greetwell Road (TF 0070 7175).

The projected route crosses the Witham Valley c. 2.5km due east of Lincoln city centre. This element of the road corridor is approximately 1.1km long and 50m wide, and extends from the Lincoln to Market Rasen railway line on the north side of the river (TF 0070 7148), to Washingborough Road on its southern bank (TF 0025 7046) (figs. 4 – 7). The northern end of this component of the route lies approximately three-quarters of the way down the slope created when the Witham cut a channel through the limestone escarpment; it is situated at c. 16m OD. The route crosses the 5m contour roughly 160m to the south-south-west, at which point the gradient decreases significantly. For the next 500m the ground surface slopes very gently southwards across the valley bottom, falling to approximately 2m OD adjacent to the riverbank. The route then traverses the river channel, which runs from west to east and is situated a little to the south of the middle of the flood plain. A further 300m of the route on the southern side of the Witham is situated below the 5m contour. The last 110m, located between the Lincoln to Spalding railway line and Washingborough Road, runs across the base of the valley side and terminates at c. 11m OD.

From Washingborough Road the route heads south-westward, climbing steadily for the next 1200m (figs. 8 & 9). The gradient decreases significantly as the road corridor passes Glebe Farm, Canwick (SK 9960 6940), the land surface at this point being situated at c. 53m OD. Approximately 500m after the bypass route crosses the B1188 (at SK 9933 6895) it turns to run due south for c. 1600m (figs. 10 & 11). The ground is relatively level in this area, but its elevation increases gradually as it approaches Bracebridge Heath. The final 400m of the route arcs toward the south-west and descends a gentle slope (fig. 12). It intercepts the A15 to the south of The Manor House, at SK 9885 6655, this junction being situated at 66m OD.

The majority of the proposed route to the north of the Witham is situated within the administrative district of West Lindsey, but the last 180m immediately adjacent to the river lies within the boundary of the City of Lincoln. The land to the south of the river channel is located in North Kesteven District.

The proposed bypass route crosses elements of 31 distinct units of land. Progressing from north to south, each area was utilised as follows:

**A1** In cultivation – contained a mature rapeseed crop at the time of the trial excavation.

*Hawthorn Road*

**A2** In cultivation – contained a mature cereal crop at the time of the trial excavation.

**A3** In cultivation – contained a mature cereal crop at the time of the trial excavation.

*minor lane: Bunker's Hill to Greetwell*

**A4** In cultivation – contained a mature pea crop at the time of the trial excavation.

**A5** In cultivation – contained a mature pea crop at the time of the trial excavation.

*Greetwell Quarry*

**A6** In cultivation – contained a mature cereal crop at the time of the trial excavation.

*Greetwell Road*

**A7** In cultivation – contained a mature cereal crop at the time of the trial excavation.

*cutting for the Lincoln to Market Rasen railway line*

**C1** In cultivation – contained a mature cereal crop at the time of the trial excavation.

*a small stand of broad leafed, deciduous woodland.*

**C2** Hay meadow – long grass grown for winter fodder.

**D1** Hay meadow – long grass grown for winter fodder.



**D2** Hay meadow – long grass grown for winter fodder.

**D3** Hay meadow – long grass grown for winter fodder.

*North Delph, flood bank, River Witham, former railway embankment, South Delph, flood bank, drain.*

**E** Set aside – primarily covered by weeds, particularly thistles, but the remains of a potato crop were also evident.

*A pair of railway embankments - the more northerly, now redundant, formerly carried the GNR 'avoiding line', which linked the track from Lincoln to Spalding with the Lincolnshire Loop Line. The other embankment is still utilised by the Lincoln to Spalding line.*

**F** In cultivation – contained a mature cereal crop at the time of the trial excavation.

*Washingborough Road*

**G1** In cultivation – contained a mature cereal crop at the time of the trial excavation.

**G1a** Area of waste ground covered with long grass, situated at south-east corner of sewage farm

**G2** Pasture

**G3** Pasture

*Heighington Road*

**H1** In cultivation – contained a mature cereal crop at the time of the trial excavation.

**H2** In cultivation – contained a mature cereal crop at the time of the trial excavation.

**H3** In cultivation – contained a mature cereal crop at the time of the trial excavation.

**H4** In cultivation – contained a mature cereal crop at the time of the trial excavation.

*Lincoln Road (B1188)*

**I1** Recently ploughed

**I2** Pasture

**I3** In cultivation – contained a mature Sugar Beet crop at the time of the trial excavation.

**I4** Recently ploughed

**I5** Recently ploughed

**I6** Recently ploughed

*a shelter belt of broad leaved, deciduous trees*

- I7** Covered with stubble from a harvested cereal crop
- I8** In cultivation – contained a young cereal crop at the time of the trial excavation.

*Bloxholm Lane*

- I9** In cultivation – contained a young cereal crop at the time of the trial excavation.

## **2.2 Geology**

The proposed route of the bypass crosses three distinct geological zones (Table 1). The most northerly section, Area A, extends approximately 2000m across the dip-slope that forms the eastern edge of the limestone escarpment. This area is characterised by relatively thin soils, which have developed over Great Oolite and Lincolnshire Limestones (I.G.S., 1973). There are no drift deposits along this part of the route, but there are exposures of Blisworth and Upper Estuarine Beds clays, which are stratified within, and form a minor component of the beds of limestone.

The next element of the road corridor runs for c. 1100m across the valley of the River Witham (Field C2 – Field F). The geological sequence in this area is particularly complex. The river has cut through the limestone escarpment, exposing the various elements of the solid sequence, and has then laid down drift deposits across the flood plain (*ibid.*). The Lincolnshire Limestone has constrained the river between Lincoln and Cherry Willingham, limiting it to a relatively narrow valley around 800m wide. Deposits of impermeable Middle Lias clays are exposed across the valley floor and relatively thick Quaternary drift deposits of sand and gravel, sandy alluvium, clayey alluvium and peat have been laid down within this basin.

The southern segment of the route is approximately 4300m long. It climbs the southern side of the river valley and runs south-westward across the dip-slope of the limestone escarpment. The geological sequence is broadly comparable with that encountered in much of Area A. There is no drift geology and the upper elements of the solid strata consist of beds Lincolnshire Limestone.

## **3.0 Planning background**

The trial trenching forms one component of an integrated programme of archaeological investigation that will determine the potential impact of the proposed road scheme upon the heritage resource; the other elements of the archaeological evaluation consist of a desk-based assessment (Babtie, 2003), a geophysical survey (Bunn & Masters, 2003), a targeted auger survey (Rackham, 2003) and, a metal detector survey and field walking (Clay, 2003). The results of these investigations will be utilised in an Environmental Impact Assessment and in the preparation of an Environmental Statement that will form part of a planning application being prepared on behalf of Lincolnshire County Council. The form, methodology and objectives of this element of the archaeological investigation are set out in a specification that was prepared by Babtie Group (Babtie Group, 2003), following a process of consultation with the Built Environment Team, Lincolnshire County Council.

**Table 1:** Summary of the solid and drift geology, detailing the uppermost strata encountered in each unit of land that is crossed by the proposed bypass route (compiled from I.G.S., 1973).

Field No.	Drift Geology (uppermost first)	Solid Geology (uppermost first)
A1	None	Pockets of Cornbrash exposed along southern edge of the field and beneath the road. <i>overlies:</i> Blisworth Clay over Great Oolite Limestone, exposed across remainder of the southern third of the field. Great Oolite Limestone with thin clays exposed across the northern two-thirds of the field.
A2	None	Great Oolite Limestone with thin clays.
A3	None	Blisworth clays. <i>overlies:</i> Great Oolite Limestone with thin clays, which is exposed along the northern edge of the field.
A4	None	Blisworth clays along northern end of route. <i>overlies:</i> Great Oolite Limestone with thin clays exposed at centre of field. Upper Estuarine Beds (clays with thin limestones in upper parts) exposed toward southern edge.
A5	None	Upper Estuarine Beds (clays with thin limestones in upper parts) exposed at northern edge of field. <i>overlies:</i> Upper Lincolnshire Limestone exposed in central and southern part of field.
A6	None	Upper Lincolnshire Limestone.
A7	None	Upper Lincolnshire Limestone across northern three-quarters of field. <i>overlies:</i> Crossi Bed and Lower Lincolnshire Limestones exposed along southern edge.
C1	None	Crossi Bed Lincolnshire Limestone – small area exposed in the most northerly 10m of trench. <i>overlies:</i> Lower Lincolnshire Limestone, which is situated directly beneath soil horizons across the rest of the field to the south.
Wood	Alluvium – sandy and clayey Quaternary deposits, with some peaty laminae. Sealed by ‘Black Soils’ formed from degraded peat.	Lower Lincolnshire Limestone.
C2	Alluvium – sandy and clayey Quaternary deposits, with some peaty laminae. Sealed by ‘Black Soils’ formed from degraded peat.	Lower Estuarine Beds and Northamptonshire Sand and Ironstone. <i>overlies:</i> Upper Lias clay and shale.
D1	Alluvium – sandy and clayey Quaternary deposits, with some peaty laminae. Sealed by ‘Black Soils’ formed from degraded peat.	Lower Estuarine Beds and Northamptonshire Sand and Ironstone - small area exposed at the north-eastern corner of field (c. 20m long section of route). <i>overlies:</i> Upper Lias clay and shale.
D2	Alluvium – sandy and clayey Quaternary deposits with some peaty laminations; includes some discrete sand banks. Sealed by ‘Black Soils’ formed from degraded peat.	Middle Lias clay & shale, with ferruginous and phosphatic nodules in upper parts.
D3	Alluvium – sandy and clayey Quaternary deposits with some peaty laminations; includes some discrete sand banks. Sealed by ‘Black Soils’ formed from degraded peat.	Middle Lias clay & shale, with ferruginous and phosphatic nodules in upper parts.

River/ Delph	Alluvium – sandy and clayey Quaternary deposits with some peaty laminations; includes some discrete sand banks	Middle Lias clay & shale, with ferruginous and phosphatic nodules in upper parts.
E	Alluvium – sandy and clayey Quaternary deposits with some peaty laminations; includes some discrete sand banks. Sealed by ‘Black Soils’ formed from degraded peat.	Middle Lias clay & shale, with ferruginous and phosphatic nodules in upper parts, covers northern two-thirds of field. <i>overlain by:</i> Upper Lias clay and shale, along southern edge.
F	Undifferentiated river terrace sand and gravel	Upper Lias clay and shale.
G1	None	Upper Lias clay and shale.
G2	None	Lower Estuarine Beds and Northampton Sand and Ironstone along northern edge. <i>overlies:</i> Lower Lincolnshire Limestones, exposed in central and southern part of field.
G3	None	Lower Lincolnshire Limestone exposed across most of field. <i>overlies:</i> A small area of Crossi Bed limestone exposed near centre.
H1	None	Crossi Bed limestone exposed at southern end of field. <i>overlies:</i> Lower Lincolnshire Limestone exposed across northern two-thirds.
H2/H3	None	Crossi Bed limestone uppermost deposit across both fields, but it is possible that small areas of Upper Lincolnshire Limestone are exposed along the eastern edge of the route in the central part of both fields.
H4	None	Crossi Bed limestone exposed in northern third of field. <i>overlies:</i> Lower Lincolnshire Limestone exposed across the southern two-thirds.
I1	None	Crossi Bed Limestone exposed at the southern edge of the field. <i>overlies:</i> Lower Lincolnshire Limestone exposed across the rest of the field.
I2	None	Crossi Bed Limestone.
I3/I4/I5/I 6	None	Upper Lincolnshire Limestone.
I7	None	Upper Lincolnshire Limestone exposed along the northern edge of the field. <i>overlies:</i> Crossi Bed exposed over the remainder of the northern third of the field. Lower Lincolnshire Limestone exposed across the southern two-thirds of the field.
I8/I9	None	Lower Lincolnshire Limestone.

## **4.0 Archaeological and historical background**

### **4.1 Area A**

Evidence of Neolithic and Bronze Age activity along the northern part of the route is provided by scatters of worked flint discovered c. 300m to the west of the proposed road corridor, opposite Fields A2 and A3 (SMR nos. 70221 & 54735). Further lithic material has been recovered a little further to the north at Bunker's Hill, c.150m west of the road corridor and a few pieces were also collected during the fieldwalking survey of this element of the proposed route.

Cropmarks indicate the location of a substantial triple linear ditch system (50348) forming a major boundary that was probably created during the Iron Age. This north-south aligned complex of parallel ditches can be traced for at least 5km, its southern end appearing to terminate close to Greetwell Road, at TF 0074 7220, while its northern end extends to Grange de Lings. Linear cropmarks to the north of Wragby Road possibly form part of this system (50357), as they are aligned upon a 300m long section of the triple ditched boundary identified immediately to the south of the houses lining Hawthorn Road, c. 250m to west of Wragby Road roundabout. This segment of the boundary to the south of Bunker's Hill appeared to respect, and therefore post-date, an oval enclosure. The latter contained a ring ditch that would have surrounded a round house.

Two further sections of this multiple ditched boundary have been identified close to the proposed route. The more northerly lay 400m to west of the stretch of road corridor that passes through Field A3 (TF 004 728), while the other lay only 100m to west the element of the route that crosses Field A4 (TF 007 723). Sample excavation of these segments indicated the presence of a ploughed out bank and the fills of the ditches contained pottery dating from the Middle Iron Age through to the Romano-British period.

Additionally, cropmarks indicate the presence of two possible ring ditches in this area, raising the possibility that there was formerly a round barrow cemetery here; the ring ditches were located at TF 0045 7285 (70178) and TF 0039 7268 (70179). Another prehistoric ring ditch (54732), which has been partially excavated, is situated 100m to the east of the route, close to the interface between Field A4 and Field A5 (TF 0100 7232).

While the triple ditch system formed the most prominent element of the late prehistoric landscape, aerial photographs indicate that the area to the south and east of Bunker's Hill is covered with smaller boundaries, trackways and enclosures having morphological characteristics that are indicative of Iron Age, or Romano-British settlement. One cluster of enclosures and driveways is located in the field immediately to the north-east of the Wragby Road roundabout (52419). Further enclosures have been identified to immediately to the east of the triple linear ditch (70220 - TF 0043 7280), c. 250m to the west of the section of bypass traversing Field A2.

Elements of the Romano-British landscape were also revealed during the archaeological evaluation of a 15ha site that extended over the fields to west of Field A3, across the western two-thirds of Field A4 and the north-west corner of Field A5 (54602 & 52842). The remains of several roundhouses were uncovered, along with building debris from at least one substantial stone structure. These dispersed settlement foci were distributed throughout a rectilinear field system extending over the area to the east of the triple linear ditch system. Ten corn driers were discovered in one part of this field system, which appears to indicate crop processing was a communal activity. Additionally, a small burial ground containing the remains of thirteen individuals was identified near the eastern edge of this complex of field

boundaries. Associated artefactual material indicated that this cemetery was in use from the mid 2<sup>nd</sup> to 4<sup>th</sup> centuries AD, with most of the burials taking place during the 3<sup>rd</sup> century.

A scatter of Romano-British artefacts identified immediately to the south of the evaluated area provides some indication that this field system also extended onto the ridge of high ground overlooking the Witham Valley (54247 - TF 0068 7214). Additionally, further Romano-British material has been identified c. 300m to the west of the junction between the planned road corridor and Greetwell Road. Ordnance Survey records, held by the SMR, refer to 'Roman burials and other Roman finds', which were made in the area of a series of rectilinear cropmarks and close to the remains of possible ironstone mines (CL – TF 002 712). These mines lay to the north and south of Greetwell Road (52835 - TF 004 717), but the remains to the north have been completely removed by later stone quarrying. It is thought that ironstone mining was initiated at Greetwell during the Romano-British period and it is also possible that limestone extraction was initiated at this time (Hockley, 1992). The quarries were certainly in operation during the medieval period and continued to be utilised until the late 20<sup>th</sup> century.

A cluster of cropmark enclosures and associated linear features located 550m to the east of the proposed route, and a little to the south of Hawthorn Road, could represent elements of another, neighbouring Romano-British field system (52837 - TF 0134 7275). The relatively high density of settlement in this area can be explained by the proximity of *Lindum Colonia*, one of the largest urban centres in Roman Britain. It had initially been founded as a legionary fortress, but had been transformed into an administrative centre and settlement for retired soldiers toward the end of the 1<sup>st</sup> century AD. The hinterland of *Lindum* would have been utilised for relatively intensive agricultural production in order to feed the large population of this city.

A network of major roads radiated from the Roman city and Wragby Road (A15/A158), adjoining the northern end of the proposed bypass, follows the alignment of one of these axial routes (50580). It extends north-eastward from the upper east gate of the city and crosses the Lincolnshire Wolds heading toward Ludford (Whitwell, 1992). Another branch turns south-eastward and reaches the coast near Burgh-le Marsh.

In comparison to the Romano-British remains, there is relatively little evidence for Anglo-Saxon, or medieval activity in this area. A small scatter of early medieval pottery was recovered c. 225m to the west of the route, adjacent to Field A3 (54737 - TF 0063 7265). Larger quantities of medieval, post-medieval and modern pottery have been collected from the fields immediately to the north, which once ran up to Wragby Road and Hawthorn Lane (54248, 54280, 70222 & 70223).

An area of ridge and furrow formerly occupied the western half of Field A4 (54601). Additionally, cropmarks provide evidence that there had been a block of ridge and furrow situated 400m to the east of the section of road corridor crossing Field A5 (52834). These *selions* would have formed outlying elements of the open field system surrounding the medieval village of Greetwell.

## **4.2 Areas C, D, E, F & G**

An impressive range of archaeological sites and artefacts has been identified along the section of the Witham Valley between Lincoln and Cherry Willingham, indicating that this part of the river has been a major focus for past human activity. There is plentiful evidence

for prehistoric activity relating to farming and ritual activity, while some scatters of lithic and ceramic material are likely to reflect the presence of settlement foci.

Worked flint of later Mesolithic and Early Neolithic date has been found to the east of Cherry Willingham (60613), and a number of Neolithic stone axes also having been found in this area (52897, 52935, 52848). The residues of human activity become more extensive and visible during the Late Neolithic and Early Bronze Age when large numbers of round barrows were constructed on the valley floor between Lincoln and Stainfield. The barrows appear to form a number of discrete cemeteries that seem to form pairs facing each other across the river.

A cemetery containing eleven round barrows has been identified within the fields lying immediately to the north of the river at Greetwell (52841 – TF 0070 7110). It extends along a 900m long stretch of the river, the barrows lying between 70m and 300m from the present channel. It has been proposed that a sub-oval enclosure situated at the northern edge of this cluster represents the remains of a ploughed-out Early Neolithic long barrow (52460 – TF 0070 7124), while the remainder of this complex is likely to have been created during the Late Neolithic and Early Bronze Age.

Another group of seven round barrows has been identified in Canwick parish (60930 – TF 0020 7070), on the southern side of the river immediately opposite the Greetwell cemetery. Four of these monuments are still identifiable as low mounds, and sherds of crude Bronze Age pottery have been recovered from the surface of one of these. Two Middle Bronze Age bronze palstaves have also been found in the immediate environs of these barrows (61504). A Middle Bronze Age cinerary urn was found at the Anglian Water sewage treatment works, less than 200m to the south-west of the Canwick barrow cemetery, and suggests that the monument complex extended in this area (61503 – TF 0001 7030). Small quantities of worked flint have been retrieved from a number of the fields bracketing this stretch of the Witham, but much of this lithic material is debitage and does not possess closely datable traits. Washingborough Archaeology Group has recovered worked flint from 43 of the 45 fields walked along the southern side of the river, and some of this material was found in close association to the barrow cemetery at Canwick (60466; 61509).

A sherd of Late Bronze Age to Early Iron Age pottery was also recovered from the field containing the Canwick barrow cemetery (61328), thus providing limited evidence for activity along this section of the Witham during the later prehistoric period. Larger quantities of contemporary material have been found both to the east and the west of the road corridor. A number of Late Bronze Age swords have been found in the Witham at Lincoln, around Stamp End, with a group of three Late Bronze Age swords having been found on the southern side of the river, close to Washingborough, during the construction of the railway embankment for the Lincolnshire Loop Line (61295 - JBAA, 1855).

Even more significant deposits of Late Bronze Age and Early Iron Age artefactual material have been recovered from the environs of Washingborough pumping station, which is located c. 3.5km east of the proposed route of the Lincoln Eastern Bypass (60612 – TF 0423 7138). A small excavation recovered a decorated antler cheek piece from a bridle, pottery, human and animal bone, and worked wood (Coles, *et al.*, 1979), while over 300 sherds of handmade pottery have also been retrieved by fieldwalking (60462). It is possible that there is a settlement in this area, but the material may also have been deposited during activities focussed upon a timber causeway that is thought to have crossed Washingborough Fen to the east of Sandhill Beck (Field & Parker-Pearson, 2003).

The putative Late Bronze Age causeway is thought to be a precursor to an Early Iron Age example situated c 750m further downstream at Fiskerton (52904 – TF 0500 7162). The latter was discovered following the recovery of an iron sword and sword handle fittings by a metal detectorist in June 1980. An excavation undertaken the following year indicated that these items were associated with two rows of vertical timber posts; as with many of the finds recovered from the vicinity of the river, the posts were enveloped by anaerobic deposits and were consequently very well preserved. Both rows were composed of clusters of posts, each group reflecting successive episodes of activity between 456 and 317BC. Among the posts were significant quantities of prestige metalwork, bone tools and some human remains (*ibid.*). A second excavation, undertaken on behalf of the Environment Agency during 2001, recovered additional artefacts from the section of the causeway immediately adjacent to the northern flood bank of the Witham. The most intriguing discovery was a complete log boat, one of two found, which had seemingly been manufactured specifically for use as a votive deposit. These are the most recent examples of this kind of vessel, many others having been discovered in the Witham Fen over the last two or three centuries. However, it should be noted that the majority of these have been found further downstream, particularly around Branston Island and Bardney.

The possible locations of a further nine prehistoric causeways have been identified along the section of the Witham between Stamp End, Lincoln and Chapel Hill (Stocker & Everson, 2002). This suggests that there were numerous routes crossing the river valley prior to the creation of a formal road system by the Romans. With this in mind, it should be noted the planned route of the bypass coincides with the narrowest section of the river valley, where it cuts through the limestone dip slope to the east of Lincoln. This would have been an ideal location for a river crossing and associated trackway (Hockley, 1992). The presence of barrow cemeteries and the southern end of a major late prehistoric triple ditched boundary system at this point in the valley may also allude to the presence of such a track, as comparable features are frequently associated with early routes elsewhere in the country (e.g. The Ridgeway).

There is also abundant evidence for human activity along this section of the River Witham during the Romano-British period. This is unsurprising given the proximity of Lincoln, site of one of the largest settlements in Roman Britain. There was significant activity around Washingborough, much of this possibly being focussed upon the Car Dyke (60714). It is thought that Roman military engineers created this channel around AD125 to serve as a canal, linking the Witham with the River Nene in Cambridgeshire, or as a major drain that followed the eastern edge of the dip slope of the Lincoln Heath, thus dividing the higher ground from the Witham Fen (Whitwell, 1992). The channel was c. 15-20m wide, with wide flanking banks, and some sections of the Car Dyke are still visible as a substantial earthwork, including the stretch running along the northern edge of Fen Road/Main Street, Washingborough. Cropmarks betray its presence a little further to the west, but it cannot be traced beyond TF 0203 7084, a little over 1km to the east of the proposed road corridor.

It is recorded that two Roman pots were found in close association to the Late Bronze Age swords that were discovered during the construction of the railway (JBAA, 1855 – 61295, see above), these items being found near the end of the Car Dyke. Other contemporary material has been recovered from within Washingborough village. A coin of Tetricus II was found to the south of Main Road (61289 – TF 0195 7077), while another coin and an ‘urn’ were exposed in the vicinity of 15 Main Street (61278 – TF 0147 7068). Another two Roman coins were found in the grounds of Washingborough Hall (61285 – TF 0181 7060).

There is also evidence of Romano-British activity in and around Cherry Willingham. The possible site of a Romano-British farmstead has been identified adjacent to Fiskerton Road



East, immediately to the south-east of the village (52853 - TF 0360 7200). Other pottery, stone and tile was recovered from land off Church Lane, immediately to the north-west of the putative farmstead (52851, 52866, 52853); this material dates from the 1<sup>st</sup> to 4<sup>th</sup> centuries, and is likely to be associated. The handle of a Roman amphora was discovered immediately to the south of Fiskerton Road, to the west of Cherry Willingham (52082 - TF 0230 7180), and two Romano-British fibulae have been found in the grounds of Greetwell Hall (52827 - TF 0145 7140), c. 650m to the east of the proposed route of the bypass.

Another Romano-British artefact scatter has been identified on the opposite side of the river, in Canwick parish, directly on the proposed route of the bypass. Covering the western half of the field lying immediately to the south of the railway line from Lincoln to Spalding, the artefacts recovered include quantities of tile and pottery (60463 – TF 0025 7050). A fluxgate gradiometer survey undertaken in advance of the present scheme of trial trenching detected a mass of magnetic anomalies in this field, suggesting that it contains the remains of a Roman villa, or similar substantial building (Bunn & Masters, 2003). Further Romano-British pottery was recovered from a corresponding location in the field to the north of the railway (61510 – TF 0030 7070). Washingborough Archaeology Group has undertaken a metal detector survey of these two fields during which more than 550 coins have been recovered (Wragg, 1999). The largest proportion consisted of Romano-British issues, with medieval coins forming the next largest group. Other finds included Late Iron Age issues and two Anglo-Saxon coins. A sherd of Anglo-Saxon pottery was also found in the same surface scatter of artefactual material (60925, 61326 – TF 0030 7051). Additional Anglo-Saxon finds have been recovered from a field to the north of Lincoln Road, Canwick, c. 350m to the east (60593 – TF 0066 7062).

On the opposite side of the river a late Anglo-Saxon spearhead was found to the south of Greetwell Church in 1952 (52828 - TF 0140 7150). The church, a large part of which was constructed in the 11<sup>th</sup> century (52823), is one of the few structures still occupying the site of a settlement listed as *Grentewelle* in the *Domesday Book*, this name being derived from two Old English components meaning ‘the gravelly spring’ (Cameron, 1998). The other buildings are Greetwell Hall, the core of which is late 16<sup>th</sup> to 17<sup>th</sup> century (52822), The Lodge, built in 1856, and a more extensive complex of buildings forming Greetwell Hall Farm, which lie to the north of the Lincoln to Grimsby railway line (Everson *et al.*, 1991). The church and hall are surrounded by a complex of earthworks that represent the roads and building platforms of the medieval and early post-medieval village (SAM 22748), situated c. 650m to the east of the proposed easement for the bypass; the village appears to have been largely abandoned by the mid-17<sup>th</sup> century. Superimposed upon the southern area of these remains are other banks and platforms that relate to the formal garden and ancillary buildings constructed around Greetwell Hall in the later 16<sup>th</sup> to 17<sup>th</sup> century (52829).

The limestone quarries at Greetwell were certainly in existence by the medieval period (Hockley, 1992), probably providing stone for the church and village, and possibly for some structures within Lincoln. It seems likely that ironstone mining was also undertaken throughout the Anglo-Saxon and medieval periods. An iron-smelting site of the 5<sup>th</sup> – 6<sup>th</sup> century has been identified at Cherry Willingham, with outcrops in the Parish of Greetwell representing the closest source of ferrous ore.

A hoard of over 200 silver coins, and two silver rings, was found in the mid 19<sup>th</sup> century, c. 150m to the east of the proposed route of the bypass and to the west of Greetwell Church, during the construction of a cutting for the railway connecting Lincoln and Market Rasen (52825 - TF 0090 7150). The coins had been minted during the reigns of William I, Henry I and Stephen, and were very clipped, with many being imperfectly die-struck.

The etymology of the place-name suggests that Washingborough was also founded during the Anglo-Saxon period. In the *Domesday Book* it is referred to as *Washingeburg*, which utilised the Old English element *burh*, meaning ‘fortified place’, and *Wassinga*, the name of a kinship group (Cameron, 1998). It is generally accepted that the ‘fortified place of the *Wassingas*’ was created during the Anglo-Saxon period. However, it is also possible that the defended enclosure referred to by this name may have been created at an earlier time. It has been suggested that the Romans constructed a series of forts at intervals along the Car Dyke. This has not been verified, but in the event that this were true, it is likely that one would have been situated at Washingborough to protect the junction between the Car Dyke and the Witham. It is therefore possible that the *burh* referred to was originally a Roman fort. In support of this alternative hypothesis, it should be noted that although *Wassinga* is rendered in an Old English form, it is derived from *Wassa* a British personal name. It is therefore also a possibility that the personal name had been perpetuated by oral tradition and refers to some individual associated with the *burh* prior to the arrival of Anglo-Saxon colonists.

The core of the medieval settlement at Washingborough appears to have lain around 400m to the south of the river, between Main Road and Manor Road. The church of St John the Evangelist (61275) and the medieval village cross (60403) can still be found in this area.

The village of Canwick was situated on top of the limestone ridge, c. 1.75km to the south-west of the point at which the river is crossed by the projected route of the bypass. The *Domesday Book* records the settlement as *Canewic*, these Old English place-name elements meaning ‘Cana’s dwelling, specialised building, or dairy farm’ (Cameron, 1998). The parish was divided into six holdings in the late 11<sup>th</sup> century, with land being assigned to the Bishop of Bayeux, Geoffrey Bishop of Countances, Remigius Bishop of Lincoln, Norman Crassus, Kolgrimr and Roger de Poitou, the latter’s holding also including the church and priest (Morgan & Thorn, 1986).

Activity appears to have intensified along this section of the river valley during the medieval period. While much of this was centred upon the villages founded during the Anglo-Saxon period, there were also a number of important sites located away from these nucleated settlements. Sheepwash Grange, a medieval monastic estate centre belonging to Kirkstead Abbey, occupied a site immediately adjacent to the proposed route of the bypass, at the north-eastern corner of Canwick Parish (60929 – TF 0052 7058). Two railway embankments cover much of this site, which is located c. 150m to the south of the current course of the Witham. Scatters of medieval and post-medieval pottery having been recovered from the fields on either side of the embankment (60467, 60468 – TF 0041 7051; 61511 – TF 0030 7070).

The grange is known to have had an associated wharf, which was referred to as *Calscroft* in medieval Hundred Rolls (Mills & Mills, 1998). These documentary sources indicated that the wharf was used for loading and unloading wool and other goods transported along the Witham. The river was an arterial route during the medieval period, which linked Lincoln with the port of Boston. The dry bed of a watercourse lies 100 – 200m to the north-east of the grange site. A mound containing fragments of masonry flanks one side of this relict channel, suggesting that this is the site of *Calscroft* (61473 – TF 0060 7070).

A large number of fisheries also occupied sections of the river during the medieval period. Many of these appear to have been established during the Anglo-Saxon period, as they are listed in the *Domesday Book*. Among the latter were five fisheries at Canwick, three being held by Bishop Geoffrey (of Countances), with the others belonging to Roger de Poitou (Morgan & Thorn, 1986). There were another two fisheries at Greetwell, in the possession of Roger de Bully, and two more at Cherry Willingham held by Gilbert of Ghent. The manor of Washingborough was a royal estate, and as such its constituent parts were not listed in the

*Domesday Book*, primarily because the latter was essentially a catalogue of land and property subject to taxation by the royal exchequer.

There was a discernible decline in the fortunes of Lincoln between the late 14<sup>th</sup> and 17<sup>th</sup> centuries, and this trend is likely to have had a direct impact upon the surrounding rural settlements. It is thought that the failure to maintain the Witham as a navigable watercourse may have contributed to this degeneration (Hockley, 1992). A survey of 1731 indicates that the channel was generally shallow and sinuous, which not only prevented use by many vessels, but also prevented rapid and effective drainage into the Wash, thereby resulting in extensive flooding of thousands of acres of low-lying ground to the east, west and south-west of the city.

Work to straighten, widen and scour the river in order to create a viable commercial waterway was facilitated by the passing of the Witham Drainage Act in 1762 (White, 1979). However, work progressed relatively slowly and the section immediately downstream of Lincoln was only embanked and improved in the second half of the 1790s (Wright, 2001). Further improvements to the navigation, including the canalisation of some sections of the river, occurred between 1816 and 1826, under the Lincoln and County Drainage Act of 1804. These works were complemented by schemes to improve and reclaim the adjacent Witham Fen. The creation of new agricultural land coincided with the process of Parliamentary Enclosure, these activities largely determining the form of the modern landscape.

### **4.3 Areas H & I**

In comparison to the northern half of the proposed route, there is relatively little evidence of past human activity in Areas H and I. Scatters of Mesolithic to Middle Bronze Age worked lithic material have been found approximately 1km to the west of the junction between the southern end of the route and the A15. Objects recovered included blades, leaf-shaped and barbed and tanged arrowheads, scrapers, and fragments of two Neolithic stone axes. Additionally, moderate quantities of worked flint were recovered from Fields I8 and I9 during the fieldwalking survey undertaken along the proposed route of Lincoln Eastern Bypass (Clay, 2003).

An Early Bronze Age collared urn was discovered at Canwick Heath Farm, c. 600m to south-east of point where the planned bypass would cross the B1188 (61491 - SK 9982 6858). The junction between these two roads would lie on the spring line, at the head of a shallow valley (Hockley, 1992). Prehistoric burials were often placed in similar locations, which could indicate that the funerary remains found at Canwick Heath Farm might form part of a larger cemetery.

A beehive quern of Iron Age or Romano-British date was found c. 400m to the east of the point where the proposed route crosses the boundary between Field I7 and Field I8 (SK 9934 6705).

An assortment of Romano-British material has been recovered from the area now occupied by Canwick village, which lies c. 900m to the west of the northern end of Area H. Roman cremation burials have been found in the churchyard and contemporary structural remains have been uncovered both close to, and within the church. Among this material were the remnants of a mosaic floor, which raises the possibility that the church was erected over the ruins of a villa (Pevsner & Harris, 1989; D. Mills, *pers. comm.*). A large scatter of Roman tile has been identified to the south of the village. At least one waster was found among this

spread of ceramic debris, which raises the possibility that it could indicate the location of a tile kiln.

Another Romano-British settlement has been identified at the southern edge of Bracebridge Heath, c. 1km to the west of the end of the proposed route. Artefactual material recovered from this area includes large quantities of 2<sup>nd</sup> to 4<sup>th</sup> century AD pottery, brooches and a large number of coins, the latter including a hoard of approximately 2900 bronze issues of the early 4<sup>th</sup> century. Structural remains such as box flue tile, roof tile and large limestone blocks have also been identified. Most of this material was found in the area abutting the western edge of Ermine Street. The latter was one of the most important roads in Roman Britain and was initially laid out as a military route that linked London, Lincoln and York. A small Roman cemetery has been discovered on the opposite side of the road. Excavations undertaken at 171 and 173 Grantham Road have recovered the remains of ten individuals, half having been cremated, while the remainder were extended inhumations.

The southern end of the proposed route terminates at another Roman road, as the A15 follows the alignment of King Street. The latter ran along eastern edge of limestone escarpment between Lincoln and the relatively large Roman settlement at Sleaford.

Aerial photographs have indicated the presence of two large linear boundaries close to the B1188. One runs from east to west and is crossed by the bypass in field H3. It has not been identified to the west of woodland known as 'The Pits', but is clearly visible to the east, where it can be traced for approximately 2000m. There are also more ambiguous indications that it could continue running 1500m further toward the east, into the area now occupied by the village of Heighington. Some indication of the age of this significant landscape division is provided by the fact that part of it defined a section of the parish boundary between Canwick and Washingborough. The second cropmark boundary has a direct association with the first. It is orientated from north to south and traverses at least 1100m of the landscape to the south of the B1188 (61512). The alignment of its northern end provides a strong indication that it also extended beyond this road, as it is likely to have defined the eastern edge of 'The Pits'. Consequently, it is probable that these two features joined near the centre of the eastern boundary of the wood (at SK 9920 6923).

'The Pits' is so called because the woodland has developed over a series of small limestone quarries (61517). These stone extraction pits are all thought to be post-medieval in date. However, most, if not all, appear to have been redundant by the time that the First Edition Ordnance Survey map was compiled in the late 19<sup>th</sup> century (fig. 13).

Field I7 is a large unit of land which was utilised as an airfield during the First World War (61563). There are no extant structures within the field, but some of the associated hangers still survive immediately to the west, adjacent to the A15.

## **5.0 Methodology**

The results of the fluxgate gradiometer and resistivity surveys provided the basis for devising the scheme of trial trenching (Bunn & Masters, 2003) (figs. 2 – 12). However, the results obtained on the floodplain to the north of the River Witham (fields C2-D3) were relative indeterminate and as a consequence, they were supplemented by data from an auger survey (Rackham, 2003). A total of 153 trenches were opened during the intrusive fieldwork.

A large, tracked 360° excavator fitted with a 1.9m wide, toothless ditching blade was used to remove all topsoil and subsoil in spits no greater than 0.2m in depth. The removal of these

deposits was monitored constantly in order to identify any archaeological features uncovered by this process.

Where exposed, archaeological features and deposits were sample excavated by hand in order to assess their nature, dimensions and to attempt to recover datable materials. These investigations resulted in the production of written descriptions of all deposits and features, and scale drawings made in both plan and section. A photographic record (colour slide) of exposed features was maintained. Selected images have been reproduced in this report, with the remainder forming part of the project archive.

A team of seven experienced field archaeologists carried out the first element of the trial trenching under the direction of Jim Rylatt. Fieldwork was conducted over a period of nineteen days, consisting of 24<sup>th</sup>-27<sup>th</sup> & 30<sup>th</sup> June 2003 and 1<sup>st</sup>-4<sup>th</sup> & 7<sup>th</sup> July 2003 (Tr33-Tr42), and 8<sup>th</sup>-11<sup>th</sup>, 14<sup>th</sup>-15<sup>th</sup> & 16<sup>th</sup>-18<sup>th</sup> July 2003 (Tr1-Tr31).

The subsequent phases were undertaken by five experienced field archaeologists directed by Chris Clay. These trenches were examined in five distinct episodes, with the work being completed over a total of 43 days; 1<sup>st</sup>, 4<sup>th</sup>, 6<sup>th</sup>-8<sup>th</sup> & 11<sup>th</sup>-15<sup>th</sup> August 2003 (Tr43-Tr68), 21<sup>st</sup>-23<sup>rd</sup> & 26<sup>th</sup>-28<sup>th</sup> August 2003 (Tr32 & Tr137-Tr153), 3<sup>rd</sup>-5<sup>th</sup> September 2003 (Tr118-125), 22<sup>nd</sup>-26<sup>th</sup> September 2003 (Tr69-Tr84), 9<sup>th</sup>-10<sup>th</sup> & 13<sup>th</sup> October 2003 (Tr110-Tr117), 12<sup>th</sup>-14<sup>th</sup>, 17<sup>th</sup>-21<sup>st</sup> & 25<sup>th</sup>-27<sup>th</sup> November 2003 (Tr85-109) and 7<sup>th</sup>-9<sup>th</sup> & 12<sup>th</sup>-14<sup>th</sup> January 2004 (Tr126-136).

The artefactual materials that were recovered were cleaned and processed prior to their submission to researchers specialising in the examination of archaeological materials. In addition, a recognised specialist analysed processed soil samples to ascertain the presence and nature of any palaeo-environmental remains, which they may have contained. The results of these investigations have been included as independent appendices to this report, and the general conclusions of these accounts have been integrated into the main text.

## 6.0 Results

### 6.1 Field A1

#### *Trench 1*

(see fig. 14)

*A trench with two perpendicular components - a north-south aligned trench, 20m long by 2m wide, joined at its north-west corner to an east-west aligned trench, 20m long by 2m wide. It was opened to investigate a faint linear anomaly detected by the geophysical survey.*

The ploughsoil, (1249), was a 0.32m deep layer of greyish-brown sandy clay that contained occasional small stones. It sealed a subsoil consisting of pale orange clayey sand, (1207), which was up to 0.23m deep. Two land drains cut the subsoil in the north-south aligned arm of the trench. The more northerly example, [1204], ran from north-east to south-west. It was filled with dark brownish-grey clayey silt, which covered a ceramic pipe of later 19<sup>th</sup> or 20<sup>th</sup> century date. The other example, [1201], lay 3m further to the south and was orientated from north-west to south-east. It was filled with tabular limestone rubble, which indicated that it was an early example probably constructed during the 18<sup>th</sup> or early 19<sup>th</sup> century. It was identical in form and orientation to another drain, [1183], examined in Trench 2 and was evidently part of the same system of drainage.

The removal of the subsoil exposed the fills of three irregular features. Situated at the junction of the two arms of the trench, [1202] was a sub-oval feature more than 1.75m long, up to 0.90m wide and 0.42m deep, which had near vertical edges and an uneven base. A 'Y'-shaped feature, [1208], lay 2m further to the south. It was up to 0.40m wide and 0.20m deep, and had a very uneven base. The edges also exhibited great variability, some areas being near vertical, while others sloped very gently. The final feature, [1205], was situated 4m from the western end of the trench. It appeared to represent part of north-south aligned linear depression, c. 2.10m wide and up to 0.25m deep. As with [1208], its edges and base were very uneven and irregular. All three features were filled with identical deposits of pale bluish-grey sand, with dark bluish-grey mottles; fills (1203), (1209) and (1206), respectively. A few small black flecks were also noted in each deposit, but examination failed to determine whether they were fragments of charcoal, or a manganese precipitate. The highly variable form of [1202], [1205] and [1208] suggested that they had a natural origin, and were probably the result of ice-wedging, or the desiccation and fracturing of deposits in a periglacial environment.

The three fissures had cut into a layer of orange clayey sand, (1251), which had a moderate amount of rusty mottles and incorporated some concreted iron pan.

#### *Trench 2*

(see fig. 15)

*A north-south aligned trench, 20m long by 2m wide, opened to investigate a linear anomaly detected by the geophysical survey.*

The ploughsoil, (1185), was a layer of greyish-brown sandy clay that contained occasional small stones. It varied in depth between 0.26m and 0.37m. The mechanical excavator removed this deposit and in so doing exposed the fill of an east-north-east to west-south-west aligned gully, [1182]. This feature had vertical sides and a flat base and was c. 0.43m wide and 0.33m deep. Its fill was a mixed deposit of mid brownish-grey sandy clay and yellowish-

brown clay, (1181), which incorporated occasional flecks of charcoal and small pieces of coke or clinker. The western end of [1182] cut through the fill of a north-west to south-east aligned land drain, [1183], c. 0.25m wide and 0.27m deep. The latter utilised pieces of tabular limestone rubble to create a free draining medium. This form of construction is characteristic of early land drains and suggests that this example was constructed during the 18<sup>th</sup> or early 19<sup>th</sup> century. Consequently, both the morphology and stratigraphic position of gully [1182] indicate that it is of later 19<sup>th</sup> or 20<sup>th</sup> century date.

Both [1182] and [1183] had been cut into a mixed deposit of yellowish-brown clay and greyish-brown silty sand, (1184)a. This formed the surface of the solid geology, a band of clay laid down within the Great Oolite Limestone. Several irregular pockets of a darker bluish-grey clay, (1184)b, were dispersed across the surface of (1184)a. Excavation indicated that they had a natural origin and were probably the result of tree root disturbance.

### ***Trench 3***

(see fig. 16)

*A north-north-east to south-south-west aligned trench, 20m long by 2m wide, opened to investigate a linear anomaly detected by the geophysical survey.*

The ploughsoil consisted of a greyish-brown sandy clay that contained occasional small stones, (1185), c. 0.27m deep. Its removal exposed the fills of two features, the latest of which covered a modern ceramic land drain that was aligned from north-east to south-west. The land drain cut through a very mixed deposit of mid brown clayey sand and pale yellowish to bluish-grey clay, (1186), which filled a gully, [1187], running from east to west across the centre of the trench. This gully had a 'V'-shaped profile, its edges sloping at c. 60° to the horizontal. It was 0.75m wide and more than 0.32m deep, the bottom not being reached due to the constant influx of groundwater. Gully [1187] had cut into a mixed deposit of yellowish-brown clay and greyish-brown silty sand, (1184)a, which represented the upper surface of the natural stratigraphy.

### ***Trench 4***

(see fig. 17)

*A west-north-west to east-south-east aligned trench, 20m long by 2m wide, located randomly to investigate the magnetically undifferentiated southern part of the field.*

The ploughsoil was a greyish-brown sandy clay, (1185), c. 0.32m deep. It was stripped by machine, exposing the weathered upper surface of the limestone bedrock, (1014), which consisted of brash set in a matrix of orangey-brown clayey sand.

A single feature, [1013], was incised into the surface of the brash, this being situated c. 5.8m from the western end of the trench. It was a sub-oval pit, with a flattened 'U'-shaped profile, which was 0.64m long, 0.45m wide and 0.16m deep, and had its long axis aligned from north-west to south-east. This pit was filled with pale to mid orangey-brown sandy clay, (1012), which had orange sandy mottles.

## 6.2 Field A2

### ***Trench 5***

(see fig. 18)

*A trench with two perpendicular components - a north-south aligned trench, 20m long by 2m wide, joined at its south-east corner to an east-west aligned trench, 20m long by 2m wide. It was opened to investigate faint linear and curvilinear anomalies detected by the geophysical survey.*

The ploughsoil was a 0.26m deep layer of dark greyish-brown silty clay, (1009), containing frequent small limestone fragments and occasional rounded pebbles. Beneath it lay a mid orangey-brown sandy clay subsoil, (1010), up to 0.37m deep, that also incorporated a large quantity of limestone. The subsoil sealed a natural deposit of pale bluish-grey clay with orange mottles, (1011), that incorporated occasional fragments of degraded limestone. Only a small area of (1011) was exposed, this lying toward the northern end of the north-south aligned arm of the trench, where it appeared to form the fill of a linear feature. Excavation demonstrated that it was actually the remnant of a small east-west aligned ridge that had been truncated by ploughing.

### ***Trench 6***

(see figs. 19 & 20)

*A north-west to south-east aligned trench, 40m long by 2m wide, located randomly, but also investigating a possible land drain.*

The ploughsoil consisted of a 0.20m deep layer of dark greyish-brown silty clay, (1165), that contained frequent small limestone fragments. Its removal exposed the fills of a series of irregular features that were dispersed along the full length of the trench. The latest of these was an east-west aligned linear gully with vertical edges, [1174], which crossed the trench 10m from its northern end. It was filled with a mixed deposit of yellow limestone fragments, yellowy-orange clayey sand and dark grey clayey silt, which represented a mixture of ploughsoil, subsoil and bedrock. These different constituents formed small, relatively discrete pockets, which indicated that relatively little time had elapsed since this feature had been created. Consequently, although the base of the feature was not exposed, it was evident that [1174] was a relatively modern service trench.

The southern side of [1174] clipped the edge of an elongated sub-oval pit that narrowed slightly at the centre, [1175]. It was 1.90m long, from north-west to south-east, 0.70m wide and 0.24m deep, and had a 'U'-shaped profile. Its upper fill, (1176)b, was a 0.06m deep deposit of mid grey sandy clay, with frequent orange mottles. A single sherd of late 12<sup>th</sup> – 14<sup>th</sup> century South Lincolnshire shell-tempered ware was recovered from the upper element of (1176)b. The base of the pit was filled with an homogenous deposit of mid grey sandy clay, (1176)a, c. 0.18m deep.

The northern edge of service trench [1174] cut through the fill of an east-north-east to west-south-west aligned curvilinear gully, [1169], which had a slightly irregular flattened 'U'-shaped profile, c. 0.45m wide and 0.07m deep. This feature contained a deposit of mid orange clayey sand, (1170), which incorporated moderate quantities of limestone grit and a few pieces of ironstone.



The area of the trench situated to the north of [1169] contained another two features. One of these was only partially exposed near the north-east corner of the trench. It appeared to have been a pit, [1166], and the visible portion suggested that it was sub-circular, or sub-oval in plan. Excavation demonstrated that it had a flattened 'U'-shaped profile, c. 1.15m wide and 0.12m deep, and that it contained pale grey clayey sand, (1167), which did not have any coarse inclusions. The second feature was located c. 2.5m further to the south. The exposed portion of [1171] suggested that it was another sub-oval pit, or the rounded western terminal of an east-west aligned ditch. It was more than 1.30m long, 0.65m wide and 0.07m deep, and had a shallow 'U'-shaped profile. It contained a deposit of mottled orangey-grey clayey sand, (1172).

A series of large, irregular areas of tree root disturbance occupied the central third of the trench. Several of these features were sample excavated, including [1177], a large irregular depression, with concave edges and a very uneven base. It was up 2.50m wide and 0.25m deep, and extended across the full width of the trench; the exposed portion appeared to bifurcate near the west-facing section. The morphological characteristics of [1177] provided a clear indication that it had a natural origin.

Another probable tree root void, [1228], was investigated at the south-west corner of the trench. This irregular sub-oval feature had an uneven, asymmetric cross-section, up to 0.85m wide and 0.18m deep. It was filled with mid brown clay, with grey and orange mottles, (1229). A number of smaller circular and sub-oval features were distributed across the southern third of the trench. It was rapidly determined that most of them resulted from tree root, or animal disturbance. However, one feature, [1179], was slightly larger, had regular edges and a symmetrical profile with a rounded base. These morphological attributes suggested that it may have been a posthole, or small pit, c. 0.25m in diameter and 0.38m deep. The lower fill of [1179] consisted of a deposit of stony, mottled greyish-orange clayey sand, (1180)a, c. 0.06m thick, which lined the northern edge and base of the feature. It was sealed beneath an homogenous deposit of mottled greyish-orange clayey sand, (1180)b, c. 0.34m deep.

The features and tree root voids had cut into a 0.08m deep subsoil layer comprised of mid brownish-orange sandy clay and small fragments of limestone, (1168). This subsoil had developed over a layer of limestone brash with a matrix of orangey-yellow sand, (1230), which in turn sealed a deposit of stony, orangey-brown clay, (1173).

### **6.3 Field A3**

#### ***Trench 7***

(see fig. 21)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, located randomly to investigate the magnetically undifferentiated northern part of the field. A very diffuse linear anomaly crossed its southern end.*

The removal of the ploughsoil, a layer of mid greyish-brown silty clay, (1231), c. 0.34m deep, exposed a group of features situated approximately 3.0m from the southern end of the trench. A stone drain, (1234), was the latest element in this sequence of activity. It was aligned from east-north-east to west-south-west and was constructed from pieces of tabular limestone rubble. Two rows of vertical slabs lined the sides of the construction cut, [1233], and horizontal stones were placed over the top to form a cap, or cover. This created an

internal cavity c. 0.20m wide and 0.12m high, which was filled with mid brown to greyish-brown clay, (1235)a.

Examination of the eastern section demonstrated that drain construction trench [1233] had partially removed the southern edge of a stone lined pit, [1237]. Only the western edge of this feature was situated within the trench, this component of [1237] having steep, straight sides and a flat base; it was c. 1.00m long from north to south, by more than 0.17m wide and 0.12m deep. The near vertical edges had been lined with thin limestone slabs, (1238)b, that were up to 0.20m across. The pit had subsequently filled with mid orangey-brown clay, (1238)a.

It appears likely that [1237] represented a redefinition of an earlier pit, [1239], as they were superimposed and had a shared orientation. Sub-rectangular to sub-oval in plan, [1239], was 0.17m deep and, extended c. 1.55m from north to south and more than 0.90m from east to west. The edges of [1239] were inclined at c. 75° to the horizontal and it had an uneven base. It was filled with a deposit of stony, mid greyish-orange clay, (1240).

The stratigraphic sequence evident in the western section indicated that the construction trench for the stone drain, [1233], had cut through a layer of moderately stony, mid brown clay, (1232), c. 0.09m deep. Beneath this was a 0.07m deep accumulation of mid orangey-brown clay, (1236), that contained occasional small fragments of limestone. This material also filled the interstices between the components of stone surface, (1241). The latter was constructed from pieces of tabular limestone laid horizontally to create a level surface, c. 1.80m wide and 0.07m deep. This paving did not extend right across the trench, which suggests that it was associated with one, or both of the pits, [1237] and [1239]. Unfortunately, disturbance resulting from the machine stripping of the ploughsoil prevented the physical relationship between the pits and the surface from being determined.

A subsoil consisting of mid brownish-orange clay, (1261), up to 0.12m deep, was evident throughout the majority of trench, but was not present in the small area occupied by surface (1241). This suggests that the subsoil was deliberately removed so that the paving could be laid directly upon the firmer upper surface of the orangey-yellow limestone brash, [1262].

### ***Trench 8***

(see fig. 22)

*A north-north-west to south-south-east aligned trench, 40m long by 2m wide, located randomly. It overlay a pronounced dipolar anomaly.*

The ploughsoil consisted of a 0.18m deep layer of mid greyish-brown sandy clay, (1188), that contained occasional small stones. The underlying subsoil, (1189), was a mixed deposit of mid greyish-brown sandy clay and yellowish-brown clay, which was c. 0.20m deep. Beneath the subsoil was another heterogonous deposit consisting of yellowish-brown clay and pale bluish-grey sandy clay, (1190); it was an element of the Blisworth clays, which form the uppermost component of the solid geology in this area.

### ***Trench 9***

(see fig. 23)

*A north-south aligned trench, 20m long by 2m wide, located randomly in an area subject to disturbance from overhead power lines.*

The ploughsoil was a mid greyish-brown sandy clay containing occasional small stones, (1188), c. 0.18m deep. Its removal exposed the fill of an east-west aligned ditch, [1192], situated 3.4m from the northern end of the trench. The edges of this feature sloped at c. 30° to the horizontal and terminated at a flat base; it was c. 0.92m wide at the top, 0.36m wide at the base and 0.19m deep. The upper fill, (1191), consisted of mid greyish-brown clayey sand, which contained occasional small fragments of limestone, a few flecks of charcoal and one piece of 19<sup>th</sup> or 20<sup>th</sup> century white glazed pottery. It sealed a mixed deposit of mid greyish-brown sandy clay and yellowish-brown clay, (1189)a, that lined the southern edge of the ditch. This material was indistinguishable from the subsoil, and probably results from the initial weathering of an associated bank created along the southern edge of [1192]. The location and orientation of ditch [1192] corresponds to a boundary depicted on the First Edition Ordnance Survey map of 1889-90 (fig. 24).

The ditch had been cut into the subsoil, (1189), a layer of mid greyish-brown sandy clay and yellowish-brown clay, c. 0.20m deep. This had developed over another mixed deposit consisting of yellowish-brown clay and pale bluish-grey sandy clay, (1190), which represented the upper horizon of the solid geology.

### ***Trench 10***

(see fig. 25)

*A north-east to south-west aligned trench, 20m long by 2m wide, opened to investigate a faint linear anomaly in an area of magnetic disturbance.*

The ploughsoil was a 0.34m deep deposit of mid greyish-brown silty clay, (1015), incorporating occasional sub-angular limestone fragments, a small quantity of flint gravel and flecks of charcoal. Removal of the ploughsoil exposed the upper surface of the solid geology, which consisted of a layer of mid orangey-brown sandy clay, containing occasional sub-angular limestone fragments, (1016).

## **6.4 Field A4**

### ***Trench 11***

(see fig. 26)

*A north-north-east to south-south-west aligned trench, 20m long by 2m wide, opened to investigate a faint linear anomaly.*

The ploughsoil consisted of mid to dark greyish-brown silty clay, (1210), between 0.29m and 0.37m deep, which incorporated frequent small fragments of limestone. Its removal exposed sections of two parallel land drains running from north-west to south-east, c.2.6m and 3.5m from the northern end of the trench. The more easterly example, [1224], was 0.20m wide and had edges sloping at c. 70° to the horizontal. It contained a mixed deposit of mid brown clay and angular limestone fragments, (1225), with cylindrical ceramic pipes situated at its base. The other example, [1226], was only 0.08m wide and had an upper fill consisting of mid brown clay and angular limestone fragments, (1227)b, c. 0.10m deep. Below this was an unconsolidated deposit of small rounded quartzite pebbles, (1227)a, which covered a corrugated plastic pipe situated at the base of the cut. The form of the pipes indicates that both drains were constructed during the 20<sup>th</sup> century, with [1226] having been created within the last fifteen years.

Both land drains had cut through the subsoil, (1221), a layer of mid brown clay that incorporated a large amount of small limestone fragments. This deposit was up to 0.18m deep and was thickest at the northern end of the trench. The latter was situated at the base of a pronounced slope, a factor that suggests (1221) had a significant colluvial component. Further colluvium formed a distinct layer, (1222), up to 0.12m deep, situated immediately beneath the subsoil. This mid brown sandy clay did not extend across the southern half of the trench and had only accumulated over the level ground at the base of a slope. It sealed a layer of limestone brash set in a matrix of pale orangey-yellow sandy clay, (1223).

### ***Trench 12***

(see fig. 27)

*A trench with two perpendicular components - a north-north-west to south-south-east aligned trench, 20m long by 2m wide, joined at its south-west corner to an east-north-east to west-south-west aligned trench, 20m long by 2m wide. It was opened to investigate faint linear and curvilinear anomalies detected by the geophysical survey.*

A mature pea crop was supported by a mid to dark greyish-brown silty clay topsoil, (1210), that incorporated frequent small limestone fragments. The depth of this layer fluctuated from 0.29m to 0.32m. The underlying subsoil was a stony orangey-brown clay, (1212), up to 0.12m deep, which had developed over pale orangey-yellow limestone brash, (1213).

### ***Trench 13***

(see fig. 28)

*A trench with two perpendicular components - a north-north-west to south-south-east aligned trench, 20m long by 2m wide, joined at its north-west corner to an east-north-east to west-south-west aligned trench, 20m long by 2m wide. It was opened to investigate faint linear and curvilinear anomalies detected by the geophysical survey.*

The ploughsoil was a 0.30m deep deposit of mid yellowish-brown to dark brown sandy clay, (1017), containing frequent sub-angular limestone fragments. Below the ploughsoil was a layer of limestone brash set in a matrix of mid yellowish-brown sandy clay, (1018), small areas of the underlying solid limestone bedrock also being visible in places.

## **6.5 Field A5**

### ***Trench 14***

(see fig. 29)

*A north-east to south-west aligned trench, 20m long by 2m wide, opened to investigate a faint linear anomaly.*

The ploughsoil was a stony layer of mid to dark greyish-brown silty clay, (1210), between 0.29m and 0.37m deep. Its removal exposed the upper surface of the limestone brash, (1213), which was a pale orangey-yellow colour.

### ***Trench 15***

(see fig. 30)

*A trench with two perpendicular components - a north-west to south-east aligned trench, 20m long by 2m wide, joined at its south-east corner to an north-east to south-west aligned trench, 20m long by 2m wide. It was opened to investigate two strong linear anomalies forming an enclosure, along with part of the internal area.*

The mature pea crop was rooted in a ploughsoil consisting of mid to dark greyish-brown silty clay, (1216), c. 0.26m deep, which contained frequent small and medium sized pieces of limestone rubble. Beneath it lay a well developed stony, mid brown clay subsoil, (1217), up to 0.26m deep. This deposit extended across all but the most easterly extremity of the trench, where a slightly different mid brown clay, (1218), with moderate small limestone inclusions was exposed. It is possible that (1218) represents a variation in the subsoil, or an outcropping bed of clay forming a stratified component of the solid geology. A layer of pale yellowy-orange limestone brash, (1220), was sealed by the subsoil.

The removal of the ploughsoil exposed a linear feature that had been cut through the subsoil, (1217), approximately 13.5m from the southern end of the north-west to south-east orientated arm of the trench. Gully [1214] was aligned from north-east to south-west and had a slightly everted 'U'-shaped profile. Its upper edges had been truncated by a later recut, but the surviving element was 0.64m wide at the top, 0.30m wide at the base and 0.50m deep. This feature appears to have been comparatively narrow, relative to its depth, raising the possibility that [1214] may have functioned as a palisade trench, rather than an open boundary. The primary fill of [1214] consisted of a 0.06m deep accumulation of pale to mid yellowish-brown sandy clay, (1215)a. Above this was a more substantial deposit of pale to mid brown sandy clay, (1215)b, c. 0.30m deep, which contained a moderate quantity of limestone rubble, cattle and sheep bone, and some flecks of charcoal.

The boundary created by gully [1214] was redefined by ditch [1211], a broader, but shallower feature that followed exactly the same alignment. This ditch had a flattened 'V'-shaped profile c. 1.50m wide and 0.43m deep. It was filled with mid brown sandy clay, (1215)c, which had moderate charcoal inclusions and frequent grey mottles, the latter the result of bioturbation.

Another sequence of ditches had been cut into possible subsoil (1218), c. 4.25m from the eastern end of the other arm of the trench. The earliest feature identified was [1270], only the eastern half of its base survived in a small area flanked by a pair of north-west to south-east aligned ditches. The spatial relationship between these features suggested that [1270] represented an earlier phase of this boundary, rather than the remains of a discrete feature such as a pit, but too little remained to be certain. A mixed deposit of moderately stony, yellowish-brown and mid brown slightly sandy clay, (1271), filled what survived of [1270].

Ditch [1272] had an irregular 'U'-shaped profile more than 0.78m wide at the top and 0.48m deep. Both edges were stepped and its eastern edge removed much of fill (1271), but was itself truncated by [1274]. It contained three fills, the earliest of which was a mixed deposit of mid brown clay and limestone fragments, (1273)a, which lined the western edge of the feature to a depth of up to 0.09m. This uneven distribution suggested that (1273)a represented material that had slumped into the ditch from an associated bank running along its western edge. The secondary fill consisted of a 0.30m deep deposit of mid greyish-brown clay, (1273)b, which incorporated frequent small fragments of limestone. Sealing this was a limestone rich deposit, with a matrix of pale brown clay, (1273)c, that was up to 0.21m deep. Part of (1273)c extended westward beyond the upper edge of the ditch. Given this fact and, the volume and stratigraphic position of this rubbly material, it seems likely that (1273)c

formed part of an associated bank that had been deliberately pushed back into [1272] prior to its redefinition by [1274].

Recut [1274] was also aligned from north-west to south-east. It appears to have been somewhat larger than its predecessor, at c. 1.92m wide and 0.46m deep, and extended further to the east. The western edge of [1274] sloped at c. 25° to the horizontal, but the other edge was more irregular, its upper part having a very gentle incline, while the lower element descended at approximately 75°, to a slightly dished base c. 0.30m wide. The lower fill of this feature was a 0.32m deep deposit of pale to mid brown clay, (1275)a, which contained small limestone fragments. Above it was a dark greyish-brown silty clay, (1275)b, c. 0.26m deep, which had occasional to moderate limestone inclusions, some of which had been burnt. This fill also contained a significant cultural component consisting of abundant charcoal flecks, some fired clay, charred cereal grains, hammerscale, sheep bone and six sherds of Late Iron Age pottery.

The western edge of [1272] and the eastern edge of its successor [1274] had both cut through a mixed deposit of yellowish-orange limestone gravel and sandy clay, (1219). This stony material sealed the upper surface of putative subsoil (1218); thereby suggesting that it was redeposited material that had formed banks flanking one, or more of the ditches. Detailed examination of interface between (1219) and (1218) raised the possibility that that the former could have filled two features, 'A' and 'B', that were cut into the mid brown clay; 'A' being aligned from north-west to south-east, while 'B' would have run roughly perpendicular. However, this could not be established with any degree of certainty and it therefore remains possible that both 'A' and 'B' could represent partially truncated natural features.

### ***Trench 16***

(see fig. 31)

*A north-west to south-east aligned trench, 10m long by 5m wide, opened to investigate a number of strong discrete anomalies situated within an enclosure.*

The ploughsoil, (1216), was a 0.26m deep layer of mid to dark greyish-brown silty clay that contained frequent small to medium sized fragments of limestone. Sealed beneath the ploughsoil was a well-developed subsoil consisting of reddish-brown clayey sand, (1243), up to 0.27m deep. It incorporated a moderate quantity of small limestone fragments and occasional flecks of charcoal. The mechanical excavator removed these two deposits, this process exposing the fills of four linear features and, a pit, or large posthole.

An east-north-east to west-south-west aligned ditch, [1194], was situated at the north-western end of the trench. It was c. 0.90m wide and extended 3.75m across the trench, a straight-sided terminal defining its eastern end. The edges of [1194] sloped at c. 70 - 80° to the horizontal and the base was relatively flat, but it was only 0.14m deep, which implied that it had been heavily truncated, either by erosion, or agricultural activity. The upper fill of [1194] was a mixed deposit of mid brownish-grey to dark grey silty sand, (1193)/(1195)a, that incorporated occasional small pieces of limestone rubble. This deposit also had a large cultural component that included a moderate quantity of charcoal, three pieces of worked flint, sherds of Late Iron Age pottery, sheep bone and iron slag. Additionally, a soil sample taken from (1193) produced fired clay, hammerscale, oyster shell, frog/toad bone, a bone from a small bird, several charred weed seeds and, grains of wheat and barley. The eastern terminal of [1194] also contained several tabular limestone blocks that had been placed on the base and were aligned along the centreline of the ditch, this arrangement suggesting that they formed a deliberate structural component of the feature. A primary fill, (1195)b, was exposed at the

north-west corner of the trench. It was a mid brown silty sand, c. 0.03m deep, which incorporated small limestone fragments and occasional to moderate charcoal flecks.

A small north-east to south-west aligned gully, [1255], ran up to the northern corner of ditch [1194], a ridge of limestone c. 0.08 m wide separating the two features. This gully had a flattened 'U'-shaped profile, c. 0.20m wide and 0.07m deep, and was filled with mid brownish-grey silty sand, (1256), containing occasional charcoal flecks. The close spatial relationship of [1194] and [1255] indicates that they must have been contemporary features and would have functioned as part of the same boundary, or structure.

Examination of the section at the north-west corner of the trench also indicated that ditch [1194] had cut through the fill of an earlier feature, [1242]. The latter appears to have been a ditch or gully that was aligned from north-north-east to south-south-west. It had a relatively flat base and was only 0.10m deep. It was filled with mid greenish-grey clayey sand, (1200), which held a few flecks of charcoal.

Another gully, [1197], was situated 4.5m to the south-east of [1194]. This shallow north-east to south-west aligned linear feature was c. 2.25m long and had a rounded terminal at each end. It was 0.45m wide and up to 0.12m deep, the irregular flattened 'U'-shaped profile intimating that it had been heavily truncated, with only the base of the feature surviving. The fill of [1197] consisted of mid brownish-grey silty sand, (1196), which contained two sherds of pottery that were probably of Late Iron Age date, some charcoal flecks and small fragments of limestone. The shared orientation of [1197] and [1194] suggests that they were contemporary features.

A sub-oval feature, [1199], lay 2.5m to the south-east of [1197]. It was approximately 1.00m in diameter at the top and 0.74m deep, and had a small, flat base c. 0.22m in diameter. The sides sloped at c. 60° to the horizontal giving the feature an inverted conical profile, a morphological trait which raises the possibility that it was a posthole for a large timber, rather than a storage pit. However, there was no evidence of a post-pipe within the fills so the precise function of this feature remains unresolved. The primary fill of [1199] consisted of a 0.07m deep deposit of charcoal flecked, mid greenish-grey sandy silt, (1198)b. Above this lay (1198)a, a mid grey clayey sand c. 0.29m deep, and an upper fill of a mid brownish-grey clayey sand, (1198), c. 0.36m deep. Both (1198)a and (1198) incorporated a few medium sized limestone fragments, a moderate density of charcoal flecks, animal bone and sherds of Late Iron Age and early Romano-British pottery, including a flake of 2<sup>nd</sup> century Central Gaulish samian.

All of the features exposed in Trench 16 had cut into solid bedrock, (1244), which forms part of the Upper Lincolnshire Limestone.

### ***Trench 17*** (see fig. 32)

*A north-west to south-east aligned trench, 20m long by 2m wide, opened to investigate a strong linear anomaly forming one side of an enclosure.*

The ploughsoil was a layer of mid greyish-brown sandy loam, (1282), c. 0.22m deep. It overlay a 0.12m deep subsoil consisting of moderately stony, reddish-brown clayey sand, (1283), which incorporated some charcoal flecks. Both were removed by machine, exposing the fills of a sequence of intercutting, east-west aligned ditches, which apparently represented

elements of a remarkably persistent boundary, [1281], that was redefined at least four times after its initial creation.

The earliest visible phase of this boundary was formed by [1293], a feature with a very irregular cross-section, more than 4.85m wide and 0.73m deep. The southern half, [1293]a, had a relatively flat base, while the northern half, [1293]b, had an uneven base, seemingly formed by intercutting bowl-shaped depressions, and edges sloping at c. 60° to horizontal. There was a slight ridge of limestone, c. 0.25m wide and 0.15m high, between [1293]a and [1293]b raising the possibility that they represented separate, and successive features. However, the fill of the two elements was identical, a stony, pale orangey-brown silty clay, (1292), which contained three sherds of Late Iron Age to early Romano-British pottery.

A smaller recut, [1291], had removed an area of fill (1292) that was situated toward the northern edge of [1293]b. Ditch [1291] had a 'U'-shaped profile, c. 1.07m wide and 0.37m deep, and contained dark orangey-brown silty clay, (1290), which held a few sub-angular limestone fragments and some flecks of charcoal. The subsoil sealed this fill; a stratigraphic relationship that suggested [1291] may have been truncated by erosion, or later agricultural activity.

Another recut, [1289], had removed the southern edge of [1293]a. Only the bottom of [1289] survived, this element having a flattened 'U'-shaped profile, c. 0.95m wide at the top, 0.45m wide at the base and 0.25m deep. It was filled with pale yellowish-brown silty clay, (1288), containing occasional sub-angular limestone fragments. The upper part of [1289] had been removed by ditch [1287], which was 3.25m wide and 0.52m deep. This feature has a flat base 1.60m wide, with a southern edge rising at c. 70° to the horizontal and a northern edge inclined at approximately 30°. It held a deposit of pale yellowish-brown sandy clay, (1286), that had occasional sub-angular limestone inclusions and moderate quantities of pea-grit sized limestone chips. A discrete deposit of 163 sherds of Late Iron Age pottery and some pieces of fired clay covered the northern half of the base of this feature and the adjacent edge. The quantity, density and size of the sherds suggested that this was a deliberate structured deposit, probably resulting from a ritual event that took place shortly after the creation of this phase of the boundary. The physical arrangement of several rim sherds from one vessel suggested that whole pots had been placed on their sides and then crushed *in-situ*; the lower element had the outer rim facing downwards, while the rim on the overlying sherds was uppermost.

Ditch [1285], the latest recut in the southern half of this complex of features, was smaller, but mirrored the profile of [1287]. It was c. 2.05m wide at the top, 0.65m wide at the base and 0.52m deep, and contained a mixed deposit of dark yellowish to greyish-brown sandy clay, (1284). Two pieces of worked flint, a large quantity of charcoal, some sheep bone and sherds of Iron Age pottery were recovered from (1284) during the excavation, while smaller inclusions like hammerscale and, charred seeds of wheat, barley and dock were extracted from a soil sample.

Pale creamy-yellow limestone brash, (1294), formed the upper component of the solid geology in the immediate vicinity of trench 17. The clayey sand matrix was a little darker between the limestone fragments immediately to the north and south of boundary complex [1281]. This could reflect the fact that organic material has been leached from the fills of the ditches. Alternatively, this discolouration could indicate that this limestone is redeposited and represents the surviving basal component of banks that formerly flanked these boundary features.



### **Trench 18**

(see fig. 33)

*A north-north-east to south-south-west aligned trench, 20m long by 2m wide, opened to investigate a magnetically undifferentiated area within a large enclosure.*

The removal of the ploughsoil, a layer of mid greyish-brown silty clay, (1268), c. 0.25m deep, exposed sections of two parallel east to west aligned land drains, [1265]. They were situated 4.0m and 5.5m from the southern end of the trench, the more northerly example being the earlier of the two, as a mixed deposit of pale brown clay, (1266), sealed sections of creamy yellow horseshoe-type ceramic pipe that would most likely have been laid in the 1830s. The other drain had been constructed from cylindrical ceramic pipes that would have been manufactured during the 20<sup>th</sup> century.

Both land drains had been cut through the subsoil, (1267), a 0.16m deep layer of pale to mid brown clay, containing moderate small limestone fragments. This deposit was stripped by machine to reveal the fill of a single feature situated only 1.0m from the northern end of the trench. This shallow, sub-oval pit, [1263], had a 'U'-shaped profile, and was c. 0.90m long, by 0.60m wide and 0.14m deep. Its upper fill, (1264)a, c. 0.07m deep, consisted of crushed limestone fragments set in a matrix of mid brown clay, which was barely distinguishable from the surrounding limestone brash. The primary fill was a 0.07m deep deposit of mottled pale brownish-orange clay, (1264)b, with moderate small limestone inclusions.

Pit [1263] had been cut into a layer of limestone brash, (1269), which had a matrix of mid brown sandy clay.

### **Trench 19**

(see fig. 34)

*A north-east to south-west aligned trench, 20m long by 2m wide, opened to investigate a strong linear anomaly forming one side of an enclosure.*

The ploughsoil consisted of dark greyish-brown silty clay, (1026), that was c. 0.30m deep at the north-eastern end of the trench, but was only 0.18m deep at the other end, which lay down slope. Its removal exposed a subsoil layer, (1008), that extended over the most northerly 4m of the trench. This subsoil consisted of moderately stony, dark reddish-brown clay, (1027).

The base of a north-north-east to south-south-west aligned gully, [1028], was also exposed c. 8m from the northern end of the trench. It was filled with mid brown clay, (1027), that incorporated some limestone rubble, a piece of clay pipe and fragments of creamy yellow horseshoe land drain. The latter is a type characteristic of fields drains laid during the second quarter of the 19<sup>th</sup> century.

A north-west to south-east aligned ditch, [1321], was situated immediately to the south of the land drain. This feature was c. 3.70m wide and more than 0.34m deep, its cross-section indicating that [1321] was essentially a notch, or terrace cut into the hill side, rather than a ditch with two distinct edges; its north-eastern side sloped at c. 40° to the horizontal and terminated at a relatively level base that extended right up to the south-western edge. The upper fill of [1321] was a relatively homogenous mid orange clay, (1033), without any coarse inclusions. It sealed a 0.05m thick lens of pale grey sandy clay, (1034), that lined the base of the feature.

Land drain [1028] and the north-eastern edge of ditch [1321] had truncated a 0.17m deep deposit of mid reddish-brown clay, (1029)/(1323), which held moderate quantities of charcoal and occasional fragments of limestone. Sealed beneath (1029) was a compact deposit of mid greyish-brown clay, (1030), c.0.30m deep. The southern edge of (1030) extended over the fill of a second ditch, [1025]. The latter was another north-west to south-east aligned boundary, which was less than 4.40m wide and more than 0.62m deep; its north-eastern edge was exposed, but it proved impossible to remove the entire fill as this material was sun-baked and virtually immovable. The fill consisted of very fine greyish-red clay, (1032), which incorporated some fragments of burnt limestone, a few lumps of fired clay and pieces of animal bone. The shared alignment and close spatial relationship of the two ditches indicates that [1321] is likely to represent a redefinition of [1025]. Furthermore, the location and distribution of deposit (1030) suggests that it could represent a component of a slumped or slighted bank running along the north-eastern edge of ditch [1025].

This edge of the ditch had been cut through a layer of brownish-red sandy clay, (1031), c. 0.30m deep, which contained two pieces of worked flint. The surviving component of (1031) was sealed beneath the putative bank material, (1030), raising the possibility that it is a buried soil that constituted part of the prehistoric land surface at the time that ditch [1025] was created. This palaeosol sealed the upper surface of a layer of limestone brash, which had a matrix of reddish-brown sandy clay, (1037). Ditch [1025] penetrated more than 0.35m into this stony material, indicating that the almost vertical north-eastern face of the ditch and its base would initially have been an obvious yellow scar running along the contours just below the top of the hill. Consequently, it would probably have been highly visible from the high ground on the opposite side of the valley and could have been intended to emphasise the existence and status of the settlement situated immediately to the north.

The south-western edge of the later ditch, [1321], had cut into a deposit of orange sandy clay, (1035), c. 6.50m wide and 0.37m deep, which contained a few pieces of burnt limestone. The northern end of (1035) sealed a thin lens of pale grey sandy clay, (1322), but the southern edge had developed over a low mound of moderately stony, pale grey clayey coarse sand, (1039)/(1324), c. 3.80m wide and up to 0.24m deep. A 0.33m deep layer of mottled dark grey to reddish-brown coarse sand, (1036), was sealed beneath (1039) and (1322). This material had accumulated over the surface of the limestone brash, (1037).

### ***Trench 20***

(see fig. 35)

*A north-west to south-east aligned trench, 20m long by 2m wide, opened to investigate an area of magnetic disturbance adjacent to an enclosure ditch.*

The ploughsoil was a layer of mid greyish-brown silty clay, (1295), c. 0.28m deep. It sealed a subsoil composed of reddish-brown clayey sand, (1295), which contained moderate small limestone fragments and occasional charcoal flecks. This deposit was up to 0.43m deep, a significant build up that suggest it had a colluvial component. An east-west aligned horseshoe-type land drain had been inserted into the upper component of the subsoil, this form of ceramic pipe being produced in and around the 1830s.

The removal of the subsoil exposed the fill of a north-east to south-west aligned ditch, [1298], which was c. 2.34m wide and up to 0.33m deep. This feature had an irregular profile, its edges sloping at c. 45° to the horizontal, while the base consisted of a series of contiguous concave depressions. This form could merely be a product of the unyielding nature of the

natural stiff mid bluish-green clay, (1299), into which it was cut. Alternatively, it could provide an indication that the ditch was redefined on a number of occasions. However, there was no discernible differentiation within the fill, (1297), a mid orangey-brown slightly silty clay. This deposit incorporated a few sub-angular limestone fragments, some flecks of charcoal, animal bone and three small flakes of pottery thought to be Iron Age in date.

## **6.6 Field A6**

### ***Trench 21***

(see fig. 36)

*A north-north-east to south-south-west aligned trench, 40m long by 2m wide, opened to investigate a series of weak linear anomalies.*

The ploughsoil was a layer of mid to dark greyish-brown sandy clay, (1310), up to 0.40m deep, which contained frequent limestone fragments. It sealed a subsoil consisting of stony, mid reddish-brown clayey sand, with pale to mid grey mottles, (1311), c. 0.10m deep. This subsoil had developed over limestone brash, (1280), which had a matrix of yellowish to orangey-brown clayey sand.

The removal of the subsoil exposed four irregular features occupying the central area of the trench. The largest was sub-circular in plan, [1276], and was situated 12.5m from the southern end of the trench. It was c. 1.00m in diameter and 0.15m deep and had a shallow, irregular, dished profile. It was filled with mid reddish-brown clayey sand, which had small grey mottles, (1277). An irregular north-west to south-east aligned linear feature, with an asymmetric 'U'-shaped profile, [1278], lay 7.0m further to the north. It was more than 1.50m long, 0.55m wide and up to 0.22m deep, and its fill, (1279), was identical to the material contained by [1276]. The two smallest features, [1312], were situated immediately adjacent to [1276] and [1278], and again contained a deposit of stony, mid reddish-brown clayey sand. The morphological characteristics of these features indicated they are all likely to have a natural origin, and probably reflect tree root disturbance.

## **6.7 Field A7**

### ***Trench 22***

(see fig. 37)

*A north-south aligned trench, 20m long by 2m wide, opened to investigate one positive and two negative linear anomalies adjacent to the northern edge of the field.*

The ploughsoil was a 0.40m deep layer of mid to dark greyish-brown sandy clay, (1301), that contained frequent small and medium sized limestone fragments. The underlying subsoil, (1302), was a thin deposit of mid reddish-brown clayey sand, with pale to mid grey mottles, which contained a moderate amount of sub-angular limestone fragments. It had been truncated by ploughing across much of the trench, and some of the largest surviving areas filled a series of north-west to south-east aligned plough furrows that had been scored into the surface of the limestone brash, (1303). The latter consisted of sub-angular fragments of limestone, up to 0.20m across, that were contained by a matrix of pale yellowish-brown clayey sand.

### **Trench 23**

(see fig. 38)

*A north-north-east to south-south-west aligned trench, 20m long by 2m wide, opened to investigate two parallel linear anomalies.*

The ploughsoil was a stony mid to dark greyish-brown sandy clay, (1301), between 0.35m and 0.44m deep. It overlay a subsoil, (1306), consisting of mid reddish-brown clayey sand, with pale to mid grey mottles, which was up to 0.25m deep. The removal of (1306) exposed a layer of pale reddish-brown sandy clay, (1307), up to 0.24m deep, that was evident in most areas of the trench. This deposit had frequent pale to mid grey mottles, which were the result of bioturbation, and it incorporated occasional small fragments of limestone. Layer (1307) had accumulated over the weathered upper surface of the pale reddish-brown limestone brash, (1309), in the southern half of the trench, but in the northern half it sealed a substantial deposit of pale orangey-yellow slightly clayey sand, (1308), which was streaked with thin lenses of pale grey sand. This latter deposit had started to lithify, which indicated that it was of considerable age. It filled a large east-south-east to west-north-west aligned linear feature that was roughly 9.0m wide. The latter corresponds to the location and orientation of a large fissure, or peri-glacial melt water channel visible on aerial photographs (see fig. 39).

### **Trench 24**

(see fig. 40)

*A north-west to south-east aligned trench, 20m long by 2m wide, located randomly.*

The ploughsoil consisted of mid to dark greyish-brown sandy clay, (1301), c. 0.40m deep, which incorporated frequent small and medium sized limestone fragments. The stripping of the topsoil revealed the eastern part of a single feature, [1313], located 2.2m from the south-eastern end of the trench. The exposed element of this feature appeared to form the majority of an irregular sub-oval pit. It had an asymmetrical profile and was more than 1.75m long, up to 1.35m wide and 0.30m deep. The overall form of [1313] suggested that it had a natural origin and was probably the product of ice wedging, or tree root disturbance. It was filled by a deposit of mid reddish-brown sandy clay, (1314), which had small grey mottles and incorporated sub-angular fragments of limestone up to 0.20m across.

Feature [1313] penetrated the upper surface of a layer of limestone brash set in a matrix of pale greyish-brown clayey sand, (1304). Small areas of the underlying solid limestone bedrock were also visible in some parts of the trench.

### **Trench 25**

(see fig. 41)

*A north-north-east to south-south-west aligned trench, 40m long by 2m wide, opened to investigate three parallel linear anomalies.*

The ploughsoil was a layer of mid to dark greyish-brown sandy clay, (1301), that was up to 0.48m deep, and which contained a large quantity of limestone fragments. Beneath it lay a subsoil consisting of stony, mid reddish-brown clayey sand, (1305). This deposit was only 0.02m deep at the northern end of the trench, but 0.26m deep toward the lower, southern end, which indicated that it probably had a significant colluvial component. It also filled a series of east-west aligned plough furrows that had cut into the surface of the limestone brash,

(1304). The pale greyish-brown brash had a matrix of clayey sand. Small areas of the underlying solid limestone bedrock were also visible in places.

## 6.8 Field C1

### *Trench 26*

(see fig. 42)

*A north-north-east to south-south-west aligned trench, 20m long by 2m wide, which was situated near the northern edge of the field to investigate two linear anomalies detected by the gradiometer survey.*

The ploughsoil, (1249), was a 0.32m deep layer of mid brownish-grey sandy clay that contained frequent limestone fragments, one or two pieces of Romano-British tile, and a sherd of mid-17<sup>th</sup> to mid-18<sup>th</sup> century Staffordshire/Bristol slipware. The mechanical excavator removed this deposit and in so doing exposed the fills of two east-west aligned linear features. The more northerly example, ditch [1248], was situated only 2.1m from the end of the trench. It had been cut into the bedrock, the solidity of which had preserved the original flattened 'U'-shaped profile, which was 1.75m wide at the top and 0.66m deep. The sides sloped at approximately 55° to the horizontal and terminated at a relatively flat base c. 0.95m wide. It was filled by a reddish-brown clayey sand, (1247), that incorporated a fairly large quantity of limestone fragments. Some of the latter were tabular pieces up to 0.20m across, which had probably been detached from the bedrock during the creation of the ditch itself. They were not randomly situated, but tended to define tip lines that were higher at the southern edge and dipped toward the north. This arrangement suggests that there was formerly an associated bank running along the southern side of this ditch. Fill (1247) also contained a single sherd from a 19<sup>th</sup> – 20<sup>th</sup> century chamber pot, two residual sherds of Romano-British greyware and two fragments of Romano-British tile, a flint flake, and the base of a red deer antler.

The second feature, ditch [1246], was situated 2.75m to the south of [1248]. It had been cut through a thin subsoil, (1250), a reddish-brown clayey sand, c. 0.10m deep, and into the underlying limestone. It had an asymmetrical profile, c. 1.15m wide at the top and 0.31m deep, the northern edge sloping relatively gently, at c. 30° to the horizontal, while the southern edge was much steeper, at c. 50°. The base was flat and approximately c. 0.45m wide. It was filled by mid reddish-brown clayey sand, (1245), which contained moderate amounts of small limestone fragments. This fill also incorporated some cultural material, including a piece of 19<sup>th</sup> - 20<sup>th</sup> century pottery, two pieces of pale blue window glass of late 17<sup>th</sup> to early 19<sup>th</sup> century date, flecks of charcoal, a piece of cattle bone and several pieces of plastic. The latter were found in the top 0.05m of fill and consisted of several pieces from a shredded plastic bag that were flexible enough to have been dragged down the profile by animals and may have been introduced into a void within (1245), possibly to act as a bedding for a burrow.

Both ditches had both been detected by the gradiometer survey, the results depicting two parallel linear anomalies running from east to west along the contours.

Removal of the sedimentary deposits exposed the top of the solid geology. This took the form of a 0.12m deep layer of limestone brash set in a matrix of yellowish-brown clayey sand, (1251), which in turn overlay solid limestone bedrock, (1251)a.

**Trench 27**  
(see fig. 43)

*A north-east to south-west aligned trench, 10m long by 5m wide, which was situated toward the northern edge of the field to investigate a large pit-like anomaly detected by the gradiometer survey.*

The ploughsoil was a dark grey sandy clay, (1341), c. 0.28m deep. This deposit contained frequent small to medium sized limestone fragments and several small chips of ceramic building material. The removal of the ploughsoil exposed a series of deposits that were somewhat irregular in plan and seemingly randomly distributed across the trench. The sequence of deposition was not immediately apparent and was only elucidated after careful sample excavation. Only a small area of the latest of these deposits, a mid bluish-green clay, (1348), was exposed at the south-west corner of the trench. It had accumulated over the sloping southern face of (1347), a thin lens of pale gold slightly silty sand, with no coarse inclusions. Beneath (1347) lay another small deposit, (1346), a greyish-green clay, containing occasional small fragments of limestone. The earliest of these minor deposits was a pocket of pale creamy-brown fragmented limestone, (1345), c. 0.27m deep.

The removal of (1345) exposed the southern edge of (1334)/(1342), a reddish-brown clayey sand, containing frequent small fragments of limestone, c. 0.2m deep. This deposit extended across the southern two-thirds of the trench and, with the exception the south-west corner where localised deposits sealed it (1345) – (1348), it lay directly beneath the ploughsoil. This relationship suggests that it is a subsoil, an interpretation supported by its similarity to the subsoil layers exposed in other trenches in Field C1. This subsoil deposit was found to be deeper near the south-west corner of the trench, excavation demonstrating that it partially filled a fissure in the surface of the limestone. The lower fill, (1344), c. 0.40m deep, was comprised of very stiff bluish-green clay, with no coarse inclusions. It lined the northern edge and base of one irregular linear depression, [1343]a, and filled a second immediately to the north [1343]b.

Another fissure, [1330] a large irregular sub-oval feature, with an uneven base and an asymmetric profile c. 1.10m long, by 0.65m wide and 0.60m deep, was evident at the northern end of the trench. It appeared to have been cut directly into the surface of the limestone bedrock, (1328). However, it should be noted that the ploughsoil sat directly upon the solid geology across the northern third of the trench, indicating that any intermediate deposits had been truncated by modern agricultural activity. The lower fill of [1330] was a stiff mid orangey-red clay, (1331), c. 0.42m deep, which was overlain by a pale orangey-red fine-grained sand, (1329), c. 0.18m in depth. A small fragment of pottery was recovered from the upper surface of (1329); this sherd was possibly manufactured during the Iron Age.

A large patch of very compact mid to dark bluish-grey clay, (1332), was visible toward the south-east corner of the trench following the topsoil stripping. It had been exposed in this area because the overlying subsoil, (1334), had been truncated by ploughing. Sample excavation demonstrated that this deposit extended north-westwards below a thin layer of subsoil, which in turn suggested that the upper surface of (1332) undulated markedly. It may also have been present across the rest of the southern half of the trench, but if so, it was buried beneath a more substantial deposit of (1334). A sherd from a late 12<sup>th</sup> to mid 13<sup>th</sup> century jug was recovered from upper surface of (1332) during these investigations.

The inter-relationships of deposits (1332), (1334)/(1342) and (1344) – (1348) suggested that each was colluvial in origin. They each appeared to be comprised of material washing down the south facing slope of the valley side, which became trapped and accumulated in

depressions in the surface of the bedrock. While each deposit was relatively homogenous, the significant differences between them indicated rapid changes in the depositional environment consistent with a seasonal cycle of freeze-thaw processes liberating large quantities of waterborne sediment within a peri-glacial environment (Roberts, 1989).

A small sub-oval, conical depression, [1350], c. 0.54m long, by 0.35m wide and 0.56m deep had been created in the surface subsoil (1334) immediately to the north of [1343]b. This feature was comparable to a posthole, or small pit, but it seems more likely that it was created by natural forces, given the significant variability exhibited by the natural deposits in this area; for example, it could be a void left following the degradation of ice, or organic material that had been incorporated into the colluvium. This small feature contained a deposit of uncontaminated mid orangey-brown sandy silt, (1349).

### **Trench 28**

(see fig. 44)

*A north-north-east to south-south-west aligned trench, 20m long by 2m wide, located in the northern half of the field to investigate a faint linear magnetic anomaly.*

The ploughsoil consisted of dark grey sandy clay containing frequent small to medium sized limestone fragments, (1325), c. 0.28m deep. The underlying subsoil, (1327), was a mid reddish-brown to orange clayey sand, c. 0.12m deep. It had frequent dark mottles, which reflected significant disturbance and reworking by roots and burrowing animals.

Removal of the ploughsoil and subsoil exposed a band of pale to mid grey sandy silty clay, (1326), which contained occasional small angular fragments of limestone. This material filled a shallow, irregular, east-west aligned depression in the surface of the bedrock, c. 1.5m wide and approximately 0.30m deep. The pale colour and fine texture of (1326) suggested that it was composed of water deposited sediment, probably a peri-glacial deposit that had washed into a fissure in the surface of the limestone bedrock, (1328).

Two sherds of pottery were recovered from unstratified sediment during the cleaning of this trench. The earliest was a piece of Lincolnshire fine-shelled ware that was produced during the 11<sup>th</sup> to 12<sup>th</sup> century. The other sherd was a fragment of Staffordshire/Bristol mottled-glazed fabric manufactured during the late-17<sup>th</sup> to mid-18<sup>th</sup> century. It appears likely that both pieces reflect the spreading of midden deposits to improve the texture and fertility of the ploughsoil.

### **Trench 29**

(see fig. 45)

*A north-south aligned trench, 20m long by 2m wide, placed in the southern half of the field to examine a linear trend in the gradiometer results.*

The ploughsoil was a mid brownish-grey sandy clay, (1249), c. 0.32m deep, which contained frequent limestone fragments and root matter. It was removed by machine, exposing the upper surface of the limestone bedrock, (1251), which in this area consisted of brash set in a matrix of yellowish-brown clayey sand.

A single feature, [1252], was incised into the surface of the bedrock, this being situated c. 3.2m from the southern end of the trench. It was an irregular linear feature that was aligned

from east to west. Excavation demonstrated that it was up to 1.05m wide, by 0.15m deep, and had a natural origin, probably being created by ice wedging, or similar processes. This fissure was filled by reddish-brown clayey sand, (1250), which represented the only pocket of subsoil exposed in this trench.

### ***Trench 30***

(see fig. 46)

*A north-south aligned trench, 20m long by 2m wide, located at the southern edge of the field to examine a linear trend in the gradiometer results.*

The ploughsoil was a 0.28m deep layer of dark grey sandy clay, (1335), containing frequent small to medium sized limestone fragments. Beneath it lay a reddish-brown sandy clay subsoil, (1336), which incorporated a large quantity of limestone rubble. This material formed a spread across the most southerly 7.25m of the trench. It increased in depth, incrementally, with progress toward the southern limit of excavation, where it was c. 0.30m deep. A sondage was hand excavated through (1336). This demonstrated that the basal component of this deposit filled a series of sub-oval and sub-circular depressions incised into the surface of the limestone bedrock. Some of these hollows had very narrow profiles, with steep sides, making them very difficult to excavate. Their form indicated that they are unlikely to be the product of human agency, but are more likely to result from ice wedging, or tree root disturbance. It is probable that (1336) is a colluvial deposit that has been washed down the slope to the north. It has accumulated against the southern boundary of the field, which is currently defined by a metal track situated approximately 10m to the south of Trench 30. The gradiometer survey results depict an area of diffuse magnetic disturbance extending across the southern end of the trench and continuing westward toward Trench 31. This anomaly is likely to have been produced by, and reflect the presence of (1336).

Three discrete patches of reddish-brown sandy clay, (1338), slightly paler than the subsoil, were exposed a little further up the slope than the upper margin of (1336). A piece of worked flint was recovered from the upper surface of the largest of these deposits (1338)a, which was situated 7.5m from the northern end of the trench. Subsequent excavation demonstrated that this material was homogenous and clean except for the presence of occasional pieces of limestone. It filled a slightly irregular sub-oval feature, [1339], which had a 'U'-shaped profile and was c. 1.15m long, by more than 0.80m wide and 0.28m deep. The shape of [1339] is consistent with an interpretation that it was a pit. However, the presence of what appear to be natural depressions in the limestone bedrock only 5.5m to the south, combined with the similarity between (1338) and (1336), also raises the possibility that [1339] was created by ice-wedging, or bioturbation. The other two deposits of reddish-brown sandy clay, (1338)b, filled shallow depressions that were less than 0.05m deep.

The limestone that was exposed after the removal of the ploughsoil and subsoil took two different forms. In the northern and central parts of the trench it consisted of a thin layer of limestone brash, (1337)a, set in a matrix of yellowish-brown clayey sand. In contrast, the colluvial subsoil, (1336), sealed solid bedrock, the greater depth of the overlying sediments possibly affording the limestone greater protection from frost and/or soil chemistry.

A single unstratified sherd of 3<sup>rd</sup> – 4<sup>th</sup> century Romano-British pottery was recovered from this trench.

### ***Trench 31***



(see fig. 47)

*An east-south-east to west-north-west aligned trench, 10m long by 5m wide, which was situated near the southern edge of the field to investigate an area of diffuse magnetic disturbance.*

Removal of the ploughsoil, a mid brownish-grey sandy clay, (1249), exposed a subsoil, (1250), of reddish-brown clayey sand, up to 0.40m deep. As with the subsoil in Trench 30, (1336), the survival and depth of this deposit is likely to reflect proximity of the southern boundary of Field C1, c. 12m away, against which colluvium will have accumulated.

The subsoil lay directly upon the surface of solid limestone bedrock, (1251)a, except near the south-east corner of the trench, where two discrete areas of mid brownish-red clayey sand, (1316)a, were exposed against the southern section. Sample excavation indicated that this material filled depressions in the surface of the bedrock. The more westerly example, [1315], was a relatively large feature that was probably sub-square, or sub-rectangular in plan. It was 1.30m long, by more than 1.10m wide, with a gently sloping upper edge that abruptly changed to a near vertical side, the latter terminating at a concave base c. 0.65m deep. The irregular form of [1315], combined with homogeneity and compactness of the fill, suggested that it was a natural feature, which probably resulted from localised ice wedging.

The other feature, [1317], a roughly north-south aligned, irregular curvilinear depression, was much smaller than [1315]. It had a shallow 'U'-shaped profile up to 0.30m wide and c. 0.08m deep, with an uneven base. It was little more than a scour in the surface of the limestone and seems likely to have been created either by localised dissolution along a fault, or by a large tree root.

## **6.9 Field C2**

### ***Trench 32***

(see fig. 48)

*A north-south aligned trench, 20m long by 2m wide, located at the north-west corner of the field to investigate the possible site of a long barrow identified from crop marks.*

The topsoil was a greyish-brown sandy loam containing desiccated organic material, (1600), up to 0.40m deep. Beneath the topsoil was a mottled layer of pale-yellow to brownish-yellow sand, (1601), that was more than 0.12m deep. It had frequent dark mottles, which reflected significant disturbance and reworking by roots and burrowing animals, and numerous small rusty stains resulting from the modification of organic and sedimentary deposits by acidic soil chemistry.

## 6.10 Field D1

### ***Trench 137***

(see fig. 49)

*A north-east to south-west aligned trench, 20m long by 2m wide, located randomly to investigate the area to the north of the geophysical survey grids.*

The topsoil was a greyish-brown sandy loam, (1602), c. 0.35m deep, which contained a large amount of desiccated peaty material. The removal of the ploughsoil exposed the upper surface of a layer of mottled yellowish-orange sand, (1603), which contained occasional small fragments of limestone. The latter will have been derived from the upper surface of the bedrock and their presence reflects the close proximity of the interface between the valley side and the floodplain, c. 40m to the north.

### ***Trench 138***

(see fig. 50)

*A north-east to south-west aligned trench, 20m long by 2m wide, located randomly to investigate the area to the south of the geophysical survey grids.*

The vegetation was supported by a mid brownish-grey sandy silty loam topsoil, (1604), that incorporated a large amount of desiccated peat. The depth of this layer fluctuated between 0.28m and 0.45m.

Removal of the topsoil exposed the remains of a north-south aligned gully, [1606], that crossed the trench only 4m from its north-eastern end. This feature was 0.98m wide and had gently sloping edges terminating at a concave base, c. 0.16m deep. A relatively homogenous deposit of dark brown, desiccated sandy peat, (1607), filled the gully. The ratio of the width of this feature relative to its depth was sufficiently unusual as to raise the possibility that it had been significantly truncated. This hypothesis received some support from the nature of its fill, which indicated that [1606] had been created and stood open at a time when the peat deposits on the floodplain were more extensive than at present. In consideration of this evidence, it is proposed that [1606] was a relatively substantial ditch when it was initially constructed, but the subsequent desiccation and shrinkage of the peat into which was cut has resulted in the 'disappearance' of the sides of the feature. Only the base of the ditch has survived this process, as it was cut into the underlying mottled yellowish-orange sand, (1605). It should also be noted that [1606] ran parallel to the existing eastern and western boundaries of Field D1, and it seems likely that they were all laid out concurrently to form part of the same field system. However, [1606] appears to have been a relatively short-lived component of this scheme and had already ceased to exist by the time that the surveying was conducted for the First Edition Ordnance Survey map in 1885.

Two ceramic land drains also crossed the trench. One ran from east to west, c. 10.5m from its northern end. The other passed from west-north-west to east-south-east some 4.5m further to the south. The location and orientation of this second land drain corresponds to the position of a linear anomaly that was detected by the fluxgate magnetometer; this anomaly was one of a series spaced at intervals of c. 22m.

### **Trench 139**

(see fig. 51)

*A north-east to south-west aligned trench, 20m long by 2m wide, located randomly within the area of the geophysical survey.*

The topsoil consisted of mid greyish-brown sandy silty loam, (1608), which was up to 0.48m deep and primarily consisted of desiccated peat. It was removed by machine, exposing the fills of a number of features that occupied the north-eastern half of the trench. A segment of one of these, [1615], was partly revealed at the north-west corner of the trench. It had gently sloping, concave sides and a flattish base, being more than 1.00m long from north-east to south-west, over 0.60m wide and c. 0.30m deep. It was difficult to determine its form, because most of the feature lay beyond the limit of excavation, but the exposed portion appeared to represent a quadrant of a sub-oval pit, or the eastern/southern terminal of a ditch. The fill of [1615] was a very dark brown humic silty sand, (1616), that largely consisted of desiccated peat, but also contained numerous small fragments of fired clay (burnt daub?).

A cluster of three intersecting features occupied the area located 0.75m - 4.0m to the south of [1615]. The earliest element of this group was a north-north-west to south-south-east aligned ditch, [1692], c. 1.80m wide at the top and 0.27m deep. It had a flattened 'U'-shaped profile, with slightly concave edges that sloped at c. 35° to the horizontal and terminated at a flat base 0.75m wide. It contained a deposit of pale grey sand, (1693), which had very indistinct edges, possibly reflecting the effects of post-depositional modification by acidic soil conditions. The south-eastern terminal end of a later ditch, [1610], ran along, and just clipped, the north-eastern edge of fill (1693). The exposed element of [1610] was more than 1.90m long and 1.20m wide. Excavation demonstrated that it had a slightly flattened 'U'-shaped profile, the sides becoming distinctly concave toward the base of the feature, which was 0.59m deep and relatively level. Ditch [1610] was filled with dark grey silty sand, (1611), which incorporated occasional pockets of brown and orangey sediment as a result of bioturbation. Given the close correspondence between the orientation and dimensions of these two ditches, it is likely that [1610] was created to redefine the boundary initially formed by [1692].

Only a very small portion of [1694], the third feature in this cluster, was exposed against the north-west facing section of the trench. It was 0.32m deep and at least 0.90m wide, and appeared to represent the edge of a pit, or the western terminal of another ditch. It also cut into the north-eastern half of the fill of ditch [1692], but was offset from the centreline of recut [1610] by at least 0.50m. This latter attribute does not preclude a direct spatial and temporal relationship between [1610] and [1694], with their terminals defining an entrance/causeway c. 1.0m wide. However, this is a highly tentative hypothesis, which could only be confirmed by an additional excavation that resulted in the exposure of a larger area immediately surrounding Trench 139. The fill of [1694] was a deposit of mid grey sand, (1695).

The final feature uncovered in this trench lay c. 2.0m to the south-west of ditch [1692]. It was a sub-circular posthole, [1612], c. 0.50m in diameter and 0.76m deep, which had near vertical sides and a flattish base. It contained two distinct fills, the earliest of which, (1614), was a pale grey silty sand that formed a 0.04 - 0.06m wide lining around the vertical edges of the feature. This material had been deliberately deposited in the posthole to act as packing around the base of the post. The second fill consisted of mid grey silty sand, with occasional orange and rusty mottles, (1613). This material filled and defined a post pipe, c. 0.34m in diameter and 0.73m deep: this being the void left by the base of a relatively large decayed timber.

All of the features that were identified in Trench 139 had cut into a layer of mottled yellow sand, (1609), which incorporated numerous small pockets of orange and rust-coloured sediment that resulted from bioturbation and the transformation of sediments by soil chemistry.

### ***Trench 140***

(see fig. 52)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, which was opened to investigate the nature of peat deposits identified by the auger survey.*

The topsoil was a layer of mid brownish-grey sandy silty loam, (1617), c. 0.36m deep, that appeared to be primarily comprised of desiccated peat. It sealed a 0.25m deep deposit of mid grey sand, (1618), which was stippled by numerous pockets of orange sandy and black peaty material.

Layer (1618) was stripped away to reveal three small features in the northern half of the trench. The smallest was a sub-circular posthole, [1785], that was approximately 0.23m in diameter and had a 'U'-shaped profile. It contained a deposit of mid grey sand, (1786), c. 0.15m deep. A little under 0.5m to the west of [1785] lay another posthole or small pit, [1787]. Part of this second feature lay beyond the limit of excavation, but it appeared to be approximately 0.70m in diameter and 0.25m deep. It was filled with a relatively homogenous deposit of mid greyish-brown sand, (1788).

The other feature was an irregular sub-oval pit, [1789], that lay 5.5m further to the south. Again part of this pit was situated beyond the western edge of the trench, but the exposed portion had an asymmetric profile 0.82m wide and 0.23m deep. Its fill was a brownish-grey sandy silt, (1790), which had been partly removed by a west-north-west to east-south-east aligned land drain. The postholes, pit and land drain had all been cut into a layer of mottled yellowish-orange sand, (1619), which may represent part of a buried land surface, or the uppermost component of the Quaternary drift deposits that cover the floodplain of the River Witham.

There were no artefactual materials associated with any of these three features, but their stratigraphic relationships indicated that they had been created in pre-peat horizons, and as such were all likely to have been prehistoric in date. However, the composition of the fills differed between each feature, suggesting that they were not created contemporaneously. Too little was exposed to determine their spatial inter-relationships, form, or function.

### ***Trench 141***

(see fig. 53)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, which was opened to investigate the nature of peat deposits identified by the auger survey.*

The topsoil was a layer of mid greyish-brown sandy loam, (1627), c. 0.42m deep. It incorporated a large amount of desiccated humic material, which was derived from the underlying peat bed, (1628). The surviving peat is now only 0.40m deep in this part of Field D1; it probably represents the basal component of a deposit that was formerly much thicker, but has suffered greatly as a result of the drainage of the floodplain. The upper component of (1628) was mid greyish-brown to dark brown and consisted of desiccated, granular organic

material, c. 0.08 – 0.12m deep. Below this lay up to 0.28m of better-preserved organic matter that retained its fibrous structure. A radiocarbon date from wood at the base of this deposit was calibrated to 1250-990 BC, which places it in the Late Bronze Age

The peat, (1628), had developed over a layer of pale grey sand, (1629), c. 0.14m deep, which had frequent yellowish sandy and black peaty mottles. Although artefacts were not recovered from this context, directly comparable deposits examined elsewhere in Fields D1-D3 and Field E formed components of a buried prehistoric land surface. The removal of (1629) exposed the upper surface of a layer of pale yellowish-brown slightly silty sand, (1630).

### ***Trench 142***

(see fig. 54)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, which was opened to investigate the nature of peat deposits identified by the auger survey.*

The removal of the topsoil, a layer of dark brown peaty loam, (1631), c. 0.42m deep, exposed the upper surface of a bed of desiccated peat, (1632). This dark brown, granular organic material was around 0.09m deep, and sealed further peat, (1633), that was 0.10 – 0.16m deep and was in a much better state of preservation. The vegetable matter forming (1633) was dark brown, but turned black upon oxidation, and still had a matted fibrous texture.

The peat had formed over a layer of pale brownish-yellow sand, (1634), which had occasional rusty mottles that reflected localised modifications caused by acidic soil chemistry.

## **6.11 Field D2**

### ***Trench 143***

(see fig. 55)

*A north-south aligned trench, 10m long by 4m wide, which was opened to investigate elements of a waterlogged wooden post row visible at the southern edge of a modern pond.*

The topsoil was a comparatively thin layer of greyish-brown sandy loam, (1652), c. 0.18m deep. It was largely comprised of desiccated peat, and as such was comparable to the uppermost horizon examined in the other evaluation trenches that were situated less than 120m from the northern bank of the modern river channel. The topsoil was removed to reveal an undulating layer of desiccated, dark brown granular peat, (1653), c. 0.09 – 0.20m deep. A 0.12m thick accumulation of relatively well preserved dark brown to black fibrous peat, (1654), was sealed beneath (1653). It is likely that the distinction between (1653) and (1654) results from a variation in the level of oxidation and decay of the organic matter, rather than reflecting different depositional environments.

Removal of the peat exposed a pale to dark bluish-grey sand, (1655), that was between 0.02 and 0.12m deep, and was stippled with numerous localised pockets of yellowish sand and black peat. This deposit contained eight pieces of worked flint and a small quantity of charcoal. The presence of this cultural material, combined with its colour and composition, indicated that (1655) represented another element of the buried prehistoric land surface that had been exposed elsewhere across the valley bottom during the trial trenching.

Post no.	Dimensions of posts	Distance from post to south	Allocated posthole and fill no.	Dimensions of possible posthole
(1659)	0.18m diameter >0.52m long	0.95m	[1657] (1658)	0.30m diameter >0.52m deep
(1662)	0.16m diameter	1.05m	[1660] (1661)	0.36m diameter
(1665)	0.15m diameter	1.05m	[1663] (1664)	0.30m diameter
(1668)	0.17m diameter	0.80m	[1666] (1667)	0.35m long by 0.27m wide
(1671)	0.16m diameter	0.95m	[1669] (1670)	0.33m diameter
(1674)	0.15m diameter	1.10m	[1672] (1673)	0.35m diameter
(1677)	0.12m diameter	1.00m	[1675] (1676)	0.36m long by 0.27m wide
(1680)	0.19m diameter	1.20m	[1678] (1679)	0.28m diameter
(1683)	0.18m diameter	-	[1681] (1682)	0.36m diameter
(1690)	0.11m diameter 1.25m long	-	-	-
(1691)	0.12m diameter 1.27m long	-	-	-

**Table 2:** summary of the elements of the north-south post row exposed in and adjacent to Trench 143.

The removal of the peat also exposed the remains of a row of wooden posts that protruded slightly from the surface of (1655). This line of timbers was orientated from north to south, with nine posts actually lying within the confines of the trench (Table 2). Another two timbers, (1690) and (1691), were identified at the southern edge of a pond that lay immediately to the north of the Trench 143. Both were extracted for analysis, which demonstrated that each represented the sharpened base of a coppiced oak pole that was approximately 20 to 30 years old. The worked point was particularly long and this was probably designed to remove the slight curvature at the base of the coppice pole, where it would have branched off the stool. The facets on the sharpened ends of these posts were consistent with tooling created by a relatively flat, wide axe blade that was probably made of iron (M. Taylor, *pers. comm.*). After working, the pointed tip of each post had also been heavily charred, probably to improve its resistance to decay and thus extend its lifespan. The morphological attributes of these waterlogged posts closely correspond to worked timbers that are known to be of Iron Age date. A radiocarbon date obtained from the sapwood of one of these waterlogged timbers was calibrated to 20-260 AD (2 sigma), thus indicating that they represented part of a structure created at the end of the Iron Age or during the earlier Roman period.

Despite the working at the base of the timbers, it initially appeared that each post had been placed in a posthole, which had near vertical sides and was roughly twice the diameter of the post that it contained. In addition to the vertical timber, each posthole also contained a deposit of pale bluish-grey sand, which may have constituted deliberate post-packing that had been stained darker than the surrounding substrate by peaty material incorporated from overlying layers. However, it seems more likely that there were no postholes associated with each of these timbers. If so, the bluish-grey sand surrounding the bottom of each post represents an ‘envelope’ of staining resulting from the partial decay of the charred wood; this would give the impression of a distinct ‘fill’, which in turn would be perceived to have been ‘contained’ in a ‘posthole’. This latter scenario seems more plausible, considering the effort that was expended in creating the points on the ends these posts. It is therefore suggested that the posts were actually hammered straight into the ground.

Three pockets of degraded, peaty wood exposed at the southern end of Trench 147, c. 40m to the north of the pond, appear to have formed additional elements of the same post row. It is therefore evident that the post row extended at least 50m from north to south. There was a relatively even spacing between neighbouring posts, these intervals being approximately 1.0m wide. The fact that there was only a single row of posts suggests that they defined some form of boundary, probably a fence line that may have run from the edge of the river channel up onto the higher ground beyond the floodplain. However, it is also possible that these posts could have supported a narrow boardwalk above the peaty ground. This would have been created by overlapping the ends of planks, which would then have been bound, pegged, or nailed to the tops of the posts.

The buried prehistoric land surface, (1655), sealed a layer of pale yellowish-brown sand, (1656), with moderate rusty mottles. This natural deposit incorporated a small quantity of decayed limestone fragments and little nodules of lithified sand.

### ***Trench 144***

(see fig. 56)

*An east-west aligned trench, 20m long by 2m wide, which was opened to investigate the top of a levee running along the northern edge of the modern river channel.*

The topsoil, (1698), was a 0.35m deep layer of dark grey to black humic sandy silt that incorporated a large amount of desiccated peat. It also contained 49 pieces of worked flint, 22 of which were probably products of Late Mesolithic or Early Neolithic industries. Further degraded organic material formed the greater part of (1736), the layer situated immediately beneath the topsoil. It consisted of a 0.10m deep deposit of pale grey to white sandy peat, which contained numerous fragments of degraded wood and bark, abundant waterlogged seeds and insect remains, comminuted freshwater mussel shell, fish scales and freshwater mollusca. Below (1736) lay a deposit of dark grey to black sandy silty peat, (1699), c. 0.10m deep. Again, the organic component of this deposit was poorly preserved due to the effects of drainage and oxidation.

The removal of these degraded organic deposits exposed the fills of a number of archaeological features. As a consequence, the trench has been divided into two sections in order to simplify the description of the results.

#### *Eastern end*

A thin lens of relatively well preserved black fibrous peat, (1737), extended across the most easterly 4.15m of the trench. This material was only c. 0.01m thick and filled a very slight depression that had formed over the consolidated fills of a series of linear features located at this end of the trench. The latest of these features was a north-south aligned ditch or palaeo-channel, [1757], more than 1.6m wide and over 0.25m deep. Only the western edge of this feature was situated in the trench, the exposed side sloping very gently at c. 15° to the horizontal. It contained two fills, the lower being a thin layer of dark brown to black fibrous peat, (1758), which had a rippled upper surface, as though it had been 'sculpted' by moving water. The upper fill was a friable, pale grey to white sand, (1738), that was up to 0.16m deep.

The most westerly part of [1757] had clipped and truncated the fills of an earlier linear feature, [1718]. The latter was a north-west to south-east aligned ditch, with a flattened 'U'-

shaped profile over 2.75m wide and 0.33m deep. Its lower fill was a pale to mid grey sand, (1739), which only lined the western edge of the feature. Above this was a more substantial mixed deposit of dark grey to black sandy peat, (1703), c. 0.28m deep. Although there was some evidence of desiccation, this upper fill still contained frequent small fragments of waterlogged wood, along with fifteen pieces of worked flint.

Ditch [1718] overlay and truncated the fills of two earlier linear features, [1720] and [1755]. Gully [1720], a north-south aligned linear feature, lay c. 0.75m from the eastern end of the trench. It had a flattened 'U'-shaped profile c. 0.82m wide and 0.17m deep, and contained an homogenous deposit of dark grey to black fibrous peat, (1740). Immediately to the west of [1720] lay ditch [1755], a north-west to south-east aligned feature, c. 1.40m wide and 0.22m deep. It had a slightly asymmetric profile, the eastern edge being very gentle, while the western side was approximately twice as steep, at c. 35° to the horizontal. The fill of [1755] was a deposit of mid grey silty sand, (1741).

Ditch [1720] and the eastern edge of ditch [1755] had cut through a 0.10m thick deposit of yellow to orangey-brown sand, (1705), that contained 21 pieces of worked flint, some of which were products of Late Mesolithic to Early Neolithic activity. Sealed beneath (1705) was a relatively thick accumulation of mixed pale brown to grey silty sand, (1706), c. 0.38m deep. This material also contained some worked flint.

The western edge of ditch [1718] cut through and truncated a number of layers of sedimentary material that occupied much of the central part of the trench. The latest of these consisted of a layer of mussel shell fragments, (1700), c. 11.90m wide and between 0.05m and 0.12m deep, which occupied the top of a levee running along the northern edge of a palaeo-channel of the River Witham. The shell was contained within a matrix of orangey-brown sand, which also incorporated organic material and small quantities of worked flint, 16 pieces having been recovered. Some of this lithic material had diagnostic traits indicative of Late Mesolithic and Early Neolithic industries and there was also some very small debris that would have been derived from an adjacent knapping floor. A piece of bark taken from (1700) produced a radiocarbon date of 1360 and 1320-970 Cal BC, while a fragment of red deer bone dated to 940-800 Cal BC (both at 2 sigma). This provides an indication that (1700) represents a conflated deposit that accumulated during the Middle and Late Bronze Age.

The removal of the crushed shell layer exposed a layer of mid to pale grey sandy silt, (1702), that was more than 16.0m wide and between 0.07 and 0.27m thick. A total of 63 pieces of worked flint were recovered from this material, this collection including examples produced by both Late Mesolithic/Early Neolithic and Late Neolithic/Early Bronze Age industries. The eastern end of (1702) sealed the fills of two ditches, while its central component overlay two small pit-like features. The first of the ditches was [1719], a north-south aligned linear feature that was situated below later ditch [1755], (see above). In plan, this ditch tapered from c. 2.50 m wide at the northern end of the exposed section, to c. 1.60m at the southern edge of the trench. Additionally, it had an irregular, asymmetric profile, its western edge descending in two convex steps, while its eastern side was gentler and descended to a concave base c. 0.45m deep. It contained two deposits, the lower consisting of pale to mid grey silty sand, (1742), c. 0.26m deep. Above this was a 0.17m deep deposit of mid grey silty sand, (1704), that contained at least 83 pieces of worked flint. This lithic material represented a palimpsest of activity extending from the Later Mesolithic to the Bronze Age.

The second ditch that was sealed by (1702) was located immediately to the west of [1719]. This feature, [1708], had a flattened 'U'-shaped profile approximately 1.20m wide and 0.18m deep, and was aligned from north-east to south-west. It was filled by mid to dark grey silty sand, (1707), that incorporated twelve pieces of worked flint, most of which were products of



Late Mesolithic or Early Neolithic industries. Ditch [1708] had cut through a deposit of pale brownish-grey sand, (1750), that filled a sub-oval pit, [1753]. Although partially truncated, it was evident that the pit had a flat base c. 0.20m deep, and had been around 0.75m long, from north to south, by 0.60m wide.

One of the pit-like features sealed beneath (1702) was a short north-east to south-west aligned linear depression, [1712], c. 0.67m long. It had rounded ends and a 'U'-shaped profile, c. 0.20m wide and 0.15m deep. It was filled by a deposit of mid to dark grey silty sand, (1711), which contained a small quantity of worked flint. The other pit-like feature, [1714], lay 1.75m to the south-west of [1712]. The exposed portion, which was c. 0.35m long, by 0.90m wide and 0.22m deep, suggested that the majority of [1714] was situated to the south of the trench. It is therefore possible that it either formed part of a pit, or the northern terminal of a ditch. Its lower fill, (1754), was a mixed deposit of mid grey to pale brown sand, c. 0.08m deep, that incorporated 43 larger pieces of worked flint and 32 chips probably from an *in-situ* knapping floor. A charred hazelnut shell recovered from this deposit produced a later Mesolithic radiocarbon date (7740-7580 BC, calibrated at 2 sigma). A deposit of mid to dark grey silty sand, (1713), c. 0.11m deep, sealed (1754).

Ditch [1708] and pit [1714] had been cut into a layer of pale grey sandy silt, (1715)/(1743), that was approximately 0.14m deep. This sedimentary material contained 71 pieces of worked flint, 31 of which were Late Mesolithic to Early Neolithic in date. It sealed the fill of yet another ditch, [1710]. The latter was aligned from north-east to south-west and had an asymmetric profile, c. 0.75m wide and 0.27m deep. It was filled with pale to mid brown silty sand that had frequent pale grey mottles, (1709). This deposit contained 45 pieces of worked flint, almost half of which exhibited traits indicative of Late Mesolithic and Early Neolithic technologies.

Ditch [1710] had been cut into a layer of pale brown sandy silt, (1721), that was approximately 13.20m wide and c. 0.23m deep. Beneath (1721) was a layer of pale brown to mid orangey-brown silty sand, (1760), c. 0.20m deep. This layer declines gently from west to east at the eastern end of the trench, suggesting that it had accumulated upon the sloping face of a mound. The earliest deposit exposed in Trench 144 was a layer of compact mid to dark greyish-green clayey silt, (1761), that was sealed beneath (1760).

#### *Western end*

The crushed shell layer, (1700), which covered much of the eastern and central parts of the trench also extended to within 3.30m of its western end. Its removal exposed two different sequences of deposits. A slight depression, c. 0.14m deep, occupied the most westerly 5.50m of the trench; it was filled with brown silty sand, (1744). This deposit sealed the fill of a pit-like feature, [1717], the southern half of which was situated within the trench, c. 2.0m from its north-west corner. The exposed portion of this sub-oval feature had concave sides and a flat base, and was c. 1.75m long, by more than 0.50m wide and 0.70m deep. It was filled with mid to dark grey silty sand, (1716), which contained 26 pieces of worked flint.

The removal of shell layer (1700) also exposed a thin lens of dark brown to black fibrous peat, (1745), located immediately to the east of the perimeter of (1744). Only 1.90m wide and approximately 0.02m deep, this small accumulation of organic material overlay another relatively dense layer of mussel shell fragments, (1701), that were surrounded by a matrix of mottled orangey-brown to white sand. This localised deposit was c. 1.80m wide and 0.08m deep, and appears to represent an early phase of mussel shell deposition. The mussel shell had accumulated over another thin lens of dark brown to black fibrous peat, (1746), c. 0.02m

deep. These three relatively small pockets of material, (1745), (1701) and (1746), had accrued within a slight depression above the consolidated fill of a pit-like feature, [1751].

The upper fill of [1751] consisted of pale orange to white sand, (1747), c. 0.07m deep. Below this was a mixed deposit of dark grey sandy silt and desiccated peat, (1748), that was up to 0.18m deep. Removal of this material uncovered the base of [1751], only the northern edge of which was located within the trench. The exposed portion of the feature was c. 0.90m wide and 0.30m deep, and it had a 'U'-shaped profile with a relatively flat base. It had been cut through yet another thin lens of dark brown to black fibrous peat, (1759), that was less than 0.01m deep. This thin band of peat had formed over a 0.25m deep layer of mid to pale grey sandy silt, (1702), which also extended across the eastern half of the trench (see above). Beneath (1702) was a layer of pale grey sandy silt, (1715), c. 0.14m deep.

The removal of (1715) exposed a localised deposit of mid to dark grey silty sand, (1749), situated 7.0m from the western end of the trench. This material filled another pit-like feature, [1752]. Again, only the northern part of [1752] was situated within the trench. Excavation demonstrated that it was approximately 1.0m long, over 0.30m wide and 0.30m deep, and that it had a flattened 'U'-shaped profile. The spatial relationships, similarity of form and overall dimensions of [1752] and [1751] indicated that latter is likely to have represented a redefinition of the initial pit.

Pit [1752] had been cut into a layer of pale brown sandy silt, (1721), that was c. 0.23m deep. Beneath (1721) lay an accumulation of orangey-brown silty sand, (1756), which was the earliest deposit exposed at this end of the trench. Sample excavation of this layer recovered thirteen pieces of worked flint, at least two of which were Late Mesolithic to Early Neolithic in date.

### ***Trench 145*** (see fig. 57)

*A north-east to south-west aligned trench, 50m long by 2m wide, which was opened to investigate low-lying peaty deposits identified by the geophysical survey and auger survey.*

The topsoil was a mid greyish-brown sandy loam, (1635), c. 0.24m deep, which contained a large amount of degraded humic material. The latter was derived from a bed of peat, (1636), 0.10 – 0.20m deep, which lay immediately beneath the topsoil. Much of this organic deposit was heavily degraded, with the top 0.10m having become granular as a result of desiccation and oxidation. However, any slightly deeper pockets of peat still had a relatively well-preserved fibrous structure.

The peat had accumulated over a layer of dark bluish-grey sand, (1637), that was up to 0.22m deep. This deposit incorporated a small quantity of worked flint. The presence of this artefactual material indicated that (1637) represented part of a buried prehistoric land surface, other elements of which had been exposed elsewhere in Fields D1, D2, D3 and E.

The removal of (1637) exposed the upper surface of a layer of mid orangey-brown, fine-grained sand, (1697), which had occasional rusty mottles and contained small quantities of ironstone.

### **Trench 146**

(see fig. 58)

*An east-west aligned trench, 20m long by 2m wide, located to examine a possible flood horizon identified by the auger survey.*

The topsoil consisted of dark brown sandy loam, (1638), c. 0.29m deep, which incorporated a high proportion of desiccated peat. The stripping of the topsoil revealed the northern part of a single feature, [1640], located 7.5m from the eastern end of the trench. The exposed element of this feature appeared to form part of a sub-oval pit, with an asymmetric, bowl-shaped profile, which was more than 1.13m long, c 1.40m wide and 0.90m deep; the edges of [1640] were fairly irregular, both in plan and in section. It was filled by a deposit of dark brown to black desiccated peat, (1641), with abundant wood fragments and small pockets of white sand. Twenty-three pieces of worked flint were recovered from this material, but the morphological attributes of both the feature and its fill suggested that [1640] was most likely to be a tree root void.

Elsewhere in the trench, the topsoil lay directly over a layer of pale brownish-yellow sand, (1639), which had occasional rusty mottles that reflected localised modifications caused by acidic soil chemistry. This deposit contained at least 56 pieces of worked flint, 29 of them exhibiting the characteristics of Late Mesolithic and Early Neolithic lithic technologies.

### **Trench 147**

(see fig. 59)

*A north-east to south-west aligned trench, 20m long by 2m wide, located to examine a possible flood horizon identified by the auger survey.*

The uppermost deposit was a mid greyish-brown sandy silt, (1684), c. 0.27m deep, which incorporated a large amount of desiccated peat. The removal of the topsoil exposed a layer of mid grey sand, (1685) with orange sandy and black peaty mottles, c. 0.22m deep; this material is likely to form part of the buried prehistoric land surface examined elsewhere in Fields D1, D2, D3 and E. A 2m wide band of dark grey sand, (1687), that was exposed c. 3m from the northern end of the trench, represented a natural variation in the composition of (1685). Sealed beneath (1685)/(1687) was a layer of mottled orange sand, (1686), over 0.16m deep.

Three related features, [1688], cut through (1685) near the south-western end of the trench. Of these, two formed a pair located c. 1.5m from the south-east corner of the trench; both were square, [1688]a having sides extending 0.17m, while the sides of [1688]b were 0.09m long. The third feature, [1688]c, lay 1.0m further to the north; it was sub-rectangular, with sides 0.32m long, by 0.14m wide. These features were filled with dark-brown to black fibrous organic silt, (1689), which represented the heavily degraded remains of the bottoms of posts. While the remains of the posts were evident, there was no visible sign of the edges of the postholes. This suggests that either the posts had been hammered directly into relatively soft ground, or that differences between the fills of the postholes and the surrounding substrate had been leached out by acidic soil conditions.

The alignment of [1688]a/b and [1688]c matches, and seems likely to represent a continuation of the north-south orientated row of wooden posts exposed in Trench 143, c. 50m further to the south. The poorer state of preservation of [1688] probably reflects the fact that the peat beds have suffered higher levels of desiccation and attrition further from the

modern river channel; there were no *in-situ* peat deposits in Trench 140, Trench 146, or Trench 147, which all lie slightly to the north of the pond recently created at the centre of Field D2, but small amounts of peat did survive in Trench 143 and Trench 145, just to the south.

An east-west aligned land drain also cut through (1685), approximately 10m from the northern end of the trench.

### ***Trench 148***

(see fig. 60)

*A north-south aligned trench, 20m long by 2m wide, located randomly to investigate the area to the north of the geophysical survey grids.*

The removal of the vegetation exposed a 0.27m deep layer of mid greyish-brown sandy silt, (1645); a large proportion of this topsoil consisted of desiccated, granular peat. Below the topsoil lay a mixed deposit of pale grey sand, (1646), with orange sandy and black peaty mottles, which was up to 0.18m deep. Comparable deposits examined elsewhere on the floodplain appear to represent a buried prehistoric land surface.

The earliest deposit exposed in Trench 148 was a layer of pale yellowish-orange sand, (1647), with moderate rusty mottles, that was more than 0.20m deep. It contained at least 21 pieces of worked flint, seven of which were likely to be Late Mesolithic or Early Neolithic in date, with four others exhibiting traits consistent with the products of Late Neolithic to Bronze Age technologies.

### ***Trench 149***

(see fig. 61)

*An east-west aligned trench, 20m long by 2m wide, located randomly to investigate the area to the north of the geophysical survey grids.*

The uppermost deposit was a mid to dark brown sandy loam topsoil, (1648), c. 0.34m deep, which incorporated occasional small fragments of limestone and some flint gravel. The removal of the topsoil exposed a north-south aligned ditch, [1643], that crossed the trench 4m from its western end. This feature was 2.0m wide and had gently sloping edges terminating at a concave base, c. 0.40m deep. It was filled by a deposit of mid brownish-grey silty sand, (1644), which had a few orange sandy mottles that probably resulted from bioturbation.

Given the stratigraphic relationship between the topsoil and its fill, (1644), there is a likelihood that [1643] has been significantly truncated as a result of the desiccation and shrinkage of the peat into which it would almost certainly have been cut. The only extant element of the ditch is the base, which was excavated into the mid orangey-brown fine-grained sand, (1649), that would have been sealed directly beneath the peat. Ditch [1643] ran parallel to the existing eastern and western boundaries of Field D2, suggesting that it was laid out as part of the same field system. However, it would seem to have been a relatively short-lived component of this scheme, as it had already ceased to exist in 1885 when the surveying was conducted for the First Edition Ordnance Survey map .

### ***Trench 150***

(see fig. 62)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, located randomly to investigate the area to the north of the geophysical survey grids.*

The topsoil was a mid to dark brown sandy loam, (1650), containing desiccated organic material and occasional small fragments of limestone and flint gravel, which was up to 0.29m deep. Beneath the topsoil was a layer of orangey-yellow sand, (1651), which had frequent dark mottles that reflected significant disturbance and reworking by roots and burrowing animals, and numerous small rusty stains resulting from the modification of organic and sedimentary deposits by acidic soil chemistry.

### ***Trench 151***

(see fig. 63)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, which was opened to examine a spread of limestone and Romano-British artefacts situated to the north-west of the proposed road corridor.*

The uppermost deposit was a dark brown humic silty sand, (1623), that contained relatively large quantities of limestone rubble. The thickness of this topsoil layer varied along the length of the trench, fluctuating between 0.27m and 0.39m in depth.

The mechanical excavator stripped off the topsoil to reveal three east-west aligned linear features. Ditch [1621] was the most northerly of these features, being located only 3m from the end of the trench. It had a slightly irregular profile, with the northern edge being convex and the southern side concave; it was approximately 1.35m wide at the top, while the base, which was level, was 0.62m wide and 0.30m deep. A large proportion of the fill of ditch [1621] consisted of medium to large pieces of limestone rubble, which were up to 0.35m long, by 0.20m wide and 0.10m deep. This stone was contained within a matrix of mid brown silty sand, (1625). A single sherd of Roman pottery was also discovered in this deposit.

The second ditch, [1622], was located 1.90m to the south of [1621]. It had similar proportions to its neighbour, being 1.44m wide and 0.38m deep, but had a more uniform 'U'-shaped profile. It was filled by a deposit of friable orangey-yellow sand, (1626), which again contained large amounts of sizeable fragments of limestone rubble; the biggest pieces were 0.40m long, by 0.30m wide and 0.20m deep.

An interval of 7.25m separated the southern edge of [1622] from the third ditch, [1620]. The latter was somewhat larger than the features to its north, being approximately 3.05m wide at the top and 0.65m deep. Its northern edge descended in two convex steps, while its southern side was a slightly concave surface that was inclined at roughly 35° to the horizontal. The two sides terminated at a relatively level base c. 0.50m wide. The fill of [1620] was a mid brown silty sand, (1642), that contained occasional fragments of limestone rubble, which were up to 0.20m across, and seven pieces of post-medieval tile. All three of the ditches had been cut into a layer of yellowish-orange sand, (1624), which incorporated numerous darker patches of material derived from the topsoil.

The removal of the topsoil also exposed a spread of limestone rubble, (1696), that extended across the whole trench. These lumps of stone varied in size from 0.05m<sup>2</sup> up to 0.30m<sup>2</sup> in plan. Generally, the layer was one, or two stones deep, but there were also some sparser areas

with large interstices. The density of (1696) was highest in the 7.5m wide interval between ditches [1620] and [1622]. This association raised the possibility that the stones represented the remains of a metallised surface forming part of an east-west aligned road. However, the size and shape of the stones constituting (1696) were directly comparable to the material found in the fills of ditches [1621] and [1622] situated in the northern half of the trench. This correlation appears to indicate that the stone was all derived from the same source. If so, it would seem unlikely that either [1622] or [1621] could have defined the northern edge of a road, because they would have been infilled at the same time that the stone was laid down. Furthermore, the variation between the sedimentary materials forming the matrix of fills (1625) and (1626) implied that the stone was not deposited during a single event. It therefore seems more likely that the limestone in the ditches and forming (1696) represents debris from the episodic demolition, or incremental collapse of an adjacent Roman building. The density of stone was relatively low at the southern end of the trench, which implies that any structures were probably situated to the north of the evaluated area.

## 6.12 Field D3

### *Trench 152*

(see fig. 64)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, which was opened to investigate part of a levee running along the northern edge of the modern river channel.*

The topsoil, (1773), was a 0.34m deep layer of mid brownish-grey sandy peaty loam that incorporated frequent flecks of comminuted shell. This shell was derived from a relatively dense deposit, (1774), that was exposed at the southern end of the trench once the topsoil was removed. The shell was contained within a matrix of dark grey to black degraded silty peat, which extended 4.2m from north to south and reached a maximum depth of 0.14m at the southern limit of excavation. A single Late Mesolithic to Early Neolithic worked flint was recovered from this deposit.

Three further localised deposits were sealed beneath (1774) at the southern end of the trench. The latest of these was a thin spread of pale orangey-yellow sand, (1775), that was up to 0.09m deep. This had succeeded a laminated deposit primarily consisting of dark brown to black peat within which were several thin lenses of pale grey to white sand, (1777), with a total depth of c. 0.14m. Sealed beneath (1777) was a layer of friable white sand, with rusty mottles and very thin peat laminae, (1776). This latter deposit extended across the most southerly 7.0m of trench, achieving a depth of up to 0.22m in the southern half of that area, but occurring only as a very thin spread 0.02 – 0.04m thick further to the north. A small quantity of worked flint, including three of Late Mesolithic or Early Neolithic date and one produced during the Later Neolithic, was recovered from (1776).

Sample excavation demonstrated that deposits (1776), (1777), (1775) and (1774) filled the northern edge of a palaeo-channel, [1784], that extended 3.40m into the trench. The exposed edge of this feature was slightly concave and sloped gently to a relatively flat base, c. 0.46m deep. With the possible exception of the shell rich deposit, (1774), each of the fills of the palaeo-channel appears to have been an alluvial deposit, and the variations in colour and composition, both within and between deposits, is likely to reflect changes in the course, or turbidity of the River Witham.

The palaeo-channel had cut into a relatively thick alluvial deposit of mid to dark grey sand, with frequent rusty mottles, (1778), which contained two Late Mesolithic or Early Neolithic worked flints. Soil samples taken from this 0.40m deep deposit produced further pieces of worked flint, occasional fragments of freshwater mussel shell, remains of aquatic snails and some charcoal. A piece of charcoal was submitted for radiocarbon dating and produced a calibrated age of 2880-2580 BC (2 sigma). This indicates that the northern bank of the Witham was still a focus of activity during the Middle Neolithic.

Beneath (1778) lay another iron-stained deposit, this time of mid brownish-orange sand, (1779), that varied between 0.24 and 0.68m in depth. Below the base of (1779) was a thin, slightly undulating spread of pale blue grey clay, (1780), c. 0.05m deep. This fine-grained, gleyed alluvial deposit was probably deposited in standing water and probably relates to an episode when the course of the river had changed, turning this area of the flood plain into a low energy depositional environment. The upper horizon of a layer of mid orangey-brown fine grained sand, (1783), was exposed at the base of the trench, beneath (1780).

A small sub-oval pit, [1781], had been cut into alluvial deposit (1779) c. 1.5m from the northern end of the trench. It was 0.55m long from north to south, by 0.45m wide, and had a 'U'-shaped profile 0.22m deep. It was filled by orangey-brown sand, (1782), that had numerous rusty mottles. A single piece of worked flint was recovered from this fill, which along with its stratigraphic relationships, indicated that pit [1781] was created during, or prior to, the Middle Neolithic.

### ***Trench 153***

(see fig. 65)

*A north-east to south-west aligned trench, 5.5m long by 2m wide, which was opened to investigate palaeo-channel deposits to the south of the levee running along the northern edge of the modern river channel.*

The topsoil was a particularly thick layer of dark brownish-grey sandy peaty loam, (1762), which incorporated large amounts of desiccated organic material. Removal of this deposit, which was between 0.44m and 0.57m deep, exposed a layer of dark brown fibrous peat, (1763), that varied between 0.07m and 0.36m in depth. Pieces of small roundwood and twigs that were collected from (1763) were submitted for radiocarbon dating. This produced a date of 1030-770 calibrated BC, which indicated that this deposit had accumulated during the Late Bronze Age.

Examination of the south-east facing section demonstrated that (1763) had been cut into by three comparable features, [1767], [1769] and [1771], which only really differed with respect to their dimensions. The most southerly of the three was [1767], a conical depression 0.16m in diameter at the top and 0.32m deep. The next feature, [1769], lay 0.78m to the north-east. Again it was a conical depression, this time slightly larger at up to 0.19m in diameter and 0.37m deep. The third feature, [1771], was located 1.12m away from [1769]. It had been truncated to a greater degree than its neighbours and was only 0.13m in diameter and 0.20m deep. The fills of each of these features were indistinguishable, each being a deposit of dark grey peaty sand - (1768), (1770) and (1772), respectively.

The form of these features indicated that they represented the basal element of three post voids. The relative homogeneity of each of the fills did not provide any evidence that sediment had been deposited around the posts to act as post-packing. This therefore implied that the sharpened ends of the posts had been hammered directly into the peat. The inter-

relationships between the three posts suggested that they formed elements of a post row that ran from south-west to north-east. However, it is also possible that they represented part of a square, or sub-rectangular structure, with the other related post voids being situated beyond the limit of excavation.

Sealed below the upper peat deposit, (1763), was an undulating layer of dark greyish-brown peat, (1764). This peat bed was between 0.04m and 0.17m deep, and incorporated moderate quantities of mussel shell fragments. Below (1764) lay a 0.20m to 0.40m deep layer of dark brown to black fibrous peat, (1765), that contained occasional fragments of wood. The lowest horizon exposed in the trench was another layer of peat, this time a dark brown fibrous deposit, (1766), with moderate amounts of waterlogged wood and very fine lenses of pale grey sand. Layer (1766) was more than 0.95m deep, but the base of this deposit was not reached, as the bottom of the trench was more than 1.90m below ground level and it had quickly filled with groundwater. A piece of hazel roundwood recovered from the bottom of the exposed component of (1766) produced a radiocarbon date centred on the Middle Bronze Age (1690-1290 Cal BC - 2 sigma).

Given the depth and dates of the peat deposits, it is evident that Trench 153 was located over part of palaeo-channel that had begun to migrate north-eastwards prior to, or during, the Middle Bronze Age. The gradual drift of this relict channel was responsible for the partial truncation and erosion of the western end of the levee investigated in Trench 144. The date obtained from the upper peat horizon suggests that the river had begun to move southwards again by the end of the Bronze Age.

### **6.13 Field E**

This field was set-aside and covered in weeds at the time of the trial trenching, but the remains of a potato crop were still evident in some places. The ploughsoil, (1056), c. 0.25m deep, was a dark grey to black humic silt incorporating a large quantity of degraded fibrous peat, moderate amounts of waterlogged woody plant fragments and a multitude of roots. This deposit also contained pieces of 13<sup>th</sup>-16<sup>th</sup> century tile and moderate quantities of 19<sup>th</sup>-20<sup>th</sup> century pottery, such as the sherd from a 19<sup>th</sup> century buff ware chamber pot found in Trench 34; a fragment from a hexagonal slate pencil of post-medieval to early modern date was also found in the uppermost deposits overlying this trench. Similar material was not found in Field F, to the south of the railway embankments, suggesting that the ceramic fragments were introduced after the railway had been constructed.

#### ***Trench 33***

(see fig. 66)

*A north-north-east to south-south-west aligned trench, 10m long by 5m wide, situated toward the northern edge of the field to investigate a possible linear anomaly adjacent to a probable palaeo-channel.*

Removal of the ploughsoil exposed two deposits with sharply contrasting colours and textures. The later of these was a layer of black fibrous, slightly silty peat, (1253). It was present along the whole of the northern end of the trench and also extended down the majority of the eastern edge, being deepest at the north-east corner where the base of the deposit was more than 1.10m below ground level. The peat overlay a mottled deposit of mid-grey, pale brownish-grey and pale orangey-brown medium to coarse sand, (1110), except in the south-west quadrant of the trench where both the sand and the peat appeared to have been



truncated by modern ploughing. This sandy deposit was generally around 0.24m deep, but examination suggested that its lower interface did not represent a true archaeological horizon, and was more likely to be the product of leaching and acidic soil chemistry. These processes will have removed many of the minerals and fine particles formerly present in (1110) and redeposited them in (1111), below. The latter was a yellowish-brown to orangey-brown sand largely consisting of fluvio-glacial river terrace deposits.

The artefactual materials recovered from (1110) supported the interpretation that it had been significantly transformed, as they suggested that it been a land surface prior to burial by the peat. These finds included a number of worked flints, some small pieces of oxidised limestone and a small amount of charcoal. The presence of the burnt stone and charcoal suggests that the remains of some form of fire, or hearth lie in the immediate vicinity of Trench 33.

Examination of the deeper peat deposits was necessarily fleeting due to the rapid influx of ground water, which could not be reduced by pumping due to the instability of the sides of the trench. However, it was still possible to ascertain the topographical form of this small area prior to peat formation. The trench was opened over the north-east corner of a sandbank defining the southern edge of a former channel of the River Witham. The land immediately to the north and east was much lower lying and either formed part of the channel itself, or the very edge of the floodplain.

### ***Trench 34***

(see figs. 67 & 68)

*A north-north-east to south-south-west aligned trench, 85m long by 2m wide, which ran the width of the field to sample a palaeo-channel and, areas of magnetic disturbance and high resistance, including the site of a possible round barrow. The trench should have been 100m long, but it was not possible to open the northern end due to very soft ground conditions.*

It had originally been intended that Trench 34 would be 100m long, but it was not possible to open the most northerly 15m because the ground was too soft, causing the mechanical excavator to sink. The northern end of the trench was therefore established at the furthest reach of the bucket from the firmer ground. The ploughsoil sealed a layer of dark brown to black fibrous, slightly silty peat, (1253), that extended for roughly 15m along this end of the trench. The machine removed the peat, demonstrating that the underlying sedimentary deposits dipped markedly in the most northerly 12m of the trench forming a north-facing slope. The base of the peat was more than 1.10m below ground level at the northern end of Trench 34, and was still becoming increasingly deep. This suggests that (1253) filled a relict channel of the River Witham, just as the results of the fluxgate gradiometer survey of Field E appeared to indicate. The nature and colour of the vegetation that occupied the low-lying ground along the northern edge of the field differed from that on the higher ground to the south, which also suggested that there was a palaeo-channel in this area.

A number of linear, curvilinear and discrete features were exposed in the southern half of the trench after the removal of the ploughsoil. The latest features in this sequence of activity were three east-west aligned land drains, [1058], sections of which were also identified in Trench 35. These vertically sided, narrow linear features were approximately 0.26m wide and more than 0.25m deep, and had a cylindrical ceramic pipe at the base. The fill was dark brown to black sandy peaty clay that was largely derived from the ploughsoil.

The fill of ditch [1154] was also sealed by the ploughsoil indicating that it was created late in the sequence of activity. This east-west aligned feature had a 'V'-shaped profile, c. 1.10m wide and 0.42m deep, and was located approximately 55m from the southern edge of the trench. Its upper fill was an homogenous mid grey sand, (1155)a, c. 0.35m deep, beneath which lay a black silty peat, (1155)b, that contained a large quantity of well preserved organic material. This peaty lower fill formed a band, c. 0.16m deep, that only lined the base and southern side of the ditch. This relationship does not correspond to natural silting processes, and therefore suggests that (1155)a fills a recut of the ditch.

Sections of two broad curvilinear features were also exposed in the southern half of the trench. The more northerly example, [1044], which was situated c. 30m from the southern end of the trench, was better defined, with both edges being clearly visible. It was approximately 4.70m wide and ran from north-west to south-east, with its northern edge sloping at c. 35° to the horizontal and a steeper southern side inclined at c. 60°. It was filled by at least three deposits. The upper fill was a dark grey friable sand, (1057), c. 0.20m deep, which sealed a mid grey sand, (1057)a, with darker mottles, more than 0.35m deep. This secondary fill contained eight worked flints, five of which had been made during the Late Mesolithic to Early Neolithic period and another of Late Neolithic to Bronze Age date. The lowest fill exposed was a pale orangey-yellow friable sand, (1057)b, which was over 0.15m deep. It was not possible to expose the base of [1044] due to the high water table and poor coherence of the fills. Any sediment situated below the water table turned to running sand that washed into the base of the feature, in the process undermining the section and causing its collapse.

The second curvilinear feature, [1163], was situated roughly 8m further to the south. It was orientated from north-east to south-west and had a asymmetric profile. The southern part of this feature had a gently sloping outer edge and a flat base, c. 4.80m wide and 0.50m deep. The northern component, along the inner edge of the arc, was approximately 2.90m wide and appeared to be somewhat deeper, although very little was exposed due to the erosive effects of groundwater. The only visible fill of [1163] was a mid grey medium-coarse sand, (1160), that contained seven worked flints, three of which were the product of Late Mesolithic/Early Neolithic lithic technology.

It is possible that both of these curvilinear depressions are elements of the same feature. The orientations and spatial inter-relationships of [1044] and [1163] indicate that they could both lie on the circumference of the same circular feature. This feature would have had an internal diameter of c. 13m, with its centre lying approximately 5m to the west of the trench. Round barrows are the most likely class of feature to have had a relatively broad encircling ditch and these proportions. A number of features that have been interpreted as round barrows have previously been identified in Field E; some appeared on aerial photographs and others as low earthworks. A targeted resistivity survey of part of the field detected three circular areas of high resistance that are also likely to indicate the location of some of these monuments (Bunn & Masters, 2003). The most easterly of these geophysical anomalies corresponds spatially with the area enclosed by ditches [1044] and [1163]. The latter was covered by a deposit of clean yellow sand, (1059)b, which lay at a slightly higher elevation than the pre-peat sedimentary deposits to the south and to the north. This relationship is again consistent with the presence of a barrow at this location, with (1059)b representing the remains of the barrow mound.

However, the possibility that [1044] and [1163] represent elements of a round barrow ditch cannot be unequivocally accepted, and some caution must be exercised in interpreting the results from this part of the trench. Relatively little of either of these features was exposed in plan, and their actual relationship to each other has not been established. Furthermore, the

high water table prevented either from being fully excavated, concealing the true profile of both features. The finds recovered from the excavated sections across both ditches included small quantities of worked flint, but comparable material has been found right across Field E; there were no items that could be specifically attributed to funerary contexts. It is therefore possible that [1044] and [1163] may have had a different origin. Potentially, they may be natural features, such as small palaeo-channels that formerly fed into the River Witham. It would be necessary to strip a larger area of ground to positively ascertain the form of these features.

It seems likely that ditch [1163] overlay an earlier feature. It had been cut through a deposit of heavily leached greyish-yellow sand, (1159), which was over 0.4m deep and held a Late Mesolithic/Early Neolithic blade. The latter was contained by an east-west aligned feature, [1158], which had a vertical southern edge; the northern edge was not identified and the base was not exposed due the high water table. Examination of the southern edge indicated that [1158] had cut through a deposit of clean yellow clayey sand overlying yellow gravelly clay, (1059)a. While the clay content gave this material greater coherence than surrounding deposits, the straightness of the edge makes it likely that the sides of [1158] must either have been revetted, or that the feature was backfilled soon after its creation. It was not possible to determine what this feature was, but it is possible that it resulted from an earlier phase of human activity on the site of the putative round barrow, or alternatively, it may have formed part of a palaeo-channel.

There was also significant disturbance to the deposits situated immediately to the south of curvilinear ditch [1163]. A slightly irregular, east-west aligned linear feature, [1254], was investigated c. 1.50m from the edge of [1158]. Its fill was sealed by the ploughsoil, (1056), and was cut through by one of the land drains, [1058]. It is possible that this feature was part of a small ditch, possibly a pair to [1154], but the morphological attributes of the section investigated were more indicative of tree root disturbance. A relatively large, sub-oval, bowl-shaped feature, [1156], c. 1.55m long, by 1.0m wide and 0.35m deep, was exposed immediately to the south of [1254]. The edges of [1156] were slightly irregular and small circular areas of fill extended down beyond its base. These characteristics suggested that it was a tree root void, although the possibility that it had been created by human agency cannot be discounted. It was filled by clean, coarse yellow sand, (1157), which contained a Late Mesolithic obliquely blunted point.

A shallow hollow, [1162], with gently sloping sides and a flat base, c. 8.40m wide and 0.35m deep, was identified in the northern third of the trench. While this may indeed be a 'cut' feature, it is also possible that it merely represents a depression between two adjacent sand banks. It was filled by mid grey medium-coarse sand, (1161), c. 0.35m deep. This deposit contained at least 60 pieces of worked flint and 37 pieces of fire-cracked pebble. Some of the flint was the result of Late Mesolithic to Early Neolithic activity, while other pieces reflected a Late Neolithic to Bronze Age presence. The burnt stone consisted of fragments of five different types of rock that were probably derived from glacial sheet deposits. It is likely that they were collected from the surface of the higher ground to either side of the river valley and were used as potboilers, a means of heating water that is generally associated with later prehistoric activity.

Hollow [1162] had formed over, or been cut into (1059), an extensive deposit of mid orange sand, c. 0.26m deep. This layer was the earliest exposed anywhere in the trench, with the possible exception of (1059)a. It contained moderate amounts of worked flint and appears to equate to the buried prehistoric land surface identified elsewhere in Field E.

**Trench 35**  
(see fig. 69)

*A north-north-east to south-south-west aligned trench, 100m long by 2m wide, which ran the width of the field to sample areas of magnetic disturbance and high resistance.*

Removal of the ploughsoil, (1056), exposed a series of features that had been cut into a sandy deposit, (1093). Three east-west aligned land drains, [1095], represented the latest phases in this sequence of activity. Separated by intervals of c. 21m, each had vertical sides and flat bases, c. 0.15m wide and 0.35m deep. Sections of red ceramic pipe, with a circular section, lay at the base of each feature and were sealed by a deposit of dark grey silty sandy peat, (1094), which was largely derived from the ploughsoil. These land drains form part of a late 19<sup>th</sup>, or more probably a 20<sup>th</sup> century drainage system and were installed after Field E had attained its present form.

Three boundary features identified in the central section of the trench related to the previous phase of landscape division. The largest of the three was an east-west aligned ditch, [1091], c. 1.95m wide by 0.58m deep, which was situated 29m from the southern end of the trench. It had an irregular 'U'-shaped profile, which probably reflected the instability of the deposits into which it had been cut, but may also indicate that the feature had been cleaned out on a number of occasions. It was filled by an homogenous dark grey silty sandy peat, (1092), which contained a fragment from a 19<sup>th</sup> – 20<sup>th</sup> century transfer printed ware dish and a broken Codd bottle inscribed 'Draper/Late Bayne/Trade Mark/Lincoln' that would have been manufactured between 1890 and 1910.

Two parallel linear features were identified approximately 22m to the north of [1091]. The more easterly of these was a north-south aligned, irregular linear depression, [1087]. Its profile varied from 'U'-shaped to 'V'-shaped and had a distinct slot running along the centreline (c. 0.15 – 0.25m deep), the base being very uneven, with numerous small cylindrical pockets of fill penetrating the sandy material into which it had been cut. These morphological traits indicated that [1087] represented the void created by the taproots of a hedge. An interval of only 0.30m separated [1087] from the adjacent feature to the west, [1089]. The latter was a very shallow linear depression, with a slightly dished profile, c. 0.45m wide and 0.05m deep. While there was little to examine, its close relationship to the adjacent hedge line suggests that [1089] represents the remains of a flanking ditch that may have been created to provide a free draining bank in which the hedge could be planted. If so, the negligible depth of the ditch indicates that there has been significant desiccation and shrinkage of the peat into which the feature would have been cut, this process effectively resulting in its truncation. As the fills of [1087], [1089] and [1091] were identical, (1088), (1090) and (1092) respectively, it seems likely that all three features formed part of the same rectilinear field system and have suffered a similar level of truncation.

Ditch [1091] appears to have been aligned upon the northern edge of the grange mound located to the east of the trench. This suggests that these three boundary features were laid out at a time when Sheepwash Grange occupied its original location at the edge of the floodplain. This could indicate that [1087]/[1089]/[1091] formed part of the medieval field system surrounding the monastic grange, but there is a lack of dating evidence to support this hypothesis. While these earlier origins cannot be discounted, it seems probable that these boundaries did form part of the post medieval landscape associated with the secular farm. The recovery of the Codd bottle from the fill of [1091] indicates that the largest of these boundaries must have still been open in the last decade of the 19<sup>th</sup> century, even though it was not depicted on the First Edition Ordnance Survey map of 1889-90. It therefore seems likely that they finally became redundant when the railway embankments were constructed a little

to the south; this process would necessitate a localised rationalisation and reorganisation of the field systems that it crossed.

The ditches and land drains had been cut into a deposit of mid orange to brownish-orange medium to coarse grained sand, (1093), c. 0.20m deep, which contained a number of localised mid grey and pinkish mottles. As with the comparable deposits in Trench 33 and Trench 34 investigation suggested that (1093) was most likely to be the product of the acidic properties of the groundwater rather than represent a distinct archaeological deposit. The stripping of the ploughsoil exposed small quantities of worked flint right across the surface of (1093) and larger amounts were recovered by sample excavation. The highest concentrations appeared to be contained within the pockets of grey mottling, but the overall distribution suggested that (1093) represented part of a buried land surface. A total of 58 pieces of worked flint were retrieved, twelve of these resulting from Late Mesolithic/Early Neolithic activity and eleven being the product of Late Neolithic/Bronze Age technologies.

#### **6.14 Field F**

This field contained a mature cereal crop at the time of the trial trenching. The ploughsoil, (1000), was a friable mid to dark greyish-brown humic sandy silt, the depth of which varied from c. 0.30 to 0.40m. It contained large quantities of cultural material, the primary constituents being limestone rubble and, Romano-British and medieval tile fragments. Numerous sherds of pottery of the same date were also evident, along with animal bone, ironstone, slag and ferrous debris, and small amounts of worked flint.

##### ***Trench 36***

(see fig. 70)

*An east-north-east to west-south-west aligned trench, 20m long by 2m wide, located toward the eastern edge of the field to investigate a faint linear anomaly detected by the gradiometer survey.*

Eleven sherds of pottery were recovered from unstratified deposits during the opening and cleaning of the trench. There were five pieces of Roman date, one of which was a fragment of 1<sup>st</sup> century AD samian ware. The other six were medieval fabrics, all of which were locally produced; five were pieces of 13<sup>th</sup> – 15<sup>th</sup> century Potterhanworth type ware, while the other was part of a late 14<sup>th</sup> to 15<sup>th</sup> century Late Lincoln glazed-ware jug.

A relatively homogenous layer of mid brown, friable silty sand, (1022), was sealed beneath the ploughsoil. This subsoil, up to 0.75m deep in places, is likely to have had a significant colluvial component consisting of large quantities of fine to medium grained sand that had washed down the slope situated immediately to the south-west. The upper surface of (1022) was c. 0.15m lower at the western end of the trench than in the central and eastern elements. Despite this, excavation demonstrated that this portion of the deposit was the latest element surviving *in-situ*, (1022)c. It had built up over a north-south aligned linear spread of small limestone rubble and, medieval and post-medieval tile, (1024), which was c. 1.3m wide and 0.2m thick. This deposit also contained small quantities of bone from cattle, sheep and a goose. It had been deposited on the west face of a low mound, (1022)a, that lay approximately 5m from the western end of the trench; the face of the mound dipped from east to west at c. 20° to the horizontal. The upper portion of the mound had extended across the eastern part of the trench, but had been truncated by ploughing, as had rubble tip (1024).

Despite the obvious sequence of deposition attested to by the intervening lens of rubble, it should be noted that colour and composition of (1022)a and (1022)c were indistinguishable.

Trench 36 was located just to the west of the site of Sheepwash Grange. The broad range of different medieval tile fabrics that were incorporated into rubble spread (1024) raises the possibility that this deposit results from the dismantling of the medieval and post-medieval grange complex at some point between 1778 and 1828 (*q.v.* Mills & Mills, 1998). After demolition, the salvageable materials were transported c. 550m southwards to the edge of the high ground overlooking the Witham Valley, where they were reused in the construction of the present 'Sheepwash Grange'. A small piece of ashlar, with two tooled, orthogonal faces was also recovered from unstratified material during the cleaning of this trench. It is likely that this piece of dressed stone had also formed part of the dismantled medieval grange.

An irregular, north-south aligned linear feature, [1021], ran across the centre of the trench at the base of (1022)a. It was 0.76m wide and 0.15m deep, with an uneven base and an asymmetric profile. These morphological attributes indicated that it was almost certainly a redundant and collapsed animal burrow. It was filled by silty sand, (1022)b, which had slumped in from the overlying subsoil, and had been cut into a layer of mid orange, medium to coarse grained sand, (1023). This latter deposit contained some grit and flint gravel, but was devoid of cultural material; it is likely to be a fluvio-glacial river terrace deposit.

### ***Trench 37***

(see fig. 71)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, located toward the centre of the field to investigate a complex of magnetic anomalies that may form elements of an enclosure and associated structures.*

Removal of the ploughsoil exposed a north-north-east to south-south-west aligned linear feature, [1142], c. 1.10m wide and 0.66m deep, that ran the full length of the trench. Sample excavation indicated that its sides sloped at c. 65° to the horizontal, terminating at a flat base c. 0.26m wide. Its upper fill was a dark greyish-brown slightly silty sand, (1141), c. 0.45m deep, that was similar in colour and consistency to the topsoil. It contained large quantities of limestone rubble, which was unevenly distributed: small limestone fragments formed approximately 10% of the northern two-thirds of the fill, but the density and size of the pieces of stone significantly increased toward the southern end, raising the possibility that a section of *in-situ* wall foundation lay in close proximity. The primary fill, (1143), c. 0.26m deep, consisted of mid greyish-brown sand that contained moderate quantities of small limestone fragments and five sherds of Roman pottery manufactured during, or prior to the mid-3<sup>rd</sup> century AD.

A single sherd of late 8<sup>th</sup> to 9<sup>th</sup> century Early Fine-shelled ware was recovered from (1141), along with eight residual fragments of Romano-British pottery and tile. This raises the possibility that [1142] was an Anglo-Saxon robber trench aligned along a Roman wall foundation. However, it seems more likely that this feature relates to the acquisition of materials for the construction the medieval grange located c. 50m to the east. The primary fill (1143) probably consisted of debris deposited during the actual process of robbing the wall. In contrast, the secondary fill, (1141), probably represented waste thrown back into the trench after the completion of the stone robbing in order to consolidate the ground. If this were so, the Anglo-Saxon pottery would merely have been a residual fragment incorporated into this infill. It should also be noted that the composition of the fills of [1142] suggested that the stone robbing was more thorough and systematic at the northern end of trench. This raises the

possibility that work ceased once the Anglo-Saxon, or medieval labourers had obtained sufficient building material.

The robber trench had been cut through a layer of stone rubble and Romano-British tile fragments, (1144), which appears to have extended across almost the entire trench. This cultural material was contained by a matrix of dark greyish-brown slightly silty sand, c. 0.16m deep. It is possible that this layer accumulated as a by-product of the robbing of the upper portions of the Roman wall, but it is also possible that a large proportion of this material accumulated as a result of the gradual deterioration and disintegration of the Roman structure following its abandonment. A total of 44 sherds of unstratified Romano-British pottery were recovered from this trench, the majority of which appear to have been manufactured during the mid to late 2<sup>nd</sup> century AD. Most of this material is likely to have been derived from (1144), having been dislodged when the mechanical excavator exposed the surface of this deposit.

A small, sub-oval pit, [1151], more than 0.45m long, by 0.4m wide and 0.16m deep, had been cut into rubble spread (1144), c. 1.5m from the south-east corner of the trench. It contained fragments of degraded creamy yellow lime mortar, (1150), that were enclosed within a matrix of dark greyish-brown sandy silt. This concentration of mortar suggests that the pit was filled with waste generated by the cleaning and processing of building stone obtained from the robbed Roman wall.

Rubble layer (1144) sealed the surviving portion of the fills of a north-north-east to south-south-west aligned linear feature, [1147], that had been cut into and followed by robber trench, [1142]. While *in-situ* stone courses were not exposed, it seems highly likely that [1142] was a Roman foundation trench. It was more than 1.30m wide at the top, with relatively gently sloping sides terminating at a flat base 0.50m wide. A deposit of mid greyish-brown sand filled the foundation trench, but the robber trench had removed much of this material. Interestingly, the fill along the western edge of the feature, (1146), was c. 0.16m higher than the equivalent deposit on the eastern side, (1145). This suggests that there was a difference in the ground level on either side of the Roman wall, and may also provide a tentative indication that one side of the wall lay within a building. Furthermore, it should be noted that robber trench [1142] ran along the eastern edge of the base of [1147], rather than down the centre of the feature. This suggests that the Roman wall had been built along that side of the foundation trench, and had been less than 0.30m wide.

Another feature was also identified beneath rubble spread (1144), but only a small portion of [1153] was exposed, thus making it difficult to determine its overall form. The excavated segment may have formed part of a pit more than 0.65m wide and over 0.38m deep, but was more suggestive north-north-east to south-south-west aligned linear feature running parallel to, and c. 0.90m from the eastern side of the robbed out Roman wall. This feature was filled by dark greyish-brown sandy silt, (1152), that contained occasional small limestone fragments.

Both foundation trench [1147] and pit/ditch [1153] had been cut into underlying natural deposits. These consisted of two elements, the uppermost being a deposit of iron-rich mid brown sand, (1148), which overlay a thick layer of relatively clean yellow sand, (1149). The latter is likely to represent *in-situ* fluvio-glacial river terrace deposits, while (1148) fills a series of irregular voids that were probably created by burrowing animals and tree roots.

### ***Trench 38***

(see figs. 72 & 73)

*A north-north-west to south-south-east aligned trench, 70m long by 2m wide, located toward the centre of the field to investigate a complex of magnetic anomalies that may form elements of an enclosure and associated structures.*

The removal of the ploughsoil exposed a subsoil layer comprised of mid brown silty sand, (1001). This deposit extended the full length of the trench, varying in depth from 0.44m at the southern end, to 0.24m near the centre and 0.40m near the northern end. Given the depth this deposit, it is likely that a large proportion of the sediment had a colluvial origin and had probably been washed down the north-east facing slope on the opposite side of Washingborough Road. A small quantity of limestone and some Romano-British tile fragments had been incorporated into (1001), along with pieces of ironstone and 17 sherds of pottery. The latter consisted of 15 fragments from Romano-British vessels, a piece of late-13<sup>th</sup> to 14<sup>th</sup> century Toynton medieval ware, and a small flake that was probably derived from a 17<sup>th</sup> to 19<sup>th</sup> century Staffordshire slipware vessel.

The removal of the subsoil exposed the fills of a large number of archaeological features. Consequently, the trench has been divided into three sub-sections in order to simplify the description of the results.

#### *Southern end*

An east-west aligned ditch, [1004], was situated 6.5m from the southern end of the trench. This feature was approximately 1.10m wide and 0.26m deep, and had a flattened 'U'-shaped profile. It was filled by mid greyish-brown sandy silt, (1005), which lay directly beneath the subsoil. Coarse components within the fill included occasional small, angular fragments of limestone, a few flecks of charcoal, some small pieces of ironstone, two scraps of Romano-British tile and two sherds of 3<sup>rd</sup> – 4<sup>th</sup> century AD Romano-British pottery.

A broad, shallow hollow, [1006], was situated c. 4.5m to the north of [1004]. Only a small proportion of this feature was exposed in the trench, but sample excavation suggested that it formed part of a west-north-west to east-south-east aligned linear feature that was a little over 5.0m wide at the top. It had very gently sloping sides and a flat base c. 3.0m wide and 0.40m deep. The fill was a friable, mid orangey-brown sandy silt, (1007), with frequent pale orange mottles. It incorporated a few angular limestone fragments and pieces of ironstone, along with small quantities of cultural material that included animal bone, shell, flecks of charcoal and ceramics. The latter included three Roman tile fragments, eight pieces of Romano-British pottery and a sherd of 13<sup>th</sup> – 15<sup>th</sup> century Potterhanworth ware.

A pair of associated features were situated approximately 4.0m to the north of [1006]. Ditch [1107] was the earliest of the pair, and was situated only 0.60m to the south of its neighbour. It was an east-west aligned linear feature, with a 'U'-shaped profile, c. 1.45m wide and 0.56m deep. The lower fill of [1107] was a mixed deposit of mid greyish-brown to yellowish-brown silty sand, (1109), c. 0.22m deep. This fill contained a moderate quantity of coarse components, which principally consisted of limestone fragments, but also included occasional flecks of charcoal. Examination of the section suggested that (1109) represented spoil generated by the construction of ditch [1107]. This material appears to have been deposited along the southern side of the ditch in order to create an associated bank. The friable nature of the sandy material forming (1109) resulted in much of the bank washing back into the adjacent ditch. This presumably happened relatively soon after the creation of



[1107], before turf, or other vegetation could become established and bind together the surface of the bank.

Ditch [1107] was still visible as a slight linear depression, c. 0.20m deep, when its replacement, [1102], was created immediately to the north. This was another east-west aligned ditch, but it was much larger, being approximately 2.70m wide and 0.90m deep, with a flat base 0.90m wide and sides sloping at between 45° and 65° to the horizontal. Its construction involved the movement of large quantities of sediment, which was again piled along the southern side of the feature. This created a bank that was at least 1.85m wide, with the basal component forming the upper fill of ditch [1107]. This fill/bank material was a mixed deposit of mid to dark reddish-brown and greyish-brown silty sand, (1106), that contained a moderate quantity of limestone fragments, animal bone and some charcoal.

The initial fill of ditch [1102] was a mixed deposit of pale to mid brownish-grey and yellowish-brown slightly silty sand, (1101)f. This relatively small deposit was restricted to the southern edge of the ditch, which it lined from top to base. This relationship indicates that (1101)f represents another component of the bank that had fallen back into the ditch soon after it was created. The next fill to accumulate was a dark grey sandy silt, (1101)e, which lined the base of the ditch to a depth of 0.16m. This was a true primary fill that was probably comprised of waterborne sediment that had washed in from the adjacent land surface, or had eroded from the sides of the ditch itself. This deposit contained a few fragments of limestone rubble, along with charcoal flecks, cattle and sheep bone, a piece of Roman tile and five sherds of 4<sup>th</sup> century AD Romano-British pottery. A soil sample taken from this deposit produced significant amounts of hammerscale, which is indicative of nearby iron-smithing, along with domestic refuse such as charred grains of wheat, barley and oats, a pea or bean, some burnt grass seed, and bones from eels, field and house mouse, common shrew, and frog or toad,.

A mixed deposit of pale to mid brownish-grey to yellowish-brown slightly silty sand, (1101)c, c. 0.26m deep, built up over (1101)e against the northern edge of the ditch. This material probably results from the weathering and slumping of this side of [1102], rather than representing the partial collapse of a second bank to the north (although the former presence of such a feature cannot be discounted). Next, a small deposit of mid to dark brownish-grey silty sand, (1101)d, accumulated toward the southern of edge [1102], above the interface between (1101)f and (1101)e. The limited extent of (1101)d suggests that it represents further material that had eroded from the bank running along the southern edge of the feature. However, a close examination of the vertical section suggested another possibility that could explain the restricted distribution of both (1101)c and (1101)d. The inter-relationships between these fills and the more extensive deposits that sealed them provided some evidence that later fills (1101)b, (1101)a and (1101) may have been contained within a recut of ditch [1102]. If so, (1101)c and (1101)d would have been truncated by this episode of redefinition. Unfortunately, some areas of animal disturbance obscured the interface between several of the fills situated toward the base of the ditch, thereby hampering attempts to elucidate the sequence of events.

The initial fill of the possible recut was a relatively small deposit of mid to dark grey silty sand, (1101)b, which would have lined its base and the lower part of its northern edge to a depth of up to 0.14m. This deposit incorporated flecks of charcoal and a small quantity of limestone rubble. A more substantial deposit, (1101)a, tipped down the southern edge of the ditch, or its recut and sealed (1101)b. Consisting of mid brownish-grey silty sand, the distribution of (1101)a suggested that it was also derived from the bank that had run along the southern edge of the ditch. However, it is not clear whether this would have been the original bank, or a supplemented feature created in conjunction with any recut, though the fact that

this deposit was over 0.45m wide and 0.60m deep indicates that its source was a considerable body of sediment. This latter attribute suggests that the deposition of (1101)a must either have resulted from the weathering of a new and unconsolidated bank, or that it was the product of the deliberate slighting of an older structure covered by turf.

The upper fill of [1102] was a substantial deposit of mid to dark grey silty sand, (1101), c. 1.90m wide and 0.64m deep that extended beyond the northern edge of the feature. This material incorporated a moderate quantity of limestone fragments, including some that were burnt and oxidised, along with a few fragments of tile, flecks of charcoal and some animal bone. A total of 31 pieces of pottery were recovered from the fills of Ditch [1102]. Of these, 14 were residual sherds consisting of Roman pottery that had been produced during the 3<sup>rd</sup> – 4<sup>th</sup> centuries AD. The other 17 sherds consisted of medieval fabrics, the bulk of which were the product of the Potterhanworth kilns. Six pieces were plain and another nine were the green-glazed fabric, two sherds of which preserved part of the decorated surface of a bearded face jug. The attributes of this small ceramic assemblage suggested that it had been created, and then deposited in [1102], during the early to mid 13<sup>th</sup> century. These fills also contained at least three fragments of pale grey burnt daub, which preserved the casts of circular pieces of wattle. It seems likely that this material represents the residue of a wattle and daub structure that was accidentally destroyed by a fire.

Although it was possible to determine that ditch [1107] was succeeded by the more substantial boundary [1102], it has proved more difficult to relate these features to the other two that were identified in the southern third of the trench - [1004] and [1006]. The fills of all four features were sealed by the subsoil layer, (1001), and furthermore they had all been cut into the same colluvial layer, (1003), these relationships suggesting that they were all broadly contemporaneous. The colluvium, (1003), was a deposit of mid orangey-brown sandy silt that extended across the most southerly 36m of the trench and reached a maximum depth of 0.20m. It contained fourteen sherds of Romano-British pottery, some of which had been manufactured during the 4<sup>th</sup> century AD, thirteen pieces of Roman tile and 3 fragments of medieval roof tile made between the 12<sup>th</sup> and 15<sup>th</sup> centuries.

The similarity between the orientation and dimensions of [1004] and [1107] may provide a tentative indication that they constituted elements of the same system of land division, which was supplanted, or supplemented by [1102]. The shallow hollow, [1006], was more amorphous and had a different alignment, implying that it relates to a different phase of activity, although this is by no means certain.

### *Central area*

The principal feature in this part of the trench was a broad east-west aligned depression, [1119], c. 11.0m wide, with a flat base 0.20m deep. It may have formed part of a large shallow pit, but may be more plausibly explained as an element of a linear feature, such as a hollow way. It had a gently sloping southern edge, which was inclined at c. 30° to the horizontal, but there was no comparable perimeter to the north, this side of the feature just disappeared as it merged into the north-facing slope of the ground surface. Hollow [1119] was filled with an homogenous deposit of mid to dark grey silty sand, (1114), which contained one Roman tile fragment, some sheep bone and ten sherds of pottery. Eight of the pieces of pottery represented residual Romano-British material that included some fabrics of late 4<sup>th</sup> century date. The other two sherds were fragments of Lincoln Glazed ware produced during the 12<sup>th</sup> – 15<sup>th</sup> century AD. This indicates that [1119] was a product of medieval activity.

Three features had been cut into the base of the exposed section of [1119]. The first was a small, sub-oval pit, [1118], more than 0.56m long, by 0.55m wide and 0.35m deep, which lay only 0.5m from the northern edge of the hollow. Another pit-like feature, [1115], lay 1.60m further to the south; it was over 0.65m long, 0.75m wide and 0.22m deep, and may have been a small sub-oval pit, or the western terminal of east-west aligned gully. Both of these features were filled with mid to dark grey silty sand, (1117) and (1116) respectively, that was indistinguishable from the main fill of hollow [1119], suggesting that all three features had become redundant at the same time. The third feature was a shallow east-west aligned gully, [1113], with a 'U'-shaped profile c. 0.70m wide and 0.10m deep, which lay a little over 3m from the southern edge of [1119]. It contained a mixed deposit of dark brownish-grey silty sand, (1112), which was streaked through with yellowish-brown mottles that were probably the result of animal disturbance. Coarse components in (1112) included animal bone, some pieces of burnt limestone, charcoal and, nine fragments of fire-cracked pebbles. The latter appear to have been used as potboilers, a means of heating water that is generally associated with later prehistoric activity. They are derived from three different parent materials, and are most likely to have been collected from the surface of higher ground situated to either side of the river valley.

One other feature was situated in the central section of Trench 38, an east-west aligned gully, [1104], located 2.75m to the south of [1119]. It had a 'U'-shaped profile, c. 0.70m wide and 0.26m deep, which was comparable in form and dimensions to gully [1113], situated 6.1m to the north. The fill of [1104] was a mixed deposit of mid reddish-brown to greyish-brown silty sand, (1103), that contained occasional limestone fragments, five pieces of worked flint, cattle bone, two pieces of Romano-British tile and a small amount of pottery. The latter included two sherds of 4<sup>th</sup> century Roman ceramic and a sherd from a 13<sup>th</sup>–14<sup>th</sup> century Potterhanworth ware jar. Both (1103) and (1114), the main fill of the large hollow occupying the centre of the trench, were sealed by the subsoil. This implies that all of the features in this area were created during the same relatively broad phase of activity in the medieval period.

#### *Northern end*

The mechanical excavator stripped away the subsoil, (1001), to reveal a mixed deposit of small to medium sized limestone rubble that were set in a matrix of mid grey to dark greyish-brown slightly silty sand, (1065), up to 0.30m deep. The pieces of limestone ranged in size from less than 0.05m up to 0.25m across, and were interspersed with small quantities of animal bone, tile fragments and sherds of pottery. This deposit was spread over a 10m wide area that extended to within 10m of the northern end of the trench, and seems likely to attest to the former presence of a Roman building in the immediate vicinity. Almost all of the 46 sherds of pottery and 30 pieces of tile that were recovered consisted of Roman fabrics. Most of the pottery could be dated to the mid to late 3<sup>rd</sup> century AD, thus providing a tentative age for the associated materials, and as a consequence the adjacent structure. Three fragments of 13<sup>th</sup>-15<sup>th</sup> century tile and one sherd from a Lincoln Glazed ware miniature jug of 13<sup>th</sup>–15<sup>th</sup> century date were also recovered from this debris. This later ceramic material, combined with the absence of any large pieces of limestone rubble, suggests that (1065) represents the residue of medieval stone robbing, which resulted in the levelling of a ruined Roman building. This deposit also contained a piece of Spilsby Sandstone that is likely to have formed part of a Romano-British rotary quern, and the medial fragment of a polished bone point. The latter may have functioned as a needle or, alternatively, as a hairpin, or clothes fastener.

Another comparable, but smaller demolition deposit, (1071), was sealed beneath the southern portion of (1065). Around 80% of (1071) was comprised of a mid brownish-grey silty sand

matrix, c. 0.14m deep, which enveloped moderate quantities of limestone rubble and tile fragments. Twenty fragments of Romano-British tile were recovered from this deposit. Other coarse components included small amounts of horse and cattle bone, a circular sandstone counter, and 20 sherds of late 3<sup>rd</sup> to 4<sup>th</sup> century Romano-British pottery. It seems likely that (1071) results from the gradual deterioration and collapse of a nearby Roman building, which appears to have been constructed during the 4<sup>th</sup> century AD.

The removal of demolition deposits (1065) and (1071) exposed a series of inter-related linear features, which appeared to result from a complex phase of activity. These features included a north-south aligned ditch, [1062], that was only partially exposed as it ran along the eastern edge of the trench. It could be traced for at least 17.0m, continuing northwards beyond the end of the trench, and the sections excavated through its fills suggested that it had a 'U'-shaped profile that was probably around 0.7m wide and more than 0.20m deep. The fill consisted of mid brownish-grey sandy silt, (1064)/(1077), which contained a few pieces of limestone rubble, cattle and sheep bone, 13 Roman tile fragments and some charcoal. There were also 15 sherds of pottery, 14 of which were Romano-British fabrics dating to the later 3<sup>rd</sup> to 4<sup>th</sup> centuries AD. The other was a piece of late 10<sup>th</sup> – 12<sup>th</sup> century Lincolnshire Fine-shelled ware, which indicated that the fill of [1062] was a medieval deposit.

A comparable feature, ditch [1061], ran parallel to the western edge of [1062], from which it was separated by an interval of only 0.5m. Ditch [1061] had a variable profile, being roughly 'U'-shaped with a flattish base toward its northern and southern ends, but more 'V'-shaped along its central section. Again, it was over 17m long, and was around 0.75m wide and 0.15 – 0.35m deep. It was filled by mid brownish-grey sandy silt, (1063)/(1066)/(1074)/(1078), that contained moderate amounts of charcoal, a few pieces of limestone rubble, pottery, tile fragments and animal bone. A total of 63 sherds of pottery and 35 fragments of tile were recovered from the fill of [1061], 36 coming from (1063), 27 from (1066), 13 from (1074) and 22 from (1078). Analysis indicated that this artefactual material was the residue of Romano-British activity, most having been manufactured during the 3<sup>rd</sup> and 4<sup>th</sup> centuries AD.

Examination of a section through the central segment of [1061] indicated that it was a redefinition of an earlier ditch, [1068]. The latter was also a north-south aligned linear feature, which had a 'V'-shaped profile, the sides sloping at c. 60° to the horizontal. It could be traced for at least 10m from north to south, but its alignment was so closely followed by [1061] that parts of it may have been totally truncated; even the eastern side of the surviving portion had been removed; as such [1068] was more than 0.45m wide at the top and c. 0.40m deep. It was filled by a deposit of mid greyish-brown sandy silt, (1067), that contained a small quantity of limestone rubble, some charcoal and 33 sherds of Romano-British pottery, some of which was manufactured in the 4<sup>th</sup> century. A relatively shallow feature, [1070], lying immediately to the west of [1068] could represent an even earlier alignment of this ditch, but seems more likely to have been part of a sub-oval pit with a long axis orientated from north to south. As with [1068], the eastern half of [1070] had been largely removed, but the surviving portion suggested that it had had a flattened 'U'-shaped profile that was over 0.5m wide and 0.24m deep. It contained a pale to mid grey silty sand, (1069), that incorporated fragments of limestone, further charcoal and 14 sherds of late 3<sup>rd</sup> to 4<sup>th</sup> century pottery.

The remains of a small sub-oval pit, [1080], was identified between ditches [1061] and [1062], a little over 2.5m from the northern end of the trench. Relatively little remained, as both ditches had truncated it. However, the one surviving edge was concave and suggested that this feature had had a 'U'-shaped profile, more than 0.60m long and over 0.50m wide, with a flat base 0.16m deep. Its fill was a mixed deposit of mid brownish-grey to dark grey silty sand, (1079), that incorporated moderate amounts of charcoal, some limestone and tile fragments, animal bone and three sherds of late 2<sup>nd</sup> – 3<sup>rd</sup> century Romano-British pottery.

While this may provide a date for the feature, it can only be accepted tentatively given the large quantity of residual Roman pottery identified at this end of the trench.

A series of east-west aligned features ran across the southern ends of [1061], [1062] and [1068]. The latest of these was either a relatively large sub-oval pit, or the eastern terminal of an east-north-east to west-south-west aligned ditch, [1105]. It was more than 1.25m wide and 0.60m deep, with its southern edge descending at c. 65° to the horizontal before terminating abruptly at a flat base. Its lower fill, (1108)a, was a 0.26m deep layer of mid greyish-brown to dark grey silty sand that contained a few pieces of limestone and some charcoal. Sealing this was a 0.55m deep deposit of mid brownish-grey silty sand, (1108), within which there were moderate quantities of limestone rubble (including fragments up to 0.25m across), along with horse, cattle, sheep and pig bone, charcoal, 15 pieces of Roman tile, and 21 sherds of Romano-British pottery.

Pit/ditch [1105] had truncated the fill of an east-west aligned gully, [1076], that was more than 0.70m wide and 0.45m deep. This feature appeared to have a 'U'-shaped profile in one section, but the opposite elevation suggested that it had had a 'W'-shaped cross-section; this latter form could indicate that there were in fact two features containing indistinguishable fills. This fill was a mid to dark brown sandy silt, (1075), that incorporated occasional to moderate limestone fragments mixed with small amounts of charcoal. The earliest detected feature in this sequence was an east-north-east to west-south-west aligned gully, [1073], that had been substantially truncated by [1076]. This feature, which was around 0.40m deep, held a mid greyish-brown sandy silt fill, (1072), which included a small amount of limestone rubble, along with some tile and pottery. The latter consisted of 19 fragments of Roman tile, 24 sherds from mid to late 3<sup>rd</sup> century Romano-British vessels and a single piece of late 14<sup>th</sup> – 15<sup>th</sup> century Potterhanworth ware.

It is possible that most of the features exposed at the northern end of the trench were medieval robber trenches that were the product of a complicated sequence of events during which the remains of a Roman building were completely removed, thereby effectively erasing it from the archaeological record. Alternatively these features could represent elements of a persistent boundary complex. A number of the sections cut through the fills of these features suggested that they had been left open and had silted up naturally. This latter process would have been accelerated by the poor cohesion and friability of the sandy soils into which they were excavated; this in turn could explain why both the north-south and east-west elements of this complex were redefined on at least two, or three occasions.

The majority of the features identified in the central and northern parts of the trench had been excavated into the upper surface of the fluvio-glacial river terrace deposits, which consisted of medium to coarse grained, mid orangey-brown sand, (1002), that contained numerous pieces of ironstone and localised pockets of flint gravel.

A large quantity of unstratified pottery was also recovered from the trench. There were 166 sherds of Roman fabrics, which included pieces of late 4<sup>th</sup> century date. There were also nine pieces of medieval pottery. Almost all were locally produced in kilns at Lincoln, or Potterhanworth. However, there was also a piece from a Siegburg-type ware drinking jug of mid 13<sup>th</sup> to mid 16<sup>th</sup> century date. Three pieces of millstone grit and a piece of schist were also recovered from unstratified deposits. The gritstone had formed part of one, or more rotary querns that had been manufactured in the Peak District, either during the Roman, or the medieval period. The schist was a piece of Norwegian Rag that had been used as a hone-stone. It is most likely to have been imported between the 10<sup>th</sup> and 14<sup>th</sup> centuries AD.

### **Trench 39**

(see fig. 74)

*An east-north-east to west-south-west aligned trench, 10m long by 5m wide, located toward the southern edge of the field to investigate possible internal features of an enclosure detected by the gradiometer survey.*

The ploughsoil sealed a layer of brownish-grey slightly silty sand, (1043), c. 0.1m deep. This subsoil contained occasional pieces of limestone and, cattle and sheep bone, as well as a relatively discrete linear deposit of limestone rubble, tile and pottery, (1043)a. The latter incorporated both Romano-British and medieval ceramic materials; there were 16 pieces of Roman tile and 13 sherds of late 3<sup>rd</sup> – 4<sup>th</sup> century Romano-British pottery, along with 12 fragments of tile manufactured between the 12<sup>th</sup> and 16<sup>th</sup> centuries AD and three sherds of medieval fabric, which had been produced at Potterhanworth and Toynton prior to the 15<sup>th</sup> century. This north-south aligned spread was approximately 0.95m wide and ran across the centre of the trench. Although some of the fragments of limestone were up to 0.20m across, many of the interstices were large and there was no evidence that the components of (1043)a had been mortared, or otherwise consolidated. When combined with the absence of evidence for a construction trench, it seems unlikely that this strip of rubble represented the basal component of an *in-situ* wall foundation. However, the relative concentration and linearity of (1043)a is unlikely to be fortuitous. It is therefore tentatively suggested that this material could have been laid down during, or after the 14<sup>th</sup> century to form a roughly metalled path. Alternatively, it is possible that this rubble may have been collected from the surface of adjacent ploughed land during post-medieval agricultural activity and then dumped at the base of a vanished boundary, such as a hedge.

The removal of the subsoil exposed part of a relatively large pit, or the terminal end of an east-west aligned ditch, [1041], which was situated at the south-east corner of the trench. This feature was over 1.85m long and appeared to have a flattened ‘U’-shaped profile more than 1.10m wide, the exposed edge sloping gently to a flat base c. 0.24m deep. It was filled by dark grey, slightly silty sand, (1042). The pit had been cut into orangey-yellow medium to coarse-grained sand, (1045), which represented the upper component of the fluvio-glacial river terrace deposits in this part of the field.

A small quantity of unstratified pottery was recovered from the trench during the evaluation. There were 14 sherds of Romano-British fabrics, some of which indicated that activity at the site continued until the very end of the 4<sup>th</sup> century AD. The nine sherds of post-Roman pottery were also of interest. The majority were products of kilns at Potterhanworth (6 pieces) and Lincoln (2 fragments) and were the residues of activity taking place in the 13<sup>th</sup>, 14<sup>th</sup> and 15<sup>th</sup> centuries. In contrast, the remaining sherd was a piece of Northern Maxey-type ware of the late 7<sup>th</sup> to later 9<sup>th</sup> century AD, which provided evidence of some form of Middle Anglo-Saxon activity on, or adjacent to Field F. With the exception of this unstratified material, relatively little of archaeological significance was discovered in Trench 39 when compared to the areas investigated to the east, north and west. This suggests that this part of the field F lay at the periphery of the main foci of activity in both the Roman and the medieval periods.

### **Trench 40**

(see fig. 75)

*A north-north-west to south-south-east aligned trench, 40m long by 2m wide, located toward the south-west corner of the field to investigate a complex of magnetic anomalies that may form elements of an enclosure and associated structures.*

The ploughsoil overlay a layer of mid greyish-brown, friable silty sand, (1048), c. 0.33m deep. This subsoil contained moderate quantities of limestone rubble and also incorporated fine to medium grained colluvial sand that had washed down the slope situated immediately to the south-west. It seems likely that (1048) was cut through by an east-west aligned land drain, [1053], but this relationship was ambiguous due to the close similarity between the subsoil and the sedimentary component of the drain's fill. The land drain was located c. 13m from the northern end of the trench. It consisted of a narrow trench 0.30 – 0.40m wide and 0.50m deep, which had been filled with small and medium sized pieces of limestone rubble and tile fragments, (1052), to create a free draining channel. The tile fragments included pieces of Romano-British and medieval fabrics indicating that the drain was created during or after the 13<sup>th</sup> century. Furthermore, the use of rubble suggests that this drain was created prior to the widespread introduction of ceramic pipes around 1825-30.

The majority of the limestone fragments that were contained by subsoil (1048) lay within 8m of the northern, or southern edges of an *in-situ* wall foundation, (1046), which ran from east to west across the centre of the trench. This relationship suggests that most, if not all of this stone was derived from the upper courses of the wall. The base of the wall had been constructed in a foundation trench, [1040], c. 1.10m wide, which had been lined with pale yellowish-blue clay, (1047). The latter was very pure and did not appear to have any voids within it. These attributes suggested that (1047) had been levigated and then deposited into [1040] as a paste that could be worked and smoothed, and into which the lowest courses of limestone could be set. The surviving component of wall (1046) was c. 0.70m wide and over 0.30m deep. It had been constructed from pieces of tabular limestone rubble varying in size from less than 0.05m across, up to 0.20m by 0.25m. A few pieces of tile had also been incorporated into this structure, but it was not possible to determine whether they were Roman, or medieval in date. There was no evidence of distinct courses and there was no mortar, or clay in the interstices of the upper part of the surviving structure. This indicates that the lower part of the wall was probably of drystone construction, a factor that may also explain why the foundation was relatively broad.

Further yellowish-blue clay, (1047)a, had been deposited against the base of the northern face of the wall soon after the stone foundation had been laid. This secondary component of (1047) extended beyond the northern edge of foundation trench [1040], being approximately 0.75m wide, and was still over 0.20m deep, despite having been truncated by later ploughing. Its function is difficult to determine, but it is possible that (1047)a was intended to act as a buttress, or rampart along the inner edge of the wall, in which case it could even have been surmounted by an internal walkway. As almost all of the rubble exposed in Trench 40 was concentrated around foundation (1046) it seems likely that this section of the wall had stood in a relatively isolated position. Consequently, it seems likely that the wall formed a boundary away from other stone structures, rather than part of a building.

Three sherds of Romano-British pottery were recovered from among the interstices between the remaining *in-situ* elements of the wall foundation. These fragments of ceramic material possibly provide a tentative indication that wall (1046) formed an element of the Roman building complex, rather than being part of the medieval development that occupied the same field. However, a fragment of a Norwegian Rag hone-stone was also found in association

with the remains of the wall. This abrasive schist was imported in large quantities from the 10<sup>th</sup> to the 14<sup>th</sup> centuries and is consequently indicative of Anglo-Scandinavian and medieval activity.

The eastern part of a large sub-oval pit, [1051], was exposed 6m from the southern end of the trench. It was approximately 1.6m wide, by more than 1.65m long and had a relatively flat base c. 0.20m deep. It was filled by dark brownish-grey sand, (1050), which was slightly mottled as a result of bioturbation. This deposit incorporated two worked flints, one of which was manufactured during the Late Mesolithic - Early Neolithic period, and one tiny scrap of pottery, which was possibly of Iron Age or Roman date, but was too small to make a positive identification. A few pieces of worked flint were also recovered from the fill, raising the possibility that [1051] had been created during prehistory. However, it should be noted that all of the other flint that was recovered from Field F had come from residual contexts; the evidence of bioturbation in (1050) indicates one mechanism by which all these artefacts could have entered the feature.

An irregular linear feature, [1055], ran from north-west to south-east near the northern end of the trench. It varied from 0.40m to 1.25m in width and had a semi-circular protrusion at centre of its north-eastern edge. This feature was sample excavated, revealing an uneven base and an asymmetric profile only 0.18m deep. Its form and variability suggested that it was a redundant animal burrow, which had filled with mottled dark greyish-brown sand, (1054).

The wall foundation trench, [1040], the sub-oval pit [1051], and the animal burrow, [1055], had all been cut into a layer of medium to coarse-grained reddish-orange sand, (1049), which contained frequent pieces of ironstone and flint gravel. This deposit represented the uppermost component of the drift geology.

A relatively large amount of unstratified pottery was recovered from the trench during the machine stripping of the topsoil and subsoil. There were 80 sherds of Roman date, which spanned the period from the 2<sup>nd</sup> century to the end of the 4<sup>th</sup> century AD. There were also ten pieces of medieval pottery. Almost all were locally produced during the 13<sup>th</sup> to 15<sup>th</sup> centuries, five pieces coming from Potterhanworth and four from kilns at Lincoln. The tenth piece was a sherd of Humberware of mid 13<sup>th</sup> to mid 16<sup>th</sup> century date, which provided some indication of the broader regional contacts and interactions of the inhabitants of the medieval grange. Other unstratified material included a hone-stone made of fine-grained white sandstone that was probably obtained locally, and eight small fragments from a lava quern. The latter is likely to have been brought from Mayen in south-west Germany. This possibly occurred during either the Roman, or the medieval periods, but it is most likely to have been a Middle Saxon import of the later 7<sup>th</sup> to mid 9<sup>th</sup> centuries.

### ***Trench 41***

(see fig. 76)

*A trench with two perpendicular components – a north-north-west to south-south-east aligned trench, 20m long by 2m wide, joined at its north-west corner to an east-north-east to west-south-west aligned trench, 20m long by 2m wide. It was located toward the western edge of the field to investigate a complex of magnetic anomalies that may form elements of a building and associated features.*

The removal of the ploughsoil exposed a mixed deposit of mid brownish-grey silty sand, (1081), that extended right across both arms of the trench and was generally around 0.10m thick. It contained large amounts of small to medium sized limestone rubble, along with



moderate amounts of Roman tile and, bone from cattle, sheep and a dog. A small quantity of pottery was also evident, 14 sherds of abraded late 3<sup>rd</sup> to 4<sup>th</sup> century Romano-British fabrics were recovered, along with three pieces of Potterhanworth glazed ware and two sherds of Lincoln shelly ware that were manufactured during the 13<sup>th</sup> – 15<sup>th</sup> centuries. The form and composition of (1081) was directly comparable to similar deposits found in most of the other trenches in Field F. It almost certainly represents debris that was discarded by medieval labourers during the salvaging of building materials from the remains of an adjacent Roman building. The fact that (1081) lay directly beneath the ploughsoil implies that it has been truncated by modern agricultural activity.

Demolition deposit (1081) sealed a layer of mid orangey-brown, friable sandy silt, (1084), up to 0.42m deep, which extended across the whole of the north-north-east to south-south-west aligned wing of the trench and also covered the most easterly 7m of the adjoining arm. The composition of (1084) suggested that it incorporated a significant colluvial component, although approximately 20–30% of this layer consisted of angular limestone fragments and pieces of tile. These coarse components probably fell from the same Roman structure that was subsequently demolished in the event that produced (1081), and they are likely to be the product of centuries of decay. It is notable that (1084) was sealed beneath the main demolition deposit in Trench 41, and was therefore unlike the other colluvial deposits identified in this field, which formed subsoil layers immediately below the ploughsoil. This suggests that the sequence of activity had been slightly different in the immediate vicinity of Trench 41, and may provide some indication that Roman structures in this area enjoyed a better state of preservation at the beginning of the medieval period than those situated elsewhere in the field.

A relatively unusual area of iron panning, (1082), was sealed beneath (1084) near the southern end of the north-north-east to south-south-west aligned part of the trench. This reddish-orange sandy concretion had a domed cross-section c. 2.60m wide at the base, 1.0m wide at the top, and 0.34m high, and incorporated some coarse components. The latter included limestone rubble, cattle, sheep and dog bones, 16 pieces of Roman tile, 24 sherds of abraded 4<sup>th</sup> century Romano-British pottery and a single piece of medieval Humberware that had been manufactured between the 14<sup>th</sup> and the mid 16<sup>th</sup> century AD. The relative coherence and form of (1082) suggested that it represented the remains of a fairly large, discrete deposit, with the ferrous oxide possibly being indicative of decomposed organic matter. It is therefore tentatively suggested that (1082) represented the remains of a midden heap that may originally have consisted of waste such as dung and straw.

A substantial wall foundation, (1083), was sealed beneath colluvial layer (1084) at the junction between the two arms of the trench. This east-west aligned structure, which was 2.5m wide and over 3.5m long, was primarily constructed from pieces of tabular limestone rubble varying in size from less than 0.05m<sup>2</sup>, up to c. 0.65m by 0.35m. Numerous fragments of Romano-British tile had also been incorporated into (1084), and 47 pieces were recovered during the course of the investigation. The tile and stones were generally laid horizontally, but there was no indication of distinct courses. Furthermore, there was no evidence of mortar in the interstices of the majority of (1083), suggesting that it was of drystone construction. However, a 1.80m wide deposit of creamy yellow lime mortar, (1083)a, abutted the southern face of the wall. Given its relationship to the stone foundation, it is possible that this granular material represented the remains of a heavily degraded plaster coating that had formerly covered the upper portion of wall (1083). The wall had been constructed within a foundation trench, [1096], but its depth was not established, because it was decided to preserve the footings *in-situ* pending a decision on any further archaeological work that may be necessary in this area.

A significant quantity of cultural material was recovered from the interstices of foundation (1083). These finds included a Late Mesolithic or Early Neolithic worked flint, animal bone from cattle, sheep, a pig and a dog, a human tooth and a small collection of pottery. The latter primarily consisted of 39 Romano-British sherds, but there were also three fragments of 13<sup>th</sup> to 15<sup>th</sup> century Potterhanworth ware. All of this ceramic material was recovered from the upper horizon of the surviving foundation during cleaning. While it is possible that the medieval pottery provides a date for the construction of (1083), the location and form of this wall foundation suggested that it was more likely to have represented part of the complex of Roman buildings. If so, the sherds of Potterhanworth ware are intrusive and probably reflect the disturbance caused by the episodes of stone robbing that evidently took place in this area.

The depositional sequence at the western end of the east-south-east to west-north-west arm of the trench differed from that described above. The removal of demolition deposit (1081) revealed another layer of limestone and Roman tile fragments, (1085), the elements of which were generally larger than the coarse materials encountered elsewhere in Field F. The constituents of (1085) included both blocky and tabular pieces of stone, which varied from c. 0.07 by 0.15m, up to 0.90 by 0.75m. The stones had been laid horizontally and formed a single course, but a few of the pieces overlapped causing slight irregularities in the level of the upper surface. Although there was relatively little evidence of wear on the tops and around the edges of these pieces of stone, it seems likely that the elements of (1085) had been laid to create a metallised surface.

Many of the blocks forming (1085) were suitable for use as building stone and must have been obtained from an adjacent Roman stone structure that had become redundant, or fallen into a state of disrepair. However, it was apparent that all of the medieval demolition deposits examined in Field F were devoid of comparable large blocks of stone, probably because any such reusable materials had been transported to the eastern end of the field to be reutilised in the construction of the monastic grange. This suggests that surface (1085) results from activity predating the medieval reclamation of Roman building materials, but must also have been created after some of these Roman structures had started to fall into decline. It is therefore possible that (1085) represents part of a phase of activity taking place at the end of the Roman, or during the sub-Roman period, which would approximate to the late 4<sup>th</sup> – 5<sup>th</sup> centuries.

The two largest pieces of tile had a curving edge and, in plan, formed a quadrant of a disc. They would have been manufactured for use in the construction of composite columns, or pilasters that would subsequently have been coated with plaster in order to give the appearance that they were created from a single large piece of stone. The presence of columns indicates that they would almost certainly have formed part of an impressive high status building. This conclusion is further reinforced by the fact that only two, or three similar tiles have been recovered from all of the excavations that have been undertaken within the area of Lincoln that was formerly occupied by the Roman city of *Lindum* (J. Young, *pers. comm.*)

The archaeological features in Trench 41 had been cut into, or overlay a layer of medium to coarse-grained, pale greyish-orange sand, (1086), that contained pieces of ironstone and flint gravel. This Quaternary deposit formed part of the river terrace sands and gravels that have been laid down along the southern edge of the river valley.

The process of opening of the trench uncovered a large quantity of unstratified pottery. The majority consisted of Romano-British material, with the 103 sherds that were recovered indicating activity spanning the late 2<sup>nd</sup> century to the end of the 4<sup>th</sup> century AD. This assemblage also included eight fragments of post-Roman pottery, which exhibited greater

diversity with respect to fabric type and date than contemporary pottery from elsewhere in Field F. The medieval pottery consisted of two pieces of Potterhanworth glazed ware from the 13<sup>th</sup> to 15<sup>th</sup> centuries, a fragment of 14<sup>th</sup> – 15<sup>th</sup> century Lincoln glazed ware and a sherd of Humberware of mid 13<sup>th</sup> to mid 16<sup>th</sup> century date. There was also a piece of post-medieval Black-glazed ware manufactured between the mid 16<sup>th</sup> and mid 18<sup>th</sup> centuries. Finally there were three sherds of early modern fabrics: one piece each of late earthenware, modern white ware and transfer printed ware. Such late fabrics were essentially absent from the other areas of the field that were examined by trial trenching, and the events that resulted in their deposition must have post-dated the relocation of Sheepwash Grange to the hilltop to the south. A single unstratified fragment from a millstone grit rotary quern was also found in Trench 41.

#### ***Trench 42***

(see figs. 77 & 78)

*A north-north-west to south-south-east aligned trench, 40m long by 2m wide, located toward the western edge of the field to investigate a complex of magnetic anomalies that may form elements of an enclosure and associated structures.*

The cereal crop and ploughsoil were stripped away to revealed a layer of mid reddish-brown silty sand subsoil, (1135), up to 0.30m deep, that extended across the most southerly 25m of the trench. Although it contained moderate quantities of angular limestone fragments and some pottery, it is likely to have been largely comprised of colluvium that had been transported down the face of the slope located to the south-west.

Subsoil (1135) sealed a layer of small to medium sized limestone rubble and tile fragments, (1120)/(1122), that were contained by a matrix of mid greyish-brown sand. This deposit varied in depth, but was generally around 0.18m deep and extended across almost the entire trench. The ceramic material incorporated into this layer included 68 pieces of Roman tile and 92 sherds of Romano-British pottery that primarily dated to the mid 3<sup>rd</sup> century AD. There was also one piece of Northern Maxey type ware that reflected Middle Saxon activity during the late 7<sup>th</sup> – late 9<sup>th</sup> centuries. Two fragments of 13<sup>th</sup>-15<sup>th</sup> century tile and a single piece of late 14<sup>th</sup> – 15<sup>th</sup> century Potterhanworth ware provides a date for the formation of this deposit, the majority of which is likely to result from episodes of deliberate demolition and stone robbing. However, it is also possible that a small proportion of (1122) reflects the gradual disintegration of derelict Roman buildings lying in close proximity to Trench 42. One element of this deposit was assigned a separate context number in recognition of its relative homogeneity. A layer of small and medium sized pieces of tabular limestone, (1126), formed the upper component of (1122) in the area situated between 12m and 25m from the southern end of the trench. The stones were all relatively horizontal and were interspersed with a small quantity of Romano-British tile. Although there were some large interstices, the general arrangement suggested that (1126) had either been deliberately laid to form a rough metalled surface, or represented the residues of a distinct episode of demolition.

A second relatively dense layer of small and medium sized pieces of tabular limestone, (1125), was sealed beneath (1122) in the same part of the trench that (1126) was located. Again almost all of the pieces of stone were laid horizontally, raising the possibility that they formed an earlier rough surface. In this case the small quantities of cultural material that were incorporated into (1125) could merely reflect associated occupation debris and discard. Alternatively, these pieces of horse, sheep and pig bone, four Roman tile fragments and 26 sherds of Romano-British pottery may have been derived from older stratified deposits that were disturbed by the demolition, or collapse of an adjacent derelict Roman structure. The

close spatial correspondence exhibited by the distribution of (1125) and (1126) would appear to favour the latter interpretation.

The removal of (1126), (1122) and (1125) exposed a number of archaeological features in the northern, central and southern parts of the trench. A stone drain, [1123], that was situated c. 5.5m from the southern end of the trench, was possibly among the latest of these features. This drain had been constructed from pieces of tabular limestone that had been set vertically to retain the sides of an east-north-east to west-south-west aligned construction trench, c. 0.3m wide by 0.15m deep. Small angular pieces of limestone rubble had been deposited along base of the cut to prevent the sides from being undermined, and the resultant void had been capped by further tabular slabs that had been laid horizontally. The enclosed space had an irregular, sub-rectangular cross-section, c. 0.16m wide by 0.13m deep, which had eventually filled with mottled yellowish to mid-brown, fine-grained sand, (1124). The south-western end of the drain was aligned upon a slight conical depression situated approximately 10m from Trench 42. This depression contains a small spring that still causes the surrounding ground to become waterlogged and boggy in the wetter parts of the year (information from the landowner). The spring is currently drained by a south-west to north-east aligned ceramic land drain that traversed Trench 42 c. 7m to the north of drain [1123]. It therefore seems likely that the stone drain was also constructed to divert the spring water and alleviate this problem.

Examination of the stratigraphic sequence in this part of the trench suggested that [1123] was sealed beneath demolition (1122), in which case the drain would almost certainly be of Romano-British construction. However, the form of [1123] is most consistent with stone land drains constructed during the 17<sup>th</sup> – 18<sup>th</sup> centuries AD. If this is the case, then the relatively disturbed and heterogeneous nature of (1122) may have masked the upper part of the construction trench that cut through it.

A group of three related features were identified c. 25m from the southern end of the trench. The latest of these was ditch [1127]. This east-west aligned linear feature was 0.80m wide and 0.56m deep. It had a well defined, but irregular profile, the northern edge rising at c. 60° to the horizontal, while the southern side ascended in a series of small steps. Its lower fill was a mottled mid-brown to brownish-orange slightly silty sand, (1128), c. 0.40m wide by 0.12m deep, which incorporated a few small fragments of limestone, along with horse, cattle, sheep and dog bone, eight sherds of Romano-British pottery and twelve fragments of Roman tile. The secondary fill was a mid brownish-grey sand, with orange mottles, (1138), that extended northwards beyond the edge of the feature to form a layer c. 0.17m deep; this layer lay immediately beneath the ploughsoil and replaced the subsoil in the central part of the trench. A slightly thicker deposit of subsoil (1135), c. 0.36m deep, filled the upper part of ditch [1127] – this fill constituted the most northerly extent of this deposit.

Ditch [1127] had been cut through rubble layer [1120]/[1122], a demolition deposit that was associated with medieval pottery. Consequently, it is evident that the creation of [1127] would have post-dated the collapse, or demolition of any adjacent Romano-British buildings, and as such would have formed a boundary of medieval, or post-medieval date. However, it should be noted that it followed the same alignment as an earlier ditch, [1129], which was situated immediately to the north. This latter feature had a flattened 'V'-shaped profile that was approximately 1.24m wide and 0.26m deep. It was filled by a mottled deposit of mid-brown to brownish-orange slightly silty sand, (1130), which contained four sherds of 4<sup>th</sup> century Romano-British pottery, ten fragments of Roman tile, three pieces of medieval roof tile (produced during the 13<sup>th</sup>-15<sup>th</sup> centuries), some cattle bone and flecks of charcoal. This fill was sealed beneath the rubble layer, [1120]/[1122], suggesting that it had formed while adjacent Roman buildings were still relatively intact. The close spatial correspondence

between ditches [1127] and [1129] possibly attests to a high degree of continuity between the two phases of land division of which they formed part, while the stratigraphic relationships of these features and their fills appears to signify that layer [1120]/[1122] was formed rapidly by a single event, rather than resulting from the gradual collapse of a nearby structure.

The third feature in this complex appears to relate to a much earlier phase of activity. A small, discrete area of slightly mottled orangey-yellow silty sand, (1137), was visible along the northern half of the base of ditch [1129]. The majority of (1137) appeared to have been truncated by the creation of the later ditch, but the surviving portion, which was up to 0.08m deep, contained small amounts of charcoal and cattle bone, along with a sherd of pottery of Roman date. Sample excavation of (1137) suggested that it had been contained by either an east-west aligned ditch, or by a pit, but the degree to which this feature had been truncated prevented the elucidation of any further useful information.

A sub-oval pit, [1131], c. 3.65m long by more than 0.90m wide, was partially exposed 5m from the northern end of the trench. Extending beyond the east-facing section, the surviving portion of this feature was little more than a shallow bowl-shaped scoop c. 0.15m deep. Its fill was a reddish-brown sand, (1132), that contained some limestone rubble and cattle bone, along with nine sherds of mid – late 3<sup>rd</sup> century Romano-British pottery and six Roman tile fragments.

A larger feature lay immediately to the north-east of pit [1131]. Only a small proportion of [1134] was exposed, but it occupied the entire north-eastern corner of the trench. It was more than 1.80m wide, and the only visible edge, which was more than 6.5m long, was orientated from north-west to south-east. This feature had vertical sides and a flat base, which was c. 0.65m deep. The exposed portion of [1131] contained three distinct fills. The earliest was a deposit of mid-brown slightly silty sand, with frequent rusty mottles, (1133)a, which lined the base and western edge of the feature. This primary fill contained moderate quantities of small to medium sized limestone rubble, cattle bone, a few Roman tile fragments and small quantities of Romano-British pottery, six of which were retrieved for analysis. It was overlain by a friable deposit of mid-grey silty sand, (1133)c, c. 0.50m deep, which again contained limestone rubble and tile, and had frequent rusty mottles. The final fill, (1133)b, was a mid brownish-grey sand incorporating small quantities of limestone rubble, Roman and medieval tile fragments, eleven sherds of late 3<sup>rd</sup> – 4<sup>th</sup> century Romano-British pottery and localised areas of iron panning. The interface between (1133)b and (1133)c was fairly diffuse, but examination of the south-facing section of the sondage indicated that (1133)b had a ‘U’-shaped profile. This suggests that (1133)b was either contained by a later recut, or filled a subsequent feature overlying [1134].

It seems likely that [1134] was either part of a broad linear feature that ran from north-west to south-east, or formed the western edge of a large sub-rectangular pit-like feature. It had been excavated into a layer of orangey-yellow medium to coarse-grained sand, (1121), that represented the uppermost strata of the Quaternary drift geology. The poor cohesion and friability of (1121) suggested that [1134] must have been rapidly backfilled, otherwise the vertical edges would have quickly eroded and collapsed. This implies that the feature did not serve as a boundary, but was intended to contain something, for instance a wall foundation. However, while there were some pieces of limestone rubble, there were no *in-situ* stone courses, or even any evidence of their former presence in the segment of this feature that was exposed and investigated. Consequently, although it is plausible that [1134] was a foundation trench, this interpretation is speculative and must remain so unless further evidence is collected by future investigations.

As with the other areas examined in Field F, there were relatively large quantities of unstratified pottery situated within the environs of Trench 42. A total of 65 sherds were recovered during the trial trenching, 60 of these comprising fragments of Roman vessels of 3<sup>rd</sup> to late 4<sup>th</sup> century date. There were also two pieces in a relatively coarse fabric that may have been manufactured during the Iron Age. The final three fragments were all indicative of Middle Anglo-Saxon activity. There was a single sherd of Northern Maxey-type ware manufactured between the late 7<sup>th</sup> and late 9<sup>th</sup> centuries AD, and two pieces of early fine-shelled ware of late 8<sup>th</sup> to mid 10<sup>th</sup> century date.

The unstratified material also included a number of quern fragments. These had been produced from two different kinds of stone, the first of which was part of a millstone grit rotary quern that would have been produced in a quarry in the Peak District: probably from the area now forming East Derbyshire, or South Yorkshire. The other three small fragments were pieces of vesicular lava that probably came from Mayen in south-west Germany. Both types of stone were used in the manufacture of Roman and medieval querns. However, Mayen lava querns are most commonly associated with later 7<sup>th</sup> to mid 9<sup>th</sup> century deposits, so this material potentially compliments the slight evidence for Middle Anglo-Saxon activity provided by the small quantities of Maxey type and fine-shelled ware pottery.

## **6.15 Field G1**

### ***Trench 43***

(see fig. 79)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, located randomly to investigate the area to the east of the road corridor.*

The topsoil was a 0.26m deep deposit of dark greyish-brown sandy silt, (1422), containing occasional sub-angular limestone fragments. It sealed a layer of pale to mid yellow medium grained sand, (1415). This substantial deposit was more than 0.45m deep and probably consisted of river terrace sands, combined with a small colluvial component that had moved down the slope to the immediate south-west.

### ***Trench 44***

(see figs. 80 & 81)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, opened to investigate a strong magnetic anomaly and a series of linear anomalies that may form elements of an enclosure, or field system.*

The removal of the ploughsoil, a 0.35m deep layer of mid greyish-brown silty sand, (1469), exposed the fills of a number of features. They were all located in the northern half of the trench, a quadrant of what appeared to be a large sub-oval pit, [1412], occupying the north-west corner. Excavation indicated that [1412] was probably a construction trench that contained the sub-surface components of a limekiln. It was more than 2.55m long, over 1.00m wide and its slightly concave base was situated 1.58m below the bottom of the ploughsoil. Only the southern edge of [1412] was exposed during these investigations. It was inclined at c. 75° to the horizontal and the southern wall of the structure had been built against it. This wall, (1478), was approximately 0.55m wide and was constructed from roughly hewn angular limestone blocks that were laid in irregular courses. It appeared to be a dry stone construction, but the interstices contained small, discrete lumps of grey clay that

possibly represented the remnants of a bonding material. There was no evidence that the internal elevation of wall (1478) had ever had a well built, vertical face, but this could merely reflect the fact that the structure appears to have been heavily disturbed by stone robbers.

A 0.48m deep deposit of mid orangey-brown silty sand, (1479), had accumulated across the bottom of [1412] and against the base of wall (1478). Several thin horizontal lenses of comminuted charcoal and occasional small fragments of limestone rubble were stratified within this deposit. It is probable that this material represents *in-situ* residues of lime production, the bands of charcoal relating to a sequence of kiln firings, while the sand will have dissociated from the surface of the burnt limestone. The upper component of structure (1478) was filled with pale greyish-brown silty sand, (1414), c. 1.10m deep. This deposit incorporated relatively large quantities of sub-angular limestone rubble, which tended to form localised concentrations. It appears likely that (1414) was deliberately deposited to fill the redundant limekiln after it had been demolished and much of the reusable stone had been removed.

A group of three intercutting features was situated less than 2m to the south of limekiln (1478). The latest feature in this sequence was an east-west aligned land drain situated 6m from the northern end of the trench. The channel that contained this drain had vertical sides and a flat base, c. 0.48m wide and 0.70m deep. It had truncated part of the southern edge of another limekiln, (1474). The latter had been built within a sub-oval construction trench, [1411], that extended approximately 2.80m from north to south and was more than 0.55m wide. The base of this feature lay more than 1.40m below the ploughsoil and was not reached due to the depth of excavation. A wall made from sub-rectangular and tabular limestone rubble, (1474), c. 0.60m wide, had been constructed against the near vertical southern and eastern sides. The stone was laid in rough courses and was bonded by a pale bluish-grey clay and lime compound. The external face of the structure, abutting the sides of pit [1411], was uneven and creamy-yellow. In contrast, the internal face was relatively flat and both the stones and the claying bonding material had turned a pinkish-red. The firing of the limekiln will have caused this transformation, the uniformity of the discolouration providing clear evidence of *in-situ* burning. The visible element of limekiln (1474) was filled with mid orangey-brown sandy silt, (1413), which incorporated a large quantity of limestone grit, a few large pieces of stone and some small lumps of grey clay.

The two limekilns, (1474) and (1478), were separated by approximately 1.80m. Although only part of each was exposed, it appears likely that they were both constructed along the same alignment. The commonality of function, location and orientation implies that these structures were broadly contemporary. However, the fact that (1474) had a slightly better level of preservation suggests that it replaced, or continued to operate after (1478) had been abandoned and demolished. It is possible that the stone robbed from (1478) was used in the construction of the other structure, or became part of a kiln load.

A section of the northern edge of limekiln (1474) and fill (1413) had been removed by a pit, [1475]. This feature had a 'U'-shaped profile, with a flattish base, c. 0.90m wide and 0.46m deep. A 0.04m thick lens of pale yellowish-grey sandy clay, (1477), covered the bottom and extended part way up the sides of [1475]. The sandy component of this deposit had the consistency of lime mortar, raising the possibility that this was a deliberate lining. The upper fill consisted of orangey-brown sandy silt, (1476), which contained frequent small to medium sized limestone fragments and occasional small patches of clay.

The most southerly of feature exposed, [1472], lay c. 9.5m from the northern end of the trench. It was only partially exposed, but the visible component appeared to be part of a pit, or the western terminal of a ditch that was c. 2.15m wide and 0.40m deep. It contained a large

quantity of small, creamy-white limestone fragments within a matrix of pale greyish-brown sand (1473). A few of the pieces of limestone had a pale pink hue, which suggested this material represented waste removed from one of the nearby limekilns, (1474) lying only 3.5m to the north.

The construction trenches for the two limekilns and pit/ditch [1472] had been cut into a layer of well sorted, pale yellowish-orange medium grained sand, (1470). This relatively homogenous sedimentary material was more than 1.40m deep and was probably a mixture of colluvium and Quaternary river terrace deposits.

#### ***Trench 45***

(see fig. 82)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, located randomly to investigate the area to the east of the road corridor.*

The ploughsoil was a mid greyish-brown silty loam, (1418), c. 0.26m deep, which contained very occasional sub-angular limestone fragments. It sealed a subsoil consisting of pale orangey-brown sand, (1419), that was up to 0.43m deep. The location of the trench on the lower part of the slope, combined with the depth and relative absence of coarse components, suggested that (1419) had a significant colluvial component.

The subsoil had developed over pale greyish-blue clay, (1420), which had frequent mid grey and dark blue mottles, and incorporated occasional pieces of ironstone, or iron pan. This was an intermittent deposit, which became more concentrated around the northern end of the trench, near the base of the slope. The removal of (1420) exposed the surface of the limestone brash, (1421), which had a matrix of pale brownish-orange sand.

#### ***Trench 46***

(see fig. 83)

*A trench with two perpendicular components – a north-north-west to south-south-east aligned trench, 20m long by 2m wide, joined at its south-east corner to an east-north-east to west-south-west aligned trench, 20m long by 2m wide. It was located to investigate a strong magnetic anomaly and a series of linear anomalies that may form elements of an enclosure, or field system.*

The uppermost deposit was a mid greyish-brown sandy loam, (1449), c. 0.29m deep, that contained moderate quantities of limestone rubble. The removal of this ploughsoil exposed the fills of a pit, another pit or broad ditch, and an earlier linear feature.

Pit [1453] was situated at the junction between the two arms of the trench. It was a sub-rectangular feature, c. 2.65m long, 1.60m wide and 0.72m deep, with its long axis orientated from east to west, parallel to the contours. It had a flattened 'U'-shaped profile, with an even base that dropped gently toward north, mirroring the gradient of the ground surface. The primary fill, (1452), was a grey silty sand, up to 0.09m deep, which incorporated lots of small fragments of degraded limestone, or lime mortar. It had accumulated in the lowest part of the feature, at the interface between the base and the northern edge. The remainder of the pit was filled with mid brownish-grey clayey sand, (1451), which contained a large quantity of limestone, up to 0.10m across, and discrete lumps of mid brown clay.



Pit [1453] was located 2.5m to the south of the second feature, [1454], which was 1.20m wide against the eastern section of the trench, but 0.70m wider only 1.8m further to the west. Consequently, the form of the exposed element implied that [1454] represented part of a large sub-oval pit, up to 2.04m wide and 0.48m deep. However, the results of the magnetometer survey suggested that it was actually part of an east-west aligned ditch that could be traced for approximately 80m. It had a flattened 'U'-shaped profile, the sides being vertical or near vertical, with a slightly uneven, flat base, and it was filled by a mixed deposit of mid greyish-brown to brown silty sand, (1455), with a moderate density of limestone fragments.

Both the pit, [1453], and the probable ditch, [1454], had been cut through the upper fill of a north-north-east to south-south-west aligned gully, [1417], which had steep sides and a concave base, c. 0.80m wide and 0.40m deep. This feature extended down the hillside for more than 10.5m, the sub-square terminal at its southern end being exposed in the east-west aligned arm of the trench. The majority of the gully was filled with pale to mid grey silty sand, (1456), which incorporated a few flecks of charcoal and large quantities of small limestone chippings, many of which were heavily degraded, or had been transformed in coarse lime mortar. A localised lower fill, (1457), was identified in the section of the gully that had been truncated by ditch [1454]. This deposit of mottled dark grey to black sandy silt was up to 0.11m deep and incorporated a lot of flecks of charcoal. The nature and composition of this material suggested that it represented the residues of an episode of burning that took place elsewhere, and it was potentially derived from a domestic, or industrial context.

Gully [1417] had been cut into the weathered upper surface of the limestone brash, (1450), which was contained within a matrix of pale brownish-orange sand.

#### ***Trench 47***

(see fig. 84)

*A trench with two perpendicular components – a north-north-west to south-south-east aligned trench, 20m long by 2m wide, joined at its south-east corner to an east-north-east to west-south-west aligned trench, 20m long by 2m wide. It was located to investigate a series of magnetic anomalies that may form elements of an enclosure, or field system.*

The ploughsoil was a stony layer of pale to mid greyish-brown clayey sandy loam, (1403), which was c. 0.27m deep. Beneath the ploughsoil was a subsoil consisting of pale orangey-brown sand, (1404), that had frequent rusty mottles and moderate sub-angular limestone fragments. This layer was up to 0.47m deep and is likely to have had a significant colluvial component. It was cut by a land drain, which ran from east to west along the length of the southern arm of the trench.

The removal of (1404) exposed an intermittent deposit of pale greyish-blue clay, (1405), up to 0.18m deep, which had grey and dark blue mottles and had occasional ironstone, or iron pan inclusions. This sealed a layer of limestone brash set in a matrix of pale brownish-orange sand, (1406).

There was no evidence in the evaluation trench for the source of either of the two linear anomalies that the magnetometer survey detected at this location.

**Trench 48**  
(see fig. 85)

*An east-north-east to west-south-west aligned trench, 20m long by 2m wide, opened a linear anomaly and several discrete areas of magnetic disturbance.*

The ploughsoil consisted of dark greyish-brown sandy silt, (1409), c. 0.35m deep, which contained occasional to moderate limestone fragments. Its removal exposed the fill of a north-south aligned ditch, [1407], c. 2.20m wide and 0.74m deep. This feature had an asymmetric profile, its western edge being almost vertical, while its eastern side sloped at 50 - 55° to the horizontal. The base, which was 1.50m wide, sloped gently to a small 'V'-shaped notch at the centre. It was filled with mid greyish-brown sand, (1408), that incorporated a moderate quantity of ironstone nodules.

Ditch [1407] had been cut into the weathered upper surface of the limestone bedrock, (1410), which consisted of brash set in a matrix of pale brownish-yellow sandy clay.

**6.16 Field G1a**

**Trench 49**  
(see fig. 86)

*A north-north-west to south-south-east aligned trench, 40m long by 2m wide, located randomly to investigate an area that was not examined during the geophysical survey.*

The topsoil was a mixed deposit of mid to dark bluish-grey sandy clay, (1400). It was generally around 0.30m deep, but also filled a series of irregular depressions that were up to 0.26m deeper. Below the topsoil were several localised deposits of mid grey sandy clay and orangey-brown clayey sand, (1402). The underlying layer was another very mixed deposit of reddish-brown clayey sand and sand, (1401), which incorporated frequent limestone fragments, brick fragments and pieces of tile, some animal bone, clay pipe and ironstone. The heterogeneity and varying depth all three deposits, combined with the quantity of early modern to modern inclusions that they contained, indicated that each was probably composed of redeposited material. It is likely that these contexts represent a series of dump deposits made during the construction of the filter beds and associated terraces that form the closest element of the sewage works, parts of which lie only 40m to the west and north-west of Trench 49; these facilities were constructed during the 20<sup>th</sup> century.

**6.17 Field G2**

**Trench 50**  
(see fig. 87)

*An east-west aligned trench, 10m long by 5m wide, located at the north-east corner of the field to investigate the internal area of a possible enclosure detected by the gradiometer survey.*

The topsoil was a mid greyish-brown sandy loam, (1523), c. 0.38m deep, which contained very occasional sub-angular limestone fragments. The depth of this deposit, combined with the relative absence of coarse components and its location near the boundary at the lower edge of the field, suggested that it had a significant colluvial component. Removal of the

topsoil exposed the surface of the limestone brash, (1524), the weathered upper component of the bedrock, which had a matrix of pale orangey-brown sand.

### ***Trench 51***

(see fig. 88)

*An east-west aligned trench, 20m long by 2m wide, opened to examine a broad linear anomaly and several discrete areas of magnetic disturbance.*

The topsoil was a mid greyish-brown sandy loam, (1530), c. 0.32m deep, that incorporated frequent small limestone fragments. It was stripped away to expose the fill of a very broad ditch, or hollow way, [1528], that ran from north to south across the eastern half of the trench. This feature was more than 7.90m wide at the top and 1.25m deep and had an irregular profile. Its eastern edge was slightly convex and sloped at around 30° to the horizontal, while the western edge had a gentler gradient. The base was uneven, rutted and c. 1.40m wide. The lower fill of [1528] consisted of a 0.28m deep deposit of mid greyish-brown sand, (1529)b. This was overlain by an accumulation of pale to mid brown sand, (1529)b, which had occasional gravel-sized limestone inclusions.

The ditch, or hollow way was incised into the surface of the limestone brash, (1531). The limestone fragments were contained by a matrix of mid reddish-brown sand across the eastern half of the trench. In contrast, the other half of the trench exposed stone that had fragmented into much smaller pieces and had a dark reddish matrix.

### ***Trench 52***

(see fig. 89)

*An north-south aligned trench, 20m long by 2m wide, opened to investigate the internal area of a possible enclosure detected by the gradiometer survey.*

The topsoil was a 0.27m deep deposit of mid greyish-brown sandy loam, (1497), containing frequent small limestone fragments. It sealed the fill of a slightly curvilinear, east-west aligned gully, [1495], which ran parallel to the contours of the valley side, 6.70m from the northern end of the trench. This feature had a rounded profile, c. 0.74m wide and 0.30m deep, and contained a deposit of orangey-brown sandy clay, (1496), that incorporated a few small limestone fragments.

The gully had been cut into pale orangey-brown limestone brash, (1498), which had a number of discreet patches of yellowish to bluish-grey clay filling slight depressions randomly distributed across its surface. The pieces of limestone exposed in the southern half of the trench were generally smaller, and were set in a brownish-red matrix.

### ***Trench 53***

(see fig. 90)

*An east-west aligned trench, 20m long by 2m wide, opened to investigate a linear anomaly and the possible remains of an area of ridge and furrow detected by the gradiometer survey.*

The topsoil was a mid greyish-brown sandy loam, (1491), c. 0.32m deep, which contained a large quantity of sub-angular limestone fragments. It was stripped by machine, exposing the

weathered upper surface of the limestone bedrock, (1435), which consisted of brash set in a matrix of mid orangey-red sand.

Segments of two parallel linear features were incised into the surface of the brash. Situated 4.0m from the western end of the trench, ditch [1487] ran from north to south down the slope. It had a flattened 'U'-shaped profile that was 1.49m wide at the top, 0.55m wide at the base, and 0.36m deep. Its primary fill, (1489)b, consisted of mottled brownish-yellow silty clay that lined one edge of the feature. The localised nature of this deposit raised the possibility that it resulted from the weathering of an associated bank that ran along the western edge of [1487]. The majority of the ditch was filled with moderately stony, mid brownish-red clayey silt, (1489)a, from which a fragment of animal bone was recovered.

The other ditch, [1488], lay 4.3m to the east of [1487]. It had a flattened 'V'-shaped profile, c. 1.03m wide and 0.25m deep, which had an irregular notch incised into its western edge, near its base. It contained a single fill that consisted of mid to dark brownish-red clayey silt, (1490), with a few limestone inclusions.

#### ***Trench 54***

(see fig. 91)

*An east-north-east to west-south-west aligned trench, 20m long by 2m wide, opened to investigate a linear anomaly and the possible remains of an area of ridge and furrow detected by the gradiometer survey.*

The ploughsoil was a mid greyish-brown sandy loam, (1525), c. 0.28m deep. Beneath it lay a mid orangey-brown silty sand subsoil, (1526), c. 0.08m deep. The underlying limestone brash, (1527), had a matrix of pale orangey-brown sand.

#### ***Trench 55***

(see fig. 92)

*A north-east to south-west aligned trench, 10m long by 5m wide, located at the centre of the field to investigate part of a ring ditch and an associated linear anomaly detected by the gradiometer survey.*

The topsoil consisted of mid greyish-brown sandy loam and contained frequent small limestone fragments, (1532), c. 0.34m deep. Its removal exposed the upper surface of the limestone brash, (1533), which had a matrix of mid orangey-brown sand interspersed with occasional patches of grey clay. A group of inter-related curvilinear and discrete features had cut into the limestone in the north-eastern half of the trench.

Foremost among this complex was a north-west to south-east aligned ditch with a slight curvature, [1493], which was c. 1.30m wide and 0.52m deep. This feature had a variable profile, one of the areas examined having a slightly asymmetric 'U'-shaped cross section, while another, only 3m further to the west, had a narrow, flat base and irregular, stepped sides. The location and orientation of [1493] indicated that it formed part of a ring ditch, of c. 22m external diameter, which had been detected by the magnetometer survey. This ring ditch was filled with mid orangey-brown sand, (1494), which incorporated a few limestone fragments.

Only one feature was situated within the exposed part of the area that was enclosed by [1493]. This was a sub-oval posthole, [1534], with a bowl-shaped profile, c. 0.37m wide and 0.15m deep. The long axis of this feature, which had been more than 0.40m long, was aligned from north to south. Its southern edge appeared to have been removed during the creation, or maintenance of the ring gully. The fill, (1535), consisted of mid brown slightly silty sand, with some small flecks of charcoal and occasional sub-angular limestone inclusions, a few of which had been burnt.

A 'J'-shaped, curvilinear gully, [1536], abutted the outer edge of ring ditch [1493], the two features respecting each other and appearing to be contemporaneous. The shorter section of [1536] ran roughly perpendicular to [1493] for c. 0.40m. It then turned westward to run parallel to the ring ditch for c. 1.70m and ended with a rounded terminal. Gully [1536] had a relatively even, rounded profile and a narrow flat base, c. 0.38m wide and 0.19m deep. It contained a deposit of reddish-brown sand, (1537), with occasional small sub-angular fragments of limestone and little flecks of grey clay.

A row of postholes continued the alignment of [1536] toward the west-north-west. The largest of these, [1538], was sub-oval in plan, being approximately 0.58m long, 0.38m wide and 0.14m deep, and its long axis continued the alignment of the curvilinear gully, the terminal of which lay only 0.35m to the east. A little over 0.50m to the west of [1538] lay a pair of postholes, [1540] and [1542]. The more northerly, [1540], was a sub-circular feature, c. 0.40m in diameter and 0.08m deep, which nearly abutted the ring ditch. The other, a truncated sub-oval feature, c. 0.38m long (north-south), by 0.26m wide and 0.03m deep, lay 0.15m to its south-west. A small sub-circular posthole, [1544], c. 0.26m in diameter and 0.15m deep, lay 0.75m to the north-west of [1540]. The final posthole, [1546], a sub-circular feature, c. 0.38m in diameter and 0.26m deep, was situated adjacent to the north-west section of the trench.

Four of these five postholes contained deposits of reddish-brown silty sand, which held very occasional sub-angular limestone inclusions. The other, [1542], contained an accumulation of pale brown silty sand, (1543). The correspondence between the fills of [1538], [1540], [1544] and [1546] suggests that all of these features formed elements of the same structure. In contrast, the different nature of the fill of [1542], combined with the fact that this feature was paired with [1540], raises the possibility that it represented a repair to the structure formed by the other elements of this post alignment. Given the spatial relationship between the ring gully and this group of postholes, it is possible that the post built structure could have been a wattle fence, or wind break protecting the south-western side of the area enclosed by [1493].

### **Trench 56**

(see fig. 93)

*A trench with two perpendicular components - a north-north-west to south-south-east aligned trench, 20m long by 2m wide, joined at its north-east corner to an east-north-east to west-south-west aligned trench, 20m long by 2m wide. It was located to investigate a series of magnetic anomalies that may form elements of an enclosure.*

The topsoil was a 0.28m deep layer of mid greyish-brown sandy loam, (1499), which contained a large quantity of limestone. Its removal exposed the fill of a north-north-west to south-south-east aligned ditch, [1521], c. 2.46m wide and 0.42m deep. This feature had an asymmetric profile, the western edge being concave, while the slightly uneven eastern edge sloped at c. 30° to the horizontal, with both sides terminating at a relatively flat base, c. 0.66m wide. The fill of [1521] consisted of dark brown clayey silt, (1522), within which

there were occasional to moderate sub-angular fragments of limestone. The ditch had been cut into pale brownish-yellow limestone brash, (1520).

### **Trench 57**

(see fig. 94)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, located to investigate the area to the west of a series of linear anomalies.*

The topsoil was a 0.26m deep deposit of mid greyish-brown sandy silt, (1467), containing frequent small sub-angular limestone fragments. Below the topsoil was a layer of limestone brash set in a matrix of orangey-brown sandy silt, (1468).

### **Trench 58**

(see fig. 95)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, located to investigate the area to the west of a series of linear anomalies.*

The ploughsoil was a mid greyish-brown sandy silt, (1465), c. 0.28m deep, which contained occasional sub-angular limestone fragments, 36 sherds of Romano-British pottery (primarily manufactured around the mid 3<sup>rd</sup> century AD) and eleven pieces of Roman brick and tile. It sealed a layer of orangey-brown sandy silt, (1466), which contained large quantities of angular limestone fragments.

### **Trench 59**

(see fig. 96)

*An east-north-east to west-south-west aligned trench, 20m long by 2m wide, opened to investigate an area of strong magnetic disturbance probably associated with a small, redundant quarry.*

The topsoil was an uneven layer of mid greyish-brown sandy loam, (1461), between 0.19 and 0.31m deep, which contained a large quantity of limestone fragments of varying sizes. The stripping of the topsoil revealed the northern edge of a single feature, [1459], located 3.2m from the eastern end of the trench. The exposed element of this feature represented part of a large, irregular pit that was at least 2.45m wide at the top, 1.76m wide at the base and c. 0.60m deep. The western edge of [1459] was near vertical, while the eastern side was concave and sloped at c. 35° to the horizontal. The base was uneven and fell gently toward the west. The upper fill of [1459] consisted of mid brownish-red clayey silt, (1460)a, that was mottled as a result of bioturbation, and which incorporated moderate sub-angular limestone fragments. The lower fill was a 0.31m deep accumulation of mid brownish-red clayey silt, (1460)b, which had virtually no coarse inclusions, except at very base of the deposit. The removal of these fills demonstrated that the pit had been cut into a layer of pale yellowish-brown limestone brash, (1462).

The location of pit [1459] corresponds to the eastern edge of a small redundant limestone quarry that is still evident as a pronounced earthwork and is also clearly visible in the results of the gradiometer survey. This quarry was not depicted on the First Edition Ordnance Survey map, and consequently, it must have been created after 1889.

## 6.18 Field G3

### ***Trench 60***

(see fig. 97)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, opened to investigate an area of diffuse magnetic disturbance.*

The machine stripped off the topsoil, a 0.25m deep layer of moderately stony, mid greyish-brown sandy loam, (1501), and exposed the fills of a group of features that occupied almost the entire area under investigation. The most significant element of this complex lay at the southern end of the trench. Only the north-eastern quadrant of this large sub-oval pit, [1500], was exposed; this segment extended more than 2.35m from north to south and was over 1.60m wide. The eastern edge of [1500] was inclined at c. 45° to the horizontal and it had a flattish base, which was situated c. 1.10m below the modern ground surface. Running along the western section, and potentially defining the centreline of [1500], was a deeper, north-south aligned gully, [1510]. The latter had a sub-rectangular cross-section, c. 0.50m deep and more than 0.40m wide. The flat base and sides of [1500] were dark pink to reddish-brown, (1519)a, which is indicative of *in-situ* burning. Its morphology and spatial relationship to the large pit, combined with the evidence for direct heating, indicates that [1510] was probably a flue, or rake out pit for [1500], which was almost certainly a lime kiln.

The earliest fill of [1500] consisted of pink to reddish-brown sandy clay mixed with sub-angular limestone fragments, (1509). This deposit was approximately 0.18m thick and extended the full height of the eastern side of [1500]. The lower part of the internal face of this material had turned dark grey to black, (1509)a, probably as the result of direct contact with burning, organic fuel, while the pinkish discolouration of both the clay and the stones forming the remainder of this deposit indicated that it had also been subject to intense heat. Overall, the evidence suggests that (1509) constituted a deliberate kiln lining that prevented the deterioration of the limestone brush exposed at the edges of pit [1500].

The base of flue [1510] was covered by a 0.03m thick lens of dark grey to black sandy clay, (1519), which largely consisted of comminuted coal and heavily burnt sediment. It was sealed by a mixed deposit consisting of crushed limestone, large quantities of coal fragments and ashy material, (1508), which was c. 0.09m deep. Overlying (1508) was a layer of heavily fragmented charcoal, or coal dust, (1507), again c. 0.09m deep. A localised deposit of mid grey to white ashy material, (1506), had accumulated against the internal face of kiln lining (1509)a and also extended over the upper edge of flue [1510]. A 0.17m deep layer of crushed white limestone, mid grey sandy clay, pale grey ash and coal fragments, (1505), filled the upper part of the flue. The form and sequence of the deposits contained by [1510] suggested that it was filled with the residues of two consecutive firings, a similar arrangement having been observed in the base of one the limekilns examined in Trench 44.

The lower half of the main body of the limekiln, [1500], contained a large deposit of loose, tabular limestone rubble, (1504), c. 0.44m deep. The stones were enclosed by a matrix of mid grey sandy clay that was mottled with flecks of charcoal. Some of the pieces of stone were over 0.20m across and most appeared to have been burnt. The majority of these stones did not lay horizontally, but tipped down toward the north. This suggests that (1504) was either a kiln load inserted from the southern side of the [1500], or that it had formed part of a collapsed wall situated at the southern end of the structure. Above (1504) was another deposit of loose tabular limestone rubble, (1503), that was up to 0.45m deep. Voids between these

stones were interspersed with pockets of pale creamy-white sand. The latest fill of [1500] was a localised deposit of crushed limestone, (1502), which abutted the eastern edge of the feature.

A large quarry pit, [1513]/[1515], lay only 0.5m to the north of limekiln [1500]. This feature was only partially exposed, but appeared to be sub-rectangular in plan and was more than 10.50m long from north-south. The earliest fill exposed consisted of stony, pale to mid brown sandy clay, (1514). Sealing this was a deposit of crushed white limestone, (1512), which was probably a discarded, sub-standard kiln product. The southern edge of the quarry pit, [1513], was lined with (1512), its upper component being more than 0.5m thick at this point. In contrast, only of thin band of this material was exposed at its interface with (1514). This differential distribution suggests that this (1512) was deposited from the southern edge of the pit, which implies that it had been cleaned out of limekiln [1500]. The upper fill of [1513]/[1515] was another deposit of pale to mid brown sandy clay, (1511), that was virtually identical to (1514).

The close spatial relationship between limekiln [1500] and quarry pit [1513]/[1515] suggests that material extracted from the latter was utilised as raw material for lime production. The form and relationships of the fills provides some indication of how the quarry pit developed. It appears likely that the northern end, [1515], was opened first. The workings then proceeded southwards, with spoil being cast back into the abandoned section. Extraction ceased just short of limekiln [1500], which provides a strong indication that the latter was still in use.

The northern end of [1515] was separated from a second, smaller quarry pit, [1517], by a 1.10m wide ridge of *in-situ*, pale brownish-orange limestone brash, (1518). The exposed portion of [1517] suggested that it was sub-oval in plan; it extended approximately 3.60m from north to south, was more than 1.00m wide and over 0.50m deep. It contained stony, mid brown sandy clay, (1516), a deposit essentially identical to the main fills of the other quarry pit, [1513]/[1515].

### ***Trench 61*** (see fig. 98)

*An east-north-east to west-south-west aligned trench, 20m long by 2m wide, opened to investigate a curvilinear anomaly possibly forming part of an enclosure.*

The topsoil was a mid greyish-brown sandy loam, (1434), c. 0.31m deep, which contained a moderate amount of sub-angular limestone fragments. It was stripped by machine, exposing the weathered upper surface of the limestone bedrock, (1435), which consisted of brash set in a matrix of pale brownish-orange sand.

A single linear feature, [1436], was incised into the surface of the brash. Situated 4.4m from the eastern end of the trench, this north-south aligned ditch had a flattened 'U'-shaped profile and an irregular stony base. The excavation section of this feature was 1.50m wide at the top, 0.80m wide at the base and 0.36m deep. The fill consisted of mid brownish-red sandy clay, (1437), with frequent limestone inclusions.



### **Trench 62**

(see fig. 99)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, opened to investigate a linear anomaly possibly forming part of an enclosure.*

The removal of the topsoil, a 0.28m deep layer of dark brownish-grey sandy loam, (1483), exposed a pair of intercutting, east-west aligned linear features that were situated c. 3.0m from the southern end of the trench. The earlier of these two ditches, [1482], had been more than 1.10m wide at the top and was 0.53m deep. It had a flat base c. 0.20m wide, and a slightly convex southern edge that sloped at c. 60° to the horizontal. The majority of the opposite side had been removed during the creation of the later feature, [1481]. The fill of [1482] consisted of mid to dark brown silty sand, (1486).

The second ditch, [1481], was relatively substantial, being c. 2.20m wide at the top and 0.74m deep. It had a slightly irregular, truncated 'V'-shaped profile, with a level bottom, c. 0.20m wide. Its fill, (1485), was an homogenous mid brown silty sand that contained occasional limestone fragments. It seems likely that [1481] represents a redefinition of [1482], given that they are juxtaposed and have a shared orientation. The results of the magnetometer survey indicate that these ditches are likely to represent part of the same system of land division as ditch [1436] examined in Trench 61.

Ditch [1482] had been cut into a layer of limestone brash, (1484), which had a matrix of pale yellowish-brown sand.

### **Trench 63**

(see fig. 100)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, located to investigate the area to the west of a possible enclosure.*

The topsoil consisted of a layer of mid greyish-brown sandy loam, (1432), c. 0.21m deep, which incorporated a moderate quantity of limestone fragments. Its removal exposed the upper surface of the limestone brash, (1433), which had a pale brownish-orange sand matrix.

### **Trench 64**

(see fig. 101)

*A trench with two perpendicular components - a north-north-west to south-south-east aligned trench wide, joined, 20m long by 2m at its south-west corner to an east-north-east to west-south-west aligned trench, 20m long by 2m wide. It was opened to examine two linear anomalies and several discrete areas of magnetic disturbance possibly associated with an enclosure.*

The topsoil was a moderately stony, mid greyish-brown sandy loam, (1438), c. 0.31m deep. It was removed by machine, as was the subsoil, (1439), an intermittent layer of pale brownish-red clayey sand, up to 0.08m deep. This process exposed the surface of the pale brownish-orange limestone brash, (1440), which had been truncated by two linear features, one situated in each arm of the trench.

The north-north-west to south-south-east aligned component was crossed by ditch [1441], c. 6.20m from its northern end. This east-west orientated linear feature had a 'V'-shaped profile, c. 1.75m wide and 0.55m deep, its edges sloping at c. 35° to the horizontal. The lower fill of [1441] consisted of sub-angular limestone rubble within a matrix of mid reddish-brown sandy silt, (1442)b, c. 0.28m deep. This deposit was noticeably thicker toward the southern edge of the feature, raising the possibility that the stones had initially formed part of an associated bank that had run along the southern edge of the ditch. The upper part of the feature was filled with a 0.26m deep deposit of mid reddish-brown sandy silt, (1442)a, which had a far lower density of limestone inclusions.

A relatively broad, north-south aligned ditch, [1443], c. 3.78m wide at the top and 0.34m deep, crossed the other arm of the trench approximately 2.5m from its western end. It had a flattened 'U'-shaped profile, with slightly uneven base c. 2.15m wide. It contained a single deposit, (1444), which was comprised of roughly equal proportions of mid reddish-brown sandy silt and sub-angular pieces of limestone.

A number of relatively small, discrete features were also evident, the majority of these forming a cluster that occupied the most northerly part of the trench. The largest feature in this group was a sub-circular depression, with a slightly irregular 'U'-shaped profile, [1445], c. 0.46m in diameter and 0.15m deep. Five small conical depressions and a sub-oval scoop surrounded it. All seven features contained the same dark greyish-brown sandy silt, (1446), which had small white and yellow mottles, occasional flecks of charcoal and a small quantity of burnt sediment. The morphology of each of these features, combined with their spatial inter-relationships and the nature of their fills, provided a strong indication that [1445] and its satellite features were the result of tree root disturbance, the tree stump having been removed by burning.

Another two features were situated at the junction of the two arms of the trench. The most westerly of these was a north-west to south-east aligned sub-oval pit, [1447], c. 0.55m long, 0.44m wide and 0.09m deep. It was filled with mid reddish-brown sandy silt, (1448), which contained moderate sub-angular fragments of limestone and a few flecks of charcoal. The other feature, [1463], lay 2m to the north-east of [1447]. It was another sub-oval pit, c. 0.75m long, 0.28m wide and 0.07m deep, this time with its long axis aligned from north to south. Its fill, (1464), was identical to the material contained by [1447], suggesting that both features were created at, or around, the same time. The morphological attributes of [1447] and [1463] were relatively regular in comparison to [1445], suggesting that they were features created by human agency. However, a natural origin cannot be discounted.

### ***Trench 65***

(see fig. 102)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, located to investigate a discrete negative anomaly.*

The topsoil was a mid greyish-brown sandy loam, (2011), c. 0.25m deep, which contained root matter and a moderate amount of sub-angular limestone fragments. It sealed a layer of limestone brash, (1431), with a matrix of pale brownish-orange sand.

**Trench 66**

(see fig. 103)

*An east-north-east to west-south-west aligned trench, 20m long by 2m wide, opened to investigate a weak curvilinear anomaly and several discrete areas of magnetic disturbance.*

The ploughsoil was a moderately stony, mid greyish-brown sandy loam, (1428), c. 0.27m deep. The underlying limestone brash, (1429), had a matrix of pale brownish-orange sand.

**Trench 67**

(see fig. 104)

*An east-north-east to west-south-west aligned trench, 20m long by 2m wide, opened to investigate a discrete negative anomaly.*

The topsoil was a 0.29m deep deposit of mid greyish-brown sandy loam, (1426), containing moderate sub-angular limestone fragments. It sealed a layer of limestone brash within a matrix of pale brownish-orange sand, (1427).

**Trench 68**

(see fig. 105)

*An east-north-east to west-south-west aligned trench, 20m long by 2m wide, opened to investigate a linear anomaly.*

The topsoil consisted of mid greyish-brown sandy loam, containing moderate sub-angular limestone fragments, (1423), c. 0.25m deep. The underlying subsoil, (1424), was a pale brownish-red clayey sand, which was up to 0.08m deep. It sealed the upper surface of the limestone brash, (1425), which had a matrix of pale brownish-orange sand.

**6.19 Field H1****Trench 69**

(see fig. 106)

*A trench with two perpendicular components - a north-north-west to south-south-east aligned trench, 20m long by 2m wide, joined at its north-west corner to an east-north-east to west-south-west aligned trench, 20m long by 2m wide. It was located randomly to investigate the northern part of the section of road corridor that crosses this field.*

The ploughsoil consisted of mid greyish-brown sandy silt, (1948), up to 0.40m deep, which contained moderate sub-angular limestone fragments. The underlying subsoil, (1950), was a mid greyish-brown clayey sandy silt, which was up to 0.18m deep and incorporated moderate sub-angular limestone fragments and flecks of charcoal. Beneath the subsoil was a layer of mid orangey-brown limestone brash, (1949).

### **Trench 70**

(see fig. 107)

*A trench with two perpendicular components - a north-north-west to south-south-east aligned trench, 20m long by 2m wide, joined at its north-east corner to an east-north-east to west-south-west aligned trench, 20m long by 2m wide. It was opened to examine a well-defined, broad linear anomaly and a weaker area of magnetic disturbance to its north.*

The uppermost layer consisted of moderately stony, mid greyish-brown sandy silt, (1951), up to 0.40m deep. This ploughsoil sealed a mid greyish-brown sandy silt subsoil, (1952), which incorporated a moderate density of sub-angular limestone fragments and flecks of charcoal. In places this subsoil was still up to 0.18m deep, while in others it had been completely truncated by ploughing.

A broad east-west aligned linear feature, [1957], ran across the centre of the north-south arm of the trench, in one of the areas where the subsoil no longer survived. It was c. 7.50m wide at the top, 2.50m wide at the base and 1.35m deep; the northern edge sloped at c. 20° to the horizontal, before giving way to a slightly uneven, dished base, while the southern side was cut vertically into the hillside. The upper fill was a mid orangey-brown silty sand, (1956), c. 0.52m deep, which was sealed directly beneath the ploughsoil. Sub-angular pieces of limestone formed the bulk of the coarse inclusions in (1956), but there were also flecks of charcoal, a few pieces of Roman and medieval tile, five sherds of medieval pottery and three pieces manufactured during the 18<sup>th</sup> – 19<sup>th</sup> centuries. Directly beneath (1956) lay a deposit of pale to mid orangey-brown silty sand, (1959), c. 0.28m deep, which occupied the northern and central portions of the feature. Below this was an accumulation of pale greyish-brown sand, (1958), up to 0.63m deep, which filled much of the central and southern parts of [1957]. Both (1958) and (1959) contained a large quantity of limestone rubble and some flecks of charcoal. The removal of (1958) exposed a deposit of mid brown silty sand, (1960), containing frequent small limestone fragments, which had built up against the vertical southern face of [1957]. It sealed the primary fill, (1961), which consisted of a 0.05m deep layer of stony, pale greyish-brown silty sand.

The southern edge of [1957] appeared to have cut through a deposit of yellowish-grey silty sand, (1962), c. 0.35m deep, which may have been a soil horizon. Alternatively, (1962) could have represented the surviving basal component of a spoil heap formed during the opening of [1957]. This sedimentary material had accumulated, or been deposited over the upper surface of the limestone brash, (1953), which was set in a matrix of mid orangey-brown clayey sand.

The results of the magnetometer survey demonstrate that [1957] is a sub-rectangular feature, which is at least 18m long, its long axis running along the contours, c. 80m to the south of Heighington Road. The width and profile of the feature, combined with the fact that its eastern end is clearly visible in the geophysical survey results, indicate that it was not a boundary ditch. It seems more likely that [1957] was a small quarry producing limestone rubble, that was either used for surfacing Heighington Road, or was reduced in a nearby lime kiln.

### **Trench 71**

(see fig. 108)

*An east-north-east to west-south-west aligned trench, 20m long by 2m wide, located randomly to investigate the southern part of the section of road corridor that crosses this field.*

The ploughsoil was a 0.38m deep deposit of mid greyish-brown sandy silt, (1954), containing frequent sub-angular limestone fragments. Below the topsoil was a layer of limestone brash set in a matrix of pale to mid orangey-brown clayey sand, (1955).

## **6.20 Field H2**

### ***Trench 72***

(see fig. 109)

*A trench with two perpendicular components - a north-north-west to south-south-east aligned trench, 20m long by 2m wide, joined at its north-east corner to an east-north-east to west-south-west aligned trench, 20m long by 2m wide. It was opened to examine a curvilinear anomaly and several discrete areas of magnetic disturbance to its north.*

The ploughsoil was a mid greyish-brown sandy silt, (1902), which contained a moderate amount of sub-angular limestone fragments and was between 0.28 and 0.45m deep. It was removed by machine, exposing the upper surface of the limestone brash, (1903), which had a matrix of mid orangey-brown sandy silt.

A single linear feature, [1908], had been cut into the brash. Situated 8.3m from the southern end of the trench, this east-north-east to west-south-west aligned ditch had a slightly irregular, flattened 'U'-shaped profile, which was 1.85m wide at the top, 0.90m wide at the base, and 0.62m deep. The fill consisted of mid brown silty sand, (1909), with moderate to frequent small, sub-angular limestone inclusions.

### ***Trench 73***

(see fig. 110)

*A north-south aligned trench, 20m long by 2m wide, randomly located to investigate a magnetically disturbed area at the centre of the field.*

The ploughsoil consisted of mid greyish-brown sandy silt, (1900), within which there were occasional sub-angular limestone fragments. The removal of this 0.25m deep layer exposed the upper surface of the limestone brash, (1901), which was a mid orangey-brown colour.

### ***Trench 74***

(see fig. 111)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, randomly located to investigate a magnetically disturbed area at the centre of the field.*

The ploughsoil was a 0.27m deep layer of mid greyish-brown sandy silt, (1904), which contained moderate sub-angular limestone fragments. It sealed a layer of mid orangey-brown limestone brash, (1905), which had a matrix of sandy silt.

### **Trench 75**

(see fig. 112)

*A north-west to south-east aligned trench, 20m long by 2m wide, randomly located to investigate a magnetically disturbed area at the centre of the field.*

The ploughsoil was a mid greyish-brown sandy silt, (1902), c. 0.28m deep, which contained a moderate amount of sub-angular limestone fragments. It sealed a layer of reddish-brown limestone brash, (1915).

The central section of the trench exposed the upper fills, (1413) and (1414), of a sub-rectangular pit with vertical sides, [1916], which had cut through the ploughsoil and into the limestone. This very recent feature was one of a series of test pits opened to investigate geology along proposed route of the bypass.

### **Trench 76**

(see fig. 113)

*An east-west aligned trench, 20m long by 2m wide, randomly located near the south-west corner of the field.*

The ploughsoil consisted of mid reddish to greyish-brown sandy silt, (1906), c. 0.27m deep, which contained moderate amount of sub-angular limestone rubble, a few of the larger pieces being up to 0.20m across. It was removed by machine, exposing the upper surface of the limestone brash, (1907), which had a matrix of pale orangey-brown silty sand.

## **6.21 Field H3**

### **Trench 77**

(see fig. 114)

*An east-west aligned trench, 20m long by 2m wide, randomly located near the north-east corner of the field.*

The ploughsoil was a 0.29m deep layer of stony, mid to dark greyish-brown sandy silt, (1910). It sealed the fills of three linear features. The most easterly of these was a north-north-east to south-south-west aligned gully, [1925], with a flattened 'V'-shaped profile, c. 0.84m wide and 0.28m deep. The primary fill of this feature, (1926)a, a concentration of limestone rubble in a matrix of pale to mid greyish-orange sand, lined one edge of the feature. The localised nature of this deposit raised the possibility that it resulted from the weathering of an associated bank that ran along the north-western edge of [1925]. The remained of the gully was filled with pale to mid reddish-brown silty sand, (1926).

Approximately 3.5m to the west of gully [1925] was a ditch, [1927], that ran from north-east to south-west. This feature was 0.96m wide and 0.23m deep, and had a flattened 'U'-shaped profile. It contained pale to mid reddish-brown silty sand, (1928), that incorporated small discrete lumps of clay and occasional sub-angular limestone fragments. The third feature was a north-north-west to south-south-east orientated ditch, [1930], with an irregular, flattened 'U'-shaped profile, c. 1.40m wide and 0.38m deep. It intercepted [1927] immediately to the south of the trench, which prevented the determination of their stratigraphic relationship. The

fill of [1930] consisted of mid reddish-brown sandy clay and occasional sub-angular limestone fragments.

The three ditches had been cut into the limestone brash, (1911), the coarse components of which were contained by a matrix of pale yellowish-orange silty sand.

### **Trench 78**

(see fig. 115)

*A north-south aligned trench, 20m long by 2m wide, opened to investigate a strong linear anomaly corresponding to the location of a former boundary.*

The removal of the ploughsoil, a moderately stony layer of mid to dark greyish-brown silty sand, (1941), c. 0.26m deep, exposed a substantial ditch located 5.5m from the northern edge of the trench. This east-west aligned linear feature had a slightly irregular 'V'-shaped profile that was c. 3.75m wide and 1.53m deep. It was filled with reddish-brown clayey sand, (1942), which incorporated a moderate quantity of limestone rubble, three sherds of Romano-British pottery and two pieces of Roman tile. A deposit of sub-angular limestone fragments, within a matrix of pale yellowish-brown clayey sand, (1943), was situated immediately to the north of ditch [1941] and sealed the northern edge of its fill. This concentration of rubble was c. 4.70m wide, and both its volume and proximity indicated that it probably represented spoil derived from the excavation of [1941], which had been piled up to form a supplementary bank along the northern edge of the ditch. The element overlying the fill of the ditch would have resulted from the levelling of the bank after the boundary had become redundant. The location and orientation of ditch [1941] corresponds to a boundary depicted on the First Edition Ordnance Survey map of 1889-90 .

The northern edge of bank (1943) was sealed beneath a 0.20m deep layer of mid brown silty sand, (1945), that incorporated flecks of charcoal and a few pieces of limestone. A comparable deposit was not identified in Trench 77, slightly uphill and to the north, which suggests that (1945) represents colluvium that has been washed down slope and has accumulated along the upper edge of the bank.

The rubble forming bank (1943) had been deposited upon a 0.33m deep layer of slightly stony, mid brown clayey sand, (1944), which contained a sherd of pottery, possibly prehistoric in date, and a piece of tile; the date of this fabric could not be accurately determined - it was produced during either the Romano-British period or the 19<sup>th</sup>-20<sup>th</sup> century. The upper component of (1944) could represent sedimentary material redeposited during the initial stages of the construction of ditch [1941], while the lower element potentially represents an *in-situ* ground surface. The removal of (1944) exposed several localised deposits of brownish-orange silty sand, (1947), that filled small animal burrows or tree root voids. The latter were distributed across the surface of a layer of moderately stony, pale yellowish-brown silty sand, (1496), which could represent a buried subsoil, given its relationship to (1944). Sealed beneath (1496), was a layer of pale yellowish-orange limestone brash, (1911), which was exposed in the base of ditch [1941].

### **Trench 79**

(see fig. 116)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, opened to investigate a weak curvilinear anomaly.*

The ploughsoil consisted of mid greyish-brown sandy silt, (1919), c. 0.21m deep, which contained a moderate quantity of sub-angular limestone fragments. It was removed by machine, exposing the fills of two east-west aligned linear features. Ditch, [1923], lay c. 9.70m from the northern end of the trench. It had a flattened 'U'-shaped profile, 1.43m wide and 0.48m deep, and was filled with mid reddish-brown silty sand, (1924).

Gully [1922] lay c. 4.0m to the south of the ditch. This feature was 0.80m wide and 0.39m deep and also had a 'U'-shaped profile. It was filled with mid orange sand, (1920), which had no coarse inclusions. The shared orientation and close proximity of [1922] and [1923] infers some degree of contemporaneity. However, the fills of these two features were sufficiently dissimilar to raise the possibility that they related to different episodes of activity.

Both features had been cut into a layer of pale yellowish-white sandy silt, (1421), which contained frequent large sub-angular fragments of limestone that were up to 0.20m across.

### ***Trench 80***

(see fig. 117)

*An east-north-east to west-south-west aligned trench, 20m long by 2m wide, randomly located adjacent to an area subject to disturbance from overhead power lines.*

The ploughsoil consisted of mid brownish-grey sandy silt, (1917), c. 0.35m deep. It contained root matter and frequent sub-angular limestone fragments. Its removal exposed the upper surface of the limestone brash, (1918), which had a matrix of pale yellowish-orange silty sand.

### ***Trench 81***

(see fig. 118)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, opened to investigate a strong discrete anomaly.*

The ploughsoil was a stony mid brownish-grey sandy silt, (1937), c. 0.32m deep. Beneath it lay the remnants of a mid reddish-brown clayey sand subsoil, (1938), which incorporated a small quantity of sub-angular limestone fragments. This deposit had been truncated by ploughing, but survived as the fill of several natural fissures incised into the surface of the limestone; some of these voids were up to 0.52m deep. The underlying limestone brash, (1939), had a matrix of pale yellowish-orange silty sand.

## **6.22 Field H4**

### ***Trench 82***

(see fig. 119)

*A north-south aligned trench, 20m long by 2m wide, randomly located to investigate a magnetically undifferentiated area near the eastern edge of the field.*

The ploughsoil consisted of mid brownish-grey silty sand, containing frequent sub-angular limestone fragments, (1963), c. 0.28m deep. The underlying subsoil, (1964), was a mid



reddish-brown clayey sand, c. 0.12m deep, which sealed a layer of limestone brash, (1965). The latter was a pale greyish-yellow colour and had a matrix of coarse sand.

### ***Trench 83***

(see fig. 120)

*A east-west aligned trench, 20m long by 2m wide, randomly located to investigate a magnetically undifferentiated area of the field.*

The removal of the ploughsoil, a stony layer of mid brownish-grey silty sand, (1931), c. 0.26m deep, exposed a number of discrete deposits. The latest of these consisted of an area of mid reddish-brown clayey sand, (1932), more than 0.30m deep, which was situated at the eastern end of the trench. Its formation post-dated the development of three irregularly shaped, mixed deposits of moderately stony, pale grey to greyish-brown clayey sand, (1933). Investigation of this material suggested that it filled a number of adjacent tree root voids. Small areas of pale greyish-yellow limestone brash survived between the areas of (1933).

### ***Trench 84***

(see fig. 121)

*A north-south aligned trench, 20m long by 2m wide, randomly located to investigate a pair of weak linear anomalies near the southern edge of the field.*

The ploughsoil consisted of mid brownish-grey silty sand, (1935), c. 0.26m deep, which contained root matter, frequent sub-angular limestone fragments and a fragment of 13<sup>th</sup>-15<sup>th</sup> century tile. Beneath it was a layer of mid reddish-brown clayey sand, (1936), that incorporated moderate sub-angular limestone fragments and small, discrete patches of pale grey crushed limestone.

## **6.23 Field I1**

### ***Trench 85***

(see fig. 122)

*A north-east to south-west aligned trench, 20m long by 2m wide, opened to investigate a broad, diffuse linear anomaly near the north-eastern edge of the field.*

The ploughsoil consisted of mid greyish-brown sandy loam, (2050), up to 0.38m deep. It contained occasional sub-angular limestone fragments and an abraded sherd of Romano-British pottery. The underlying subsoil, (2051), was a stony, mid orange clayey sand, which was up to 0.08m deep. It overlay a layer of the limestone brash, (2052), that had a matrix of pale yellowish-brown clayey sand.

### **Trench 86**

(see fig. 123)

*A trench with two perpendicular components - a north-south aligned trench, 20m long by 2m wide, joined at its south-east corner to an east-west aligned trench, 20m long by 2m wide. It was opened to examine a diffuse linear anomaly and several discrete areas of magnetic disturbance.*

The ploughsoil was a greyish-brown sandy loam, (2053), up to 0.34m deep, which contained a fragment of 13<sup>th</sup>-16<sup>th</sup> century tile. It was stripped by machine, exposing the weathered upper surface of the limestone bedrock, (2054), which consisted of brash set in a matrix of pale orangey-brown clayey sand.

A single feature, [2055], was incised into the surface of the brash c. 5.8m from the northern end of the trench. It represented either the rounded western terminal of a ditch, or part of a sub-oval pit, more than 1.35m long, by 1.20m wide and 0.26m deep. This feature had a vertical southern edge, a northern edge sloping at c. 25° to the horizontal, and a slightly dished base. It was filled with dark brownish-grey silty sand, (2056), which contained occasional sub-angular fragments of limestone, a piece of 14<sup>th</sup>-16<sup>th</sup> century tile and a sherd of 19<sup>th</sup> - 20<sup>th</sup> century pottery.

### **Trench 87**

(see fig. 124)

*A trench with two perpendicular components - a north-south aligned trench, 40m long by 2m wide, joined at its south-west corner to an east-west aligned trench, 20m long by 2m wide. It was opened to examine strong linear anomalies forming an enclosure.*

The ploughsoil was a 0.39m deep layer of greyish-brown sandy loam, (2061), containing occasional sub-angular limestone fragments, flecks of charcoal and a few pieces of oyster shell. Four sherds of Late Iron Age to Romano-British pottery, two fragments of Roman tile, a piece of 12<sup>th</sup> - mid 13<sup>th</sup> century tile and, four pieces of 13<sup>th</sup>-15<sup>th</sup> century pottery and tile were also found in this deposit. The underlying subsoil, (2062), was a slightly stony, mid reddish-brown clayey sand, c. 0.18m deep, which incorporated flecks of charcoal, a few small fragments of brick and tile, and a sherd of 13<sup>th</sup> century pottery.

The removal of the subsoil exposed the upper fill of a substantial north-south aligned ditch, [2063], c. 5.30m wide at the top and 1.44m deep. The upper part of both edges sloped at c. 20° to the horizontal, with the slightly irregular lower element of the western edge descending at c. 45°, while the corresponding part of the eastern face was inclined at c. 65°. The sides terminated at the level of the solid limestone bedrock, and were separated by a flat base c. 0.64m wide.

The upper fill of [2063] was a 0.54m deep accumulation of mid reddish-brown slightly clayey sand, (2064), which incorporated a few chunks of limestone, two pieces of Roman tile, some flecks of charcoal and a moderate quantity of snail shells. Beneath it was a deposit of tabular limestone rubble, (2065), c. 0.33m deep, which had a matrix of greyish-brown clayey sand. The lower fill of the ditch was comprised of large pieces of tabular limestone rubble, (2066), c. 0.58m deep. Most of these stones were loose and there were numerous voids between them. Some of the pieces of limestone in both (2065) and (2066) had been burnt and, where present, the associated sandy matrix also contained flecks of charcoal. The volume, density and size of the limestone fragments indicated that they almost certainly represented spoil

created during the construction of the ditch. This material must originally have formed a bank along one, or both sides of the feature. The form of (2065) and (2066), and particularly the presence of cavities within the earlier deposit, suggested that both had been deliberately dumped into [2063]. It therefore seems likely that the associated bank, or banks were slighted in order to render this boundary redundant.

The ditch had been cut into limestone brash, (2069), which had a matrix predominantly consisting of pale yellowish clayey sand. Localised pockets of mid reddish-brown clayey sand were also visible in parts of the trench.

### **Trench 88**

(see fig. 125)

*A north-south aligned trench, 20m long by 2m wide, randomly located to investigate a magnetically undifferentiated area to the south-west of an enclosure.*

The ploughsoil was a 0.32m deep layer of mid greyish-brown sandy loam, (2058), which contained occasional sub-angular limestone fragments. Its removal exposed the fill of an east-west aligned ditch, [2059], situated 5.9m from the southern end of the trench. This ditch had a slightly asymmetric 'V'-shaped profile, c. 1.26m wide and 0.54m deep, and was filled with mid brown silty sand, (2060), which incorporated occasional sub-angular fragments of limestone. The ditch was cut into a layer of pale orangey-brown limestone brash, (2057), with a matrix of silty sand.

### **Trench 89**

(see fig. 126)

*An east-west aligned trench, 20m long by 2m wide, randomly located to investigate a magnetically undifferentiated area to the south-west of an enclosure.*

The ploughsoil consisted of mid greyish-brown sandy loam, containing occasional sub-angular limestone fragments, (2073), up to 0.30m deep. Beneath it was a subsoil, (2074), consisting of mid orange clayey sand, containing frequent sub-angular limestone fragments and some flint gravel, c. 0.18m deep.

### **Trench 90**

(see fig. 127)

*An east-west aligned trench, 20m long by 2m wide, opened to investigate an area of magnetic disturbance to the north of a pipeline, near the western edge of the field.*

The ploughsoil was a mid greyish-brown sandy loam, (2067), c. 0.39m deep. It contained occasional limestone fragments, two sherds of Late Iron Age to Romano-British pottery, three pieces of 13<sup>th</sup>-15<sup>th</sup> century tile, two scraps of 14<sup>th</sup>-15<sup>th</sup> century pottery and three sherds of mid 17<sup>th</sup>-19<sup>th</sup> century fabrics. It sealed a layer of stony, mid orange clayey sand, (2075), that was more than 0.06m deep.

### **Trench 91**

(see fig. 128)

*An east-west aligned trench, 20m long by 2m wide, opened to investigate a linear anomaly situated near the western edge of the field.*

The ploughsoil consisted of a 0.39m deep layer of mid greyish-brown sandy loam, (2068), which incorporated occasional sub-angular limestone fragments, two pieces of medieval tile and a small quantity of pottery. The latter included three sherds produced during the 13<sup>th</sup>-15<sup>th</sup> centuries and a piece of late 17<sup>th</sup>-18<sup>th</sup> century date. Beneath (2068) was a layer of mid orange clayey sand, (2076), that contained frequent sub-angular limestone fragments.

## **6.24 Field I2**

### ***Trench 92***

(see fig. 129)

*A trench with two perpendicular components - a north-north-east to south-south-west aligned trench, 20m long by 2m wide, joined at its north-east corner to an east-south-east to west-north-west aligned trench, 20m long by 2m wide. It was opened to examine strong linear anomalies forming part of an enclosure.*

The removal of the ploughsoil, a 0.30m deep layer of dark brownish-grey sandy loam, (2081), exposed the remains of two groups of intercutting linear features, one set crossing each arm of the trench. A north-south orientated ditch, [2080], was situated 4.7m from the western end of the east-south-east to west-north-west aligned element. This feature had a slightly irregular 'V'-shaped profile that was approximately 2.50m wide and 0.68m deep. It contained a deposit of pale to mid brown sand, (2083), which had moderate sub-angular limestone inclusions, occasional flecks of charcoal flecks and three sherds of pottery that were probably Iron Age in date. The eastern half of this fill had been largely removed by recut [2084], another north-south aligned feature, which had a slightly asymmetric 'U'-shaped profile, c. 1.09m wide and 0.32m deep. This later feature was filled with mid to dark brown slightly silty sand, (2085), that incorporated occasional sub-angular limestone fragments, four sherds of Late Iron Age pottery and some flecks of charcoal.

A cluster of east-west aligned linear features crossed the other arm of the trench 8.30m from its northern end. The earliest element was ditch [2078], which was c. 1.55m wide at the top and 0.61m deep. The northern edge sloped at 35° to the horizontal, while the southern edge was inclined at approximately 45°, and it had a relatively even base, c. 0.47m wide, which dipped slightly toward the north. This feature was filled with stony, pale to mid brown silty sand, (2079), which had been partially removed by two later features. The larger of these was another ditch, [2086], which had a flattened 'U'-shaped profile, c. 0.23m deep. It was 1.47m wide at the eastern edge of the trench, but only 0.80m wide at the opposite side. The degree to which this ditch tapers suggests that one of its terminals lay immediately to the west of Trench 92. The fill of [2086] consisted of mid to dark brown silty sand, (2087), which contained a moderate quantity of sub-angular limestone fragments, some animal bone and numerous sherds of Late Iron Age pottery.

The third feature, [2088], lay immediately to the south of [2086]. The element that was exposed in the trench appears to have been either the rounded western terminal of an east-west aligned gully, or part of an elongated, sub-oval pit. It was more than 0.75m long and had a 'U'-shaped profile that was 0.65m wide and 0.28m deep. This gully, or pit contained mid reddish-brown silty sand, (2089), mixed with a few pieces of limestone.

The upper portions of both [2086] and [2088] had been truncated by modern ploughing. This had removed any indication of their stratigraphic inter-relationship. However, the presence of the western end of [2088] within the trench and indications that [2086] probably terminated less than 3.0m further to the west could suggest that the two features were broadly contemporary.

The earliest ditches, [2078] and [2080], had been cut into a natural deposit of mid orangey-brown slightly silty sand, (2082), which surrounded discrete pockets of loose, mid brown sand and concentrations of sub-angular limestone fragments.

### ***Trench 93***

(see fig. 130)

*A north-south aligned trench, 20m long by 2m wide, opened to investigate a discrete magnetic anomaly detected by the geophysical survey.*

The ploughsoil was a dark greyish-brown sandy loam, (2070), c. 0.31m deep, which contained occasional small sub-angular limestone fragments. Its removal exposed a layer of mid yellowish-brown slightly clayey sand, with discrete patches of loose reddish-brown sand and frequent sub-angular limestone inclusions, (2071).

### ***Trench 94***

(see fig. 131)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, opened to investigate a faint curvilinear anomaly.*

The ploughsoil was a dark greyish-brown sandy loam, (2072), c. 0.30m deep, which contained occasional small sub-angular limestone fragments. It sealed a layer of stony, mid yellowish-brown slightly clayey sand, (2077), containing patches of loose reddish-brown sand.

### ***Trench 95***

(see figs. 132 & 133)

*A trench with two perpendicular components - a north-south aligned trench, 40m long by 2m wide, joined at the middle of its eastern side to an east-west aligned trench, 20m long by 2m wide. It was opened to examine a faint linear anomaly within an area of diffuse magnetic disturbance.*

The ploughsoil consisted of dark brownish-grey sandy loam, (2092), c. 0.26m deep, which contained root matter, occasional small sub-angular limestone fragments, two pieces of medieval tile and a few sherds of pottery, including a piece of 14<sup>th</sup>-16<sup>th</sup> century date and another produced between the mid 17<sup>th</sup> and the end of the 18<sup>th</sup> century. It was removed by machine, exposing a number of irregular features that were primarily located in the north-south orientated arm of the trench.

A north-east to south-west aligned linear feature, [2090], was situated c.7.5m from the northern end of the trench. The upper edges of this feature were not parallel and it had a slightly irregular 'U'-shaped profile, c. 0.75m wide and 0.29m deep. The morphology of this

feature indicated that it probably had a natural origin and was possibly created by ice wedging, or peri-glacial reticulation. The location and orientation of [2090] corresponded to the weak linear anomaly detected by the gradiometer survey. It was filled with mid brown clayey sand, (2094), containing occasional small sub-angular limestone fragments. A sub-circular feature, with a 'V'-shaped profile, [2091], had cut through the northern edge of (2094) at the eastern edge of the trench; it was roughly 0.35m in diameter and 0.24m deep. The exposed part of [2091] was relatively regular raising the possibility that it was the product of human agency, but the direct association with [2090] suggested that it was likely to be a solution hollow, or other natural depression. The fill of [2091] consisted of mid orangey-brown clayey sand, (2095).

Another linear feature, [2098], was situated c. 2.2m to the south of the junction between the two arms of the trench. Again, the upper edges of this east-north-east to west-south-west aligned feature were somewhat irregular in plan and it had an asymmetric 'V'-shaped profile, c. 0.79m wide and 0.42m deep. It contained a deposit of moderately stony, mid orangey-brown silty sand, (2099). A sub-circular pit, tree root void, or animal burrow, [2100], abutted the south-west corner of the exposed segment of [2098]. It had a 'V'-shaped profile, c. 0.52m in diameter and 0.29m deep, and was filled with mid orangey-brown silty sand, (2101). The southern edge of [2100] cut through a localised deposit of mid brown silty sand, (2102), that had occasional small limestone inclusions. This deposit, which was more than 1.40m wide and 0.12m deep, was only identified in the section at the centre of the north-south arm of trench. It seems likely that it represented a remnant of the subsoil, or the fill of a shallow feature, either of which had been significantly truncated by ploughing. One sherd of Iron Age pottery was recovered from (2102) during the cleaning of the section.

A slightly irregular, elongated sub-oval feature, [2105], was situated 4.2m to the south of [2098]. It was approximately 1.61m long from north to south, 0.62m wide and 0.38m deep, and had a slightly uneven 'U'-shaped cross-section. It was filled with moderately stony, mid brown silty sand, (2106), which contained a sherd of 14<sup>th</sup>-15<sup>th</sup> century pottery. The recovery of pottery from [2105] implies that it was a pit. However, the proximity of so many features that evidently had a natural origin raises a note of caution. It is therefore also possible that (2106) consists of material that has slumped into a tree root void, or a collapsed animal burrow.

Another feature was located c. 5.0m to the south of [2105]. Extending beyond the eastern limit of excavation, [2103], appeared to be the rounded western end of an east-west aligned linear feature, or part of sub-oval pit. The most regular of all the features examined in this trench, it had a slightly asymmetric 'U'-shaped profile, c. 1.43m wide and 0.37m deep. Its morphology suggested that [2103] was the terminal of a ditch, or part of a pit, but the fill, a mid brown silty sand, (2104), was devoid of cultural material and thus did not provide any support for this hypothesis.

The features, whether natural, or of human origin, had cut into a natural deposit of pale yellowish-brown slightly clayey sand, (2093), with frequent limestone inclusions. Scattered across the surface of (2093) were discrete pockets of loose, reddish-brown sand, (2093)a. A number of these were sample excavated, which demonstrated that this material filled voids created by natural processes.

### **Trench 96**

(see fig. 134)

*An east-north-east to west-south-west aligned trench, 20m long by 2m wide, randomly located within an area of diffuse magnetic disturbance.*

The ploughsoil consisted of dark brownish-grey sandy loam, (2107), c. 0.32m deep, which contained occasional sub-angular limestone fragments. Its removal exposed the fills of two linear features, [2109] and [2111], the former being situated 2m from the eastern end of the trench, while the latter lay a similar distance from the opposite end. Both were aligned from north to south, but [2109] was very irregular in plan and appeared to be formed by a series of overlapping sections that had differing orientations. This feature had a slightly irregular, concave profile c. 1.20m wide and 0.21m deep, and contained two fills. The lower fill, (2110), c. 0.14m deep, was a compact mid reddish-brown clayey sand, which contained occasional charcoal flecks and gravel sized limestone fragments. Above it was a mid reddish-brown silty sand, containing a few charcoal flecks and small pieces of limestone, c. 0.09m deep. It is possible that the charcoal in both fills was intrusive, as the form of [2109] is strongly indicative of formation by natural processes such as ice wedging.

The other feature, [2111], had a much more regular form, being relatively straight and having a 'U'-shaped profile, c. 0.85m wide and 0.39m deep. It contained a deposit of mid reddish-brown silty sand, (2112), that had occasional gravel-sized limestone inclusions. The morphological characteristics of [2111] suggested that it was a ditch, but as with [2109], a natural origin cannot be discounted.

Both [2109] and [2111] cut into a layer of pale yellowish-brown slightly clayey sand, (2108). This material incorporated a large quantity of sub-angular limestone rubble and discrete patches of loose reddish-brown sand.

### **Trench 97**

(see fig. 135)

*A north-north-west to south-south-east aligned trench, 20m long by 2m wide, opened near the southern edge of the field to investigate a faint linear anomaly.*

The ploughsoil was a dark greyish-brown sandy loam, (2096), c. 0.30m deep, which contained occasional sub-angular limestone fragments. It sealed a layer of stony, pale brownish-yellow slightly clayey sand that incorporated discrete patches of loose reddish-brown sand, (2097).

## **6.25 Field I3**

### **Trench 98**

(see fig. 136)

*An north-east to south-west aligned trench, 20m long by 2m wide, randomly located within an area of diffuse magnetic disturbance.*

The ploughsoil was a dark greyish-brown sandy loam, (2115), c. 0.33m deep, with occasional sub-angular limestone inclusions. The removal of the ploughsoil exposed a layer of mid reddish-brown slightly sandy silt, (2116), that contained frequent sub-angular limestone

fragments, discrete patches of limestone gravel in yellowish-brown sandy silt, and pockets of yellow limestone brash in a clayey silt matrix.

**Trench 99**

(see fig. 137)

*An east-south-east to west-north-west aligned trench, 20m long by 2m wide, randomly located within an area of diffuse magnetic disturbance.*

The ploughsoil was a dark greyish-brown sandy loam, (2141), with frequent sub-angular limestone inclusions c. 0.26m deep. It sealed a layer of stony, mid reddish-brown slightly sandy silt that incorporated pockets of limestone gravel, (2114).

**Trench 100**

(see fig. 138)

*A north-north-east to south-south-west aligned trench, 20m long by 2m wide, randomly located within an area of diffuse magnetic disturbance.*

The ploughsoil was a dark greyish-brown sandy loam, (2117), c. 0.29m deep, which contained frequent sub-angular limestone fragments. Its removal exposed a layer of stony, mid reddish-brown slightly sandy silt, (2118), which surrounded discrete patches of yellow limestone brash in a clayey silt matrix.

**Trench 101**

(see fig. 139)

*An east-north-east to west-south-west aligned trench, 20m long by 2m wide, opened to examine a faint linear anomaly within an area of diffuse magnetic disturbance.*

The ploughsoil consisted of a 0.22m deep layer of dark greyish-brown sandy loam, (2119), which incorporated frequent sub-angular limestone fragments. Beneath it was a layer of stony, mid reddish-brown slightly sandy silt, (2120), that contained pockets of yellow limestone brash in a clayey silt matrix.

**Trench 102**

(see fig. 140)

*An east-north-east to west-south-west aligned trench, 20m long by 2m wide, located randomly within an area of diffuse magnetic disturbance.*

The removal of the ploughsoil, a 0.28m deep layer of stony, dark greyish-brown sandy loam, (2121), exposed a layer of mid reddish-brown slightly sandy silt, (2122), containing frequent sub-angular limestone fragments and discrete patches of yellow limestone brash within a matrix of clayey silt.



### ***Trench 103***

(see fig. 141)

*An east-west aligned trench, 20m long by 2m wide, opened to investigate a relatively short linear anomaly in the southern half of the field.*

The ploughsoil was a dark greyish-brown sandy loam, (2137), c. 0.42m deep, containing occasional small and medium sized limestone fragments. Beneath it lay a mid reddish-brown sandy silt subsoil, (2138), c. 0.06m deep, which also contained frequent limestone fragments. The subsoil had developed over an intermittent deposit of mid reddish-brown slightly sandy silt, containing occasional small sub-angular limestone fragments, (2139). Beneath (2139) was a layer of stony, pale to mid brown clayey sand, (2140).

This trench did not provide any evidence to indicate what had generated the strong north-north-west to south-south-east aligned linear anomaly detected in this part of the field. A re-examination of the geophysical survey results raises the possibility that Trench 103 lay immediately to the south of a feature with a magnetically enhanced fill.

### ***Trench 104***

(see fig. 142)

*A north-west to south-east aligned trench, 20m long by 2m wide, opened to examine a diffuse linear anomaly within an area of magnetic disturbance.*

The ploughsoil was a dark greyish-brown sandy loam, (2133), c. 0.28m deep, which contained frequent limestone fragments and root matter. It was removed by machine, exposing the upper surface of the geological deposits, which in this area consisted of mid reddish-brown slightly sandy silt, (2135). This material incorporated frequent sub-angular limestone fragments and discrete pockets of yellow limestone brash set in a matrix of clayey silt.

The surface of (2135) was cut by a single feature, [2136], which was situated c. 4.2m from the north-western end of the trench. It was an irregular linear feature that was orientated from north-east to south-west. Excavation demonstrated that it was up to 1.60m wide and more than 0.55m deep. The base and sides were very uneven and irregular indicating that it had a natural origin, probably having been created by ice wedging, or similar processes. This fissure was filled by pale to mid reddish-brown sandy silt, (2134).

## **6.26 Field I4**

### ***Trench 105***

(see fig. 143)

*An east-west aligned trench, 20m long by 2m wide, randomly located.*

The ploughsoil consisted of dark greyish-brown sandy loam, (2123), c. 0.26m deep, which contained frequent sub-angular limestone fragments. It was removed by machine, exposing the upper surface of the limestone brash, (2124), which was set in a matrix of orangey-brown sandy silt.

**Trench 106**

(see fig. 144)

*A north-south aligned trench, 20m long by 2m wide, randomly located.*

The ploughsoil consisted of dark greyish-brown sandy loam, (2125), with frequent sub-angular limestone inclusions, c. 0.27m deep. Beneath the ploughsoil was a layer of orangey-brown limestone brash in a matrix of sandy silt, (2126).

**Trench 107**

(see fig. 145)

*A north-east to south-west aligned trench, 20m long by 2m wide, opened to examine a diffuse linear anomaly.*

The removal of the ploughsoil, a stony layer of dark greyish-brown sandy loam, (2127), c. 0.33m deep, exposed the upper surface of the limestone brash, (2128). The latter was pale yellow to orangey-brown in colour, this mottling being due to variations in the sandy silt matrix.

**Trench 108**

(see fig. 146)

*A north-west to south-east aligned trench, 20m long by 2m wide, opened to examine a discrete magnetic anomaly.*

The ploughsoil was a dark greyish-brown sandy loam, (2129), c. 0.33m deep, which contained frequent limestone fragments. It sealed a layer of limestone brash, (1816), which had a matrix of yellow to orangey-brown sandy silt.

**Trench 109**

(see fig. 147)

*A north-south aligned trench, 20m long by 2m wide, randomly located.*

The ploughsoil was a dark greyish-brown sandy loam, (2131), with frequent sub-angular limestone inclusions c. 0.32m deep. It sealed yellow to orangey-brown limestone brash that had a matrix of sandy silt, (2132).

**6.27 Field I5****Trench 110**

(see fig. 148)

*An east-west aligned trench, 20m long by 2m wide, opened to investigate diffuse magnetic disturbance near the northern edge of the field.*

The ploughsoil consisted of mid yellowish to greyish-brown silty sand, (2001), c. 0.32m deep, which contained root matter and frequent sub-angular limestone fragments, up to 0.20m

across. It was removed by machine, exposing the upper surface of the limestone brash, (2002), which was set within a matrix of pale yellowish-orange sand.

***Trench 111***

(see fig. 149)

*A north-south aligned trench, 20m long by 2m wide, opened to investigate a weak linear anomaly.*

The ploughsoil was a 0.30m deep deposit of mid brownish-grey silty sand, (2003), containing frequent sub-angular limestone fragments. Immediately beneath the ploughsoil was a layer of limestone brash set in a matrix of pale yellowish-orange sand, (2004).

***Trench 112***

(see fig. 150)

*An east-west aligned trench, 20m long by 2m wide, opened to investigate a weak linear anomaly.*

The removal of the ploughsoil, a stony layer of mid greyish-brown silty sand, (2005), c. 0.35m deep, exposed the upper surface of the pale yellowish-orange limestone brash, (2006).

***Trench 113***

(see fig. 151)

*A north-south aligned trench, 20m long by 2m wide, randomly located.*

The ploughsoil was a mid greyish-brown silty sand, (2007), c. 0.32m deep, which contained frequent sub-angular limestone fragments. It sealed a layer of limestone brash, (2008), which had a matrix of pale yellowish-orange sand.

***Trench 114***

(see fig. 152)

*A north-south aligned trench, 20m long by 2m wide, randomly located.*

The ploughsoil was a 0.36m deep deposit of mid greyish-brown silty sand, (2009), containing frequent sub-angular limestone fragments. Below the ploughsoil was a mottled layer of limestone brash set in a matrix of pale orange to yellowish-orange sand, (2010).

**6.28 Field I6**

***Trench 115***

(see fig. 153)

*A north-north-west to south-south-east aligned trench, 40m long by 2m wide, opened to examine two strong linear anomalies.*

The removal of the ploughsoil, a 0.40m deep layer of mid to dark greyish-brown sandy silt, (2026), exposed the surface of the pale yellowish-brown limestone brash, (2027). Two linear features had been cut into (2027).

East-west aligned ditch [2019] was situated 1.25m from the northern end of the trench. It was 4.50m wide and 1.35m deep, and had a slightly irregular 'V'-shaped profile. It contained five distinct deposits, the latest of which was a moderately stony, mid reddish-brown silty sand, (2023), c. 0.16m deep. Its removal exposed a mid brown silty sand, (2022), c. 0.28m deep, which had moderate small sub-angular limestone inclusions. Below (2022) was a 0.33m deep deposit of mid brown silty sand, (2021), which incorporated occasional sub-angular limestone inclusions. The next deposit in the sequence consisted of pale to mid brown silty sand, (2020), c. 0.42m deep. It contained a large quantity of sub-angular limestone fragments, which were potentially derived from the spoil created during the construction of the ditch. Most of (2020) had accumulated either in the base, or over the northern edge of the ditch, this skewed distribution suggesting that there had been an associated bank immediately to the north of the feature. The earliest fill of [2019] was a moderately stony, mid brown silty sand, (2025), that was up to 0.27m deep.

Approximately 8m to the south of [2019] lay the second ditch, [2000]. This east-north-east to west-south-west aligned feature had a slightly irregular 'U'-shaped profile, c. 3.75m wide at the top, 0.80m wide at the base and 1.23m deep. It also had five distinct fills, the latest three of which were very similar to the corresponding deposits in [2019]; this potentially indicates that the two ditches functioned as contemporaneous boundaries. The upper fill of [2000] was a mid reddish-brown silty sand, (2018), c. 0.11m deep, which incorporated frequent small sub-angular limestone fragments. It sealed a moderately stony accumulation of mid brown silty sand, (2017), c. 0.27m deep. Beneath (2017) was a 0.25m deep deposit of pale to mid brown silty sand, (2016), that contained occasional small sub-angular limestone fragments.

A substantial build up of mid greyish-brown silty sand, (2015), c. 0.62m deep, filled most of the base of ditch [2000]. This material incorporated a discrete concentration of shell, as well as a large amount of sub-angular limestone rubble. As with the secondary fill in ditch [2019], these fragments of limestone may have originally formed part of a flanking bank. However, the distribution of (2015) did not provide any clear indications of the former presence, or location of such a feature. The primary fill of [2000] consisted of a thin spread of pale greyish-yellow fine sand, (2024), that lined both the northern and southern edges of the ditch, but did not extend right across the base. The absence of (2024) from the lowest part of the feature could provide an indication that [2000] was cleaned out on at least one occasion.

The eastern ends of ditches [2000] and [2019] appear to have been aligned upon the farmhouse at Canwick Manor Farm, which is situated c. 210m to the east-north-east of Trench 115. However, it is possible that this is merely coincidental, as these features may be significantly older than the farm. The two ditches did not run parallel to each other, which could indicate that they result from two distinct phases of activity. However, they did have a similar orientation, raising the possibility that they flanked a driveway, or track that narrowed as it approached the area of the farm. The First Edition Ordnance Survey map indicates that all of the elements of the field system, which currently surrounds Canwick Manor Farm, had been laid out prior to 1889-90 (fig. 154). Consequently, it is evident that [2000] and [2019] had become redundant and had been filled in prior to this time.

**Trench 116**

(see fig. 155)

*An east-west aligned trench, 20m long by 2m wide, randomly located.*

The ploughsoil consisted of mid greyish-brown silty sand, (2011), c. 0.30m deep, which contained root matter and frequent sub-angular limestone fragments, up to 0.20m across. Its removal exposed a mottled layer of limestone brash, (2012), with a matrix of pale and dark orange sandy silt.

**Trench 117**

(see fig. 156)

*A north-west to south-east aligned trench, 20m long by 2m wide, randomly located.*

The removal of the ploughsoil, a stony layer of mid greyish-brown silty sand, (2013), c. 0.31m deep, exposed the upper surface of the limestone brash, (2014). The latter was pale yellow to pale orange in colour, this mottling being due to variations in the sandy silt matrix.

**6.29 Field I7****Trench 118**

(see fig. 157)

*A north-east to south-west aligned trench, 20m long by 2m wide, randomly located.*

The ploughsoil consisted of mid to dark greyish-brown sandy loam, containing occasional sub-angular limestone fragments, (1805), c. 0.28m deep. The underlying subsoil, (1806), was a mid orangey-brown clayey sand, which was up to 0.26m deep. It filled a series of natural fissures in the upper surface of the limestone brash, (1807). The latter was a pale yellowish-brown colour and had a matrix of clayey coarse sand.

**Trench 119**

(see fig. 158)

*A north-west to south-east aligned trench, 20m long by 2m wide, randomly located.*

The ploughsoil was a greyish-brown loamy clay, (1800), c. 0.24m deep, which contained frequent small limestone fragments and occasional larger pieces that were up to 0.25m across. It sealed a stony, mid reddish-brown silty clay subsoil, (1801), up to 0.22m deep. This subsoil had developed over pale brownish-grey limestone brash, (1802), which had a matrix of sandy clay.

**Trench 120**

(see fig. 159)

*A north-east to south-west aligned trench, 20m long by 2m wide, randomly located.*

The ploughsoil was a mid greyish-brown clayey silt, (1823), c. 0.28m deep, which contained frequent sub-angular limestone fragments. The removal of the ploughsoil exposed a layer of pale brownish-grey limestone brash, (1824), which had a matrix of sandy clay.

#### ***Trench 121***

(see fig. 160)

*A north-west to south-east aligned trench, 20m long by 2m wide, randomly located in an area of diffuse magnetic disturbance.*

The ploughsoil was a mid greyish-brown loamy clay, (1811), c. 0.28m deep, containing frequent small and medium sized limestone fragments. Beneath it lay the remnants of a mid reddish-brown sandy silt subsoil, (1812). This deposit had been truncated by ploughing, but survived as the fill of several natural fissures incised into the surface of the limestone; some of these voids were up to 0.65m deep. The limestone brash, (1813), had a matrix of yellowish to orangey-brown sandy clay.

#### ***Trench 122***

(see fig. 161)

*A north-south aligned trench, 10m long by 5m wide, opened to investigate a discrete magnetic anomaly.*

The ploughsoil consisted of mid greyish-brown loamy clay, (1808), c. 0.35m deep. It contained frequent small sub-angular limestone fragments and occasional larger pieces, up to 0.25m across. The underlying subsoil, (1809), was a mid reddish-brown silty clay, which was up to 0.19m deep. Beneath the subsoil was a layer of yellowish to orangey-brown limestone brash, (1810).

#### ***Trench 123***

(see fig. 162)

*A north-east to south-west aligned trench, 20m long by 2m wide, randomly located.*

The ploughsoil was a mid greyish-brown clayey silt, (1820), c. 0.22m deep, containing frequent small and medium sized limestone fragments. Beneath it lay a mid reddish-brown silty sand subsoil, (1821), c. 0.12m deep, which also contained frequent limestone fragments. The subsoil had developed over pale brownish-grey limestone brash, (1822), which had a matrix of clayey sand.

#### ***Trench 124***

(see fig. 163)

*A trench with two perpendicular components - a north-east to south-west aligned trench, 20m long by 2m wide, joined at its south-east corner to a north-west to south-east aligned*

*trench, 20m long by 2m wide. It was opened to examine a weak curvilinear anomaly.*

The ploughsoil was a greyish-brown clayey silt, (1814), c. 0.33m deep, which contained frequent limestone fragments. It sealed a subsoil consisting of stony, mid reddish-brown silty sand, (1815), c. 0.08m deep. This subsoil had developed over pale brownish-grey limestone brash, (1816).

#### ***Trench 125***

(see fig. 164)

*A north-east to south-west aligned trench, 20m long by 2m wide, opened to examine a weak linear anomaly.*

The ploughsoil consisted of mid greyish-brown clayey silt, (1817), c. 0.21m deep, and contained frequent sub-angular limestone fragments. The underlying subsoil, (1818), was a mid reddish-brown silty sand, which was up to 0.09m deep. Beneath the subsoil was a layer of pale brownish-grey limestone brash, (1810), which had a matrix of clayey sand.

### **6.30 Field I8**

#### ***Trench 126***

(see fig. 165)

*A north-west to south-east aligned trench, 20m long by 2m wide, opened to examine a diffuse linear anomaly.*

The ploughsoil was a 0.32m deep deposit of mid greyish-brown silty loam, (2194), containing frequent sub-angular limestone fragments. Immediately beneath the ploughsoil was a layer of limestone brash set in a matrix of pale reddish-brown silty sand, (2195).

#### ***Trench 127***

(see fig. 166)

*A trench with two perpendicular components - a north-east to south-west aligned trench, 20m long by 2m wide, joined at its north-west corner to a north-west to south-east aligned trench, 20m long by 2m wide. It was opened to examine two diffuse linear anomalies that possibly formed part of an enclosure.*

The ploughsoil was a stony, mid greyish-brown silty loam, (2186), c. 0.28m deep. It sealed a subsoil layer composed of pale reddish-brown silty sand, (2193), that was up to 0.13m deep. Both deposits were stripped by machine, exposing the weathered upper surface of the limestone bedrock, (2187), which consisted of brash set in a matrix of pale brown silty sand.

A gully, [2184], was incised into the surface of the brash c. 2.5m from the northern end of the north-west to south-east aligned component of the trench. This shallow feature ran perpendicular to the trench and had a slightly asymmetric rounded profile, c. 0.60m wide and 0.14m deep. It was filled with pale brown silty sand, (2185), which contained occasional sub-angular fragments of limestone.

Several irregular features were also exposed within the trench. Examination indicated that they were all natural in origin and were probably created by ice wedging, localised dissolution of the limestone, or tree root disturbance.

### ***Trench 128***

(see fig. 167)

*A north-east to south-west aligned trench, 20m long by 2m wide, opened to examine two weak linear anomalies.*

The ploughsoil was a 0.26m deep deposit of mid greyish-brown silty loam, (2197), containing a moderate quantity of limestone fragments. It sealed the fill of a north-west to south-east aligned gully, [2192], situated 4m from the south-western end of the trench. This feature had a slightly irregular profile, c. 0.52m wide and 0.42m deep, its uneven base separating edges that sloped at 70-80° to the horizontal. It was filled by a deposit of mid reddish-brown clayey silt, (2196), that incorporated a few small limestone fragments.

The gully had been cut into the yellowish-brown limestone brash, (2198).

### ***Trench 129***

(see fig. 168)

*A north-north-east to south-south-west aligned trench, 20m long by 2m wide, opened to examine a weak linear anomaly.*

The removal of the ploughsoil, a stony layer of mid greyish-brown silty loam, (2190), c. 0.28m deep, exposed the upper surface of the yellow to pale reddish-brown limestone brash, (2191).

### ***Trench 130***

(see fig. 169)

*A north-east to south-west aligned trench, 20m long by 2m wide, opened to examine a weak linear anomaly.*

The ploughsoil was a 0.26m deep layer of mid greyish-brown silty loam, (2178), which contained frequent sub-angular limestone fragments. Its removal exposed the fills of two features, which were both located in the western half of the trench.

The exposed element of gully [2182] entered the trench near its south-eastern corner. This part of the gully was curvilinear and gradually turned eastward before straightening out and running approximately 4.5m from south-west to north-east. The eastern end of [2182] was defined by a rounded terminal that was situated 7.30m from the western end of the trench. The gully was approximately 0.60m wide at the top and 0.24m deep, the relatively steep sides being separated by a flat base c. 0.26m wide. It contained a deposit of mid reddish-brown sandy silt, (2183).

The other feature, [2180], was a shallow sub-oval pit, c. 0.90m long, 0.65m wide and 0.11m deep. It was situated immediately to the north-east of the terminal of gully [2182]. The close spatial relationship between these two features inferred that they were contemporaneous and



had been created at around the same time. However, the fill of the gully was significantly different to the material contained by [2180]. The latter held a deposit of mid greyish-brown silty loam, (2181), that was indistinguishable from the ploughsoil. Consequently, it appears likely that [2180] is a relatively modern feature.

Both [2180] and [2182] were cut into the limestone brash, (2179), this material having a matrix of yellow to pale reddish-brown silty sand.

### ***Trench 131***

(see fig. 170)

*An east-south-east to west-north-west aligned trench, 20m long by 2m wide, opened to investigate several discrete anomalies.*

The ploughsoil was a 0.22m deep layer of mid to dark brownish-grey clayey silt, (2173), which incorporated a moderate amount of limestone rubble, a chunk of worked flint and a fragment of medieval tile that was manufactured between the 13<sup>th</sup> and 15<sup>th</sup> centuries. Beneath it was a subsoil layer consisting of reddish-brown silty sand, (2174), c. 0.12m deep. The subsoil had developed over limestone brash, (2175), that had a matrix of reddish-brown silty sand. Three features had been cut into (2175).

The terminal of a west-north-west to east-south-east aligned ditch, [2169], was revealed at the western end of the trench. This feature was only partially exposed against the south-west section, but the visible element had a steep edge and a rounded base and, was more than 0.45m wide and 0.23m deep. The end of [2169] had a rounded terminal, the last 0.5m of which was crossed by a perpendicular ditch, [2171]. The latter had a flattened 'U'-shaped profile that was c. 1.45m wide and 0.25m deep. Both features were filled with mid reddish-brown silty sand, (2170)/(2172), which contained occasional sub-angular limestone fragments, three sherds of Romano-British pottery and two pieces of 13<sup>th</sup>-15<sup>th</sup> century ceramic. The identical fills and the spatial inter-relationship of these features indicate they were contemporaneous boundaries that probably defined the south-western corner of a field or enclosure.

The third feature was a large pit, [2176], that was situated 2.5m to the east of ditch [2171]. This sub-oval hollow extended 5.10m from east to west and was more than 1.60m wide; only the northern half of the feature was situated in the trench. The gently sloping sides of [2176] produced a rounded profile that was c. 0.75m deep. It was filled with a deposit of mid reddish-brown silty sand, (2177), that incorporated a few sub-angular limestone fragments, thirteen sherds of mid to late 2<sup>nd</sup> century Romano-British pottery, a sherd of 13<sup>th</sup>-15<sup>th</sup> century pottery and a residual piece of worked flint.

## **6.31 Field I9**

### ***Trench 132***

(see fig. 171)

*A north-east to south-west aligned trench, 20m long by 2m wide, opened to investigate a*

*weak linear anomaly.*

The ploughsoil consisted of brownish-grey sandy loam, (2167), c. 0.28m deep, which contained root matter and occasional sub-angular limestone fragments. It was removed by machine, exposing the upper surface of the limestone brash, (2168), which had a matrix of reddish-brown silty sand.

### **Trench 133**

(see fig. 172)

*A north-west to south-east aligned trench, 20m long by 2m wide, opened to investigate a diffuse linear anomaly.*

The ploughsoil was a dark greyish-brown sandy loam, (2151), c. 0.26m deep. It contained a significant cultural component, including a Late Mesolithic to Early Neolithic blade-like flake, another two worked flints probably of Bronze Age date, two slivers of mid to late 2<sup>nd</sup> century Central Gaulish samian, another nine sherds of Romano-British pottery, five fragments of medieval vessels manufactured between the 12<sup>th</sup> and 15<sup>th</sup> centuries, and a piece of late 18<sup>th</sup>-20<sup>th</sup> century fabric. The removal of (2151) exposed the fills of three features that had been cut into a layer of stony, mid reddish-brown silty sand, (2158).

The northern half of a sub-oval pit, [2152], occupied the south-west corner of the trench. This feature was more than 1.70m long, over 1.30m wide and 0.82m deep. It had a convex eastern edge, which sloped at c.50° to the horizontal, and a relatively even base that dipped slightly toward the south-west. It was filled with mid reddish-brown silty sand, (2153), that incorporated a few limestone fragments, a body sherd from an Early Bronze Age Beaker and a piece of Romano-British, or early modern tile.

A gully, [2154], was situated 3.30m to the north-west of pit [2152]. Most of the exposed part of this feature extended from north-west to south-east across the centre of the trench, but the end nearest to the pit turned south-westward before exiting the area under evaluation. The north-western end of [2154] had a rounded terminal, with an asymmetric 'V'-shaped profile, but the cross-section became more regular and rounded as the feature extended south-eastward. Consequently, the north-east to south-west aligned component had a flattened 'U'-shaped profile that was c. 1.00m wide at the top, 0.46m wide at the base and 0.40m deep. The fill of [2154] consisted of brown silty sand, (2155), which contained some sub-angular limestone fragments and fifteen pieces of Romano-British pottery, which included a rim sherd from a late 2<sup>nd</sup> century samian vessel of Central Gaulish origin.

A north-south aligned gully with a slight curvature, [2156], was situated immediately to the south of the north-western end of [2154]. The northern end of [2156] was defined by a rounded terminal, which abutted and respected the edge of the other gully, suggesting that they were contemporary features that defined part of an irregular enclosure. Excavation demonstrated that [2156] had a 'V'-shaped profile, c. 0.40m wide and 0.18m deep, and that it contained a deposit of mid reddish-brown silty sand, (2157).

### **Trench 134**

(see fig. 173)

*A north-west to south-east aligned trench, 20m long by 2m wide, randomly located.*

The ploughsoil was a 0.24m deep deposit of dark greyish-brown silty loam, (2163). It incorporated a few chunks of sub-angular limestone rubble, along with three pieces of Late

Mesolithic to Early Neolithic worked flint, another two pieces of Late Neolithic to Bronze age date, a sherd from a Beaker, three pieces of 13<sup>th</sup> century pottery, two fragments manufactured during the 17<sup>th</sup>-18<sup>th</sup> centuries and four sherds of 18<sup>th</sup>-19<sup>th</sup> century date. Sealed beneath (2163) was a subsoil layer that was more than 0.15m deep, (2164). It was comprised of stony, mottled yellow to mid brown silty sand.

### ***Trench 135***

(see fig. 174)

*An east-north-east to west-south-west aligned trench, 20m long by 2m wide, randomly located.*

The ploughsoil consisted of mid to dark brownish-grey sandy silt, (2150), c. 0.33m deep. It contained frequent sub-angular limestone fragments and occasional pieces of unmodified flint. It was removed by machine, exposing the south-eastern end of a curvilinear gully, [2150], the rounded terminal of which was situated approximately 2.0m from the eastern end of the trench. It was more than 2.20m long, 0.58m wide and 0.33m deep and, had a 'U'-shaped profile with relatively steep sides, its base becoming flatter as it approached the terminal. It is possible that [2150] was a penannular feature, but the curvature of the visible section suggests that it would only have had an internal diameter of c. 3.6m. This would mean that it was far too small to have surrounded a round house.

Gully [2150] contained a deposit of mid orange to reddish-brown silty sand, (2160). It had been cut into a layer of limestone brash, (2162), that had a matrix of yellowish-brown silty sand interspersed with localised patches of reddish-brown sand.

### ***Trench 136***

(see fig. 175)

*An east-north-east to west-south-west aligned trench, 20m long by 2m wide, opened to investigate two linear anomalies.*

The ploughsoil consisted of stony, dark reddish-brown clayey silt, (2165), c. 0.24m deep. It was removed by machine, exposing the upper surface of the limestone brash, (2166), which had a matrix of reddish-brown silty sand.

**Table 3:** a summary of the results of the trial trenching undertaken along the proposed route of the Lincoln Eastern Bypass.

<b>Trench No.</b>	<b>Arch. potential</b>	<b>Date of deposits</b>	<b>Description</b>
1	Low	Natural/ E. Modern	An irregular linear feature and a pitlike feature were exposed near the centre of the trench, with a second irregular linear feature situated near its western end. They are all likely to be the result of peri-glacial reticulation. Two land drains were also exposed, one of which was a stone filled example probably of 18 <sup>th</sup> – early 19 <sup>th</sup> century date.
2	Low	E. Modern - Modern	A stone filled land drain, probably of 18 <sup>th</sup> – early 19 <sup>th</sup> century date, was investigated. It had been cut through by a modern gully.
3	Low	Undated	A north-west to south-east aligned gully was exposed in the trench. A modern ceramic land drain cut through its fill.
4	Low	Undated	A small sub-oval pit was situated c. 6m from the western end of the trench.
5	Low	-	No archaeological features or deposits detected.
6	Low-moderate	Medieval	A pit or the western terminal of a ditch lay 4.5m from the northern end of the trench. An east-north-east to west-south-west aligned gully was situated 5.5m further to the south, with a suboval pit immediately adjacent. The latter contained a rim sherd from a late 12 <sup>th</sup> -14 <sup>th</sup> century pot. There was significant tree root disturbance in the southern half of the trench.
7	Moderate	Undated	A series of features were exposed 3m from the southern end of the trench. There were two sub-rectangular pits, the later of which was lined with stone. These features appeared to be associated with a paved surface. A second phase of activity was represented by an east-north-east to west-south-west aligned drain constructed from limestone slabs. There was no associated artefactual material, but Romano-British remains have previously been identified less than 150m to the west.
8	Low	-	No archaeological features or deposits detected.
9	Low	Post-med – E. modern	An east-west aligned ditch lay 3.5m from the northern end of the trench. It contained 19 <sup>th</sup> -20 <sup>th</sup> century pottery and was depicted on the First Edition Ordnance Survey map.
10	Low	-	No archaeological features or deposits detected.
11	Low	Modern	Two land drains were investigated, one ceramic and one plastic. Both were probably created during the 20 <sup>th</sup> century.
12	Low	-	No archaeological features or deposits detected.
13	Low	-	No archaeological features or deposits detected.
14	Low	-	No archaeological features or deposits detected.

<b>Trench No.</b>	<b>Arch. potential</b>	<b>Date of deposits</b>	<b>Description</b>
15	High	Late Iron Age	A deep gully, subsequently recut as a ditch, was situated 13.5m from the southern end of the north-west to south-east aligned arm of the trench. A ditch with at least one recut lay 4m from the eastern end of the other arm; one of its fills contained charcoal and animal bone.
16	High	Late Iron Age – early R-B	Four linear features and a pit, or large posthole were exposed in this trench. The fills of these features contained a large quantity of cultural material, including iron and iron slag, animal bone, pot boilers and, Late Iron Age and early Romano-British pottery.
17	High	Late Iron Age – early R-B	A ditch crossed the centre of the trench. This feature had been redefined on at least four occasions. One of these recuts was lined with a discrete layer of Late Iron Age pottery, which appears to have been a deliberate, structured deposit and is thus indicative of ritual activity.
18	Low-moderate	Iron Age?	A small sub-oval pit was situated at the northern end of the trench. It was undated, but features in surrounding trenches were of Iron Age date.
19	High	Iron Age?	A large, rock-cut ditch crossed the centre of the trench from north-west to south-east. There was evidence that a bank ran along its north-eastern edge, and it may have been redefined once.
20	High	Iron Age	A north-east to south-west aligned ditch ran across the south-eastern end of the trench. Its fill contained Iron Age pottery.
21	Low	Natural	Four irregular pit-like features were situated in the central part of the trench. They are all likely to result from bioturbation, or ice wedging.
22	Low	-	No archaeological features or deposits detected.
23	Low	Natural	A broad linear feature occupied much of the northern half of the trench. It is likely to large fissure in the limestone, or a periglacial melt-water channel.
24	Low	Natural	A pit like feature was exposed near the south-eastern end of the trench. It is likely to result from ice-wedging, or tree root disturbance.
25	Low	-	No archaeological features or deposits detected.
26	Low-moderate	Post Med - Early mod.	Two parallel east-west aligned ditches were exposed in the northern half of the trench. These features probably defined the edges of a track. The fills of both contained 19 <sup>th</sup> - 20 <sup>th</sup> pottery, along with earlier, residual material.
27	Low	Natural	The southern two-thirds of the trench were covered by colluvial clay and silt deposits, which appeared to fill a series of natural depressions or fissures in the surface of the limestone bedrock.
28	Low	Natural	An irregular linear feature was exposed near the centre of the trench. Probably a solution hollow.

<b>Trench No.</b>	<b>Arch. potential</b>	<b>Date of deposits</b>	<b>Description</b>
29	Low	Natural	An irregular linear feature was found near the southern end of the trench. Probably ice-wedging, or a solution hollow.
30	Low	Natural?	A pit-like feature was exposed near the centre of the trench. Colluvium and a number of sub-circular, conical depressions (probably formed by ice wedging) occupied the southern half.
31	Low	Natural	A pit like feature and a narrow, irregular linear feature were exposed near the south-east corner of the trench. They are likely to be solution hollows, or result from ice wedging.
32	Low	-	No archaeological features or deposits detected
33	Moderate	Late Meso /Neo	The layer of sand sealed by the ploughsoil probably represents a buried prehistoric land surface containing potboiler fragments and worked flints, including an obliquely blunted Late Mesolithic point.
34	High	Late Meso & L. Neo/ E Bronze Age	<p>A palaeo-channel of the River Witham was identified at the northern end of the trench.</p> <p>Two broad, curvilinear features were exposed c. 15 and 30m from the southern end of the trench, and may represent parts of the same ring ditch, c. 13m in diameter, These features may constitute elements of a round barrow thought to occupy this part of the field.</p> <p>A layer of sand cut through by the curvilinear ditches probably represents a buried prehistoric land surface containing worked flints that primarily exhibited characteristics consistent with Late Mesolithic technologies.</p>
35	Moderate - high	Late Meso & post med	<p>The layer of sand sealed by the ploughsoil probably represents a buried prehistoric land surface containing worked flints that primarily exhibited characteristics consistent with Late Mesolithic technologies.</p> <p>An east-west aligned ditch was exposed 30m from the southern end of the trench; its fill contained a Codd bottle manufactured between 1890 and 1910. Two parallel linear features ran perpendicular to the ditch a little further to the north. One represented the void created by a hedge, while the adjacent feature was the base of a flanking ditch.</p>
36	Moderate	Post medieval	A spread of small limestone rubble and ceramic building material had been deposited on the west face of a low mound. This rubble spread possibly represents a demolition deposit created during the demolition of the medieval/post-medieval grange complex at the end of the 18 <sup>th</sup> century.
37	High	Romano-British/ Medieval	A linear feature, probably a Roman foundation trench, ran from north-north-east to south-south-west, along the full length of the trench. A rubble spread had accumulated across most of Trench 37, probably reflecting the gradual disintegration of the building. Subsequently, a medieval robber trench was created in order to

Trench No.	Arch. potential	Date of deposits	Description
			salvage the remaining fabric of the Roman wall for use in the adjacent monastic grange.
38	High	Romano-British & Medieval	<p>Two north-south aligned ditch, c. 1.0m wide, ran along the most northerly 17m of the trench. The more westerly example had been recut on at least three occasions. The southern ends of these ditches terminated at a perpendicular ditch, which had also been recut a number of times. A few pieces of medieval pottery from the earliest fills indicated that this either represented a series of robber trenches, or formed part of a boundary complex associated with the monastic grange.</p> <p>Another six east-west aligned ditches and gullies traversed the southern two-thirds of the trench; these ranged in size from a shallow gully c. 0.5m wide, to a medieval ditch 2.5m wide and 0.9m deep. Artefactual material suggested that most of these features formed part of the medieval landscape.</p>
39	Moderate	Romano-British/ Medieval	<p>Part of a relatively large pit, or the terminal end of an eastwest aligned ditch was exposed at the south-east corner of the trench.</p> <p>A linear spread of limestone rubble and tile fragments ran from north to south across the centre of the trench. This material was probably laid down after the 14<sup>th</sup> century and could have formed the roughly metalled surface of a path, or might merely represented rubble deposited along a former hedge, or fence line.</p>
40	High	Prehistoric & Romano-British & Medieval/ post med	<p>The centre of the trench was crossed by an eastwest aligned wall foundation constructed with tabular limestone rubble set into levigated clay. The wall probably acted as a boundary rather than forming part of a structure. Associated pottery suggested that this feature was of Romano-British date, but a schist hone stone was more indicative of a late Saxon to medieval date.</p> <p>A sub-oval pit containing several pieces of worked flint was identified toward the southern end of the trench.</p>
41	High	Romano-British & sub-Roman Medieval	<p>A substantial limestone rubble foundation, c. 2.5m wide and more than 3.5m long, was exposed at the junction between the two arms of the trench; a deposit of degraded lime plaster, or mortar ran along its southern edge. It appears to form part of the <i>in-situ</i> remains of a Roman building.</p> <p>A layer of large pieces of limestone and tile was exposed at the western end of the east-south-east to west-north-west arm of the trench. This deposit appeared to form a rough metalled surface. It was constructed from materials salvaged from adjacent Roman buildings that had fallen into a state of disrepair, probably at a time when other parts of the site were still occupied, and prior to the extensive medieval robbing of the complex that was associated with the construction of the monastic grange.</p>
42	High	Romano-British & Medieval/ post-	Part of a large pit, or robbed out foundation trench was situated at the northern end of the trench. Another pit lay adjacent to the southern end of this feature.

Trench No.	Arch. potential	Date of deposits	Description
		medieval	<p>Two adjacent east-west aligned gullies were identified near the centre of the trench. Both of these features seem to have been created during the medieval period, one prior to, and the other after the ruins of adjacent Roman stone structures had been demolished.</p> <p>A stone lined drain was situated near the southern end of the trench. This feature was aligned from north-east to south-west, and was probably created during the medieval, or postmedieval periods to channel water away from a spring that is situated in the south-west corner of Field F.</p>
43	Low	-	No archaeological features or deposits detected.
44	Moderate - high	Post-medieval?	The remains of two limekilns were investigated at the northern end of the trench. One appeared to be relatively well preserved, but the stone walls had been partially robbed from the other. Two pits were identified close to these structures.
45	Low	-	No archaeological features or deposits detected.
46	Moderate - high	Undated	A large sub-rectangular pit was situated at the junction of the two arms of the trench. Another feature, probably a ditch, ran east west c. 3m further to the north. Both the pit and the putative ditch had cut through the fills of a north-north-east to south-south-west aligned gully.
47	Low	Modern	A land drain was investigated, but no archaeologically significant features or deposits detected.
48	Low-moderate	Undated	A north-south aligned ditch ran across the centre of the trench.
49	Low	-	No archaeological features or deposits detected.
50	Low	-	No archaeological features or deposits detected.
51	Low-moderate	Undated	A north-south aligned ditch, or hollow way, c. 7.5m wide, ran across the eastern half of the trench.
52	Low	Undated	An east-west aligned gully was situated 7m from the northern end of the trench.
53	Moderate	Undated (med?)	Two parallel ditches crossed the western half of the trench. They were situated c. 4.5m apart and may have defined a driveway associated with the ring gully investigated in Trench 55. However, the geophysical survey indicates that they are more likely to have been furrows representing part of a medieval field system.
54	Low	-	No archaeological features or deposits detected.
55	Moderate - high	Iron Age - Romano-British?	Part of a ring ditch was exposed in the trench. This ditch was c. 22m in diameter and probably surrounded a late prehistoric or Romano-British circular building, but only one posthole was identified in the visible portion of the enclosed area. A line of



Trench No.	Arch. potential	Date of deposits	Description
			postholes ran along the outer edge of the ring ditch.
56	Moderate	Undated	A north-north-west to south-south-east aligned ditch crossed the eastern arm of the trench. It appears to turn slightly to avoid the ring gully situated in Trench 55 and could therefore be a contemporary feature.
57	Low	-	No archaeological features or deposits detected.
58	Low	-	No archaeological features or deposits detected, but significant quantities of Romano-British pottery and tile in the topsoil.
59	Low	E. modern - Modern	Part of a large pit was exposed, this feature being situated within, and probably forming part of a small, redundant limestone quarry. This quarry does not appear on the First Edition Ordnance Survey map, indicating that it was created after 1890.
60	Moderate - high	Post-medieval?	A well-preserved limekiln was exposed at the southern end of the trench. Two contemporaneous quarry pits occupied most of the area to the north of this structure.
61	Moderate	Undated	A north-south aligned ditch was situated 4m from the eastern end of the trench. The geophysical survey results indicate that it forms part of the same system of land division as the ditches investigated in Trench 62.
62	Moderate	Undated	An east-west aligned ditch, which had been recut on at least one occasion, was situated 3m from the southern end of the trench. The geophysical survey results indicate that it forms part of the same system of land division as the ditch investigated in Trench 61.
63	Low	-	No archaeological features or deposits detected.
64	Moderate	Undated	An east-west aligned ditch was situated 6m from the northern end of the north-south arm of the trench. A perpendicular ditch crossed the other arm c. 2m from its western end. The geophysical survey results indicate that they probably formed part of the same system of land division as the boundaries investigated in Trench 61 and Trench 62.
65	Low	-	No archaeological features or deposits detected.
66	Low	-	No archaeological features or deposits detected.
67	Low	-	No archaeological features or deposits detected.
68	Low	-	No archaeological features or deposits detected.
69	Low	-	No archaeological features or deposits detected.
70	Low	Post-med – E. modern	A large, east-west aligned linear feature, c. 7.5m wide and more than 18m long, was investigated. It was not a boundary and seems more likely to have been a stone pit, or small quarry. The fills contained fragments of brick and tile.

Trench No.	Arch. potential	Date of deposits	Description
71	Low	-	No archaeological features or deposits detected.
72	Low-Moderate	Undated	An east-north-east to west-south-west aligned ditch crossed the centre of the trench.
73	Low	-	No archaeological features or deposits detected.
74	Low	-	No archaeological features or deposits detected.
75	Low	-	No archaeological features or deposits detected.
76	Low	-	No archaeological features or deposits detected.
77	Moderate	Undated (Later Preh – Romano-British?)	Three linear features were exposed in the western half of the trench. A north-north-east to south-south-west aligned gully was situated 3.5m to the east of two ditches, one running north-east to south-west and the other north-north-west to south-south-east.
78	Moderate - high	Later Preh – Romano-British	The trench contained a large east-west aligned ditch, c. 3.75m wide and 1.53m deep. Its fill incorporated five pieces of Romano-British pottery and tile. The remains of a substantial bank situated immediately to the north may cover and preserve an <i>in-situ</i> palaeosol. This ditch is visible as a crop mark that can be traced for over 1.9km, raising the possibility that it could be a later prehistoric linear boundary.
79	Low-Moderate	Undated	Two east-west aligned linear features crossed the trench. A ditch lay 10m from its northern end, with a gully further to the south. It is not clear whether these features were contemporary and defined the edges of a driveway, or resulted from two separate episodes of activity.
80	Low	-	No archaeological features or deposits detected.
81	Low	-	No archaeological features or deposits detected.
82	Low	-	No archaeological features or deposits detected.
83	Low	Natural	A series of discrete, localised, mixed deposits were examined, which are likely to be the result of tree root disturbance.
84	Low	-	No archaeological features or deposits detected.
85	Low	-	No archaeological features or deposits detected.
86	Low	Early modern	A sub-oval pit or the western terminal of an east-west aligned ditch was exposed 6m from the northern end of the trench. Its fill contained a sherd of 19 <sup>th</sup> – 20 <sup>th</sup> century pottery.
87	Moderate - high	Later prehistoric – Romano-British	A north-south aligned ditch crossed the trench 6m from its western end. It was 5.3m wide and 1.44m deep. The lower fills consisted of limestone probably derived from an associated bank that was deliberately pushed back into the feature, while the upper fill contained two pieces of Roman tile. It formed part of a major boundary identified from cropmarks (SMR no. 61512).

<b>Trench No.</b>	<b>Arch. potential</b>	<b>Date of deposits</b>	<b>Description</b>
88	Low-moderate	Undated (late preh?)	An east-west aligned ditch crossed the trench 6m from its southern end.
89	Low	-	No archaeological features or deposits detected.
90	Low	-	No archaeological features or deposits detected.
91	Low	-	No archaeological features or deposits detected.
92	High	Late Iron Age	A north-south aligned ditch, redefined at least once, was situated 5m from the western end of the west-north-west to east-south-east aligned arm of the trench. A perpendicular ditch, again with at least one recut, lay 8m from the northern end of the other arm; one of its fills contained Iron Age pottery. These features defined part of an enclosure. A possible gully was also exposed in the trench.
93	Low	-	No archaeological features or deposits detected.
94	Low	-	No archaeological features or deposits detected.
95	Low	Undated/natural	A series of linear and discrete features were exposed in the trench. Most, if not all, appeared to have a natural origin, but a possible pit located in the southern half of the trench contained a sherd of late medieval pottery. A sherd of Iron Age pottery was also found in what appeared to be a remnant of the subsoil.
96	Low-moderate	Undated/natural	North-south aligned linear features were exposed near both ends of the trench. The more easterly example appeared to have been created by natural processes, such as ice wedging.
97	Low	-	No archaeological features or deposits detected.
98	Low	-	No archaeological features or deposits detected.
99	Low	-	No archaeological features or deposits detected.
100	Low	-	No archaeological features or deposits detected.
101	Low	-	No archaeological features or deposits detected.
102	Low	-	No archaeological features or deposits detected.
103	Low	-	No archaeological features or deposits detected. However, it appears possible that an archaeological feature could be situated immediately to the north of the trench.
104	Low	Natural	An irregular linear feature was exposed 4m from the north-western end of the trench. It appeared to have been created by natural processes, such as ice wedging.
105	Low	-	No archaeological features or deposits detected.
106	Low	-	No archaeological features or deposits detected.
107	Low	-	No archaeological features or deposits detected.

<b>Trench No.</b>	<b>Arch. potential</b>	<b>Date of deposits</b>	<b>Description</b>
108	Low	-	No archaeological features or deposits detected.
109	Low	-	No archaeological features or deposits detected.
110	Low	-	No archaeological features or deposits detected.
111	Low	-	No archaeological features or deposits detected.
112	Low	-	No archaeological features or deposits detected.
113	Low	-	No archaeological features or deposits detected.
114	Low	-	No archaeological features or deposits detected.
115	Moderate	Undated (late prehistoric or medieval)	Two east-west aligned ditches crossed the trench, a 4.5m wide example at the northern end, with the other, 3.75m wide, situated 8m further to the south. It is not clear whether these features were contemporary and defined the edges of a driveway, or resulted from two separate episodes of activity. They appear to be aligned upon Canwick Manor Farm, to the east, but could potentially predate the creation of this farmstead.
116	Low	-	No archaeological features or deposits detected.
117	Low	-	No archaeological features or deposits detected.
118	Low	-	No archaeological features or deposits detected.
119	Low	-	No archaeological features or deposits detected.
120	Low	-	No archaeological features or deposits detected.
121	Low	-	No archaeological features or deposits detected.
122	Low	-	No archaeological features or deposits detected.
123	Low	-	No archaeological features or deposits detected.
124	Low	-	No archaeological features or deposits detected.
125	Low	-	No archaeological features or deposits detected.
126	Low	-	No archaeological features or deposits detected.
127	Low-moderate	Undated	A north-east to south-west aligned gully crossed the north-western end of the trench.
128	Low-moderate	Undated	A north-west to south-east aligned gully was situated 4m from the southern end of the trench.
129	Low	-	No archaeological features or deposits detected.
130	Low-moderate	Undated	A north-east to south-west aligned gully occupied most of the western half of the trench. Its western end turned southward

Trench No.	Arch. potential	Date of deposits	Description
			before exiting the trench.  A small pit situated immediately to the northeast of the gully contained sedimentary material that was identical to the topsoil and this feature is therefore thought to be modern.
131	Moderate	Medieval	Two ditches were exposed at the western end of the trench. These features ran perpendicular to each other and appeared to define the south-western corner of a field or enclosure. The fills of these ditches contained some 13 <sup>th</sup> -15 <sup>th</sup> century pottery and tile. The northern half of a large sub-oval pit was situated 2.5m to the east of the ditches. Further medieval pottery and some residual worked flint was recovered from the fill of this feature.
132	Low	-	No archaeological features or deposits detected.
133	Moderate	Romano-British	Two gullies were exposed in the central portion of the trench. The larger feature ran from north-west to south-east, but its southern end turned westward. The second gully was aligned from north to south and respected the first, suggesting that together they defined part of an irregular enclosure. Romano-British pottery was recovered from the fills of these features.  Part of a sub-oval pit was revealed at the south-west corner of the trench.
134	Low	-	No archaeological features or deposits detected.
135	Low-moderate	Undated	The south-eastern end of a curvilinear gully was exposed 2m from the eastern end of the trench.
136	Low	-	No archaeological features or deposits detected.
137	Low	-	No archaeological features or deposits detected
138	Low	Post Med	The base of heavily truncated, north-south aligned ditch was exposed at the north-eastern end of the trench.
139	Moderate	Preh?	Elements of two pits, a posthole, and two ditches were exposed in the north-eastern half of the trench. The ditches resulted from two successive phases of activity. There were no finds from any of these features, but they appeared to pre-date the formation of the peat, which implied that they were of prehistoric date.
140	Low - moderate	Preh?	Parts of two pits and a small posthole were situated in the north eastern half of the trench. There were no associated finds, but these features appeared to have been created prior to the formation of the peat.
141	Low	-	No archaeological features or deposits detected
142	Low	-	No archaeological features or deposits detected
143	High	Iron Age?	The remains of a north-south aligned row of wooden posts were exposed; nine timbers were situated in the trench, with two more

Trench No.	Arch. potential	Date of deposits	Description
			being visible immediately to the north. Each post had been sharpened with an axe and then charred, before being hammered into the ground.
144	High	Late Meso	A layer of mussel shell extended across the majority of the trench. This material was associated with some worked flint. A number of linear features were also identified, six running across the eastern end of the trench and, two, or three across the western end. There were also a small number of pits; a hazelnut from the fill of one of these features produced a Late Mesolithic radiocarbon date. Although some of these features may have been small palaeo-channels, many of the fills were associated with worked lithic material.
145	Moderate	Late Meso /Neo	The layer of sand sealed by the surviving peat probably represents a buried prehistoric land surface that contains worked flints.
146	Low	Natural	An irregular pit-like feature was exposed near the centre of the trench. It probably represents a tree root void.
147	Moderate	Iron Age?	Three small discrete patches of woody peat appear to represent a poorly preserved continuation of the row of posts identified in Trench 143.
148	Low	-	No archaeological features or deposits detected
149	Low	Post Med (prob)	The base of heavily truncated, north-south aligned ditch was exposed at the western end of the trench.
150	Low	-	No archaeological features or deposits detected
151	Moderate - high	Romano-British (?) & post med	Three east-west aligned ditches crossed this trench. The two most northerly examples contained large quantities of limestone rubble, and one also held a sherd of Romano-British pottery. It is possible that these features represent redundant boundaries running close to a demolished Roman stone structure. However, a small quantity of post-medieval tile was recovered from the fill of the southern ditch, indicating that this feature (and possibly the others) is likely to result from much later activity.
152	Moderate - high	Preh	A small pit was identified at the northern end of the trench. This feature contained a piece of worked flint.  The northern edge of a palaeo-channel was exposed at the southern end of the trench.
153	Moderate - high	Preh?	This trench was situated over a palaeo-channel filled with peat. Almost 2m of vertical stratigraphy was exposed without identifying the base of the channel. Three postholes were identified toward the top of this sequence; they possibly defined the former course of a fence line.

## 7.0 Interpretation and discussion

The programme of trial trenching along the proposed route of the bypass has provided significant insights into the nature of past human activity in the area immediately to the east and south-east of Lincoln. A substantial amount of data was recovered, which relates to the various episodes and forms of human intervention that have taken place over the last 9000 years. In order to simplify the consideration of this body of data, the discussion will be divided into sections that relate to individual or adjoining fields.

### 7.1 Field A1

The current form of this field results from the recent amalgamation of two smaller units. The boundary that formerly separated them ran from north-east to south-west and crossed the proposed route exactly two-thirds of the way from Wragby Road to Hawthorn Road. It is still depicted on modern maps and is also visible as a low earthwork that is respected by a footpath. The First Edition Ordnance Survey map indicates that this boundary was in existence in 1890-91 and that it had a conspicuously different orientation to most of the surrounding boundaries (fig. 24). The latter formed a rectilinear field system that was probably laid out in the late 18<sup>th</sup> or the first half of the 19<sup>th</sup> century and is still in use today.

The distinctive alignment of the recently removed boundary reflected the fact that it ran perpendicular to a section of a stream that adjoined its north-eastern end. This spatial and physical relationship to a natural feature provides an indication that this boundary may have been a relic of the system of land division that preceded the present format. The results of the fieldwalking survey provide some support for this hypothesis. Nothing was found in the area to the north of the former boundary, but five sherds of 12<sup>th</sup>-16<sup>th</sup> century pottery and tile were found in its immediate environs, or across the area to the south (Clay, 2003). This skewed distribution could indicate that the expunged boundary defined the northern edge of a medieval to post-medieval field system. It is possible that the latter extended more than 700m to the south and incorporated the block of ridge and furrow that formerly occupied the south-west corner of Field A4.

Each of the four trenches located in this field contained features, but examination suggested that these were all of low archaeological significance. Trenches 1 and 2 both contained a relatively crude land drain made from limestone rubble. This form of construction is characteristic of drains created during the 18<sup>th</sup> or early 19<sup>th</sup> century. Both ran perpendicular to the boundary that formerly sub-divided the field. This suggests that they were laid out with reference to it, a proposal supported by an absence of evidence for comparable drains within the southern third of Field A4. Together, these strands of evidence raise the possibility that this system of drainage was laid to facilitate the improvement and cultivation of surviving waste or common land that was sandwiched between the margins of the existing field system and parish boundary, which followed the Lincoln to Wragby turnpike road (Wragby Road)<sup>1</sup>.

Two gullies ran from east to west through Trenches 2 and 3. Both had been identified by the gradiometer survey, which indicated that the feature crossing Trench 3 ran up to and respected the grubbed out boundary described above. The purpose of these gullies remains uncertain, as neither was wide enough to constitute a boundary and they did not contain pipes. However, their stratigraphic relationships indicated that they post-dated the creation of

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<sup>1</sup> Most of the land belonging to Greetwell was subject to a series of private Enclosures that were carried out prior to 1776 when the Parliamentary Enclosure of its northern neighbour, Nettleham, began (Russell & Bennett, 1993; Russell & Russell, 1987). Nonetheless, this latter event may have initiated the intake of any remaining uncultivated land along the periphery of the parish.

the rubble land drains and had become redundant prior to the installation of ceramic drains in the 20<sup>th</sup> century

## 7.2 Field A2

The geophysical survey detected relatively little magnetic disturbance in this field, with the exception of three very strong discrete anomalies situated approximately 80m from the southern boundary of the field (Bunn & Masters, 2003). The strength of these areas of magnetic disturbance indicated that the associated features were almost certainly recent in date and the anomalies probably reflected the presence of service pipes, or pits filled with ferrous debris.

Two trial trenches were opened in the field. The more northerly example, Trench 5, exposed only localised variations in the geological strata. Trench 6 was situated at the lowest part of the field, a slight basin that had filled with colluvial sand deposits. The majority of the southern half of this trench had been heavily disturbed by tree root activity, but a series of more regular features were dispersed across the northern half. It is possible that some of the latter also had natural origins, but the fill of one oval pit contained a single sherd of late 12<sup>th</sup>-14<sup>th</sup> century South Lincolnshire shell-tempered ware.

The fieldwalking survey recovered five pieces of medieval pottery and tile from the surface of Field A2 (Clay, 2003). This material appeared to have been in the ploughzone for an extended period and had probably been introduced in midden deposits. It had been manufactured between the 13<sup>th</sup> and the 15<sup>th</sup>-16<sup>th</sup> centuries, which provides an approximate indication of the period during which this area was under cultivation. All of this ceramic material was collected from the northern part of the field, and none was found within 130m of the southern boundary. This suggests that the southern part of the field, including the area examined by Trench 6, lay outside of the medieval open field system. Consequently, the features that were exposed could result from, and relate to activities taking place around the periphery of the area utilised for arable production.

Four sherds of very abraded Romano-British greyware were also recovered during the fieldwalking survey (*ibid.*), but this small collection was distributed right across the field. The presence of this material probably indicates that this area had also formed part of the Romano-British field system that has previously been identified and investigated in the fields situated immediately to the west.

## 7.3 Field A3

An examination of the results of the fluxgate gradiometer survey suggested that the northern third of Field A3 did not contain any archaeological features. Trench 7 was placed in this area to ascertain the accuracy of the survey. Most of the trench was devoid of archaeological deposits, but a group of inter-related features were exposed 3m from the southern end of the trench. Two intercutting sub-rectangular pits were partially uncovered adjacent to the western section of the trench. The sides of the later pit were lined with pieces of tabular limestone. Larger pieces of stone had been used to create a 1.8m wide paved surface that was exposed in the western section. Unfortunately, the machine that removed the ploughsoil had also disturbed the elements of the stone surface that had extended across the centre of the trench. Consequently, it was not possible to determine a direct relationship between the pits and the paving. However, it was evident that stone was used to increase the durability of both features and it was also apparent that the stone surface did not extend over, or around the



pits. Together these factors suggest that the pits and surface were contemporaneous. A second phase of activity was represented by an east-north-east to west-south-west aligned drain that was constructed from limestone slabs. It ran along the centreline of the stone surface and crossed the infilled pits, its relationship to the former suggesting that the paving was still visible.

Artefactual material was not found in association with any of these features, thus preventing an accurate determination of their age and significance. However, a consideration of all available sources suggests that they are most likely to belong to one of two distinct periods of activity. Re-examination of the geophysical survey results indicates that there is a very weak and diffuse linear anomaly corresponding to the location and orientation of paved surface, but it was so poorly defined that it could only be interpreted as such with the benefit of hindsight. The eastern end of this localised magnetic disturbance terminates at the centreline of the proposed route of the bypass, but the other end extends beyond the road corridor. The visible component runs west-south-westward and is orientated toward the north-east corner of Field A4, where a small Romano-British cemetery and associated field boundaries have previously been identified and investigated. These features lay less than 200m to the west of Trench 7, raising the possibility that the pits and paving also formed part of the Romano-British field system. Alternatively, an examination of old Ordnance Survey maps indicates that Greetwell North Farm formerly occupied the area immediately to the north of the corner of Field A4. The First Edition map, published in the last decade of the 19<sup>th</sup> century, depicts a well established cluster of structures that probably represented the farmhouse, associated agricultural buildings and labourers' cottages (fig. 24). It is therefore possible that the features in Trench 7 related to some activity taking place on the periphery of this small farming community. On balance, this seems more likely, as the morphological characteristics of the stone built drain conformed to a type that began to be constructed in the late 17<sup>th</sup> century and became increasingly common up to, and during, the early 19<sup>th</sup> century (R. & L. Adkins, B. Horne, C. Orton & D. O'Sullivan, *pers. comm*).

One other feature was exposed in Field A3. An east-west aligned ditch lay 3.5m from the northern end of Trench 9. The fill of this feature contained a sherd of 19<sup>th</sup>-20<sup>th</sup> century pottery, which indicated that it had formed part of the early modern field system. Examination of the First Edition Ordnance Survey map indicates that a boundary was situated at this location at the end of the 19<sup>th</sup> century (fig. 24).

A small quantity of worked flint and pottery was recovered from Field A3 during the fieldwalking survey (Clay, 2003). Two of the three pieces of flint exhibited traits consistent with Late Neolithic and earlier Bronze Age lithic technologies. The low density of this material provides some evidence that this area was probably subject to only relatively transient activity prior to the late prehistoric period.

A single abraded sherd of Romano-British greyware and four pieces of 13<sup>th</sup>-15<sup>th</sup> century pottery were fairly evenly distributed across field. Their presence suggests that this area formed part of the Roman and medieval field systems, but the relatively low density of ceramic material means that this remains a tentative proposition.

#### **7.4 Field A4**

This element of the proposed route cut across the eastern edge of Field A4. This area formed the north-east facing slope of a hill, the marked incline contrasting with the relatively gentle topography encountered along the section of the road corridor situated to the north. This

rounded limestone prominence extends approximately 650m from north-west to south-east and is distinct from the main escarpment, which is located approximately 1km to the east.

Three trenches were opened in this field. Trench 13 was located toward the top of the slope, where all of the sedimentary material had been incorporated into a 0.30m deep layer of ploughsoil. In contrast, the depth of deposits exceeded 0.65m at the southern end of Trench 11, which lay at the foot of the hill, adjacent to the lane defining the eastern edge of the field. This accumulation of material provided a clear indication that a significant volume of soil had moved down slope. The magnetometer survey detected a series of well-defined plough scores that ran perpendicular to the contours (Bunn & Masters, 2003), their presence suggesting that agricultural activity is likely to have initiated most of this colluviation. However, the process will have been accelerated by the low permeability of the clay soils and sediment-rich water probably pooled at the base of the slope, resulting in the installation of the two land drains that were exposed in Trench 11.

None of the trenches contained any archaeologically significant features. This could directly relate to the gradient and north-eastern aspect of this slope, which was less suitable for settlement than the majority of the surrounding area. Nevertheless, the total absence of archaeological deposits still seems surprising, given that part of a major late prehistoric boundary and, elements of the succeeding Romano-British and medieval field systems have already been identified in the western half of the field. The available evidence indicates that any archaeological deposits situated in this area will probably have been heavily truncated or homogenised by ploughing, this process also resulting in the down slope migration of artefacts. A small quantity of pottery was recovered from this part of Field A4 during the preceding fieldwalking survey (Clay, 2003). There were four Romano-British sherds, one of which was manufactured during the 1<sup>st</sup>-2<sup>nd</sup> centuries AD, and seven fragments of medieval fabric produced between the 13<sup>th</sup> and 15<sup>th</sup> centuries. Most of this pottery was very abraded, a trait consistent with material introduced in midden deposits spread to improve the fertility and structure of the soil. As a consequence, the presence of this pottery implies that both the Romano-British and the medieval systems formerly extended across this area.

## **7.5 Field A5**

The geophysical survey detected a number of well defined linear anomalies extending across the southern two-thirds of Field A5 (Bunn & Masters, 2003). The majority occupied the centre of the field, which represents the southern edge of a plateau that overlooks the Witham Valley and also has excellent views of Lincoln and the main limestone escarpment to the west. Four large linear features crossed this area and defined parts of two adjoining enclosures. The smaller enclosure was sub-rectangular and extended approximately 45m from north-west to south-east, by 25m from north-east to south-west (Enclosure 1). It was appended to the north-eastern edge of the other enclosure, only the south-east corner of which was covered by the geophysical survey (Enclosure 2). It appears likely that the large enclosure extended roughly 65m from north-east to south-west and was more than 50m long. The magnetometer detected a number of short linear and discrete anomalies within Enclosure 2, which appeared to represent the remains of internal features.

The two arms of Trench 15 were positioned to investigate the features delineating the north-eastern corner of Enclosure 1. The north-west side had initially been defined by a relatively deep, flat-bottomed gully. The dimensions of this feature raised the possibility that it had functioned as a palisade trench, although a post-pipe could not be differentiated in the fill. The gully was subsequently redefined by a broader ditch that followed exactly the same alignment.

The disposition of the fills of the ditch defining the north-eastern side of Enclosure 1 suggested that there had been an associated bank running along its western (internal) edge. It had also been redefined at least once, the recut being wider than its predecessor, thus repeating the pattern observed on the other side of the enclosure. The latest fill of the recut contained a significant quantity of cultural material, including some burnt limestone, flecks of charcoal, fired clay, hammerscale, charred cereal grains, sheep bone and six sherds of Late Iron Age pottery. This assemblage is primarily indicative of domestic activity, but also provides evidence of light industry in the form of iron-smithing. The stratigraphic position of this material raises the possibility that the interior of the enclosure was deliberately scoured, and the ditch was back-filled with the resultant detritus, as part of a ritual associated with its abandonment.

Trench 17 was opened to examine the south-eastern boundary of Enclosure 2. This proved to be another ditch, which had been redefined on at least four occasions. Each of these ditches was larger than the equivalent features defining Enclosure 1, which possibly indicates that Enclosure 2 was considered to be of higher importance. Furthermore, the identification of five phases of boundary definition implies that Enclosure 2 was in existence longer than Enclosure 1. The fill of the earliest ditch to be identified contained three sherds of Late Iron Age or early Romano-British pottery. It seems likely that this ceramic material belonged to the earlier part of this date range, as the base of the second recut was lined with a discrete deposit of Late Iron Age pottery. A total of 163 sherds were recovered, these fragments being derived from at least four vessels; a large jar, a storage jar and two bowls. The physical arrangement of the sherds indicated that this assemblage probably represented whole pots that had been placed on their sides and crushed *in-situ*. This suggests these vessels formed part of a deliberate structured deposit. Such ritual activity was commonly associated with boundaries surrounding and defining Iron Age settlements (Hingley, 1990). A soil sample taken from the fill of the final phase of this boundary contained hammerscale, along with charcoal, sheep bone, charred wheat and barley, and a few sherds of Iron Age pottery.

Trench 16 was located within the interior of Enclosure 2 in order to investigate some of the discrete anomalies detected by the geophysical survey. The eastern end of a steep sided, flat-bottomed ditch ran along the north-western end of the trench. This feature had a square terminal that was respected by a narrow gully or slot continuing its alignment toward the east. The close spatial relationship between these two features indicates that they must have formed elements of the same boundary, or structure, the narrow slot possibly containing the base of a wattle panel. The upper fill of the ditch incorporated a substantial amount of cultural material, including charcoal, iron slag, hammerscale, fired clay, Late Iron Age pottery, sheep bone, oyster shell, several charred weed seeds and, more wheat and barley. Again, there is evidence of iron working, which somewhat anachronistically is relatively rare in the Iron Age. Consequently, the presence of this material could provide an indication that this was a relatively high status settlement.

A second gully crossed the centre of Trench 16. This feature was only 2.25m long and had been heavily truncated by soil erosion and agricultural activity. Its fill contained charcoal and two sherds of Late Iron Age pottery. A large rock-cut pit situated near the south-eastern end of the trench had a diameter of approximately 1m and was 0.75m deep. The associated artefactual material differed from that encountered in the others features in Field A5, in that there were sherds of both Late Iron Age and early Romano-British date. A piece of Central Gaulish samian indicated that some form of activity was still taking place within Enclosure 2 during the 2<sup>nd</sup> century AD.

The ground surface started to slope noticeably to the south of Enclosure 2. The geophysical survey had identified another well defined anomaly that followed the contours of this slope, c. 70m to the south of the enclosure (Bunn & Masters, 2003). One end of this curvilinear anomaly turned northwards and probably formed the western edge of Enclosure 2, while the other end ran parallel to the southern boundary of the field. Trench 19 was opened to determine the nature of this boundary and exposed a large, rock-cut ditch that ran from north-west to south-east. The ditch itself had an unusual form and was essentially a small terrace cut into the limestone. Consequently, it had an almost vertical north-eastern face that would initially have been a highly visible yellow scar defining the top of the hill. It is therefore possible that part of its function may have been to highlight the presence of the associated settlement to anyone situated on the southern side of the Witham.

The sedimentary deposits overlying the ditch in Trench 19 were significantly deeper than those encountered in the trenches on the plateau. There was evidence that a large bank had been constructed along the north-eastern edge of the ditch, and this feature would have trapped any colluvium washing off the higher ground to the north. The distribution of the medieval pottery recovered during the fieldwalking survey raises the possibility that this bank and ditch was still a relatively substantial earthwork until the post-medieval or early modern period, as it was all situated in the northern and central parts of the field (Clay, 2003). Furthermore, an examination of a recent Ordnance Survey map indicates that the south-western boundary of Field A5 curves gently toward south-east – the same alignment as the ditch in Trench 19 - and is thus dissimilar to other elements of surrounding rectilinear field system. Somewhat surprisingly, the southern end of the triple linear ditch boundary, previously identified toward the western edge of Field A4, was not detected by the geophysical survey. Consequently, it seems possible that the southern boundary of Field A5 was laid out along an earthwork representing a surviving element of this triple ditch system. If so, the sub-surface remains of this major land division could still run along the northern edge of the redundant quarry.

The depth of the sedimentary material on the south facing slope possibly accounts for the fact the geophysical survey did not identify a north-east to south-west aligned ditch exposed in Trench 20, near the southern edge of the field. This was a relatively shallow feature that contained flecks of charcoal, animal bone and three small fragments of pottery that were probably Iron Age in date.

## **7.6 Field A6 and Field A7**

Five trenches were opened in these two fields, but none of them exposed features or deposits that had any archaeological significance. Four irregular features were uncovered in Trench 21, and a further example was examined in Trench 24, but the morphological characteristics of each suggested that they all had natural origins, and probably represented tree root cavities, ice wedge voids, or solution hollows.

A wide linear feature occupied most of the northern half of Trench 23. It was filled with layers of clean, well compacted sand, which was beginning to lithify. This insipient transformation provides a clear indication that the fill, and thus the feature, were of considerable antiquity. The location, orientation and width of the feature exposed in Trench 23 directly corresponded to a broad linear cropmark that runs across the Field A7 from west-north-west to east-south-east (see fig. 39). This cropmark was darker than the surrounding vegetation, a characteristic indicating that it was generated by the moisture retentive fill of a depression. This feature was identified during the desk-based assessment and was tentatively interpreted as a hollow way or track running between an area of ironstone working and the

medieval village of Greetwell (Babtie, 2003: 4.7.4). Excavation has indicated that it is much more likely to be a fissure, or a natural channel that was incised by glacial runoff from an ice sheet situated to the north. A re-examination of the aerial photographs provides further support for this interpretation, as several comparable cropmarks traverse Field A7 and the eastern half of Fields A6 and C1. One of these features runs across the southern edge of Field A7 from west-north-west to east-south-east, its location closely corresponding to the 30m wide area enclosed by two relatively strong positive linear anomalies identified by the magnetometer survey. Trench 25 was opened to investigate the source of this magnetic disturbance, but it did not reveal any evidence that would account for their presence, as only the surface of the limestone brash was exposed.

The magnetometer survey detected a series of positive and negative linear anomalies in Field A6 and at the northern end of Field A7. Most of them ran parallel to the field boundaries flanking Greetwell Road and also had the same alignment as the seed drill lines evident in the cereal crops within both fields. There was no evidence of any corresponding features in Trenches 21 and 22. It therefore seems likely that the majority of this cluster of anomalies resulted from modern agricultural activity, and either reflected the compaction of deposits by tractors, or increases in soil depth over the deepest plough scores that truncated the surface of the limestone bedrock. However, it is possible to distinguish two linear anomalies that had distinctly different alignments to the others detected in Field A6. One ran from north-west to south-east and was situated less than 5m from the northern end of Trench 21, while the other ran perpendicular to the first and lay a little to the west of the trench. It is possible that both could be archaeological features. If so, the marked disparity between their orientation and the configuration of the modern landscape indicates that they were probably created during, or prior to the medieval period. With this in mind, it should be noted that they have an almost identical alignment to the enclosure ditches of the Late Iron Age settlement situated 200m further up the slope in Field A5. Consequently, it is possible that they defined outlying parts of the settlement, but they are more likely to have formed part of an associated field system. Some support for the latter proposal was provided by the fieldwalking survey, which recovered three pieces of Romano-British pottery and a sherd that was thought to be of Middle to Late Iron Age date (Clay, 2003). The Roman sherds were all very abraded, which frequently indicates that they had been introduced in midden deposits and had remained in the ploughsoil for an extended period.

One sherd of 2<sup>nd</sup> – 3<sup>rd</sup> century AD Romano-British pottery was also recovered from the southern edge of Field A7 during the fieldwalking survey, but such a low density is not indicative of middening in this area. Nevertheless, the topsoil in this field did contain moderate quantities of worked flint, some of which was recovered during the trial trenching. This lithic provides evidence of Neolithic and Bronze Age activity across this part of the slope. However, the apparent absence of any associated prehistoric features suggests that modern ploughing has completely truncated and homogenised all earlier deposits and land surfaces, with the result that any archaeological material is now situated in ploughsoil and is subject to continual degradation.

## **7.7 Field C1**

The only significant archaeological features identified in Field C1 were two ditches exposed in Trench 26, which was located near the northern boundary of the field. Their shared orientation suggested that they formed elements of the same field system. If so, they may have run along either side of a substantial hedge bank. Alternatively, their spatial inter-relationship could indicate that they defined the edges of a track, or driveway c. 2.5m wide.

Consequently, it is possible that the limestone redeposited along the southern side of [1248] may have formed part of a metalled surface covering the strip of land that they enclosed.

The ditches, and hence the putative trackway, were aligned from west to east. They therefore ran parallel to the existing southern boundary of Field C1. An examination of the results of the gradiometer survey indicates that these ditches could have been aligned upon the centre of the deserted medieval village of Greetwell, located 500m to the east. Consequently, their orientation suggests that any associated trackway would have run along the southern edge of the churchyard as it passed through the settlement. Similarly, a projection of the western ends of these two ditches indicates that they were orientated towards Lincoln and shared the same alignment as Monks Road. Therefore, if these features did define a track it appears likely that its western end was a precursor of, and has now been formalised by Monks Road<sup>2</sup>.

It is possible that these ditches were laid out as part of the medieval field system belonging to Greetwell. Alternatively, they may have been created as part of the late 16<sup>th</sup> to 17<sup>th</sup> century reorganisation of the landscape that resulted in the Enclosure and alienation of some parcels of land, as well as the migration of parts of the village, the erection of the oldest surviving components of Greetwell Hall, and the construction of an associated formal garden (Everson, *et. al*, 1991). Another phase of restructuring probably took place in the early 18<sup>th</sup> century when the site of the medieval village was finally abandoned.

Regardless of when these features were created, associated artefactual material indicates that they were still open in the 19<sup>th</sup> century. However, neither boundary was shown on the Ordnance Survey 6": 1 mile map of 1889-90 (Sheet LXXI.NE) (fig. 176). It therefore seems likely that they were finally rendered redundant in, or shortly after 1848 when the Manchester, Sheffield and Lincolnshire Railway's Market Rasen Branch Line was constructed immediately to the north (*ibid.*). This would have necessitated yet another localised reorganisation of the landscape.

## 7.8 Field C2

A single trench was opened in this field in order to determine whether there was any evidence of an Early Neolithic long barrow that was believed to be situated at its north-west corner. This trial trench failed to detect any features, or deposits of archaeological significance. A re-examination of aerial photographs indicates that the long barrow is actually located further to the south-east (fig. 39). The apex of its western end lies approximately 55m from the northern boundary of the field and c. 45m from the western perimeter.

The barrow mound is aligned from east to west and is approximately 40m long, by 15m wide. It appears to be surrounded by a substantial, peat-filled quarry ditch.

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<sup>2</sup> It may be significant that the late 19<sup>th</sup> century Ordnance Survey map shows a footpath running from the eastern end of Monks Road up to the northern side of the railway crossing, which still exists and is situated c. 350m to the west of the proposed route of the by-pass. From there the path ran along the northern edge of Field C1, adjacent to the railway line, until it entered the site of Greetwell village to the north of the hall. The existence of this path may provide an indication that ditches [1246] and [1248] did define a track, as its course could represent a well-ordered realignment of the right of way following the construction of the railway.

## 7.9 Field D1

Six trial trenches were opened in this field and even the most northerly one, Trench 137, still contained a desiccated remnant of the fen peat despite lying more than 400m from the present river channel. Archaeological features were not detected in Trench 141, but a piece of wood taken from the base of the peat was submitted for radiocarbon dating. It produced a date that calibrated to 1250-990 BC, thus suggesting that the peat began to form across the southern-central part of the field during the Late Bronze Age. The pale sandy deposits situated immediately beneath the peat represent the relatively inert mineral component of heavily leached humic sandy gley soils that would have formed the prehistoric land surface. This palaeosol contains worked flint that represents a palimpsest of activity spanning the Later Mesolithic to Bronze Age. Analysis of the varying distribution, composition and date of this lithic material could potentially provide an insight into the evolution of the prehistoric landscape along this section of the Lower Witham.

Archaeological features were revealed in the three trenches situated in the central part of the field. The north-eastern half of Trench 139 contained a small group of features including a north-north-west to south-south-east aligned ditch that was roughly 1.8m wide. This boundary appeared to have been redefined by another ditch, the south-eastern terminal of which was situated in the trench. A third feature that was partially exposed at the south-eastern side of the trench may have been a pit, but could also have represented an opposing terminal of the ditch recut; if so, these features would have framed an entrance causeway that was 1m wide. A sub-circular posthole located 2.0m to the south-west of the earlier ditch had two distinct fills that defined a post-pipe 0.34m in diameter and 0.73m deep. The disposition of this group of features suggests that related archaeological deposits extend across the area to the north and east of Trench 139.

Although the relationships of these features indicated that there was at least two distinct phases of activity, none contained any datable materials. However, each was filled with leached sandy material, which indicated that they had become redundant prior to the onset of peat formation. As a consequence, they relate to some form of prehistoric activity that took place during or prior to the Middle Bronze Age. In contrast, another sub-oval pit or ditch terminal exposed at the northern end of Trench 139 was largely filled with desiccated peat. The presence of this humic material suggests that the feature was created at some point between the Middle Bronze Age and the present day. Analysis of this peaty fill indicated that it also incorporated numerous lumps of fired sediment, lots of comminuted charcoal and a tiny fragment of burnt bone. Such evidence of burning is somewhat at odds with the wetland environment denoted by the peaty material and could possibly indicate that this feature was created at around the time that the immediate environs of Trench 139 started to become waterlogged.

The north-eastern half of Trench 140 contained three small features, which were situated approximately 80m to the south-south-west of the cluster exposed in Trench 139. There were two adjacent postholes, with an irregular sub-oval pit situated 5.5m further to the south. Again, none of these features contained any artefactual material, but their sandy fills indicated that they had been created before the peat had begun to form, and consequently they were all likely to have been prehistoric in date.

The magnetometer survey detected relatively little magnetic disturbance in this field (Bunn & Masters, 2003). The results were dominated by a number of west-north-west to east-south-east aligned linear anomalies running across the field at 20m intervals. They corresponded to a system of land drains, sections of which were examined in Trench 138 and Trench 140. A series of weaker, more diffuse linear anomalies ran parallel to the eastern and western

boundaries of Field D1 and almost all of them probably represented plough scores. However, the best defined element of this group of anomalies appears to correspond to a north-south aligned ditch exposed at the north-eastern end of Trench 138. Only the base of this ditch survived suggesting that it had been cut through relatively deep peat deposits that had subsequently desiccated and eroded, thus resulting in the truncation of the feature. This ditch was situated c. 15m from, and ran parallel to the eastern edge of the field, which suggests that it was created at the same time as the extant boundary. If so, it may have defined the western edge of a driveway or track leading down to the river. Nonetheless, this ditch had already become redundant, and had filled with peat, prior to the creation of the Ordnance Survey map published in 1890 (fig. 176).

### **7.10 Field D2 and Field D3**

The fluxgate gradiometer survey indicated that there was relatively little magnetic variation across both of these fields, with the exception of a cluster of diffuse, discrete anomalies that were dispersed across the south-western third of Field D2 (Bunn & Masters, 2003). The equivalent part of the resistivity survey is very smooth and indicates that this area has a uniform low resistance. A slightly boggy depression occupies this area of the field, which suggests that the discrete magnetic anomalies correspond to localised pockets of deeper peat.

A distinct mound ran along the southern edge of the hollow. This rounded earthwork was aligned from east to west and was approximately 30m wide. Trench 144 was positioned near the north-western corner of this sand bank to determine its nature and establish whether there were any associated archaeological deposits. Excavation and palaeo-environmental analysis demonstrated that it was a levee, which had formed along the northern bank of a prehistoric river channel. A sequence of features had been cut into the natural deposits exposed along the base of the trench.

A north-east to south-west aligned ditch was the earliest feature identified in the eastern half of Trench 144. It contained 45 pieces of worked flint, almost half of which had diagnostic traits indicative of Late Mesolithic and Early Neolithic core reduction strategies. Another linear feature and a pair of pits had been cut into the succeeding sandy deposit, which was also found to contain large quantities of worked flint. The lower fill of one of the pits incorporated 43 larger pieces of worked flint and 32 chips, which indicated the presence of a knapping floor in the immediate vicinity. A charred hazelnut shell was also recovered from this deposit and was radiocarbon dated to 7740-7580 cal BC. This demonstrates that many of the features that were created before the onset of peat formation relate to some form of Late Mesolithic occupation focussed upon the levee. An auger survey conducted across Field D2 has indicated that this well-protected site could extend over an area of 3000m<sup>2</sup>.

A north-south aligned ditch that was cut into the fills of these Mesolithic features contained 83 pieces of worked flint that were indicative of both Late Mesolithic and, Late Neolithic to Early Bronze Age activity. This palimpsest of material indicates that there was some reworking of earlier deposits and also suggests that there was very little accretion of sediment during the five millennia that separated these two periods. Further evidence of Late Neolithic or Early Bronze Age activity may have been provided by the auger survey, which indicated that a round barrow could have been constructed on the top of the levee near the eastern edge of the road corridor. This feature possibly equates to a discrete anomaly identified by the resistivity survey.

A layer of freshwater mussel shell fragments had accumulated over the Late Neolithic or Early Bronze Age ditch. Environmental analysis has indicated that this does not represent a



single deposit, but is essentially a conflated horizon composed of the coarse components from peat beds that have dried out and disintegrated. Two radiocarbon dates obtained from components of this shelly material demonstrated that the southern edge of Fields D2 and D3 were completely submerged during the Middle and Late Bronze Age (1360 and 1320-970 Cal BC; 940-800 Cal BC). A sequence of three linear features had truncated the western end of the compressed shell layer. They have been interpreted as ditches and gullies, as they contained small quantities of artefactual material. However, it is also possible that these linear features were small palaeo-channels, given the evident wetland context of the shell layer and any subsequent deposits. If so, they had eroded the associated cultural material from earlier deposits.

Two more trenches were opened in the low lying area situated at the south-east corner of Field D3. The northern edge of a large palaeo-channel crossed the southern end of Trench 152. This relict watercourse had cut into a deposit that contained two Late Mesolithic or Early Neolithic worked flints, fragments of aquatic molluscs and some charcoal. The latter was dated to 2880-2580 cal BC and thus indicates that this part of the northern edge of the Witham was still a focus of activity during the Middle Neolithic. Trench 153 was located immediately to the south-west of Trench 152 and directly overlay the former river channel. The organic deposits were more than 2m deep and as result the base of the channel was not exposed. Pieces of wood from the upper peats indicated that this deposit had accumulated during the Late Bronze Age (1030-770 cal BC), while other organic material from the base of the trench provided a Middle Bronze Age date (1690-1290 Cal BC).

A pond has recently been created toward the centre of the southern half of Field D2. Two waterlogged timbers were observed at the southern edge of this pool and as a result Trench 143 was opened to determine whether they formed part of a structure. The trench contained a further nine posts placed at 1m intervals that formed a single row running from north to south. The remains of another three posts were identified at the southern end of Trench 147, thus indicating that the post row had extended at least 50m toward the north. The end of each post had been sharpened with a flat bladed iron axe and had then been charred in order to extend its lifespan. A radiocarbon date from one of these waterlogged timbers indicated that they had been erected either during the very Late Iron Age or the earlier Roman period (20-260 cal AD). Field D2 would have formed part of an extensive marsh at this time, meaning that the posts must have been several meters long to have been visible above the surrounding reeds. It is possible that they were markers defining some form of boundary, or route through this wetland environment. Alternatively, it is also possible that they supported a narrow boardwalk laid on the surface of the peat.

Trench 151 was situated at the western edge of Field D2, approximately 130m to the north-west of the road corridor. This area has frequently been visited by metal detectorists and ploughing usually exposes large quantities of stone. Elements of two east-west aligned ditches crossed the centre of the trench. They had similar fills, which largely consisted of limestone fragments, but also incorporated a single sherd of Romano-British pottery. A third east-west aligned ditch was exposed at the southern end of the trench. This feature contained more rubble and several fragments of post-medieval tile. The presence of so much redeposited stone near the edge of the floodplain raises the possibility that the remains of a relatively substantial building are located in the immediate environs of Trench 151. The age of this structure remains unresolved due to the recovery of both Roman and post-medieval material.

## 7.11 Field E

The magnetometer survey detected significant magnetic variation along the northern edge of Field E (Bunn & Masters, 2003). The results depict a series of broad, diffuse anomalies that appear to intertwine. The edge of this cluster of features enters the field roughly 90m to the west of the proposed road corridor. It then describes a gentle arc that extends 45m to the south of the boundary at the point that it crosses the route of the bypass. There is a direct spatial correspondence between the location of these anomalies and a depression that runs along the northern edge of the field. The form of the magnetic disturbance, the evident topographical variation and the distinct differences in the vegetation covering this low lying area indicate that these anomalies represented the fills of a sequence of superimposed palaeo-channels. The edge of the most southerly channel was partially exposed at the end of Trench 34. This demonstrated that the sedimentary deposits dipped relatively quickly, with the resultant depression being completely filled with fibrous peat.

The removal of the ploughsoil from the three trenches opened in this field demonstrated that a thin layer of degraded peat survived across the whole area. Its continued existence probably reflects the fact the Field E has been subject to only limited and intermittent cultivation during the 20<sup>th</sup> century. The presence of the peat has meant that the underlying sandy deposits have remained largely undisturbed since this part of the floodplain became waterlogged during the Bronze Age. The sands therefore represent the coarser elements of a prehistoric land surface that has been significantly modified by leaching. This palaeosol was found to contain relatively large quantities of worked flint. Several diagnostic pieces, including an obliquely blunted point, provided clear evidence of Late Mesolithic activity and a large proportion of the remainder of the assemblage was broadly indicative of Late Mesolithic and Early Neolithic flint knapping. The presence of some Late Neolithic and Bronze Age lithic material from the same horizon indicates that there was relatively little accretion of sedimentary material between the end of the Mesolithic and the Bronze Age.

Aerial photographs have indicated that a group of seven round barrows are dispersed across Field E (SMR no. 60930)<sup>3</sup>. Four of these monuments are still identifiable as low mounds, which are all situated to the west of the proposed road corridor. The evident location of these features meant that it was possible to clearly establish that they had not been detected by the fluxgate gradiometer. However, animal burrows in the surface of the earthworks indicated that the barrows essentially consisted of mounds of sand, while the surrounding ground surface was mantled with peat. This contrast suggested that resistivity would be a more suitable technique for detecting the location and approximate dimensions of these monuments. The resultant survey sampled the south-eastern third of Field E and three barrows were detected in this area (Bunn & Masters, 2003). Each monument was represented by a dark disc of high resistance, which was surrounded by a pale corona that possibly equated to an encircling ditch. The largest of the three features was a visible earthwork situated at the southern edge of the palaeo-channel, c. 55m to the west of Trench 33. The other two were situated in the southern third of the field, one lying approximately 15m west of the centre of Trench 35, while the other was situated within the road corridor. Trench 34 was positioned so that it would cross the edge of this feature approximately 25m from its southern end. Sections of two broad, curvilinear features were exposed 15m and 30m from the end of the trench. The differing orientations and spatial relationships of these features indicated that they could have formed parts of the same ring ditch. If so, the curvature indicated that this feature would have had an internal diameter of approximately 13m and its centre would have been located roughly 5m to the west of the trench. This directly corresponded with the results of the resistivity survey, which depicted a disc c. 15m in

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<sup>3</sup> Fragments of Bronze Age pottery have been found on the surface of one of these monuments and two Middle Bronze Age palstaves have also been discovered in the field.

diameter, with its midpoint situated 3m beyond the edge of the trench. Furthermore, the deposit of yellow sand situated between the putative ditches had a slightly higher elevation than the surface of the palaeosol to the north and south of these features. This relationship suggests that the sand forms part of an *in-situ* barrow mound. Nonetheless, it should be noted that while the different sources of data provide a strong argument for the presence of a barrow in Trench 34, its existence was not unequivocally established due the high water table, which prevented these features from being fully excavated.

Small quantities of charcoal, burnt limestone or ochre, and fire-cracked pebbles were also recovered from the palaeosol that was exposed in Trench 33 and at the northern end of Trench 34. Both areas lay immediately to the south of the palaeo-channel, with Trench 33 being situated over the north-east corner of a levee. The presence and form of these different cultural elements suggested that there had been some sort of fire, or hearth in the immediate vicinity. The 37 pieces of shattered pebble that were collected represented fragments of five different types of rock. They were deliberately imported onto the floodplain and were probably collected from glacial sheet deposits overlying the higher ground on either side of the river valley. These fragments of stone had been heated to very high temperatures and had then been placed in colder water, which caused them to fragment.

These ‘potboilers’ are broadly indicative of prehistoric activity and seem to have been used in two different contexts. Generally, they appear to have been utilised to heat water in a trough that was then used to cook food, but such material is usually recovered from sites more suited to permanent occupation and is commonly associated with other forms of domestic debris. The fire shattered pebbles recovered from sites adjacent to bodies of open water, or those situated in close proximity to funerary monuments, are usually derived from relatively informal structures known as burnt mounds (Barfield & Hodder, 1987). These features are thought to have been saunas that were possibly used for ritual purification. The majority of the burnt mounds discovered in Britain were created during the Bronze Age, although this practice did continue into the Iron Age. The landscape context of the fire-cracked pebbles recovered from Field E provides an indication that a burnt mound could be situated at the edge of the palaeo-channel, in the general vicinity of the road corridor. It is possible that the location of this structure is marked by a small concentration of irregular magnetic anomalies that were detected 10m to the west of Trench 33

The magnetometer and resistivity results both depict elements of a complex of features, which were situated at the southern end of a drain that runs down the centre of Field E. A large, relatively pronounced mound occupies the same location. This feature is approximately 2m high, 70m wide from east to west, and extends 45m from the drain to the railway embankment. An examination of the Canwick Enclosure map of 1787 indicates that location of this mound corresponds to the site of the post-medieval house and farm known as Sheepwash Grange (LAO *Canwick PAR 17*; Mills & Mills, 1998, fig 2).

The grange mound was not investigated during the trial trenching, as the western edge of the earthwork clearly lay outside the area traversed by the proposed road corridor. However, the resistivity survey indicated that a series of associated ditched boundaries had formally divided the area to the west of the grange buildings. One of these features ran westward from the north-west corner of the mound, and part of it was exposed in Trench 35. Initially, it must have been a very substantial feature, as it was still 2m wide and 0.6m deep, despite have been significantly truncated due to the desiccation of the peat deposits into which it had been cut. This boundary was depicted on the Enclosure map of 1787, but was not shown on the Ordnance Survey 6”:1 mile map of 1890 (Sheets LXXI.NE & LXXI.SE; fig. 176). Nevertheless, its fill contained a Codd bottle that had been manufactured in Lincoln between 1890 and 1910. This suggests that the ditch was still a distinct depression at the end of the

19<sup>th</sup> century, even though it was effectively redundant. It is therefore possible that the layout of the post-medieval field system was reorganised when the *Great Northern Railway avoiding line* was constructed along the southern edge of Field E in 1880-81<sup>4</sup>.

The ploughsoil in Field E contained a moderate amount of 19<sup>th</sup>-20<sup>th</sup> century pottery, but comparable material was not found in Field F. It therefore seems likely that this ceramic material was deposited after the railway embankments had been constructed. One possible explanation for the presence of this domestic pottery is suggested by an examination of the First Edition Ordnance Survey map, which indicates that the sewage works already occupied the area to the south-west of Field E prior to 1890 (fig. 176). The majority of the sewage farm is depicted as an open area crossed by several tracks and sub-divided by rows of trees. Apart from one small area of 'sewage tanks' there is no obvious indication of how the waste was processed. Prior to the mid 20<sup>th</sup> century the sewage would probably have arrived in carts. This 'night soil' would have included household waste and, after 'decanting' and limited processing, the solid component may have been spread over the open area of the sewage farm to assist decomposition. As Lincoln expanded in size it is possible that this facility also needed to grow and as a result waste was also spread over Field E and some of the other wetter, less productive fields along the southern edge of the flood plain.

## 7.12 Field F

The complexity of the archaeological deposits examined in this field effectively prevents a detailed analysis of the layout of any structures situated within the proposed road corridor. However, the data collected does allow a more generalised reconstruction of the sequence of activity that has taken place within this relatively small plot of land.

Small quantities of worked flint were recovered from three of the trenches located in the western half of the field (Trenches 38, 40 and 41). A proportion of this material consisted of blades and related flakes that were produced during the Late Mesolithic and into the Early Neolithic. Additionally, there was at least one flake that exhibited traits indicative of Late Neolithic to Early Bronze Age lithic industries. The presence of this lithic material indicates that the north-facing slope of the valley side was utilised during prehistoric period, although the relatively small quantities recovered could indicate that this area was relatively peripheral to the intensively utilised valley floor. Alternatively, the low density of worked flint could directly reflect the significant disturbance and reworking of deposits resulting from subsequent phases of occupation. This later activity dominates the archaeological record, but it is still possible that there are surviving elements of Mesolithic or Neolithic features in this field. It is even conceivable that elements of additional Early Bronze Age round barrows, belonging to the small cemetery situated in Field E, are still preserved below later remains, but there is no evidence of them in the geophysical survey results and they would probably only be revealed by an open area excavation.

Eleven sherds of pottery raise the possibility that the Romano-British activity was preceded by some form of Late Iron Age settlement<sup>5</sup>. Supporting evidence for this proposal is provided by a number of Late Iron Age coins that were discovered in this field during a metal detector survey undertaken by Washingborough Archaeology Group (Wragg, 1999).

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<sup>4</sup> The embankment for *Great Northern and Great Eastern joint railway* running along the northern edge of Field F was constructed c. 1849.

<sup>5</sup> They were recovered from the subsoil in Trench 39, a pit located in Trench 40 and the fill of a later stone lined drain crossing Trench 42.

The archaeological remains indicate that the Roman activity was extensive and it appears likely that a series of stone structures covered most of the western half of the field. The results of the magnetometer survey depict a whole series of inter-related linear anomalies in this part of Field F (Bunn & Masters, 2003). The western edge of this area of magnetic disturbance is defined by a north-north-west to south-south-east aligned curvilinear anomaly situated approximately 35m from the edge of the field. This rounded feature appears to define the remains of an apsidal building that was 35m long, from east to west, and 30 wide (Structure 1). The survey results also suggest that a sub-rectangular building (Structure 2) was appended to the northern edge of Structure 1; it extended approximately 25m from north to south and was 20m wide. A series of linear anomalies extended 110m east-north-eastwards from Structure 1 and appeared to define another range of buildings that was 30m wide (Structure 3). The magnetometer detected relatively undisturbed areas along each side of this complex of anomalies suggesting that the disturbed area represented the full extent of the Romano-British structures. If so this was still a very substantial edifice that potentially covered over 4,600m<sup>2</sup> of ground<sup>6</sup>.

Relatively little *in-situ* Roman structural material was exposed in the trial trenches. A relatively substantial foundation that was uncovered in Trench 41 possibly represented part of the north-west corner of Structure 3, and an element of the eastern end of this complex had been formed by the heavily robbed footing running from north-north-west to south-south-east along Trench 37. Both of these foundations had been constructed from loose tabular limestone rubble, with a small admixture of tile fragments.

The limited nature of the information obtained from the few *in-situ* remains was enhanced by the large quantities of redeposited structural materials that were recovered from the trial trenches. A total of 787 pieces of Roman brick and tile were retrieved from this site (weighing approximately 133kg) and even larger quantities were evident in unstratified deposits. More than 50% of this material was recovered from the western half of Structure 3 (400 fragments, found in Trenches 38, 39 and 40), while most of the remainder came from Structure 1 and Structure 2 (Trenches 41 and 42, respectively). The assemblage from each trench included fragments of roof tile (both *tegula* and *imbrex*), bricks and box flue tile. This suggests that most, if not all of these buildings had limestone rubble walls, with intermittent courses of brick bonding, that supported tiled roofs. Two large semi-circular bricks that were found in Trench 41 indicate that elements of this complex were also adorned with columns or pilasters. Although the evaluation failed to find any surviving remains of a hypocaust, or even *tessarae* to indicate the presence of mosaic floors, the recovery of 32 fragments of box flue demonstrated that at least one part of this complex had an under-floor heating system. Furthermore, the surfaces of the flue tiles were combed, which indicates that the walls were coated with plaster. Overall the composition of this assemblage indicates that Field F formerly contained a large, high status or monumental building.

The tile assemblage includes a wide range of brick sizes, forms and fabric types, which are symptomatic of more than one phase of construction. These variations also suggest that the materials were obtained from a variety of sources that may have been dispersed across much of the surrounding region. It is possible that the diversity of forms reflects the reclamation of old ceramic building material from redundant structures in the nearby Roman city. However, the date range of the associated Roman pottery indicates that this is unlikely to provide a full explanation for the wide variety of materials that were utilised.

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<sup>6</sup> Consequently, it would appear to be larger than the established size of most villas previously investigated in the East Midlands – e.g. Scampton (c. 2600m<sup>2</sup>), Thistleton (c. 4000m<sup>2</sup>) or Winterton (c. 4000m<sup>2</sup>) (Todd, 1991).

The 1052 sherds of Roman pottery recovered from Field F represented a wide range of fabrics that were produced between the 1<sup>st</sup> century and very late 4<sup>th</sup> century AD. The 1<sup>st</sup> and 2<sup>nd</sup> century material formed only 10% of the assemblage and was predominantly distributed across the eastern half of Structure 3. Some of this pottery suggested that local indigenous systems of production were maintained for some time after the Roman conquest of this area (e.g. a late 1<sup>st</sup> to early 2<sup>nd</sup> century Roman bowl produced in a Late Iron Age fabric - from Trench 38). Other items indicated that the inhabitants of this site had access to goods that were imported from the western half of the Roman Empire. This material included part of a Dressel 20 amphora from Baetica, Southern Spain, a fragment from a rare Italian black-sand amphora from the Campania, Parisian wares and samian from Southern and Central Gaul.

Pottery recovered from Trenches 37 – 42 suggested that there was an increase in the scale and intensity of activity during the late 2<sup>nd</sup> or early 3<sup>rd</sup> century AD. This potentially equates to a redevelopment or expansion of the structures occupying the western half of the field. There appears to have been another surge of activity that began in the later 3<sup>rd</sup> century and continued throughout the 4<sup>th</sup> century. Large quantities of greyware were brought in from the Swanpool kilns at Lincoln at this time and less common fabrics included dales ware and South Midlands type ware (possibly from Bedfordshire). Pottery that was produced at the end of the 4<sup>th</sup> century, including pieces of Oxfordshire red colour coat, was recovered from Trenches 39, 40 and 41. The presence of this material suggests that Structure 2 and the western half of Structure 3 were still inhabited until Roman rule was formally withdrawn, and possibly even continued into the sub-Roman period.

The perceived size and form of this group of buildings implies that they constituted a villa, while the presence of fragments of quern stone and large quantities of pottery conforms to the type of domestic residue that would be expected at such a site. The pattern of development suggested by the pottery and tile is also consistent with this interpretation, as many of the villas previously investigated in the East Midlands appear to have been constructed on sites initially settled in the Iron Age, with the main period of building taking place between the 3<sup>rd</sup> and late 4<sup>th</sup> centuries (Percival, 1976; Todd, 1991). Nonetheless, these morphological and chronological similarities do not equate to incontrovertible proof of function and other interpretations are therefore possible. Consequently, it is also beneficial to consider the landscape context of this structure. It was situated at the very edge of the floodplain, immediately to the south of an Early Bronze Age barrow cemetery (Field E). While many, if not all, of these monuments may have been covered by peat deposits, it is highly probable that there was some form of oral tradition preserving a memory of their existence. Archaeological investigations conducted elsewhere along the Lower Witham have indicated that river and its floodplain were the focus of ritual activity from at least the period when the first barrows were constructed (Stocker & Everson, 2002; Field & Parker-Pearson, 2004). Some of the foci of this activity continued to be respected, or were even brought back into use during the Romano-British period (e.g. the Iron Age causeway at Fiskerton). Consequently, this raises the possibility that the structures situated in Field F could have formed some sort of monumental shrine or religious complex.

The recovery of a small quantity of pottery from the trenches in the western half of Field F provides evidence of some form of middle to late Saxon activity. The earliest material consisted of sherds of late 7<sup>th</sup> - late 9<sup>th</sup> century Northern Maxey-type ware that were found in Trenches 39 and 42<sup>7</sup>. Deposits situated in Trenches 37 and 42 contained fragments of four Early Fine-shelled ware vessels, which have a slightly later date range (late 8<sup>th</sup> to early 10<sup>th</sup> centuries), while late Saxon fabric from Trench 41 suggests that this activity continued into the late 10<sup>th</sup> century. The presence and distribution of this material raises the possibility that

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<sup>7</sup> Relatively little of this material has been recovered from Lincoln and consequently, the presence of even a few sherds indicates that this is potentially a very important site (J. Young *pers. comm.*)

elements of the Roman structures were still substantially intact and were reoccupied during the second half of the 1<sup>st</sup> millennium AD. It is likely that some repairs or adaptations would have been necessary before these buildings were suitable for inhabitation, but it is questionable whether this could ever be detected, given the level of later disturbance. As a consequence, it will be difficult, if not impossible, to establish the nature of the middle to late Saxon settlement, which potentially may have taken the form of a relatively high status manorial centre or alternatively could have consisted of more humble lean-tos occupied by labourers.

The Cistercian abbey of Kirkstead was founded in 1139 by Hugh Brito, Lord of Tattershall, but its initial position proved unsuitable and it was relocated a new site adjacent to the Witham at some time between 1155 and 1187. William Martel presented the abbey with ‘a house in the fields of Canwick next to the sheepwash’ prior to 1184 (Mills & Mills, 1998: 47). It is tempting to see ‘the house’ as an upstanding remnant of the Roman structures, but this is pure conjecture. The grant also indicates that William presented a quarry to be used in the construction of the church and demesne, which presumably equate to the abbey and grange<sup>8</sup>. It therefore seems likely that the Cistercians were already intent upon constructing a manorial complex on this land at, or even prior to, the point that it came into their possession. The recovery of twenty-five pieces late 12th to mid 13th century roof tile implies that this plan was rapidly realised.

The ceramic building material also provides evidence that further episodes of building continued until at least the late 14<sup>th</sup> century. It seems likely that the main dwelling was a large, impressive building that may have had a green glazed roof.

Examination of the Canwick enclosure map of 1787 leaves little doubt that the post-medieval house and farm known as Sheepwash Grange occupied the mound situated toward the eastern end of the field (‘the grange mound’), but the discovery of large quantities of medieval roof tile from the area formally occupied by the Roman buildings raises several possibilities regarding the form and location of the medieval grange. The trial trenches demonstrated that the stone robbers were very thorough, which suggests that many of the walls still protruded above ground surface during the medieval period. It is therefore possible that sections of these walls were high enough to be modified and re-roofed in order to form the nucleus of the grange buildings. If so, the structures occupying the grange mound would have been erected after the Reformation, when the site was in the ownership of members of the Lincolnshire gentry (*ibid.*), although this does seem to be relatively unlikely. It is also possible that the core of the medieval grange was constructed on the mound, but parts of the Roman structures were re-roofed and utilised as ancillary buildings for storage and light industrial activity; in this case the presence of the medieval tile results from the eventual collapse or demolition of these structures, which would have taken place prior to 1787. Alternatively, there is a third possible scenario in which the Roman remains were robbed in a piecemeal fashion, these events coinciding with each new phase of building that took place on the grange mound. The resultant robber pits would have represented an ideal place for the medieval and post-medieval builders to dispose of rubble and other debris, such as tile. Further excavation would be necessary to determine whether any of these theories reflect the actual sequence of events.

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<sup>8</sup> It is questionable whether any additional stone would have been needed for grange, given the level of stone robbing evident across the site of the Roman buildings. However, it is possible that this quarry produced better quality material that could be transformed into ashlar blocks; a single fragment of tooled ashlar was recovered from Trench 36, which was situated approximately half way between the end of Roman Structure 3 and the mound marking the site of the grange.

### 7.13 Field G1 and Field G1a

The geophysical survey detected significant magnetic variation along the northern and western edges of this field (Bunn & Masters, 2003). Most of the anomalies were linear and appeared to define elements of a rectilinear field system. Three east-west aligned anomalies ran along the contours approximately 15m, 35m and 70m from Washingborough Road, while two perpendicular anomalies were located 25 and 30m from the western boundary of Field G1. Two sherds of Romano-British pottery and five fragments of 13<sup>th</sup>-15<sup>th</sup> century fabrics were recovered from this field during the fieldwalking survey and all of this material came from within 35m of the western perimeter (Clay, 2003). This direct spatial correspondence indicates that the boundaries detected by the geophysical survey are likely to have defined part of a medieval field system belonging to Sheepwash Grange, although it is also possible that some elements formed part of a Roman precursor.

Evidence of two phases of activity was detected in Trench 46, which was situated at the north-west corner of the field. A north-north-east to south-south-west aligned gully extended more than 10.5m down the hillside toward Washingborough Road. Its fill had been cut through by a 2m wide feature that corresponded to an 80m long east-west aligned ditch that was detected by the magnetometer survey. Part of a north-south aligned ditch was also exposed when Trench 48 was opened 90m further upslope. Unfortunately, dating material was not recovered from any of these features.

The geophysical survey also detected two relatively strong, discrete anomalies in Field G1. One was situated on the centreline of the proposed road corridor, adjacent to the northern boundary of the field. Trench 44 was placed across this area of magnetic disturbance and exposed elements of two limekilns. Both had been constructed in large sub-oval pits that were cut into the deep sandy deposits that had accumulated at the foot of the slope. The more southerly example was better preserved and demonstrated that the construction trench had been lined with a wall constructed from limestone rubble bonded with clay. The internal face of this wall had turned pinkish-red indicating that it had been exposed to very high temperatures when the kiln was fired. The other limekiln, situated 1.80m further to the north, also preserved elements of a limestone retaining wall, but this was in a worse state of preservation. It appeared likely that some of this structure had been removed, as the fill contained insufficient stone to account for the missing sections of walling.

The shared function and close spatial relationship of the two limekilns implies that these structures were broadly contemporary. However, the poorer level of preservation of the more northerly structure possibly implies that it predated, or became redundant before, its neighbour. If so, it could have been demolished in order that the limestone could either be used in the construction of its replacement or utilised as part of a kiln load.

The location of these two limekilns is interesting, as they are not situated in an area where limestone is situated close to the ground surface. Consequently, it seems likely that they were constructed here in order to exploit the remains of the stone structures that occupied Field F. This would indicate that they were either medieval or post-medieval in date. If they were medieval, they would have transformed elements of the ruined Roman buildings into mortar that would have been used either in the initial construction, or subsequent refurbishment and expansion of Sheepwash Grange. Alternatively, if they post-medieval features they would probably have been constructed between 1787 and 1820 when the medieval grange was demolished and some of its components were re-erected at the top of the hill to the south (*q.v.* Mills & Mills, 1998).



Two pits were also identified in Trench 44. One of these features had been cut into the remains of the better preserved limekiln, while the other lay a few metres to the south. Both contained quantities of creamy white crushed lime and burnt limestone rubble suggesting that they were associated with the operation of the limekilns.

Another pit was identified at the centre of Trench 46. The location of this feature corresponded to the area covered by the other discrete dipolar anomaly detected in Field G1. The primary fill of this pit incorporated some heavily degraded limestone or lime mortar, which could indicate that there was another limekiln in the immediate vicinity. The presence of such a structure could account for the presence and form of the magnetic anomaly detected at this location.

A single trench was opened at the south-east corner of Field G1a. Trench 49 lay at the periphery of the Washingborough Road sewage farm and demonstrated that large amounts of spoil had been spread across this area. This overburden contained 19<sup>th</sup> and 20<sup>th</sup> ceramic material, which suggests it was probably deposited during the construction of filter beds located approximately 50m to the north-west<sup>9</sup>.

#### **7.14 Field G2**

The results of the magnetometer survey indicated that a series of relatively diffuse linear and curvilinear anomalies extended across the central and eastern two-thirds of Field G2 (Bunn & Masters, 2003). The spatial inter-relationships of these anomalies suggested that the associated features were the product of at least two distinct episodes of activity.

The earlier phase was represented by three anomalies situated at the centre of the field. The most conspicuous element of this group was a ring ditch that was approximately 20m in diameter. This feature was situated on an east-west aligned terrace extending across the hillside. The south-west edge of the ring ditch was uncovered in Trench 55 and excavation demonstrated this it was approximately 1.3m wide and 0.5m deep. The morphological characteristics of this feature indicate that it probably surrounded a late prehistoric or Romano-British circular building. Only a single posthole was identified within the exposed part of the interior of the ring ditch, but its outer edge was adjoined by a short curvilinear gully. The majority of this smaller feature ran parallel to the western side of the ring ditch, and a row of five postholes continued this alignment toward the west-north-west.

The eastern and western sides of the ring ditch were flanked by linear anomalies that ran roughly perpendicular to the contours. These features had slightly different alignments, the more easterly example being orientated from north to south, while the other ran toward the north-north-west. Consequently, they defined a wider area to the north of the circular feature than they did further upslope. The contemporaneity of this group of features is implied by the fact that both of the linear anomalies appeared to kink slightly as they approached the ring ditch, thus suggesting that they were deliberately avoiding it. Trenches 53 and 54 were positioned over the linear anomaly running to the east of the ring ditch, but they failed to detect any evidence of a corresponding feature. In contrast, Trench 56 demonstrated that the more westerly anomaly represented a ditch that was 2.4m wide. The geophysical survey results indicated that this ditch ran perpendicular to a similar sized feature forming the southern edge of 'Enclosure 1' in Field G3, and thus raised the possibility that it had defined the western edge of this relict field (see 7.15, below).

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<sup>9</sup> These filter beds were not in existence in 1890 when the First Edition Ordnance Survey map was published (fig. 176).

Trench 58 was situated toward the south-west corner of Field G2. It did not contain any archaeological features, but a significant quantity of Roman pottery and tile was recovered from the topsoil. This material provides evidence of Romano-British activity in the mid 3<sup>rd</sup> century AD and raises the possibility that there was some form of settlement or structure in the immediate vicinity at this time. In contrast, no artefactual was discovered in the vicinity of the ring ditch, or its flanking boundaries. As noted above, the morphology of these features are indicative of Late Bronze Age, Iron Age or Romano-British activity. The absence of associated Roman pottery, which is plentiful elsewhere, therefore implies that they are late prehistoric features.

The second phase of activity detected by the magnetometer survey consisted of five or six diffuse linear anomalies located immediately to the east of the ring ditch. These anomalies ran from north-north-west to south-south-east, perpendicular to the contours, and were separated by intervals of approximately 6m. This spatial arrangement indicates that they probably represent the base of furrows forming part of a medieval field system. This interpretation is supported by the Canwick Enclosure map of 1787, which indicates that the eastern half of Field G2 formed the southern part of two elongated fields that had belonged to St Catherine's Grange, another medieval monastic estate located in the parish (*q.v.* Mills & Mills, 1998).

The geophysical survey had also identified a broad, slightly sinuous, linear anomaly that was aligned from north to south. It was located approximately 40m from the eastern boundary of Field G2, this position possibly indicating that it had divided the two narrow fields depicted on the Enclosure map. A section of this feature examined in Trench 51 was 7.5m wide and had gently sloping sides, its shape suggesting that it may have been a hollow way linking river valley and the top of the limestone escarpment.

A relatively large redundant quarry ran along the western edge of Field G2. An examination of the First Edition Ordnance Survey map indicates that it was created after 1890 (fig. 176).

### **7.15 Field G3**

The geophysical survey detected four well defined and inter-related linear and curvilinear anomalies in eastern half of this field (Bunn & Masters, 2003). The more northerly pair consisted of a looping curvilinear anomaly, which joined an east-west aligned feature at its southern end, thus forming a composite boundary that looked like the numeral '2' (Enclosure 1). Part of the curving feature was exposed in Trench 61, excavation demonstrating that it was a 1.5m wide ditch. Trench 62 was positioned to examine a length of the straighter anomaly, which was shown to consist of two inter-cutting ditches, the recut being somewhat larger than its predecessor.

The other pair of well defined linear anomalies were situated 20m to the south of the base of Enclosure 1 and respected its alignment. They appeared to define the north-west corner of a field, but did not seem to join, which suggested that there was an entrance at the corner of this enclosure (Enclosure 2). The two arms of Trench 64 were positioned to investigate these features and successfully established that the northern boundary was defined by a 1.75m wide ditch. The skewed distribution of the limestone rubble filling the base of this feature suggested that the stones were derived from a bank constructed along its southern edge. A broad, shallow ditch, c. 3.78m wide and 0.34m deep, had delineated the western perimeter of the field. No dating evidence was recovered from any of the five ditches, but corner entrances

are morphologically indicative of later prehistoric and Romano-British field systems<sup>10</sup>. They were ideally placed to ease the movement of livestock, as they were situated at the apex of a funnel created by the field boundaries (Pryor, 1998).

Further examination of the geophysical survey results indicates that two shorter, more diffuse linear anomalies were situated close to the corner of Enclosure 2. Both were aligned from north-east to south-west, thus raising the possibility that they represented a different phase of activity. However, the ends of both features appeared to respect the boundaries forming Enclosure 2. The longer anomaly extended diagonally across the corner of this field, but there appeared to be a 5m wide gap separating each end from the respective boundary ditch. The other anomaly seemed to be appended to the northern boundary of Enclosure 2 and appeared to obliquely cut off the southern half of the 20m wide corridor running between the two enclosures. The area to the west of Enclosure 1 and Enclosure 2 appears to be devoid of any further redundant field boundaries, thus raising the possibility that it was common land or open pasture at the time that this relict field system was in operation. It is therefore possible that the oblique features represent elements of a drafting gate, or other structure used to sort livestock going onto, or being brought in from, the pasture to the west (*q.v.* Pryor, 1998).

The geophysical survey also detected an area of relatively strong, but irregular magnetic disturbance at the western edge of the field, close to the centreline of the road corridor (Bunn & Masters, 2003). Trench 60 was opened in this area and exposed the north-eastern corner of a relatively well-preserved limekiln. It was contained by a large sub-oval pit cut into the limestone brash, but differed from the two structures investigated in Field G1, as it did not appear to have any rubble walls (see 7.13, above). Instead, the sides of the main chamber were coated with a clay lining that was approximately 0.2m thick. Additionally, this limekiln had a sub-rectangular flue that ran from north to south along the base of the feature. The internal face of both the flue and the lining had a reddish-brown to pink discolouration demonstrating that they had been subject to extreme temperatures.

The flue was filled with alternating deposits of ash and coal fragments, and crushed white limestone, which probably represented detritus from two consecutive firings. In contrast, the lower part of the main chamber was filled with loose limestone rubble that appeared to have been burnt. These stones were pitched in a way that suggested they either represented a collapsed wall or part of a kiln load tipped in from the southern side of the feature.

A quarry pit occupied the area immediately to the north of the limekiln. One of its later fills consisted of white lime and crushed limestone, which almost certainly represented a kiln product that had been rejected for some reason. The presence of this material, combined with the very close spatial relationship, indicates that the limekiln and quarry pit were contemporary features, with the latter probably providing raw material for lime production.

Dating evidence was not recovered from the limekiln, but the use of coal as fuel indicates that it was almost certainly constructed during or after the medieval period. The First Edition Ordnance Survey map shows no evidence of any structures or quarry pits in the immediate vicinity of Trench 60, which demonstrates that these features were either redundant and backfilled by the late 1880s, or had yet to be created (fig. 13). The remains of the kiln are situated approximately 80m to the north of Manor Farm. Most of these buildings were erected during the 20<sup>th</sup> century, but the farmhouse is a stone structure that had already attained its current form by the end of the 19<sup>th</sup> century. It is possible that the limekiln and associated quarry pits were created during the later 18<sup>th</sup> or 19<sup>th</sup> century to facilitate the

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<sup>10</sup> These enclosures also appeared to share the alignment of a ditch that turned slightly to avoid the ring gully examined in Trench 55. This provides further evidence for a late prehistoric or Romano-British date.

construction of this building. Alternatively, the kiln may have produced lime to improve the fertility of the surrounding arable land. The structure is located less than 15m from the south-west corner of a redundant quarry, which has removed a 110m long by 50m wide section of the western edge of Field G2. This feature was created after 1890 and has produced in excess of 6000m<sup>3</sup> of stone, a quantity far exceeding anything used locally for building materials.

## 7.16 Field H1 and Field H2

Only one of the three trenches opened in Field H1 contained archaeological remains. A broad east-west aligned linear feature, [1957], crossed the centre of the north-south arm of Trench 70. It was essentially a small rock-cut terrace, c. 7.50m wide, the southern edge having been cut vertically into the hillside, while the northern side was poorly defined and was little more than a dished depression. The gradiometer survey had detected [1957], the results indicating that it extended more than 18m from east to west (Bunn & Masters, 2003). Its eastern end was situated approximately 55m from the hedge that separated Fields H1 and H2, but there was no evidence of a perpendicular ditch or gully in the other arm of the trench. Consequently, it is highly unlikely that this feature was a field boundary, even though it shared the same alignment as the 19<sup>th</sup> and 20<sup>th</sup> century field system.

Its morphological characteristics suggest that [1957] is more likely to have been a small quarry or stone pit. The dimensions of this feature, obtained from the trial trenching and the geophysical survey, suggest that at least 64m<sup>3</sup> of limestone had been removed. This stone may have been used for building, but the nearest stone structure, Manor Farm, is situated 270m to the north-east. It therefore seems more likely that the stone was either utilised in the construction or improvement of Heighington Road, c. 90m to the north, or would have been processed in a nearby lime kiln. Several sherds of pottery and some pieces of tile were recovered from the upper fill. Most of this collection consisted of residual Romano-British and medieval material, but three of the sherds of pottery were later in date and indicated that [1957] was probably created during the 18<sup>th</sup> or 19<sup>th</sup> century. However, it was not depicted on the First Edition Ordnance Survey map of 1889-90, which indicates that it had already become redundant and had been backfilled by this time (fig. 13). The late 19<sup>th</sup> century map does show an 'Old Quarry' on the opposite side of Heighington Road, c. 130m to the north, and a 'Stone Pit' situated c. 440m to the west, thus demonstrating that small scale limestone extraction was undertaken in this area during the 19<sup>th</sup> century.

The Roman and medieval ceramic materials recovered from the quarry pit will have been derived from a relatively dense scatter of material situated within the topsoil. The field walking survey recovered three sherds of Romano-British pottery and eleven pieces of medieval fabric from this field (Clay, 2003). The latter component consisted of one piece manufactured during the 13<sup>th</sup> century, eight of 13<sup>th</sup>-15<sup>th</sup> century date and two created during the 14<sup>th</sup>-15<sup>th</sup> centuries. It is possible that the medieval ceramic material was introduced in midden deposits, but it represented a relatively high concentration when compared to many other sections of the route. This raises the possibility that it was deposited at the periphery of some form of later medieval settlement or activity zone. Two pieces of worked flint were also recovered from the field, their presence indicating that there was some transient prehistoric activity in the immediate vicinity.

Part of a ditch was exposed in Trench 72, but datable materials were not recovered from the fill. The geophysical survey results indicated that this feature was at least 35m long, extended from east-north-east to west-south-west and was slightly crescentic in plan. This anomaly did not extend into Field H1, but terminated at the boundary between the two fields. This

suggests that it was either laid out as contemporary element of the 19<sup>th</sup> century field system, or that it was a relatively short-lived addition to this scheme of land division.

Examination of the geophysical survey results from both fields indicates that there has probably been significant plough truncation of any *in-situ* deposits. Numerous relatively well defined linear anomalies ran down the slope from south to north, the visible plough furrows also sharing this orientation. These parallel anomalies are therefore likely to reflect the presence of plough scores incised into the surface of the limestone.

### 7.17 Field H3

Each of the three trenches located in the north-eastern half of Field H3 contained archaeological features. Trench 78 contained the most significant feature, an east-west aligned ditch, which was 3.75m wide and 1.55m deep, and had the denuded remains of an equally sizeable rubble bank running along its northern edge. Despite repeated ploughing, this former boundary was still visible as a low earthwork, which basically took the form of a lynchet approximately 0.5m higher than the ground surface immediately to the south.

Three sherds of Romano-British pottery and two pieces of Roman tile were recovered from the fill of the ditch. While these artefacts could indicate that this feature was created after the imposition of Roman rule over this area, it also apparent that a feature of this size would take a considerable time to fill naturally. Consequently, it is also possible that this ditch was a late prehistoric boundary that was not maintained by Romano-British landowners. The size of the feature is certainly consistent with the scale of the large Late Bronze Age or Iron Age boundaries that divide up the Lincolnshire limestone escarpment (*q.v.* Boutwood, 1998). An examination of aerial photographs indicates that this feature corresponds to a crop mark that extends for more than 1900m; its western end can be traced only as far as 'The Pits', a wood running along the western edge of Field H4, but there are some indications that it could extend into the village of Heighington, c. 3km to the east of Trench 78 (fig. 177). It should be noted that one section of this feature defines part of the parish boundary between Canwick and Washingborough, a factor that provides further evidence of its antiquity.

The limestone rubble bank along the northern edge of the ditch sealed a deposit containing a sherd of pottery that was potentially late prehistoric in date. A piece of tile was also recovered from this layer, but the age of this artefact could not be accurately determined; it was manufactured in either the Romano-British period, or during the 19<sup>th</sup>-20<sup>th</sup> century. In either case the date of this tile fragment does not diminish the possibility that the ditch was created during the later prehistoric period. The First Edition Ordnance Survey map indicates that both Fields H3 and H4 were still divided by this boundary at the end of the 19<sup>th</sup> century (fig. 13). It was removed during the latter part of the 20<sup>th</sup> century and this will have resulted in the spreading of bank material to the north and south, with the resultant possibility of contamination by later artefactual material. However, regardless of this disturbance, it seems likely the sediment sealed beneath the central part of the bank probably formed part of the ground surface at the time that this boundary was created. As a consequence it has significant palaeo-environmental potential.

Three undated linear features were exposed in the western half of Trench 77, approximately 40m to the north of the large boundary investigated in Trench 78. Two ditches situated near the western end of the trench were orientated from north-east to south-west and from north-north-west to south-south-east. They intercepted each other just to the south of the trench, but it seems unlikely that they were contemporaneous features as they subtended an angle of c. 70°. A north-north-east to south-south-west aligned gully that had formerly had a bank

following its western edge, lay a further 3.5m to the east of these two ditches. It is puzzling that these features did not appear to respect each other or, that none even ran either perpendicular or parallel to the big ditch to the south. Potentially, the latter has been one of the most dominant features of the surrounding landscape for over 2000 years. The consequent implication is that these linear features could represent three phases of activity, all of which took place prior to the creation of the major land division crossing Trench 78.

Another two linear features were exposed in the southern half of Trench 79. They were both undated, but ran from east to west, which, following the line of reasoning used above, suggests that they post-dated the creation of the large linear boundary. An interval of 4m separated a ditch from a gully situated further to the south. This spatial relationship raises the possibility that these features were contemporary and defined the edges of a driveway. However, the fills were quite different and therefore suggested that they resulted from separate episodes of activity.

The fieldwalking survey recovered a few artefacts from Field H3, but this is unlikely to be representative of the true density, as the ground surface was largely obscured by vegetation (Clay, 2003). Six sherds of 13<sup>th</sup>-15<sup>th</sup> century pottery and a piece of 13<sup>th</sup>-17<sup>th</sup> century tile were discovered, along with a piece of worked flint. Only one sherd of medieval pottery found to the north of the large ditch. The fact that the latter still served as a boundary in the late 19<sup>th</sup> century, suggests that it must also have divided the medieval field system. It ran roughly perpendicular to the contours and consequently could have functioned as a headland.

#### **7.18 Field H4**

The geophysical survey indicated that there was relatively little magnetic variation within Field H4, with the exception of a series of very diffuse north-south aligned anomalies running parallel to the eastern boundary of the field (Bunn & Masters, 2003). Comparable striations are also visible in Field H3 and in both cases they are likely to represent plough scoring of the surface of the limestone brash. The three trial trenches opened in this field appear to confirm the negative result of the magnetometer survey, as they did not contain any archaeological features.

The absence of archaeological deposits is interesting, as the fieldwalking survey recovered a relatively large collection of artefacts from this field (Clay, 2003). More than 80% of the 40 finds were made in the eastern half of Field H4, the area examined by Trench 82. This part of the collection included one sherd of Late Iron Age to early Roman shelly ware, five sherds of Romano-British greyware, 20 sherds of 13<sup>th</sup>-15<sup>th</sup> century pottery and two post-medieval sherds spanning the 15<sup>th</sup> to 18<sup>th</sup> centuries. The seven items recovered from the western half of the field represented an even broader date range, as there was one piece of Late Mesolithic/Early Neolithic worked flint and another of Late Neolithic/Bronze Age date, a piece of Romano-British greyware, three pieces of medieval pottery and tile, and a sherd of 18<sup>th</sup> century Staffordshire slipware. The composition and distribution of this assemblage suggests that Field H4 lay within a Romano-British field system. It is also evident that it formed part of a medieval field system, parts of which probably continued in cultivation into the post-medieval period. However, the differential distribution of artefacts manufactured between the 13<sup>th</sup> and 18<sup>th</sup> centuries suggests that this plot of land was divided into two separate units, which were utilised in different ways. It is possible that the western half was converted to pasture, while the eastern half continued to be cultivated and fertilised, or the varying dispersion could indicate that individual farmers invested in differing levels of middening.

## 7.19 Field I1 and Field I2

The most significant archaeological feature exposed in Field I1 was a substantial north-south aligned ditch that was examined in Trench 87. This feature was 5.3m wide and 1.45m deep, and was directly comparable to the large redundant boundary that crossed Field H3 from east to west (see 7.17, above). The lower fills of the ditch primarily consisted of limestone rubble, which was almost certainly derived from a sizeable bank that would have bordered the feature. The loose arrangement of the stones suggested that this bank had been deliberately pushed back into the ditch. The upper fill had accumulated more slowly and contained two pieces of Roman tile. It is possible that this ceramic material was residual, but it could also provide an indication that this large boundary was slighted during the Roman period in order to facilitate a change to the contemporary field system.

This large ditch has previously been identified from a cropmark that extended approximately 1100m southward from Lincoln Road (B1188) (SMR No. 61512). The northern end of this cropmark intercepted the road directly opposite the western boundary of Field A4. This relationship suggests that the large linear boundary originally continued to the north of the B1188 and delineated the eastern edge of the woodland known as 'The Pits'. The western end of the large boundary traversing Field H3 can also be traced as far as this wood. Consequently, it appears likely that these two major land divisions formerly intersected at the western edge of Field A4, approximately 250m to the north of Lincoln Road (c. SK 9920 6923; fig. 177).

The geophysical survey ran obliquely to the ditch exposed in Trench 87, which increased the length of the component that was detected. The corresponding, well defined anomaly indicated that this feature had a slightly sinuous alignment (Bunn & Masters, 2003). A number of more diffuse linear and curvilinear anomalies occupied the area immediately to the east of the large ditch. They appeared to define elements of one or two appended enclosures<sup>11</sup>, the evident asymmetry and rounded corners of which are indicative of Iron Age or Romano-British settlement (Winton, 1998). Several much weaker linear anomalies seemed to extend across the areas to either side of the major boundary, which suggests that they relate to a phase of activity predating the division of this area.

An east-west aligned ditch crossed the southern half of Trench 88. No dating evidence was recovered, but this feature ran perpendicular to the large linear boundary and lay only 20m to the south-east of the enclosure complex surrounding Trench 87. Most significantly, the fluxgate gradiometer results provide no indication of the presence of this feature, which suggests that the remains of this putative late prehistoric or Romano-British settlement are more extensive than the geophysical survey has indicated.

The fluxgate gradiometer did detect a well defined 'L'-shaped anomaly at the north-east corner of Field I2. The junction between the two arms of this feature was slightly rounded indicating that it probably represented the south-east corner of another late prehistoric or Romano-British enclosure. Trench 92 was configured to examine both sides of this geophysical anomaly and demonstrated that it was indeed an enclosure. The eastern side was defined by a ditch approximately 2.50m wide and 0.70m deep, which contained three sherds of Iron Age pottery. Another ditch, with slightly smaller dimensions, delineated the southern side. Both of these features had been allowed to fill before being redefined. These recuts contained moderate quantities of Late Iron Age pottery, some animal bone and flecks of

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<sup>11</sup> It is interesting to note that these putative enclosure ditches did not appear to actually join the large north-south aligned ditch. Instead, they seemed to terminate approximately 5m to the east of the principal feature. This raises the possibility that they stopped at the foot of a bank that ran along the eastern side of the ditch.

charcoal. The presence of this material is indicative of domestic activity in the immediate vicinity and suggests that the enclosure formed part of a settlement.

The fieldwalking survey recovered a barbed and tanged arrowhead and another piece of struck flint from southern third of Field I1 (Clay, 2003). Two more pieces of worked flint were found in the southern half of Field I2. Five sherds of Romano-British greyware were also discovered in the central and southern parts of each field. The skewed distribution of this material could indicate that the northern part of both fields lay outside the area of the Roman field system that was under cultivation. In contrast, the distribution of 13<sup>th</sup>-15<sup>th</sup> century pottery and tile suggested that the medieval field system was more extensive, as this material was thinly distributed along the full length of the road corridor through Fields I1 and I2. However, it is evident that the ploughsoil in these two fields contained much lower densities of medieval ceramics than were observed in Field H4 to the north or Field I3 to the south. This differential distribution of artefacts could indicate that these areas were utilised in dissimilar ways or for different lengths of time. However, it should be noted that soils covering Field I1 and the northern half of Field I2 were more sandy and friable than the deposits blanketing adjacent areas. Consequently, the higher densities of pottery observed to the north and south could indicate that these areas required more frequent middening to ensure similar productivity to Fields I1 and I2.

## **7.20 Field I3, Field I4 and Field I5**

The geophysical survey indicated that there was relatively little magnetic variation along the 690m long section of the route traversing these three fields. A single strong linear anomaly extended approximately 30m from north to south and terminated c. 70m from the southern edge of Field I3. Trench 103 was opened to determine the nature of this anomaly, but failed to detect any form of disturbance. However, it should be noted that this trench was located at the southern end of the anomaly, raising the possibility that a corresponding archaeological feature could lie a little further to the north.

Trench 104 was located at the centre of an area of relatively diffuse magnetic disturbance that extended across the southern end of Field I3. An irregular linear feature ran across the north-western end of the trench and sample excavation indicated that it was created by ice-wedging, or some other natural phenomenon.

The only real evidence of past human activity in this area was provided by the fieldwalking survey. A scatter of medieval pottery and tile was recovered from Field I3, this collection including two 12<sup>th</sup>-13<sup>th</sup> century sherds, nine 13<sup>th</sup>-15<sup>th</sup> century fragments and eleven pieces of 14<sup>th</sup>-15<sup>th</sup> century date (Clay, 2003). A comparable assemblage was recovered from the northern half of Field I4<sup>12</sup> and across most of Field I5<sup>13</sup>. In contrast, only three sherds of medieval to post-medieval pottery were found in the southern half of Field I4.

Most of the pottery recovered from these fields exhibited varying levels of abrasion. This suggests that most if not all of it was introduced in midden deposits spread to improve the fertility and structure of the ploughsoil. The differential distribution of this material implies that the areas now contained by Field I3, most of Field I5 and the northern half of Field I4 formed part of a medieval field system that was subject to frequent middening.

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<sup>12</sup> Finds from this area included two pieces of 13<sup>th</sup> century fabric, ten that were created during the 13<sup>th</sup>-15<sup>th</sup> centuries and seven pieces of 14<sup>th</sup>-16<sup>th</sup> century date.

<sup>13</sup> Material recovered comprised one piece of 12-15<sup>th</sup> century fabric, three manufactured during the 13<sup>th</sup> century, eleven of 13-15<sup>th</sup> century date, five produced between the 13 and 17<sup>th</sup> centuries, and seven belonging to the 14-15<sup>th</sup> century.



Unfortunately, it appears likely that almost all associated sub-surface remains, such as furrows and furlong boundaries, have been completely truncated by more recent agricultural activity. However, a diffuse east-west aligned linear anomaly is discernible approximately 20m to the north of the boundary separating Field I5 and Field I6. A close examination of the distribution of the pottery recovered during the fieldwalking raises the possibility that this anomaly indicates the location of a boundary that defined the southern edge of the medieval field system; no ceramic material was found along the southern edge of Field I5 and there were only three sherds of medieval pottery in Field I6 (see below). If this anomaly does represent a furlong boundary, it is interesting to note that it shares the same alignment as the early modern boundaries separating Fields I3, I4 and I5. This would suggest that these Enclosure period boundaries were laid out in reference to visible elements of the preceding medieval field system.

The date range of the pottery suggests that the spreading of midden material probably began in the 13<sup>th</sup> century and ended during the 14<sup>th</sup> or the 15<sup>th</sup> centuries. The later date probably reflects the cessation of arable production in this part of the medieval field system, but it is not possible to determine whether middening was initiated when the fields were first laid out, or in response to the progressive degradation of land brought into cultivation decades or even centuries earlier. The relative absence of medieval pottery across the southern half of Field I4 suggests that this area was used in a different way to the land flanking it to the north and south.

Evidence of earlier activity was provided by three pieces of worked flint and four fragments of Romano-British pottery recovered from field I3, a further seven sherds of Roman pottery and four worked flints from Field I4, and five pieces of late 2<sup>nd</sup>-3<sup>rd</sup> century pottery found in Field I5 (Clay, 2003). The small quantity of Roman pottery provides an indication that this area could also have formed part of a Romano-British field system, but the lithic material included a Late Mesolithic blade and an Early Bronze Age thumbnail scraper, and therefore appears to be indicative of occasional visits taking place over several thousand years.

## **7.21 Field I6**

Trench 115 examined the northern edge of this field. It contained two very large east-north-east to west-south-west aligned ditches. The more northerly example was 4.50m wide and 1.35m deep and appeared to have had a bank running along its northern edge. The other ditch was slightly smaller, being 'only' 3.75m wide at the top and 1.23m deep. Separating the two ditches was an undisturbed area of limestone brash, which was approximately 8m wide.

These two features corresponded to a pair of very well defined linear anomalies identified by the magnetometer survey (Bunn & Masters, 2003). The results of this geophysical investigation indicated that the ditches did not run parallel to each other. Instead, they gradually converged as they proceeded eastwards. This indicates that they would meet approximately 75m to the east of Trench 115, if they both continue to follow the same alignment. As a result it is not clear whether these were contemporary features that defined the edges of a droveway, or if they resulted from successive episodes of land division. However, the size of both features suggests that the latter scenario is more unlikely, as the creation of the later ditch would have necessitated a huge investment of labour in order to achieve a relatively small realignment of the surrounding field system.

Unfortunately, artefactual material was not discovered in either feature and thus there is no explicit evidence to indicate when they were created. The eastern ends of these ditches are aligned toward Canwick Manor Farm, which is situated c. 210m to the east-north-east of

Trench 115. It is possible that this farm occupies the site of a medieval or post-medieval precursor and if so, the ditches may have flanked a track that was used to drive livestock to and from the farm. However, if these ditches were contemporary with an earlier phase of Canwick Manor Farm, it is difficult to understand how such large boundaries did not continue to define the axis, or even form part of the early modern field system. The First Edition Ordnance Survey map indicates that the boundaries currently surrounding the farm had all been laid out prior to 1889-90 (fig. 154), which demonstrates that the two ditches had been filled prior to this time.

It is also possible that the apparent spatial relationship between the ditches and Canwick Manor Farm could be entirely coincidental, in which case this pair of features could significantly predate the creation of the farmstead. The scale of each of these boundaries is somewhat larger than the majority of ditches that flank medieval trackways. Their dimensions are more consistent with the system of land division that was laid out across the limestone escarpment during the Late Bronze Age or Iron Age (Boutwood, 1998). If these ditches did form part of the late prehistoric landscape, it is likely that they joined the southern end of the comparable feature that was examined in Trench 87 (Field I1 – see 7.19, above; fig. 177). This junction would be situated to the north-east of Canwick Manor Farm.

Environmental samples taken from both ditches were dominated by snail taxa indicative of disturbed ground within shaded scrub and woodland. The species *Pomatia elegans* is particularly symptomatic of woodland clearance and the presence of other snails indicative of either woodland or open grassland habitats could reflect the progressive transformation of the environment as a result of an episode of deforestation. It is possible that this event represents the removal of secondary woodland prior to the creation of the medieval field system. Alternatively, it could reflect the intake of ancient woodland to facilitate the expansion of the largely pastoral landscape that was laid out during the 1<sup>st</sup> millennium BC.

Relatively little cultural material was retrieved from Field I6 during the fieldwalking survey. A single sherd of mid 3<sup>rd</sup> century Romano-British greyware was found beside the southern boundary and three pieces of 13<sup>th</sup>-16<sup>th</sup> century pottery and tile were recovered from the southern two-thirds of the field (Clay, 2003). The presence of this ceramic debris raises the possibility that this area lay within Roman and medieval field systems. However, this material has a very low density, particularly when compared to the assemblages found in Fields I4 and I5, immediately to the north. It therefore seems likely that this plot of land was largely, if not totally, peripheral to the main arable area during both periods.

## 7.22 Field I7

Eight trial trenches were opened in Field I7, but none of them revealed any archaeological deposits. This negative result complements the findings of the geophysical survey, which failed to detect any significant magnetic disturbance across the majority of this large field.

Field I7 formed a large proportion of the First World War airfield constructed at Bracebridge Heath. The hangars and ancillary buildings were constructed along the eastern edge of the A15, where some still survive and are utilised as light industrial units. The field itself would have served as a simple grass landing strip, its large open area allowing landings from any direction, regardless of the orientation of the prevailing wind. Consequently, there is little reason to expect that there would have been any associated structures in the centre of the field, as they would merely have acted as obstacles.

The First Edition Ordnance Survey map indicates that Field I7 was divided into two separate units at the end of the 19<sup>th</sup> century (fig. 154). Most of the north-north-west to south-south-east aligned boundary that bisected the area was probably removed during the creation of the First World War airstrip, but its southern end still survives and defines the eastern perimeter of The Manor House, c. 110m to west of proposed bypass route. The field was divided again after the airfield was decommissioned. This time an east-north-east to west-south-west aligned boundary was created, this feature crossing the proposed route of the bypass approximately 165m from southern edge of I7. It was a relatively short lived land division and was removed sometime during the last fifteen years, but it is still evident as a slight lynchet, and also as a ribbon of paler clayey material when the field has been freshly ploughed.

### 7.23 Field I8 and Field I9

The results of the fieldwalking survey and the trial trenching have indicated that there were several phases of human activity within the area now contained by these two fields. Numerous fragments of worked flint and two sherds of pottery provide evidence for at least two distinct episodes of prehistoric activity. The earliest material consists of blades and blade-like flakes exhibiting morphological characteristics indicative of Late Mesolithic to Early Neolithic technologies. Nine pieces of worked flint of this form were collected during the fieldwalking survey, half of it having come from the northern part of Field I9 (Clay, 2003). This slightly skewed distribution was mirrored by the results of the trial trenching, as another five pieces of Late Mesolithic to Early Neolithic flint were recovered from Trenches 133 and 134.

Similar quantities of Late Neolithic to Early Bronze Age flint were also recovered from the southern half of Field I8 and across Field I9 (*ibid.*). This collection of eleven items included four tools, two of which - a thumbnail scraper and a barbed and tanged arrowhead - are most commonly associated with Beaker period funerary deposits and settlements. Additional lithic material indicative of Beaker period activity was recovered from the surface of these two fields during the geophysical survey; a thumbnail scraper and the tip of another barbed and tanged arrowhead were found in Field I8, and a plano-convex knife was found in Field I9<sup>14</sup>. The presence of these items indicated that this material was not just the residue of expedient flint knapping and raised the possibility that there was some form of domestic focus in the immediate area. Further confirmation of Early Bronze Age activity was provided by two sherds of fine Beaker pottery that were recovered from Trench 133 and Trench 134. Considered as a whole, this small collection of artefactual material suggests that a Beaker settlement occupied the area now forming the northern half of Field I9.

The northern part of Field I9 also seems to have been a focus of Romano-British activity. The fieldwalking survey recovered fifteen sherds of mid 2<sup>nd</sup>-3<sup>rd</sup> century Roman pottery from this field, eleven of these being located within 60m of the northern boundary (*ibid.*). Trench 133 was opened at the centre of this concentration in order to investigate a relatively diffuse north-east to south-west aligned linear anomaly detected by the magnetometer survey (Bunn & Masters, 2003). Two gullies were exposed toward the centre of the trench. The larger feature had a rounded terminal at its northern end and extended south-eastwards along the trench, before turning westward and exiting the area of excavation. This morphology possibly indicates that the gully defined the south-east corner of an enclosure that had a north-east

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<sup>14</sup> A total of 61 pieces of worked flint were recovered from the surface of Field I8 during the geophysical survey, with a further 67 having been found in Field I9. This lithic material was collected after the fieldwalking survey, but before the trial trenching. It has not been analysed in detail and does form part of any of the lithic reports that have been produced.

facing entrance. The fill of this gully contained fifteen pieces of Romano-British pottery, including a piece of late 2<sup>nd</sup> century Central Gaulish samian ware. The smaller gully was undated, but its northern end abutted and respected the neighbouring 'L'-shaped gully, thus suggesting they were contemporaneous features. Part of a sub-oval pit was also exposed at the south-west corner of Trench 133. This feature contained one of the pieces of Early Bronze Age pottery and a fragment of Romano-British, or early modern tile.

The morphological characteristics of an undated curvilinear gully exposed at the eastern end of Trench 135 are broadly indicative of Bronze Age, Iron Age or Romano-British activity. The relative paucity of Roman ceramic material in this area implies that this feature is more likely to have been created during the later prehistoric period. Consequently, it could represent part of the hypothesised Beaker period settlement, or might indicate that the Romano-British activity had its origins in the Iron Age. The southern end of this gully had a rounded terminal suggesting that it was a penannular feature, with a south-east facing entrance. However, the curvature of the exposed section implied that its internal diameter would have been far too small to have surrounded a round house.

These two fields also contained abundant evidence of medieval activity. Seven pieces of 13<sup>th</sup>-15<sup>th</sup> century pottery and tile were collected from the surface of Field I8 during the fieldwalking survey (Clay, 2003). All but one of these artefacts formed a relatively tight cluster situated at the centre of the field. Another thirteen sherds of 13<sup>th</sup>-15<sup>th</sup> century pottery were recovered from the northern half of Field I9, while a further three fragments were dispersed over the area to the south.

Short sections of a pair of intersecting perpendicular ditches were exposed at the western end of Trench 131, which was located approximately 15m from the southern boundary of Field I8. The spatial relationship of these features indicated that probably defined the south-west corner of a field or enclosure. Their fill contained a sherd of pottery and a piece of tile that were manufactured between the 13<sup>th</sup> and 15<sup>th</sup> centuries, as well as three residual fragments of Romano-British ceramic. The geophysical survey had provided no indication that there were linear features in this area, but it had identified a number of discrete magnetic anomalies that were scattered along this edge of the field (Bunn & Masters, 2003). One of these anomalies probably corresponds to a large pit situated 2.5m to the east of the ditches. This feature was more than 5m long and over 1.6m wide and, contained a sherd of 13<sup>th</sup>-15<sup>th</sup> century pottery, along with thirteen sherds of mid to late 2<sup>nd</sup> century Romano-British fabrics.

The presence of these features indicates that some form of medieval settlement, or activity zone occupied the southern edge of Field I8. The two ditches respected the alignment of Bloxholm Lane. This could indicate that any associated buildings were constructed along the frontage of a precursor to this road. It is therefore possible that there are further archaeological deposits beneath the relatively broad verge flanking the northern side of the lane.

Additional features were identified in three of the trenches opened in the northern and central parts of Field I8. North-east to south-west aligned gullies crossed Trenches 127 and 130, while a perpendicular feature was exposed in Trench 128. Each of these features corresponds to a relatively diffuse linear anomaly that appears to form part of a rectilinear field system (*ibid.*). Unfortunately, dating evidence was not recovered from any of these features, but it seems most likely that they are related to either the Romano-British or medieval phases of activity. They have a similar alignment to the Roman features exposed in Trench 133, but run at c. 45° to the medieval ditches in Trench 131. While this may be indicative of phasing, it should also be noted that these gullies are laid out with respect to the contours of the south-east facing slope that occupies the northern half of Field I8.

## 8.0 Conclusions

The programme of trial trenching has revealed extensive evidence for various forms of human activity that has taken place during the last 10,000 years. The identification of a series of well-preserved Late Mesolithic features at the south-west corner of Field D2 is highly significant. The archaeological potential of these features is further enhanced by the discovery of elements of an *in-situ* prehistoric land surface in Fields D1, D2, D3 and E. These deposits contain large quantities of worked flint, much of which appears to be the product of Late Mesolithic activity, but other components of the assemblage reflect a continuing human presence extending through to the Early Bronze Age, when the peat began to form in the valley. A round barrow cemetery was created on each side of the river prior to this environmental change. It seems likely that one of these barrows was partially exposed in the southern half of Trench 34, Field E, and another could lie immediately to the east of Trench 144. A number of potboilers recovered from Field E could indicate the presence of a Bronze Age burnt mound.

Further evidence of Late Mesolithic to Early Bronze Age activity was identified in Field I9, at the southern end of the route. The northern half of this field contained a small concentration of Mesolithic flint, as well as a range of artefacts that appeared to signify the presence of a Beaker settlement.

Large ditches exposed in Trench 78 (Field H3), Trench 87 (Field I1) and Trench 115 (Field I6) appear to form part of a major boundary system that divided the limestone escarpment to the south of the Witham Valley. These large ditches are all likely to be Late Bronze Age or Iron Age in date. Elements of associated Late Iron Age settlements were identified in the centre of Field I1 and at the north-east corner of Field I2. Another Late Iron Age to early Romano-British settlement occupied the central and southern parts of Field A5. It consisted of at least two large sub-rectangular enclosures that contained a number of internal features. Relatively large quantities of domestic material were recovered from the enclosure ditches and an associated pit. There was also evidence of iron working, which possibly indicates that this was a relatively high status settlement.

A north-south aligned row of waterlogged oak timbers that ran across Field D2 may have formed part of a boundary or simple trackway that was created at the end of the Iron Age, or during the earlier Roman period.

A large quantity of Romano-British pottery and tile fragments were found in association with substantial amounts of small and medium sized limestone rubble distributed across the western half of Field F. Analysis of the pottery indicates that the ceramic materials span the entire period of Roman influence in Britain, with fabrics dating from the 1<sup>st</sup> century to the very late 4<sup>th</sup> century AD. Additionally, the varying types and forms of Roman brick and tile suggests that they are derived from a number of structures constructed in several episodes during the same period. These were high status stone buildings that had tiled roofs. Furthermore, at least one of these structures had a hypocaust that would have heated both the floors and associated wall cavities and another was adorned with columns. Features examined in Field G1, G2, and G3 may have formed elements of an associated Iron Age and Romano-British field system.

A small quantity of middle Anglo-Saxon pottery has also been found in Field F. Comparable ceramic material produced between the later 7<sup>th</sup> and 10<sup>th</sup> centuries AD is relatively rare both in and around Lincoln. This suggests that the remains of the Roman buildings were reoccupied in the second half of the 1<sup>st</sup> millennium AD. The ruins of the Roman buildings were also the focus of activity in the medieval period. This part of Canwick parish was ceded

to Kirkstead Abbey at sometime prior to 1184 (Mills & Mills, 1998). Subsequently, the abbey constructed Sheepwash Grange here in order to serve as the administrative centre of one of their monastic estates. It appears likely that these structures occupied an artificial mound created in the eastern half of Fields E and F. Documentary references suggest that the buildings were constructed around the sides of a courtyard and some, if not all, were built from limestone and tile salvaged from the adjacent Roman ruins. This stone robbing was conducted in such an efficient and systematic manner that it appears to have virtually eradicated any *in-situ* Roman remains. This in turn suggests that the medieval labourers were aided in their task by substantial amounts of walling that still protruded from the ground. Two limekilns exposed at the northern edge of Field G1 may have been associated with these episodes of stone robbing. Another example uncovered at the eastern edge of Field G3 could have been utilised in the construction of Manor Farm, a post-medieval structure to the north of Heighington Road.

Sheepwash Grange became a large secular farmstead after the Dissolution of the monasteries. It then continued to be a prominent local landmark owned by various families numbered among the Lincolnshire gentry until the late 18<sup>th</sup> century. At some point between 1787 and 1828 the farmhouse and its associated buildings were pulled down. Some of the materials were carted up the hill to the south and were reused in the construction of another farm near Heighington Road that has appropriated the name 'Sheepwash Grange'.

A large quantity of limestone rubble has also been identified in the northern part of Field D2 and finds of Romano-British material are reported from this area. Trench 151 was opened to investigate this stone spread, and uncovered elements of three east-west aligned ditches. These features contained fragments of limestone and one also held a piece of Romano-British pottery. However, it has not been possible to determine what form of activity was taking place here, as the small quantity of tile recovered from the trench was manufactured during the post-medieval period.

## **8.1 Recommendations for further work**

The results of the geophysical survey and trial trenching have indicated that the proposed route of the bypass traverses a variety of significant archaeological remains. Consequently, it seems likely that further archaeological intervention will be necessary if the construction of the road is approved. With this in mind, it is suggested that additional useful data could be obtained from micro-topographical surveys of Field E, Field F and Field G2. The grange mound and a number of the barrows located in Field E are still visible earthworks. Similarly, there is significant topographical variation across the surface of Field F, with the areas of higher ground corresponding to the densest concentrations of artefactual material. The ring gully identified in Field G2 appeared to be situated on a terrace running from east to west. A determination of the exact relationship between these features could provide further insight into the form of the late prehistoric or Romano-British field system that was identified on this hillside.

The results of the resistivity survey demonstrated that this technique could clearly identify the location of barrows situated on the floodplain of the River Witham. It would therefore be beneficial to survey the remainder of Field E in order to establish the exact location of any further funerary monuments.

It should also be noted that each of the specialist researchers have made their own recommendations regarding future analysis of artefactual and palaeo-environmental remains (see appendices).

## **9.0 Effectiveness of methodology**

Many of the trenches opened along this section of the proposed route of the Lincoln Eastern Bypass contained stratified archaeological deposits. In general, these had a strong morphological and spatial correlation with the anomalies detected by the gradiometer and resistivity surveys. Consequently, it is concluded that the geophysical survey provides a relatively accurate representation of the density, distribution and configuration of the archaeological features. Features such as the row of waterlogged timbers examined in Trench 143 were not detected because they have no magnetic signature and have a similar porosity as the deposits into which they were inserted.

The recovery of substantial amounts of artefactual material, combined with the morphological attributes of many of the features examined, indicates that the area to the east of Lincoln was utilised over a long period of time. The location, form and chronological affinities of the various kinds of deposits investigated provide a basis for anticipating the nature of any further archaeological features and horizons that may be encountered during the course of the proposed development. It is therefore proposed that the trial trenching satisfied its primary purpose by determining the nature, date, extent and level of preservation of archaeological deposits that are traversed by the proposed route of Lincoln Eastern Bypass.

Notwithstanding these results, it should be noted that a problem arose from the use of narrow trial trenches on the floor of the Witham Valley. The height of the water table appeared to fluctuate significantly while fieldwork was being conducted in Field E. As a result, it proved impossible to adequately examine areas of Trenches 33, 34 and 35. This was particularly apparent when attempts were made to excavate features in Trench 34, as all sedimentary deposits situated below the water table transformed into running sand immediately after any portion had been removed. This was a result of the low structural coherence of the leached sands that were situated beneath the peat horizons, combined with the weight of the topsoil and adjacent spoil heaps. The liquefaction of these deposits resulted in the collapse of the sections, which prevented further digging. In order to adequately investigate any features in this area it would be necessary to open a relatively large area, both to see the features in plan and to significantly reduce the force exerted by deposits higher up the stratigraphic sequence.

## **10.0 Site archive**

The site archive for this project is in preparation and will be deposited at the Lincoln City and County Museum (physical) and the Lincolnshire Archives Office (documentary) within six months of the completion of the trial trenching. Access to the archive may be granted by quoting the global accession number 2003.241.

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**REPORT ON A PROGRAMME OF  
ARCHAEOLOGICAL TRIAL TRENCHING  
LINCOLN EASTERN BYPASS,  
LINCOLNSHIRE.**

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**PART II: ILLUSTRATIONS**

Report prepared for Babtie Group,  
on behalf of Lincolnshire County Council

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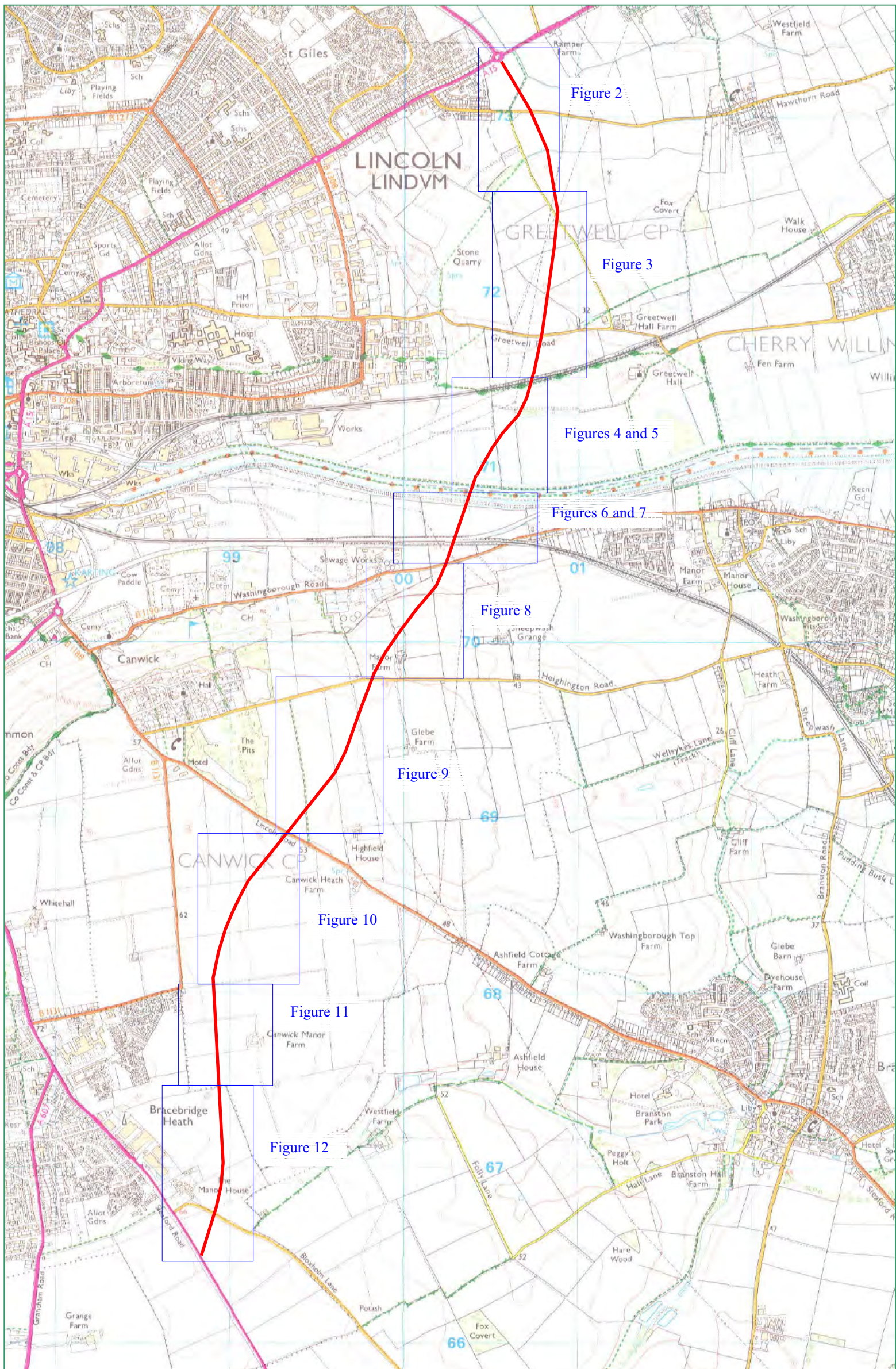
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- Fig. 26 Trench 11 plan and section (scales 1:50 and 1:20).
- Fig. 27 Trench 12 representative section (scale 1:20).
- Fig. 28 Trench 13 representative section (scale 1:20).
- Fig. 29 Trench 14 representative section (scale 1:20).
- Fig. 30 Trench 15 plan and sections (scales 1:50 and 1:20).
- Fig. 31 Trench 16 plan and sections (scales 1:50 and 1:20).
- Fig. 32 Trench 17 plan and section (scale 1:50).
- Fig. 33 Trench 18 plan and sections (scales 1:50 and 1:20).
- Fig. 34 Trench 19 plan and section (scales 1:50 and 1:20).
- Fig. 35 Trench 20 plan and section (scale 1:50 and 1:20).
- Fig. 36 Trench 21 plan and sections. Main plan at 1:100 with close ups at 1:50, sections at 1:20.
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- Fig. 38 Trench 23 plan and section (scales 1:50 and 1:20).
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- Fig. 40 Trench 24 plan and sections (scales 1:50 and 1:20).
- Fig. 41 Trench 25 representative section (scale 1:20).
- Fig. 42 Trench 26 plan and sections (scales 1:50 and 1:20).
- Fig. 43 Trench 27 plan and sections (plan at a scale of 1:100, sections at 1:20).
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- Fig. 45 Trench 29 plan and section (plan at a scale of 1:50, section at 1:20).
- Fig. 46 Trench 30 plan and sections (plan at a scale of 1:50, sections at 1:20).
- Fig. 47 Trench 31 plan and sections (plan at a scale of 1:50, sections at 1:20).
- Fig. 48 Trench 32 representative section (scale 1:20).
- Fig. 49 Trench 137 representative section (scale 1:20).
- Fig. 50 Trench 138 plan and section (plan at a scale of 1:50, section at 1:20).
- Fig. 51 Trench 139 plan and sections (scales 1:20 and 1:50).
- Fig. 52 Trench 140 plan and representative section (plan at a scale of 1:50, section at 1:20).
- Fig. 53 Trench 141 plan and representative section (scales 1:50 and 1:20).
- Fig. 54 Trench 142 representative section (scale 1:20).
- Fig. 55 Trench 143 plan and sections (plan at a scale of 1:50, sections at 1:20).
- Fig. 56 Trench 144 plan and section (scale 1:50).
- Fig. 57 Trench 145 representative sections (scale 1:20).
- Fig. 58 Trench 146 plan and representative section (scales 1:50 and 1:20).
- Fig. 59 Trench 147 plan and representative sections (scales 1:50 and 1:20).
- Fig. 60 Trench 148 representative section (scale 1:20).
- Fig. 61 Trench 149 plan and section (plan at a scale of 1:50, section at 1:20).
- Fig. 62 Trench 150 representative section (scale 1:20).
- Fig. 63 Trench 151 plan and sections (scales 1:50, and 1:20).
- Fig. 64 Trench 152 plan and section (scales 1:50 and 1:20).
- Fig. 65 Trench 153 representative section (scale 1:20).
- Fig. 66 Trench 33 plan and representative section (scales 1:50 and 1:20).
- Fig. 67 Trench 34 plan (scale 1:50).
- Fig. 68 Trench 34 sections. See fig. 67 for location (scales 1:20).
- Fig. 69 Trench 35 plan and sections. Plan is at 1:200 with enlarged portion at 1:50. Sections at 1:20.
- Fig. 70 Trench 36 plan and sections (scales 1:50 and 1:20).
- Fig. 71 Trench 37 plan and sections (scales 1:50 and 1:20).
- Fig. 72 Trench 38 plan (scale 1:50).
- Fig. 73 Trench 38 sections (scale 1:20).
- Fig. 74 Trench 39 plan and section (plan at a scale of 1:50, section at 1:10).
- Fig. 75 Trench 40 plans and section (main plan scale 1:50, enlargement and section at 1:20).
- Fig. 76 Trench 41 plan and section (scales 1:50 and 1:20).
- Fig. 77 Trench 42 plan. Sections A-B, C-D, E-F are shown in fig. 78 (scales 1:50 and 1:20).
- Fig. 78 Trench 42 section drawings (location shown on fig. 77) (scale 1:20).
- Fig. 79 Trench 43 sample section (scale 1:20).
- Fig. 80 Trench 44 plan and section (scales 1:50 and 1:20).
- Fig. 81 Trench 44 sections (scale 1:20).
- Fig. 82 Trench 45 representative section (scale 1:20).
- Fig. 83 Trench 46 plan and section (scales 1:50 and 1:20).
- Fig. 84 Trench 47 sample section (scale 1:20).
- Fig. 85 Trench 48 plan and section (scales 1:50 and 1:20).
- Fig. 86 Trench 49 plan and representative section (scales 1:50 and 1:20).
- Fig. 87 Trench 50 representative section (scale 1:20).
- Fig. 88 Trench 51 plan and section (scales 1:50 and 1:20).
- Fig. 89 Trench 52 plan and section (scales 1:50 and 1:20).

Fig. 90 Trench 53 plan and sections (scales 1:50 and 1:20).  
Fig. 91 Trench 54 representative section. South southwest facing (scale 1:20).  
Fig. 92 Trench 55 plan and sections (scales 1:50 and 1:20).  
Fig. 93 Trench 56 plan and section (scales 1:50 and 1:20).  
Fig. 94 Trench 57 representative section (scale 1:20).  
Fig. 95 Trench 58 representative section (scale 1:20).  
Fig. 96 Trench 59 plan and section (scales 1:50 and 1:20).  
Fig. 97 Trench 60 plan and section (scales 1:50 and 1:20).  
Fig. 98 Trench 61 plan and section (scales 1:50 and 1:20).  
Fig. 99 Trench 62 plan and section (scales 1:50 and 1:20).  
Fig. 100 Trench 63 representative section (scale 1:20).  
Fig. 101 Trench 64 plan and sections (scales 1:50 and 1:20).  
Fig. 102 Trench 65 representative section (scale 1:20).  
Fig. 103 Trench 66 representative section (scale 1:20).  
Fig. 104 Trench 67 representative section (scale 1:20).  
Fig. 105 Trench 68 representative section (scale 1:20).  
Fig. 106 Trench 69 representative sections (scale 1:20).  
Fig. 107 Trench 70 plan and section (scale 1:50).  
Fig. 108 Trench 71 representative section (scale 1:20).  
Fig. 109 Trench 72 plan and section (scales 1:50 and 1:20).  
Fig. 110 Trench 73 representative section (scale 1:20).  
Fig. 111 Trench 74 representative section (scale 1:20).  
Fig. 112 Trench 75 representative section (scale 1:20).  
Fig. 113 Trench 76 representative section (scale 1:20).  
Fig. 114 Trench 77 plan and sections (scales 1:50 and 1:20).  
Fig. 115 Trench 78 plan and section (scales 1:50 and 1:20).  
Fig. 116 Trench 79 plan and sections (scales 1:50 and 1:20).  
Fig. 117 Trench 80 representative section (scale 1:20).  
Fig. 118 Trench 81 representative sections (scale 1:20).  
Fig. 119 Trench 82 representative section (scale 1:20).  
Fig. 120 Trench 83 representative section (scale 1:20).  
Fig. 121 Trench 84 representative section (scale 1:20).  
Fig. 122 Trench 85 representative section (scale 1:20).  
Fig. 123 Trench 86, north end, showing pit [2055] in plan and section (scales 1:50 and 1:20).  
Fig. 124 Trench 87 plan and section (scales 1:50 and 1:20).  
Fig. 125 Trench 88 plan and section (scales 1:50 and 1:20).  
Fig. 126 Trench 89 representative section (scale 1:20).  
Fig. 127 Trench 90 representative section (scale 1:20).  
Fig. 128 Trench 91 representative section (scale 1:20).  
Fig. 129 Trench 92 plan and sections (scales 1:50 and 1:20).  
Fig. 130 Trench 93 representative section (scale 1:20).  
Fig. 131 Trench 94 representative section (scale 1:20).  
Fig. 132 Trench 95 plan (scale 1:50).  
Fig. 133 Trench 95 sections (scale 1:20).  
Fig. 134 Trench 96 plan and sections (scales 1:50 and 1:20).  
Fig. 135 Trench 97 representative section (scale 1:20).  
Fig. 136 Trench 98 representative section (scale 1:20).  
Fig. 137 Trench 99 representative section (scale 1:20).  
Fig. 138 Trench 100 representative section (scale 1:20).  
Fig. 139 Trench 101 representative section (scale 1:20).  
Fig. 140 Trench 102 representative section (scale 1:20).  
Fig. 141 Trench 103 plan and section (scales 1:50 and 1:20).  
Fig. 142 Trench 104 plan and section (scales 1:50 and 1:20).  
Fig. 143 Trench 105 representative section (scale 1:20).  
Fig. 144 Trench 106 representative section (scale 1:20).

- Fig. 145 Trench 107 representative section (scale 1:20).
- Fig. 146 Trench 108 representative section (scale 1:20).
- Fig. 147 Trench 109 representative section (scale 1:20).
- Fig. 148 Trench 110 representative section (scale 1:20).
- Fig. 149 Trench 111 representative section (scale 1:20).
- Fig. 150 Trench 112 representative section (scale 1:20).
- Fig. 151 Trench 113 representative section (scale 1:20).
- Fig. 152 Trench 114 representative section (scale 1:20).
- Fig. 153 Trench 115 plan and section (scale 1:50).
- Fig. 154 Extract from the Ordnance Survey First Edition 6": 1 mile (1: 10,560) map of 1889-90 (survey conducted 1885); reproduced at c. 1: 9,000.
- Fig. 155 Trench 116 representative section (scale 1:20).
- Fig. 156 Trench 117 representative section (scale 1:20).
- Fig. 157 Trench 118 plan and section (scale 1:50).
- Fig. 158 Trench 119 representative section (scale 1:20).
- Fig. 159 Trench 120 sample section (scale 1:20).
- Fig. 160 Trench 121 representative section (scale 1:20).
- Fig. 161 Trench 122 sample section (scale 1:20).
- Fig. 162 Trench 123 sample section (scale 1:20).
- Fig. 163 Trench 124 sample section (scale 1:20).
- Fig. 164 Trench 125 sample section (scale 1:20).
- Fig. 165 Trench 126 representative section (scale 1:20).
- Fig. 166 Trench 127 plan and section (scales 1:50 and 1:20).
- Fig. 167 Trench 128 plan and section (scales 1:50 and 1:20).
- Fig. 168 Trench 129 representative section (scale 1:20).
- Fig. 169 Trench 130 plan and sections (scales 1:50 and 1:20).
- Fig. 170 Trench 131 plan and section (scale 1:50).
- Fig. 171 Trench 132 representative section (scale 1:20).
- Fig. 172 Trench 133 plan and sections (scale 1:50 and 1:20).
- Fig. 173 Trench 134 representative section (scale 1:20).
- Fig. 174 Trench 135 plan and sections (scales 1:50 and 1:20).
- Fig. 175 Trench 136 representative section (scale 1:20).
- Fig. 176 Extract from the Ordnance Survey First Edition 6": 1 mile (1: 10,560) map, sheet LXXI.NE, of 1889-90 (survey conducted 1885); reproduced at c. 1: 7,500.
- Fig. 177 Aerial photograph showing Field E to Field I6, with the known alignment of the large linear boundaries indicated by solid red lines and other possible components depicted by dashed red lines.



**Figure 1:** Location of proposed route (in red) with detailed trench location figures highlighted in blue (scale 1:25,000) (O.S. Copyright License No. A1 515 21 A0001)



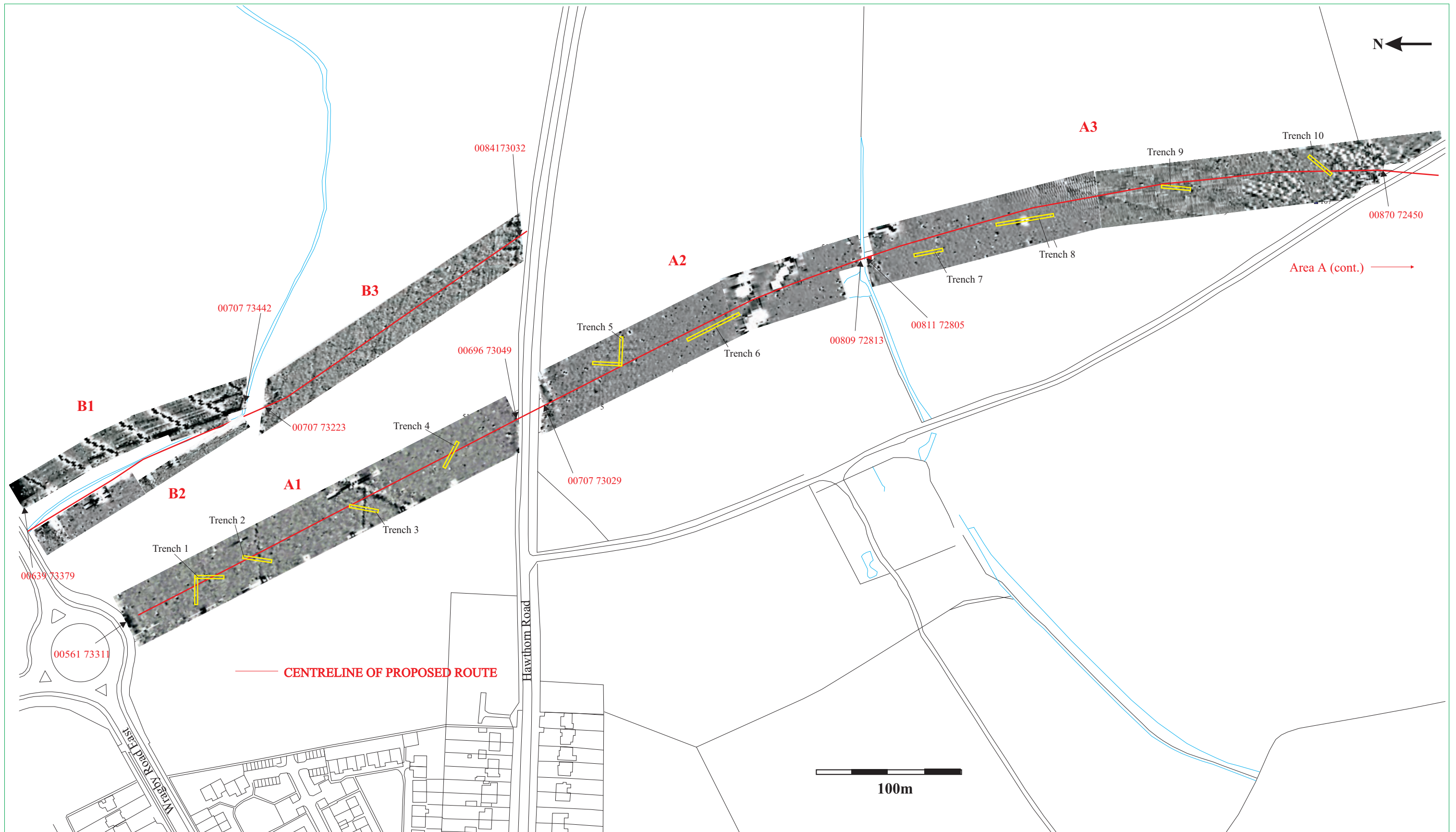


Figure 2: Location of Trenches 01 - 10 superimposed over detailed gradiometer survey results at scale 1:2500

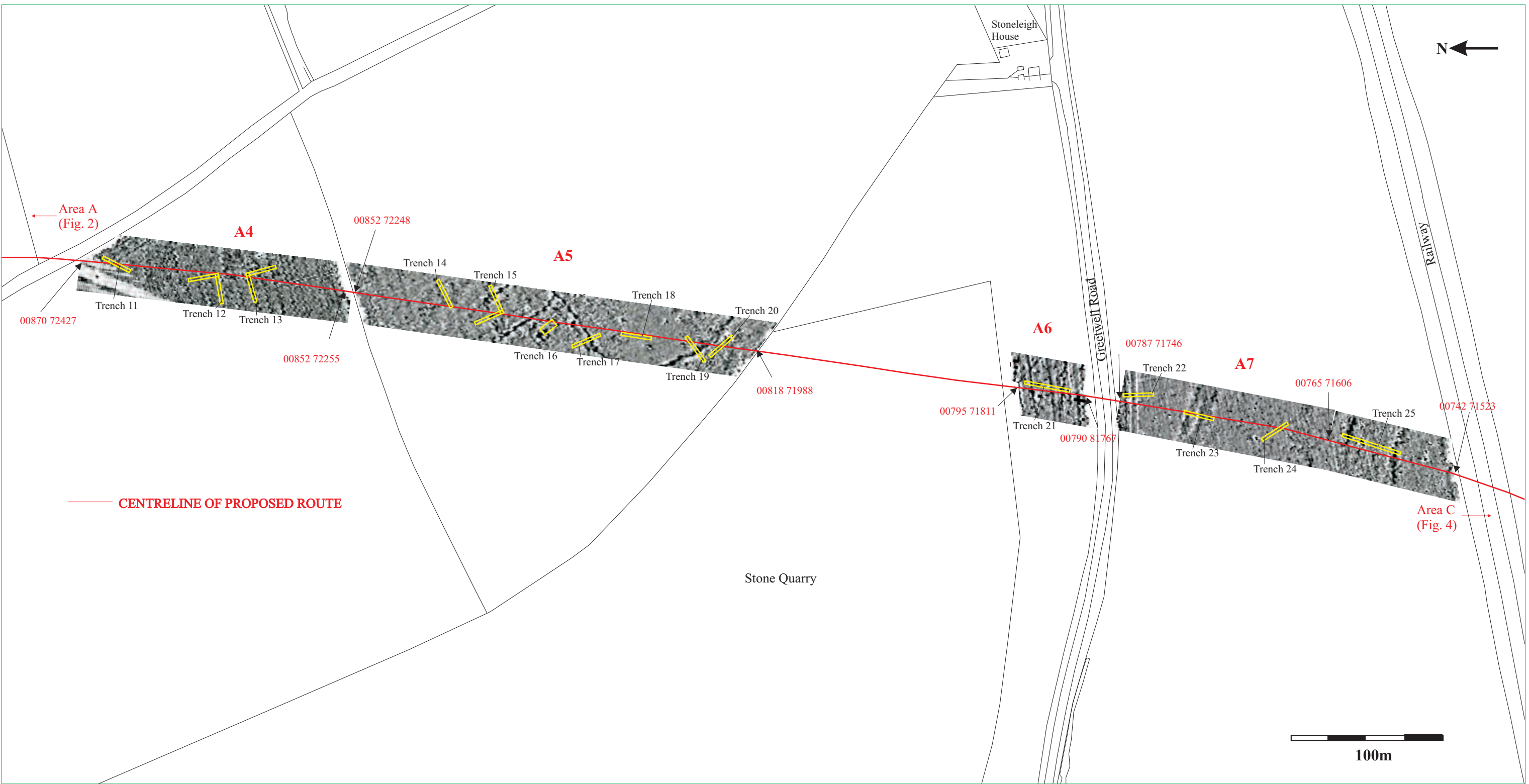


Figure 3: Location of Trenches 11 - 25 superimposed over detailed gradiometer survey results at scale 1:2500

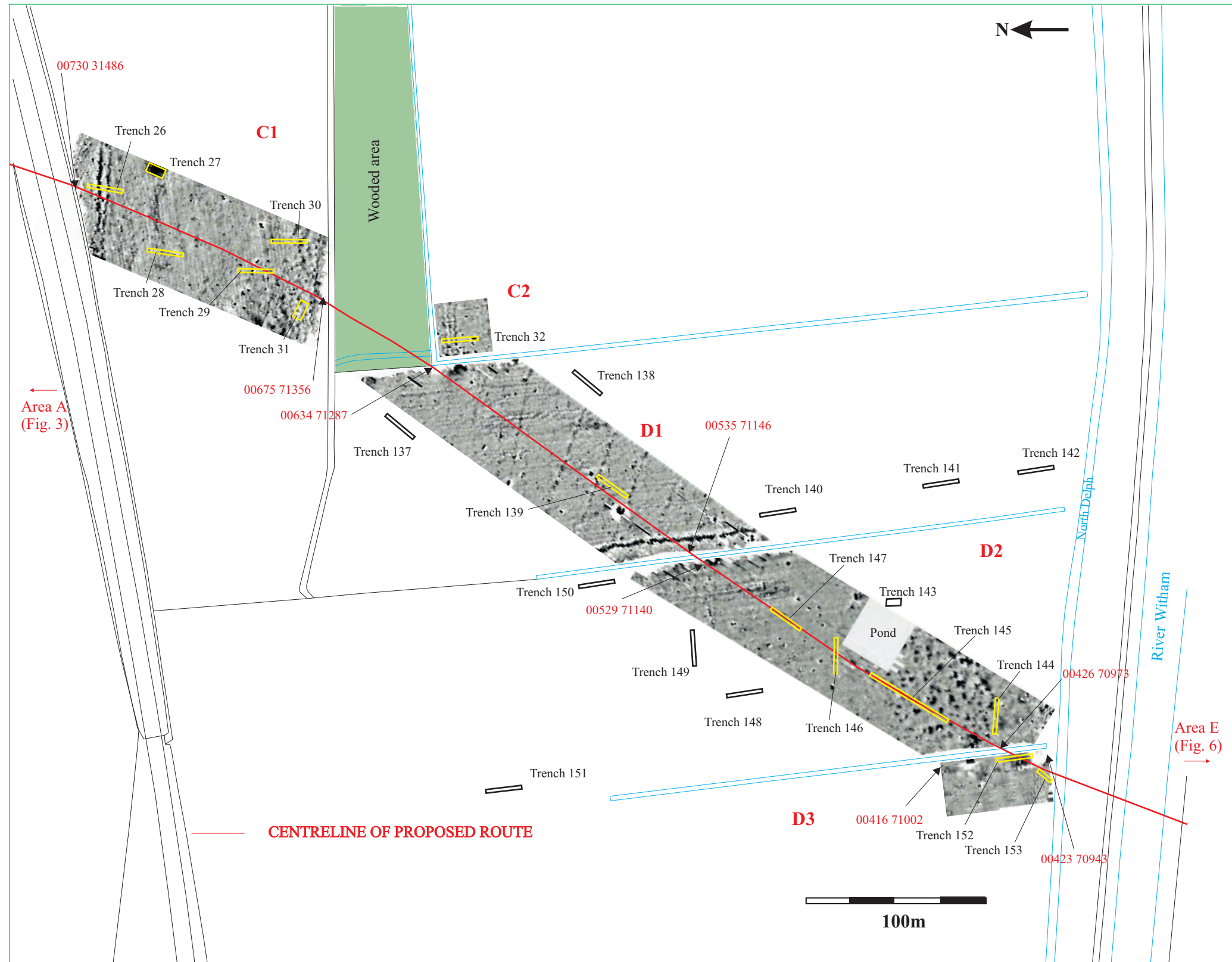


Figure 4: Location of Trenches 26 - 32 and 137 - 153 superimposed over detailed gradiometer survey results at scale 1:2500

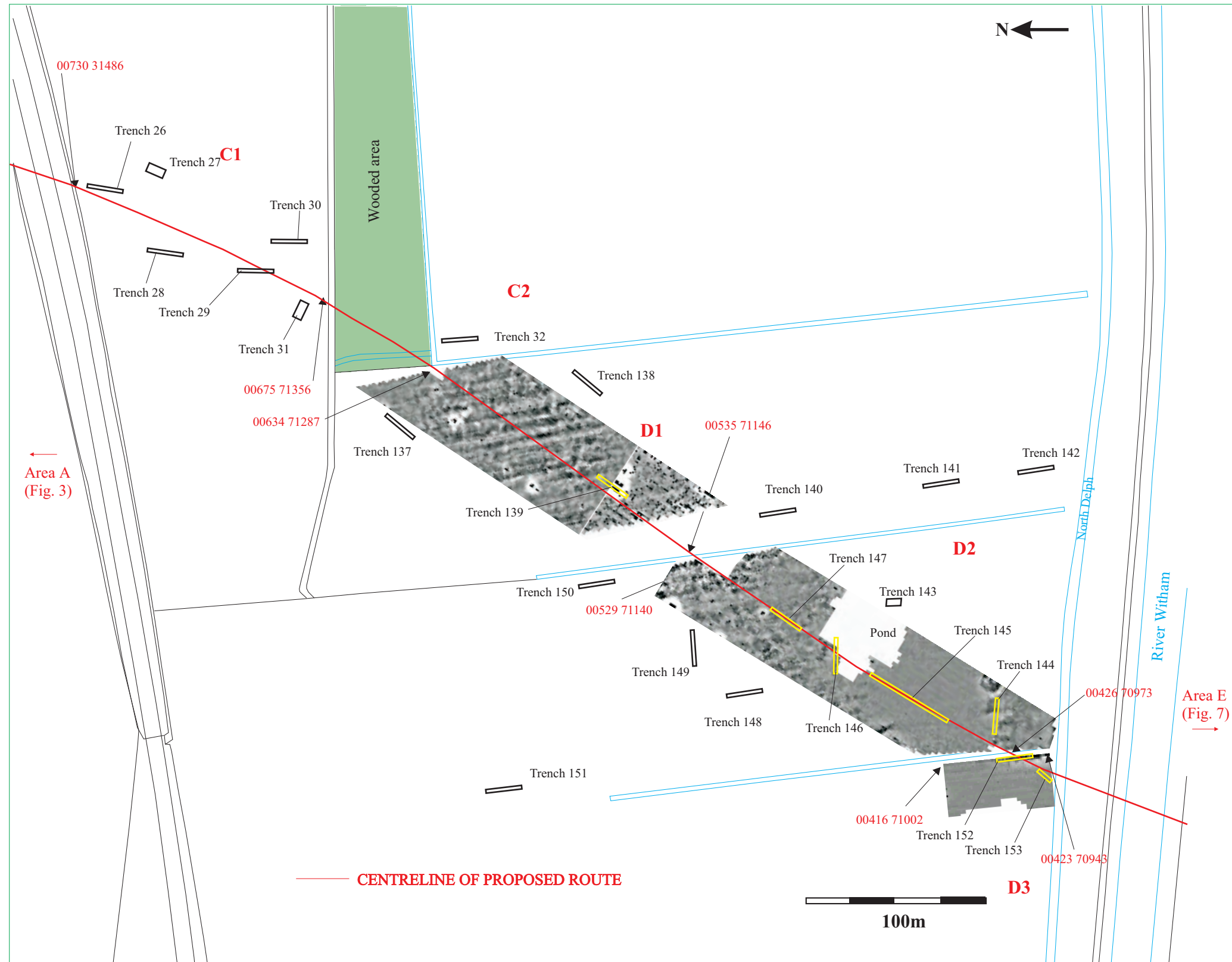


Figure 5: Location of Trenches 26 - 32 and 137 - 153 superimposed over resistivity survey results at scale 1:2500

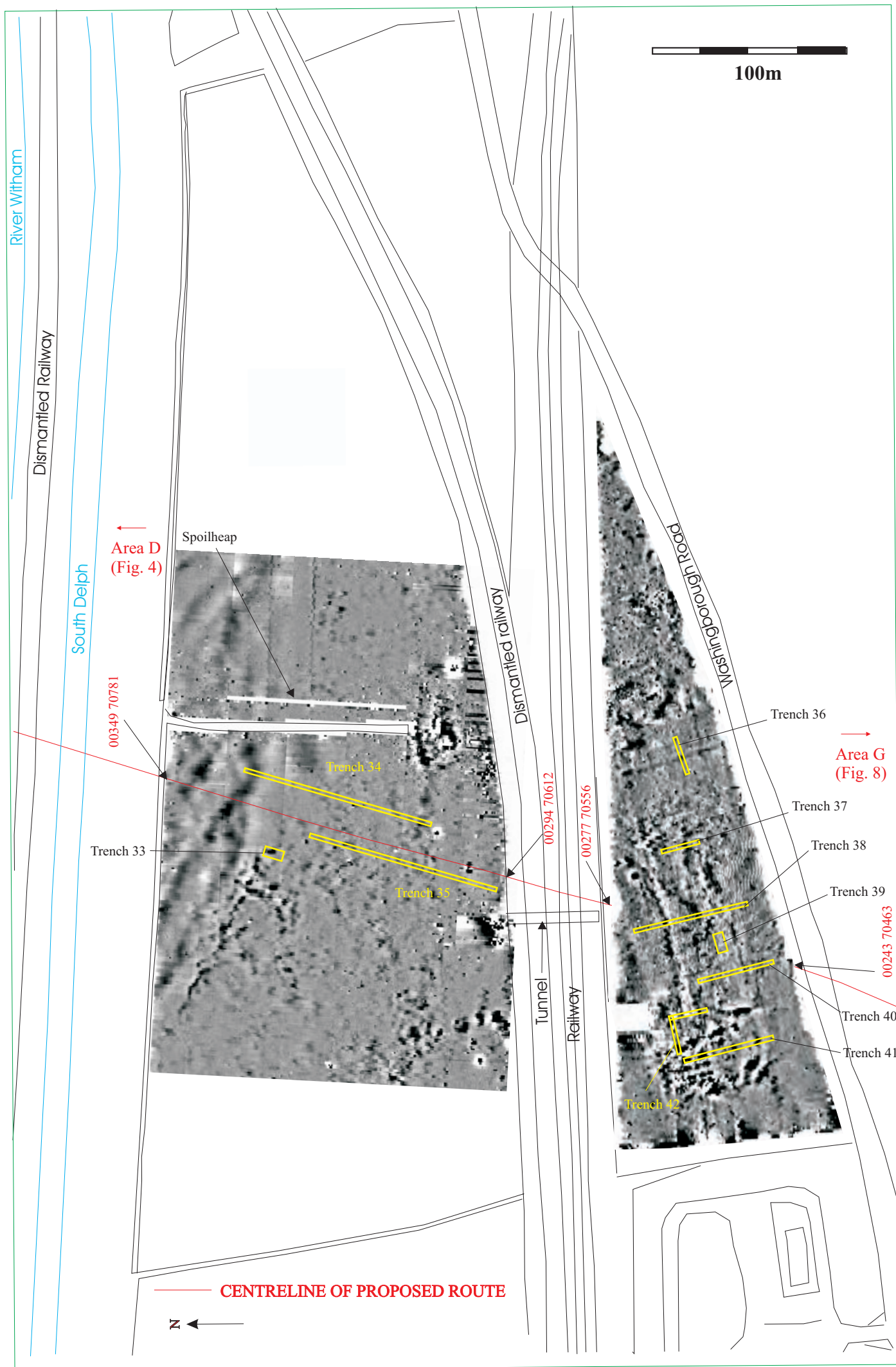


Figure 6: Location of Trenches 33 - 42 superimposed over detailed gradiometer survey results at scale 1:2500

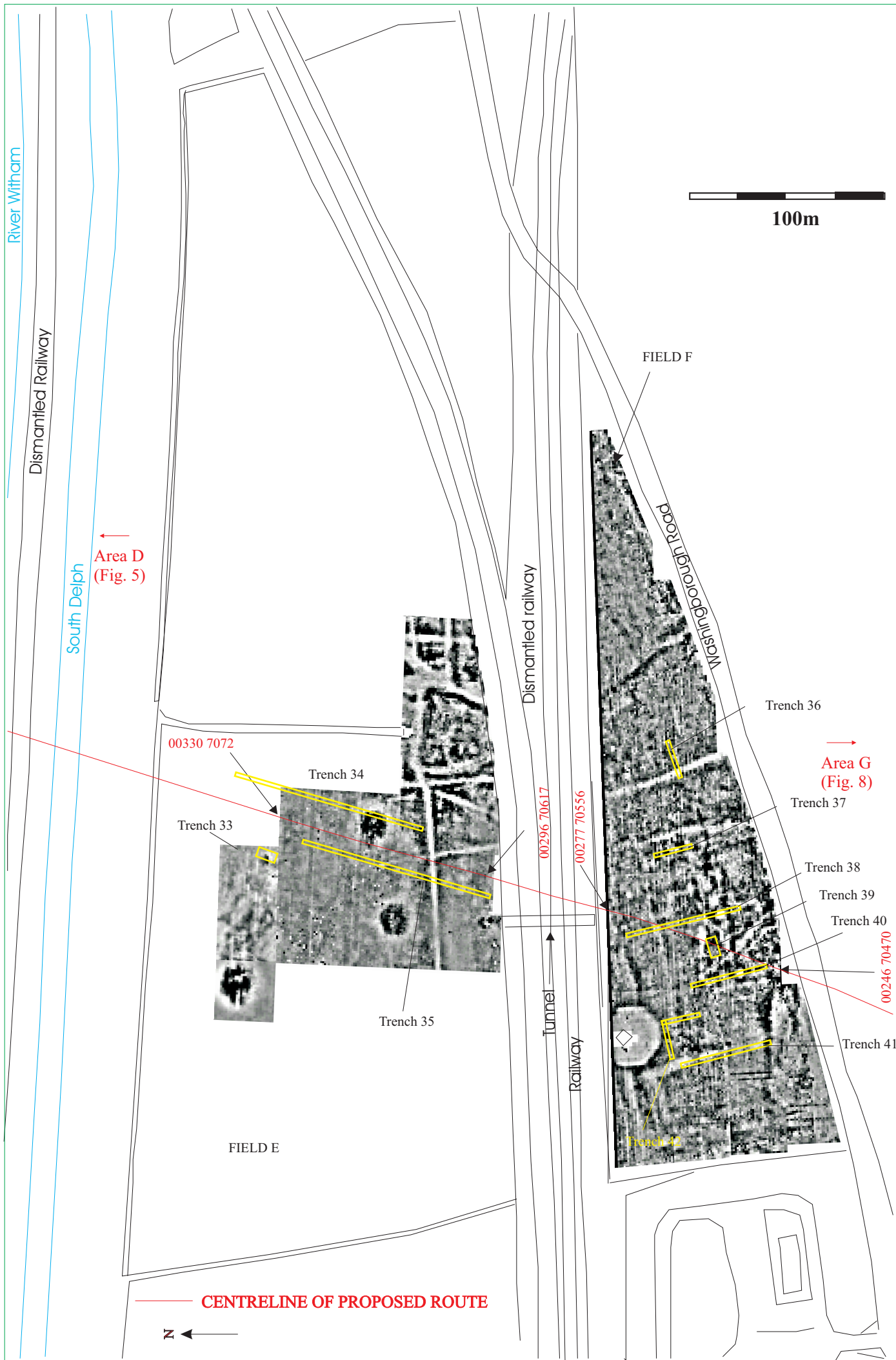


Figure 7: Location of Trenches 33 - 42 superimposed over resistivity survey results at scale 1:2500



Figure 8: Location of Trenches 43 - 68 superimposed over detailed gradiometer survey results at scale 1:2500

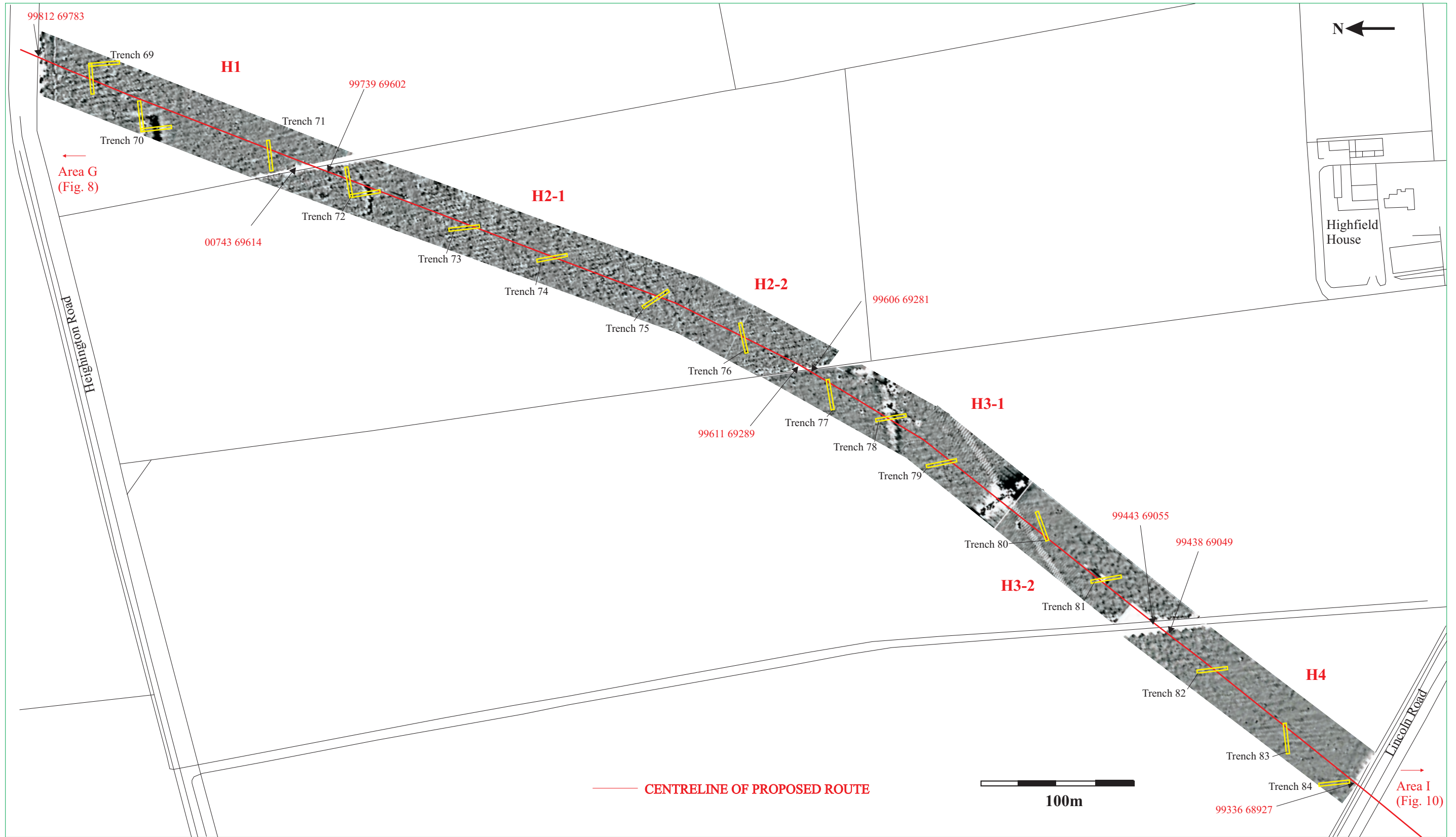


Figure 9: Location of Trenches 69 - 84 superimposed over detailed gradiometer survey results at scale 1:2500



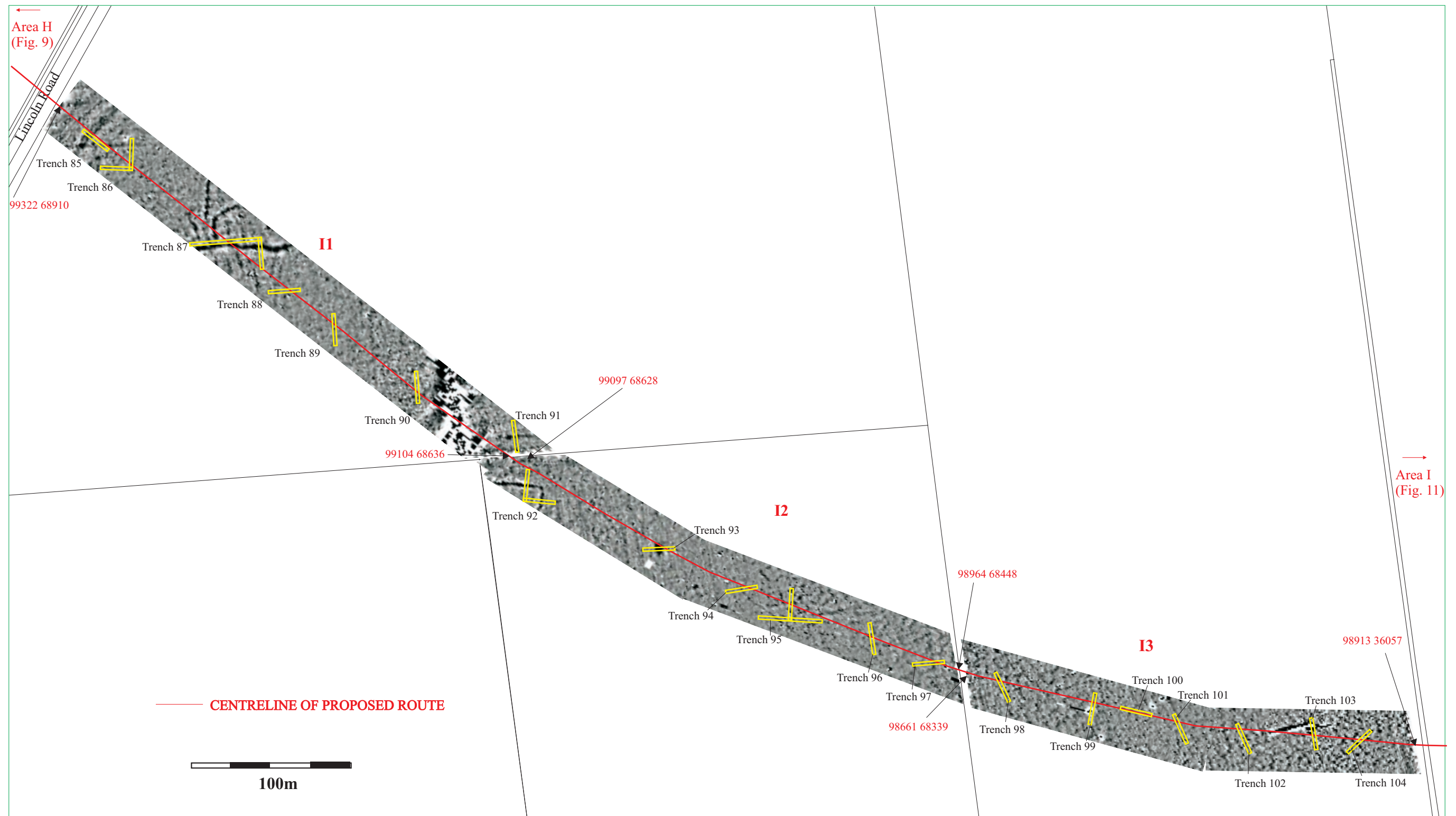


Figure 10: Location of Trenches 85 - 104 superimposed over detailed gradiometer survey results at scale 1:2500



Figure 11: Location of Trenches 105 - 117 superimposed over detailed gradiometer survey results at scale 1:2500

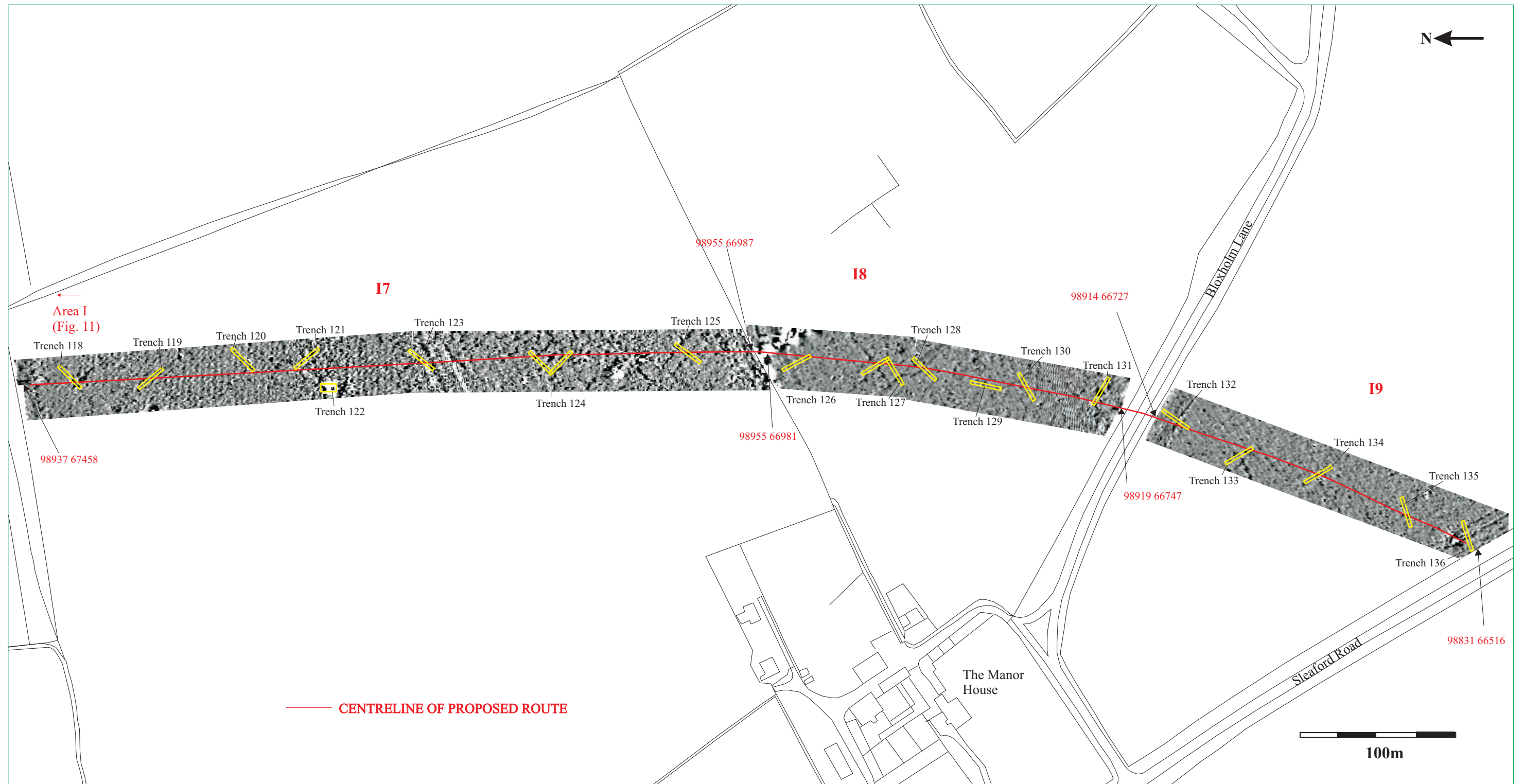
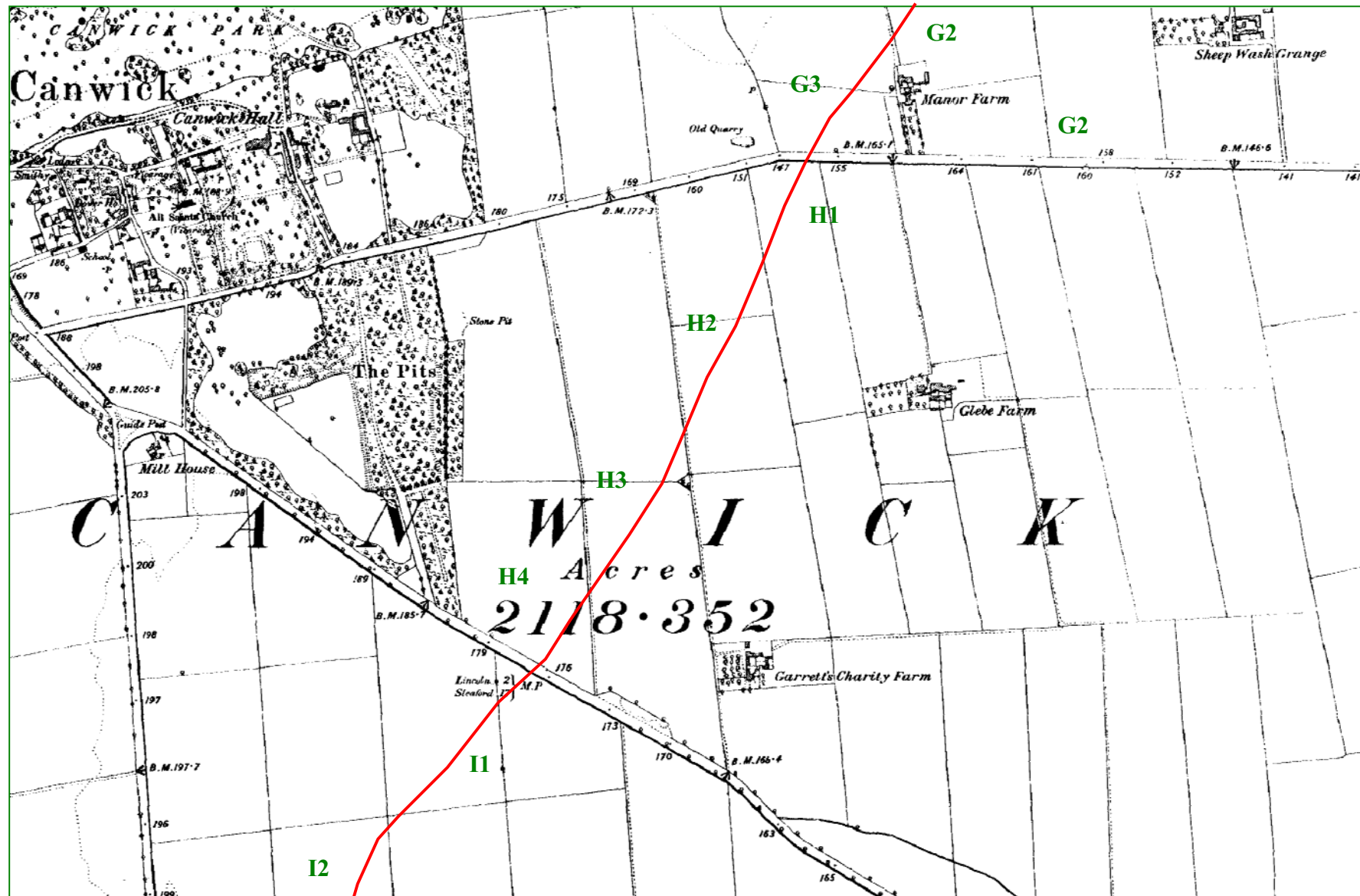
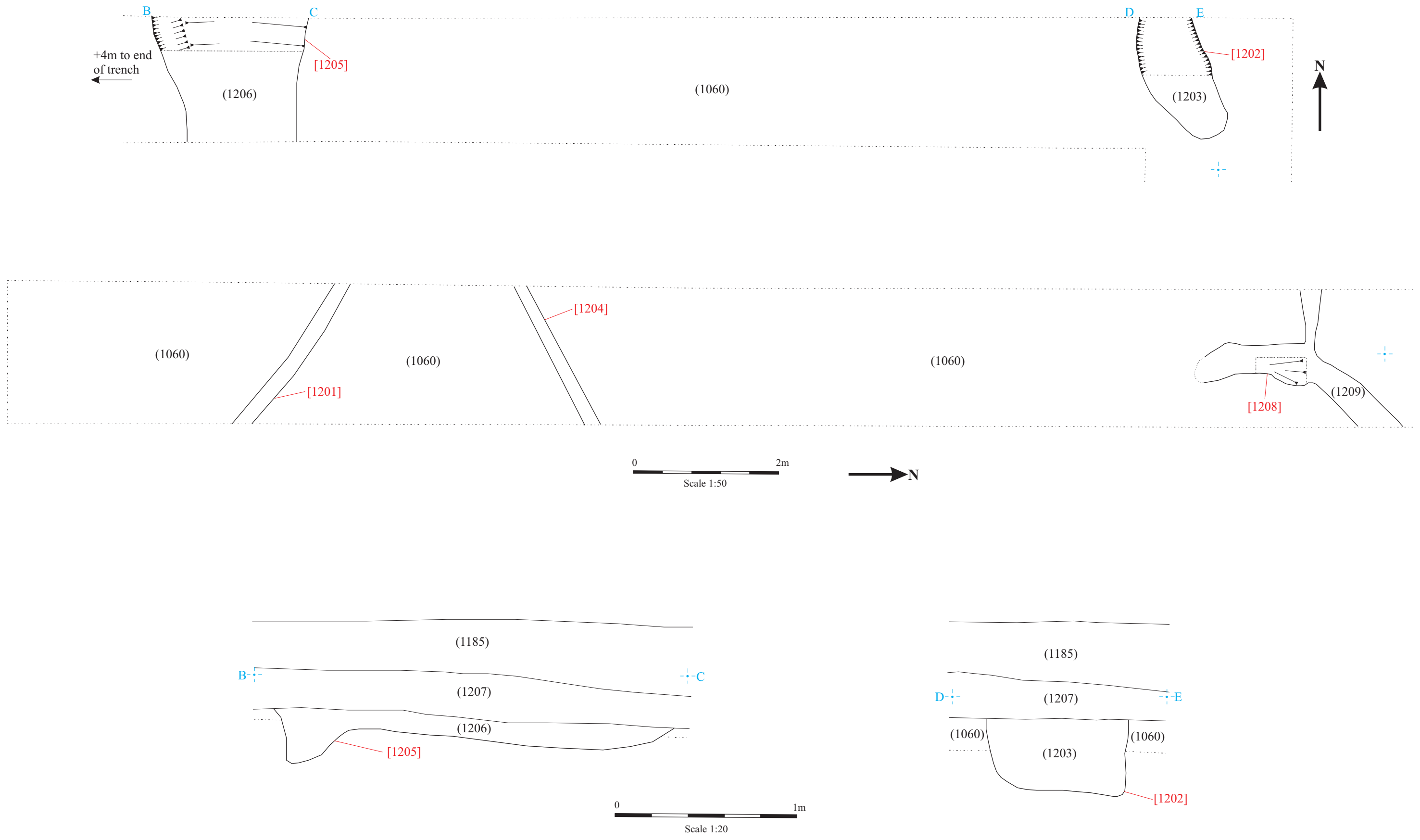


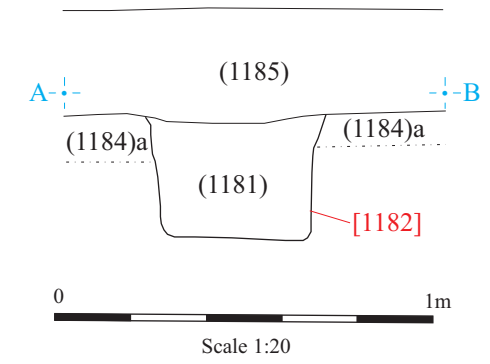
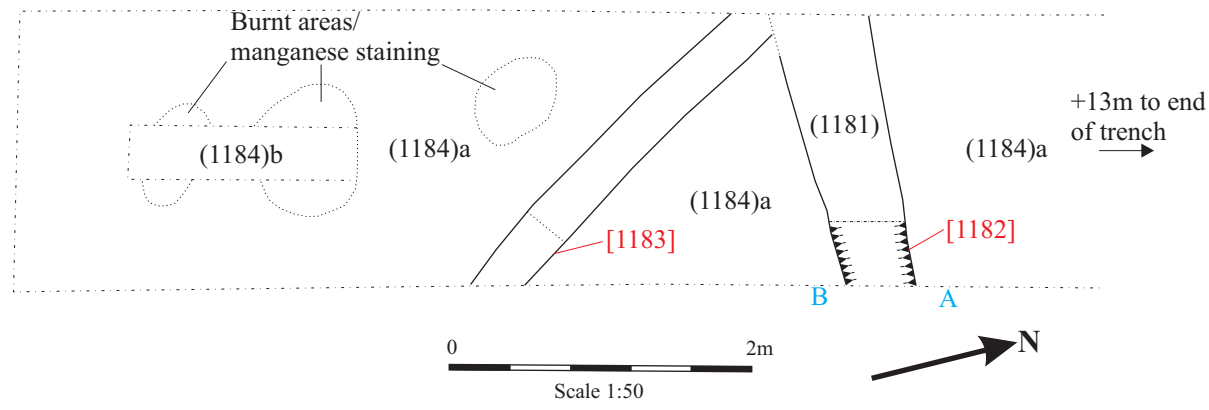
Figure 12: Location of Trenches 118-136 superimposed over detailed gradiometer survey results at scale 1:2500



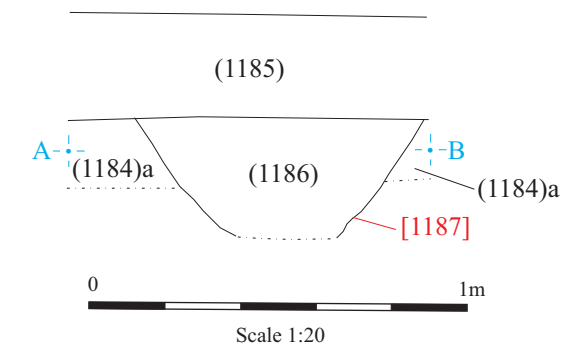
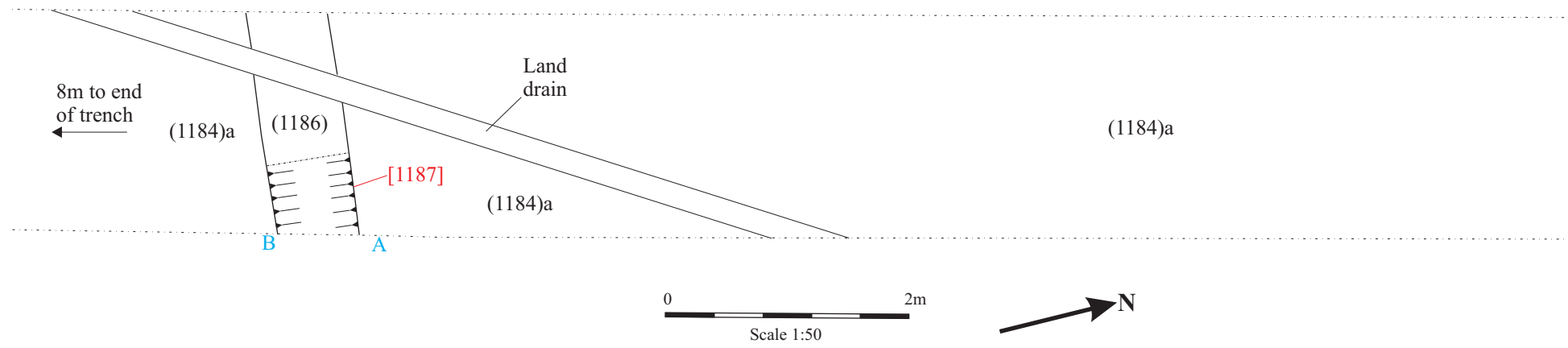
**Figure 13:** Extract from the Ordnance Survey First Edition 6": 1 mile (1: 10,560) map, sheet LXXI.NE, of 1889-90 (survey conducted 1885); reproduced at c. 1: 10,000. The red line indicates the proposed route of the bypass and the green alphanumeric codes identify the fields examined during the trial trenching.



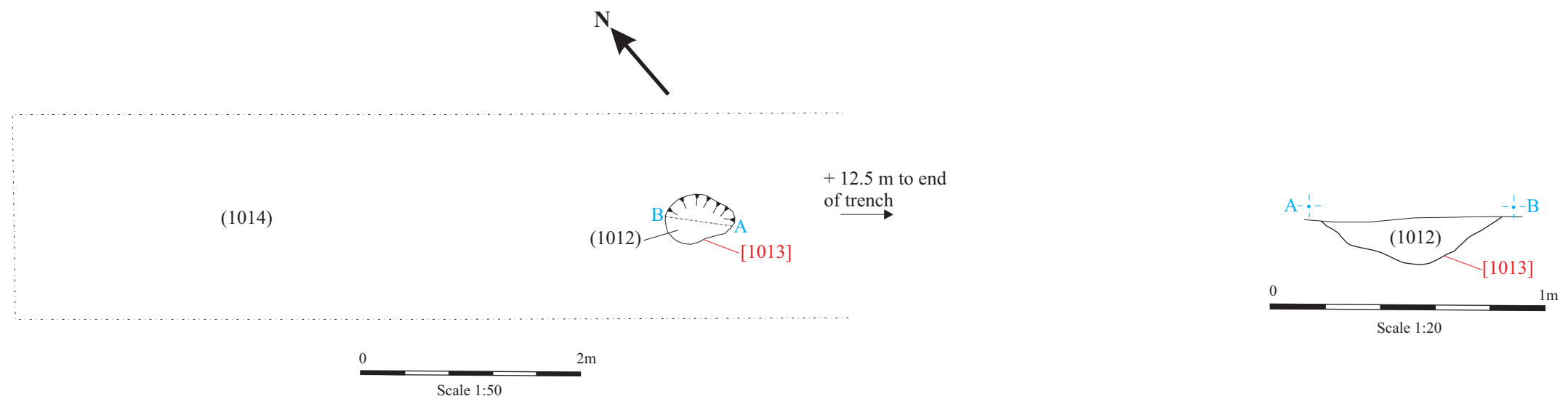
**Fig. 14:** Trench 1 plan and sections (scales 1:50 and 1:20)



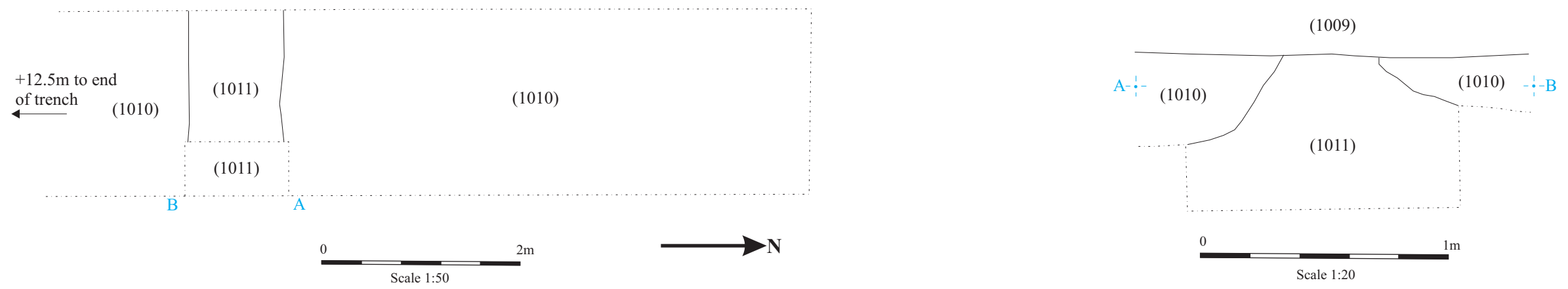
**Fig. 15:** Trench 2 plan and section (scales 1:50 and 1:20)



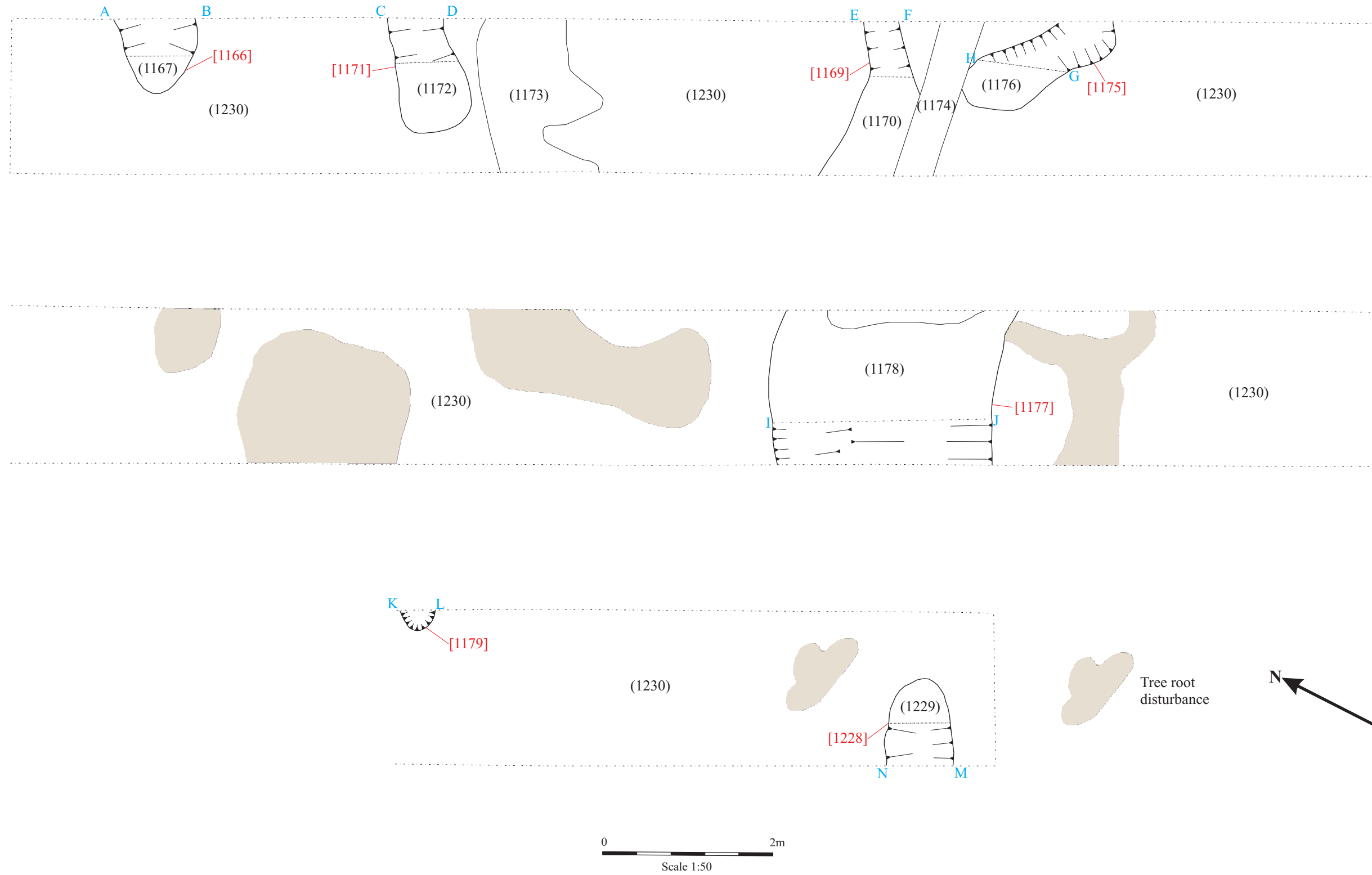
**Fig. 16:** Trench 3 plan and section (scales 1:50 and 1:20)



**Fig. 17:** Trench 4 plan and section (scales 1:50 and 1:20)

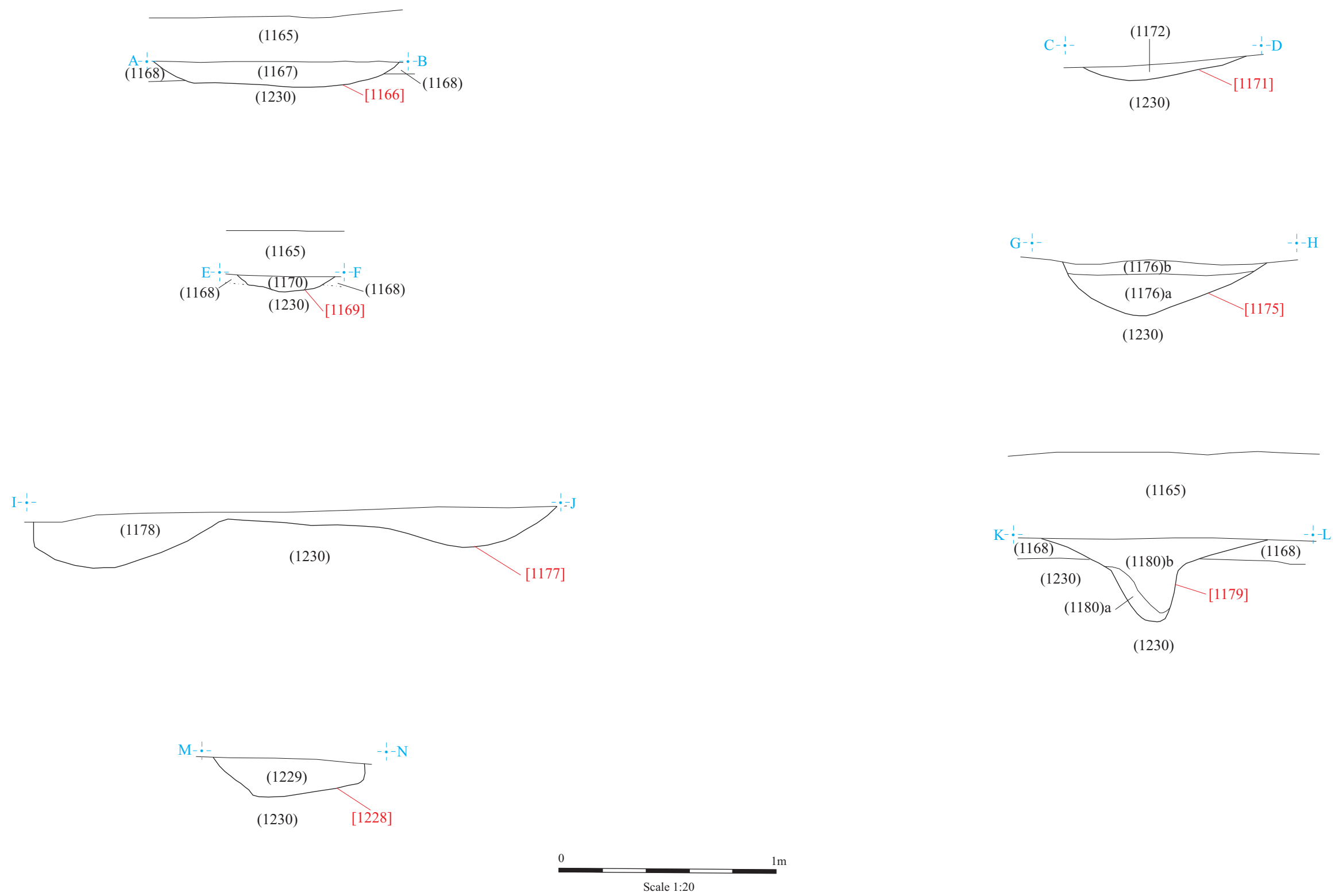


**Fig. 18:** Trench 5 plan and section (scales 1:50 and 1:20)

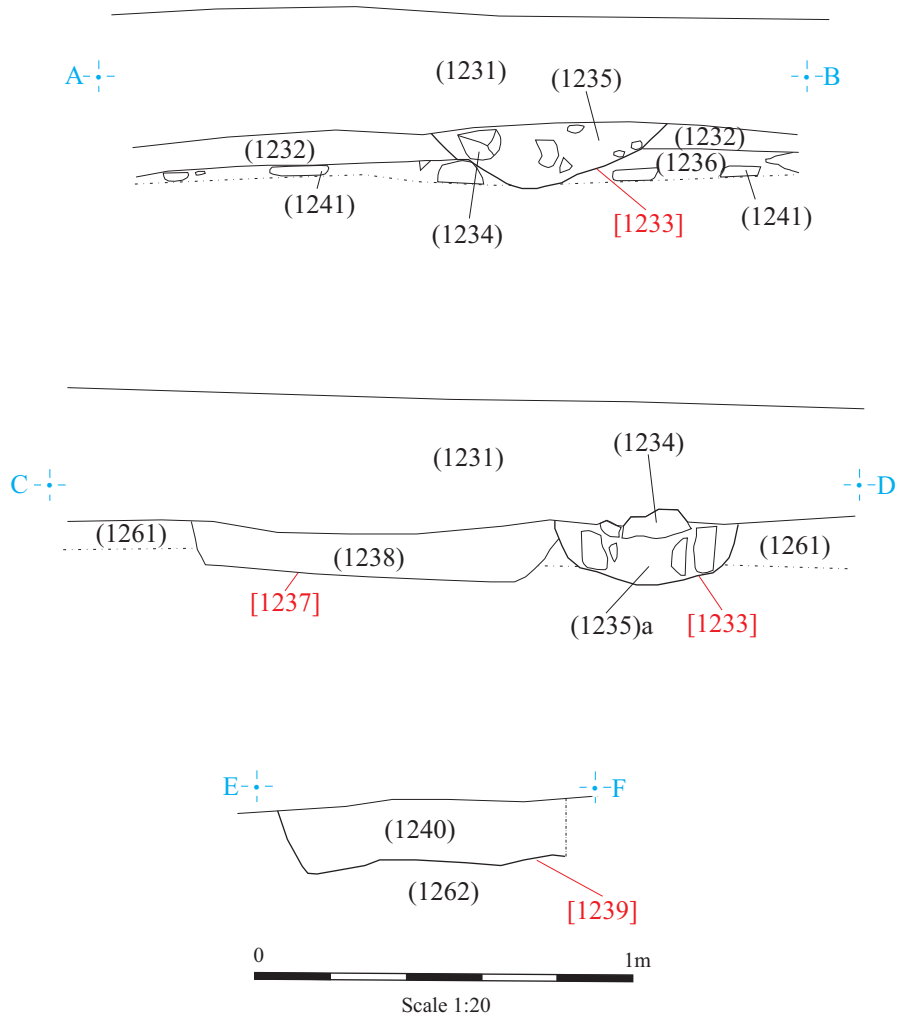
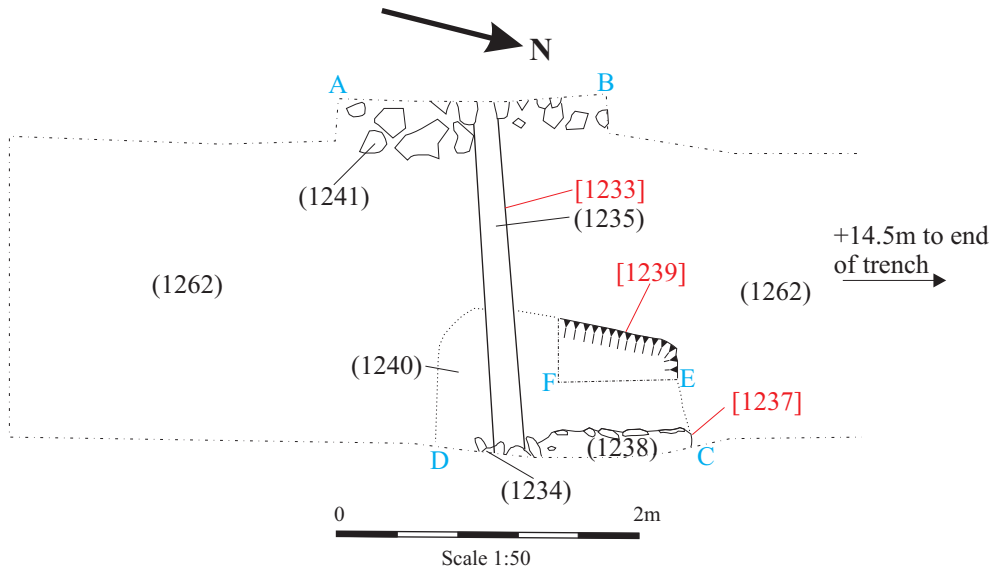


**Fig. 19:** Trench 6 plan (scale 1:50)

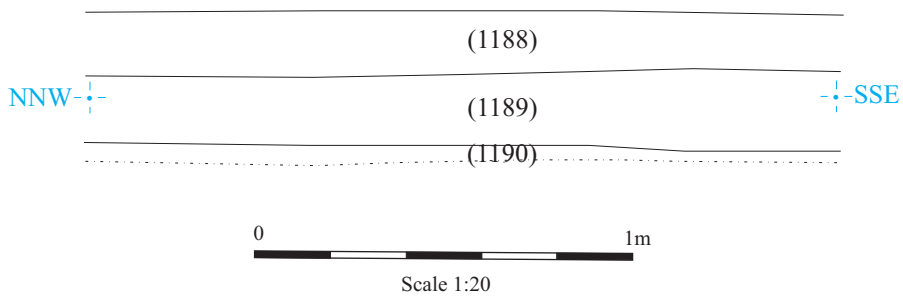




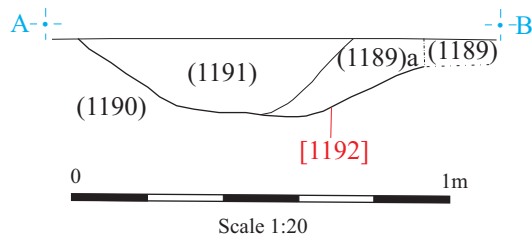
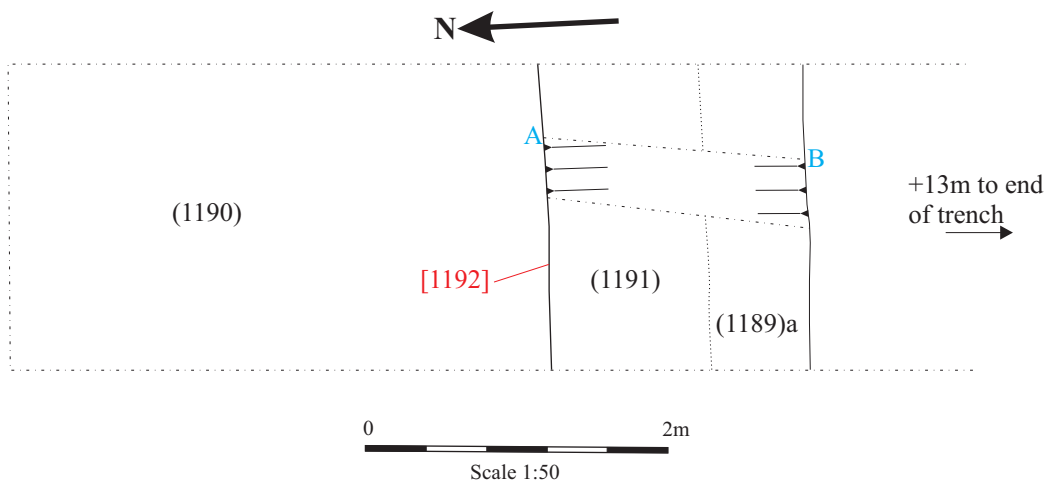
**Fig. 20:** Trench 6 sections (located on fig .19) (scale 1:20)



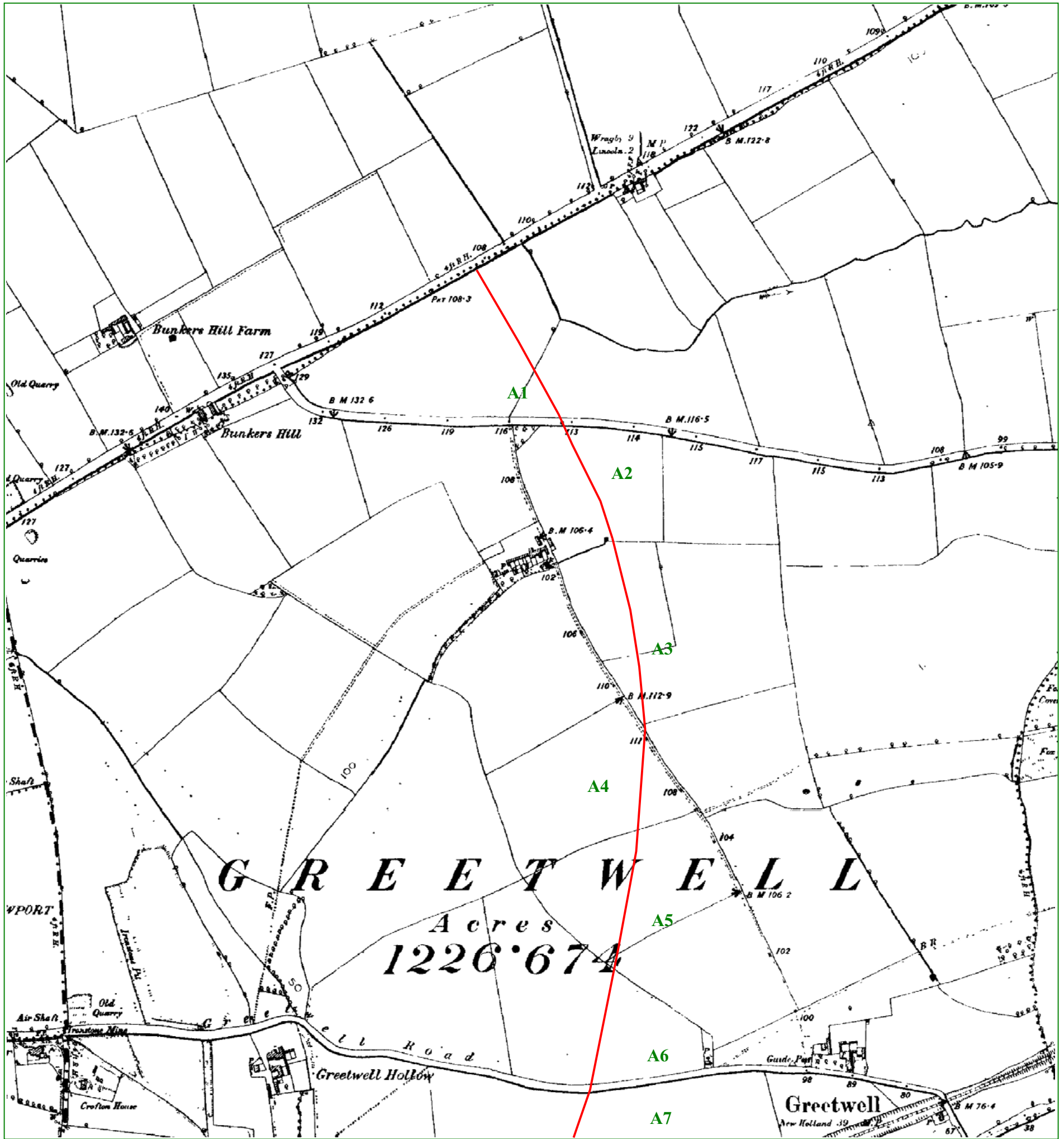
**Fig. 21:** Trench 7 plan and sections (scales 1:50 and 1:20)



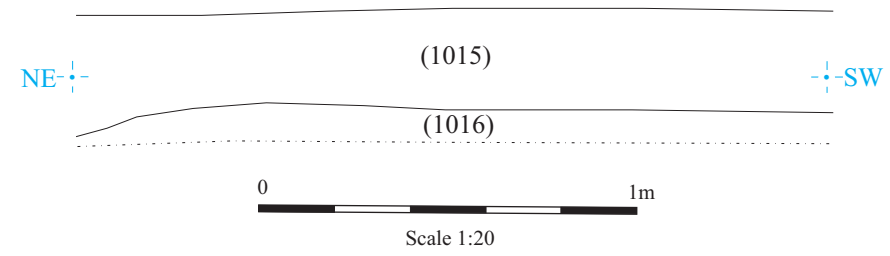
**Fig. 22:** Trench 8 representative section (scale 1:20)



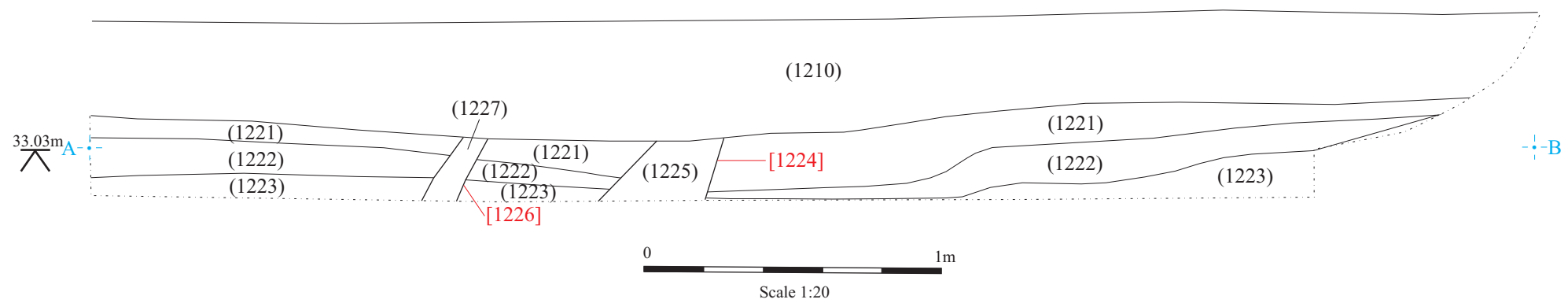
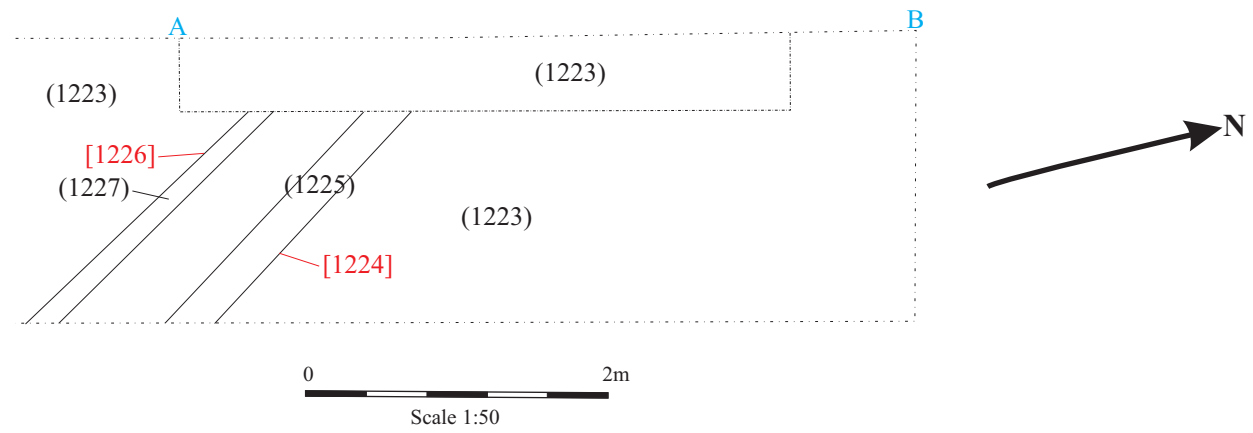
**Fig. 23:** Trench 9 plan and section (scales 1:50 and 1:20)



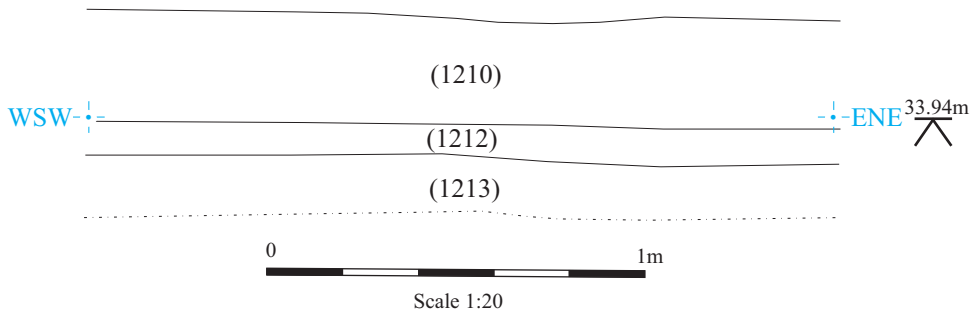
**Figure 24:** Extract from the Ordnance Survey First Edition 6": 1 mile (1: 10,560) map of 1889-90 (survey conducted 1885); reproduced at c. 1: 7,500. The red line indicates the proposed route of the bypass and the green alphanumeric codes identify the fields examined during the trial trenching.



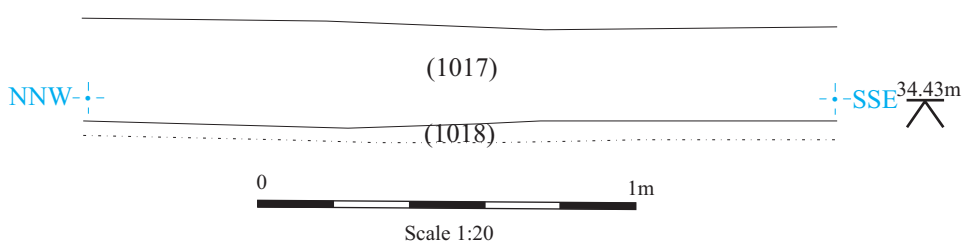
**Fig. 25:** Trench 10 representative section (scale 1:20)



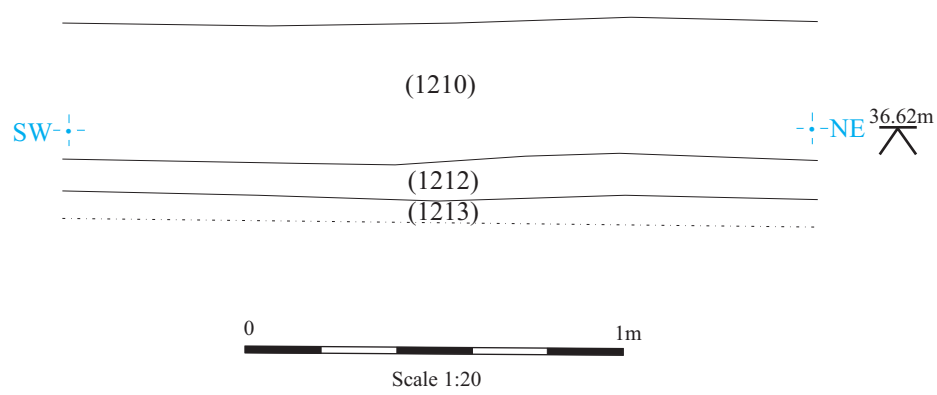
**Fig. 26:** Trench 11 plan and section (scales 1:50 and 1:20)



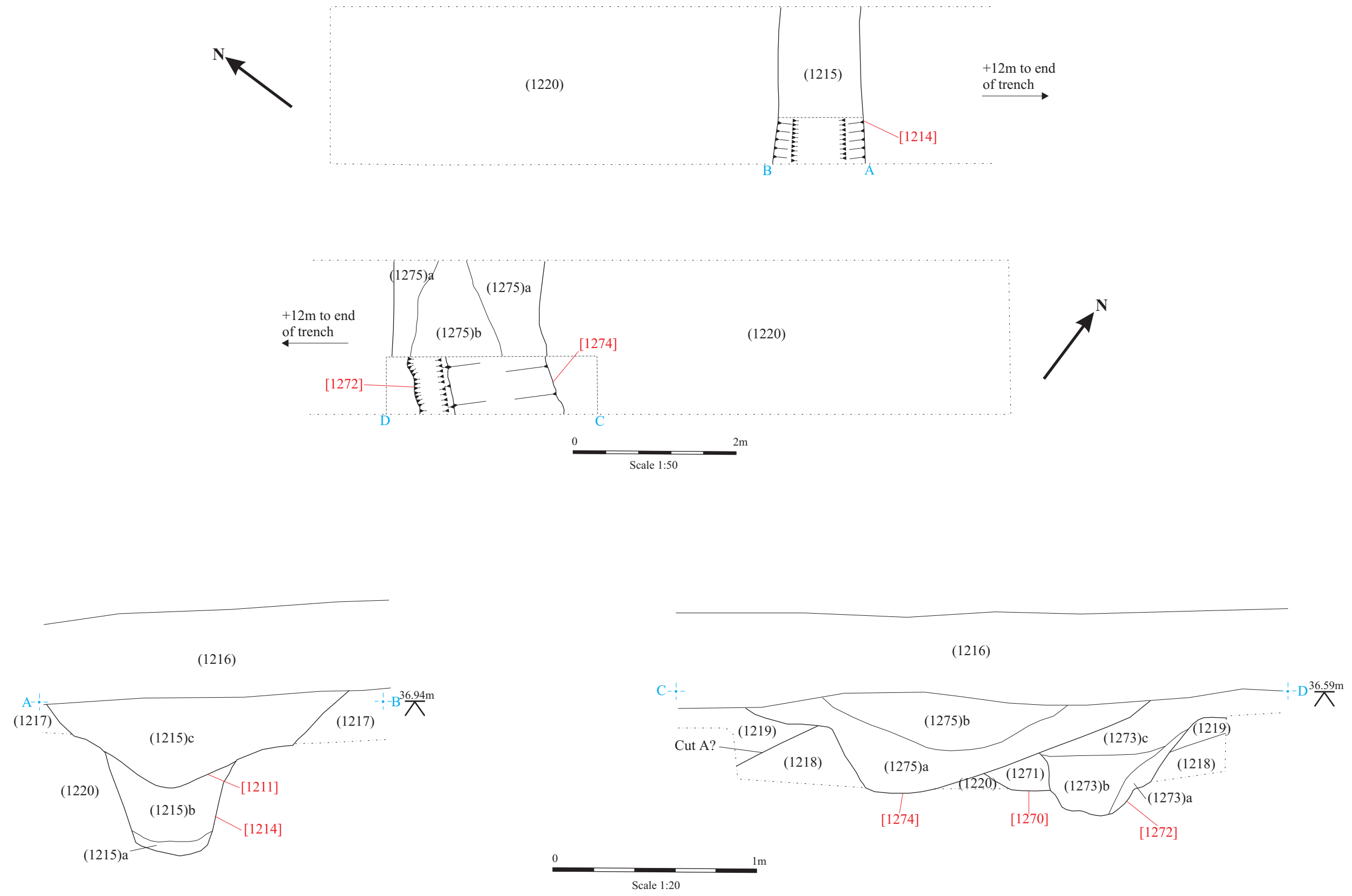
**Fig. 27:** Trench 12 representative section (scale 1:20)



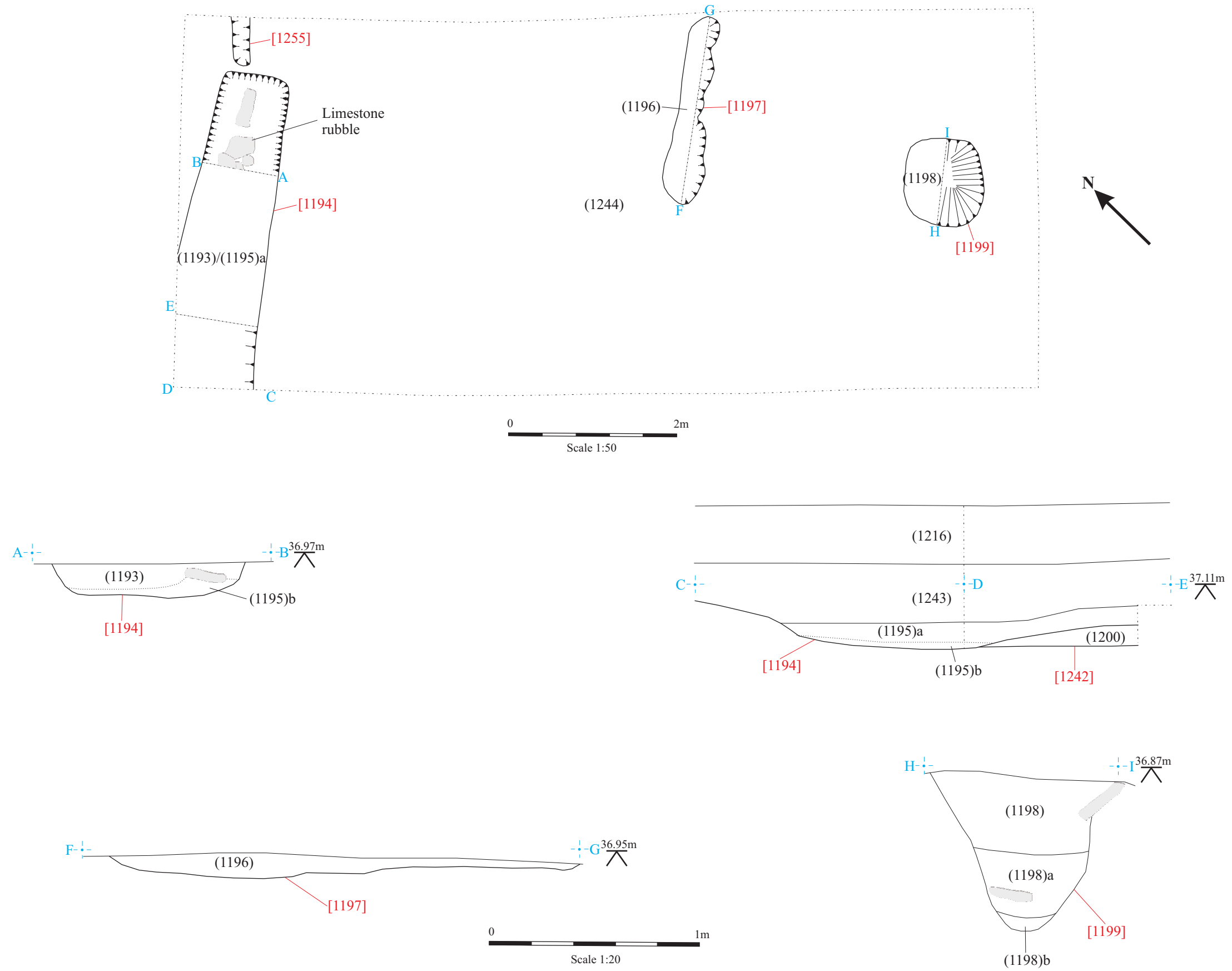
**Fig. 28:** Trench 13 representative section (scale 1:20)



**Fig. 29:** Trench 14 representative section (scale 1:20)

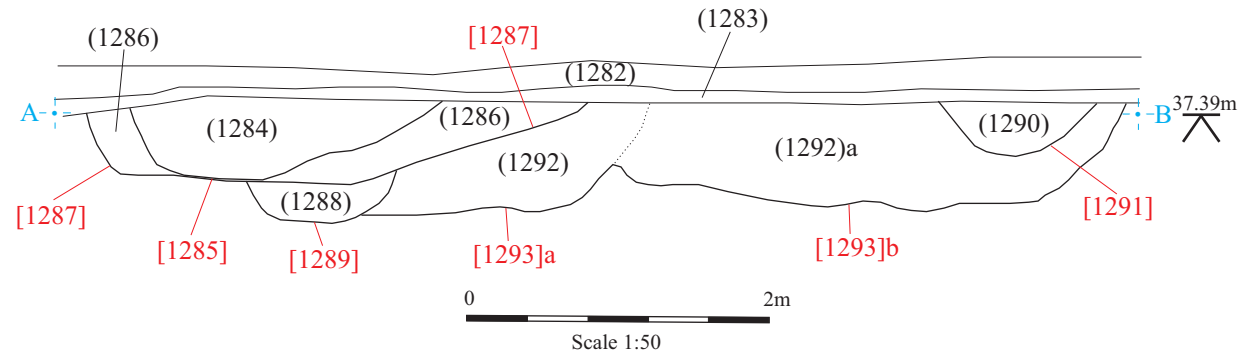
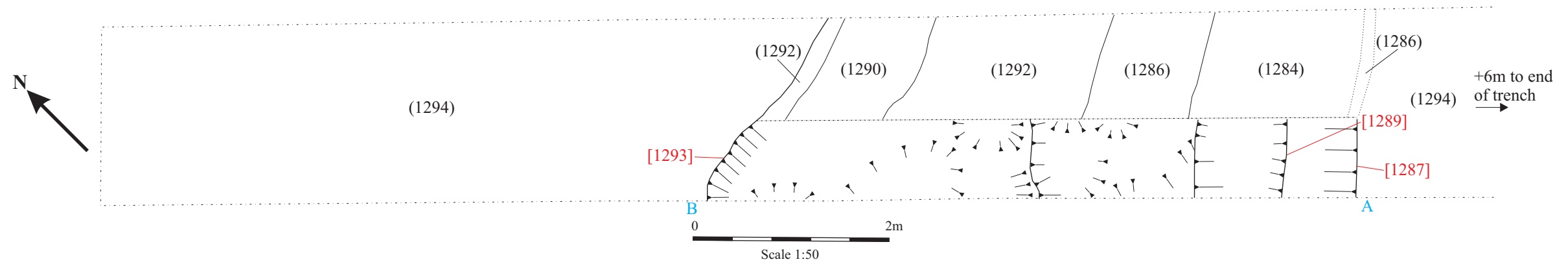


**Fig. 30:** Trench 15 plan and sections (scales 1:50 and 1:20)

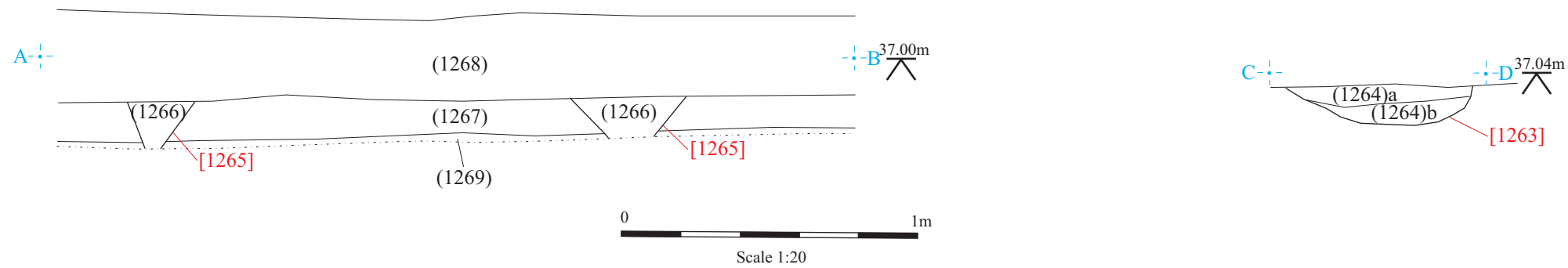
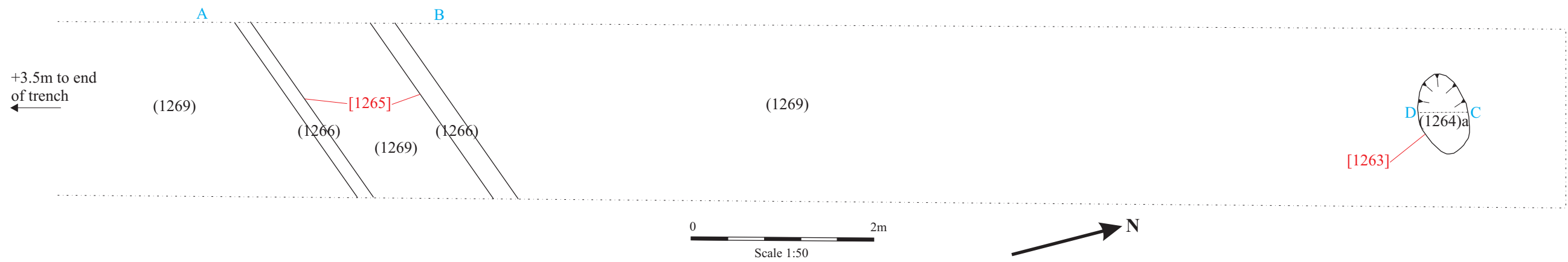


**Fig. 31:** Trench 16 plan and sections (scales 1:50 and 1:20)

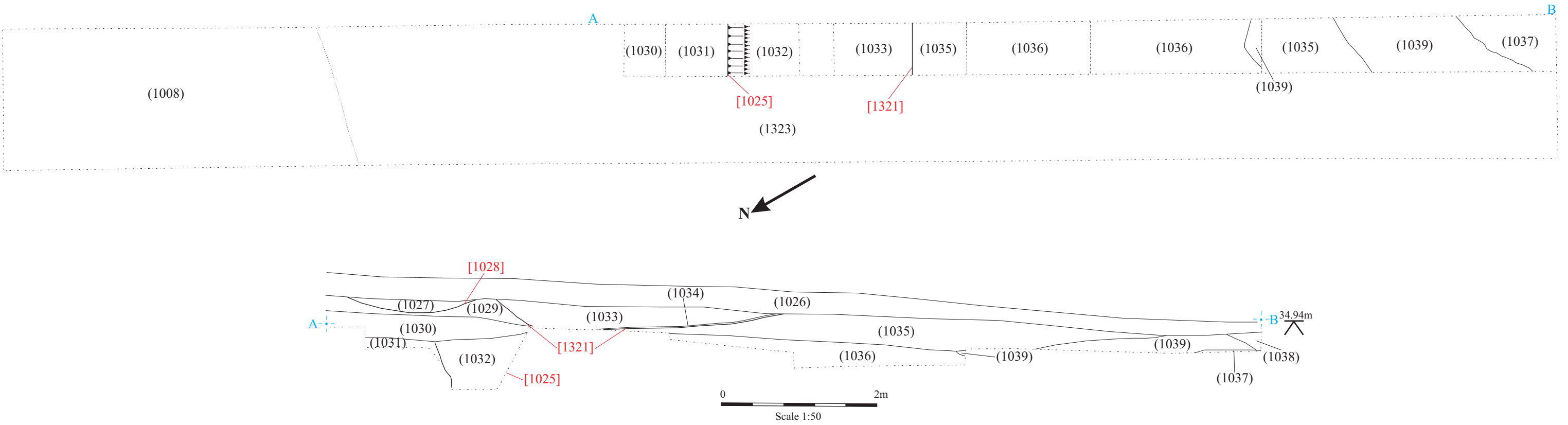




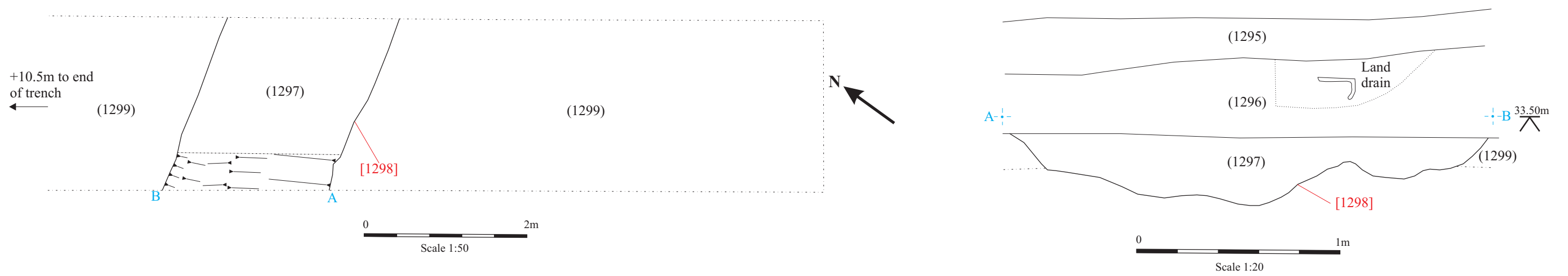
**Fig. 32:** Trench 17 plan and section (scale 1:50)



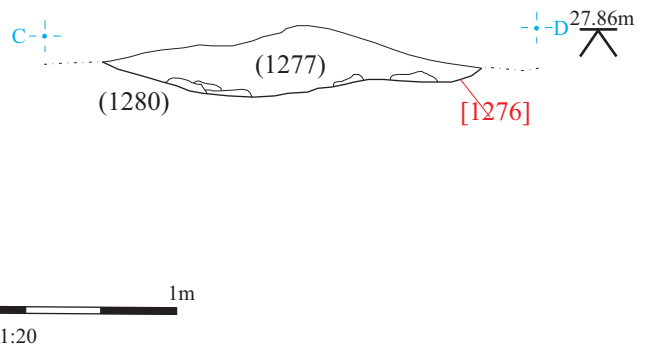
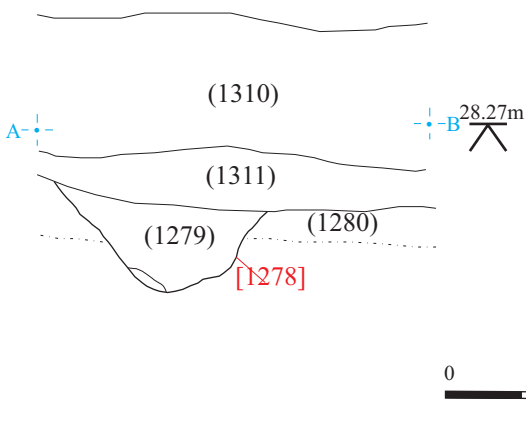
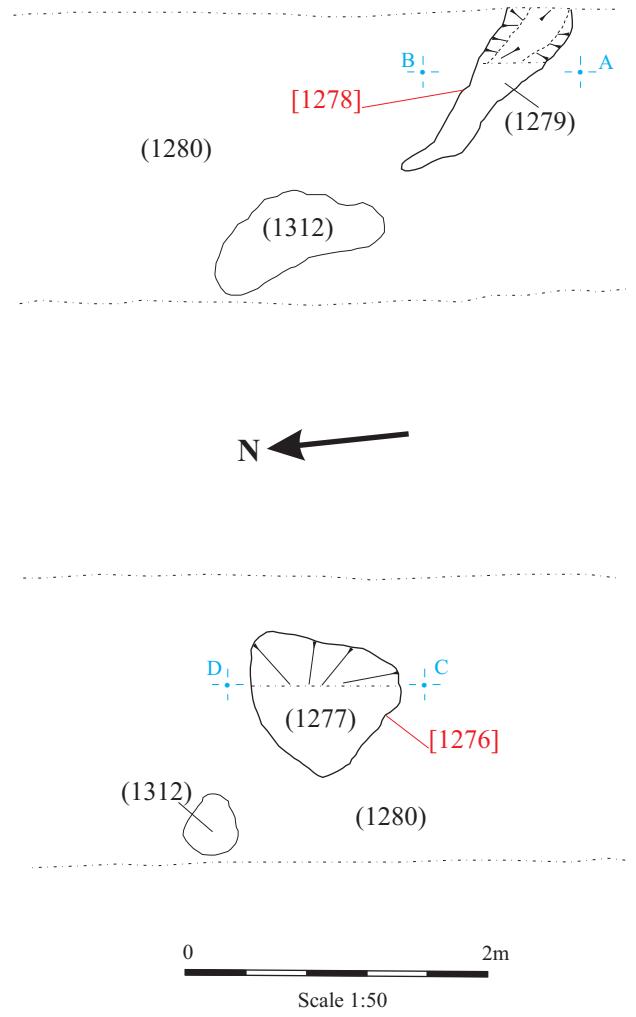
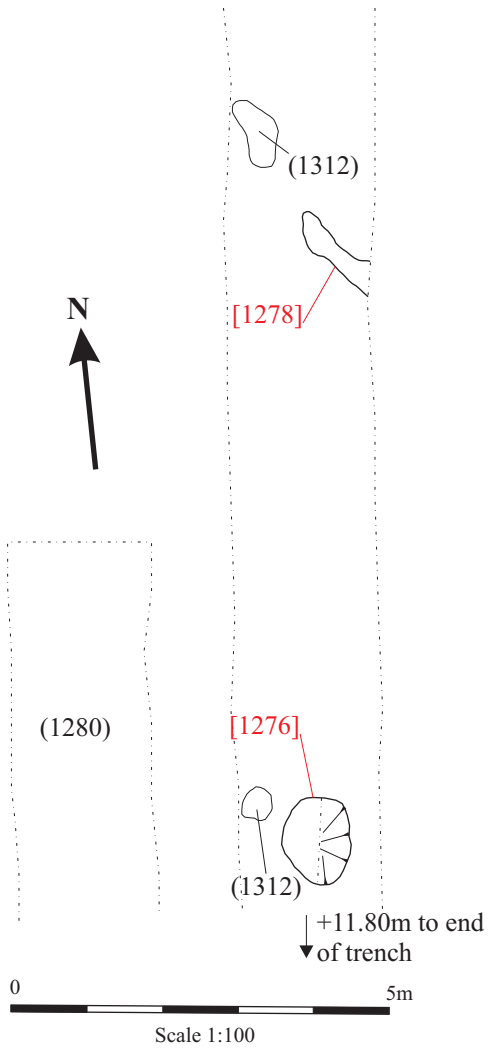
**Fig. 33:** Trench 18 plan and sections (scales 1:50 and 1:20)



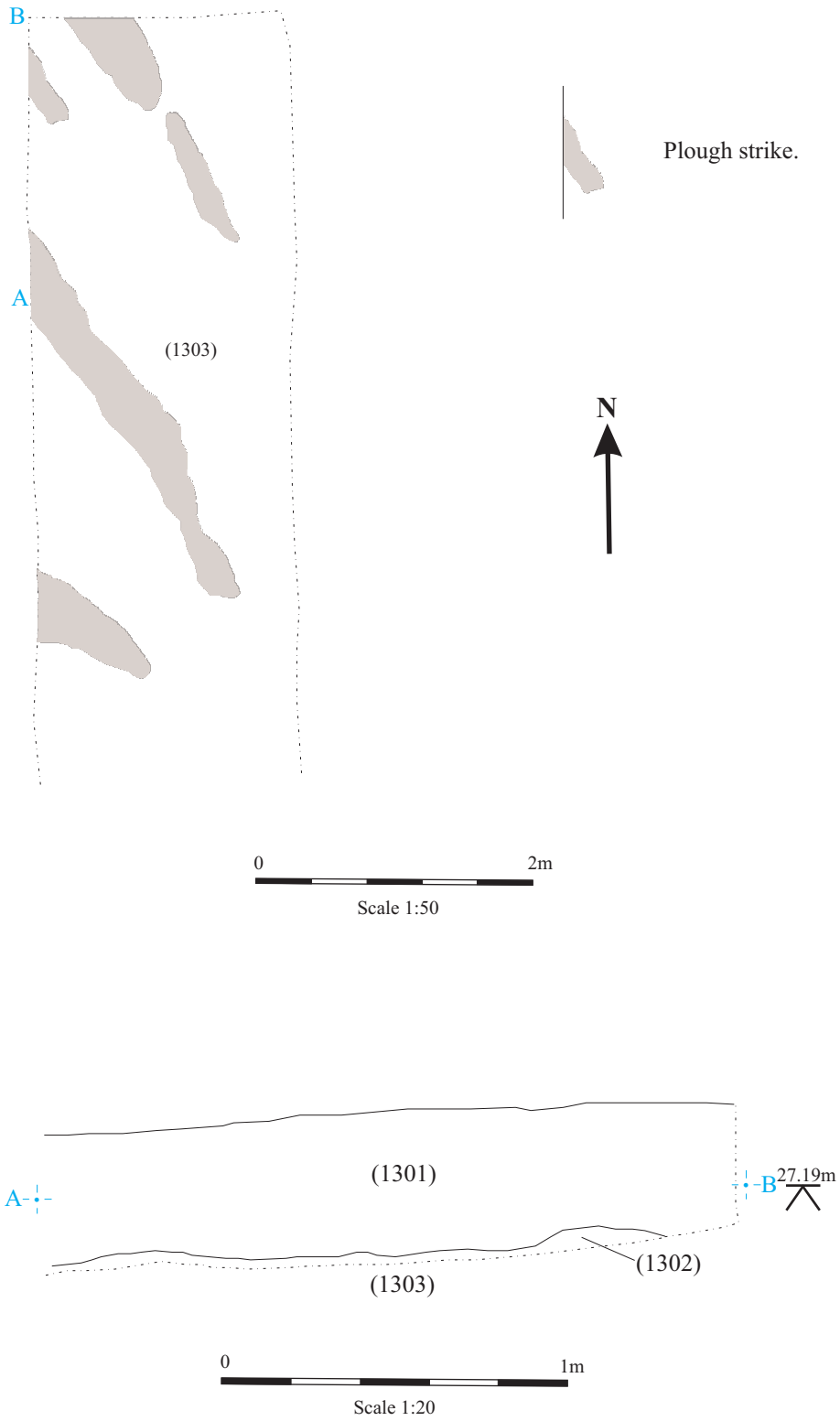
**Fig. 34:** Trench 19 plan and section (scales 1:50 and 1:20)



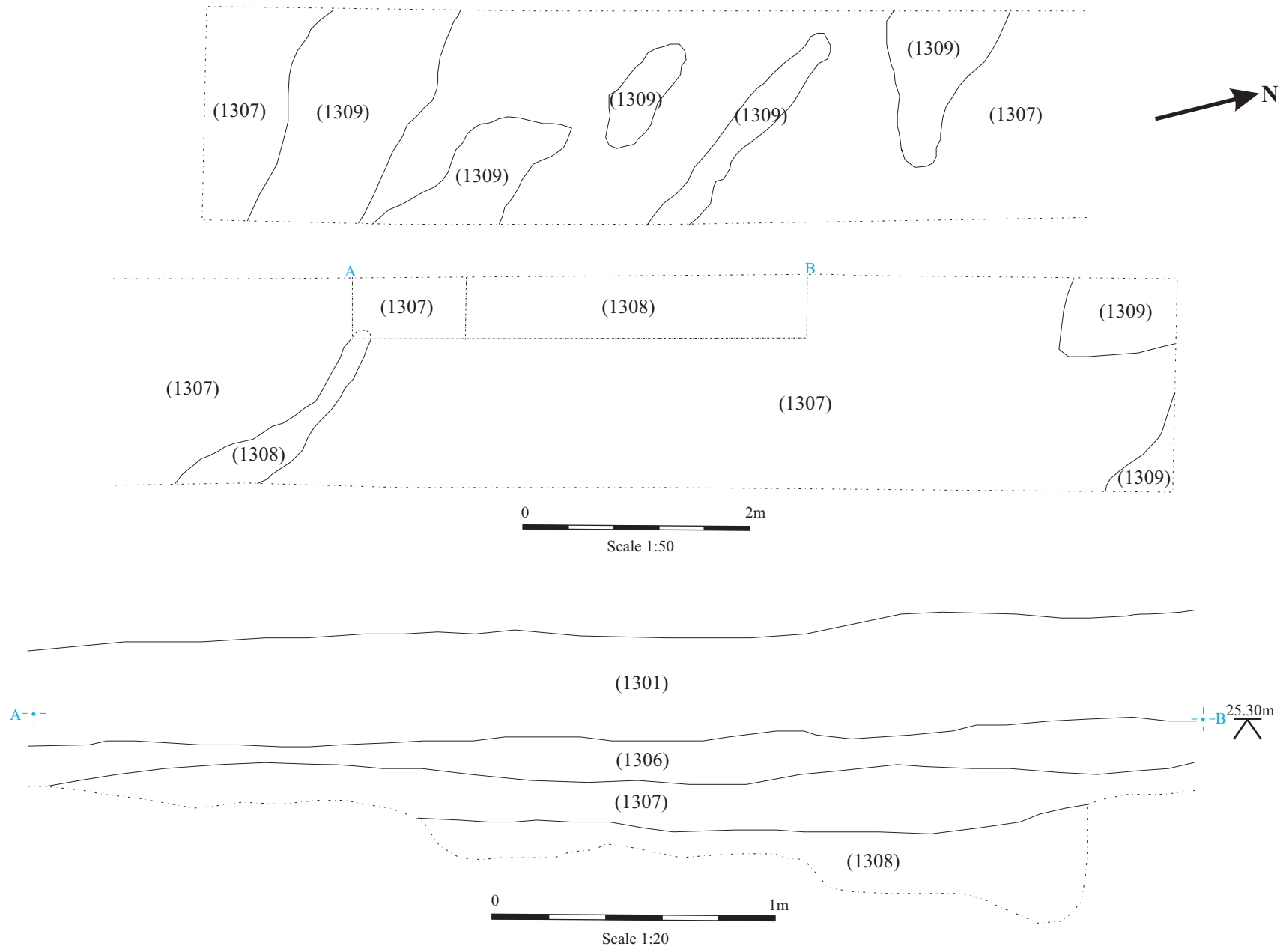
**Fig. 35:** Trench 20 plan and section (scale 1:50 and 1:20)



**Fig. 36:** Trench 21 plan and sections. Main plan at 1:100 with close ups at 1:50, sections at 1:20











**Fig. 37:** Trench 22 representative plan and section (scales 1:50 and 1:20)

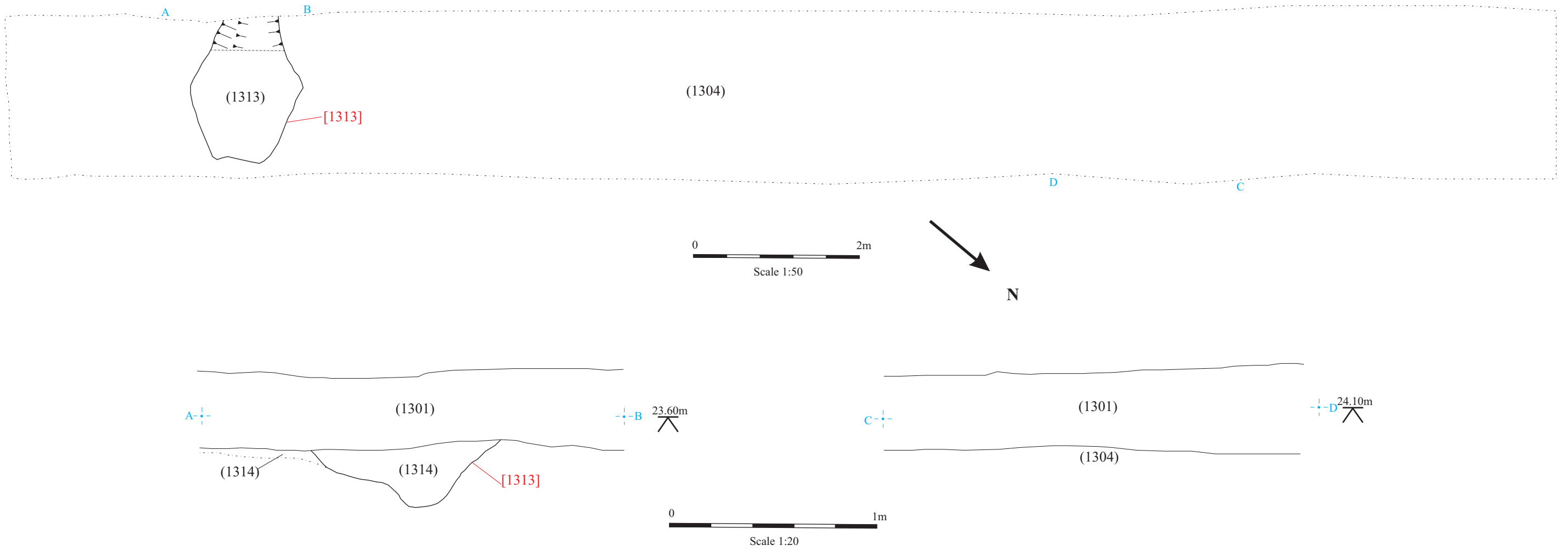


**Fig. 38 : Trench 23 plan and section (scales 1:50 and 1:20)**

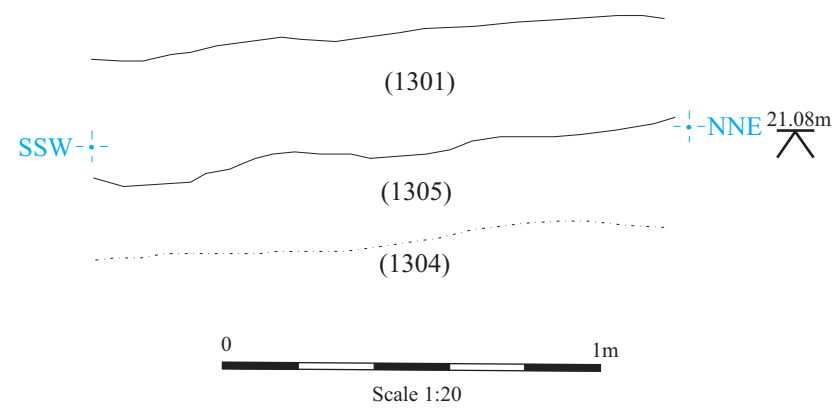


**Figure 39:** Aerial photograph of the section of the Lower Witham Valley that is traversed by the proposed route of Lincoln Eastern Bypass (approximate course shown as dashed white line on the image to the left).

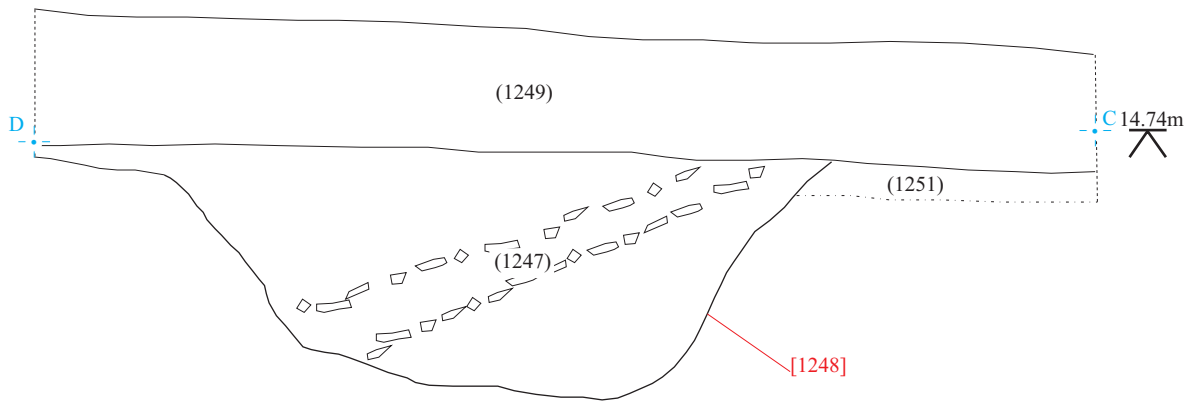
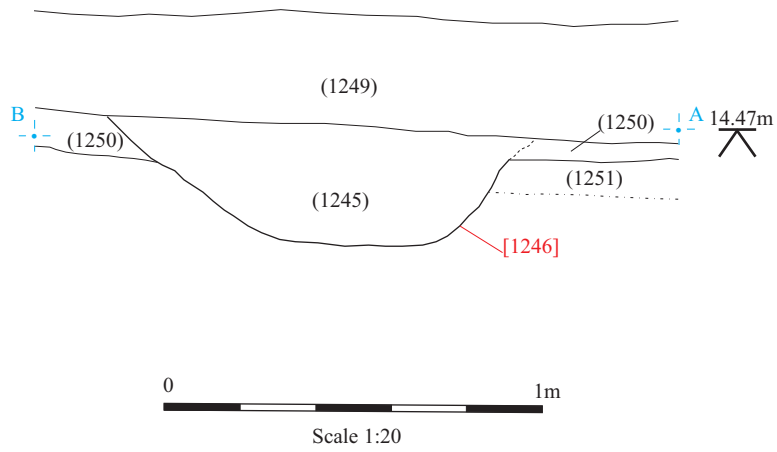
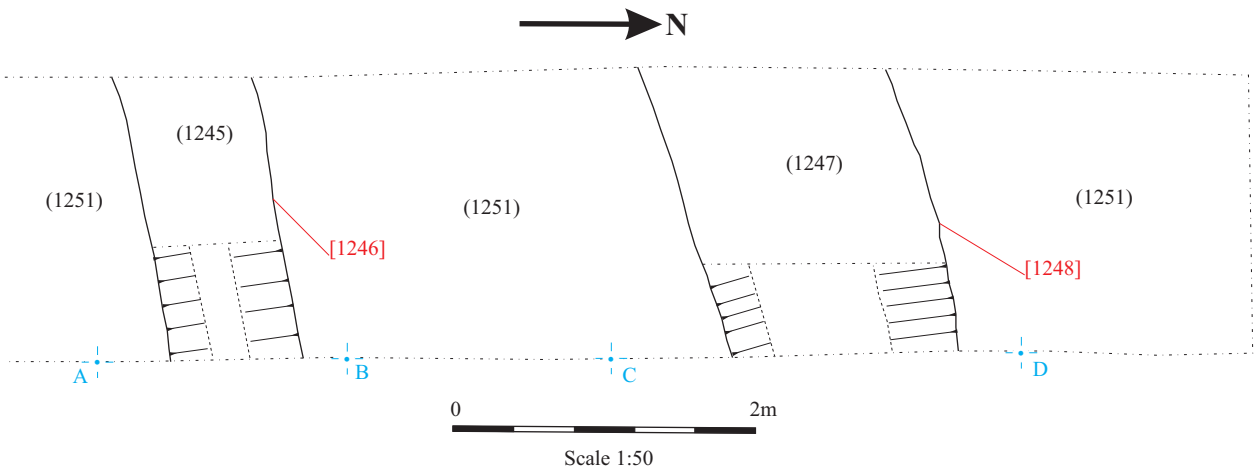
KEY		
	Glacial/Peri-glacial melt water channels	 Long barrow
	Levee, with Mesolithic features	 Round barrows
		 Greetwell DMV
		 Grange mound
		 Track from post-medieval grange to 19 <sup>th</sup> century successor
		 Quarrying & ironstone mining



**Fig. 40:** Trench 24 plan and sections (scales 1:50 and 1:20)

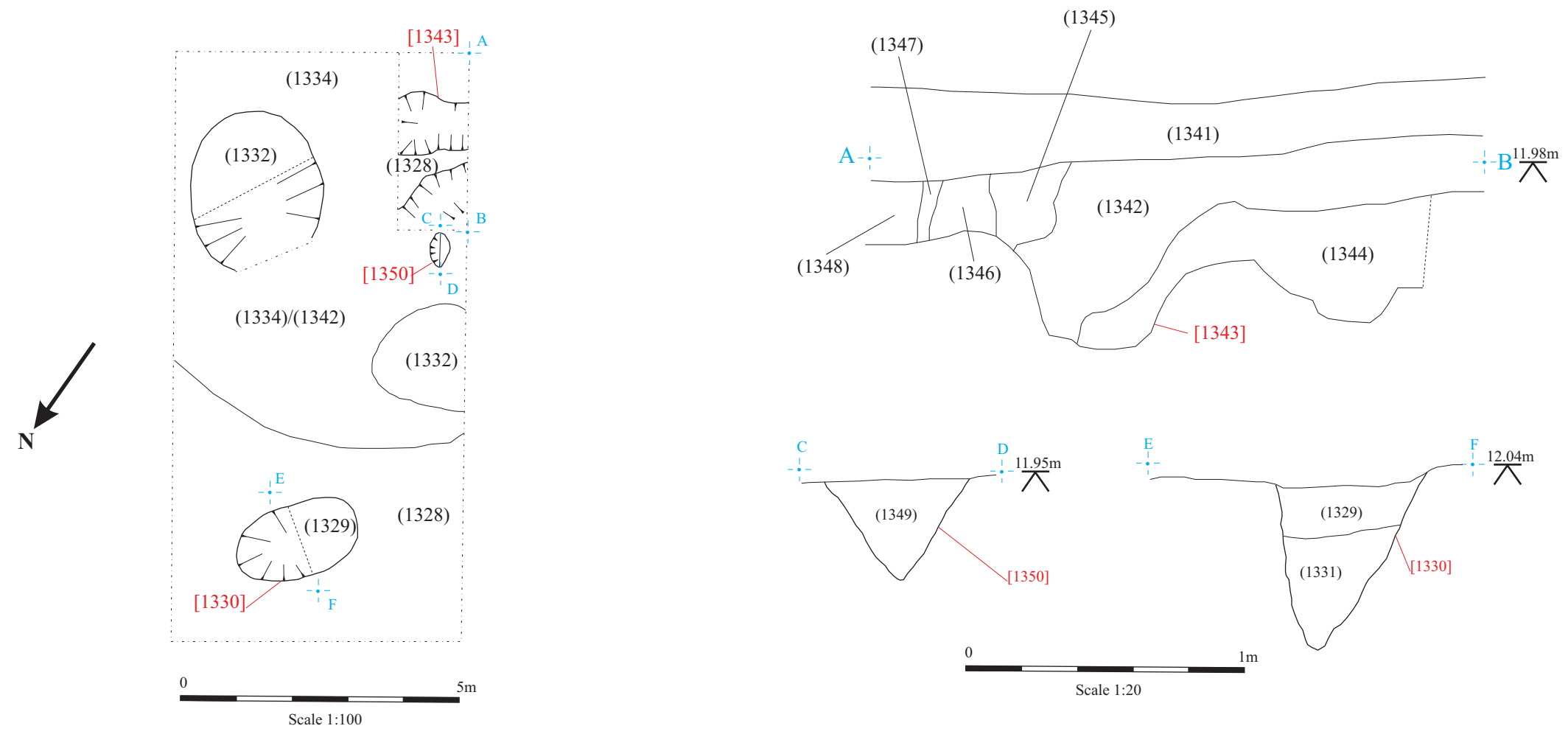


**Fig. 41:** Trench 25 representative section (scale 1:20)



**Fig. 42:** Trench 26 plan and sections (scales 1:50 and 1:20)





**Fig. 43:** Trench 27 plan and sections (plan at a scale of 1:100, sections at 1:20)



**Fig. 44:** Trench 28 plan and section (plan at a scale of 1:100, section at 1:20)

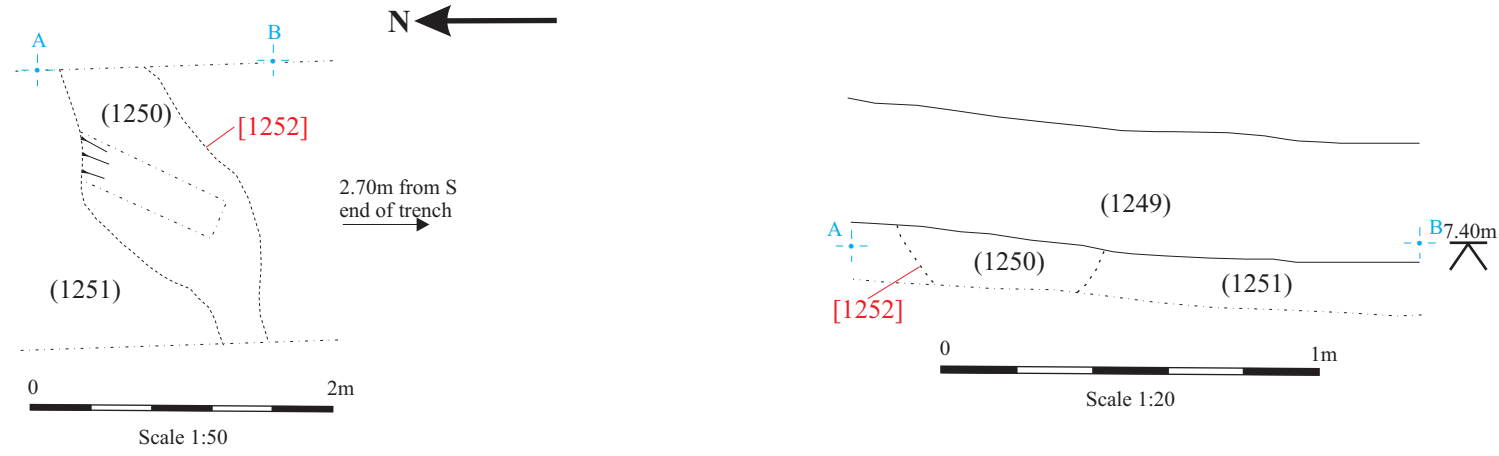


Fig. 45: Trench 29 plan and section (plan at a scale of 1:50, section at 1:20)

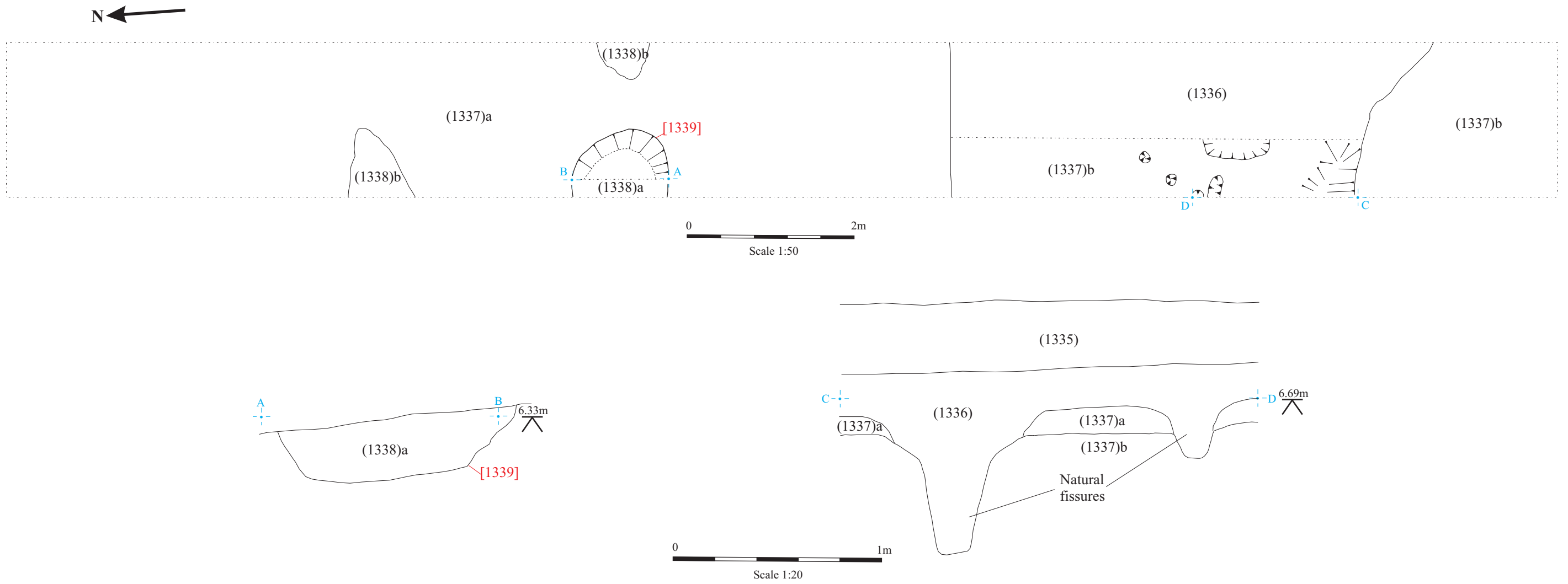


Fig. 46: Trench 30 plan and sections (plan at a scale of 1:50, sections at 1:20)

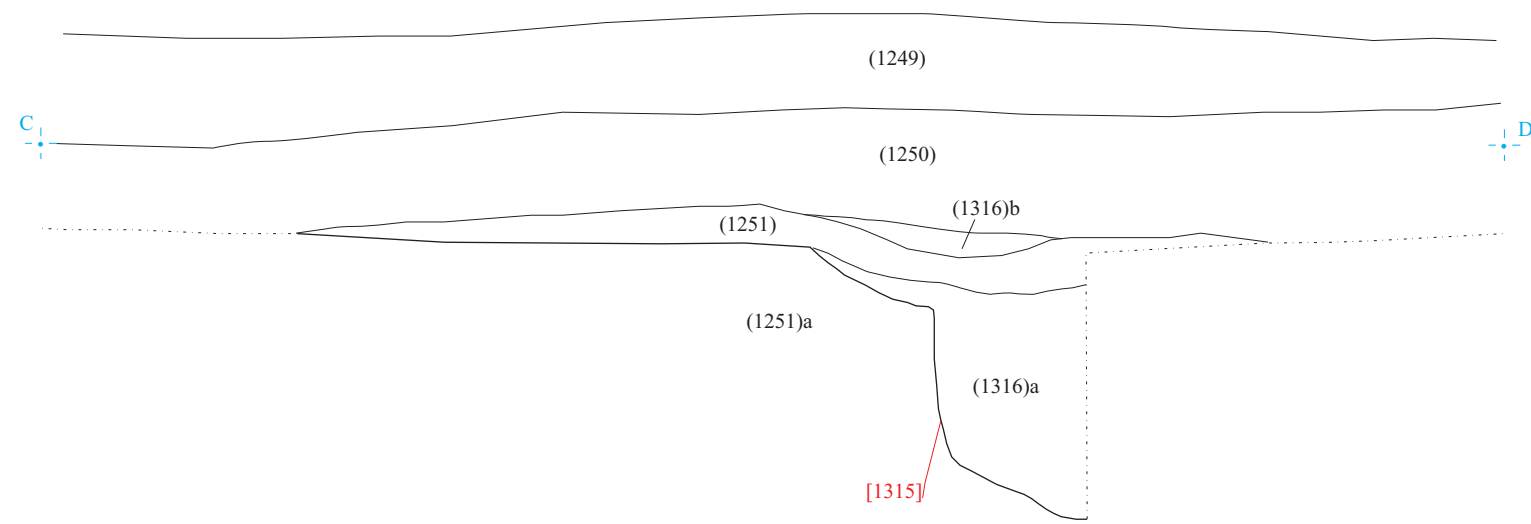
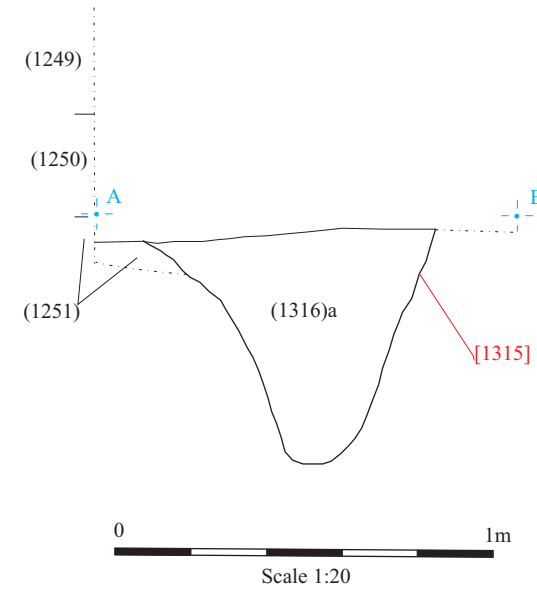
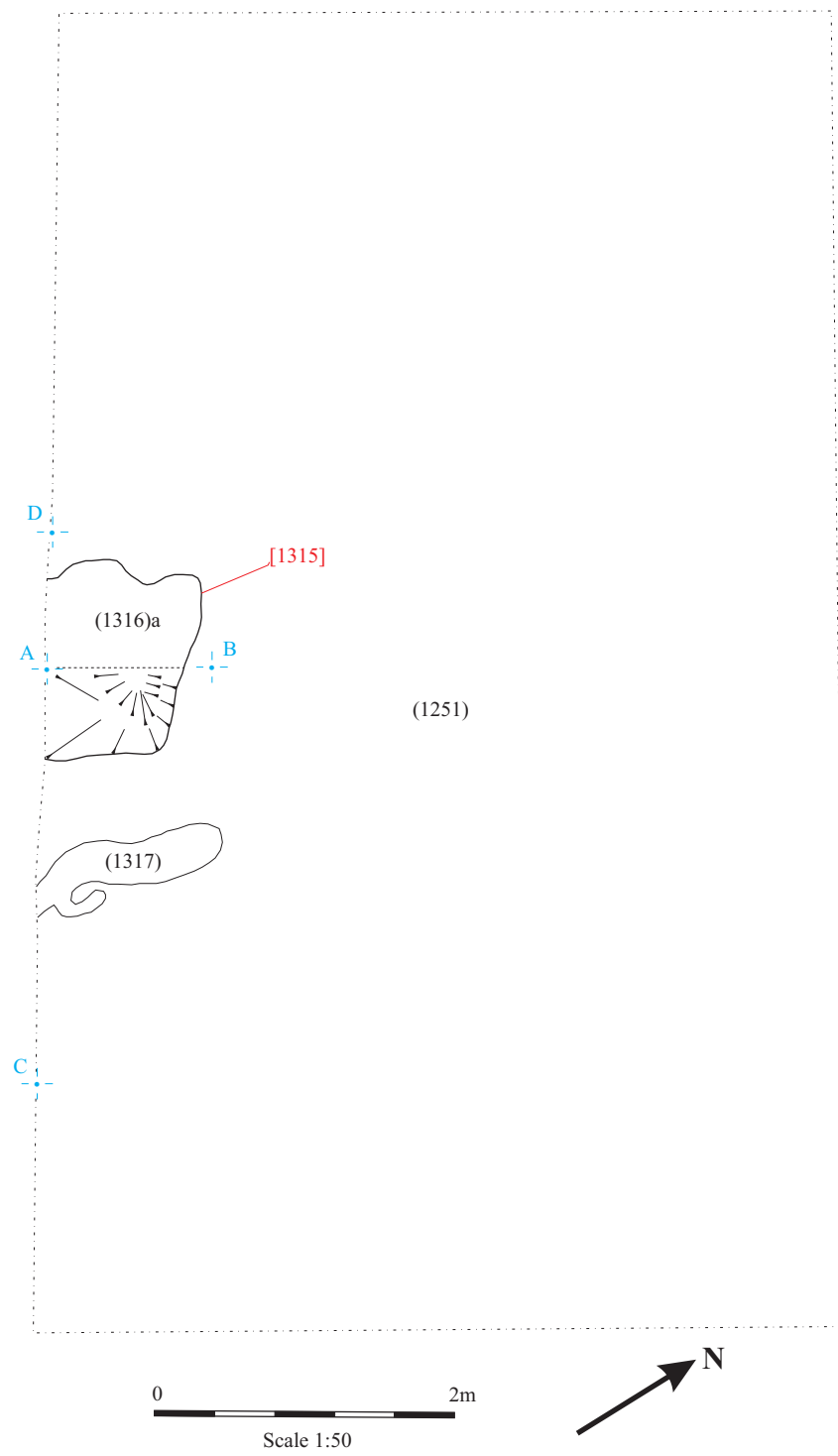


Fig. 47: Trench 31 plan and sections (plan at a scale of 1:50, sections at 1:20)

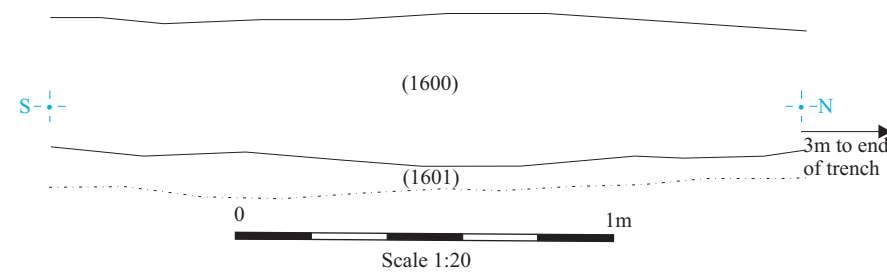
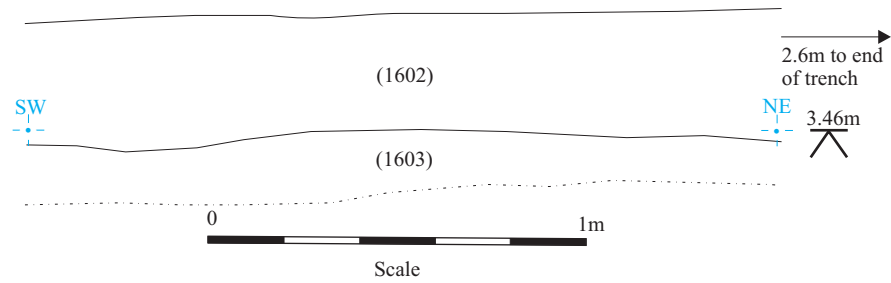
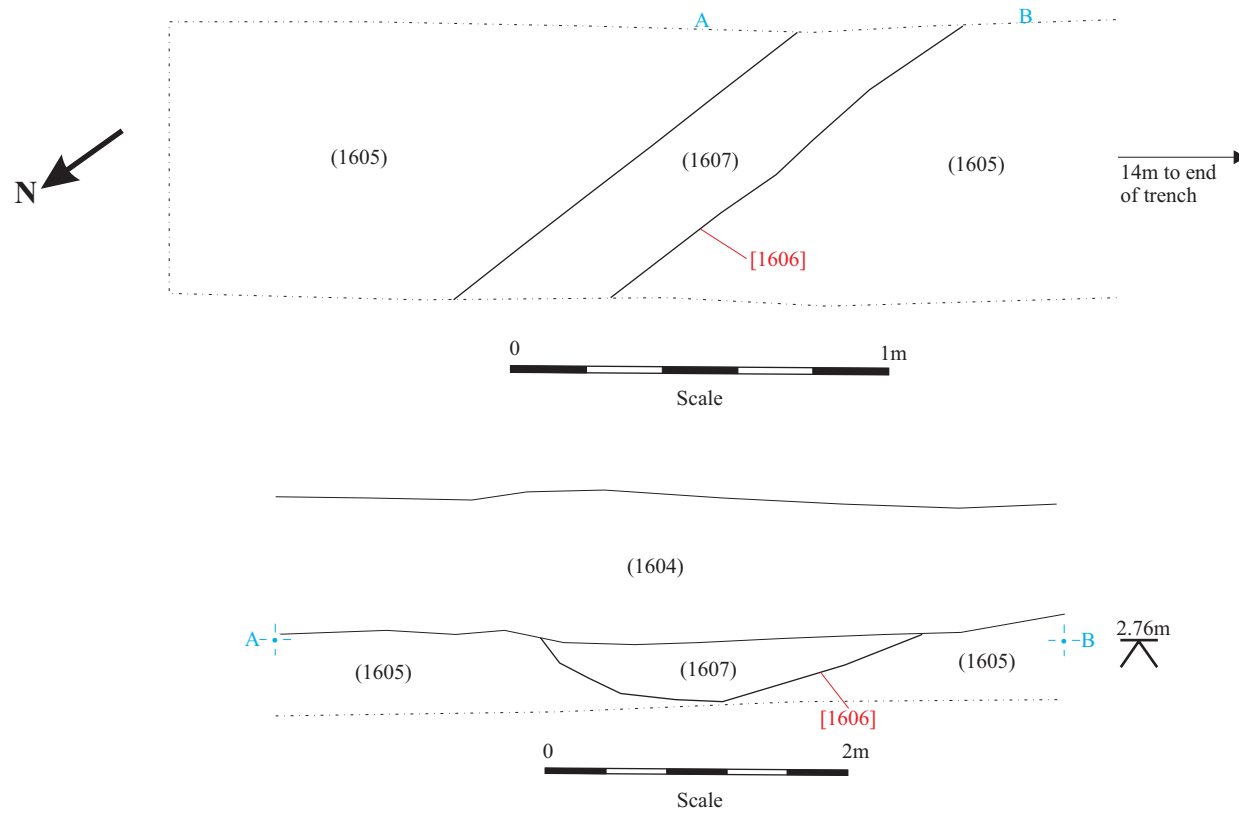


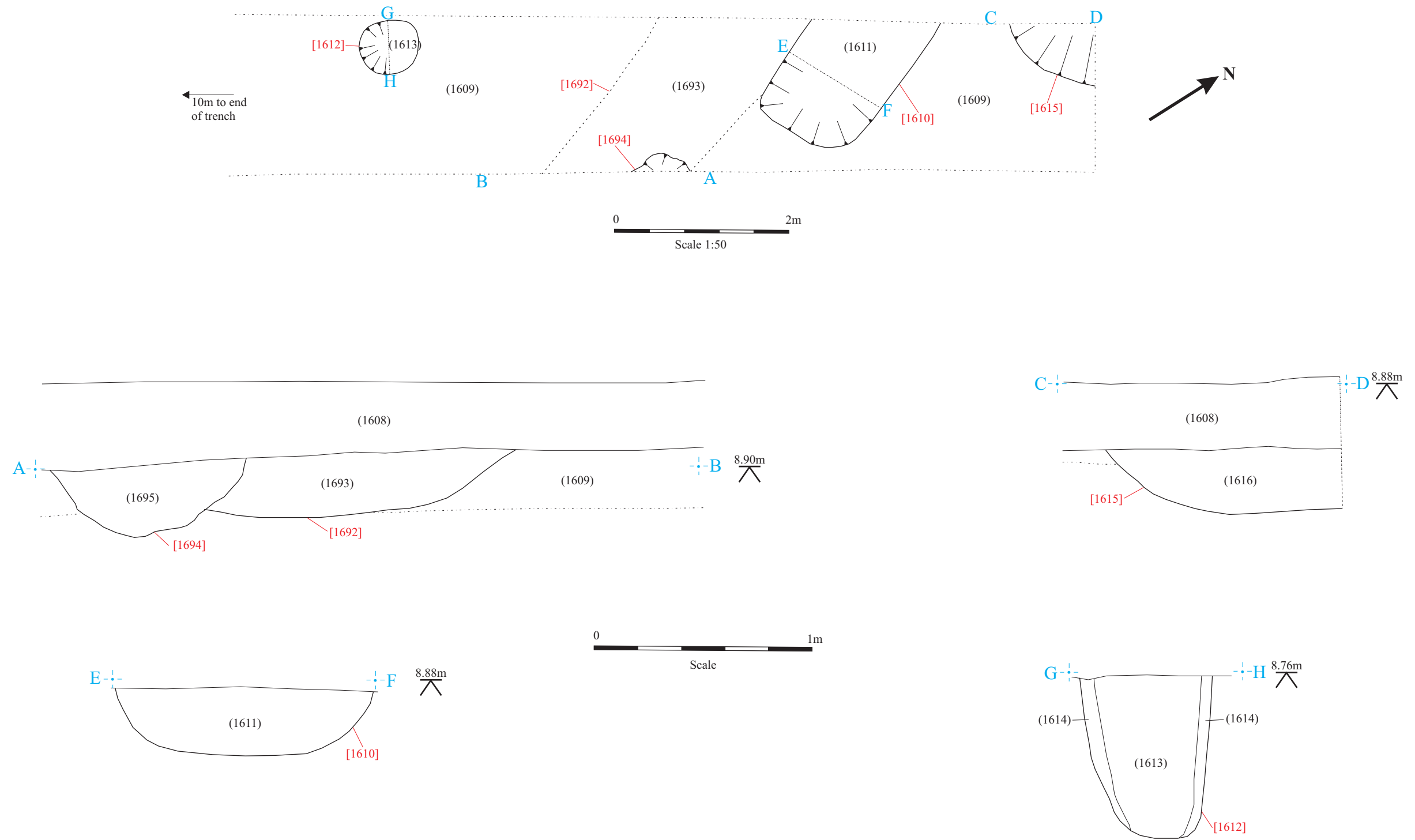
Fig. 48: Trench 32 representative section (scale 1:20)



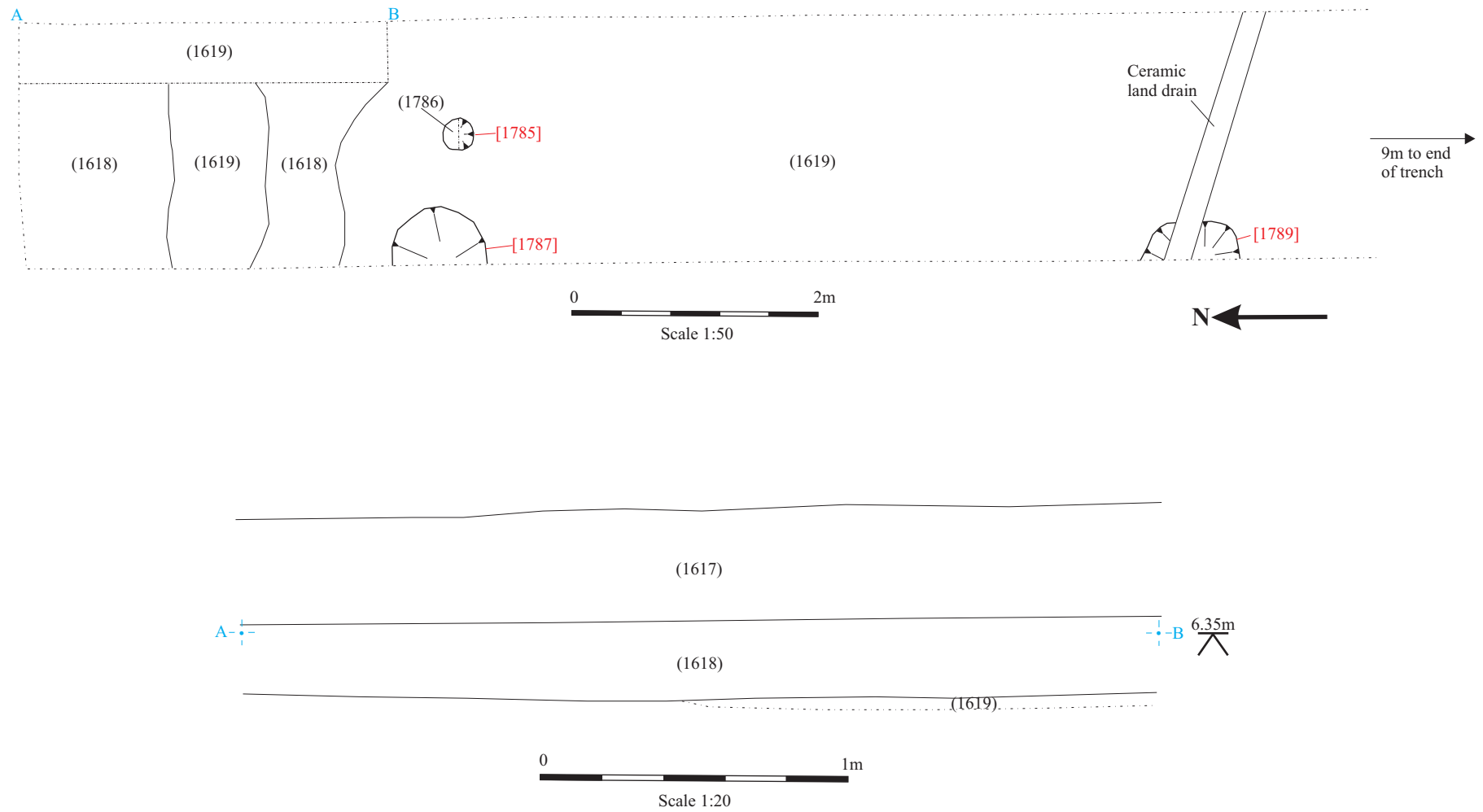
**Fig. 49:** Trench 137 representative section (scale 1:20)



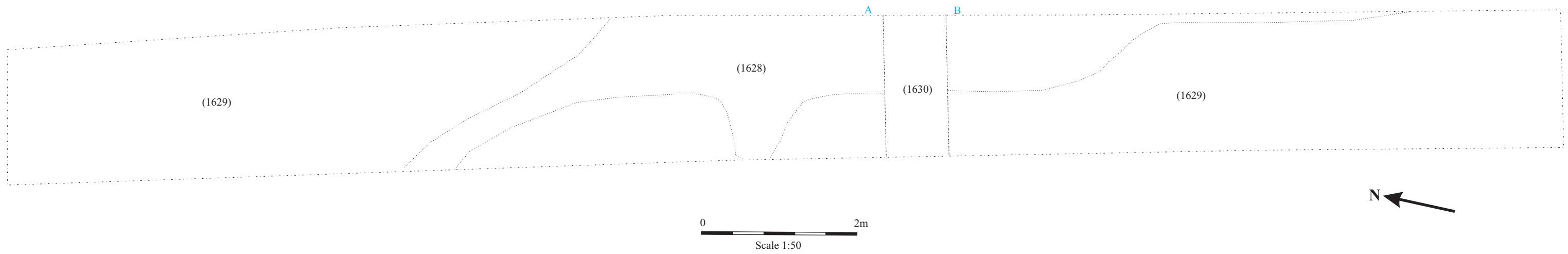
**Fig. 50:** Trench 138 plan and section (plan at a scale of 1:50, section at 1:20)



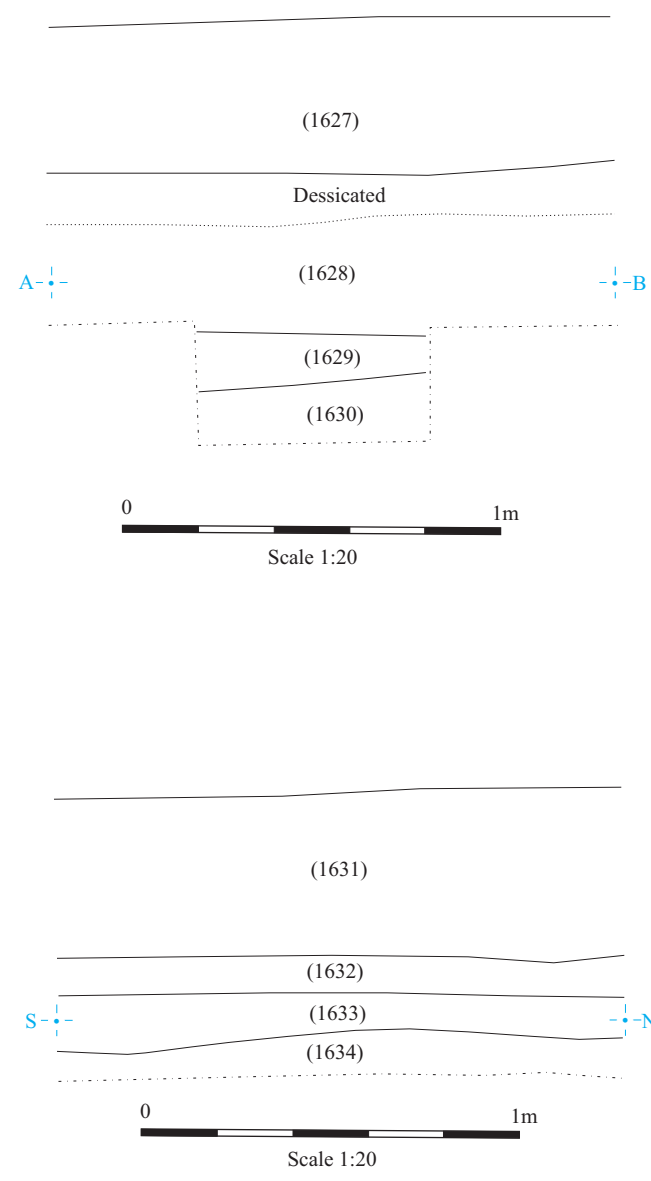
**Fig. 51:** Trench 139 plan and sections (scales 1:20 and 1:50)



**Fig. 52:** Trench 140 plan and representative section (plan at a scale of 1:50, section at 1:20)



**Fig. 53:** Trench 141 plan and representative section (scales 1:50 and 1:20)



**Fig. 54:** Trench 142 representative section (scale 1:20)

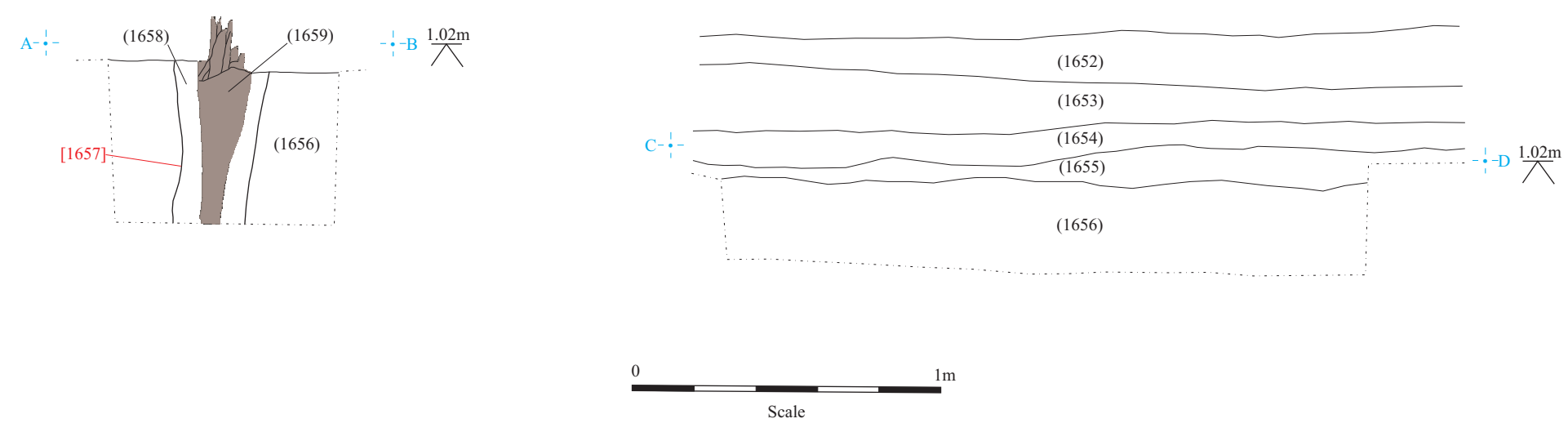
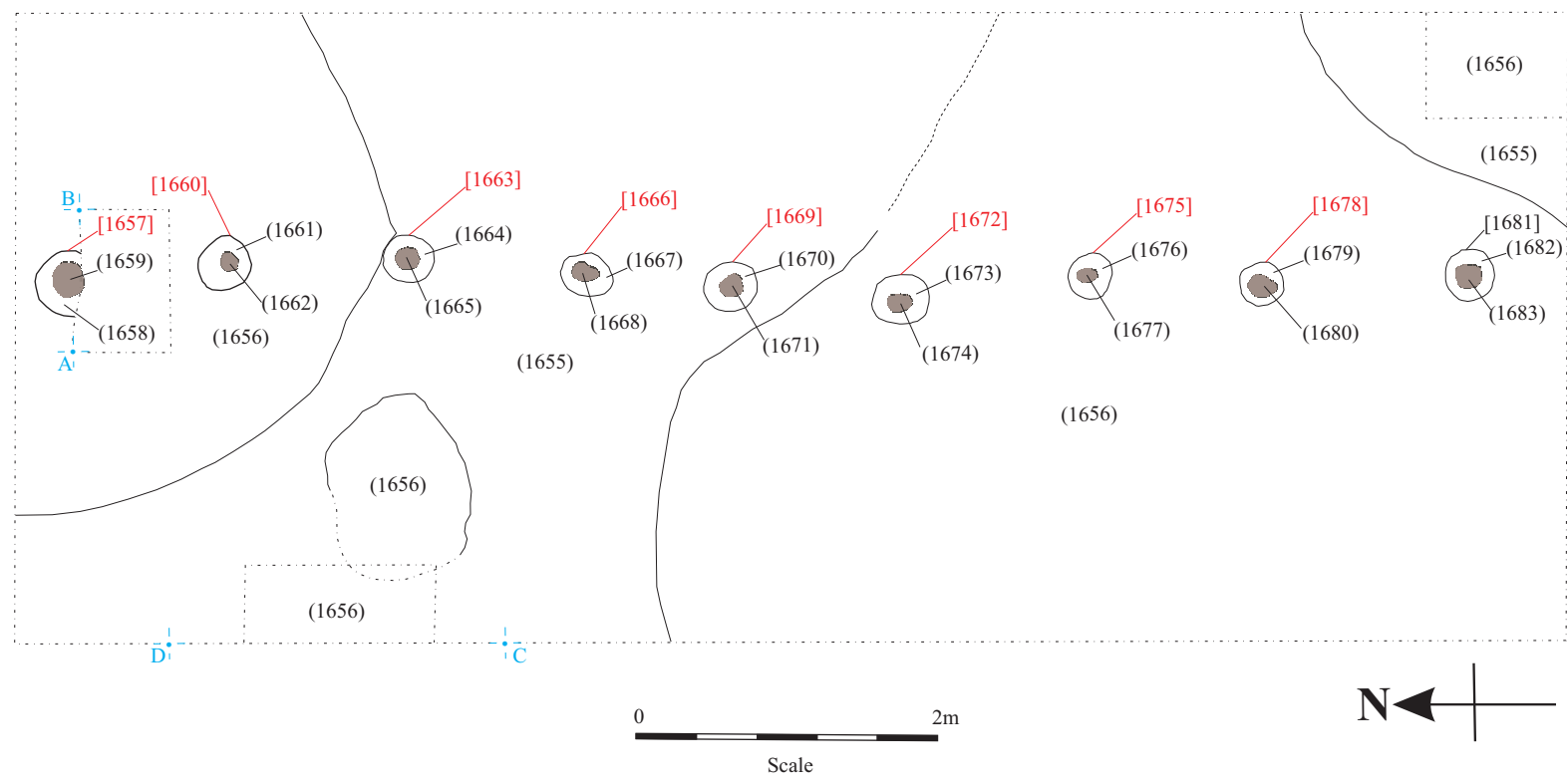
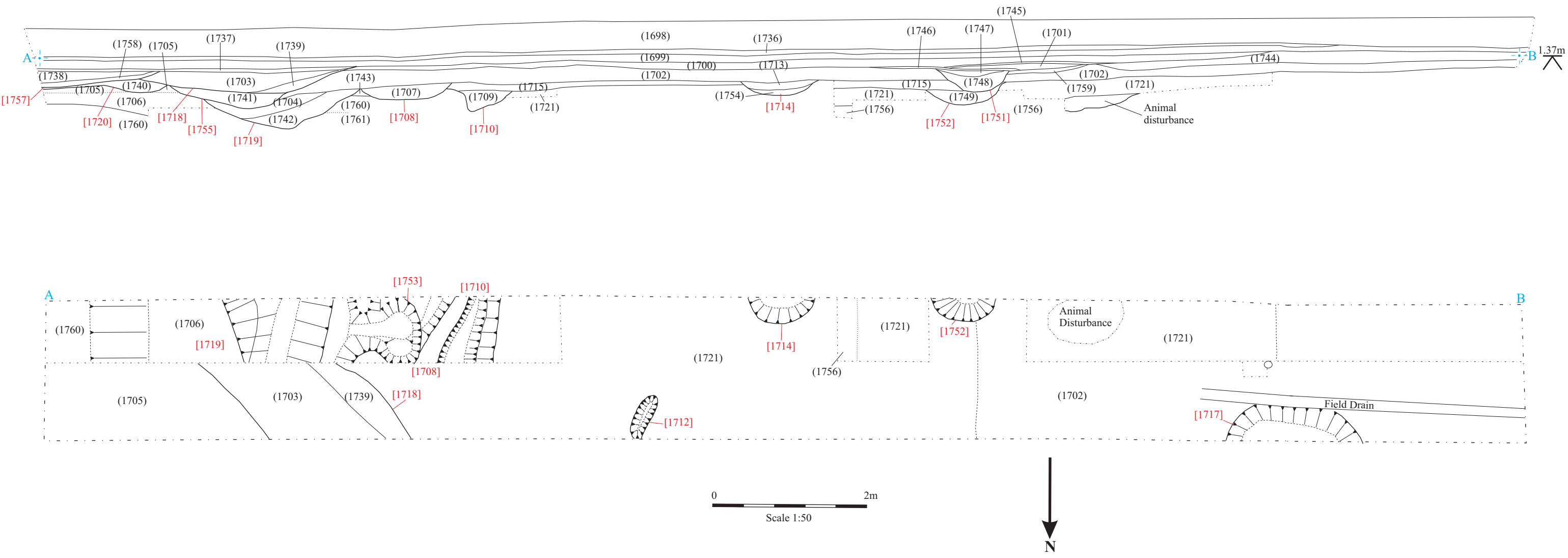
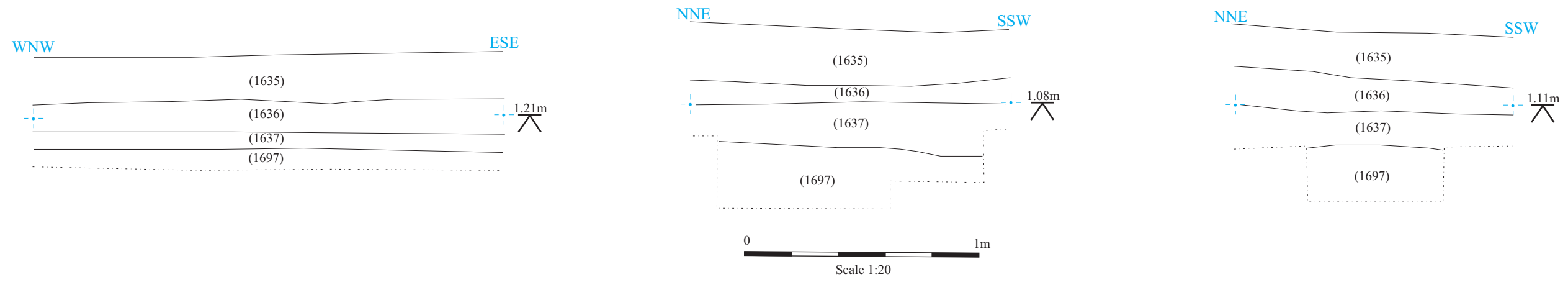


Fig. 55: Trench 143 plan and sections (plan at a scale of 1:50, sections at 1:20)

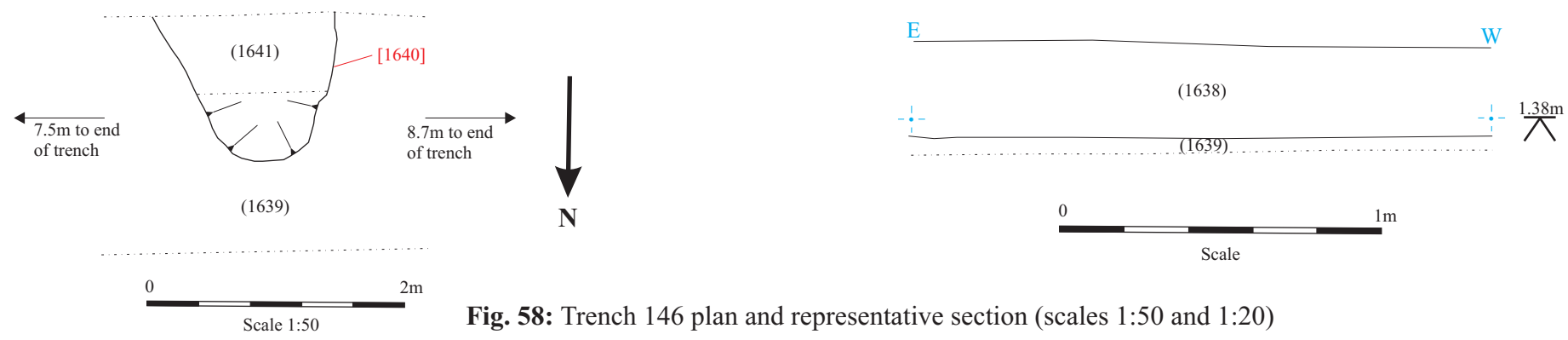




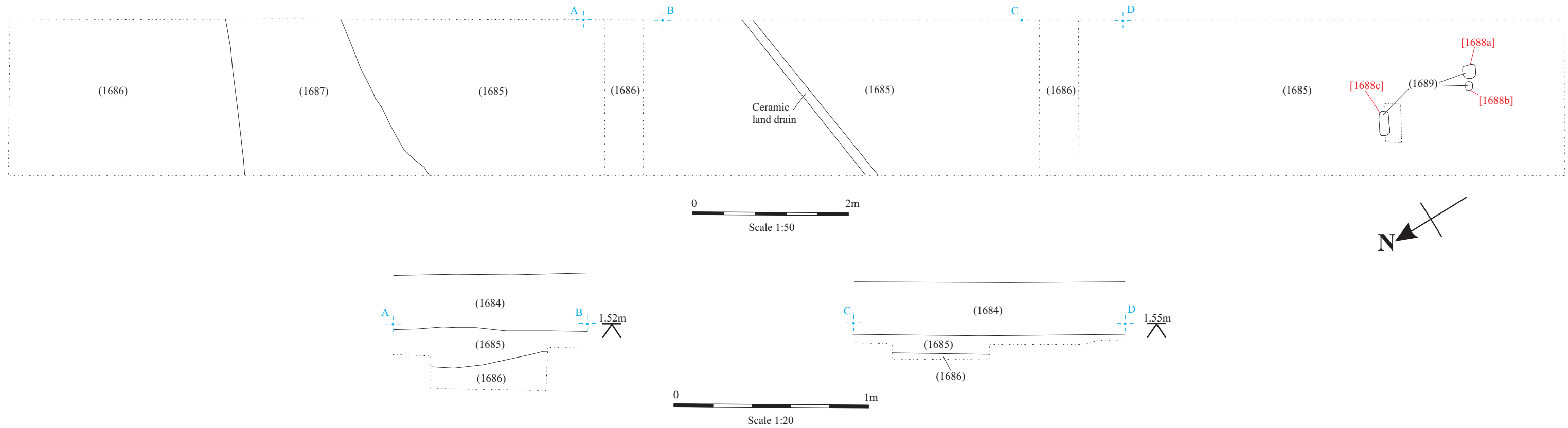
**Fig. 56:** Trench 144 plan and section (scale 1:50)



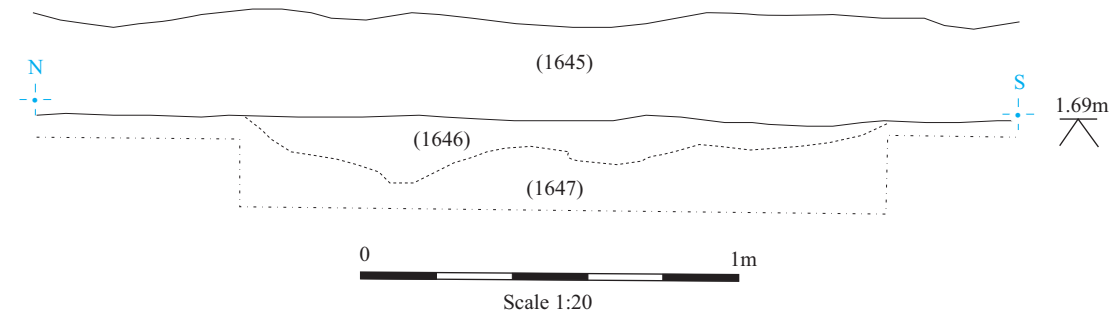
**Fig. 57:** Trench 145 representative sections (scale 1:20)



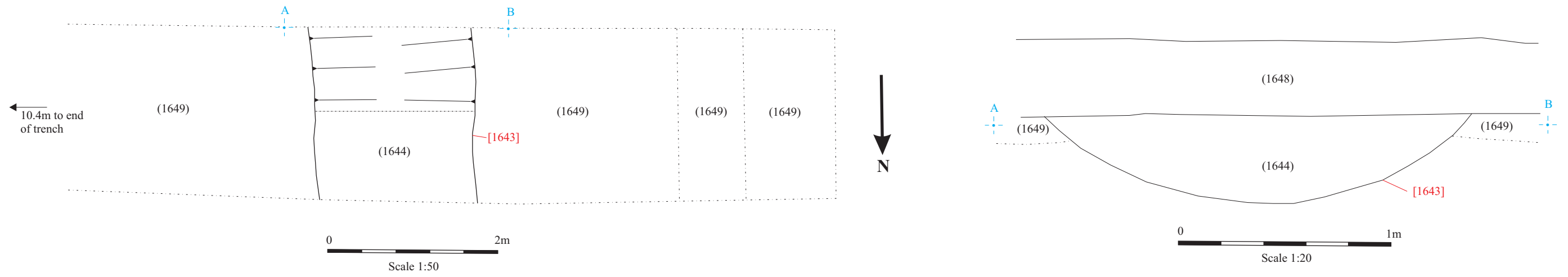
**Fig. 58:** Trench 146 plan and representative section (scales 1:50 and 1:20)



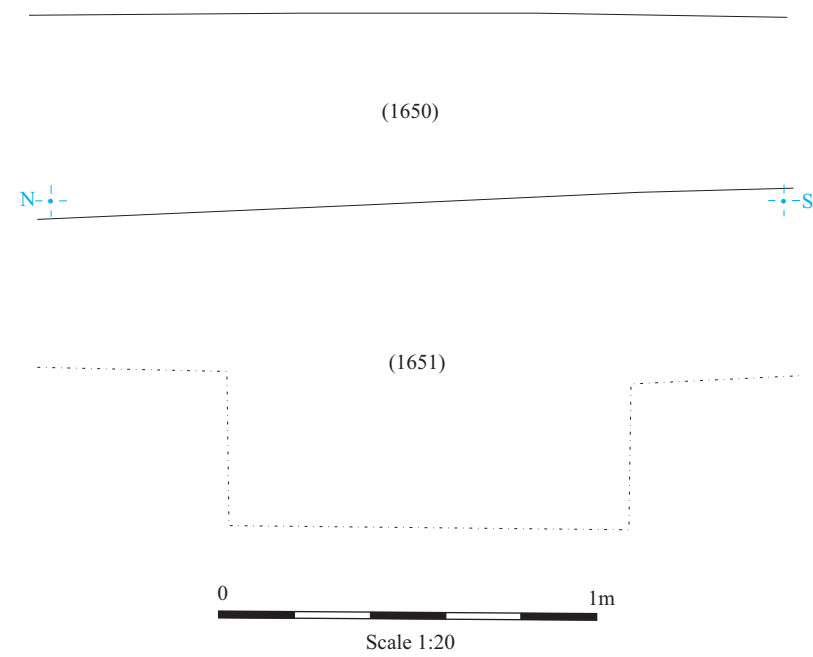
**Fig. 59:** Trench 147 plan and representative sections (scales 1:50 and 1:20)



**Fig. 60:** Trench 148 representative section (scale 1:20)



**Fig. 61:** Trench 149 plan and section (plan at a scale of 1:50, section at 1:20)



**Fig. 62:** Trench 150 representative section (scale 1:20)

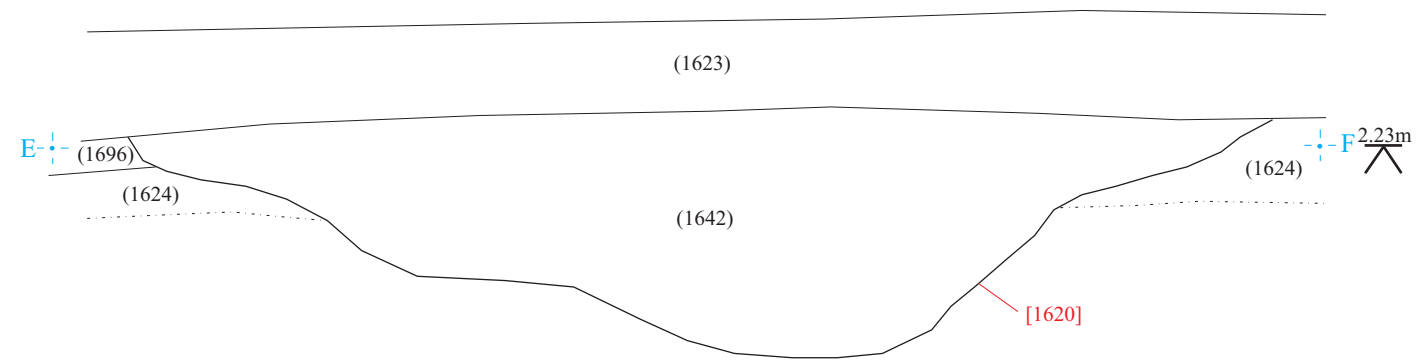
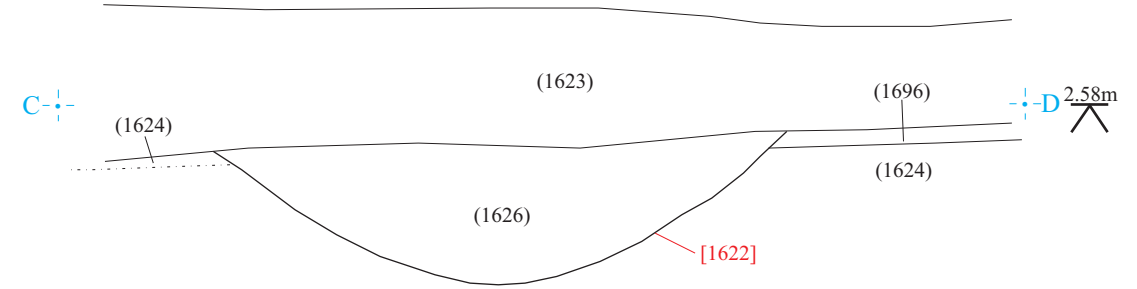
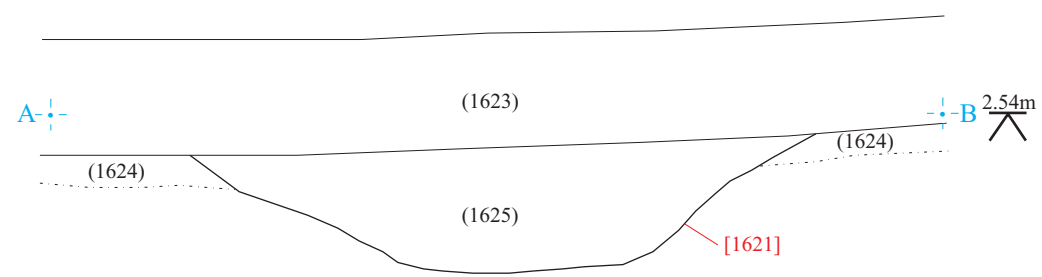
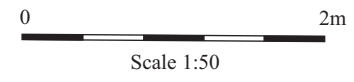
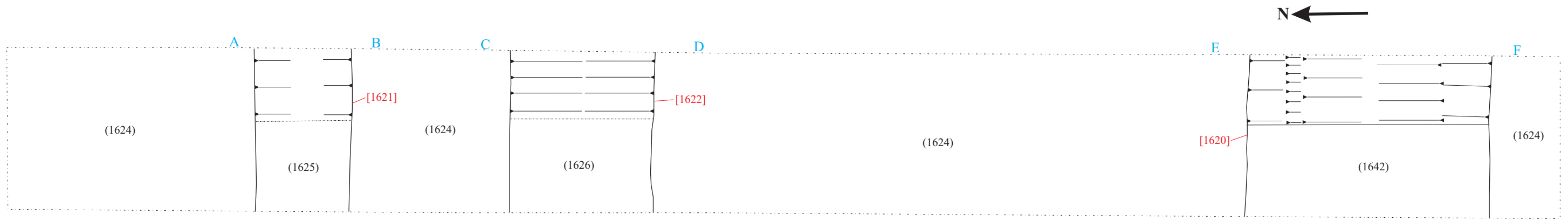
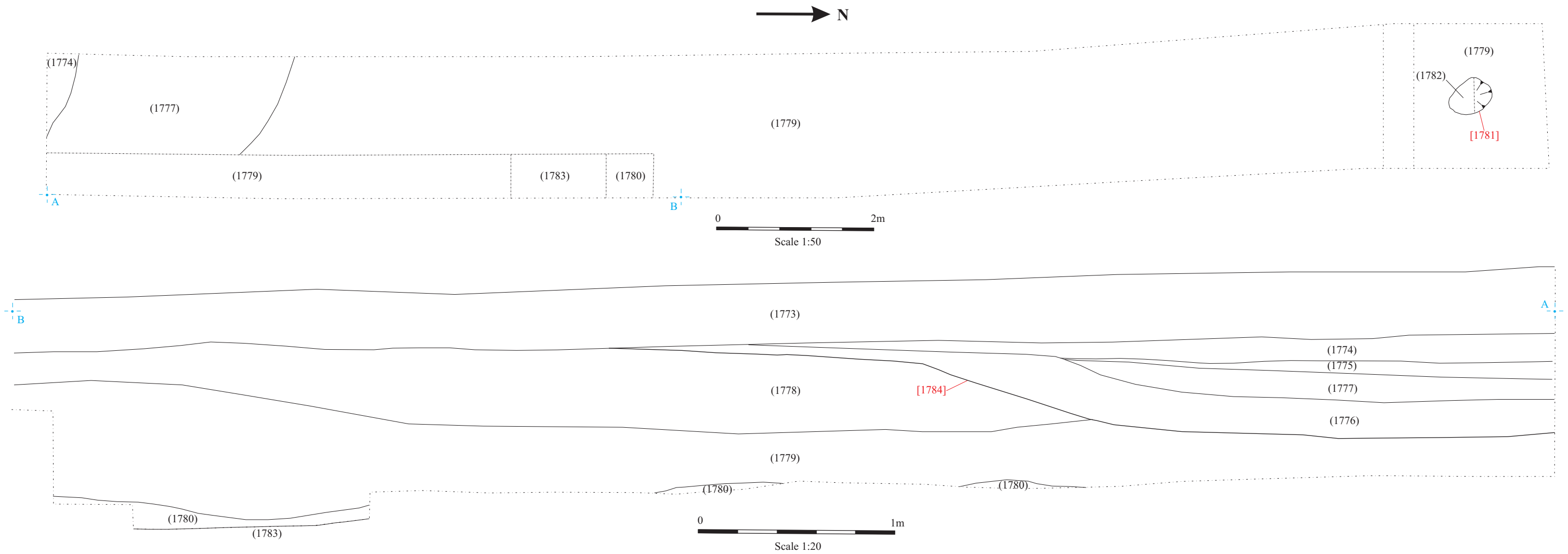
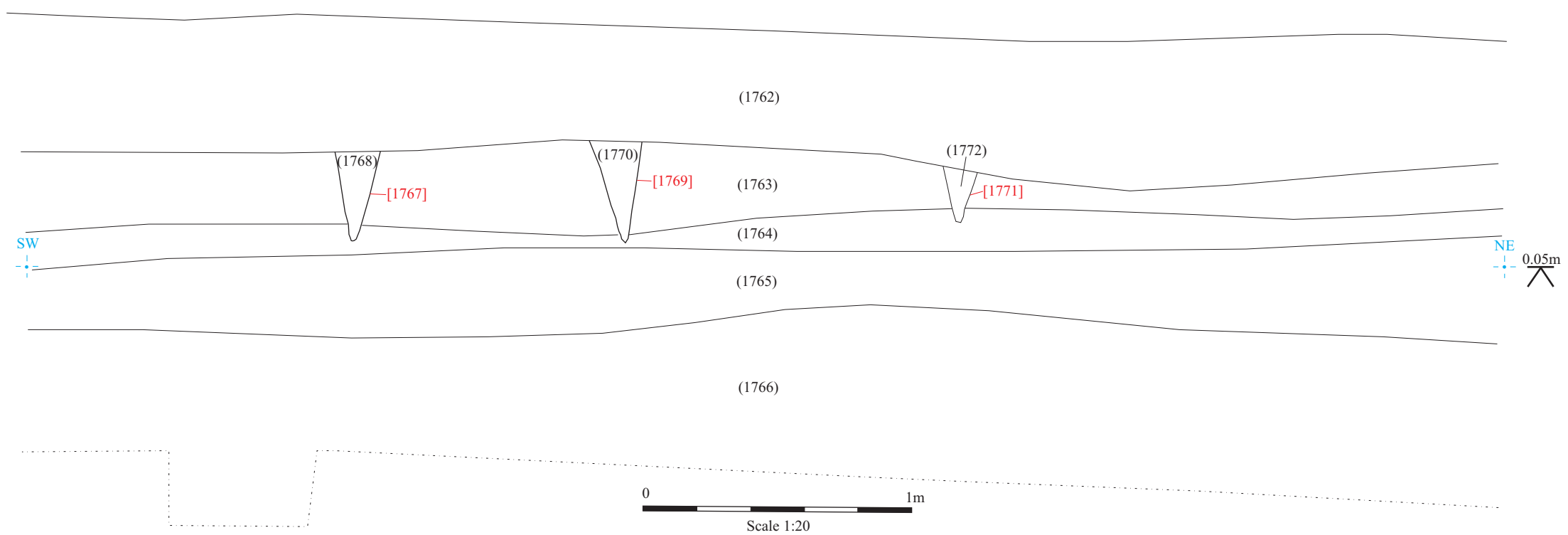


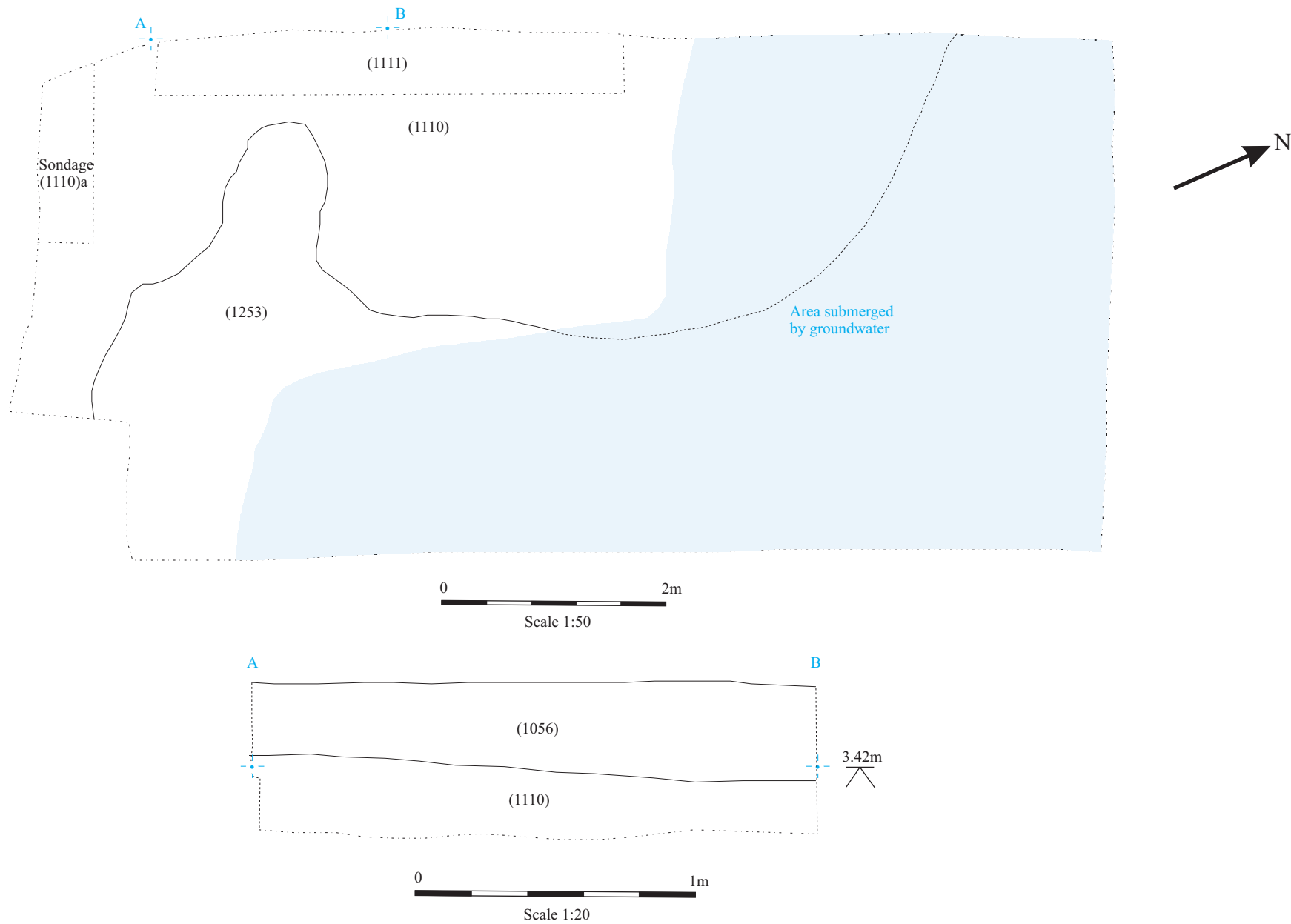
Fig. 63: Trench 151 plan and sections (scales 1:50, and 1:20)



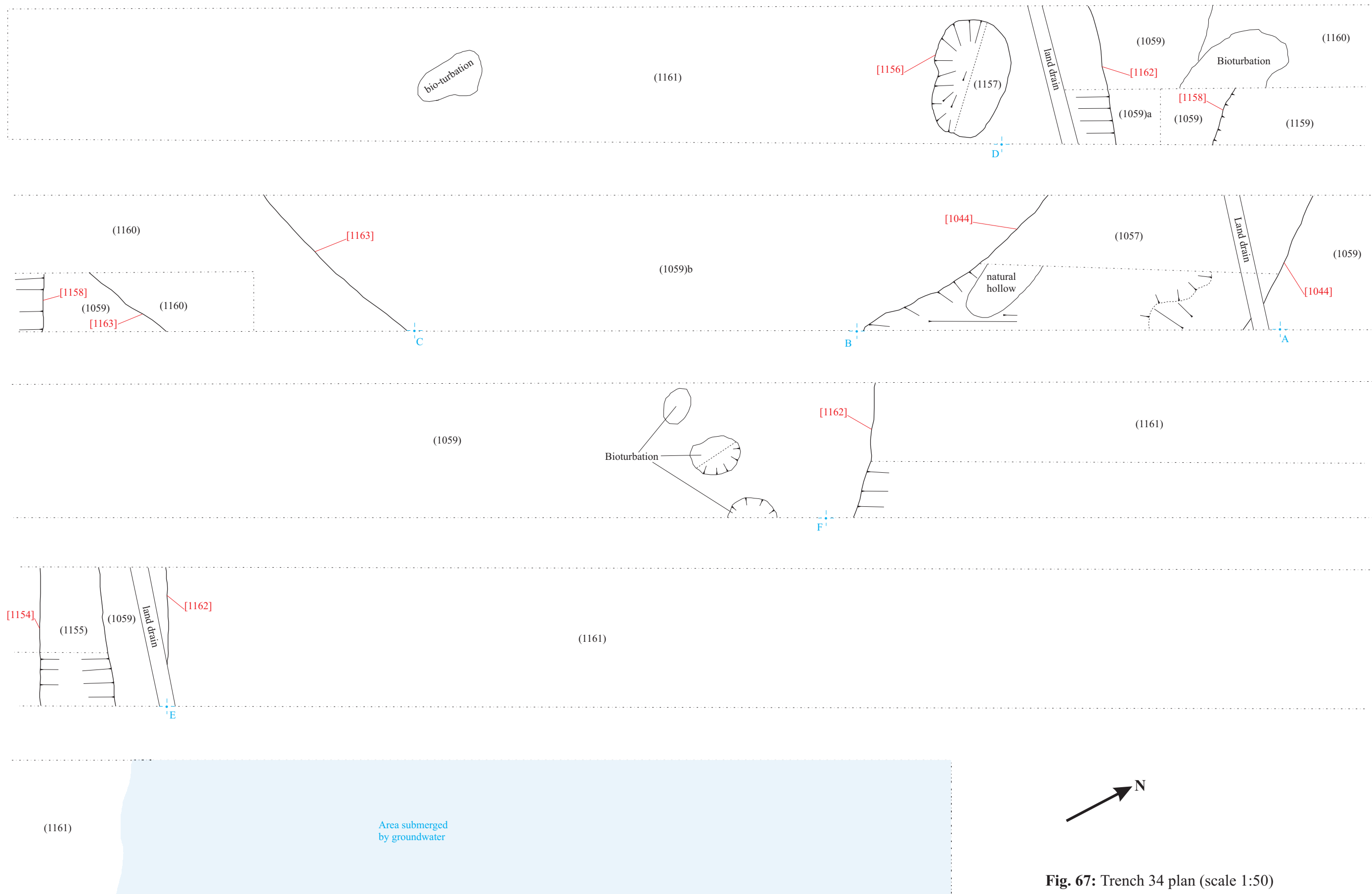
**Fig. 64:** Trench 152 plan and section (scales 1:50 and 1:20)



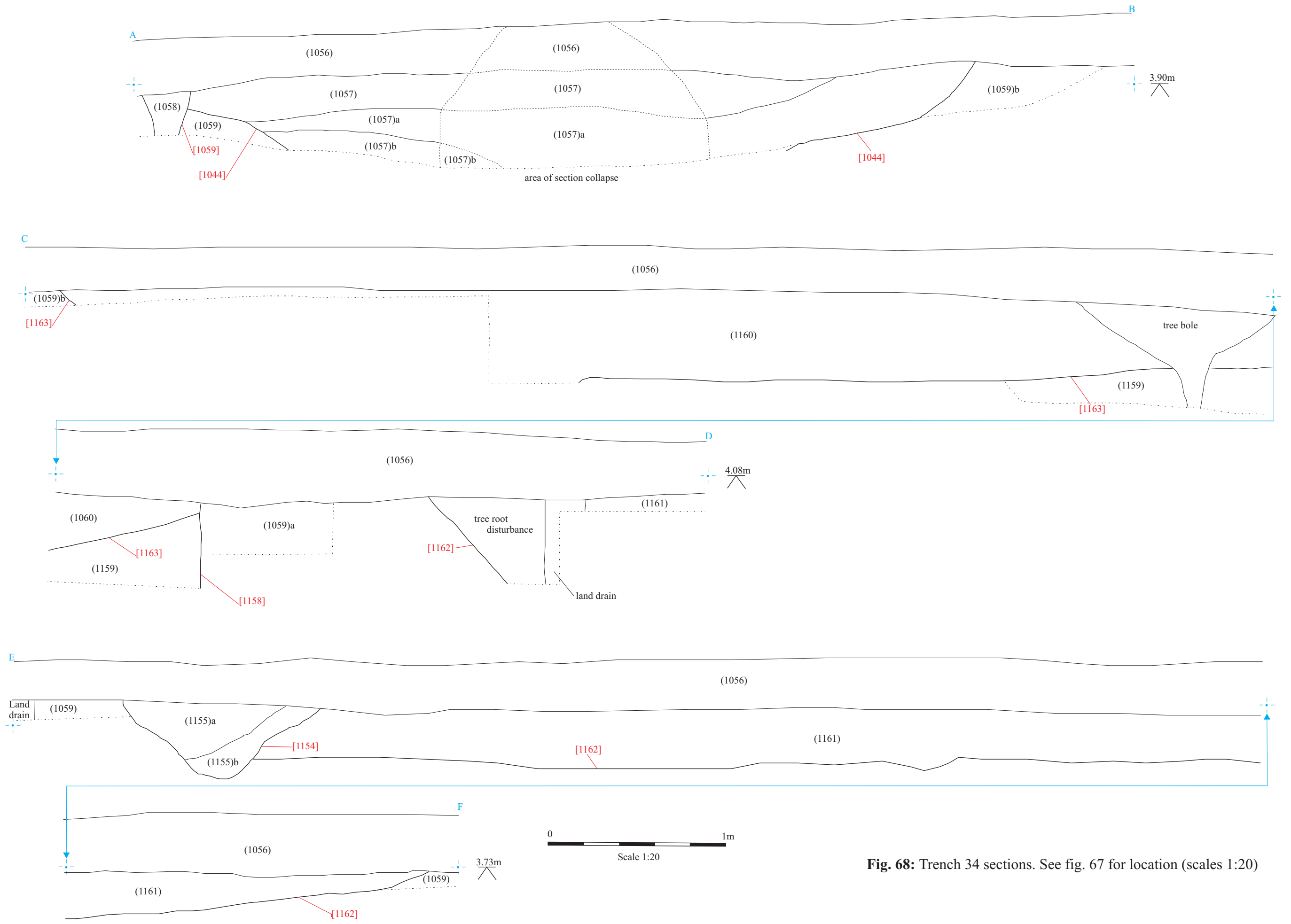
**Fig. 65:** Trench 153 representative section (scale 1:20)



**Fig. 66:** Trench 33 plan and representative section (scales 1:50 and 1:20)

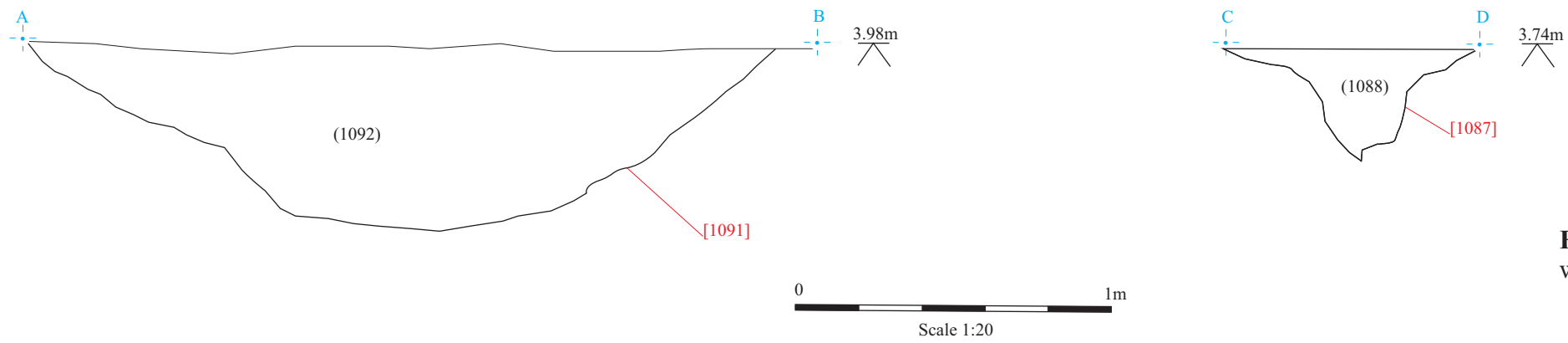
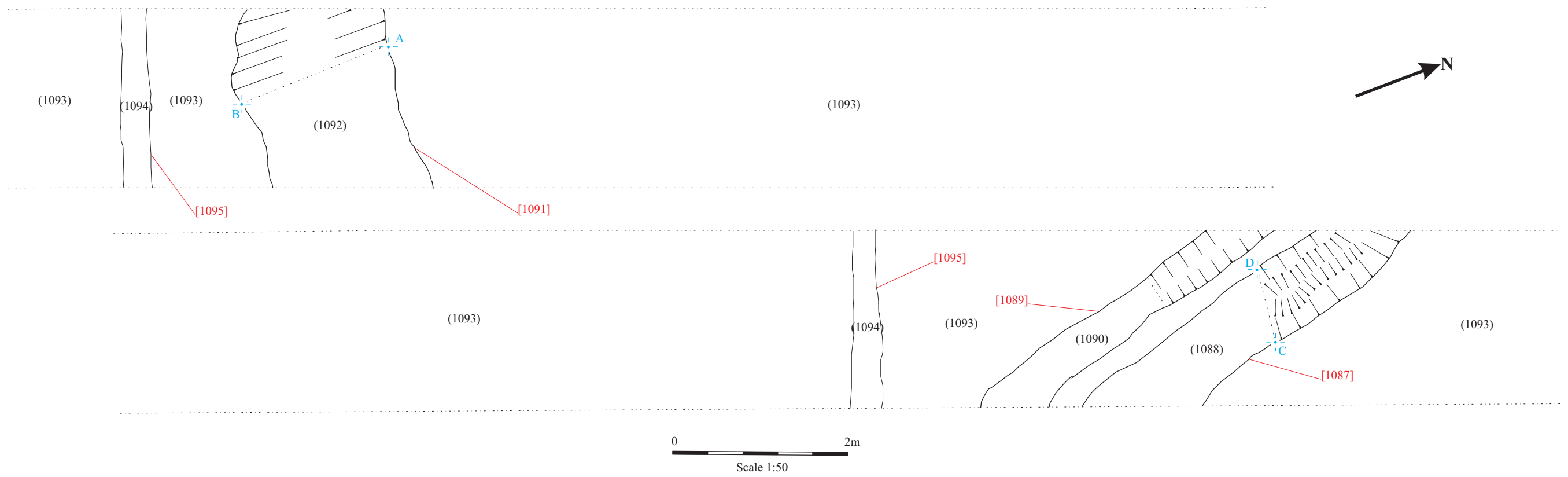
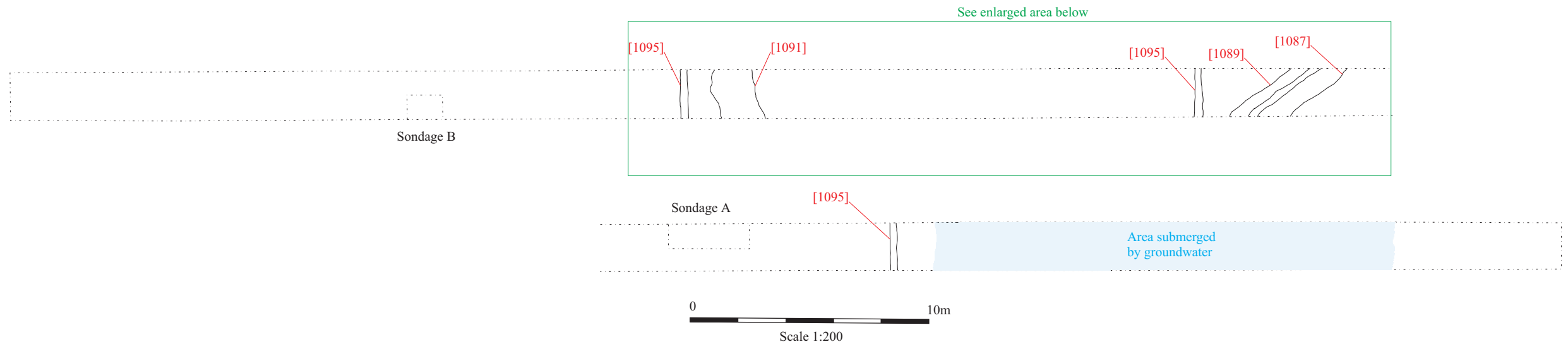


**Fig. 67:** Trench 34 plan (scale 1:50)

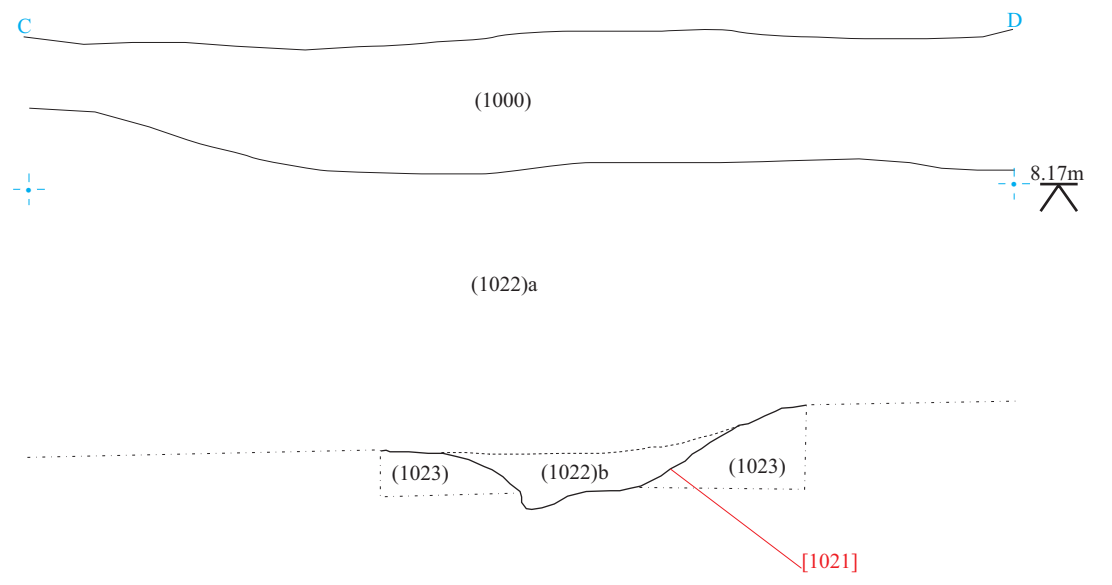
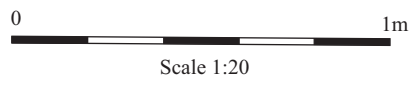
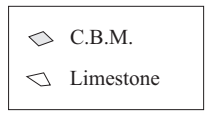
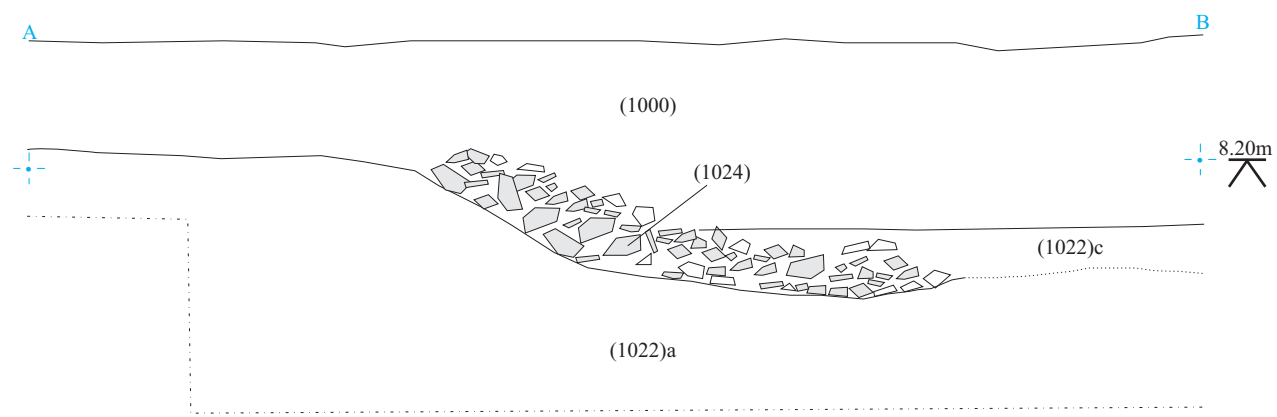
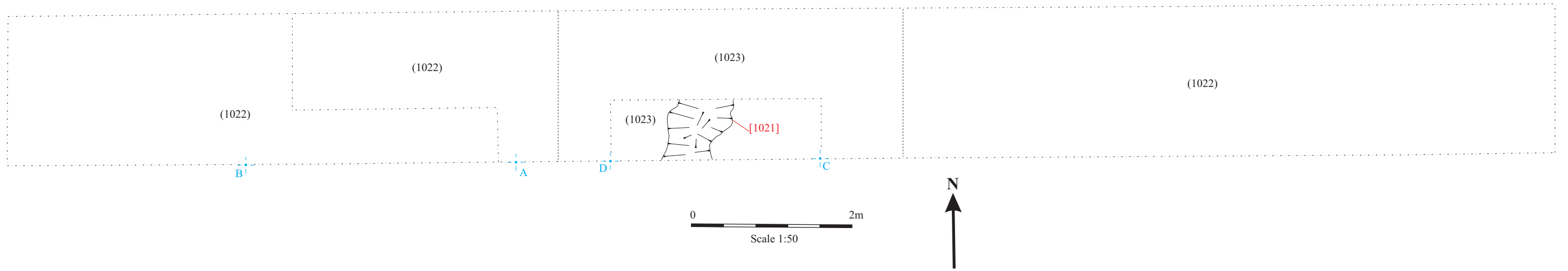


**Fig. 68:** Trench 34 sections. See fig. 67 for location (scales 1:20)

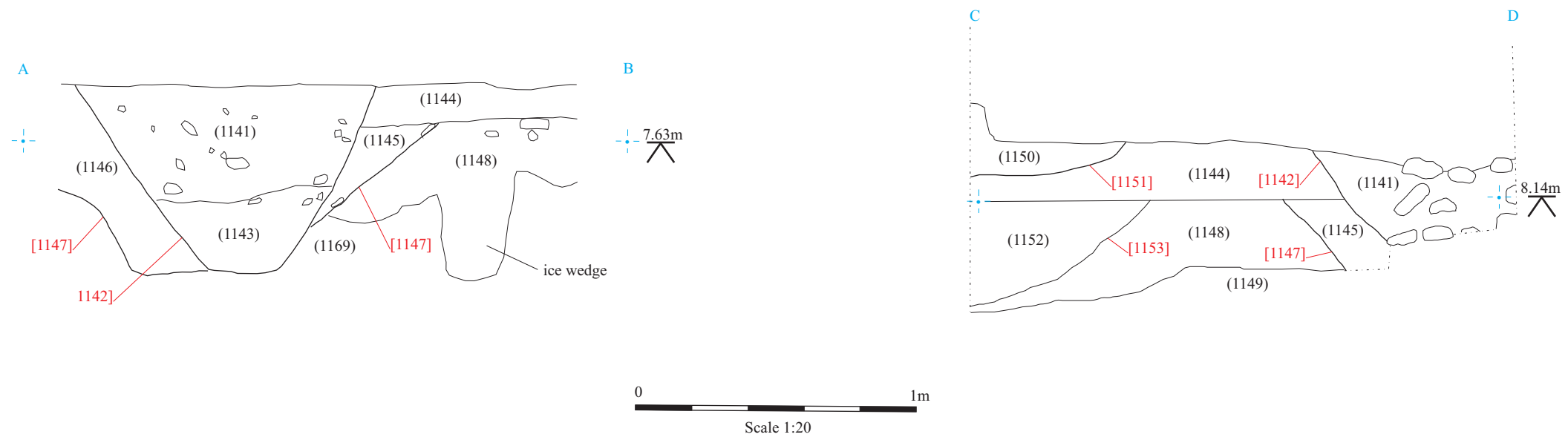
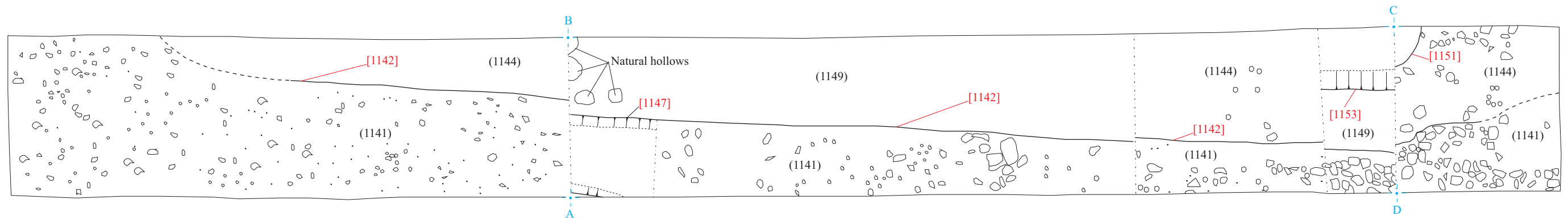




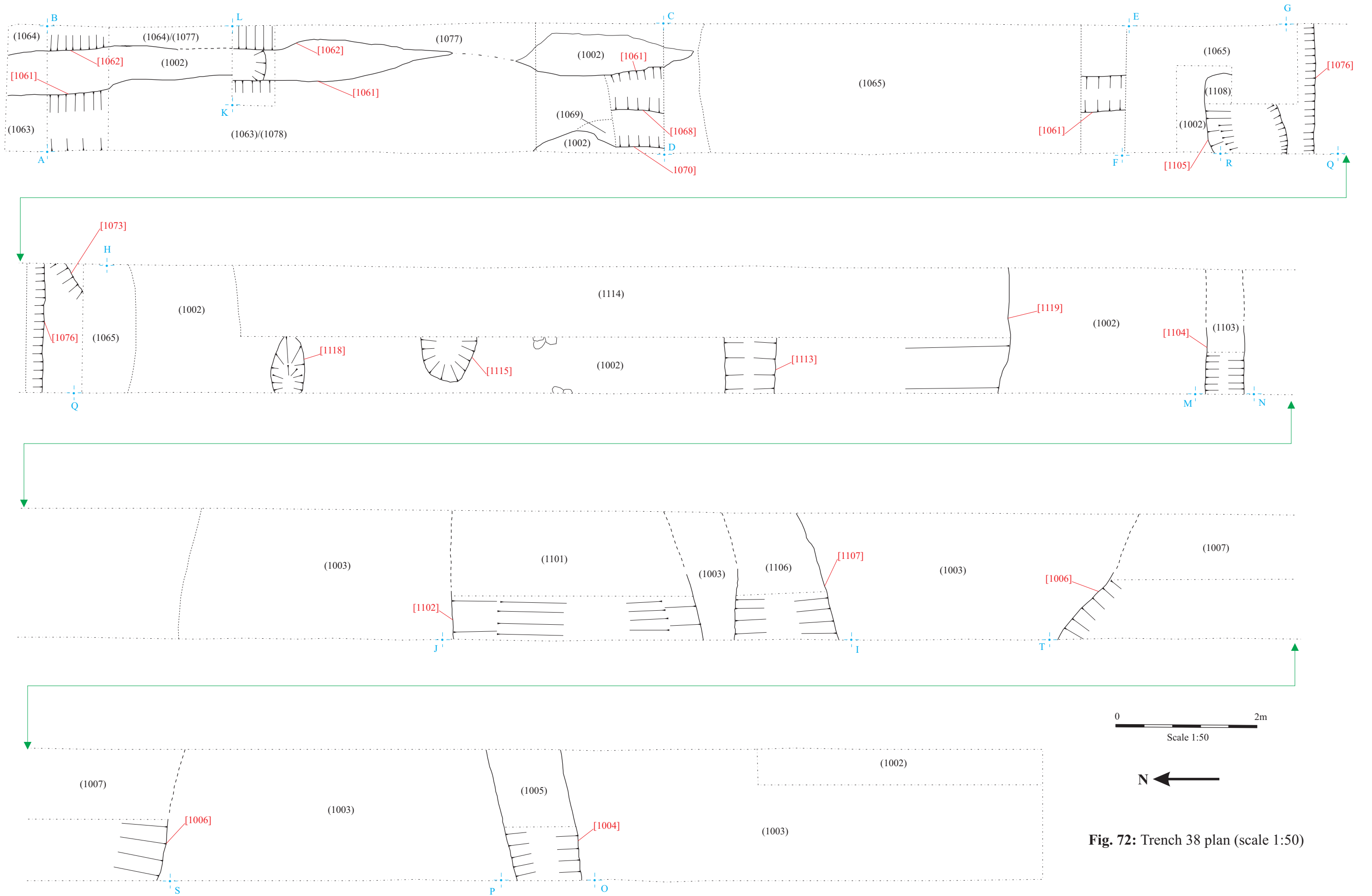
**Fig. 69:** Trench 35 plan and sections. Plan is at 1:200 with enlarged portion at 1:50. Sections at 1:20.



**Fig. 70:** Trench 36 plan and sections (scales 1:50 and 1:20)



**Fig. 71:** Trench 37 plan and sections (scales 1:50 and 1:20)



**Fig. 72: Trench 38 plan (scale 1:50)**

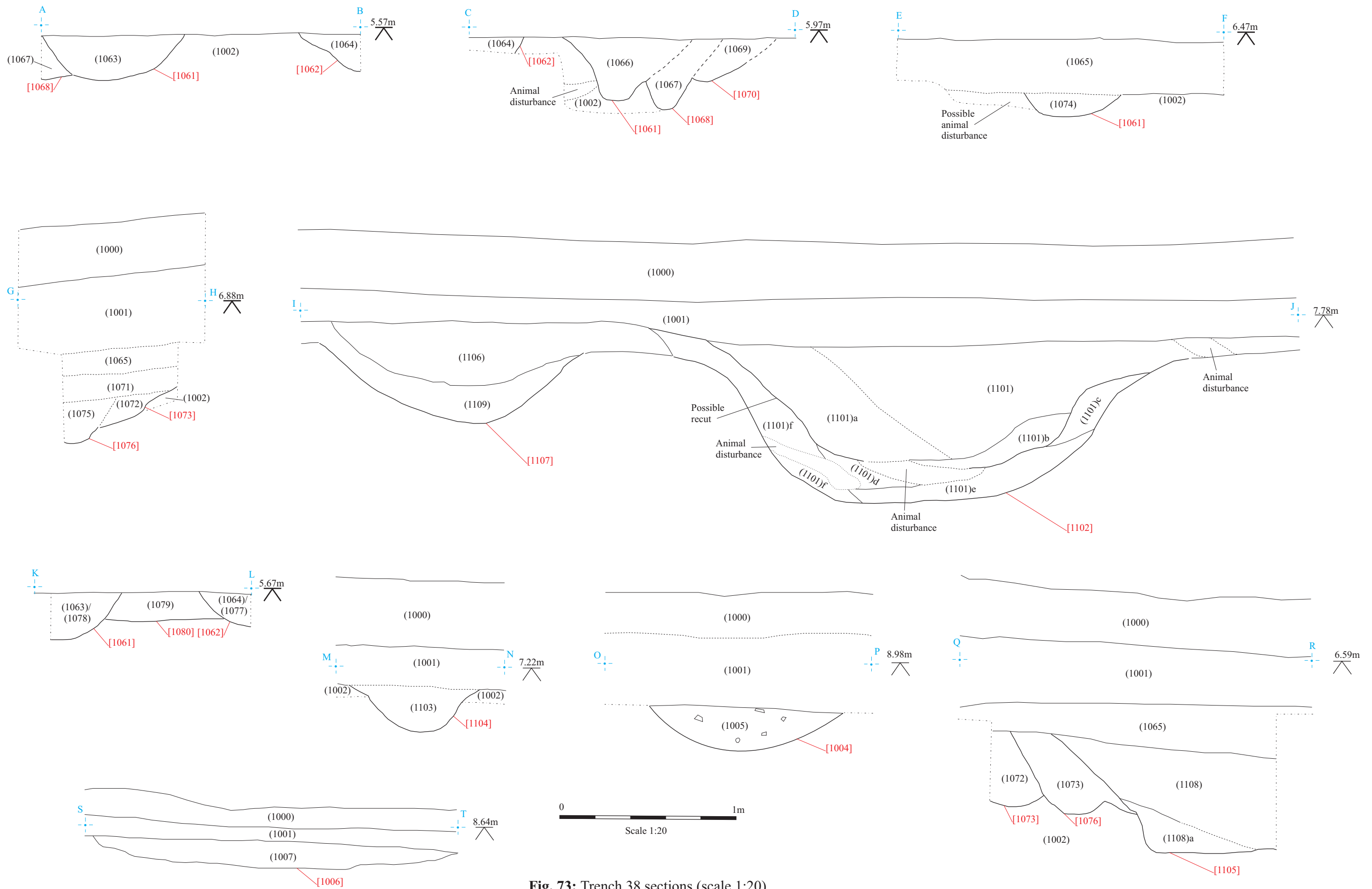
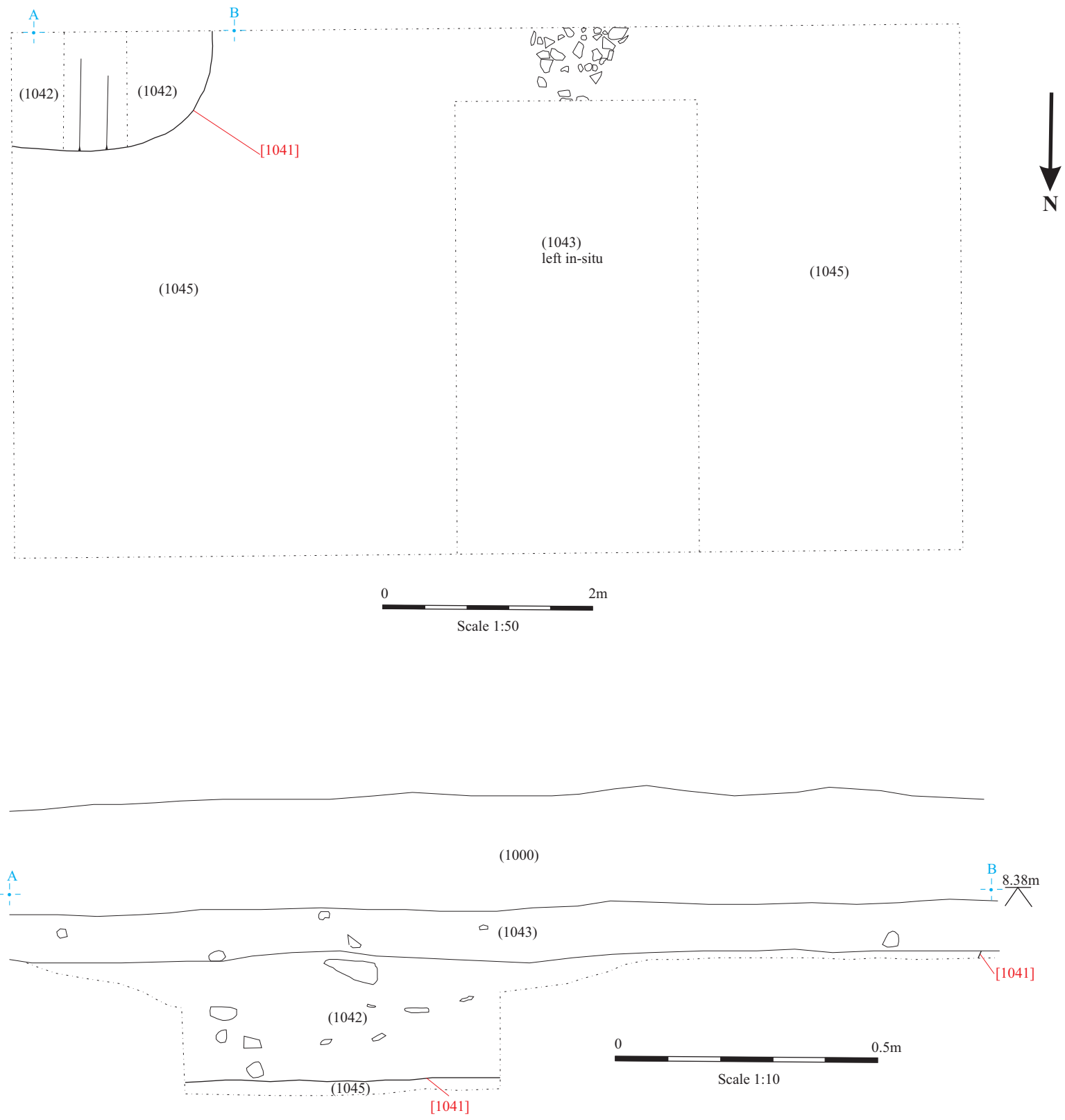
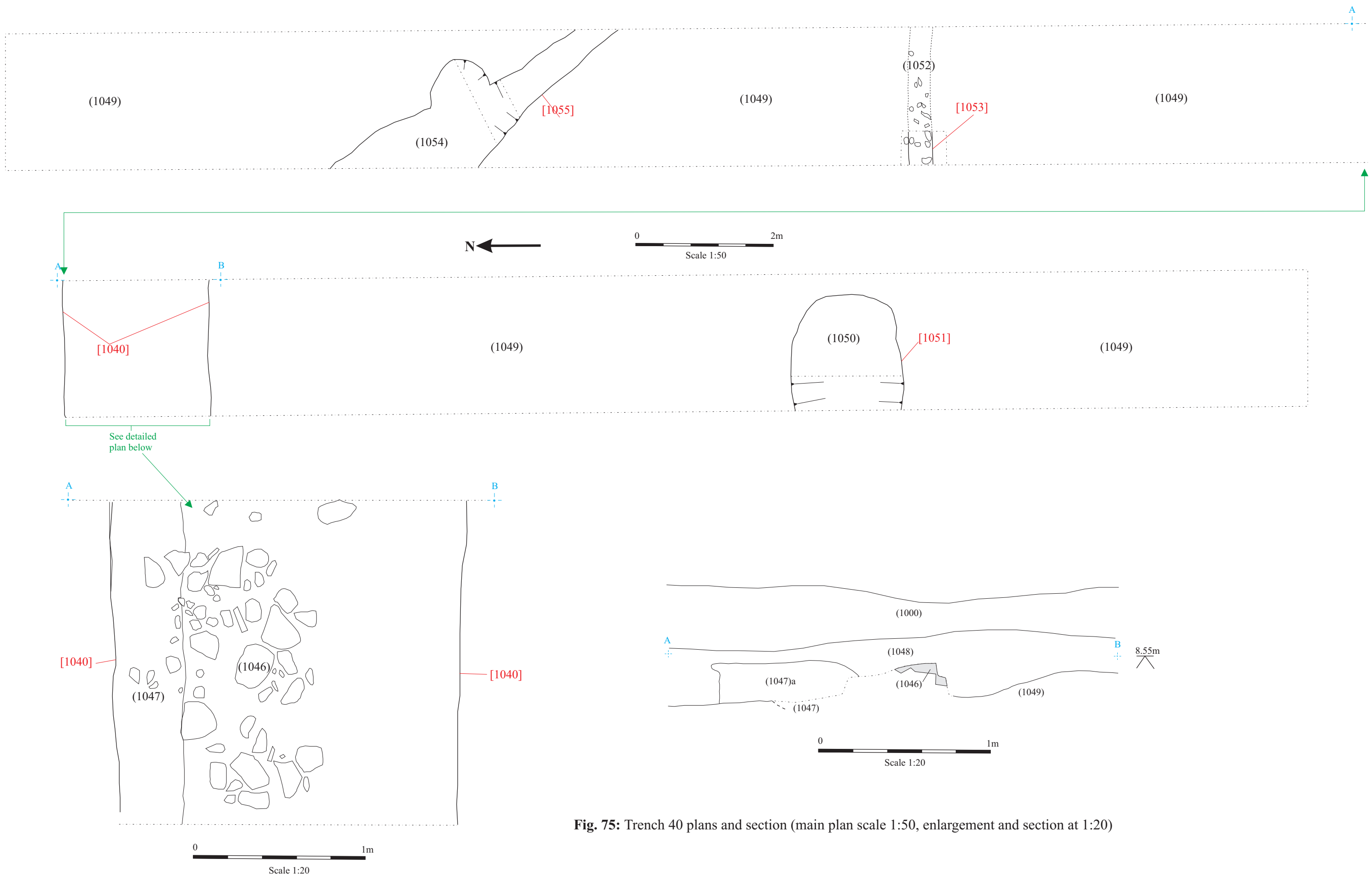


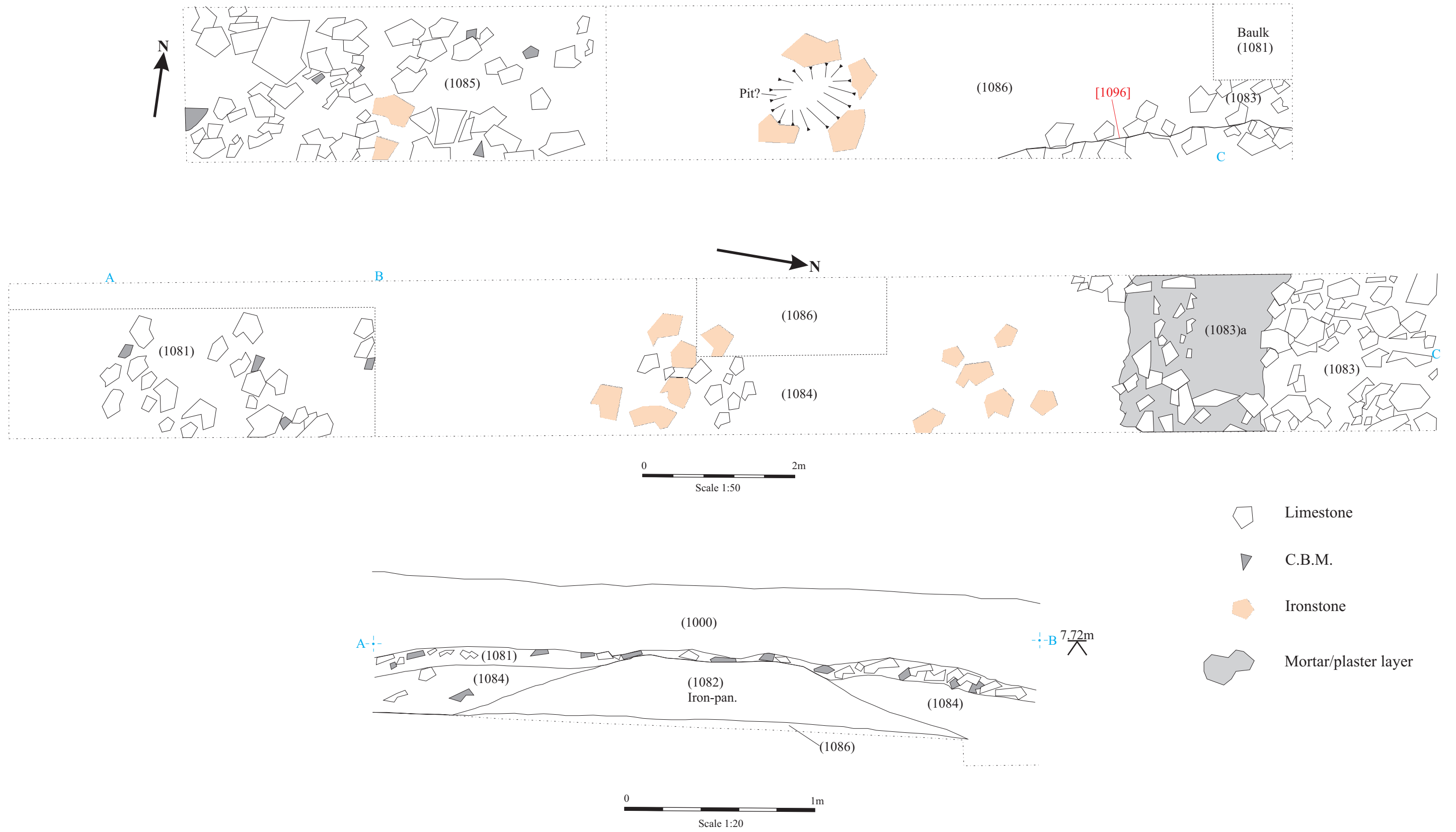
Fig. 73: Trench 38 sections (scale 1:20)



**Fig. 74:** Trench 39 plan and section (plan at a scale of 1:50, section at 1:10)

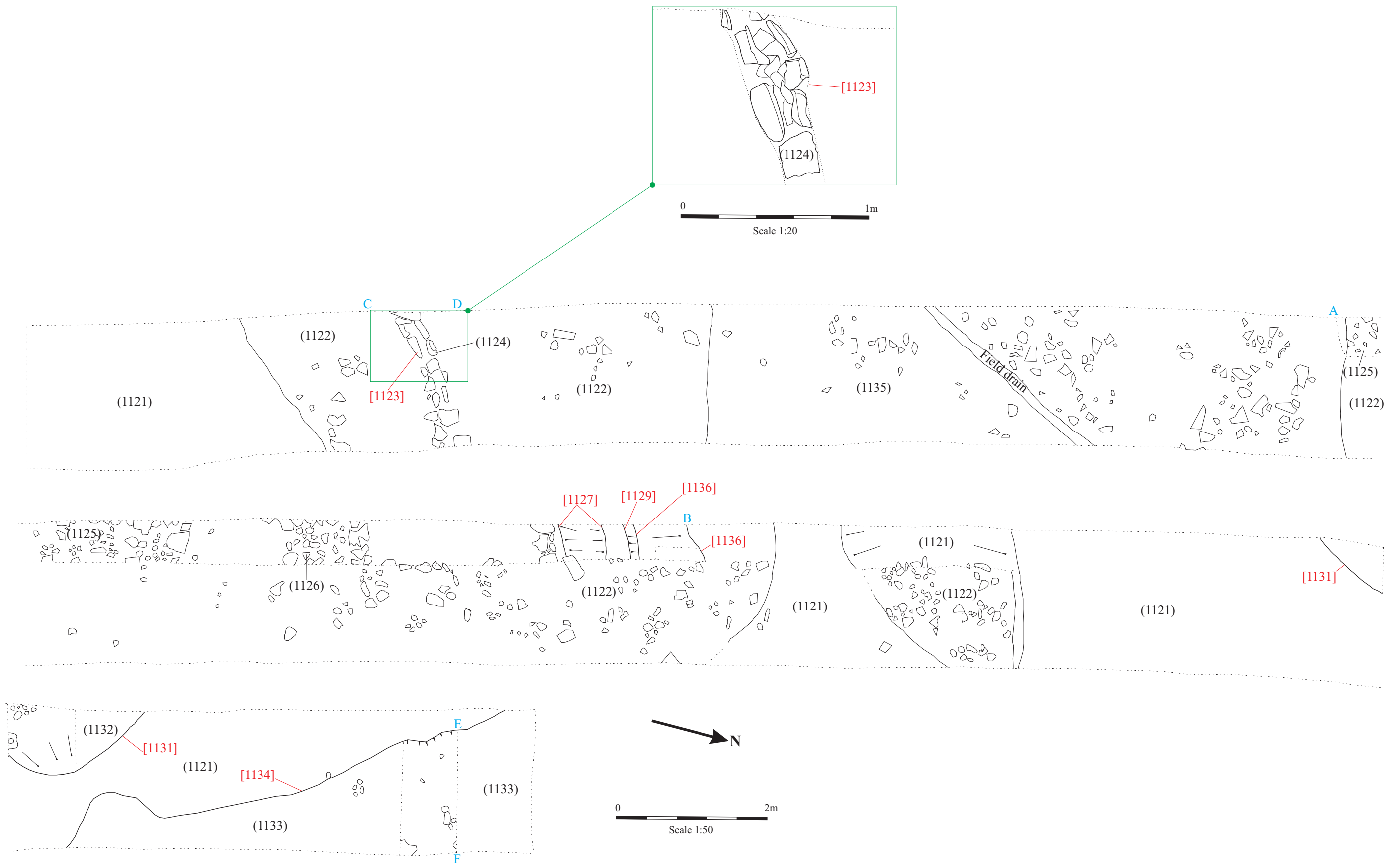


**Fig. 75:** Trench 40 plans and section (main plan scale 1:50, enlargement and section at 1:20)

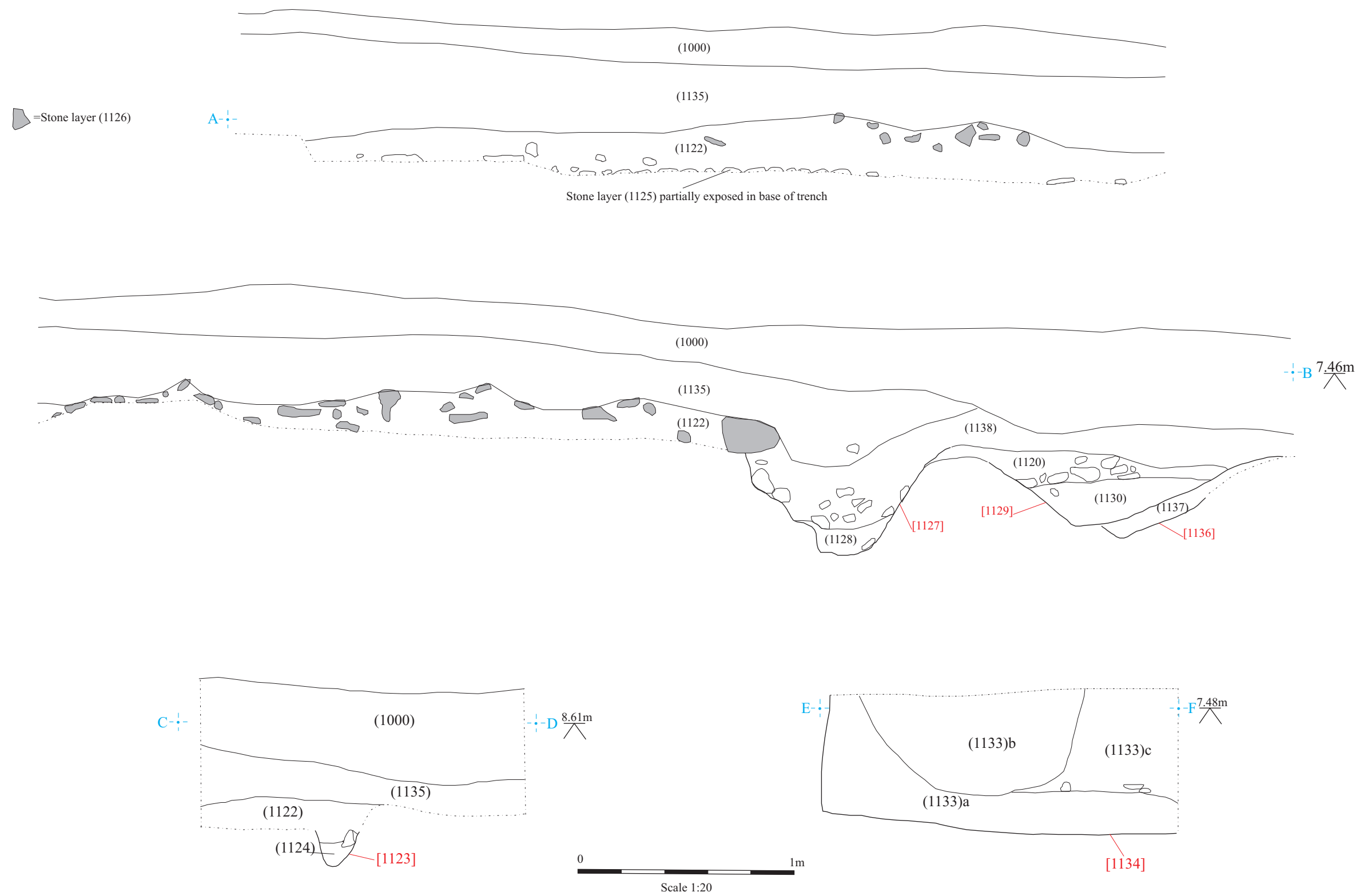


**Fig. 76:** Trench 41 plan and section (scales 1:50 and 1:20)

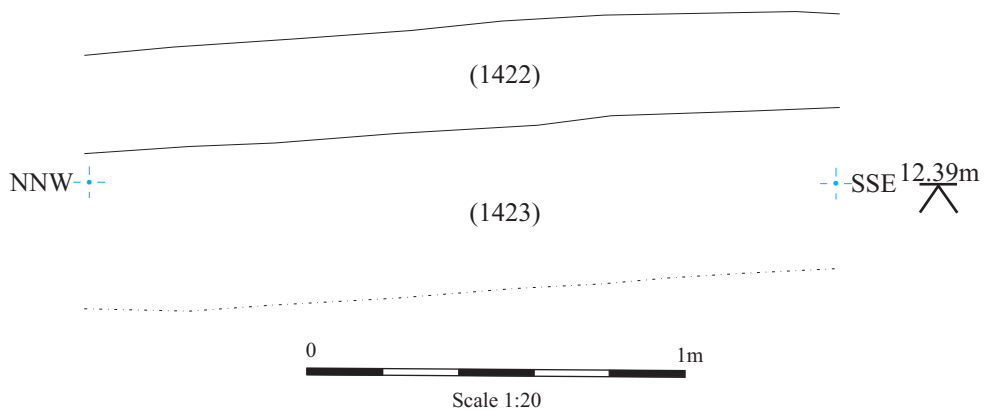




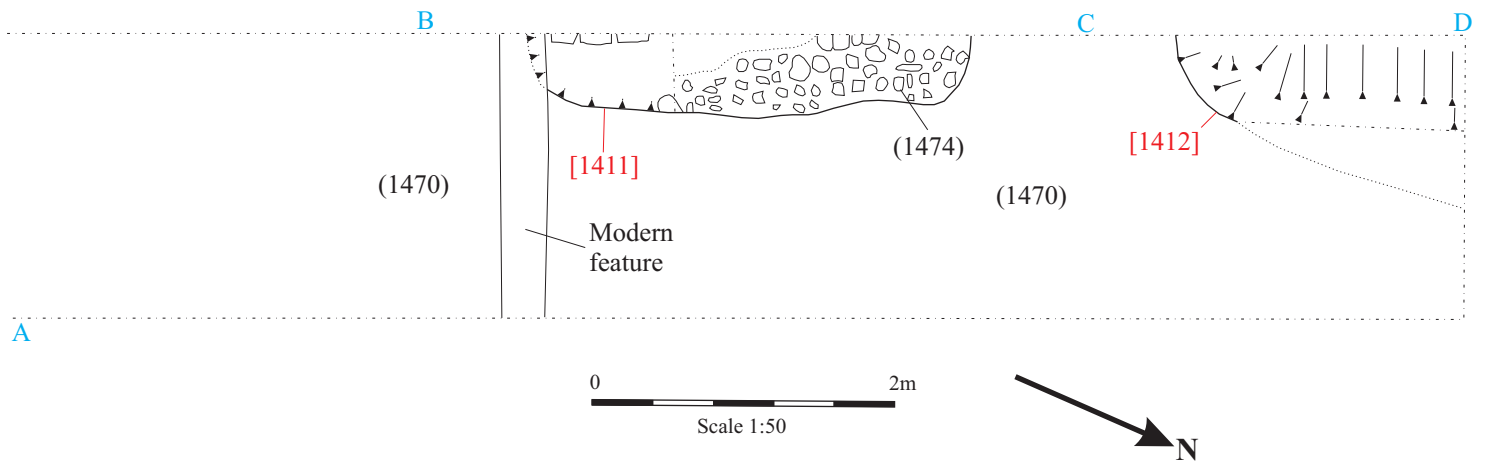
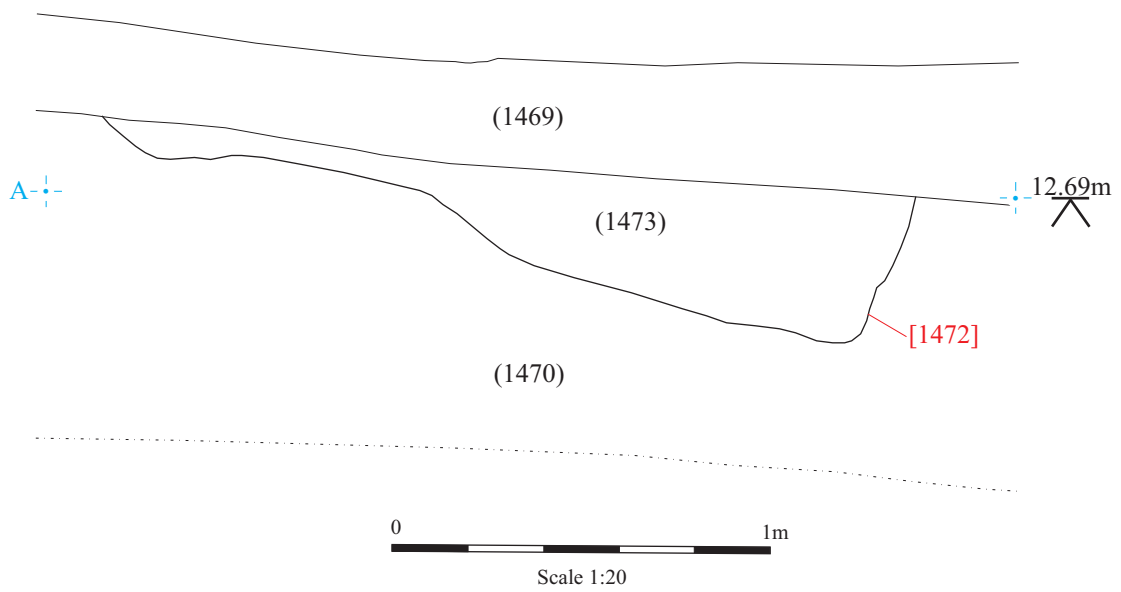
**Fig. 77:** Trench 42 plan. Sections A-B, C-D, E-F are shown in fig. 78 (scales 1:50 and 1:20)



**Fig. 78:** Trench 42 section drawings (location shown on fig. 77) (scale 1:20)



**Fig. 79:** Trench 43 sample section (scale 1:20)



**Fig. 80:** Trench 44 plan and section (scales 1:50 and 1:20)

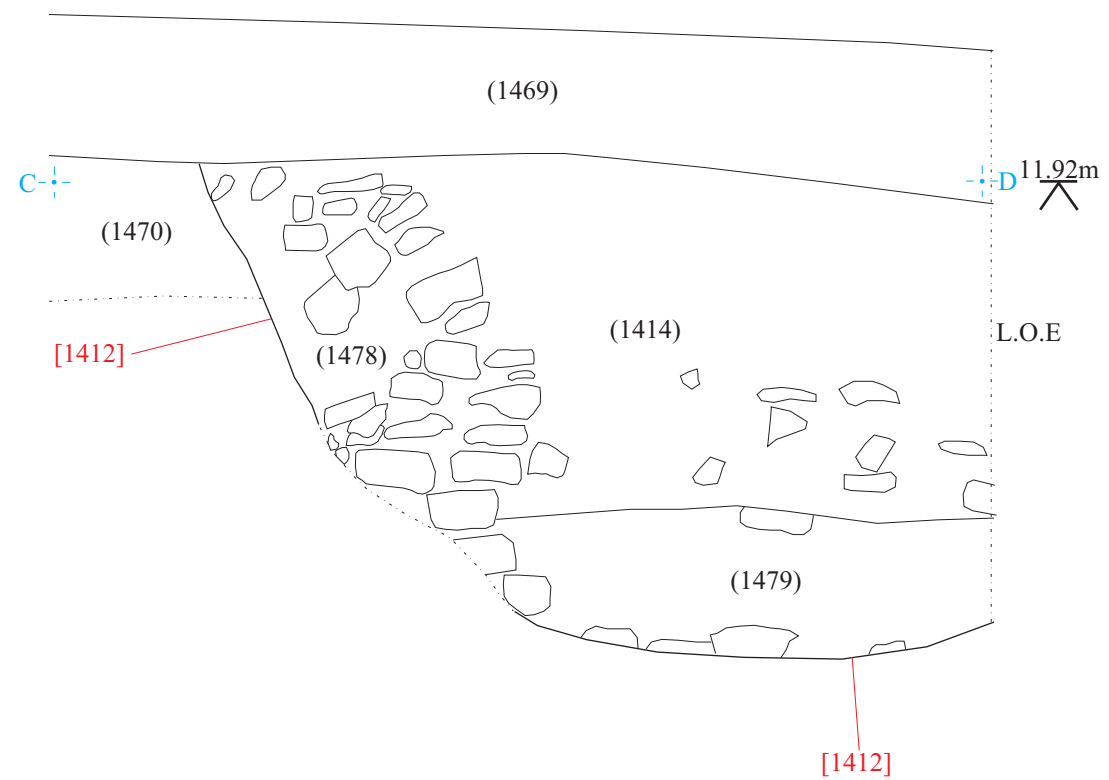
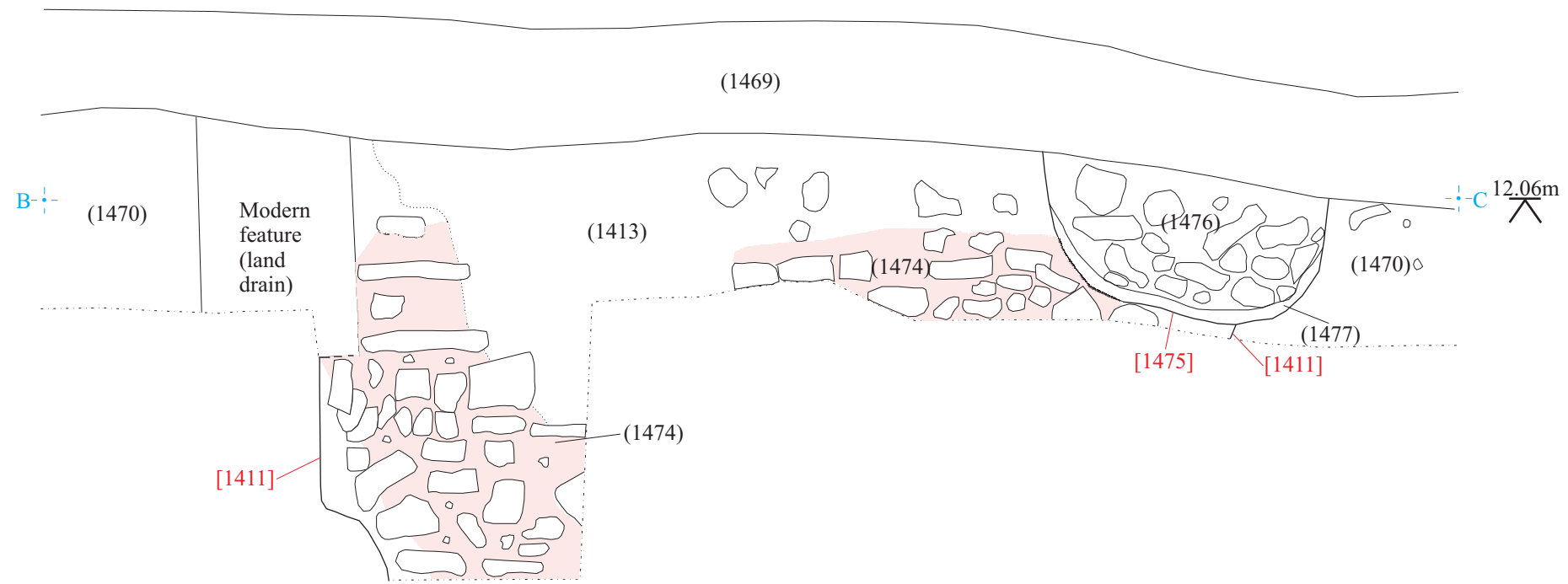


Fig. 81: Trench 44 sections (scale 1:20)

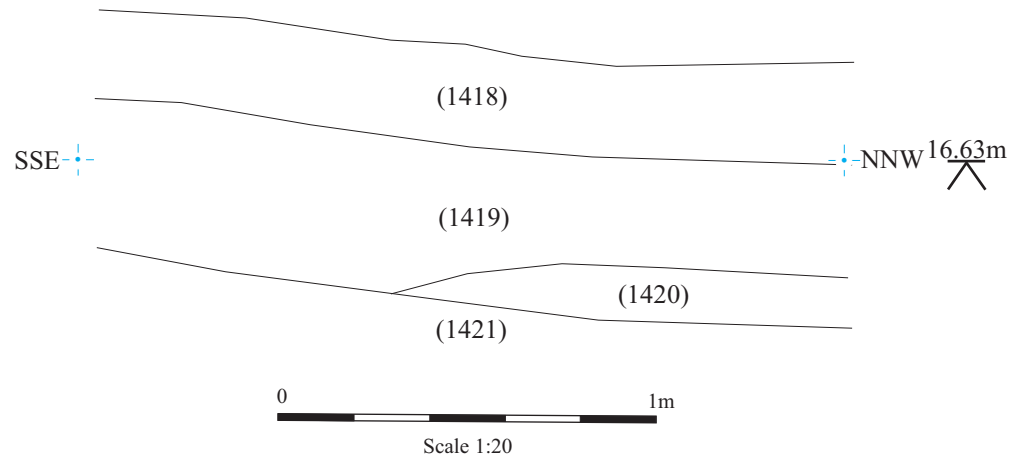


Fig. 82: Trench 45 representative section (scale 1:20)

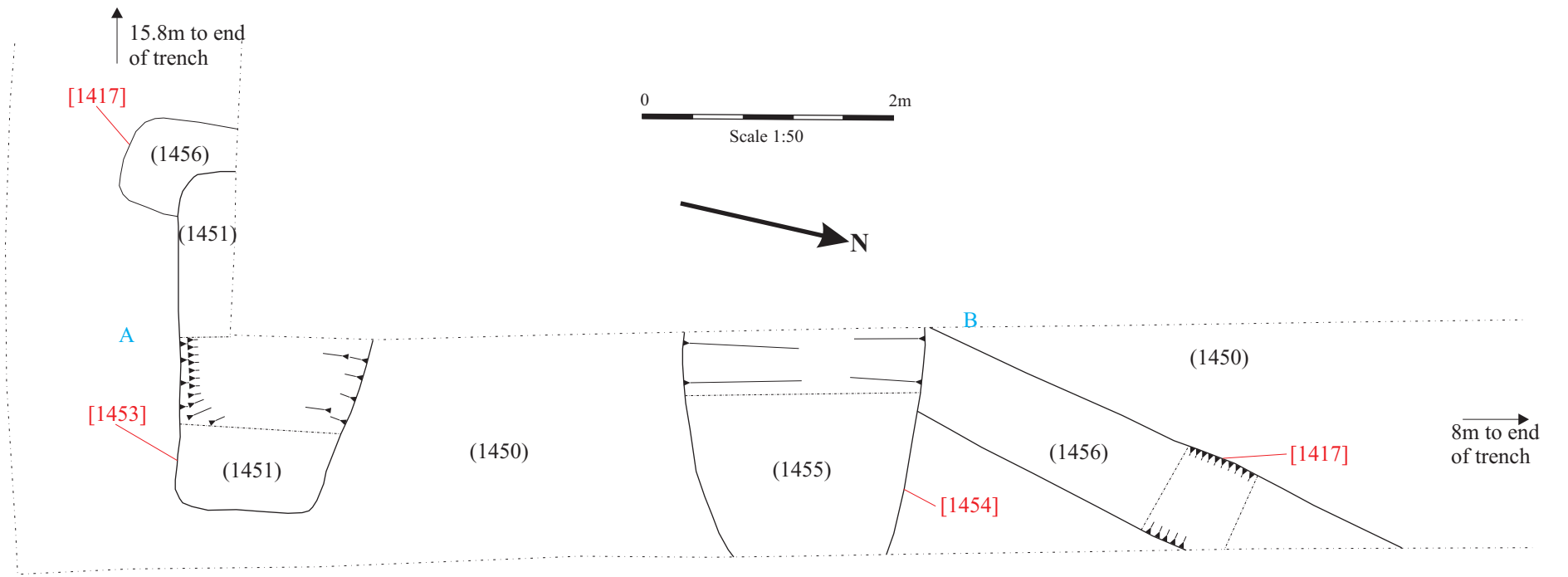
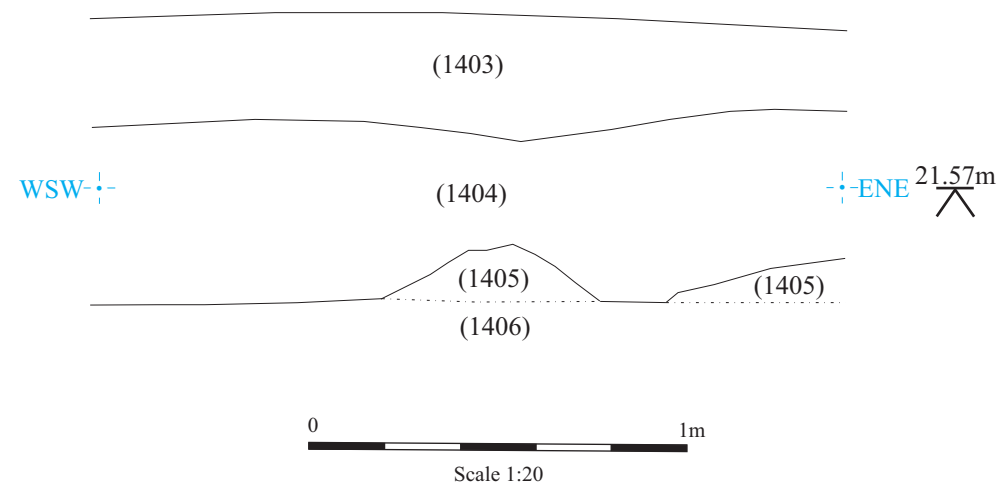
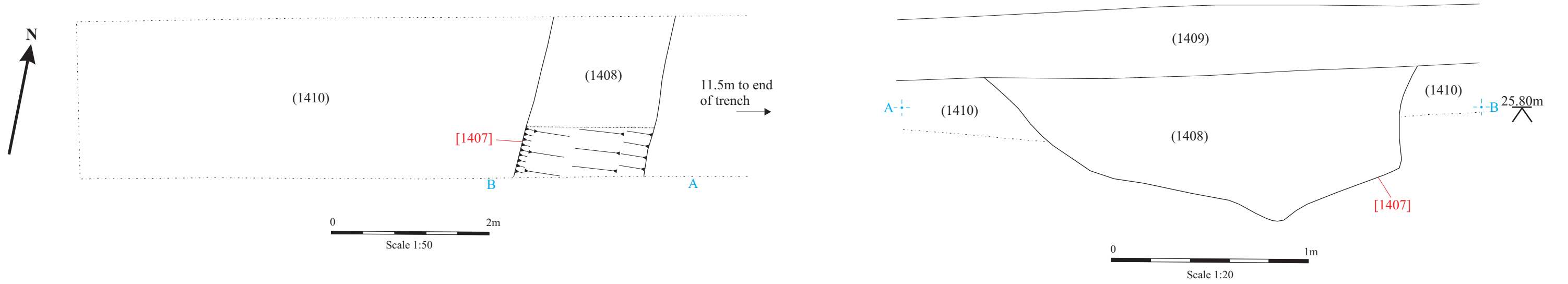


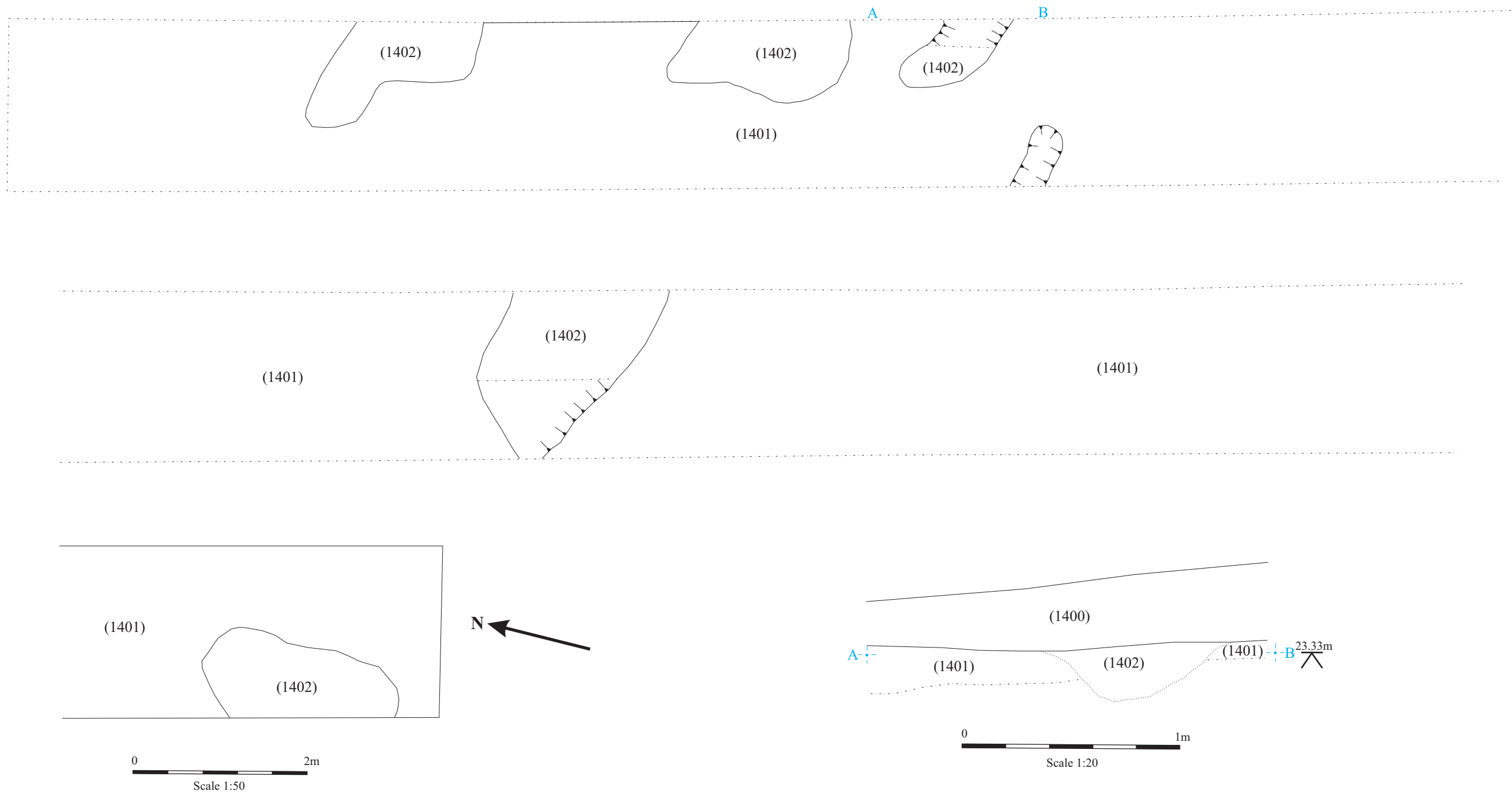
Fig. 83: Trench 46 plan and section (scales 1:50 and 1:20)



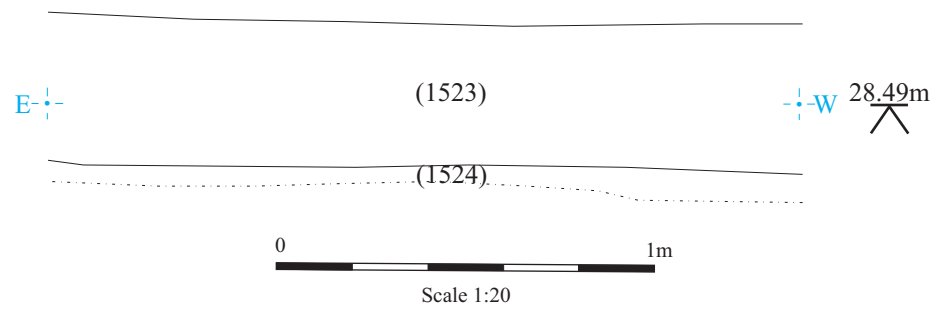
**Fig. 84:** Trench 47 sample section (scale 1:20)



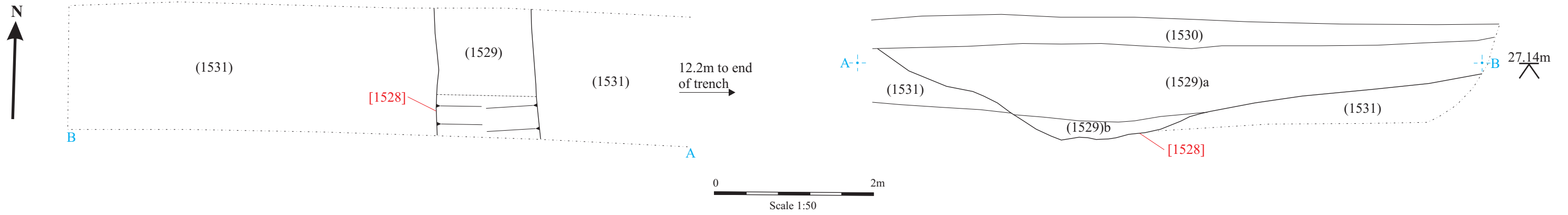
**Fig. 85:** Trench 48 plan and section (scales 1:50 and 1:20)



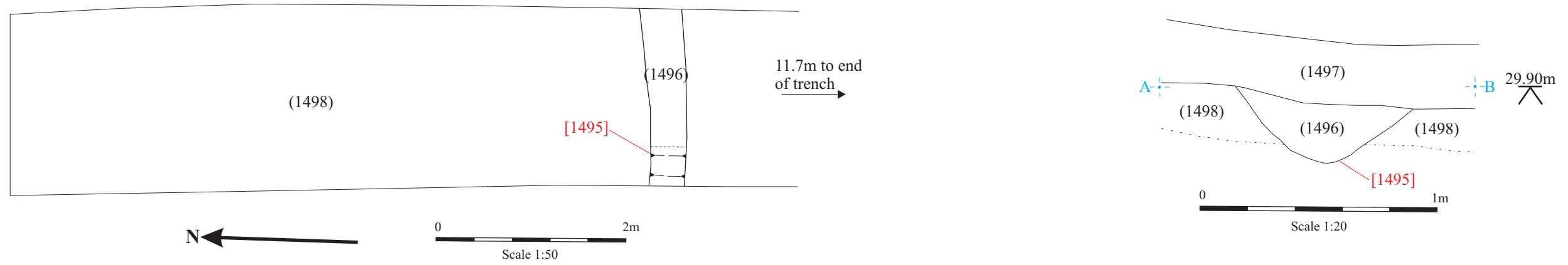
**Fig. 86:** Trench 49 plan and representative section (scales 1:50 and 1:20)



**Fig. 87:** Trench 50 representative section (scale 1:20)

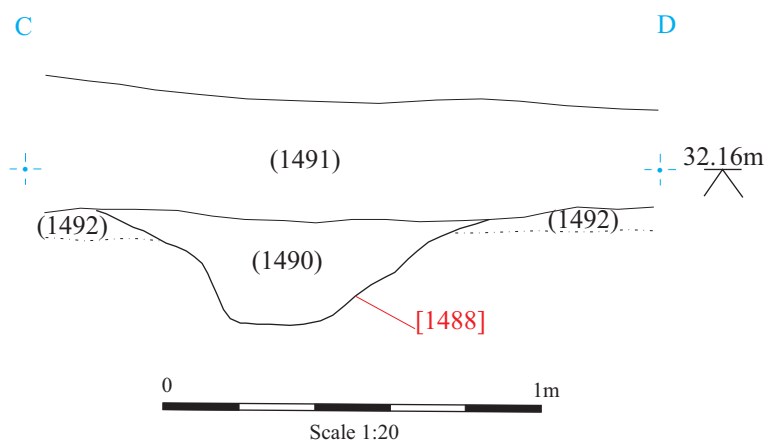
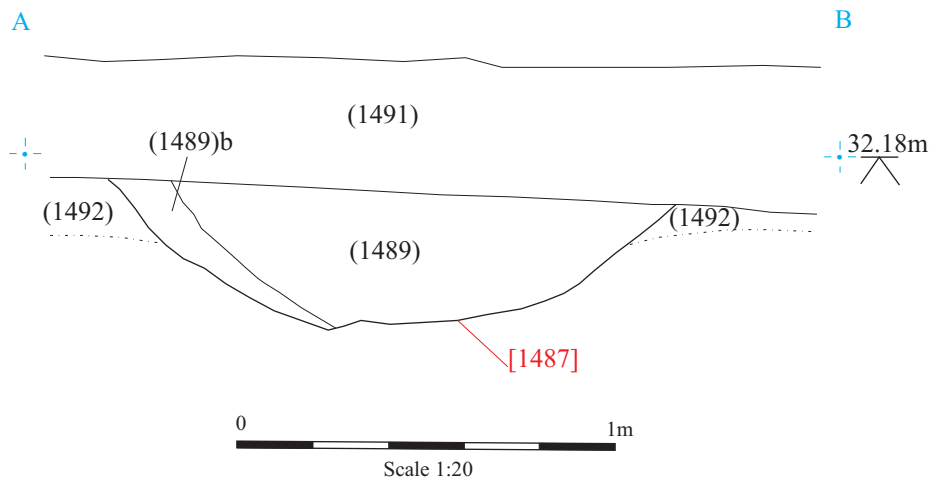
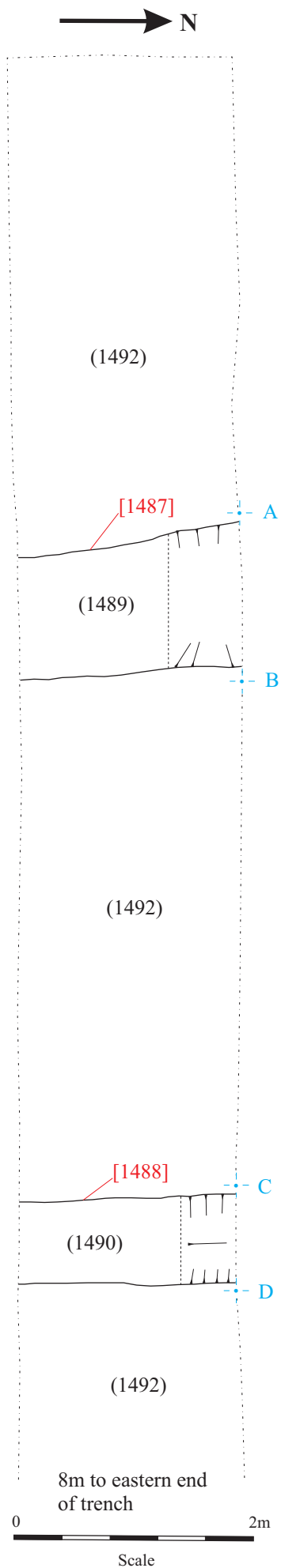


**Fig. 88:** Trench 51 plan and section (scales 1:50 and 1:20)

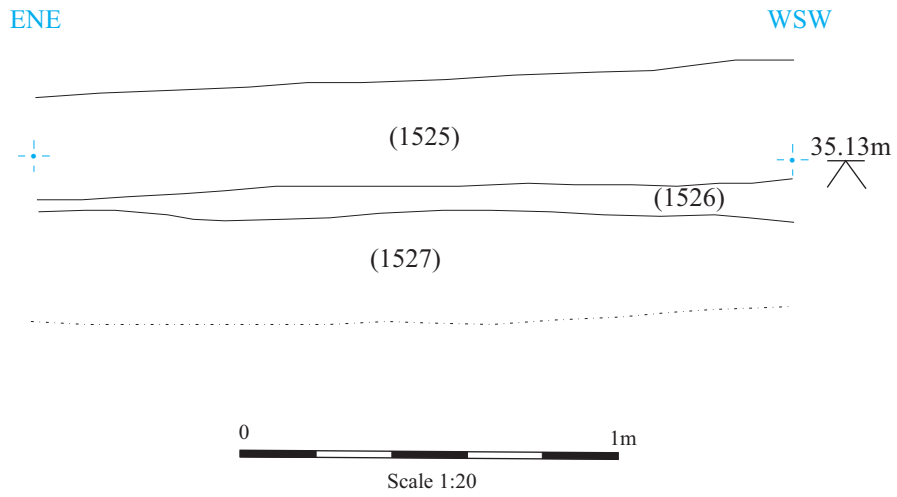


**Fig. 89:** Trench 52 plan and section (scales 1:50 and 1:20)

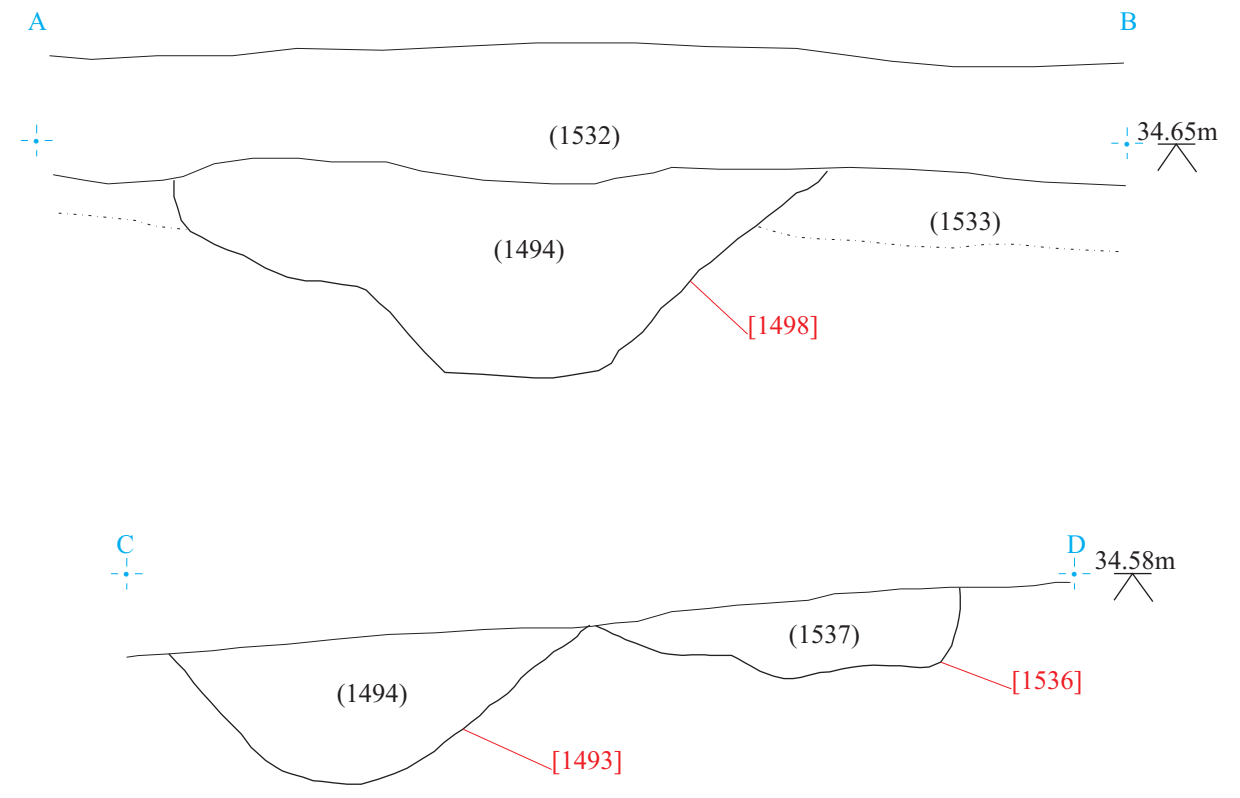
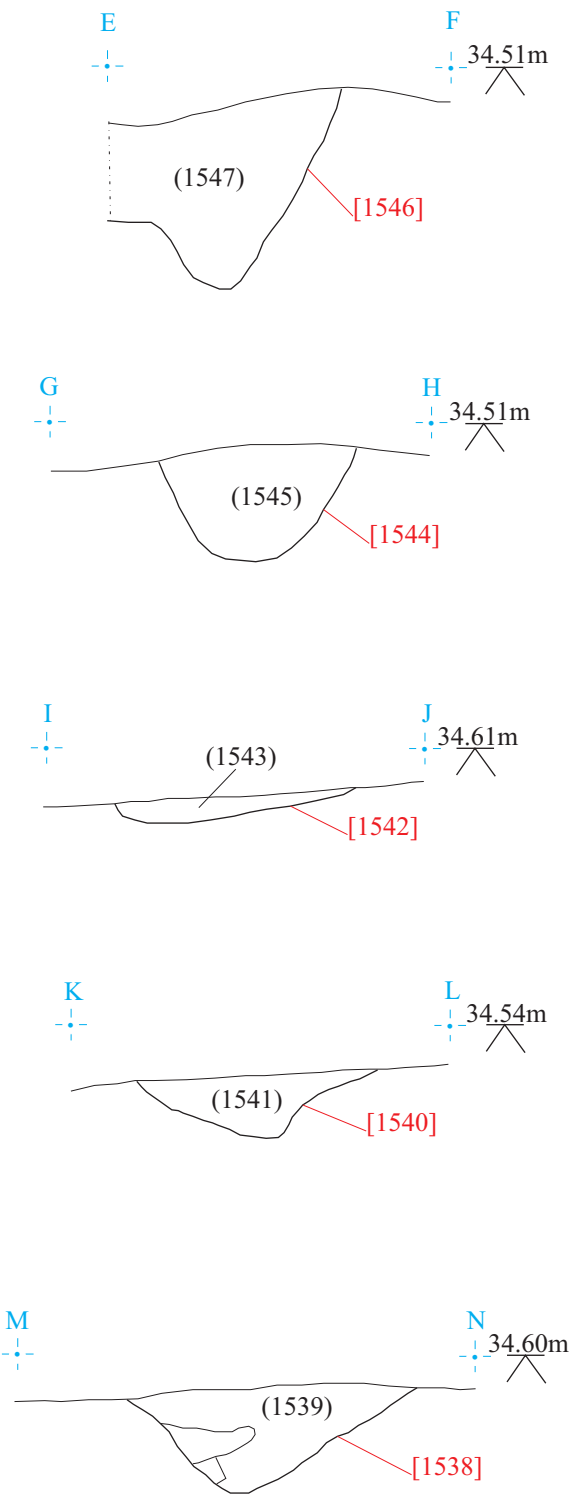
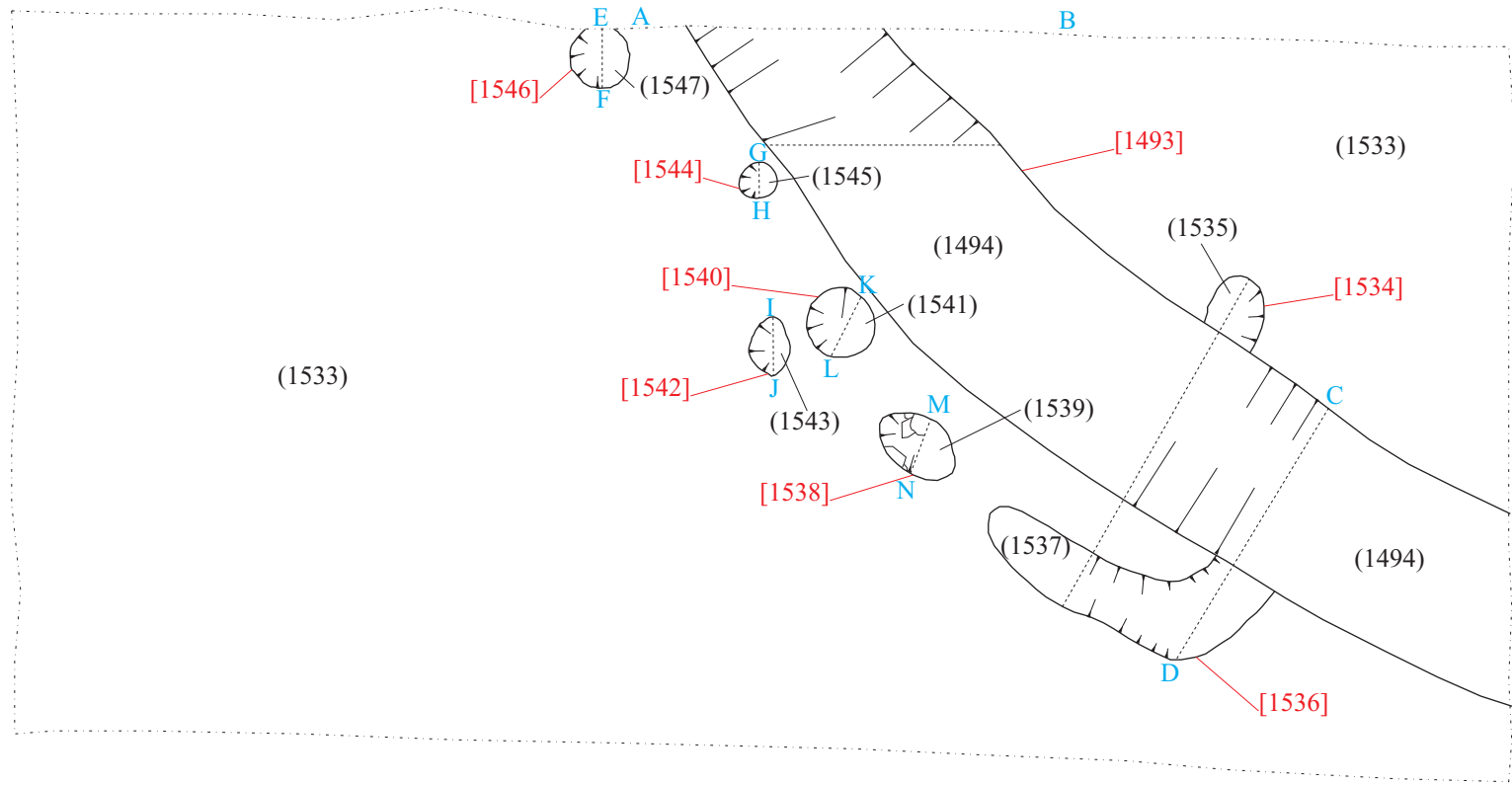




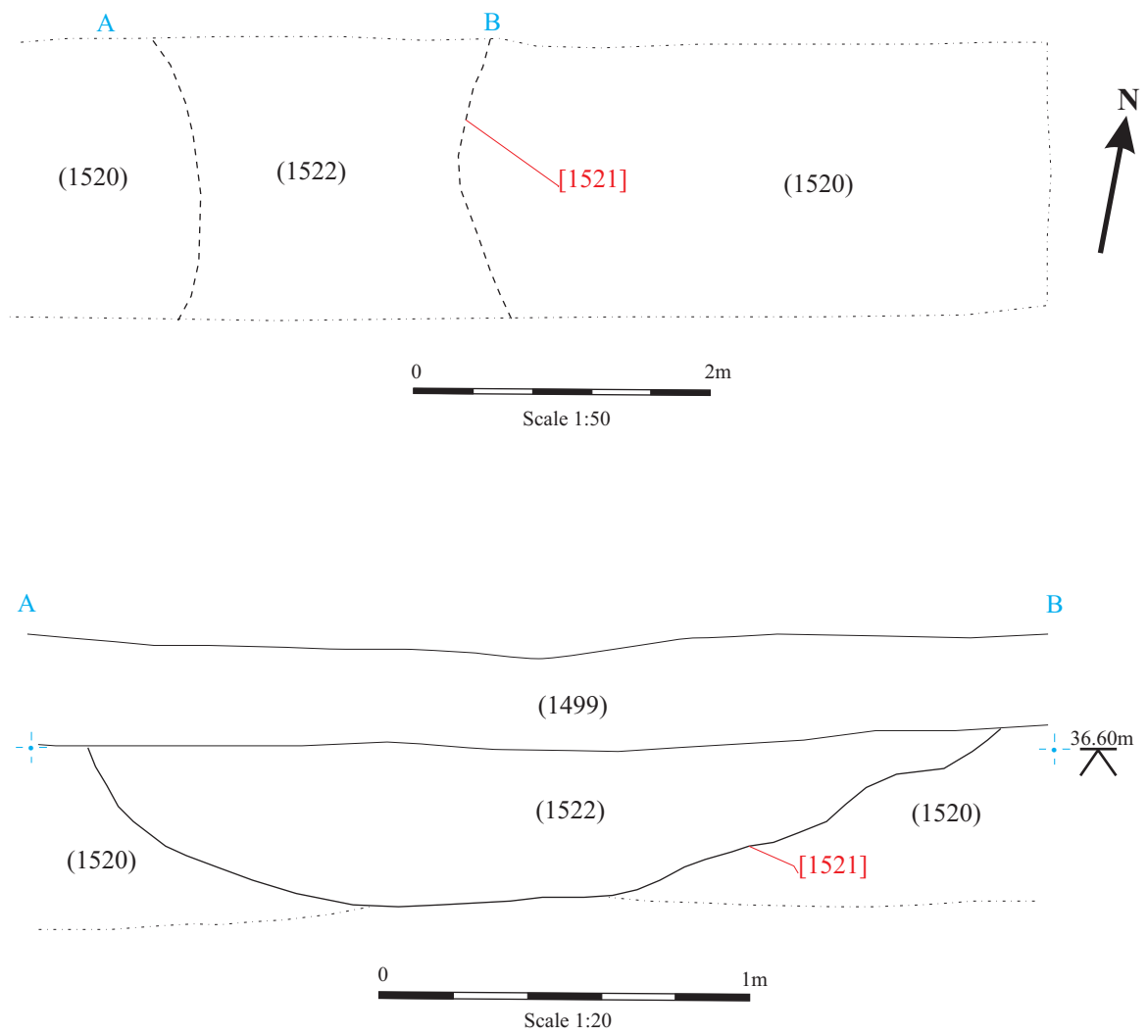
**Fig. 90:** Trench 53 plan and sections (scales 1:50 and 1:20)



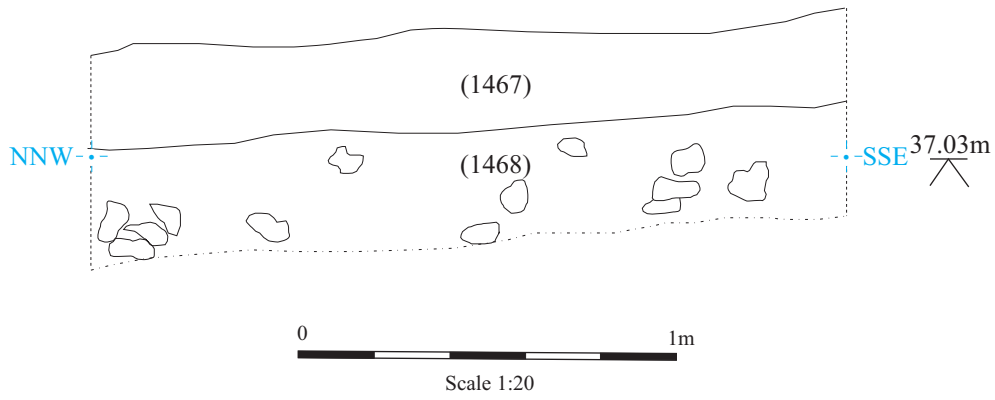
**Fig. 91:** Trench 54 representative section.  
South southwest facing (scale 1:20)



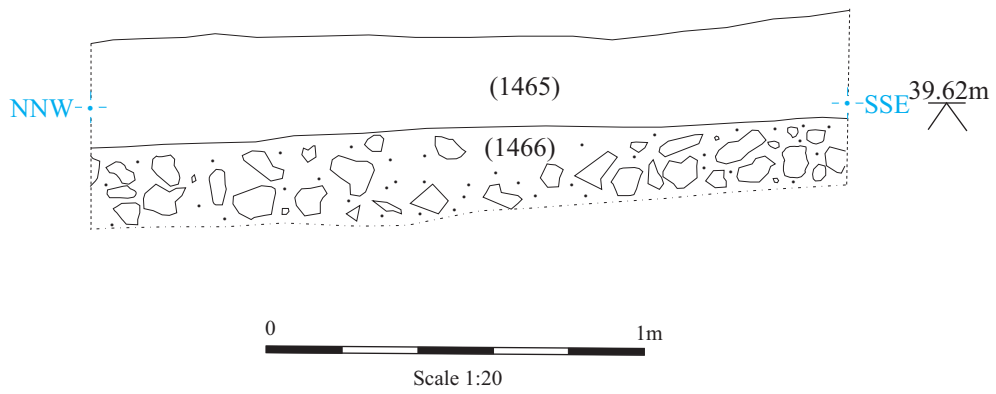
**Fig. 92:** Trench 55 plan and sections (scales 1:50 and 1:20)



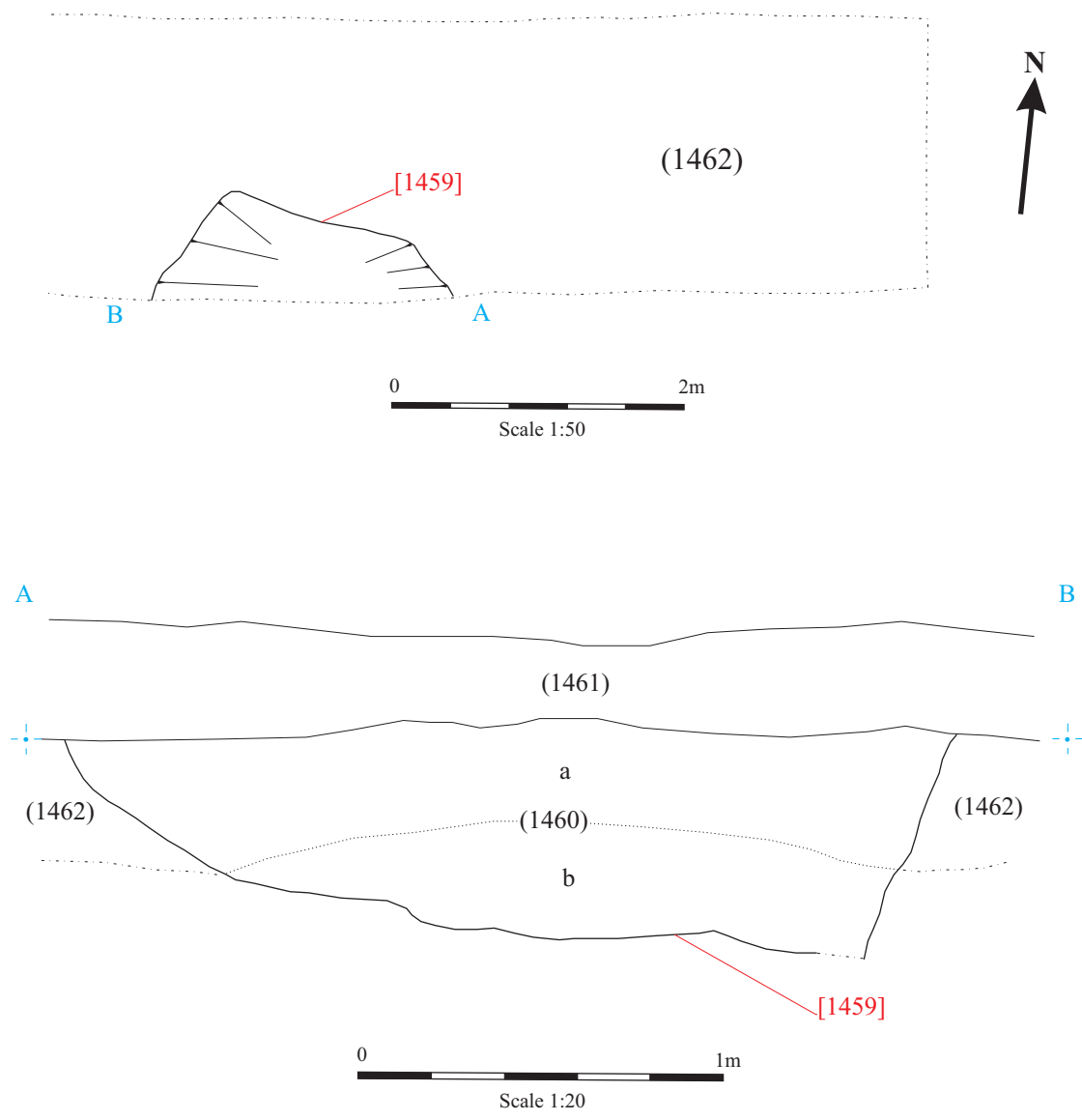
**Fig. 93:** Trench 56 plan and section (scales 1:50 and 1:20)



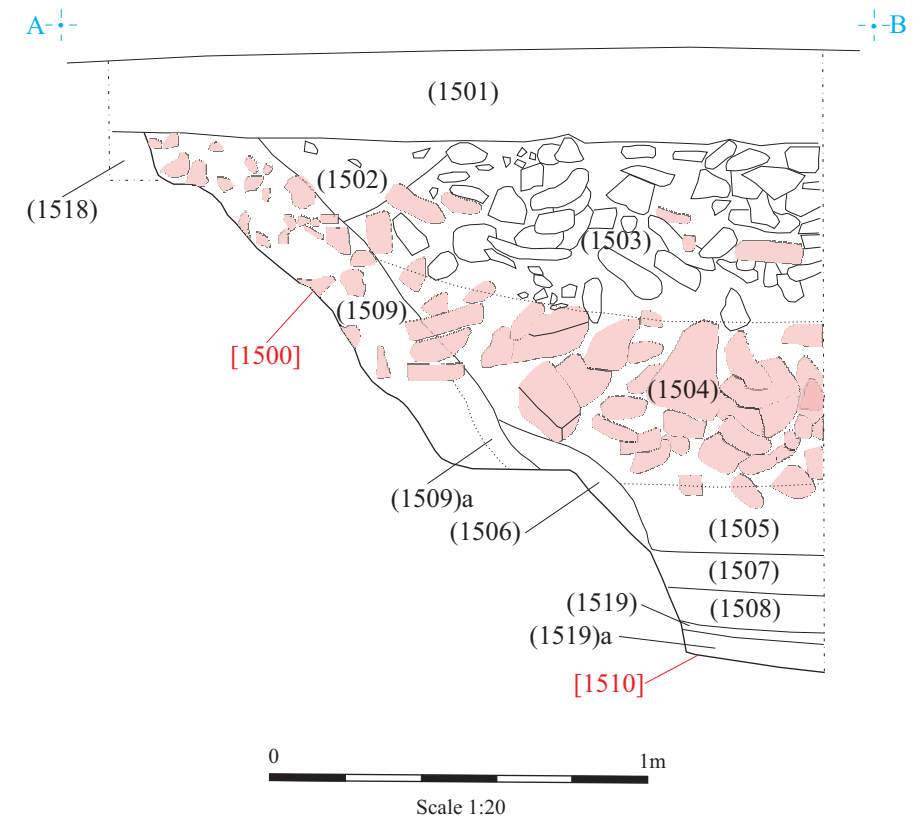
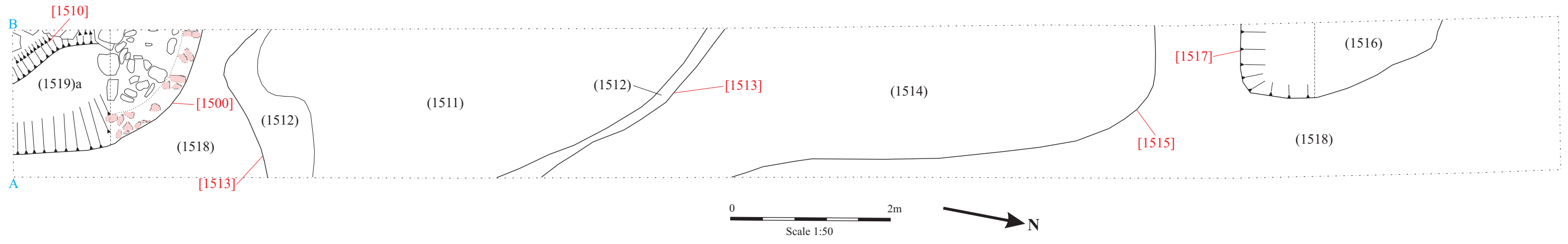
**Fig. 94:** Trench 57 representative section (scale 1:20)



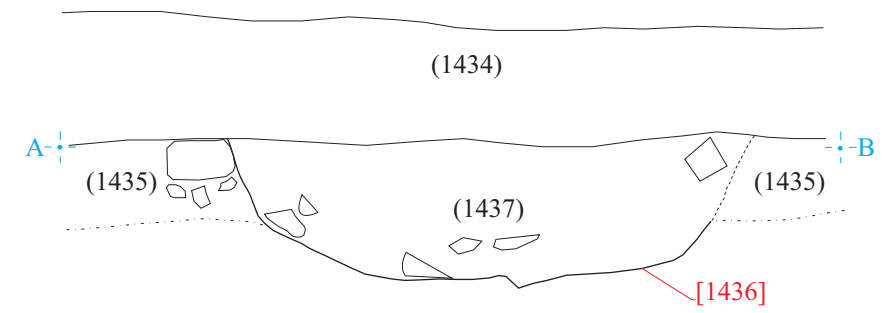
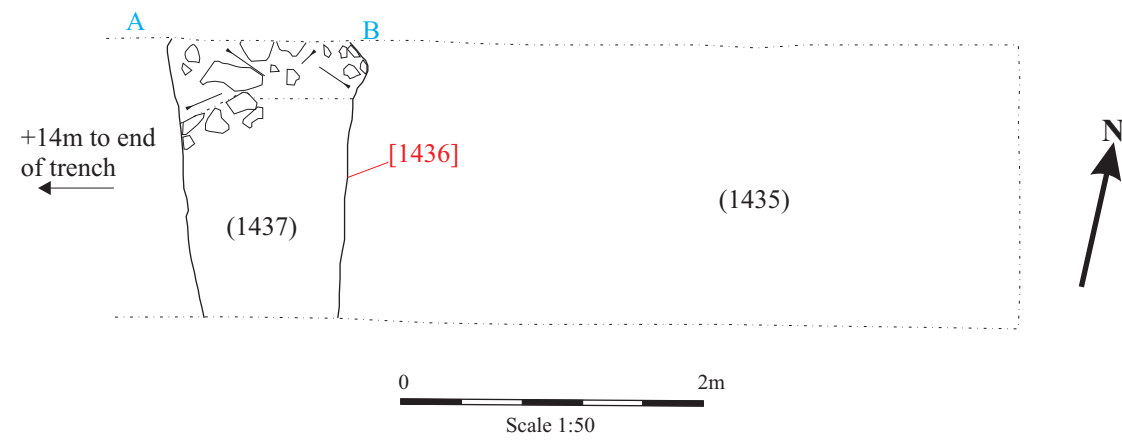
**Fig. 95:** Trench 58 representative section (scale 1:20)



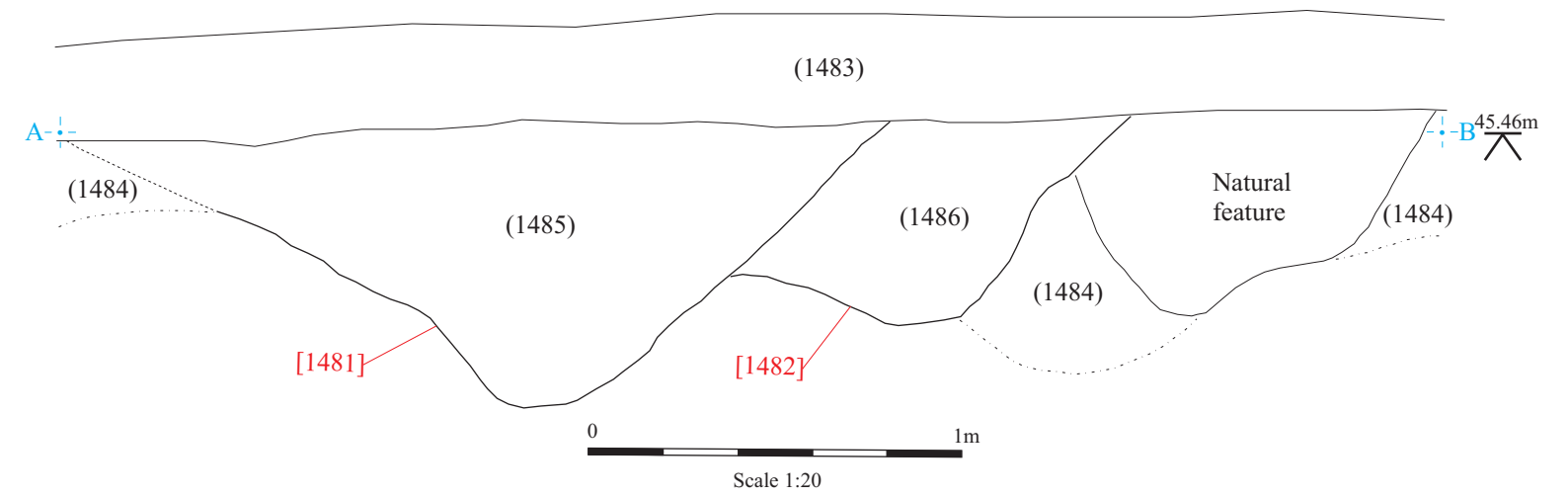
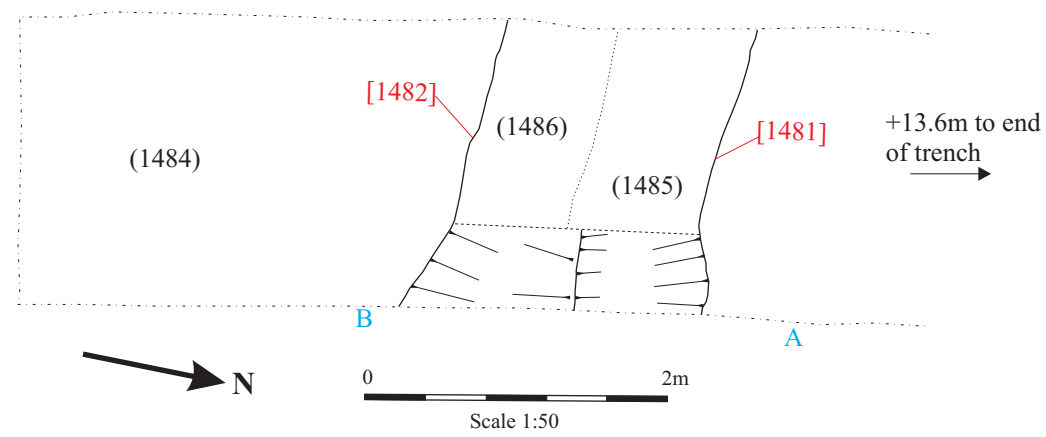
**Fig. 96:** Trench 59 plan and section (scales 1:50 and 1:20)



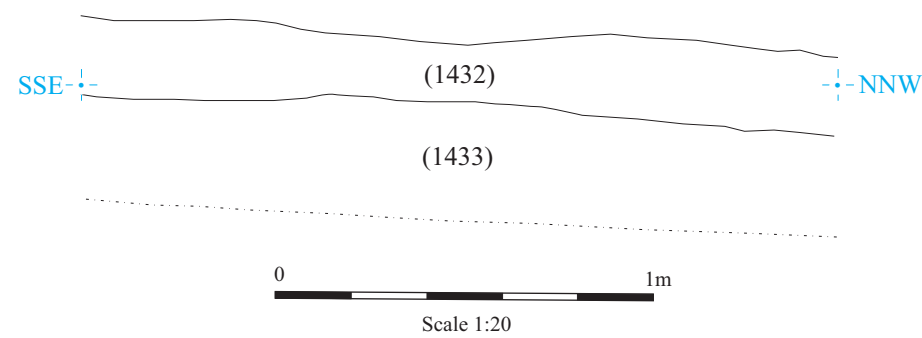
**Fig. 97:** Trench 60 plan and section (scales 1:50 and 1:20)



**Fig. 98:** Trench 61 plan and section (scales 1:50 and 1:20)

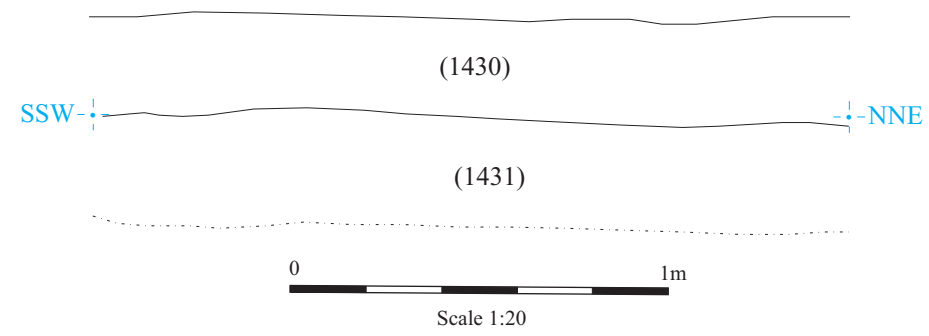


**Fig. 99:** Trench 62 plan and section (scales 1:50 and 1:20)

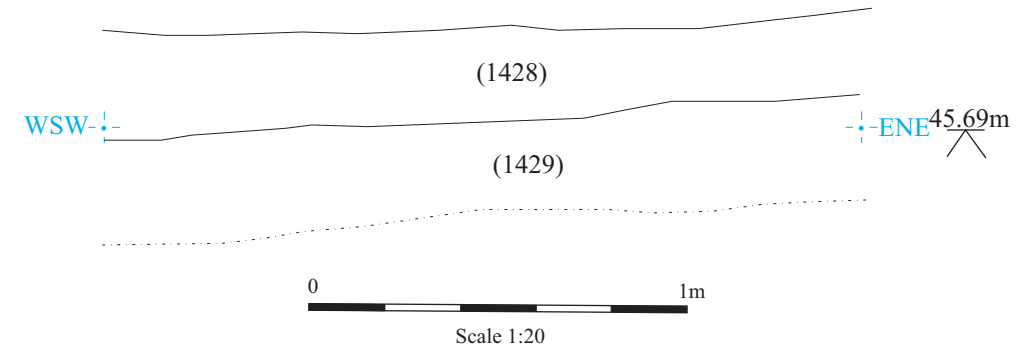


**Fig. 100:** Trench 63 representative section (scale 1:20)

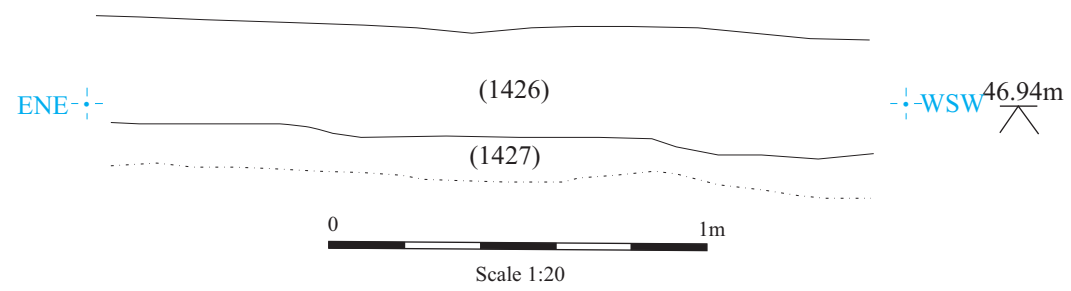




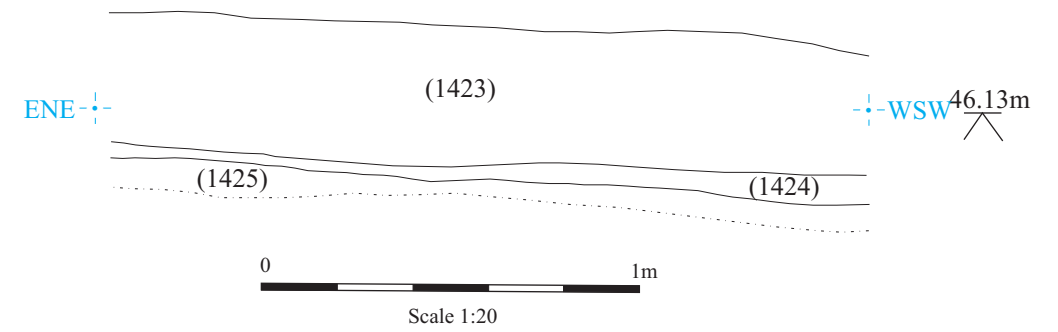
**Fig. 102:** Trench 65 representative section (scale 1:20)



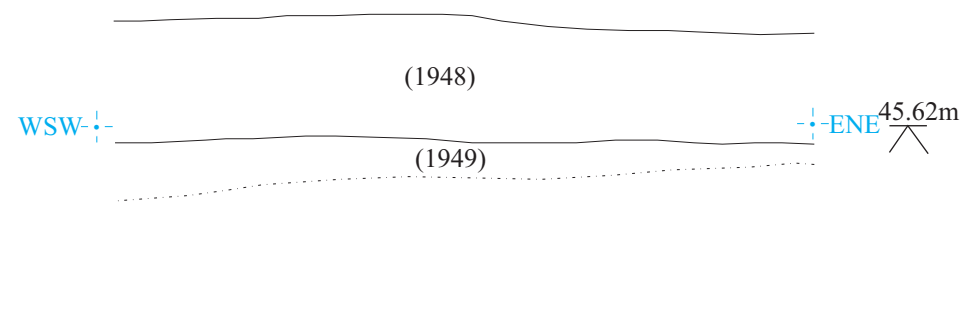
**Fig. 103:** Trench 66 representative section (scale 1:20)



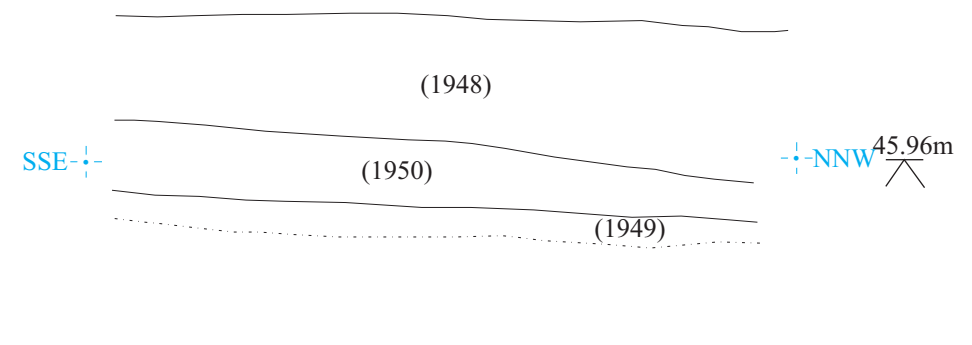
**Fig. 104:** Trench 67 representative section (scale 1:20)

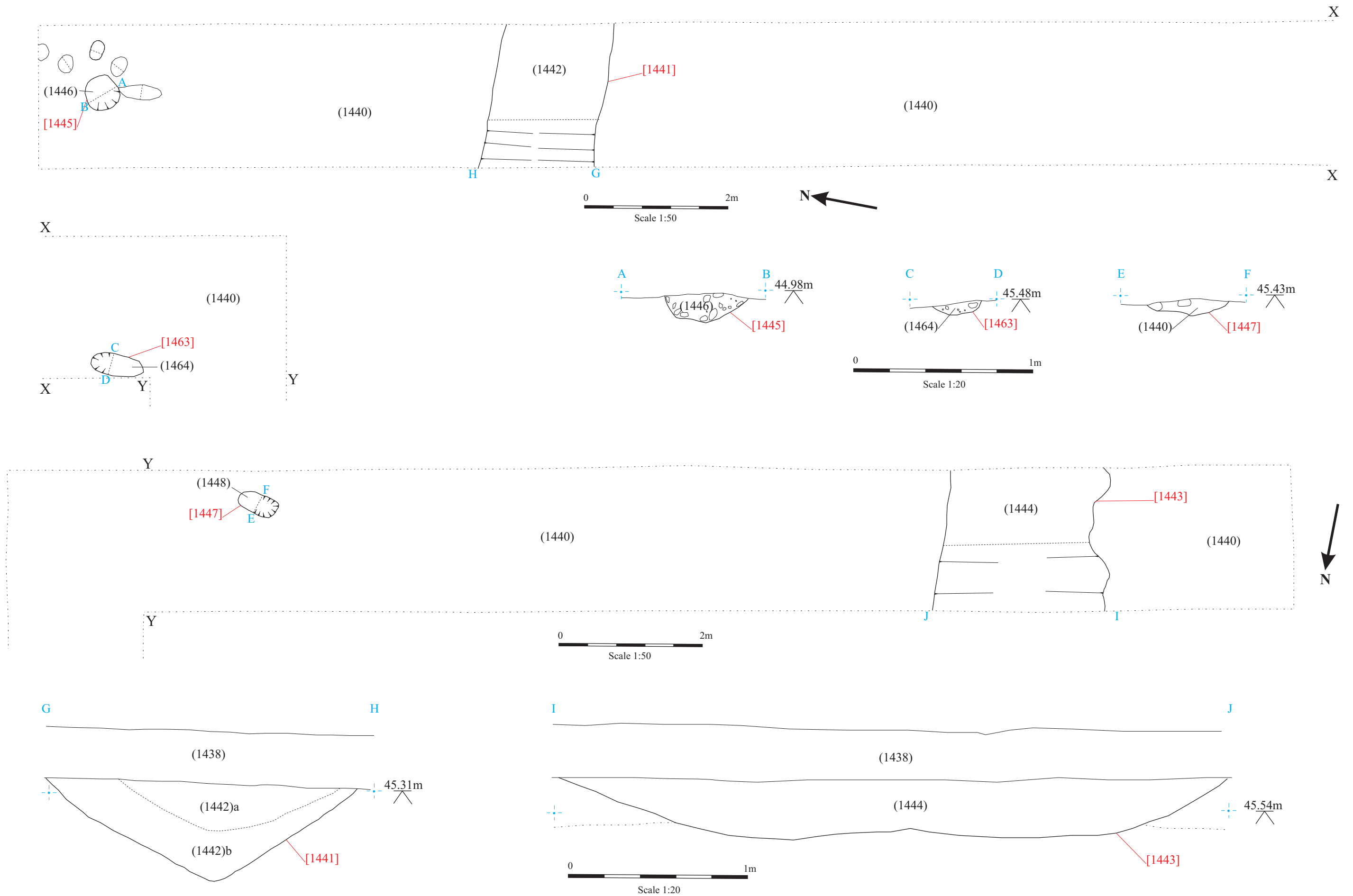


**Fig. 105:** Trench 68 representative section (scale 1:20)

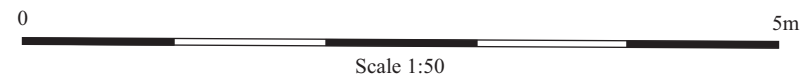
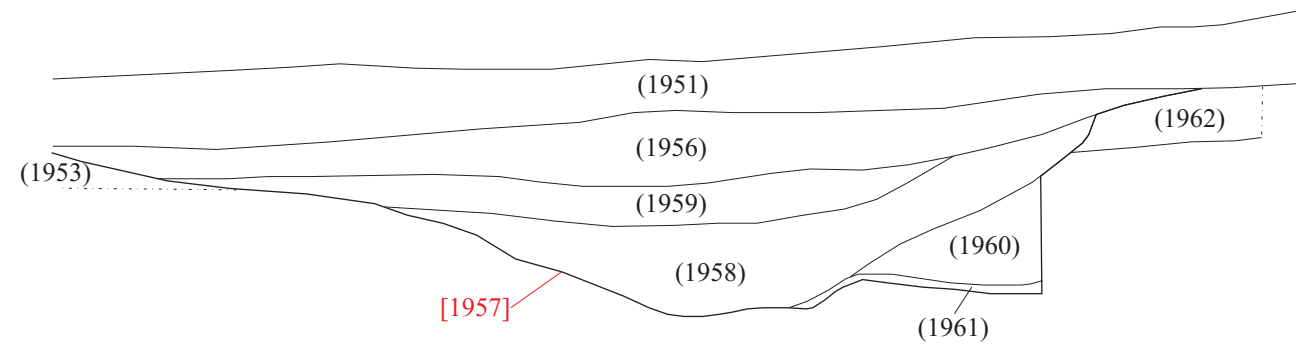
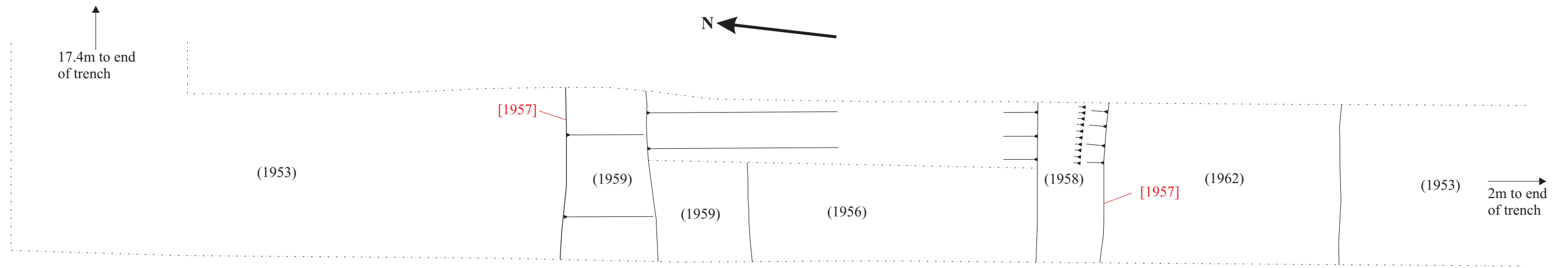


**Fig. 106:** Trench 69 representative sections (scale 1:20)

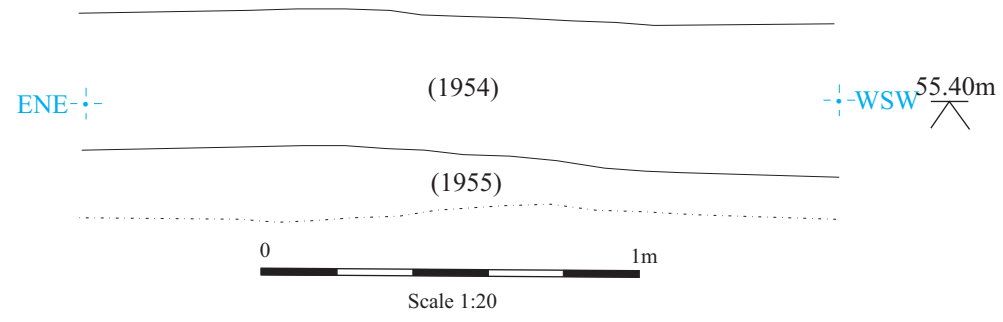




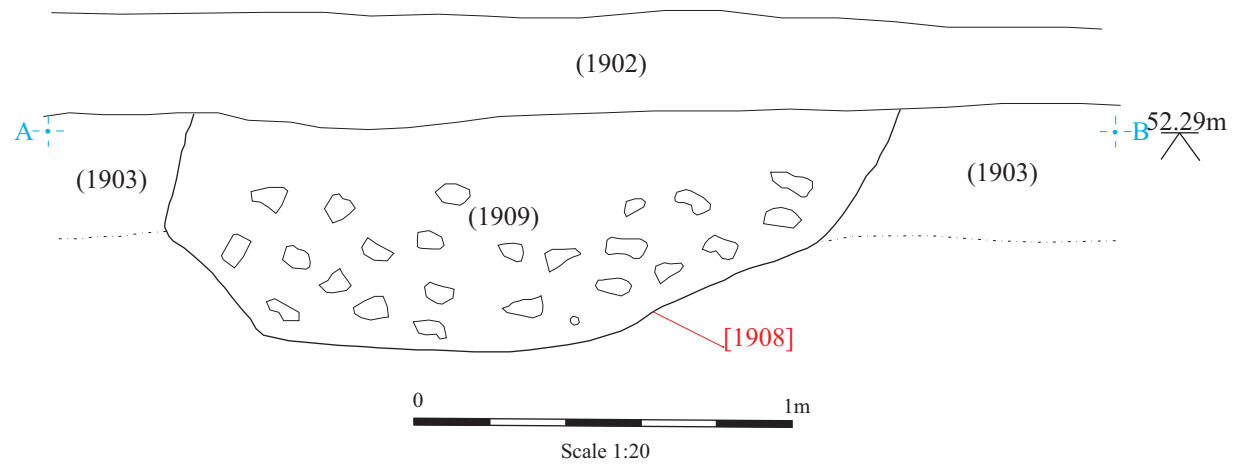
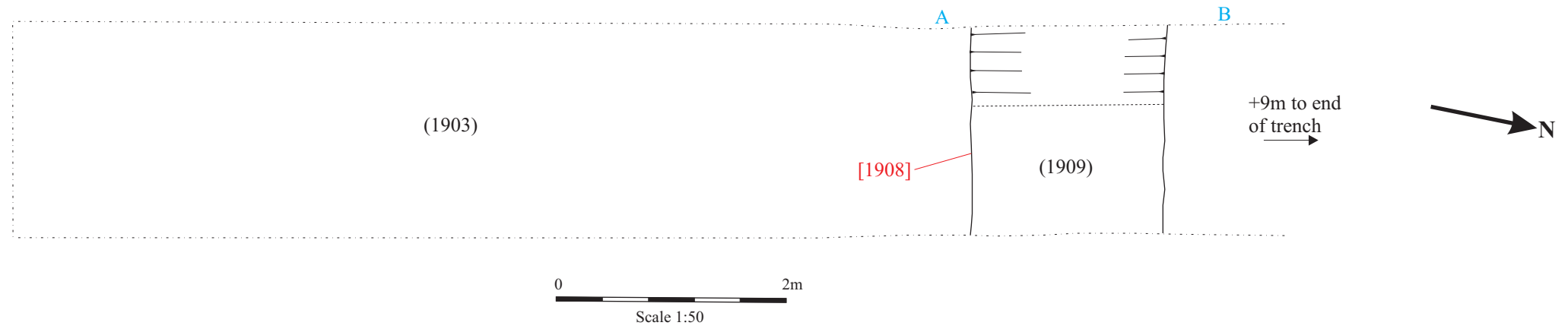
**Fig. 101:** Trench 64 plan and sections (scales 1:50 and 1:20).



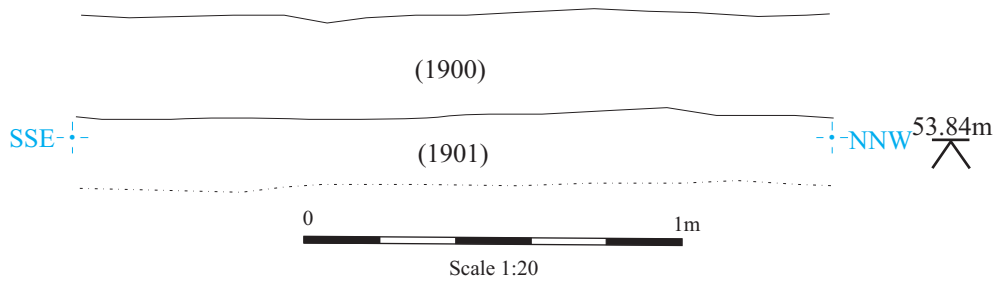
**Fig. 107:** Trench 70 plan and section (scale 1:50)



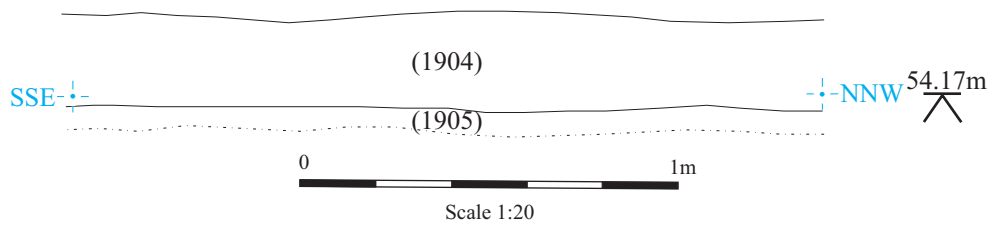
**Fig. 108:** Trench 71 representative section (scale 1:20)



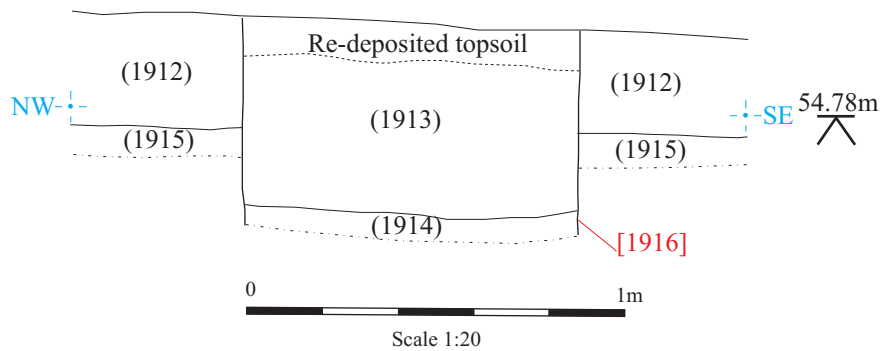
**Fig. 109:** Trench 72 plan and section (scales 1:50 and 1:20)



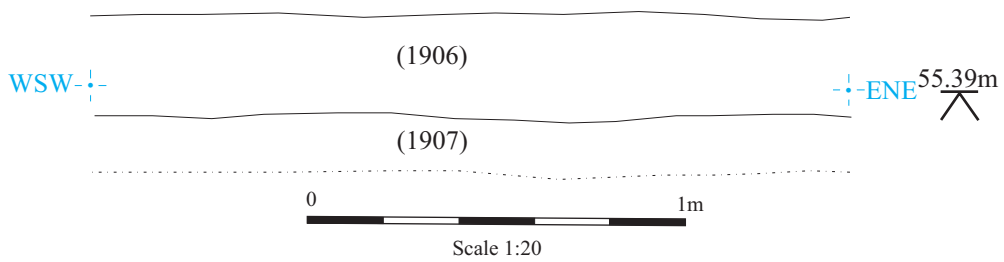
**Fig. 110:** Trench 73 representative section (scale 1:20)



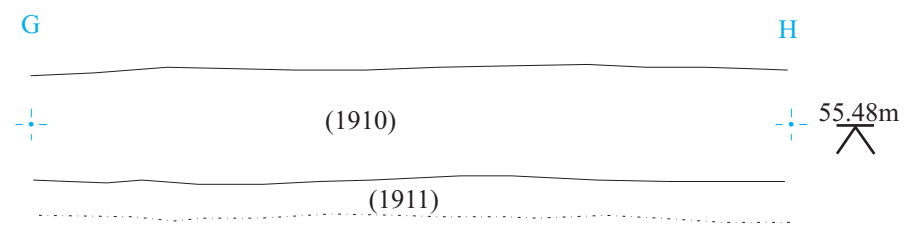
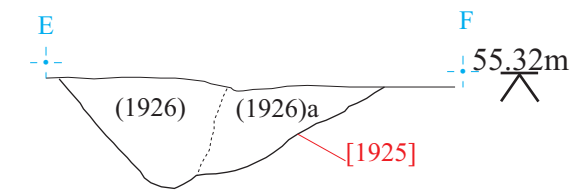
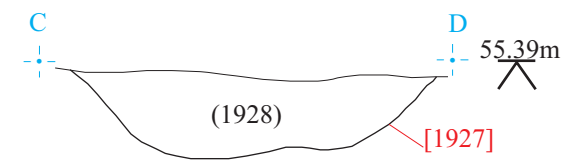
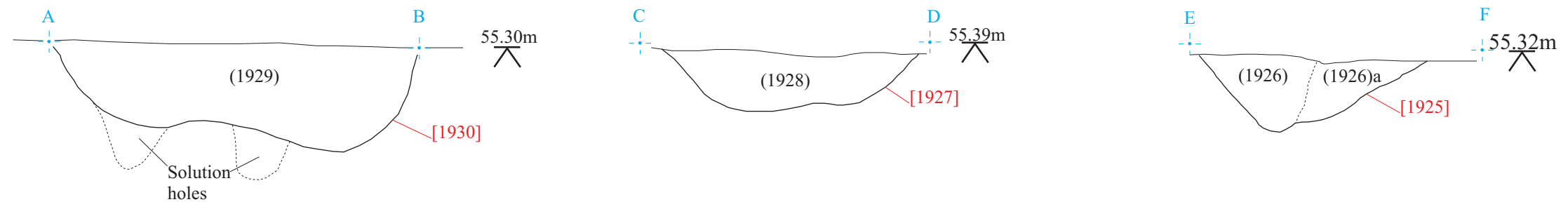
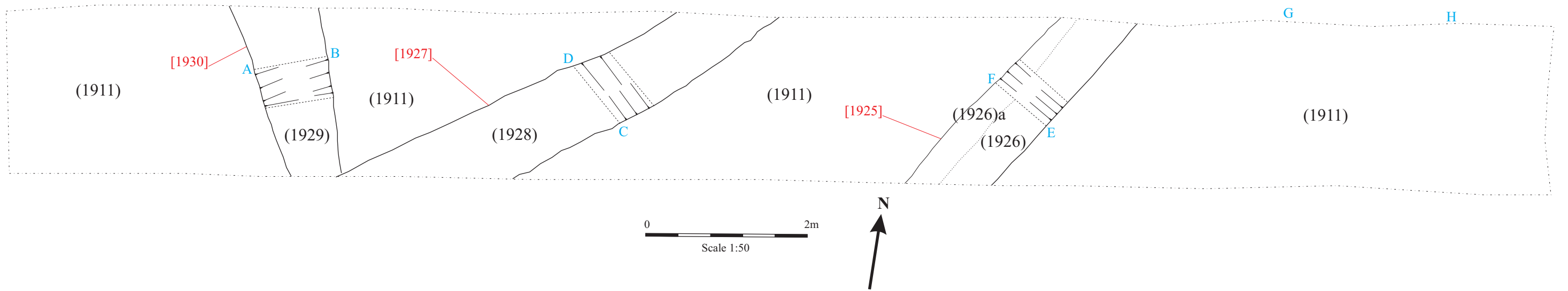
**Fig. 111:** Trench 74 representative section (scale 1:20)



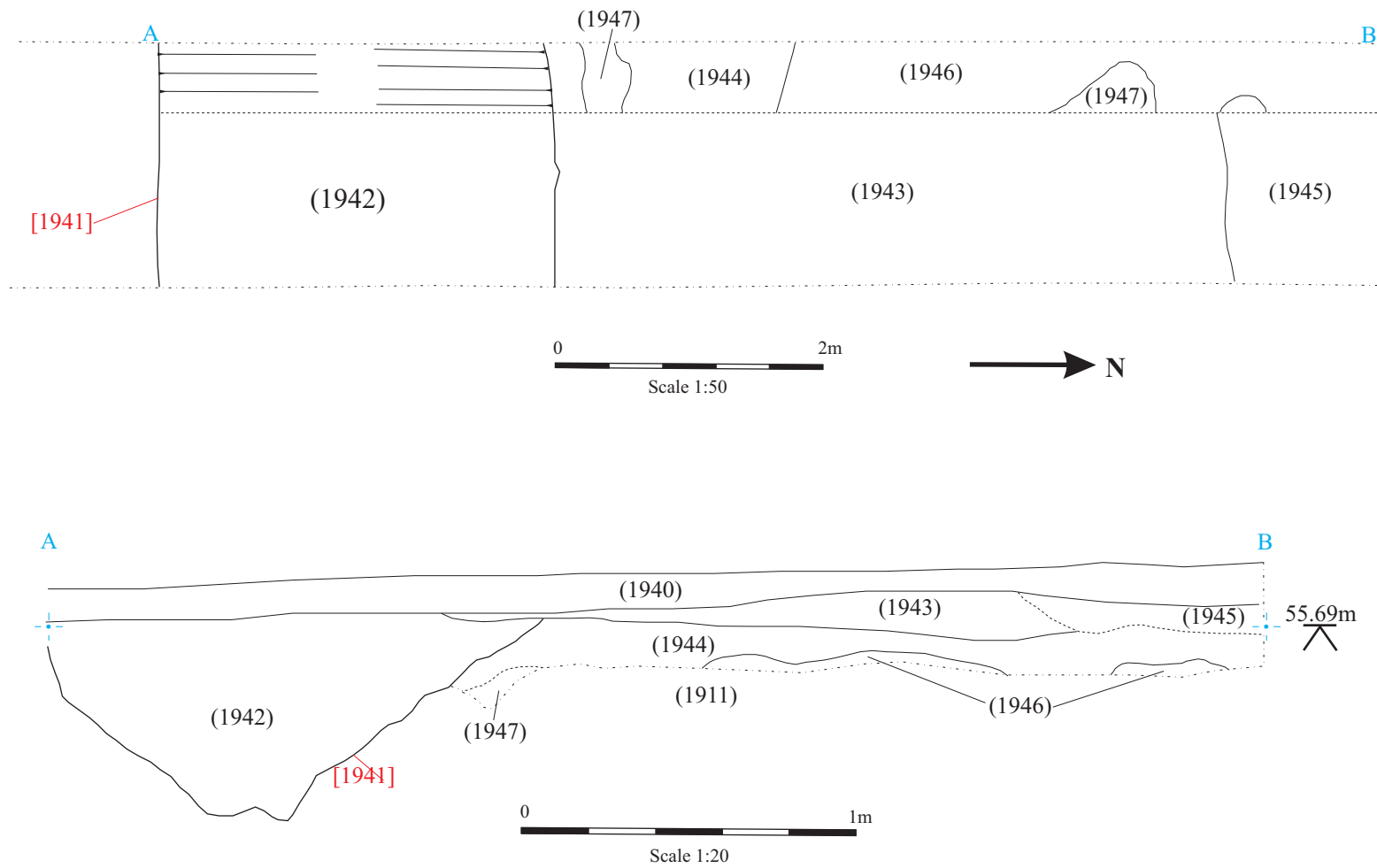
**Fig. 112:** Trench 75 representative section (scale 1:20)



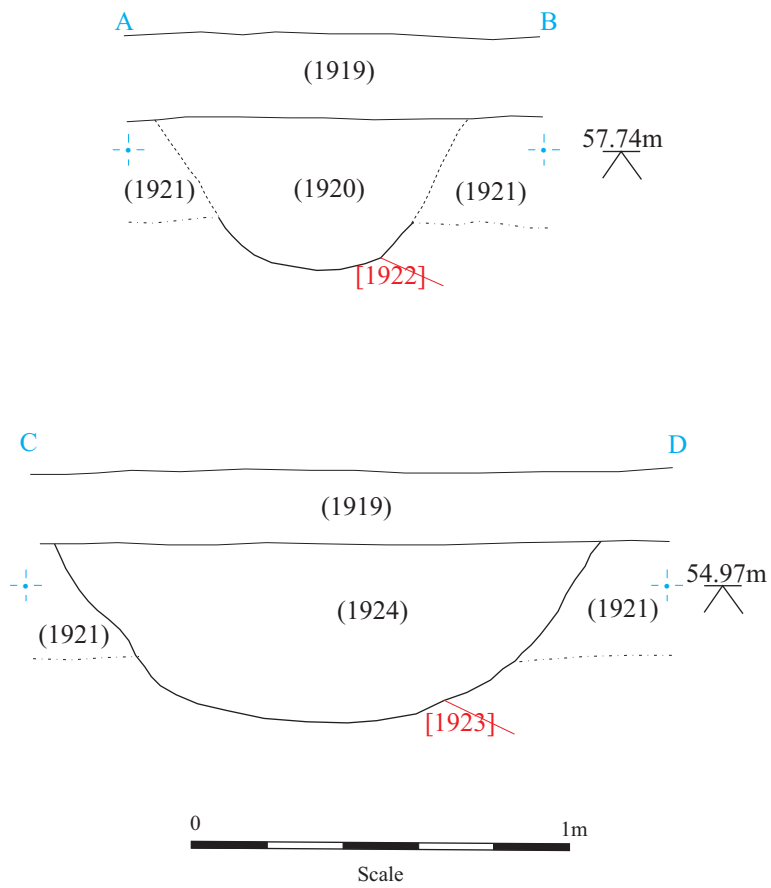
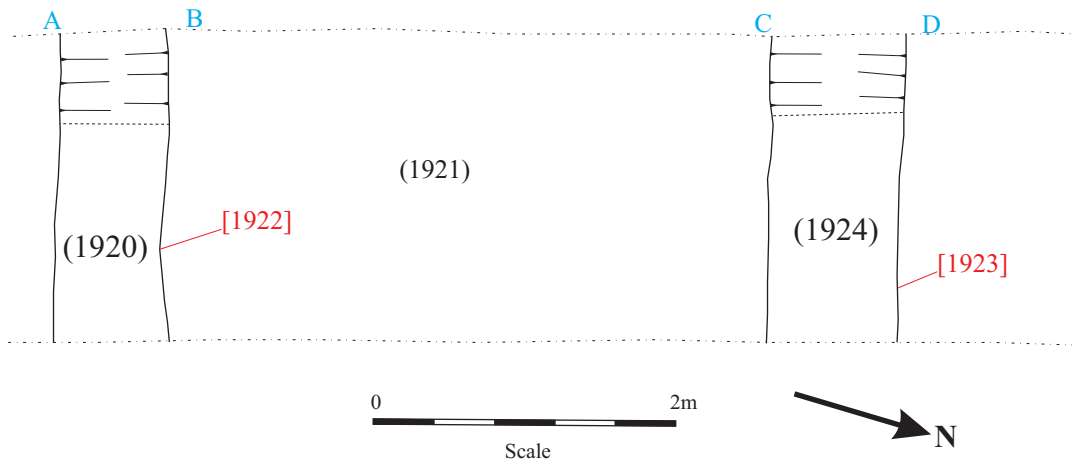
**Fig. 113:** Trench 76 representative section (scale 1:20)



**Fig. 114:** Trench 77 plan and sections (scales 1:50 and 1:20)

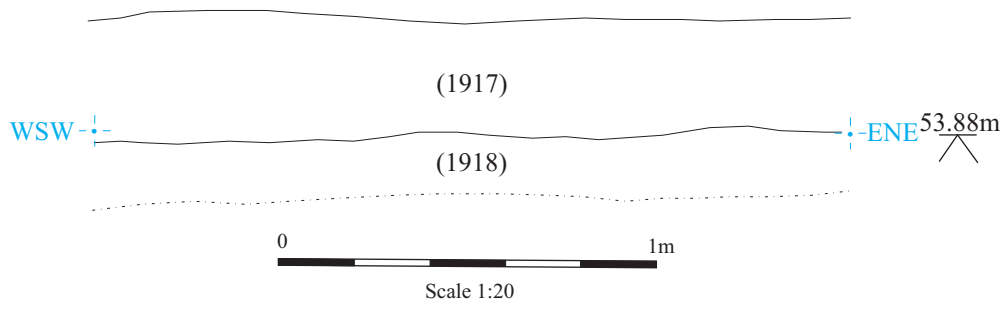


**Fig. 115:** Trench 78 plan and section (scales 1:50 and 1:20)

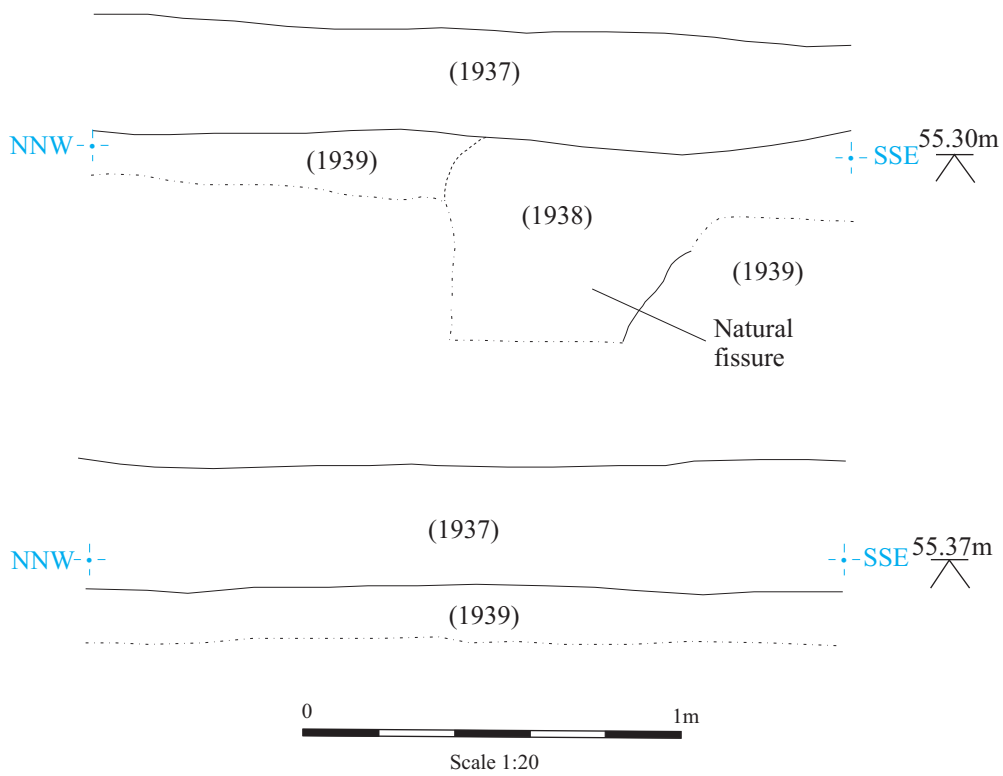


**Fig. 116:** Trench 79 plan and sections (scales 1:50 and 1:20)

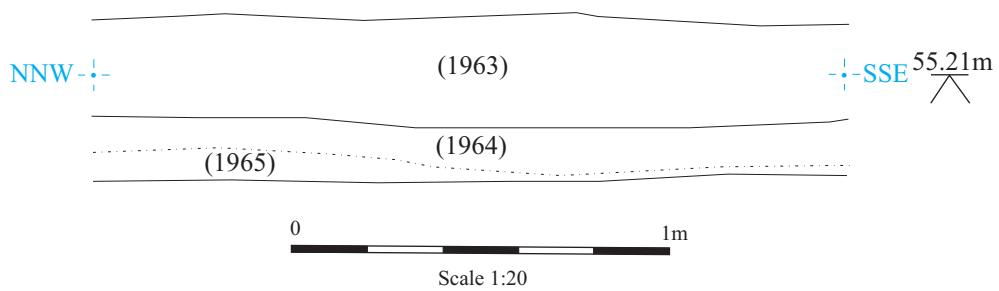




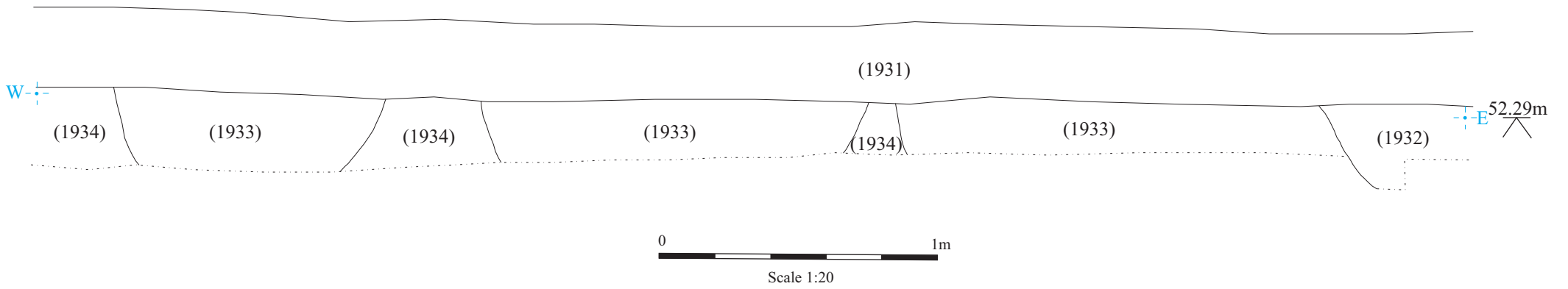
**Fig. 117:** Trench 80 representative section (scale 1:20)



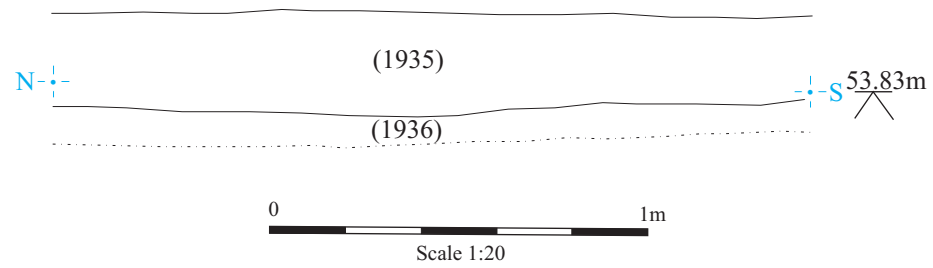
**Fig. 118:** Trench 81 representative sections (scale 1:20)



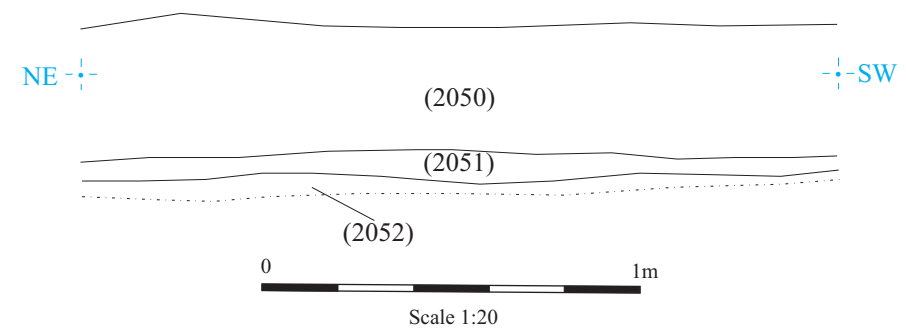
**Fig. 119:** Trench 82 representative section (scale 1:20)



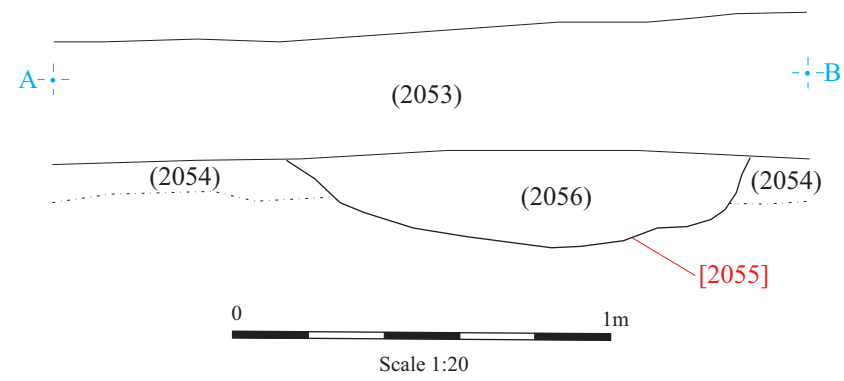
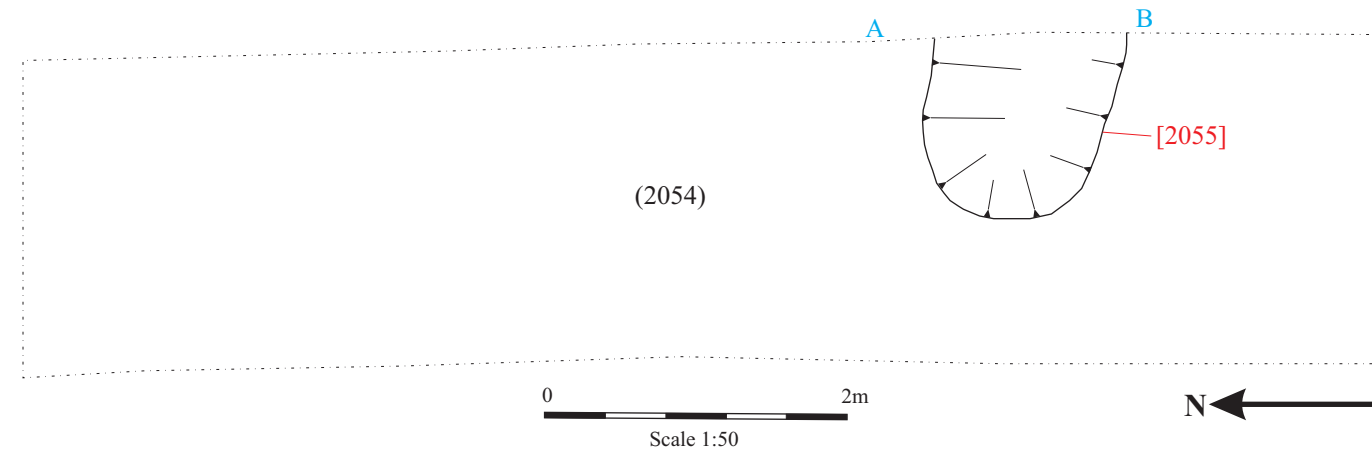
**Fig. 120:** Trench 83 representative section (scale 1:20)



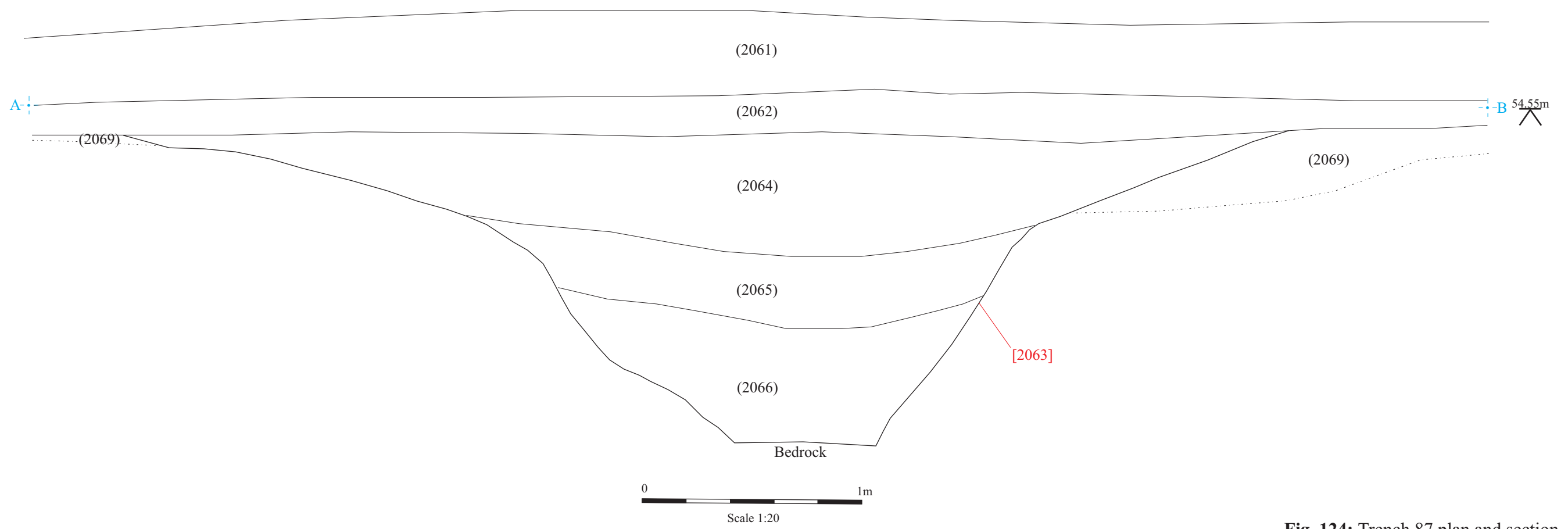
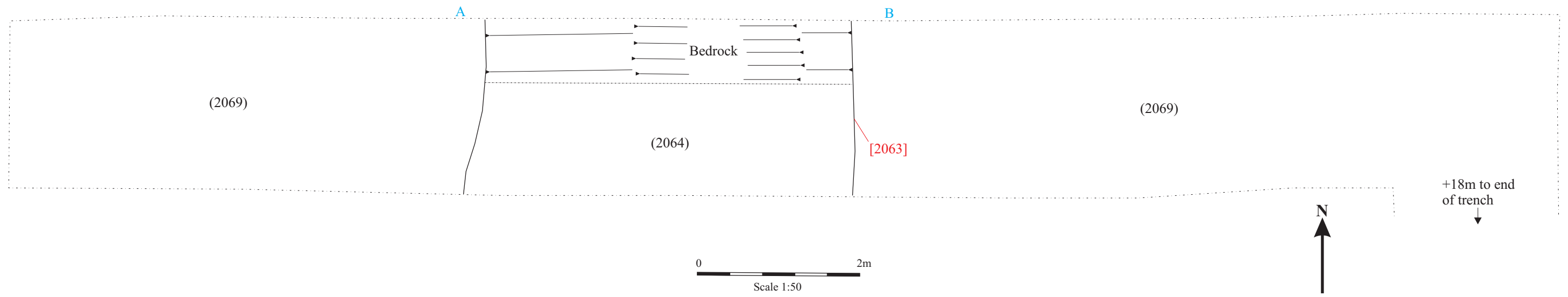
**Fig. 121:** Trench 84 representative section (scale 1:20)



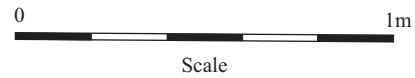
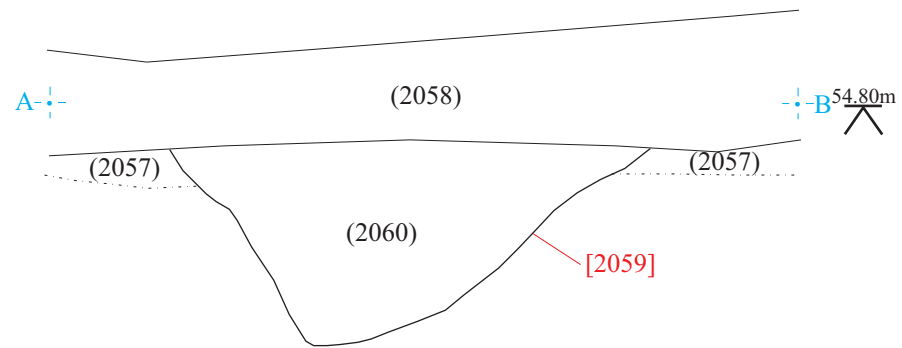
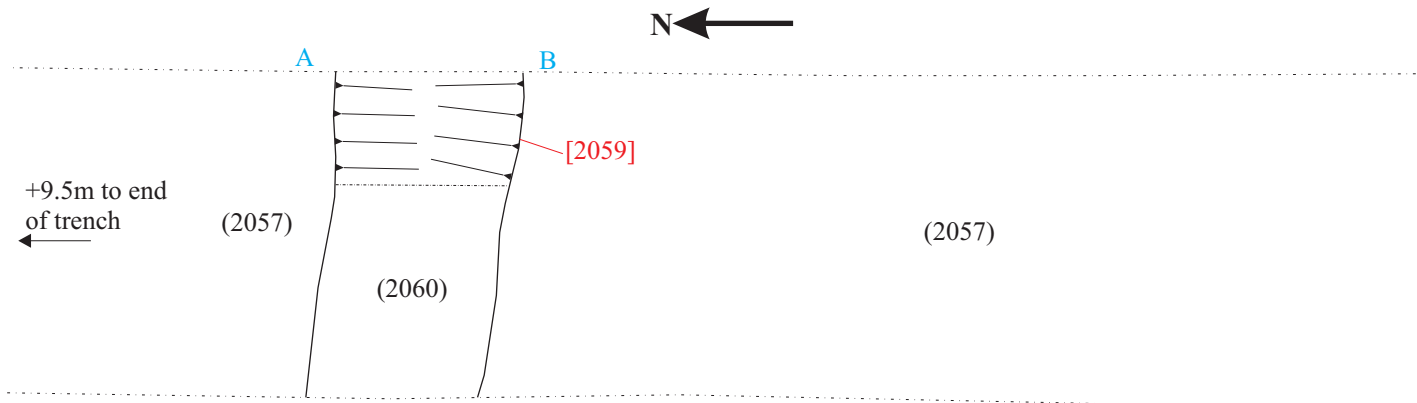
**Fig. 122:** Trench 85 representative section (scale 1:20)



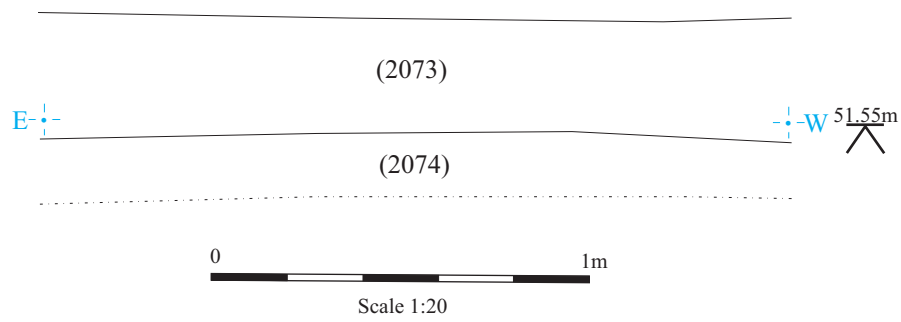
**Fig. 123:** Trench 86, north end, showing pit [2055] in plan and section (scales 1:50 and 1:20)



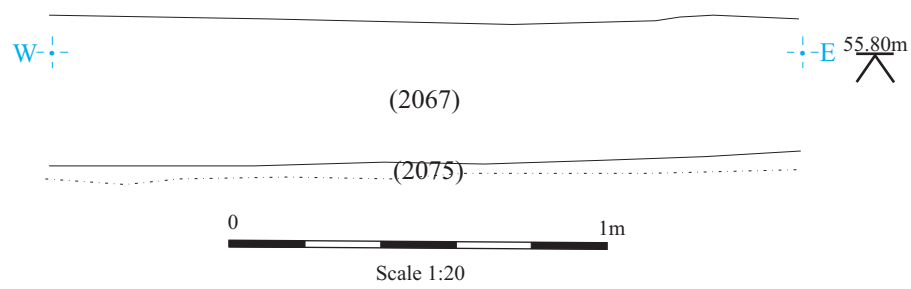
**Fig. 124:** Trench 87 plan and section (scales 1:50 and 1:20)



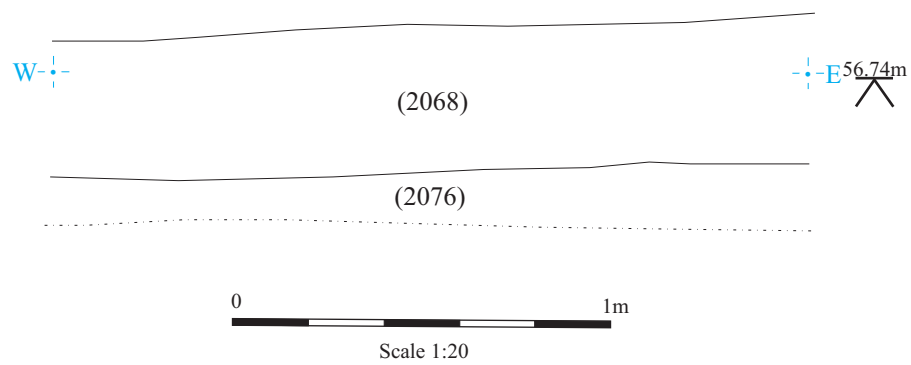
**Fig. 125:** Trench 88 plan and section (scales 1:50 and 1:20)



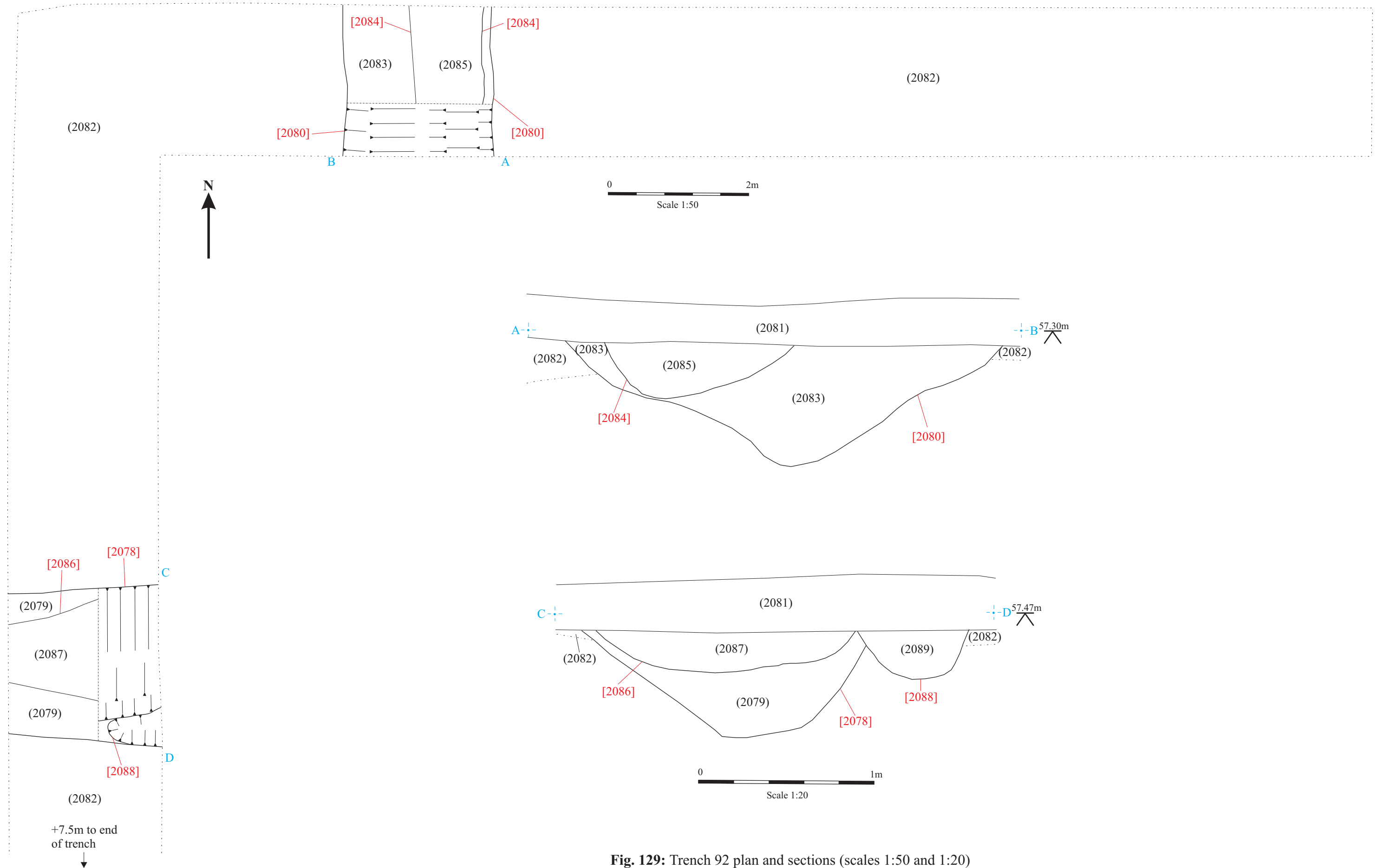
**Fig. 126:** Trench 89 representative section (scale 1:20)



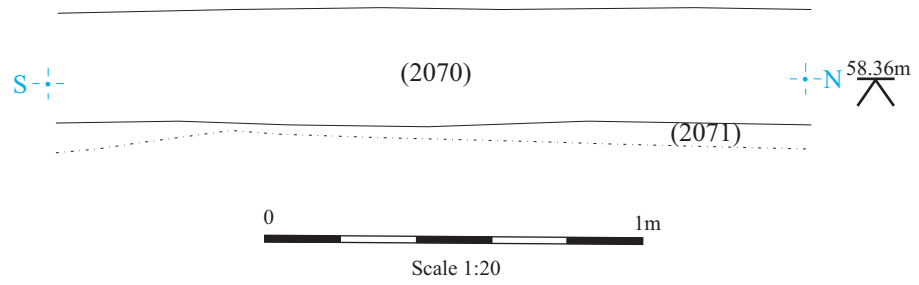
**Fig. 127:** Trench 90 representative section (scale 1:20)



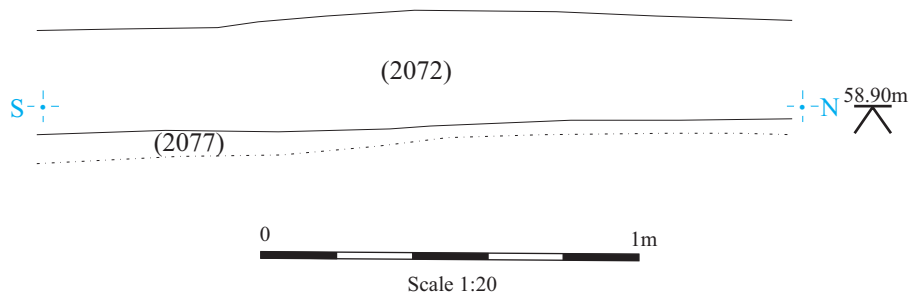
**Fig. 128:** Trench 91 representative section (scale 1:20)



**Fig. 129:** Trench 92 plan and sections (scales 1:50 and 1:20)

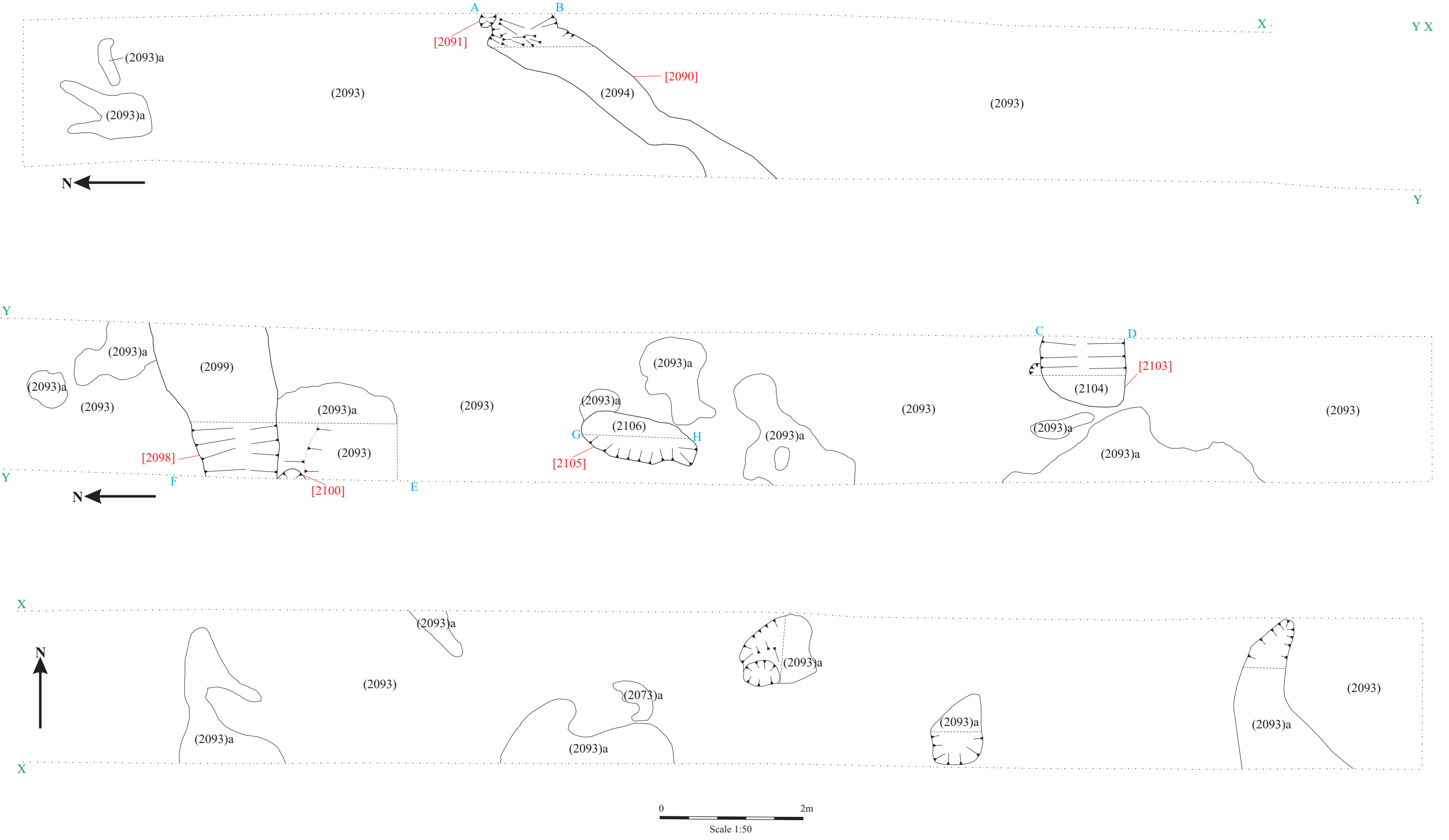


**Fig. 130:** Trench 93 representative section (scale 1:20)

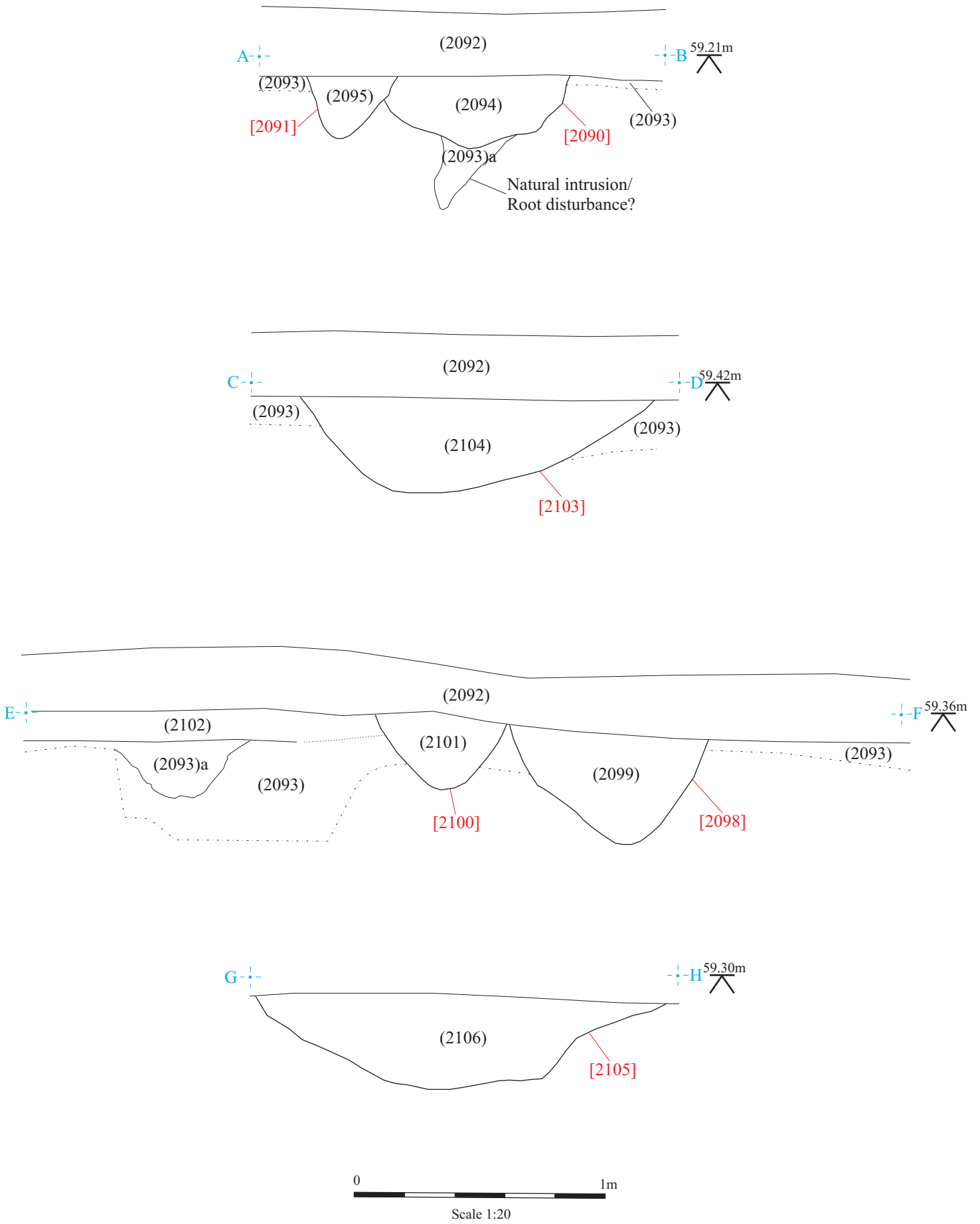


**Fig. 131:** Trench 94 representative section (scale 1:20)

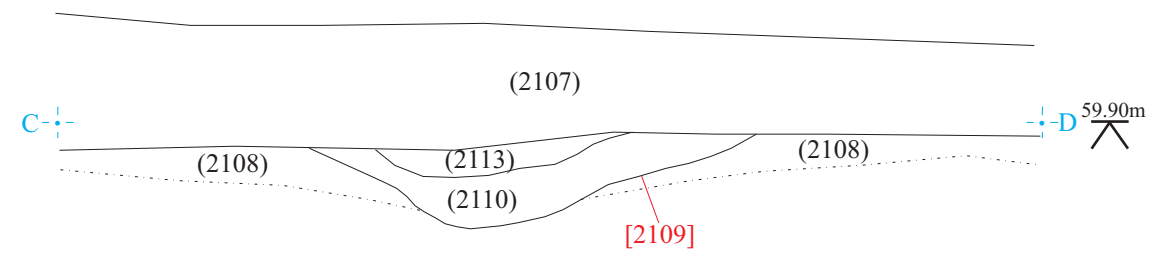
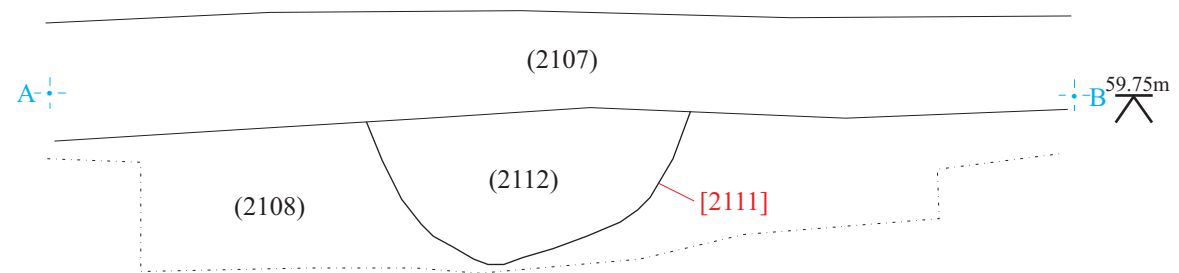
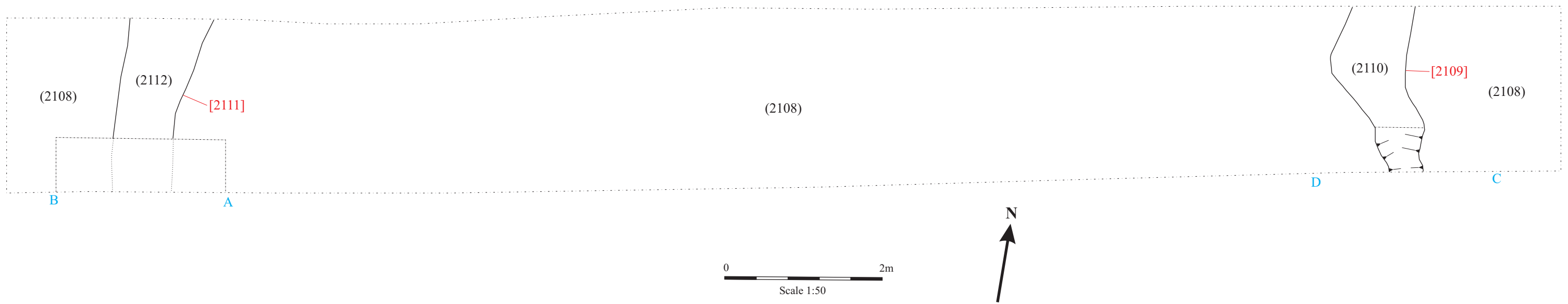




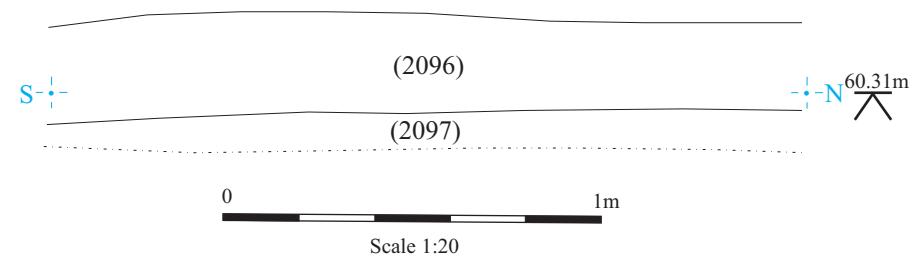
**Fig. 132:** Trench 95 plan (scale 1:50)



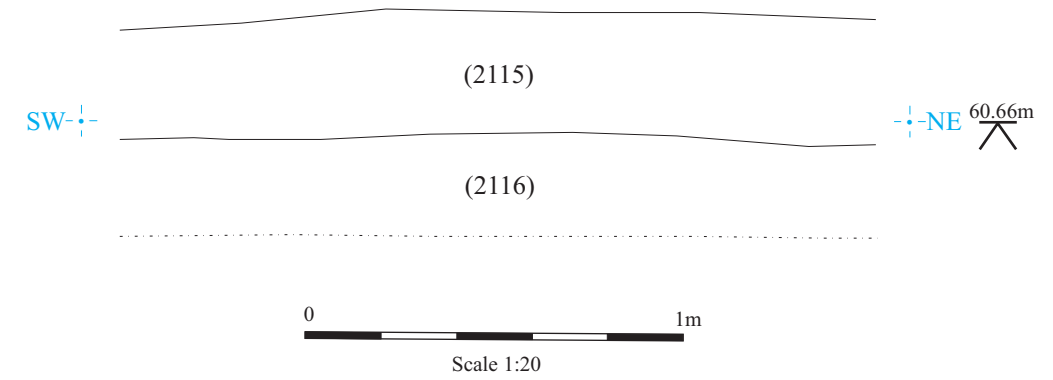
**Fig. 133:** Trench 95 sections (scale 1:20)



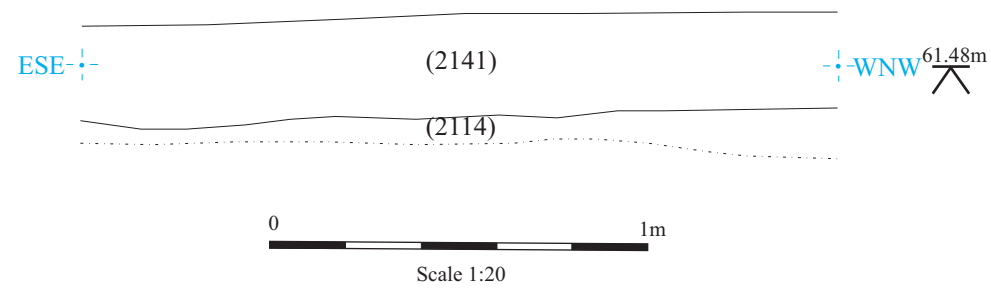
**Fig. 134:** Trench 96 plan and sections (scales 1:50 and 1:20)



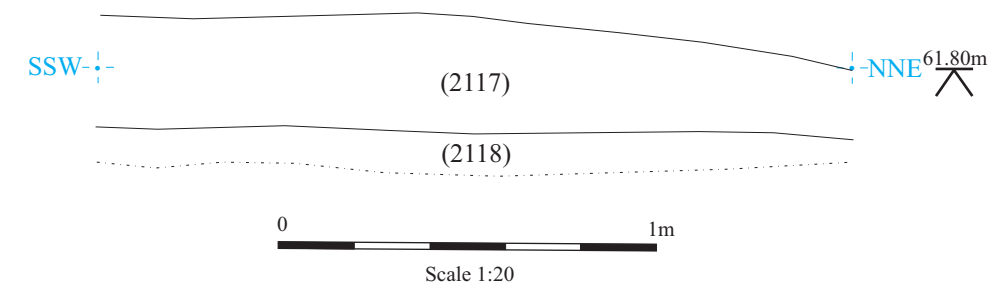
**Fig.135 :** Trench 97 representative section (scale 1:20)



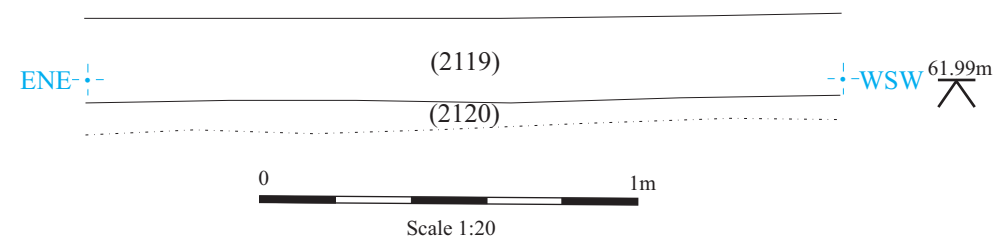
**Fig. 136:** Trench 98 representative section (scale 1:20)



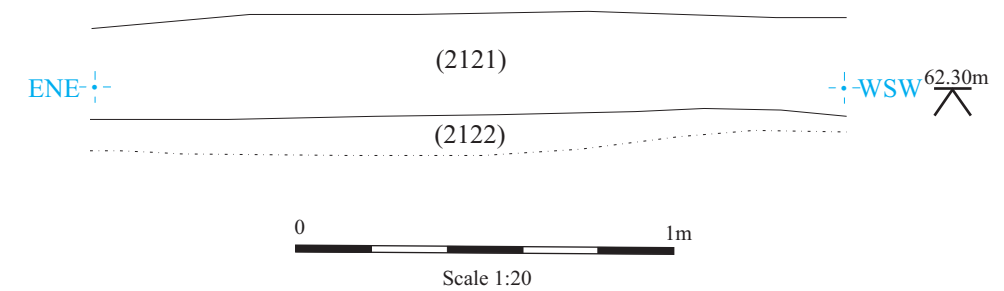
**Fig. 137:** Trench 99 representative section (scale 1:20)



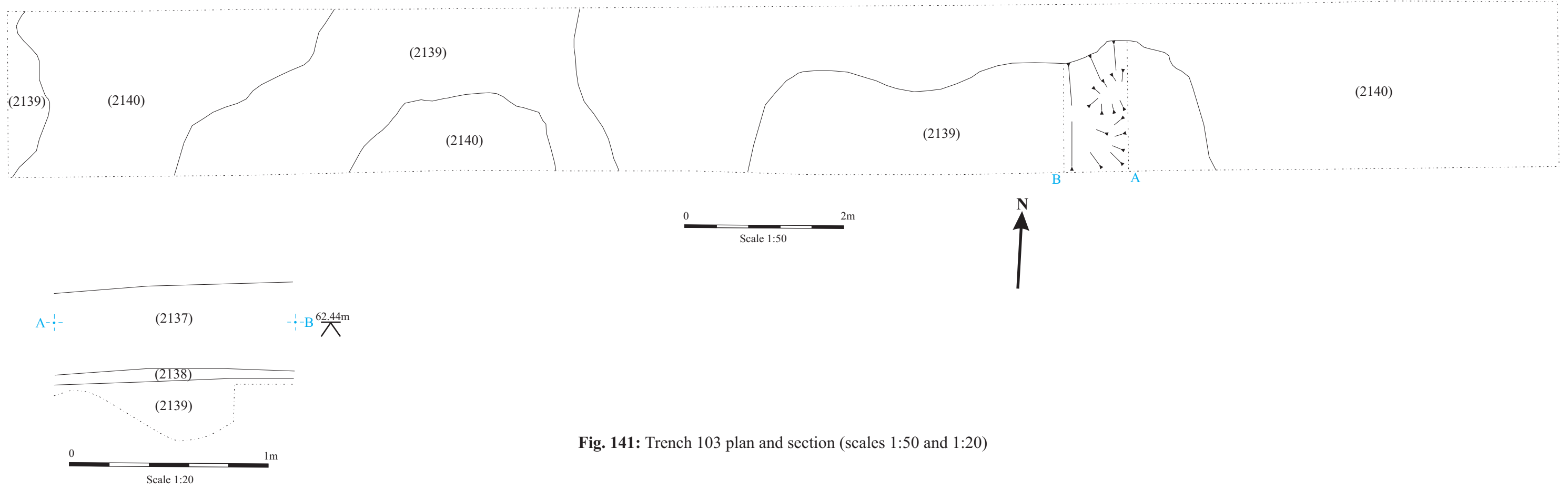
**Fig. 138:** Trench 100 representative section (scale 1:20)



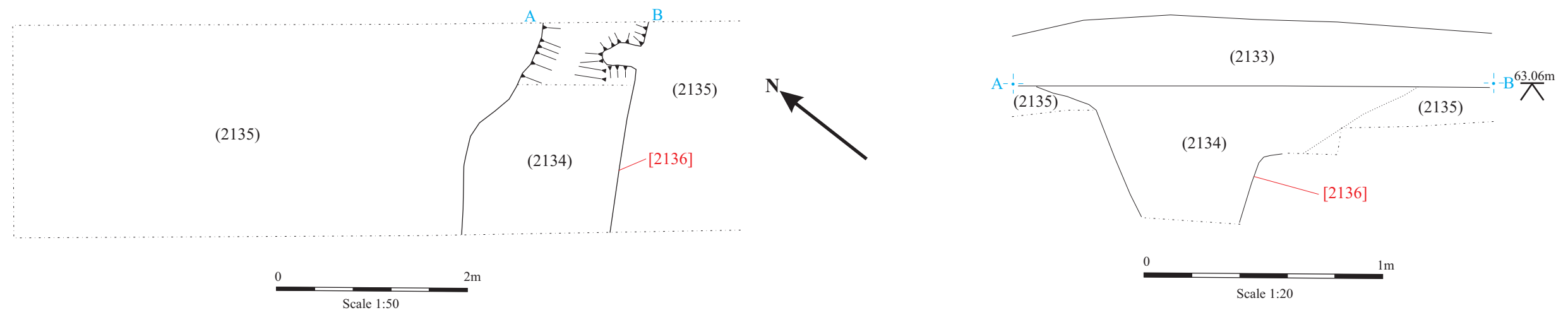
**Fig. 139:** Trench 101 representative section (scale 1:20)



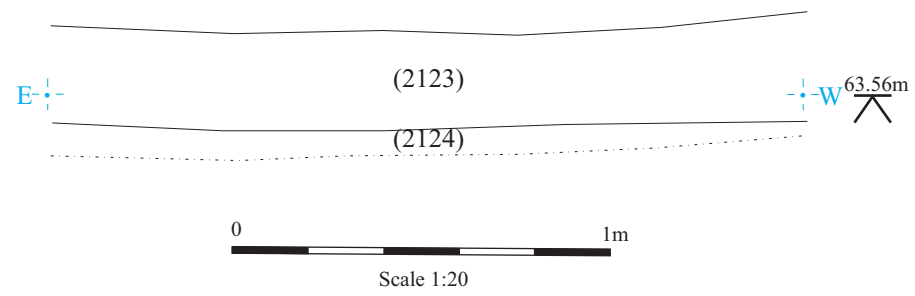
**Fig. 140:** Trench 102 representative section (scale 1:20)



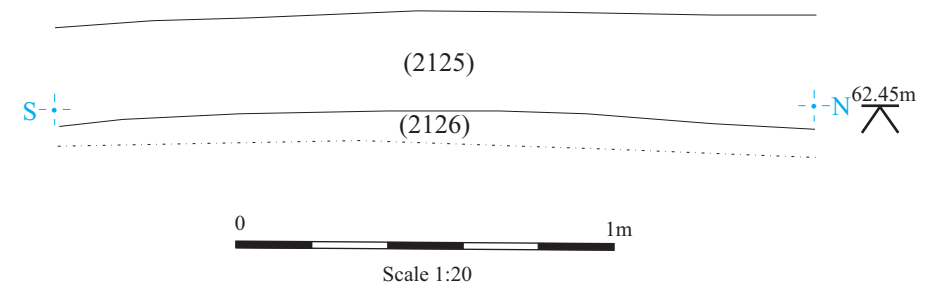
**Fig. 141:** Trench 103 plan and section (scales 1:50 and 1:20)



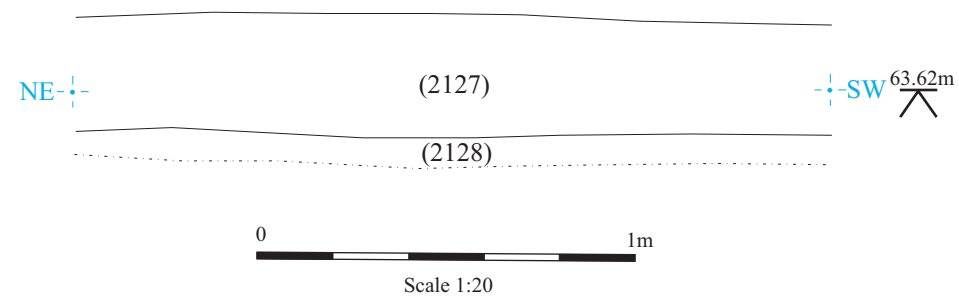
**Fig. 142:** Trench 104 plan and section (scales 1:50 and 1:20)



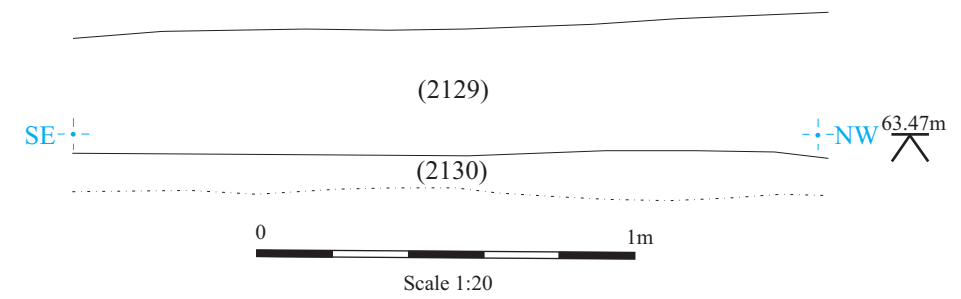
**Fig. 143:** Trench 105 representative section (scale 1:20)



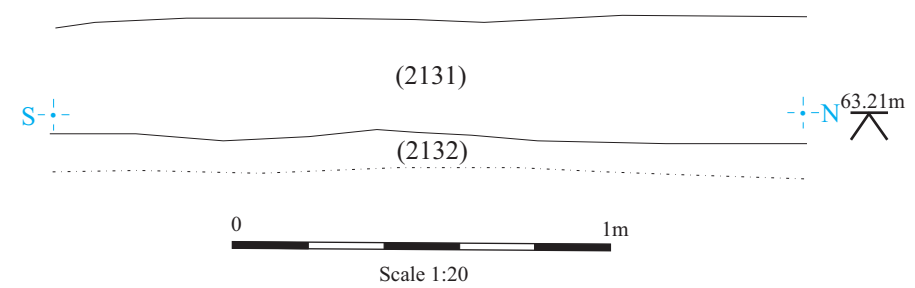
**Fig. 144:** Trench 106 representative section (scale 1:20)



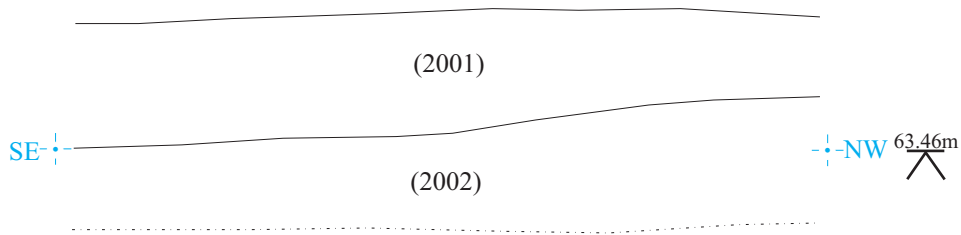
**Fig. 145:** Trench 107 representative section (scale 1:20)



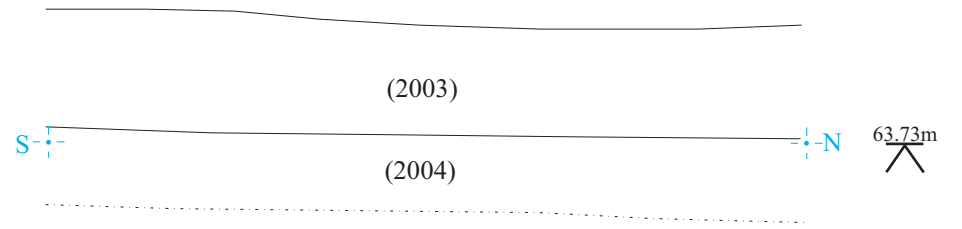
**Fig. 146:** Trench 108 representative section (scale 1:20)



**Fig. 147:** Trench 109 representative section (scale 1:20)



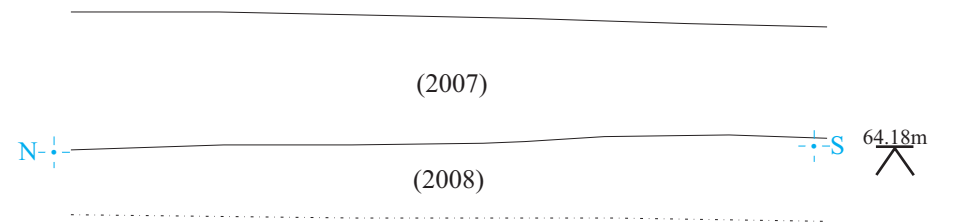
**Fig. 148:** Trench 110 representative section (scale 1:20)



**Fig. 149:** Trench 111 representative section (scale 1:20)



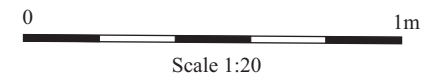
**Fig. 150:** Trench 112 representative section (scale 1:20)

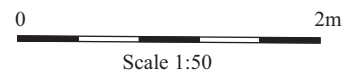
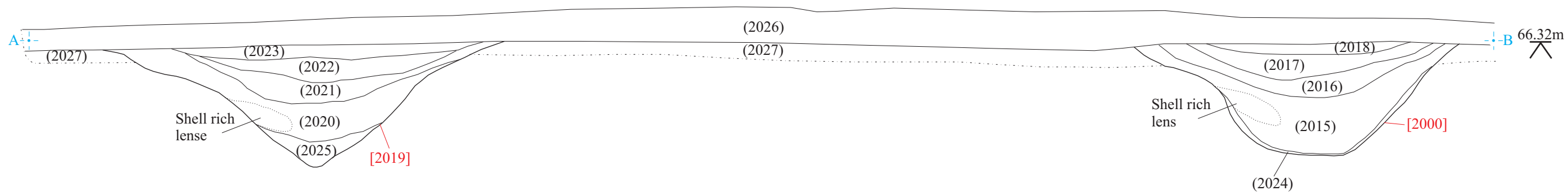
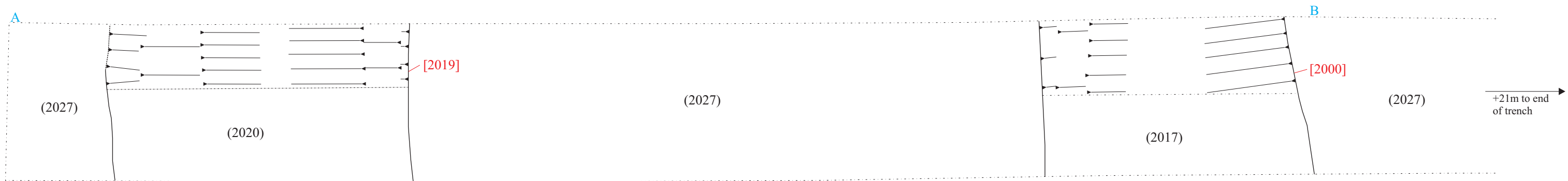


**Fig. 151:** Trench 113 representative section (scale 1:20)



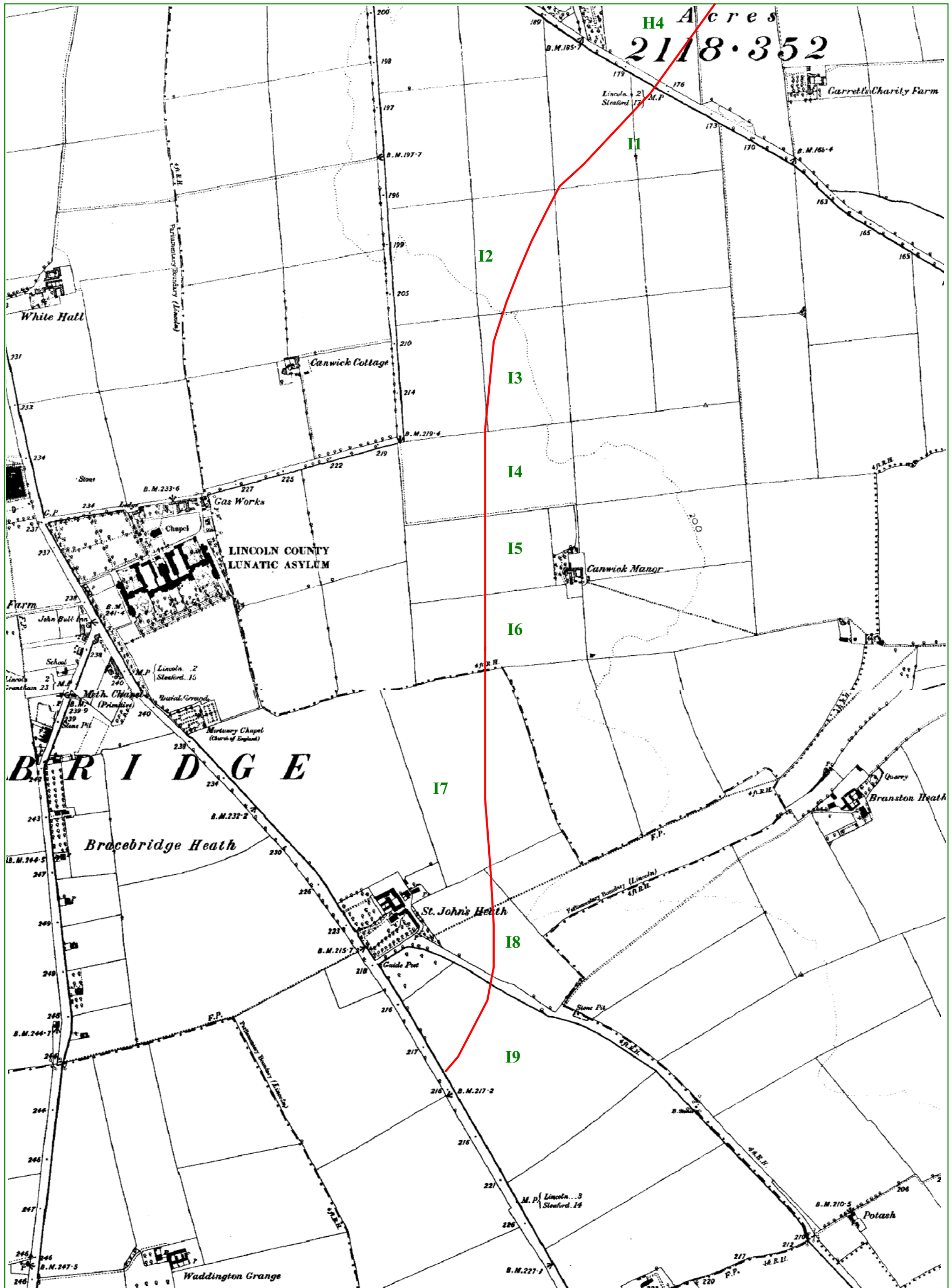
**Fig. 152:** Trench 114 representative section (scale 1:20)



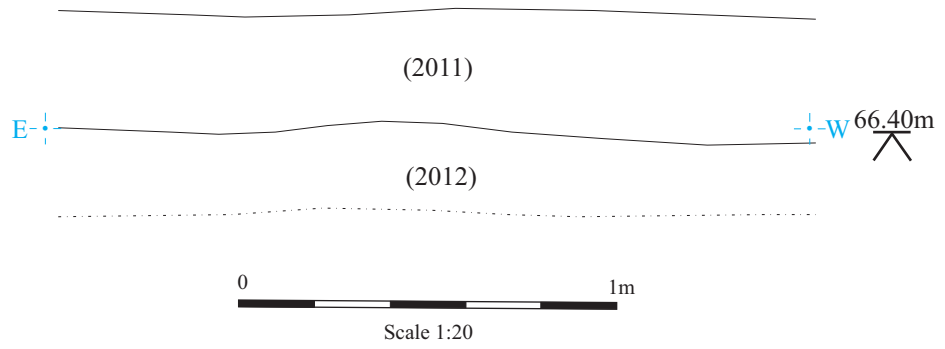


**Fig. 153:** Trench 115 plan and section (scale 1:50)

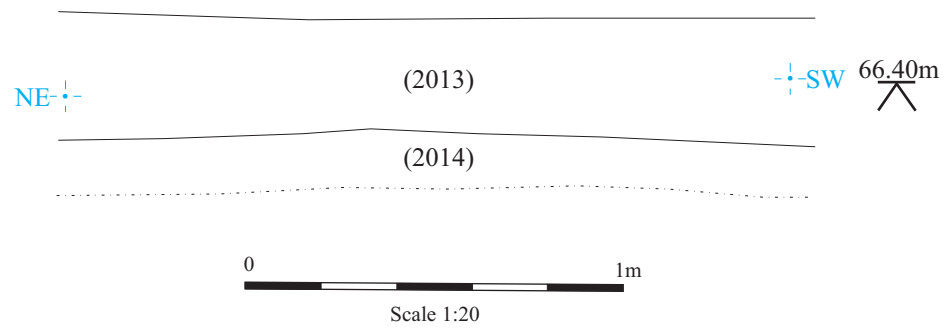




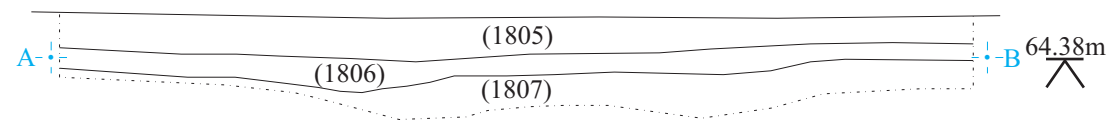
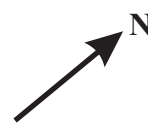
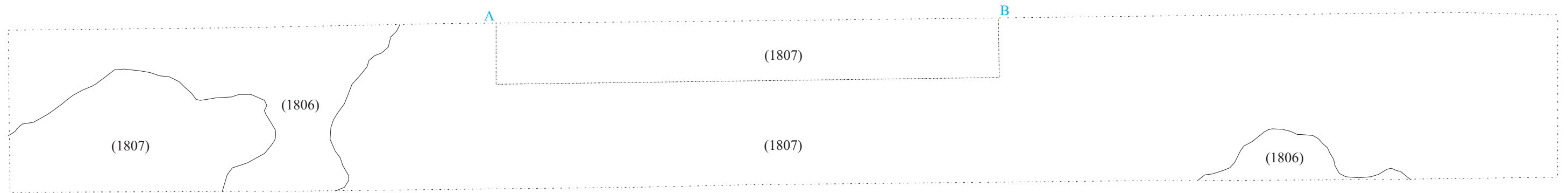
**Figure 154:** Extract from the Ordnance Survey First Edition 6<sup>1/2</sup>: 1 mile (1: 10,560) map of 1889-90 (survey conducted 1885); reproduced at c. 1: 9,000. The red line indicates the proposed route of the bypass and the green alphanumeric codes identify the fields examined during the trial trenching.



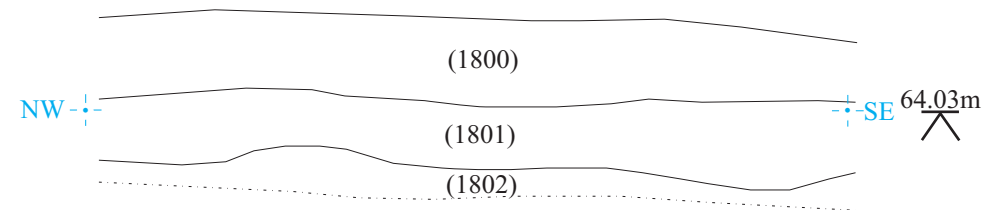
**Fig. 155:** Trench 116 representative section (scale 1:20)



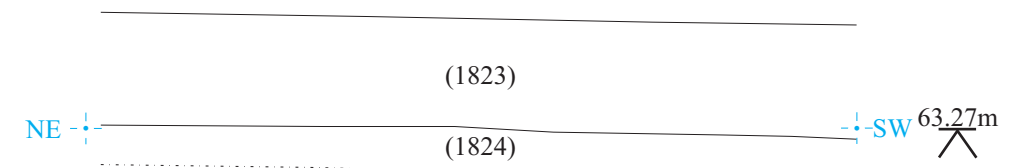
**Fig. 156:** Trench 117 representative section (scale 1:20)



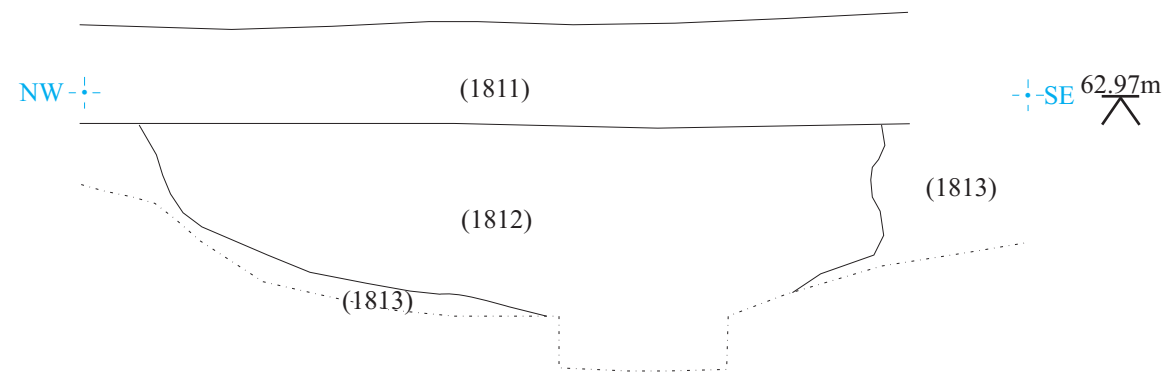
**Fig. 157:** Trench 118 plan and section (scale 1:50)



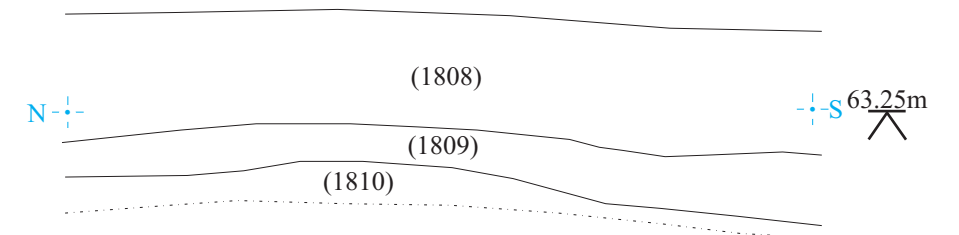
**Fig. 158:** Trench 119 representative section (scale 1:20)



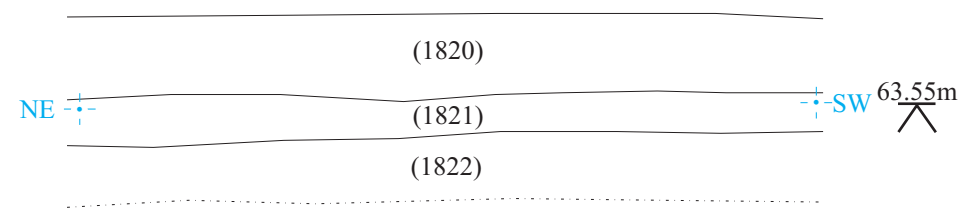
**Fig. 159:** Trench 120 sample section (scale 1:20)



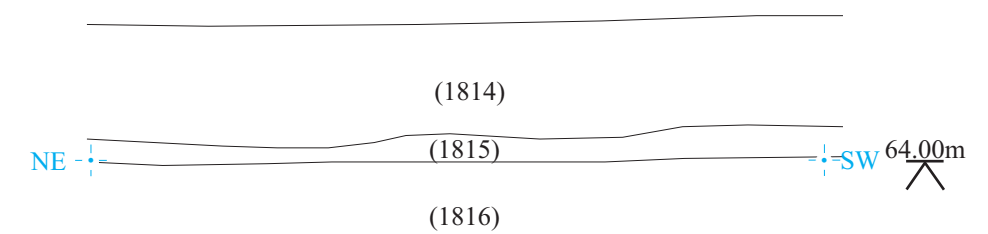
**Fig. 160:** Trench 121 representative section (scale 1:20)



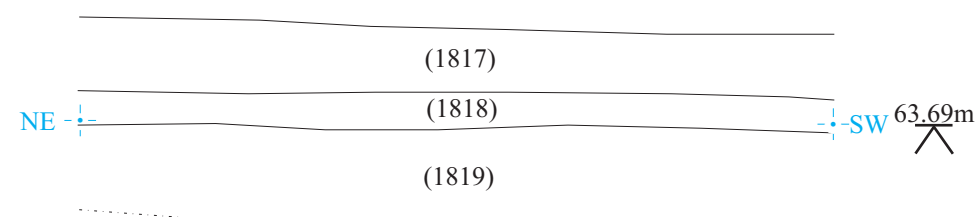
**Fig. 161:** Trench 122 sample section (scale 1:20)



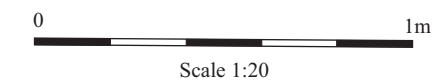
**Fig. 162:** Trench 123 sample section (scale 1:20)

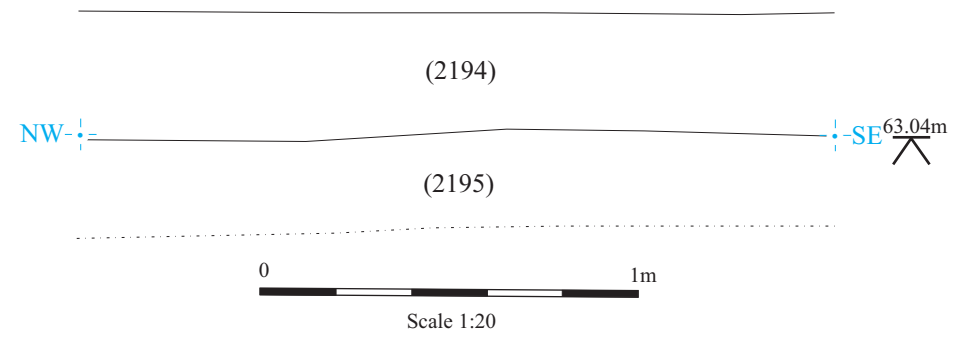


**Fig. 163:** Trench 124 sample section (scale 1:20)

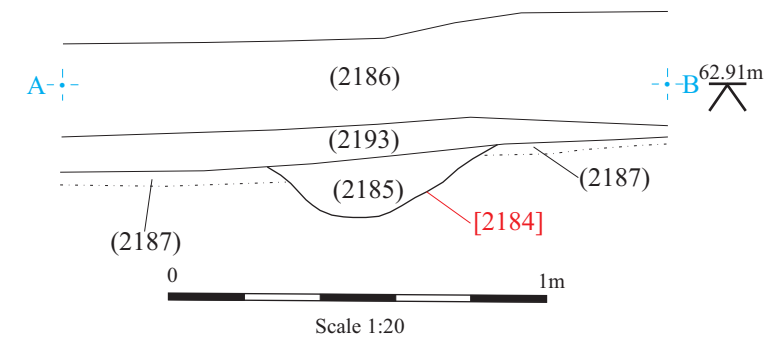
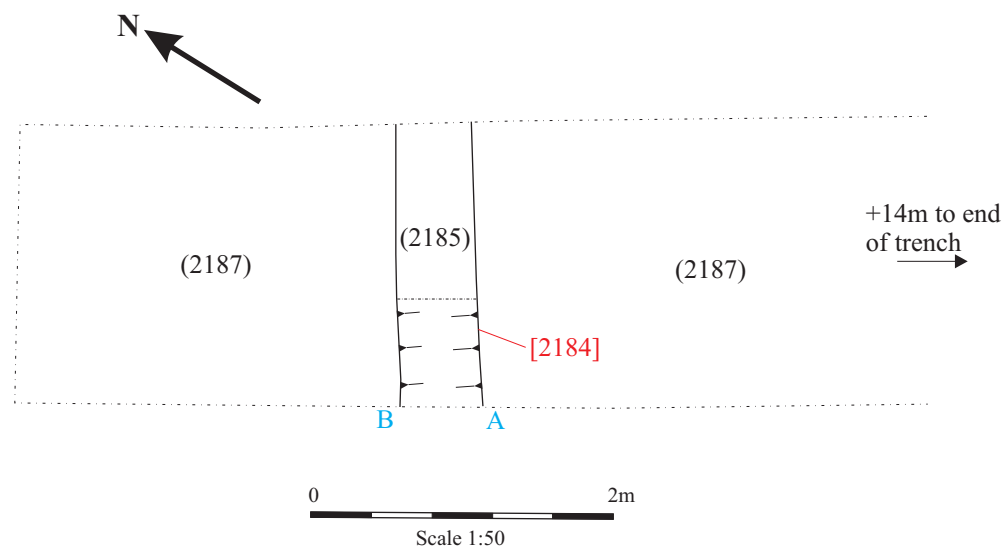


**Fig. 164:** Trench 125 sample section (scale 1:20)

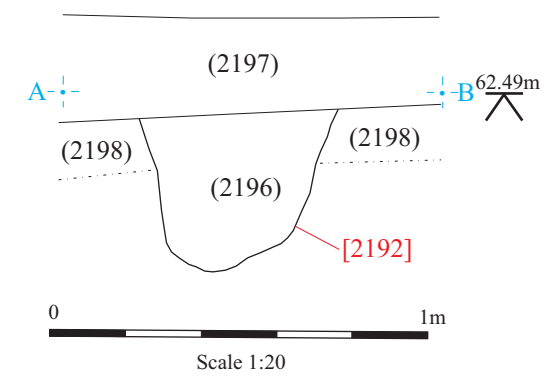
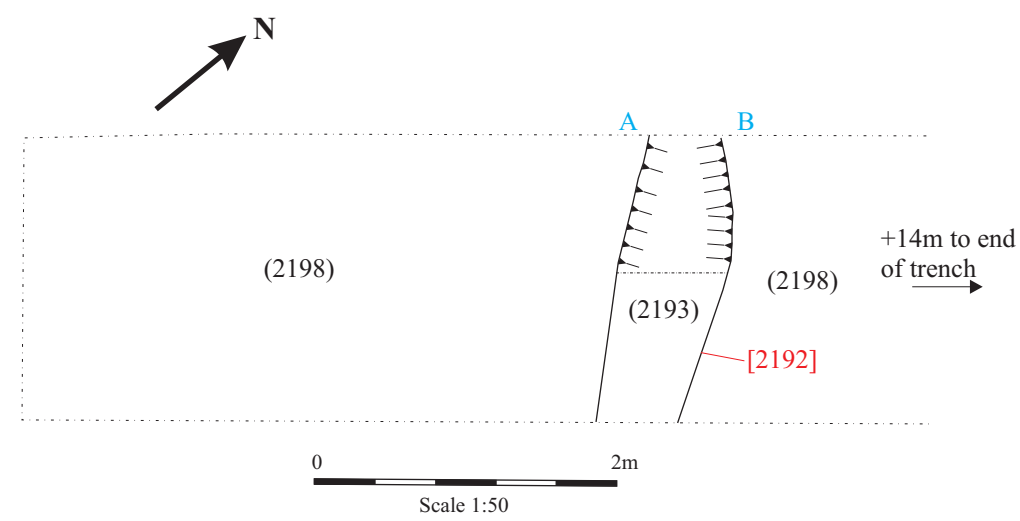




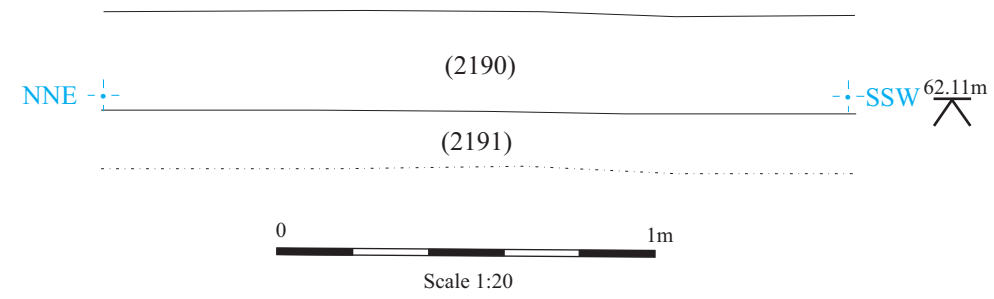
**Fig. 165:** Trench 126 representative section (scale 1:20)



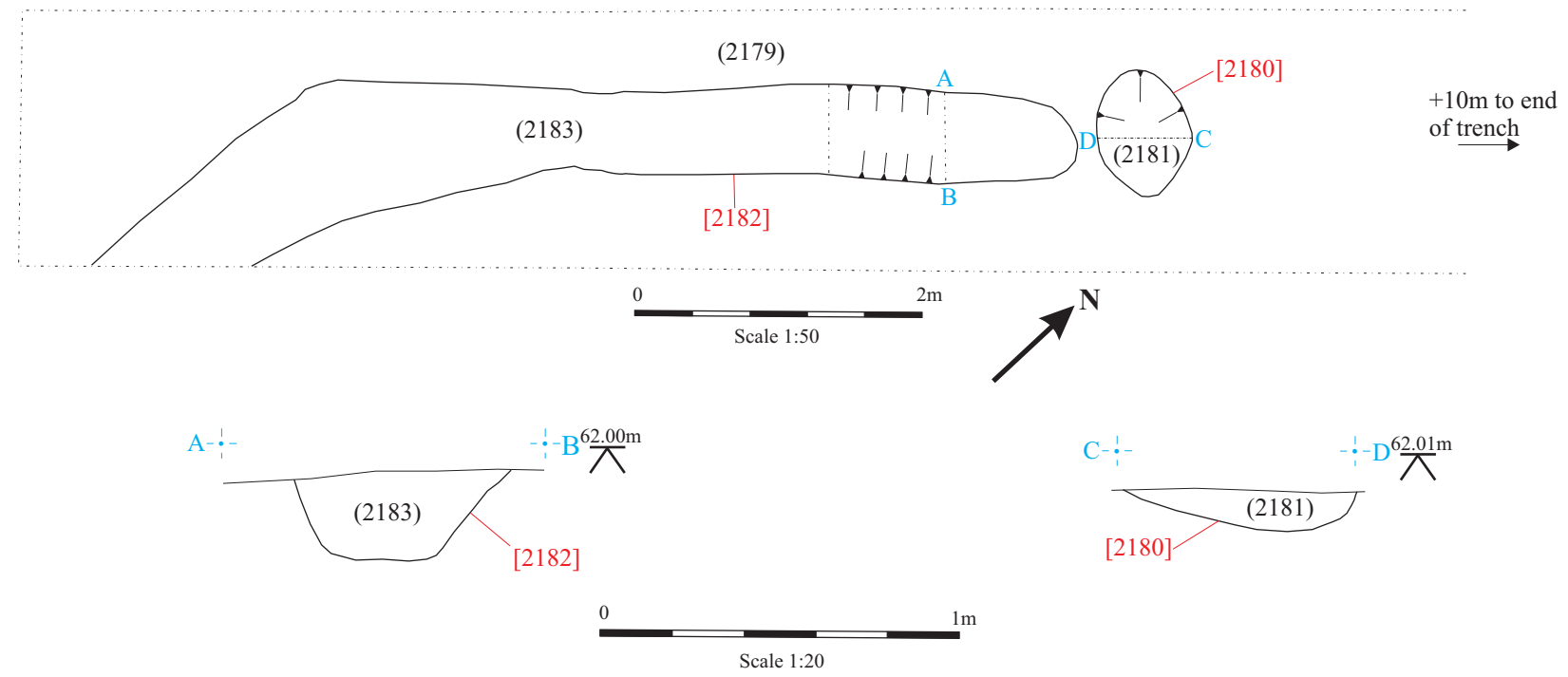
**Fig.166 :** Trench 127 plan and section (scales 1:50 and 1:20)



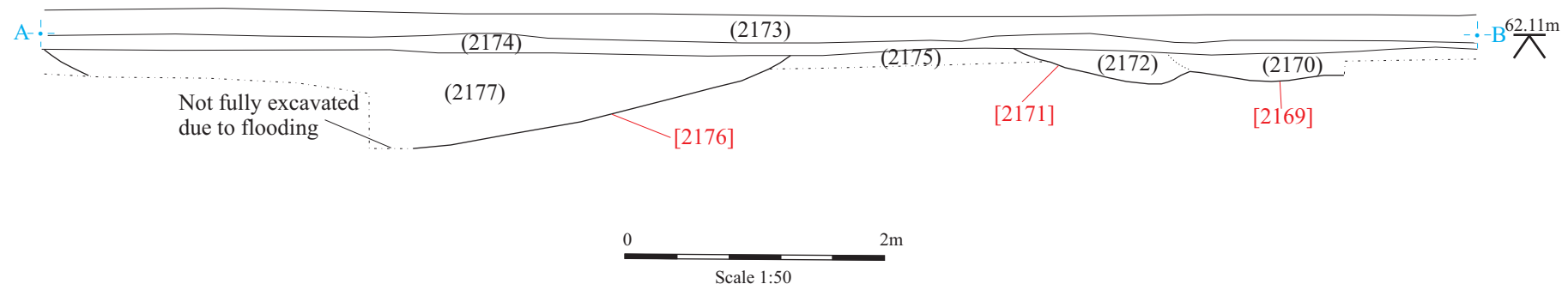
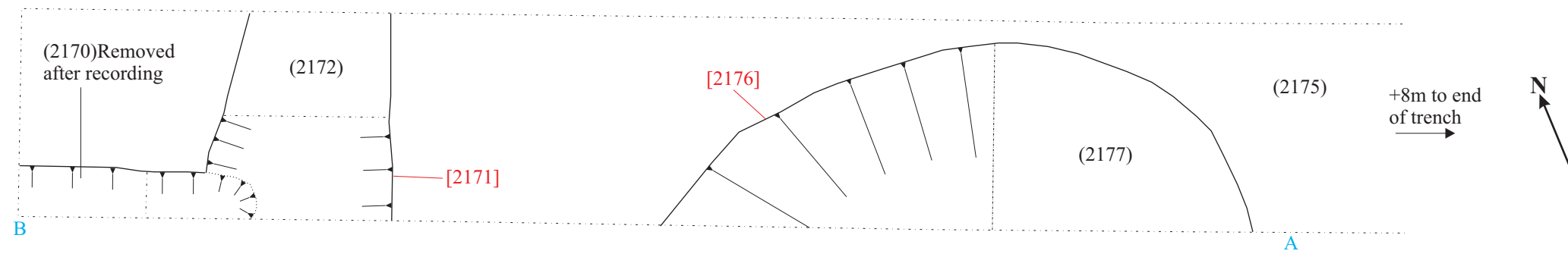
**Fig. 167:** Trench 128 plan and section (scales 1:50 and 1:20)



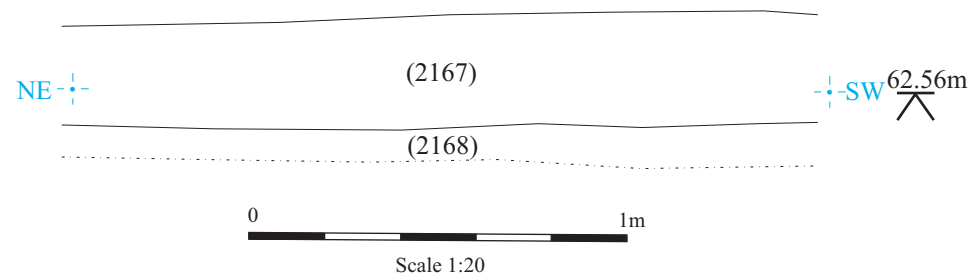
**Fig. 168:** Trench 129 representative section (scale 1:20)



**Fig. 169:** Trench 130 plan and sections (scales 1:50 and 1:20)



**Fig. 170:** Trench 131 plan and section (scale 1:50)



**Fig. 171:** Trench 132 representative section (scale 1:20)

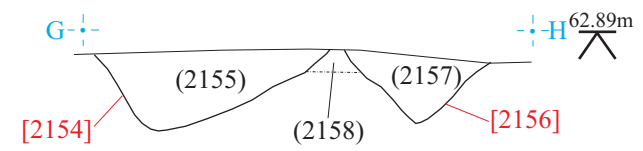
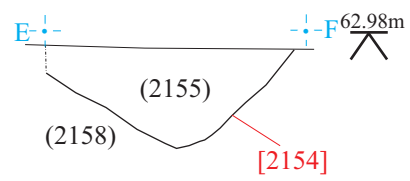
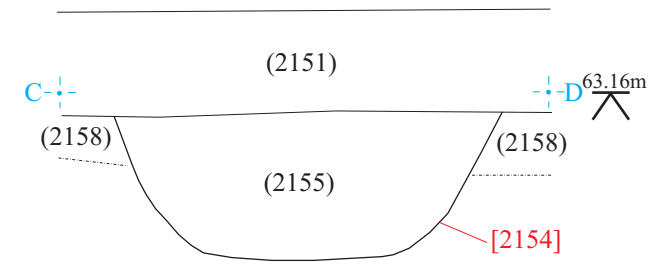
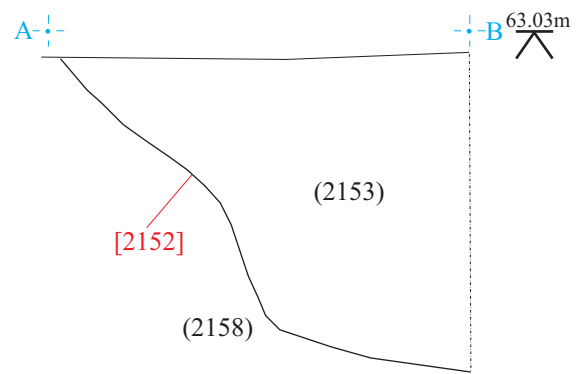
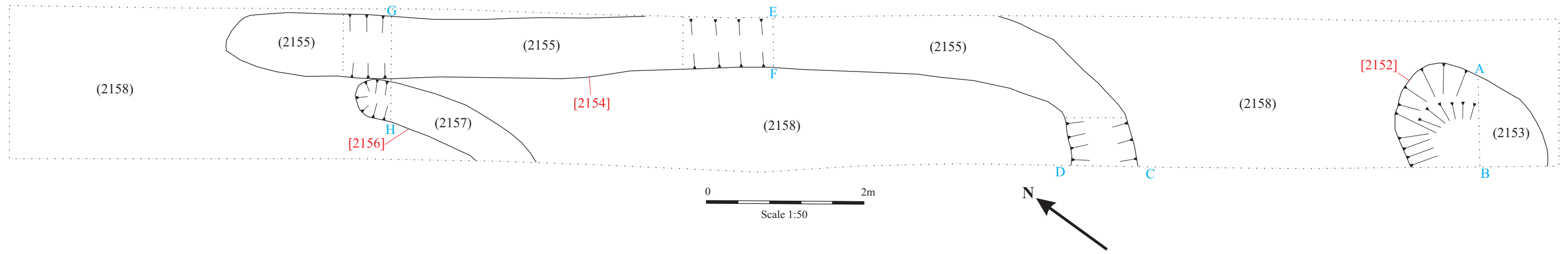
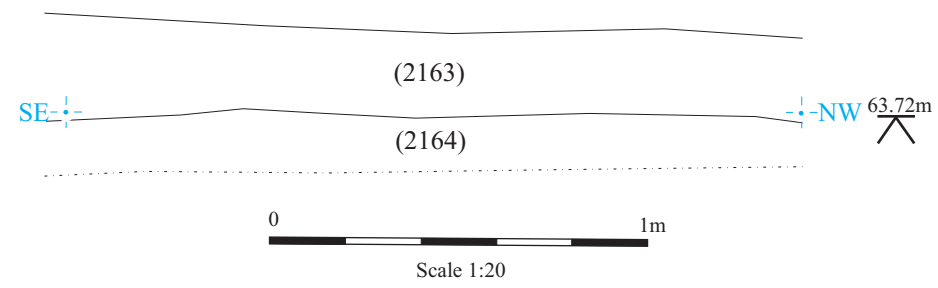
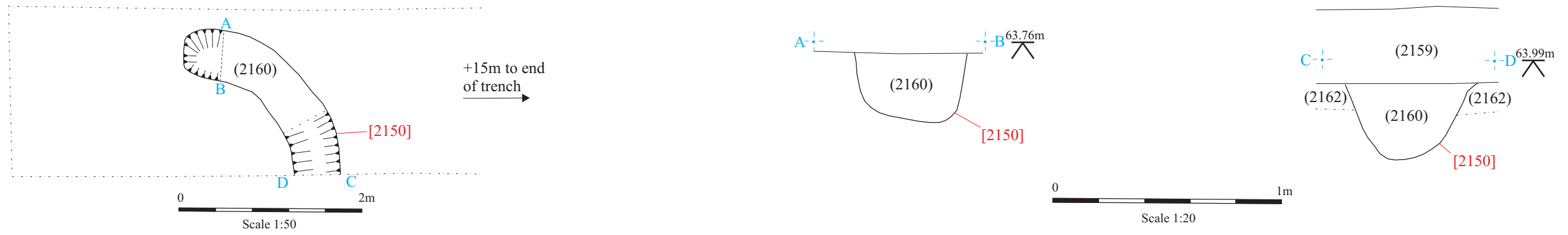


Fig. 172: Trench 133 plan and sections (scale 1:50 and 1:20)

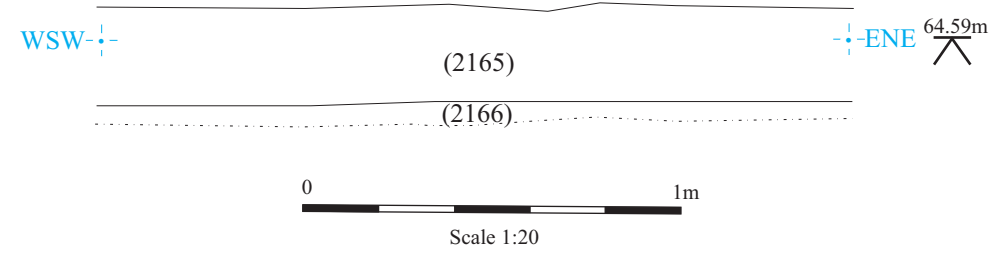




**Fig. 173:** Trench 134 representative section (scale 1:20)



**Fig. 174:** Trench 135 plan and sections (scales 1:50 and 1:20)



**Fig. 175:** Trench 136 representative section (scale 1:20)

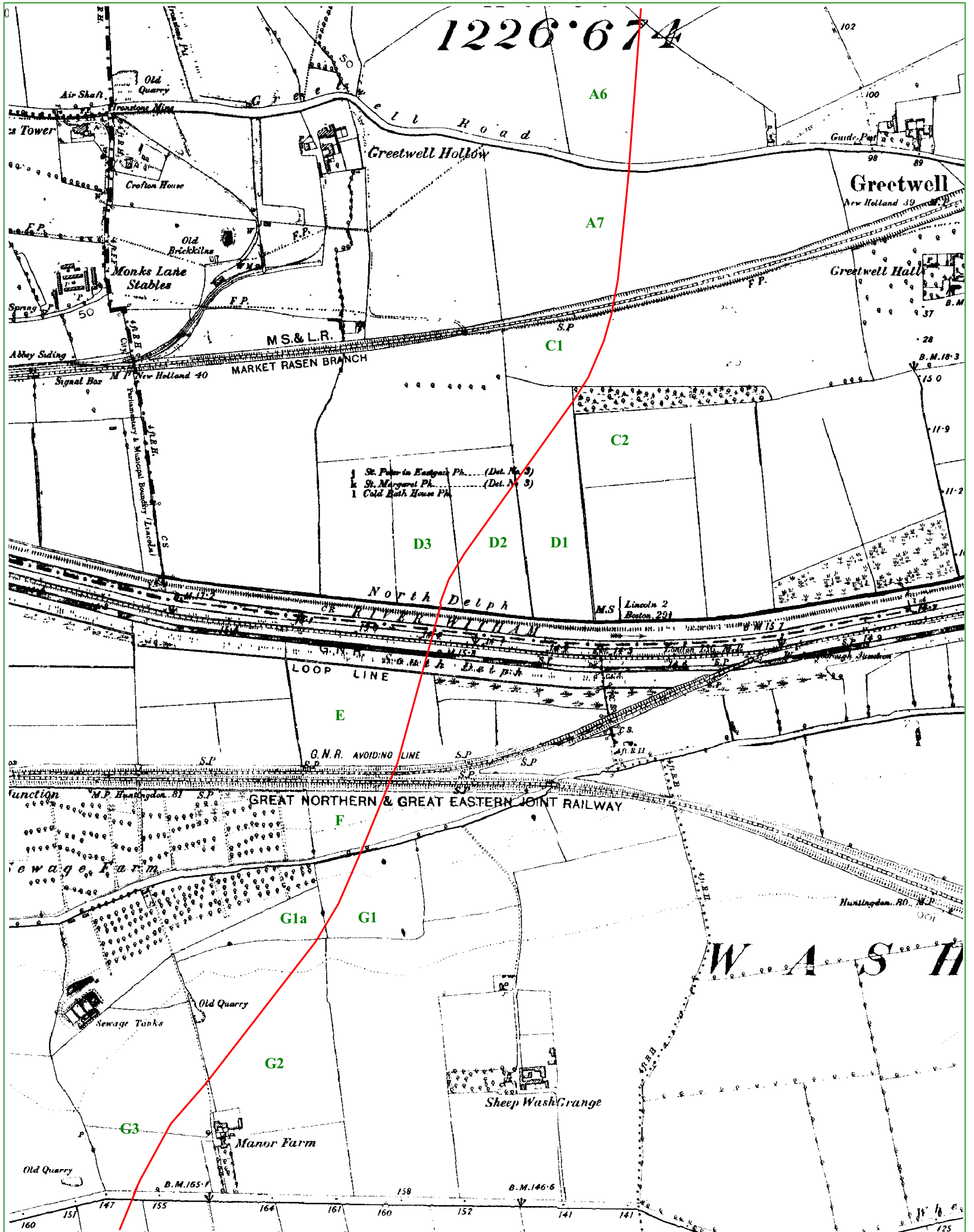


Figure 176: Extract from the Ordnance Survey First Edition 6": 1 mile (1: 10,560) map, sheet LXXI.NE, of 1889-90 (survey conducted 1885); reproduced at c. 1: 7,500. The red line indicates the proposed route of the bypass and the green alphanumeric codes identify the fields examined during the trial trenching.



**Figure 177:** Aerial photograph showing Field E to Field I6, with the known alignment of the large linear boundaries indicated by solid red lines and other possible components depicted by dashed red lines (approximate course of Lincoln Eastern Bypass shown as dashed white line on the upper image).

**Appendix 1.1: Colour photographs**



**Plate 1:** Trench 4, pit 1013, looking S.



**Plate 2:** Trench 6, working shot, pre-excavation, looking S.



**Plate 3:** Trench 7, stone surface 1241, looking W.



**Plate 4:** Trench 7, stone drain 1234 & stone-lined pit 1237, looking E



**Plate 5:** Trench 15, ditch 1214, looking SW.



**Plate 6:** Trench 16, ditch 1194, looking NW.



**Plate 7:** Trench 16, SE facing section through fill of ditch 1194, looking SW.



**Plate 8:** Trench 16, pit 1199, looking NW.



**Plate 9:** Trench 18, view of Sheepwash Grange & sewage works, looking S.



**Plate 10:** Trench 19, N end ditch 1025, looking SE.



**Appendix 1.2: Colour photographs**



**Plate 11:** Trench 26, ditch 1248, looking SE.



**Plate 12:** Trench 34, N end of trench showing possible barrow, pre-excavation, looking N.



**Plate 13:** Trench 34, ditch 1044 showing collapsed section, looking E.



**Plate 14:** Trench 35, leached palaeosol 1093, looking S.



**Plate 15:** Trench 35, ditch 1091, looking SW.



**Plate 16:** Trench 35, hedge-line 1087 & truncated ditch 1089, looking SE.



**Plate 17:** Field F, general shot, with Trench 36 in middle distance, looking W.



**Plate 18:** Trench 36, rubble dump/tip line 1024, looking S.



**Plate 19:** Trench 37, robber trench 1142, with stone fill or in-situ wall foundation, looking W.



**Plate 20:** Trench 37, robber trench 1142, with animal burrows to right, looking N.

**Appendix 1.3: Colour photographs**



**Plate 21:** Trench 38, ditch 1062, looking W.



**Plate 22:** Trench 38, ditches 1070/1061, looking N.



**Plate 23:** Trench 38, pit/ditch 1105, looking N.



**Plate 24:** Trench 38, ditch 1102 oblique shot, looking SW.



**Plate 25:** Trench 38, ditch 1107, looking W.



**Plate 26:** Trench 38, gully 1104, looking W.





**Plate 27:** Trench 39, rubble spread/possible wall 1043, looking S.



**Plate 28:** Trench 40, wall 1046 pre-excitation, looking W.

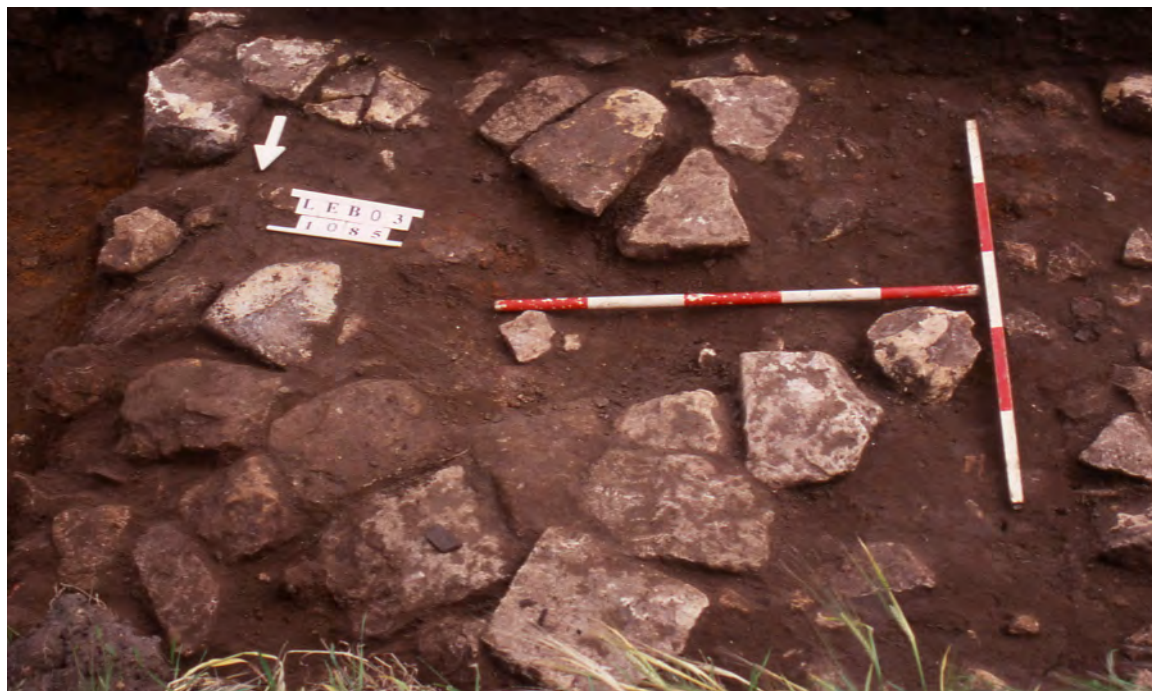


**Plate 29:** Trench 41, close up of northern end of wall foundation 1083, with orange degraded plaster at centre of image, looking W.



**Plate 30:** Trench 41, wall foundation 1083, looking S.

Appendix 1.4: Colour photographs



**Plate 31:** Trench 41, close up of surface 1085, looking S.



**Plate 32:** Trench 38, ditches 1070/1061, looking N.



**Plate 33:** Trench 42, rubble surface 1126, looking W.



**Plate 34:** Trench 42, ditches 1127 & 1129, looking W.



**Plate 35:** Trench 44, limekilns 1411 & 1412, looking NW.



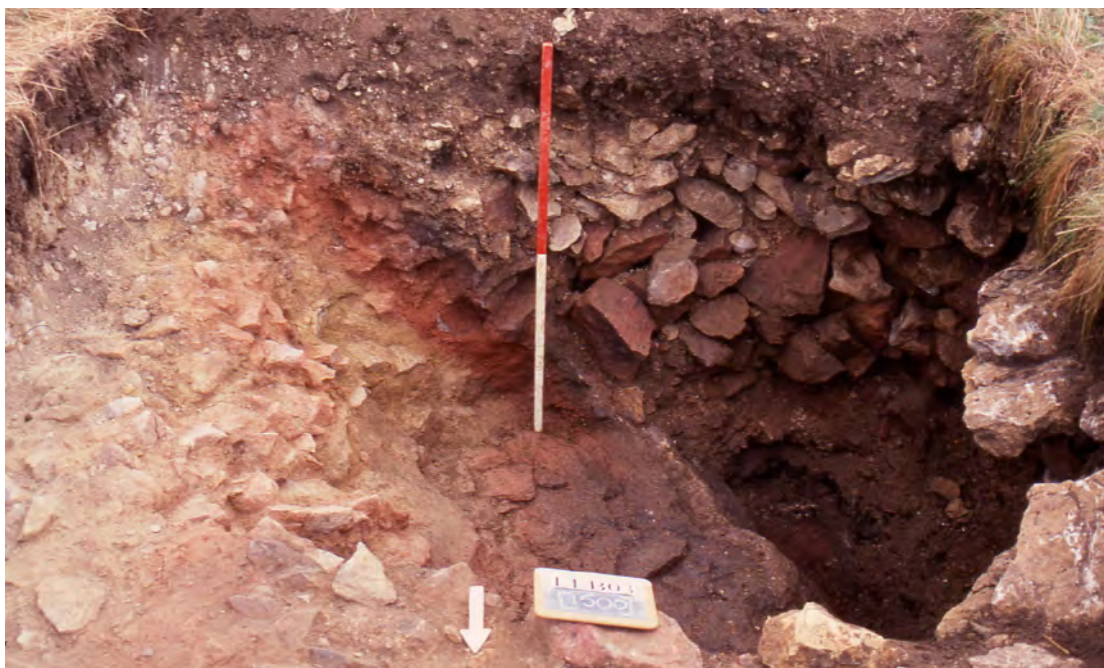
**Plate 36:** Trench 44, limekiln 1411, looking W.



**Plate 37:** Trench 44, limekiln 1412, looking W.



**Plate 38:** Trench 53, ditch 1488, looking N.



**Plate 39:** Trench 60, limekiln 1500, looking S.



**Plate 40:** Trench 70, ditch 1957, looking SE.

**Appendix 1.5: Colour photographs**



**Plate 41:** Field H3, general shot, with Trench 77 in foreground, looking SW.



**Plate 42:** Trench 78, ditch 1941, looking NW.

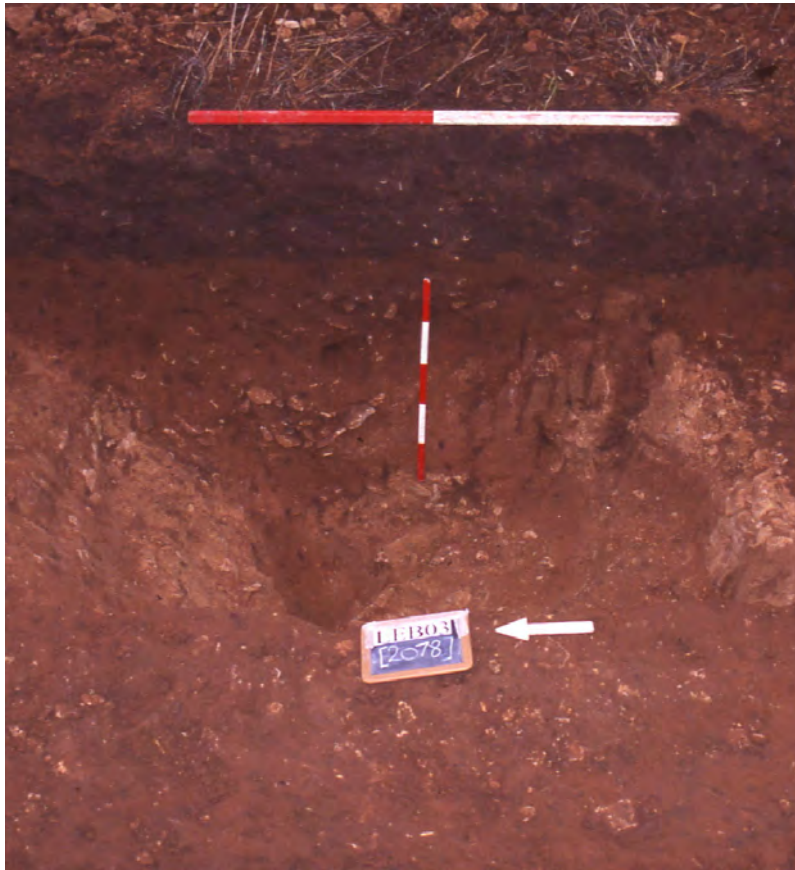




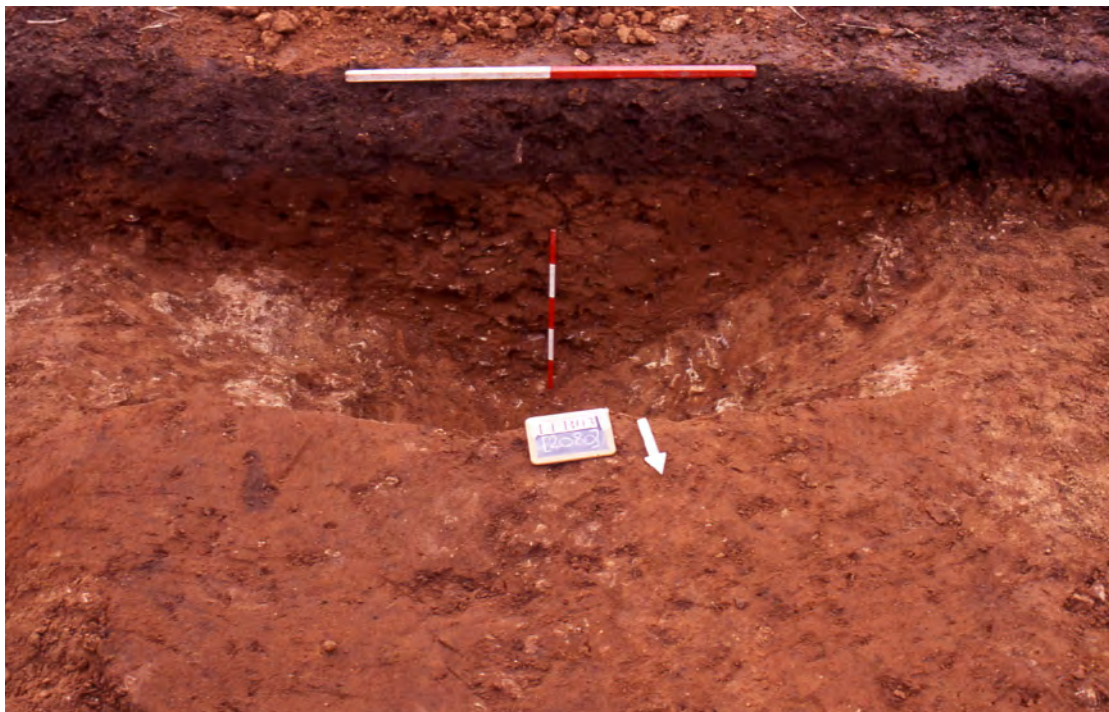
**Plate 43:** Field I1, general shot showing location of Trenches 85 -91, looking SE.



**Plate 44:** Trench 87, ditch 2063, looking NW.



**Plate 45:** Trench 92, ditch 2078 and re-cut 2086, looking E.



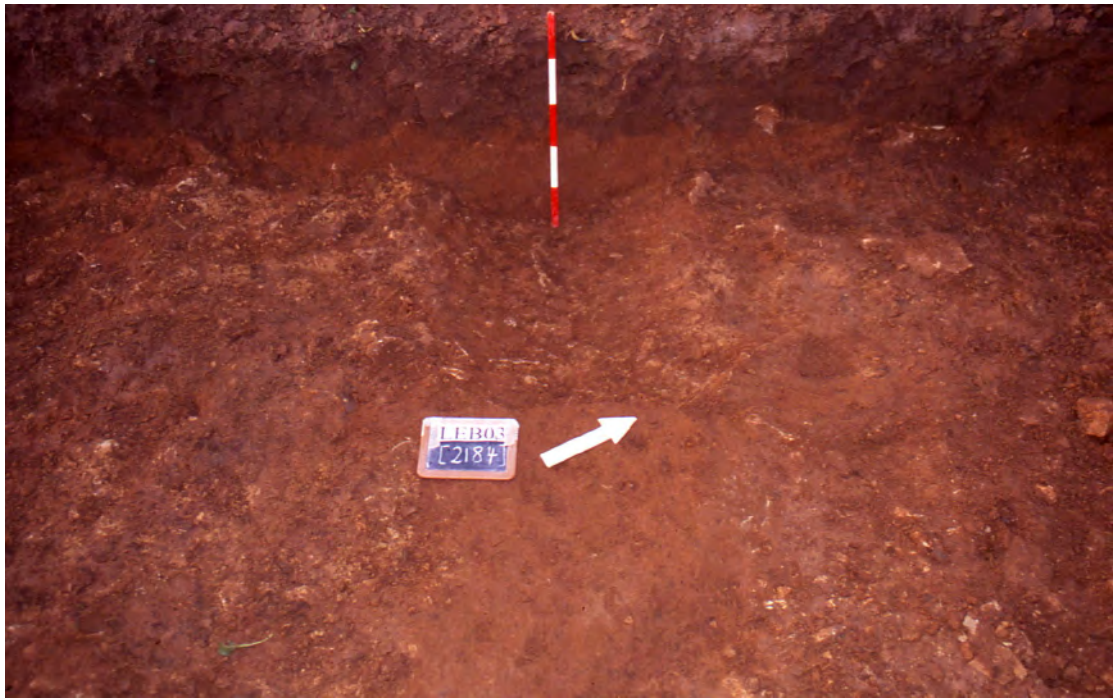
**Plate 46:** Trench 92, ditch 2080 and re-cut 2083, looking S.



**Plate 47:** Trench 115, ditch 2000, looking E.



**Plate 48:** Trench 115, ditch 2019, looking NE.

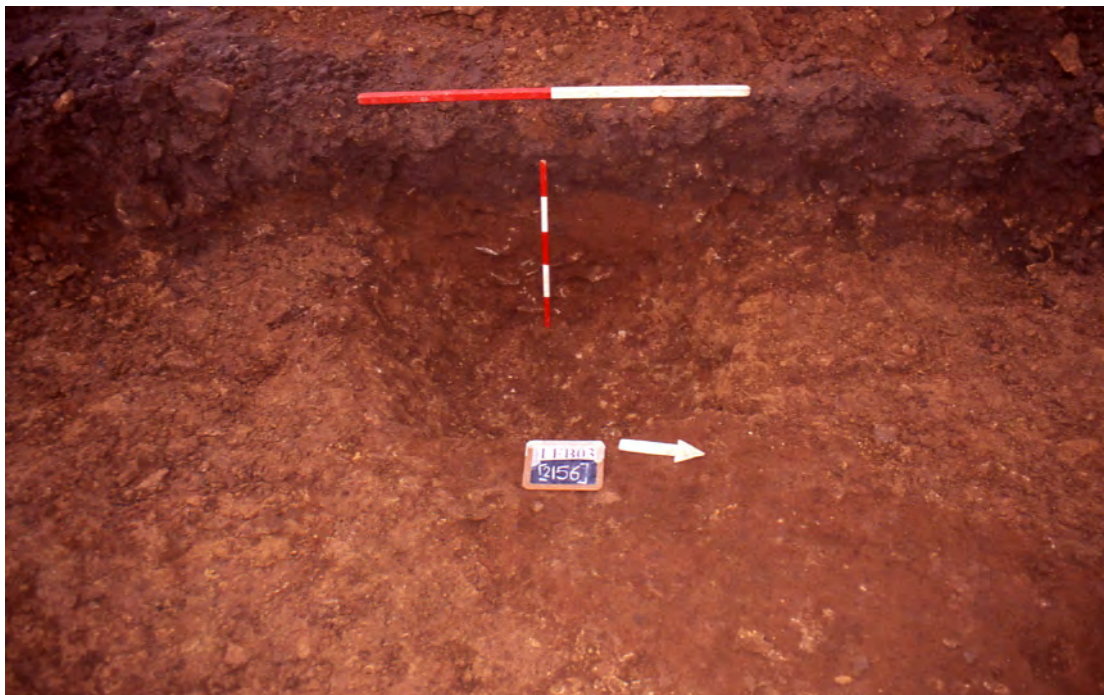


**Plate 49:** Trench 127, gully 2184, looking NW.



**Plate 50:** Trench 131, pit 2176, looking SW.

**Appendix 1.6: Colour photographs**



**Plate 51:** Trench 133, ditch 2154, looking W.



**Plate 52:** Trench 133, pit 2152, looking S.



**Plate 53:** Trench 134, curvilinear gully 2151, looking NW.



**Plate 54:** Trench 139, pit/posthole 1612, looking NE.



**Plate 55:** Trench 143, pre-excitation shot, looking N.



**Plate 56:** Trench 143, post 1659, looking N.



**Plate 57:** Trench 144, pit 1708 and gully 1710, looking S.



**Plate 58:** Trench 144, ditches 1718 and 1719, looking SE.





**Plate 59:** Trench 149, ditch 1643, looking S.



**Plate 60:** Trench 151, ditch 1621, looking W.