



Hill Court Farm  
Longdon  
Worcestershire

**Interim Archaeological Assessment  
Report**



**Oxford Archaeology**

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**Hill Court Farm, Longdon, Worcestershire**

***ARCHAEOLOGICAL EXCAVATION  
INTERIM ASSESSMENT REPORT***

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## SUMMARY

*In June and July of 2004 Oxford Archaeology (OA) carried out an archaeological excavation at Hill Court Farm, Longdon in Worcestershire. The work was commissioned by Worcestershire Wildlife Trust in advance of the construction of a wetland nature reserve. The excavation revealed archaeological remains of Middle to Late Iron Age and Romano-British dates.*

### 1 INTRODUCTION

#### 1.1 The Assessment

1.1.1 This report represents a provisional assessment of the principal results of the archaeological fieldwork, prior to the full assessment.

#### 1.2 Project Background

1.2.1 In June and July of 2004 Oxford Archaeology (OA) carried out an archaeological excavation and a watching brief at Hill Court Farm, Longdon, Worcestershire NGR SO 825 349 (see Fig. 1). The work was commissioned in respect of a planning application by Worcestershire Wildlife Trust to create a wetland nature reserve (Planning Application No. MH/03/2062). The site had previously been subject to an archaeological evaluation (OA 2004) that had uncovered evidence for Iron Age and Romano-British ditches and pits in the extreme south-east of the development area.

1.2.2 A project brief was set by Mr Jez Bretherton of the Planning Advisory Section of Worcestershire Archaeology Services (WCC April 2004).

#### 1.3 Geology and Topography

1.3.1 The development area lies within a glacial depression at between 13m and 12.2m above OD with higher ground surrounding it on all sides. The site is 8.5 hectares in area, although the areas excavated for the strip, map and sample were 7660 m<sup>2</sup> for the main excavation area and 350 m<sup>2</sup> for the Ram chamber site. Other earthworks, specifically ditches and the reservoir areas, were monitored as a Watching Brief (see Fig. 2 for ditch and reservoir location).

1.3.2 The underlying geology belongs to the Mercia Mudstone Group (upper Keuper Marls) overlain by a sequence of lacustrine and alluvial deposits.

#### 1.4 Background to the Archaeological Works

1.4.1 The archaeological background to the excavation and watching brief was prepared in the WSI for the project (OA 2004) and is summarised below.

- 1.4.2 There is some evidence of the area being used in the Bronze Age, as a whetstone of this date was found to the north of the marsh. Crop mark and field name evidence suggest the presence of prehistoric barrows in the vicinity of Longdon village.
- 1.4.3 A series of rectangular enclosures show as cropmarks to the south and east of the main excavation area. These were investigated by a field walking and metal detector survey (Miller et al 2002), which, together with the evaluation (OA 2004) produced finds of Iron Age and Romano-British date

## 2 METHODOLOGY

### 2.1 Excavation Methodology

- 2.1.1 Standard OA methodologies were used throughout the excavation. These were detailed in the Written Scheme of Investigation (OA 2004).
- 2.1.2 An auger survey at 200 m intervals across the marsh was carried out by the OA Geo-archaeological Department. This was supplemented by a bore-hole survey to obtain datable material from peat deposits within the marsh. The two surveys were used to create a computerised model of the formation and development of the marsh deposits.

## 3 RESULTS

### 3.1 Summary of the Archaeological Results

- 3.1.1 When the main excavation area to the south-east of the development area was opened up by mechanical excavator a fairly complex sequence of archaeological deposits, alluvial and lacustrine layers were encountered. The archaeological deposits filled features including linear and curvilinear ditches, pits, waterholes and a probable structure. These features have been provisionally placed into five chronological phases which are detailed below in section 4.
- 3.1.2 It should be noted that the phasing is at present based on the physical and stratigraphic relationships between the varying deposits and a limited amount of spot dating of the pottery recovered. This phasing will potentially be subject to alteration when the whole pottery assemblage and other finds are fully assessed.
- 3.1.3 The ground conditions during the excavation were often difficult due to the hot weather making the removal of heavy clay deposits problematic. Generally the archaeological features were fairly easy to identify in plan and “weathered out” over time rather than becoming more difficult to see. This was not the case however in the areas marked as “area machined lower” on Fig. 3, where a ground plan was virtually impossible to establish without excavation. Some of the deeper features (especially waterholes and ditches) accumulated ground water at a considerable rate, hindering excavation, but providing apparently good preservation of organic materials such as wood. The truncation of the archaeology appears generally to have been minimal, although there is some evidence for ploughing that in places extended

below the blue-grey alluvial horizon (see below). The only potential structure uncovered (two possible walls) was extremely fragmentary, probably due to plough damage.

### 3.2 The alluvial and lacustrine deposits

3.2.1 Virtually the entire site, with the exception of the extreme southern edge, was overlain by a blue-grey alluvial horizon, situated beneath the topsoil. This layer, identified in the evaluation, extended north into the marsh and sealed the archaeological features. Although this layer contained some quantities of abraded Severn Valley Wares (Of Romano-British date), a single large sherd of probable medieval date was also recovered. This layer therefore appears to post-date the Romano-British settlement, but contained material washed down from the site of the settlement and its peripheries, including several well preserved bronze brooches. The southern edge of the site was overlain by a brown colluvial deposit (essentially slope-wash). This was seen to overlie, and hence to be more recent than the associated blue-grey alluvium. In the interest of clarity these and other alluvial/lacustrine layers have not been included on the provisional site plan.

3.2.2 The central area of the site (marked as “area of more complex stratigraphy on Fig. 3”) was observed to have a different sequence of deposits to the rest of the excavation area. This reflects the lower initial topographic position of this area in relation to higher ground levels to the west and east. Consequently this central area was more prone to flooding, and hence the more complex alluvial sequence. Archaeological features of Romano-British date were seen to cut through one of these flood deposits. On removal of this layer further features of this period were uncovered, perhaps indicating a short lived alluvial event necessitating the re-cutting of drainage gullies and other features by the occupants of the settlement. Below this layer was a possible lacustrine deposit which contained no pottery, although a spear head of possible Bronze Age date was recovered by metal detector from within it.

### 3.3 Phases

#### *Phase I Middle to Late Iron Age*

3.3.1 The earliest phase of activity identified belongs to the Middle to Late Iron Age and was spatially limited to the central-eastern part of the site. This consisted of a shallow ring gully (7640) enclosed by two linear ditches (7625 and 7630). It is possible that (7640) represents a drip gully, to catch water from the roof of a round house. However this is speculative given the absence of any associated post holes, although considerable effort was expended to locate these. A shallow ditch immediately north-east of the ring gully may have acted as a drain, funnelling ground water towards the marsh. A ring-ditch (7645), to the south west of the gully is also assigned to this phase. This is too deep (at around 0.70 m) to be interpreted as a drip gully, and was only partially located within the limit of excavation. A corral for



livestock is probably a more suitable interpretation, although along with 7640 it too has an east-facing entrance. Most of the features of this phase had fairly high levels of pottery within the fills, presumably indicative of proximity to the settlement.

*Phase II 1st to early 2nd centuries A.D.*

- 3.3.2 The second phase belongs provisionally to the first to early second centuries A.D. Ditches 7600 and 7585 form part of a large enclosure which appears to relate to one of the cropmark enclosures mentioned in 1.1.3 above. This enclosure certainly has more than one phase as at least two ditches were identified within each axis but at this stage of analysis it is more suitable to refer to broader trends rather than detailed subdivisions within phases. The absence of major features within this enclosure would seem to preclude the interpretation that it is the settlement boundary per se, and again livestock management, particularly relating to summer grazing resources, seems a viable explanation. It seems probable that ditch 7585 at least had an internal bank. The evidence for this is that two later phase ditches (7575 and 7580) both cut the upper levels of infill of 7585 while respecting its alignment and position. The only immediately obvious explanation is that they both respect an extant earthwork related to the ditch, rather than the silted up ditch itself.
- 3.3.3 A separate enclosure also relates to this phase (ditch 7570). This rectilinear ditch appears to have been dug as a single event and is deep (up to 0.95 m) with a distinctive 'V' shaped profile. Tip lines within the ditch infill indicate that it would have had an internal bank. The two arms of this ditch enclose a possible structure (7540) consisting of two possible walls on a slightly raised area of made ground. These two short sections of wall are not quite at right angles to each other, but given their incomplete nature this may be a result of later truncation and disturbance. On excavation a foundation pot was uncovered, also slightly truncated. Foundation pots are sometimes associated with the initial construction phase of Romano-British buildings. However given the truncation of the pot itself it seems unlikely that it is directly related to the overlying wall fragments. No dating has yet confirmed the association of the enclosure with the structure, and its position, equidistant between the two arms of the ditch may be coincidental.
- 3.3.4 All of the enclosure ditches of this phase appear to have silted gradually, rather than having been deliberately backfilled. This is evidenced by the lack of large quantities of domestic refuse within the lower fills, although the upper fills were more productive in terms of finds. The homogenous nature of the fills made relationships between ditch fills difficult to identify, and further analysis of datable material may refine the precise sequence.

*Phase III Romano-British.*

- 3.3.5 The third phase of activity is at present classed broadly as Romano-British. This is partially because, although clearly Roman in date, the pottery has not yet been analysed, or the sherds recovered are too small or abraded to allow precise categorisation. The majority of the pottery recovered from these features was

recognised by the excavator as belonging to the Severn Valley Ware groups, but this style of pottery was made throughout the Romano-British period. As well as several pits, the main feature assigned to this phase was ditch 7560, the westernmost boundary ditch. This ditch is shallower than its western counterparts, and again consists of more than one phase, as the boundary was re-defined over time. It is notable that far less pot was recovered from the excavation of the fills than similar features to the east. This suggests that this ditch was further removed from the focus of the settlement on the slopes to the south and east. Features grouped within this phase are subject to being reclassified as further post-excavation assessment refines the sequence.

*Phase IV Late 2nd to 3rd centuries A.D.*

- 3.3.6 Most of the features within this phase have been assigned here for stratigraphic reasons, i.e. they clearly cut the fills of earlier ditches, and or pits. Ditch 7595 seems to be the latest in the sequence that is initially represented by 7600 and 7585 (see 4.2 above). Enclosure ditch 7585 has clearly gone out of use by this stage and the line of 7600 is re-defined, potentially as the settlement, or associated activity expands to the west. The upper fills of 7595 (at its western excavated extent) contained pottery dating to the mid third century (possibly later). The northern arm of rectilinear ditch 7570 is extended in an easterly direction by the addition of 7580, the southern and western arms presumably going out of use. This is also the case with 7585, cut by both 7580 and 7575. The latter is a curiously shaped semicircular ditch, and in tandem the two can be seen possibly functioning as a “funnel” and small corral for livestock management. It seems probable that the now defunct 7570 is replaced by the more southerly 7650 (again this ditch represents more than one phase of activity). The relationship between 7650 and 7560 to the west is unclear because machining was not possible within the vicinity of extant oak trees which form part of the nature reserve development. It may be that these ditches are two arms of the same system, following the contour line at the base of higher ground to south and south-west respectively
- 3.3.7 A narrow, steep sided linear gully (7655) runs on a virtually north-south alignment from the settlement to the south and terminates near 7650 to the north. This gully, presumably for drainage, was curious for the amount of pottery that it contained. Two virtually complete vessels were recovered from the within the basal fill, indicating that the gully was open for a very short time before it went out of use and became a repository for refuse. This gully was then sealed by a flood deposit and probably replaced in a short period of time by a sequence of north-west to south-east running gullies. The relative time scale of the flooding, and flood countermeasures may have been short (perhaps a few years).
- 3.3.8 A number of waterholes are also included within this phase on dating and stratigraphic grounds. One is thought to post-date ditch 7650, and it may be that some of these features represent a final phase of activity on the site, possibly again linked to animal husbandry.

### *Phase V Post Roman*

- 3.3.9 A few ditches on the site were notable because the fills were far more brown and loamy than any other comparable features present. Unfortunately none of these contained any datable material (pot or charcoal for instance). However one of these cut the blue-grey layer that sealed the deposits discussed above. While these features could conceivably be interpreted as late Roman activity, a medieval or post-medieval date may be a better fit with the stratigraphy. They appear to represent elements of a redesigned land division in the area.

## 3.4 Summary of the Finds

### *Types of artefacts*

- 3.4.1 Considerable amounts of pottery and bone were recovered from the excavation (see appendix 2 for quantification). The pottery provisionally dates from the Middle to Late Iron Age until the middle to late 3rd century A.D. Other finds included two worked pieces of timber, one a small peg with one sharpened end, the other part of a post or stake that exhibited clear axe marks towards one end. Metal artefacts included iron nails, iron hobnails from a shoe, and a small iron wedge. Copper alloy finds included enamelled brooches, plainer brooches, coins, a ring fragment and a spearhead. A lead loomweight and a quernstone were also recovered.

### *Condition of artefacts*

- 3.4.2 The condition of the pottery from archaeological fills was generally good. Pot from the post-Roman alluvial layer was generally less crisp and more "eroded". Bone, apart from the larger fragments (e.g. large mammal jaw bones) was generally in fairly poor condition, reflecting the ground conditions. Curiously the copper alloy finds from within archaeological features were fairly poorly preserved, while those present in the post-Roman alluvium were well preserved. Timber preservation from waterlogged deposits was good due to the anaerobic environment, which had clearly not dried out since the timber was deposited.

### *Distribution of artefacts*

- 3.4.3 The majority of the pottery and bone was distributed within the central part of the site. The quantity diminished to the east of the excavation area, and diminished considerably towards the west. These distribution patterns may be indicative of either the location of the settlement in relation to the site, or the areas of activity in relation to the interface between the settlement and the marsh. Iron finds were recovered from the eastern and central parts of the site. Copper alloy finds were for the most part located in the central part of the site. This however was a function of the overlying alluvium being left *in situ* in the centre but removed elsewhere.

*Further dating possibilities from finds*

3.4.4 The brooches and to a lesser extent the coins (due to preservation) should be able to give reasonable dates for manufacture. As these items are often in use for extensive periods of time, their eventual loss date is not be so easy to apprehend. The timber and bone objects recovered can be used to obtain radiocarbon dates. The possibility of dendro-chronological dating of the wood seems unlikely given the size of the even the larger timber. Even if the post proves to be a suitable species (i.e. oak) the ring count is probably too low.

**3.5 The Environmental Data**

3.5.1 Environmental samples were taken from a number of contexts during the excavation. Samples from charcoal rich contexts of both Iron Age and Romano-British features were taken to look for the potential presence of charred plant remains. Waterlogged deposits were sampled because organic remains (if present) survive well in anaerobic conditions. Two monolith samples were taken from waterlogged deposits for pollen analysis, although the samples from the evaluation had little pollen surviving. One sample from the basal layer of the Ram trench (immediately above the natural mudstone) contained high quantities of snail shells, and may yield information about the environment at the time of the marshes formation. A total of 24 deposits were sampled.

3.5.2 Eight bore-holes were sunk and the resulting columns analysed in order to augment the data from the auger survey. The Ram site, although yielding little in terms of archaeological material, was deep enough to provide a further section through the marsh deposits. In unison these samples, and the resulting data, will allow a computer model of the marsh to be created.

3.5.3 Preliminary analysis of the environmental samples has indicated limited survival of ecofacts within the waterlogged deposits. The samples taken for charred remains had considerable levels of charcoal present, however no charred plant remains were immediately noticeable within the flotation residue.

**3.6 References**

OA, 2004 Hill Court Farm, Longdon, Worcestershire; *Archaeological Evaluation Report*

OA, 2004 Hill Court Farm Worcestershire; *Written Scheme of Investigation for Archaeological Works* (Stages 4,5 and 6 Mitigation, post-excavation and presentation)

Miller, D, Dalwood, H, & Darch, E, 2002 *Archaeological Evaluation at Hill Court Farm, Longdon, Worcestershire*, Archaeological Service Worcestershire County Council, unpublished client report

Worcestershire County Council, 2004 *Brief for Archaeological works at Hill Court Farm, Longdon, Worcestershire*. (Stages 4,5 and 6: Mitigation, post-excavation and presentation)

## 4 INTERIM STATEMENT: GEOARCHAEOLOGY

*Prepared by: C. Champness.*

*Edited by E.C. Stafford*

### 4.1 Introduction

- 4.1.1 Longdon Marsh is located 8km north of Tewkesbury, midway between the Malvern Hills and the River Severn. Overlooking the marsh is the village of Longdon and fringing the marsh to the north and south are the Hamlets of Castlemorton and Birtsmorton (morton from OE more-tun, meaning 'Tun' (homestead or village) by a fen') (Ekwall 1960 in Brown unpub.). The marsh lies at approximately 10-13m OD within a large natural basin formed by sandstone ridges and hills, and gravel fans. The bedrock geology belongs to the Mercian Mudstone Group, predominantly Upper Keuper marls (BGS sheet 216), overlain by varying depths of superficial deposits of glacial, fluvioglacial, solifluctate and alluvial/lacustrine origin. The marsh is dissected by the Longdon, Birthmorton, and Castlemonk Brooks which drain through this basin into the River Severn approximately 3.5km to the west via Bushley Brook. Prior to drainage in 1872 for agricultural purposes, the marsh represented a significant area of lowland wetland covering an area of between 2000 and 4000 ha. The present vegetation varies from arable land to wet pasture with small patches of woodland. The arable land tends to be restricted to the higher edges of the marsh due to continued seasonal flooding.
- 4.1.2 The palaeoenvironmental history and development of Longdon marsh has been subject to limited study. An investigation was conducted in the 1970s following a proposal to turn the area into a storage reservoir (STWA 1976), and A.G. Brown conducted a further investigation of nine boreholes from the central and northern part of the marsh (Brown unpub.). Although substantial depths of deposits were recorded during the previous investigations, comprising up to 5m of sediment in the central sector, the work carried out by Brown found these to be largely minerogenic with only occasional thin lenses of organic deposits. Palaeoenvironmental remains such as pollen and diatoms were generally poorly preserved thus limiting the usefulness of these sequences for palaeoenvironmental reconstruction.
- 4.1.3 The proposed development area at Hill Court Farm lies on the southeast edge of Longdon marsh at the point where the Longdon Brook issues into the basin flowing roughly along a south/north course. The evaluation work undertaken by OA (OA 2004) confirmed substantial depths of alluvial/lacustrine deposits exist relating to the Holocene development of the marsh in this area. The sediment sequences recorded were clustered at the southern edge of the marsh. They were largely undated although stratified archaeological remains in the upper parts of the sequence in the southeast sector of the site suggested Iron Age/Romano-British and later date for deposition. Preservation of environmental indicators within the lower sediments was generally poor. The upper deposits found in association with archaeological remains did

preserve material although circum-neutral conditions still militate against the survival of pollen. The possibility however remained that more substantial and better preserved sequences that could potentially provide data on the development and environmental history of the marsh may survive in other parts of the development area. As part of the archaeological mitigation strategy in June 2004 Oxford Archaeology (OA) carried out an auger and borehole survey in order to investigate the area to the north of the open excavations.

## 4.2 Aims

4.2.1 The primary aims of the survey were set out as follows:

- Characterise the sequence of sediments and patterns of accumulation across site, including the depth and lateral extent of major stratigraphic units, and the character of any basal land surface pre-dating these sediments.
- Identify significant variations in the deposit sequence indicative of localised features such as topographic highs or palaeochannels.
- Identify the location and extent of any waterlogged organic deposits and retrieve suitable samples in order to assess the potential for the preservation of palaeoenvironmental remains and material for scientific dating.
- Clarify the relationships between sediment sequences and other deposit types, including periods of 'soil', peat growth, archaeological remains, and the effects of relatively recent human disturbance, including the location and extent of made-ground.

## 4.3 Methodology

4.3.1 The survey comprised a preliminary hand auger investigation at 17 locations (Fig. 4) set out in a grid at 200m intervals across the marsh. Each location was augered until the underlying natural geology had been proven. The sediments at each location were logged on OA proformas using standard geological terminology. Each location was recorded in three dimensions with a GPS unit. The data retrieved from the auger survey was rapidly assessed and seven locations selected for the retrieval of undisturbed sediment cores for geoarchaeological and palaeoenvironmental assessment. The boreholes were drilled using a Terrier percussion rig capable of extracting continuous 10cm diameter cores in 1m lengths. The cores were returned to OA premises where they were extruded and logged.

4.3.2 The lithological data from the auger and borehole logs was inputted into geological modelling software (@Rockworks 2004) for analysis and correlation of deposits into key stratigraphic units. These units have been used to demonstrate the nature and the extent of the sediment accumulation patterns across site. Various cross sections and elevation plots have been produced in order to illustrate the main points of the discussion (Figs 4-7).

#### 4.4 Results

4.4.1 The investigation has revealed that a range of different sediment types are present throughout the site. A number of commonly occurring stratigraphic units have been identified as follows:

- T - Silty clay loam (topsoil)
- Sub - Minerogenic oxidized silt-clay (alluvial subsoil)
- O-III - Organic silt/clays (alluvial/lacustrine)
- L/A I-IV - Gleyed minerogenic silt-clays (alluvial/lacustrine)
- H - Gravelly silts (Head)
- B - Bedrock/Mercian Mudstone

4.4.2 Firm assignments of the individual lithologies to stratigraphic units has proved difficult in some locations, especially where no marker horizons such as organic deposits exist between the alluvial/lacustrine deposits. The degree of post depositional modification due to the fluctuation of the water table over time and the effects of bioturbation has also obscured stratigraphic boundaries.

#### *Basement Topography*

4.4.3 The natural geology comprising Mercian Mudstone was proved in all interventions. Topographic modelling of the surface of the bedrock geology (Fig 4) revealed a shallow undulating basin narrowing significantly towards the south. The basin is 8.5 hectares in area, lying between 13m and 12.2 m OD surrounding by ridges of sandstone. The lowest points within the basin lie to the north towards the marsh 'proper' undulating at heights of 8.6m to 9.6m OD. The archaeological excavation area is located on the southern extent of the study area, locally occupying a slight topographic low between two areas of high ground towards the east and west of the basin edge. The position of the excavation area seems to take advantage of what appears to be an enclave around the edge of the basin formed by a topographic high, an 'island' or promontory at auger location 2. A minor topographic higher also appears to be present to the north at auger location 28.

#### *Sediment sequences*

4.4.4 The deepest sediment sequences overlying the mudstone are located towards the northern extent of the survey to depths of approximately 3m.

4.4.5 Erosional/'Head' deposits. This unit directly overlies the bedrock geology and consists of a light greenish grey to bluish grey silt that becomes grittier with depth and contains with very angular fragments of mudstone and sandstone. The thickness of these deposits range from 0.2m to 0.48m. The presence of angular fragments of bedrock at the base of these deposits suggests they accumulated during under cold



climate conditions through processes involving frost shattering erosion and transportation of the local bedrock probably from adjacent slopes bare of vegetation. These deposits are most likely to be of Pleistocene age.

- 4.4.6 Minerogenic Alluvial/Lacustrine deposits. Four clay/silt deposits were identified within the sequence (Fig 5-7) separated by thin organic horizons. These deposits generally consisted of light greenish grey to grey soft silt clay that exhibited no signs of layering or stratification. The fine-grained nature of these deposits indicates deposition by water action in fairly low energy conditions. Any archaeological material within the deposits would be relatively insitu although some level of lateral transportation would be expected in the vicinity of channels or watercourses. The depth and texture of these deposits suggests significant water, laden with sediment, either washing off adjacent slopes or being deposited by streams discharging into the basin. Laterally the homogenous character of these deposits and lack of organic material may indicate areas of permanent open water and/or substantial and frequent inundation by flooding.
- 4.4.7 The upper units of the minerogenic deposits (A/L I-II) contained concentrations of gypsum crystals probably deriving from the local bedrock and oxidised Iron that tended to obscure sediment contacts. They generally tended to be a little more silty suggesting slightly higher energy deposition and this may indicate sediment laden stream input.
- 4.4.8 Organic silt clay deposits. Three distinct organic units were identified intercalated between the minerogenic units. These deposits consist of clayey peats and organic silt-clays. They appear to be thickest in the centre of the basin (logs 11, 14, 18 and 31) occurring at 9.5m-10.1m OD, 10.1-10.5 m OD and 10.9-11m OD. Between these units considerable variation in the proportions of minerogenic and organic content suggests a range of depositional environments are represented. The more organic parts of the sequence may be representative of wetland environments for example reed swamp or alder carr. Other more minerogenic parts of the sequence may indicate periodic flooding from adjacent active channels
- 4.4.9 OIII: The lower part of unit OIII was darker, more humic and in core 18 contained woody fragments and plant material possibly indicating a semi-terrestrial surface. In contrast the upper deposits of the unit are much less organic and potentially represent episodes of flooding and increasingly wet conditions
- 4.4.10 OII: This unit comprised organic silt clay containing charcoal flecks. It appeared to be confined to the southern edge of the basin (cores 8, 10 and 11 Fig 2 and 3) and may represent an expansion of vegetation such as reedswamp or fen.
- 4.4.11 OI: This unit varied laterally from organic silty clay to friable blackish brown clayey peat containing charcoal flecks frequent rootlets, gypsum crystals and iron oxidation. This was in places extremely humified and contained little recognisable plant material representing an episode of significantly drier conditions developing than previously. This unit extended across most of the area ranging in thickness from

0.05m to 0.35m. The basal elevations averaged 10.95m OD to 11.4m OD and the thickest deposits are found in the centre of the basin within BH 31 (Fig 3 and 5).

4.4.12 Alluvial subsoil. The 'subsoil' consists of oxidized light reddish brown silty clay that contained frequent gypsum crystals. It extended across the whole site ranging from 0.1m to 0.63m in thickness. The 'subsoil' essentially represents the upper part of the alluvial/lacustrine sequence of deposits modified by post-depositional processes, desiccation, bioturbation and ploughing.

4.4.13 Topsoil/plough soil. The topsoil consists of a silty clay/silty clay loam that contained few coarse components. The deposit extends across the site ranging in depth between 0.05 to 0.39cm. This unit is a mix of topsoil developed under pasture and areas of former plough soil. The soil has been enriched through manuring over the short phase the marsh has been drained. The surface of these deposits demonstrated signs of desiccation cracking in summer due to its clay rich nature.

#### 4.5 Discussion

4.5.1 The borehole and auger survey combined with data retrieved during the excavations has served well in characterising the gross morphology of the sub-surface stratigraphy underlying the present ground surface at Hill Court Farm. It has helped to develop a basic understanding of the sedimentation processes and the types of sedimentary environment in which deposition occurred. The proposed sequence is summarized in Table 1.

Table 1. Main units of stratification identified in the survey

Unit		Inferred age	Inferred environment
T	Silty clay loam	Modern	Topsoil -Arable cultivation and pasture
Sub	Oxidized minerogenic silty clay	Medieval	Low energy seasonal flooding with sediment accretion, subject to some disturbance as a result of ploughing. Open landscape, probably including grazing and arable crops
A/L I	Gleyed minerogenic silty clay	Late Roman-Medieval	Low energy flooding and major sediment accretion at higher elevations. Open landscape, probably including grazing and arable crops but also with marsh species favouring the damp margins of pools
O I	Organic silt-clay and peaty clay	Late Roman?	Localized low energy seasonal sediment accretion. Development of extensive terrestrial/semi-terrestrial dry land surface. Open landscape, probably including grazing and arable crops
A/L II	Gleyed	Iron Age - Bronze	Low energy flooding and major sediment accretion

	minerogenic silty clay	Age?	(seasonal?) Open landscape, probably including grazing and arable crops but also with marsh species favouring the damp margins of pools islands of higher drier ground.
O II- OIII	Organic silt-clay	Prehistoric	Expansion of vegetation, reed swamp, sedge fen in marginal localities? Semi-terrestrial land surfaces. Localized flooding and low energy sediment accretion. Islands of higher drier ground within wetlands.
A/L III IV	Gleyed minerogenic silty clay	Prehistoric	Low energy flooding and major sediment accretion (seasonal?) open areas of standing water.
H	Gravelly silt	Pleistocene	
B	Bedrock		

#### *Pleistocene and early Holocene (B, H)*

- 4.5.2 Longdon marsh 'proper' appears to occupy a large natural depression or basin surrounded by sandstone ridges, hills, and gravel fans. It is quite possible this depression existed during the Pleistocene and may have been formed due to scouring action of glaciers or marginal outwash deposits. The basal deposits examined during this study (Unit H) indicate erosional deposition under cold climate periglacial conditions
- 4.5.3 During the latter stages of the Devensian glaciation, subsequent to the glacial maxima, (c. 18, 000 - 10, 000 yr. BP), and during the early Holocene, the basin topography of Longdon Marsh may well have resulted in the ponding of meltwater creating an area of open water or lake environment. The development area at Hill Court Farm is located on the southeastern margin of the basin. The plot of the surface of the Mercian Mudstone illustrates the topography prior to major sedimentation in more detail demonstrating gradually lower elevations northwards towards the centre of the marsh. A minor topographic high towards the centre of the study area (auger locations 11/28) and a more substantial area to the south (auger location 2) probably existed as islands of drier ground within a developing wetland environment. As a result of the undulating topography and marginal location of the study area a number of different ecotonal zones; interfaces between standing water, water courses, reedswamp, fen and areas of drier ground, may have developed in this area. Such a range of environments would have provided an abundance of natural resources available for exploitation by local communities.

#### *The Mid Holocene –Late Holocene (A/L IV-II and OIII-II)*

- 4.5.4 The low-lying topography of the study area is infilled with a complex sequence of deposits. Various thicknesses of minerogenic silt-clays of alluvial/lacustrine origin are present reaching a maximum depth of 3m to the north. A sequence of three organic units was identified intercalated within the minerogenic deposits. These units generally appeared to have a progressively higher minerogenic component northwards.
- 4.5.5 At present the sequences are largely undated though it is anticipated material may be identified during future palaeoenvironmental assessment from the organic units for radiocarbon dating. Some chronological control however can be provided from correlation of artefact bearing deposits recorded during the excavation and evaluation stages.
- 4.5.6 At present these deposits have only been identified with certainty during the auger survey in the lower lying areas although they probably extend further southwards. The Iron Age and Roman features identified during the evaluation and excavation truncated silt-clays most likely equivalent to A/LII and/or A/LIII. This implies that stratigraphically earlier deposits date to the Iron Age and earlier. A spearhead retrieved from deposits correlated with unit A/LII during a metal detecting survey of the site (OA, 2004) suggests this deposit may have in part formed when human activity was occurring within the study area during the Bronze Age. The presence of charcoal flecks within OII supports the evidence for prehistoric activity within the study area. There is some evidence in the wider area of Bronze Age activity, as a whetstone of this date was found to the north of the marsh. Crop mark and field name evidence suggests the presence of prehistoric barrows in the vicinity of Longdon village.
- 4.5.7 The complexity of the sequences suggests dynamic continually changing environments. The minerogenic units suggest input of sediment either washing off adjacent slopes or being deposited by streams discharging into the basin. This in itself suggests bare ground susceptible to erosion existing within the catchment during the period of deposition. The environment of the study area is likely to have comprised areas of permanent open water and/or substantial and frequent inundation by flooding of open wetland areas. The organic deposits OIII and OII represent a least two periods when the rate of sedimentation was much reduced, although water tables may have remained relatively high and localized flooding persisted, areas of reedswamp, sedge fen and perhaps development of areas of wet grassland on higher ground. The intercalation of these units within the silt-clays may be related to climatic changes and/or human activity within the catchment resulting in cycles or fluctuations in lake or groundwater levels, flood frequency and changes in sediment loads. The topographic high identified in auger location 2 reached 10.96m OD. In earlier periods may have existed as a promontory of the higher ground overlooking the wetland area. As the basin gradually infilled with sediment this would have probably have been reduced to an island. OD levels for the top of unit A/L II in auger location 4, in the vicinity of the excavation, measured 10.27m OD suggesting this

island was still extant during the Iron Age and early Roman period. The minor topographic high to the north however would have been submerged significantly earlier.

- 4.5.8 That the archaeological features in places cut through earlier alluvium suggests a drying out of the marsh at this interface, allowing settlement to move out across its once wet surface. Assessment of environmental indicators from deposits equivalent to A/L II from the evaluation were disappointing with preservation levels low. Carbonised plant remains and pollen however were extracted from samples of the alluvium cut by Roman period features and from the fills of those features. Although the pollen was biased towards easily diagnostic taxa the results suggested an open landscape, probably including grazing and arable crops but also with marsh species favouring the damp margins of pools. The identification of cattle enclosures and droeways within the excavation area is consistent with what would be expected to be found in association with this environment. The fills of these features suggest any drier period associated with the activity was ephemeral since renewed sedimentation is inferred from the fills of the features and multiple phases of recutting. Wetter conditions are also inferred from the distribution of later Roman features on slightly higher ground to the west.

*The later Holocene (OI, A/L III, Sub, T)*

- 4.5.9 Organic unit OI overlay L/A II and extended across most of the area ranging in thickness from 0.05m to 0.35m. Stratigraphically it is most likely that OI is the lateral equivalent of the organic 'soil' horizon identified to the south during the evaluation (OA 2004) where it included fragments of Roman pottery and tile and appeared to seal features of Roman date. Corroboration by radiocarbon dating however would be recommended to confirm this. A similar horizon was noted during the open excavations. This horizon is extensive and represents a significant event, cessation in sedimentation and much drier conditions developing during a period of stabilisation of the marsh possibly indicating a change of agricultural regime in the surrounding area.
- 4.5.10 The uppermost unit (A/L I) overlay OI and equates with uppermost silt-clay recorded in the excavations producing a number of abraded Romano-British pottery sherds and a single sherd of medieval pottery and sealing archaeological features dated to the Iron Age-Romano-British period.

**4.6 Recommendations for further analysis**

- 4.6.1 The present assessment revealed the need to establish a chronological framework and a much deeper understanding of the biostratigraphy of the sediment sequences. A possible strategy for further investigation would be to carry out a limited program of pollen, diatom/ostracod and plant macros analysis and scientific dating that would help to refine the proposed sequence and provide a better understanding of the sedimentary environments. Given the variable and somewhat disappointing results

from the evaluation, preliminary analysis to determine whether material is preserved within key stratigraphic units could be carried out with minimal cost.

## 5 SUMMARY OF SITE DETAILS

**Site name:** Hill Court Farm, Longdon, Worcestershire

**Site code:** LOHC 03

**Grid reference:** NGR SO 8250 3454

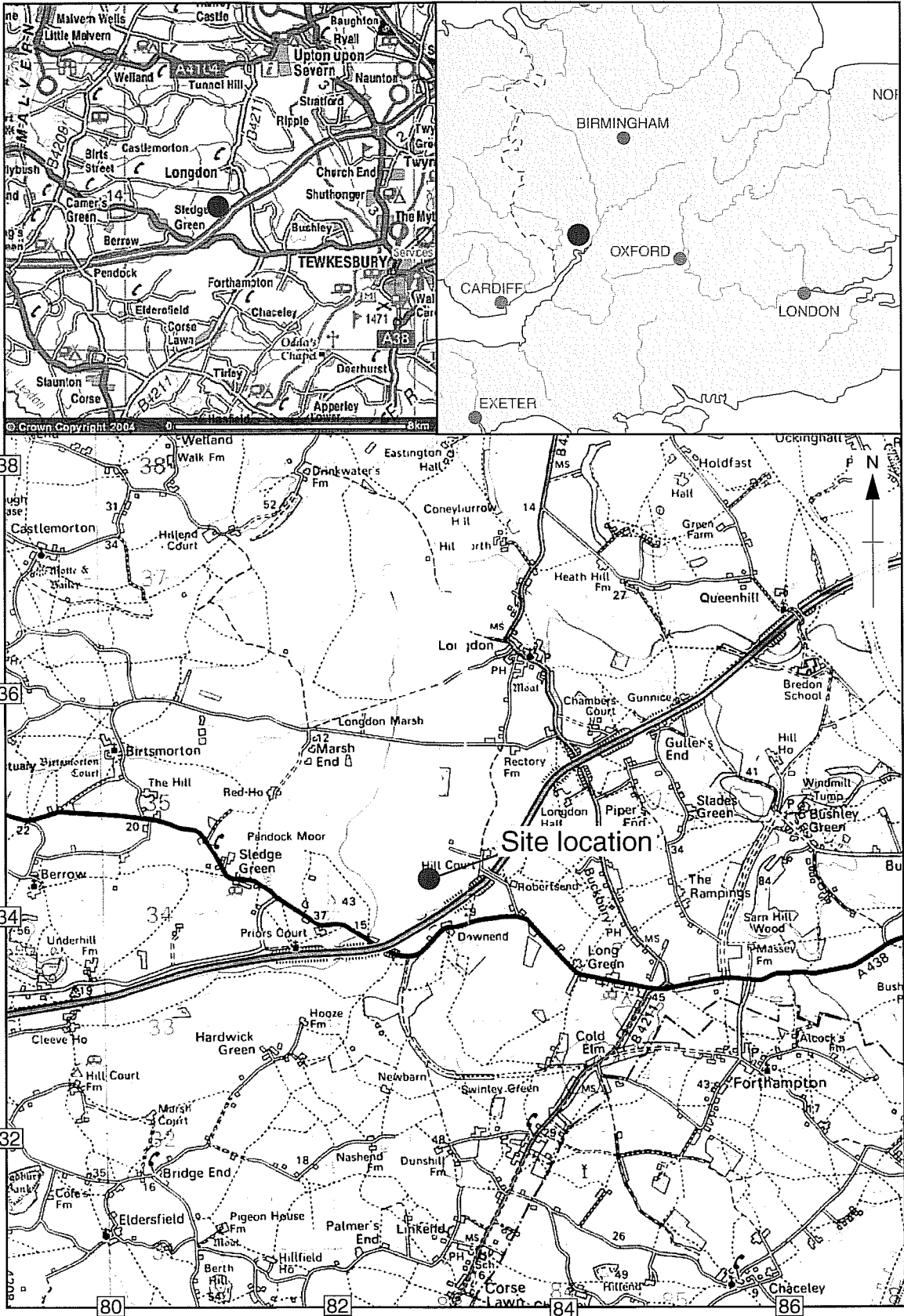
**Type of excavation:** Excavation/Watching brief prior to creation of wetland reserve

**Date and duration of project:** 6 weeks June-July 2004

**Area of site:** Excavation 7660 sq m

**Summary of results:** Parts of Iron Age and Roman settlement

**Location of archive:** The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with Worcestershire County Museums Service in due course



Scale 1:25,000

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Figure 1: Site location



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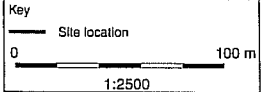
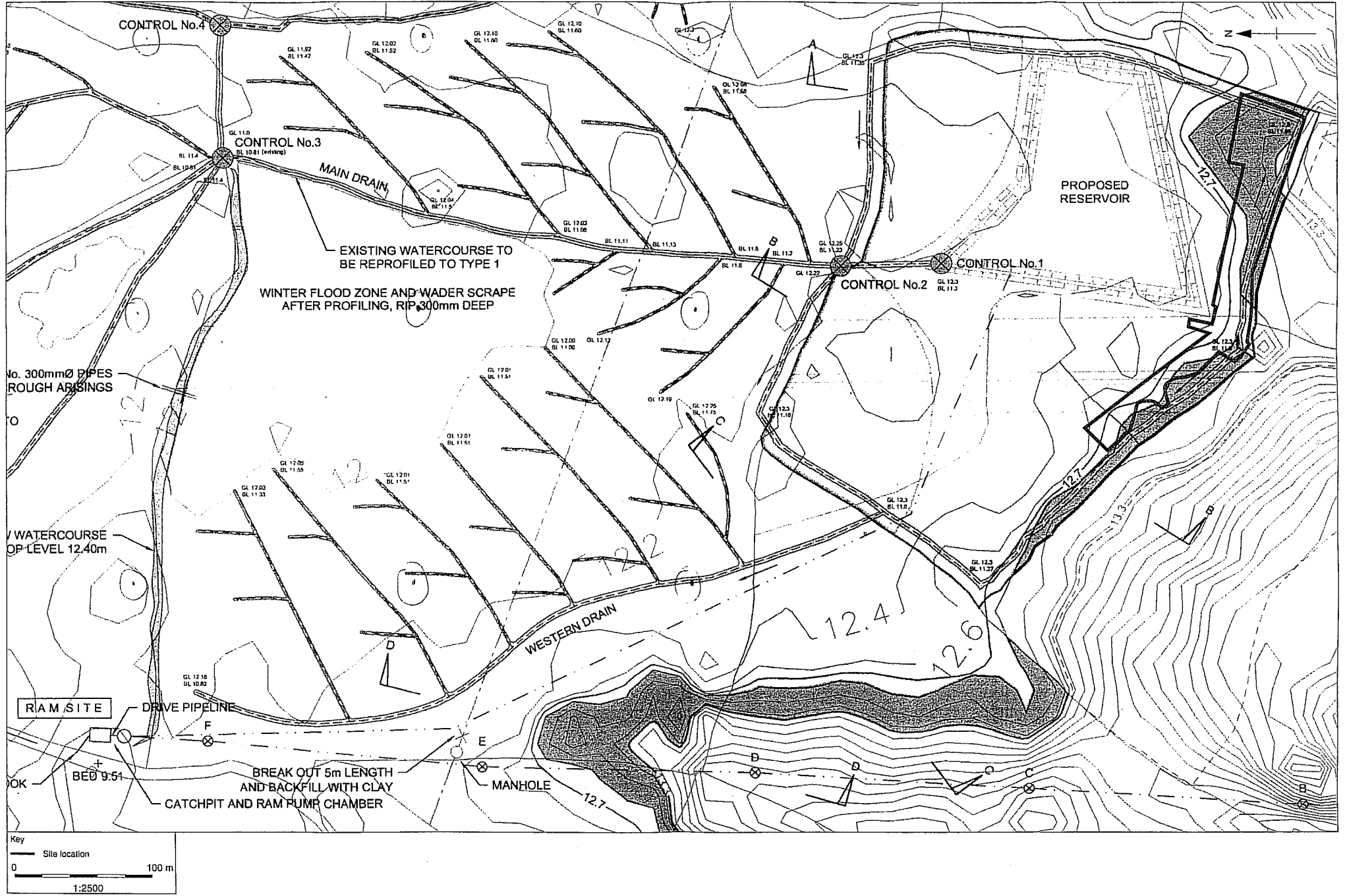
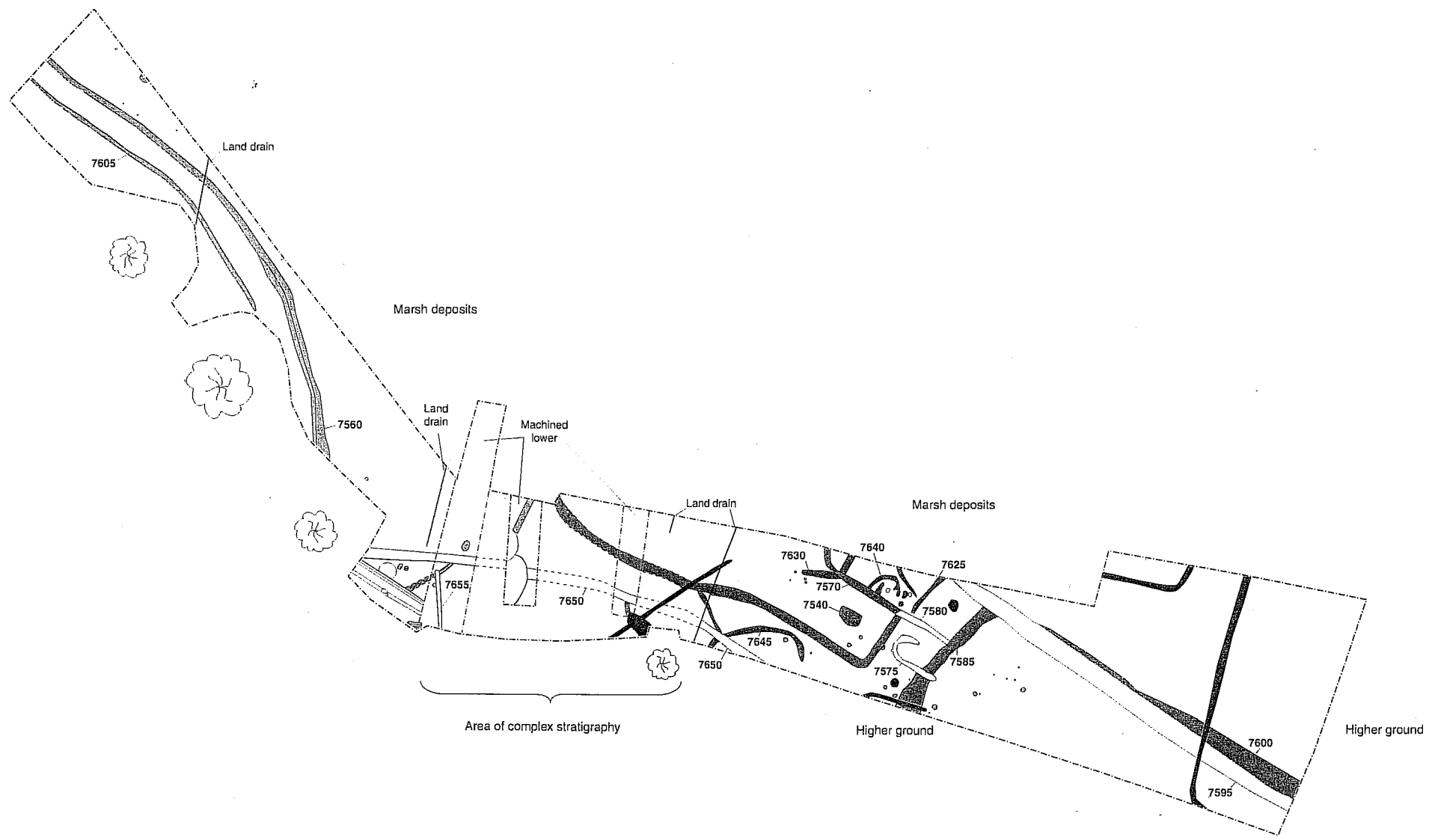


Figure 2: Development area including ram chamber site



**Key**

- Late - Post-Roman
- Romano-British
- 2nd - 3rd Century AD
- 1st - 2nd Century AD
- Mid - Late Iron Age

0 50 m

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Figure 3: Site plan, provisional phasing

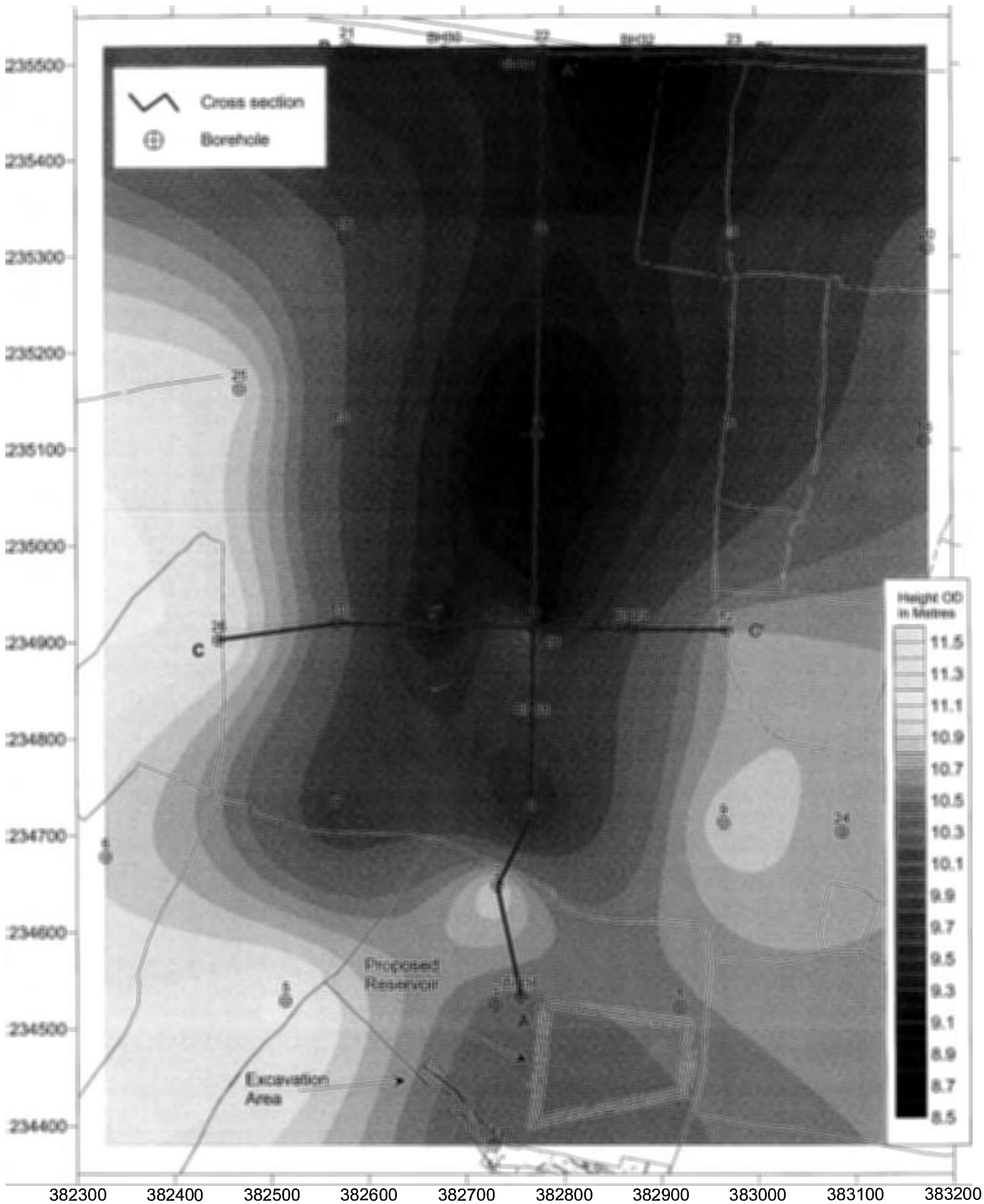
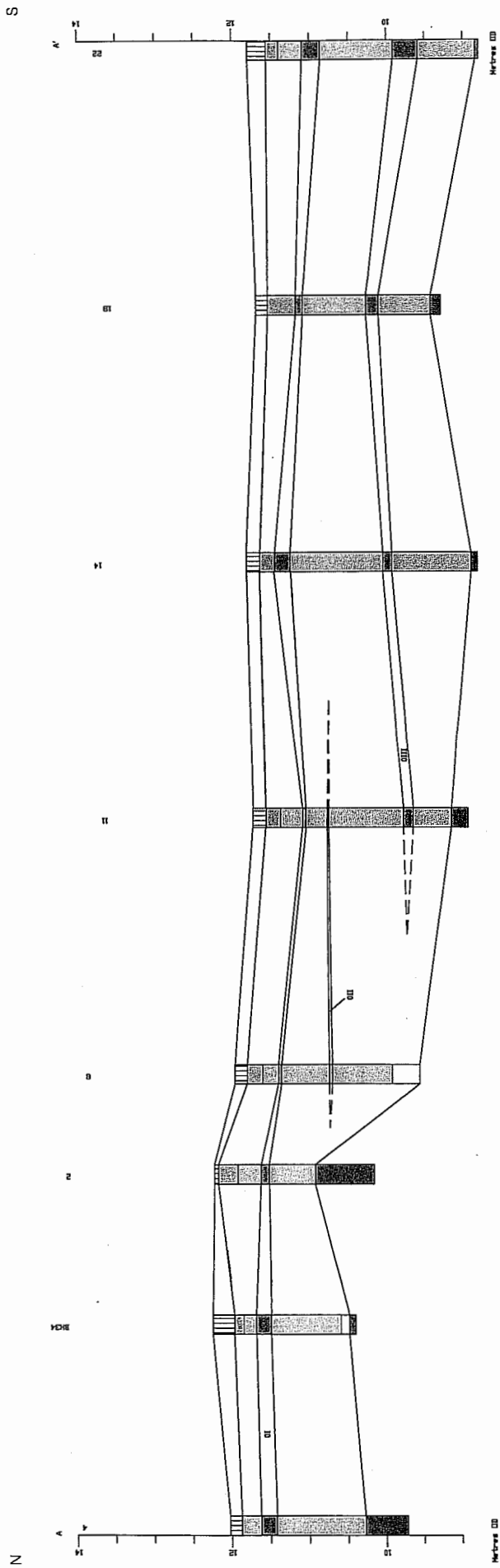


Figure 3 - Borehole/Auger Locations and Topographic plot (Bedrock)



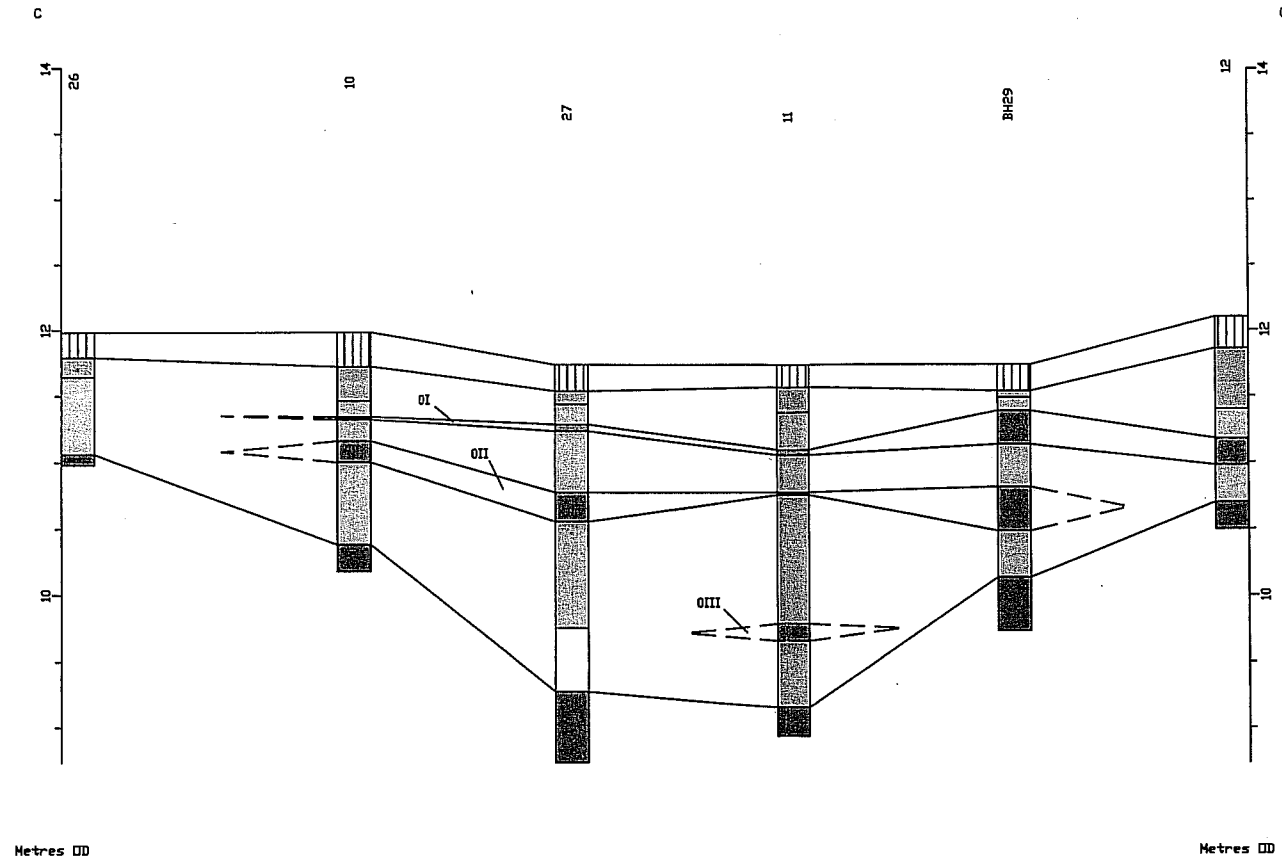
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LWINT 04  
 Hillcourt Farm  
 Drawing No. OA3  
 Date printed 28.03.05  
 Drawing title

- T
- Sub
- A/L I-IV
- O I-III
- H
- B



Figure 5: S-N stratigraphical cross-section A-A'



- T
- Sub
- A/L I - IV
- O I - III
- H
- B

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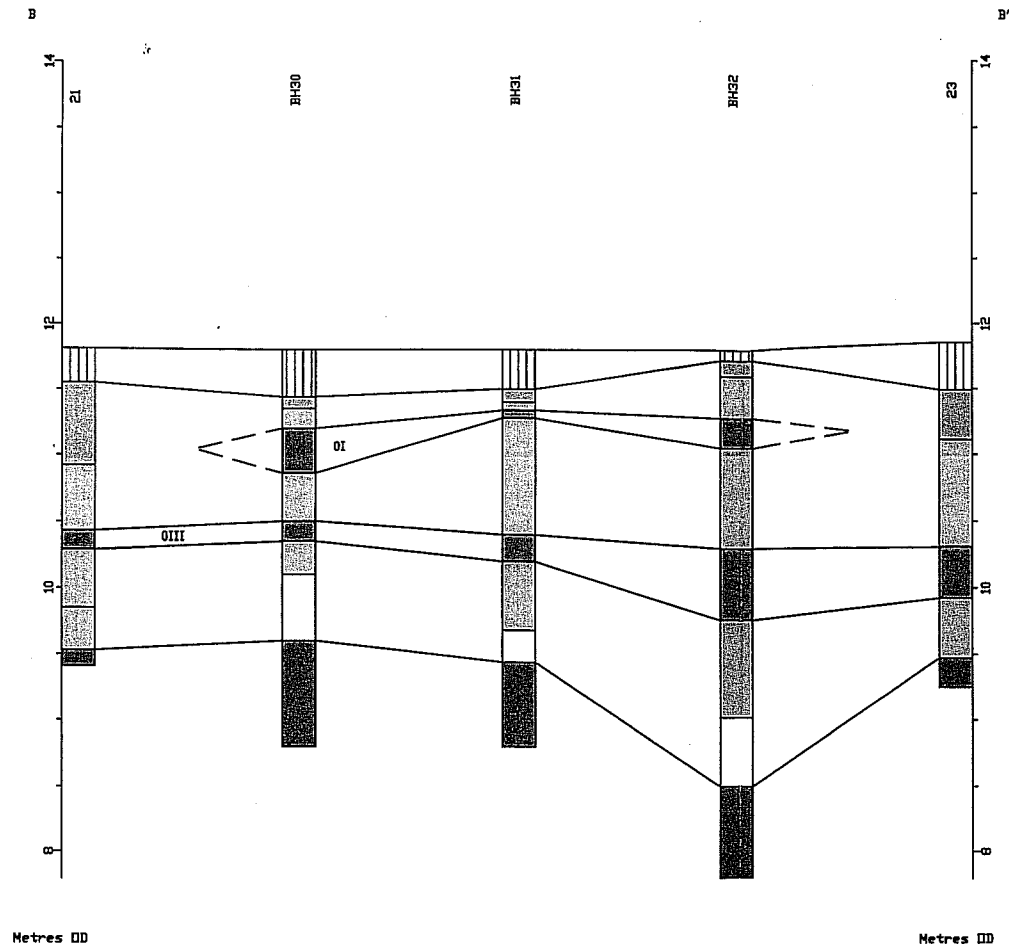
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Drawing title	

Figure 6: W-E stratigraphical cross-section C-C'

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- T
- Sub
- A/L I - IV
- O I - III
- H
- B

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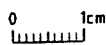
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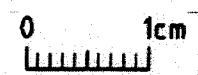
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Figure 7: W-E  
 stratigraphical  
 cross-section B-B'

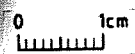
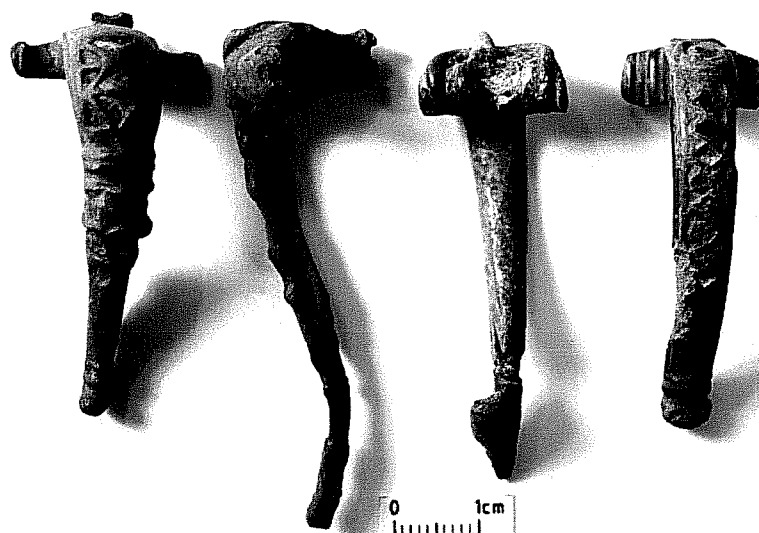
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**Plate 1, Copper alloy spearhead of probable Bronze Age date**



**Plate 2, Ceramic spindlewhorl**



**Plate 3, Copper alloy brooches of Roman date**



**Plate 4, The Landscape of Longdon Marsh looking west from Hill Court Farm**

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**Plate 5, A Roman period boundary ditch immediately after machine stripping prior to hand excavation**





**Plate 6, Remains of Roman stone building and cobbled surface.**



**Plate 7, Sample slots excavated along the line of a curving ditch of Iron Age date. This is cut to the left by linear ditches of Roman date.**



**Plate 8, Roman ceramic tankard found in the base of an enclosure ditch**



**Plate 9, Quarter section dug through the remains of A Roman water-hole**