

ARCHAEOLOGICAL EVALUATION REPORT

TL/ 987/684

**Shackerland Hall Quarry, Badwell Ash
for
Lefarge, Redland Agregates.**

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**Suffolk County Council Archaeological Service
Field Projects Division**

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SCCAS Report no.98/78

An Archaeological Evaluation report

for

Shackerland Hall Quarry, Badwell Ash

TL 987/684

Application MS/588/88, MS/680/96 and MS/389/98

1. Summary

An archaeological evaluation was undertaken to assess the archaeological potential of 'Phase 7' of Shackerland Hall Quarry. A limited programme of trenching uncovered the edge of an ancient mere and watercourse which ran roughly parallel to the modern Westley Road. There was evidence of both Romano-British, and prehistoric, settlement alongside the watercourse. Of special interest were two wooden artefacts recovered from waterlogged peat. These have not yet been analysed but the first was a carved paddle suitable for a canoe; the second is variously described as a trough, sledge, or boat. Carved from a half-split log, it measures c. 1.35m long x c. 0.52m wide with a 'draft' of c.0.23cm. Both objects are as yet undated but the stratigraphy suggests a Roman date, or earlier.

2. Introduction

A report was commissioned to assess the archaeological potential of this quarry in advance of 'Phase 7' in a programme of gravel extraction. The work followed a 'brief and specification' prepared by the Suffolk County Council archaeological service - conservation team and took place between the 28th September - 1st October.

The site, located at TL 987/684 (Fig. 1) occupies a relatively steep, south-western facing, hill. Previous fieldwork, over adjacent areas of the quarry, had revealed a palaeochannel at the south-western end of the site with evidence for prehistoric occupation alongside this former watercourse. Finds, and the records from the site, are held in Shire Hall Bury St Edmunds with the exception of the wooden artefacts which are being held in the county archaeological store in Ipswich. The work was commissioned by Lafarge, Redland Agregates Ltd.

Method

A programme of trenching was agreed with the conservation team to cover c.2% of the site. It was intended to excavate three trenches, however, due to discoveries made in the first two trenches, a third was considered unnecessary to complete the evaluation. Trenches were machine excavated using a back-acting machine with a c. 2m ditching bucket. Sample sections were hand cleaned to record the trench profiles and features were excavated to establish their nature and date. Levels were taken across the site which were related to a temporary bench mark, established on the concrete track running to the north-west of the site. In light of the type of features recovered an overall plan was made at a scale 1/100 with selected sections drawn at 1/20.

Due to the delicacy and importance of the wooden objects recovered it was not practical to thoroughly record these items before lifting, detailed descriptions, therefore, do not form part of this report. Similarly a range of scientific samples, particularly samples for pollen analysis, recovered from ancient waterlogged deposits are at present held in storage.

The Results

Trench 1 (Fig. 2-5, Sections 1-3)

This trench was c. 64 m in length and aligned to run parallel to the existing quarry edge to the east. Trenching was directed down-slope (north-east to south -west) and is described in this order. Details from this trench are shown only in section as they were recorded.

Approximately 1m of spoil was removed consisting of 0.35m of ploughsoil above 0.65m of fine sand. At c. 20m a deposit of red-brown, sandy/silt with gravel, appeared between the ploughsoil and sand. At c. 30m, 0.4m of ploughsoil overlay 0.8m of the sandy silt with gravel. At 33m a grey, gleyed sand appeared at the base of the section (0023) this layer contained charcoal, and Roman pottery was collected from the surface. Above this layer were c.0.6m of sandy/silt with gravel and 0.35m of ploughsoil. At 40m a ditch was recorded, 0022, (Fig. 4) cutting a silty/clay with gravel, 0023. A second ditch, 0026, was recorded at c. 45m cut from the same height but sealed by a silty clay deposit. This ditch was very distinct in having a band of large flints on the lower, south-west, side. A hand dug section was cut through 0023 at this point and a layer of burning and charcoal was seen in section. At c. 50m a ditch was visible cutting the silty/clay layer high up in the section. At 51m a layer of wet peat and clay was visible in the base of the section above the white sand at the base and at 57m a wooden 'paddle' was recovered from the section (Fig. 4 Section 3). At 64m a test section was dug to establish the true depth of the waterborne deposits, natural gravel occurred at a depth of 3.3m.

Trench 2

This trench was c.65m in length and aligned parallel with Trench 1. The sand, which had been machined away from the north-east end of Trench 1, was not removed as it was now evident that it was a natural deposit. The ploughsoil was removed to the top of the sand over c. 25m of trench. At this point a red brown sandy/silt with gravel, similar to that encountered in Trench 1, began to appear (and was removed by machine). At c 37m a grey, gleyed, sand, 0027, similar to that from Trench 1 first appeared (As this layer contained Roman finds it was not on the whole removed, however, during later backfilling a short length, removed on the edge of the palaeochannel, uncovered Pit 0035. It was circular, cut from *below* 0027 and measured 0.6m x 0.3m deep but contained no finds). At 44m the silt became darker with clay in the section and between 48m and 57m a palaeochannel filled with peat and silt was exposed. The profile in the centre of this feature appears in Fig 5 Section 4 with the location of tree column samples. Between 57m and 65m there was a continuous layer of wet clay over peat exposed in the section; sand and gravel lay at the bottom of the trench.

At 61.5m a large hollowed out section of (?)half an oak tree was found projecting at a slight angle from the peat into the sand and gravel beneath. It was clearly an important find, particularly as it proved to be intact. Alongside it were several fragments of Roman pottery, 0028. The site was visited on the following day by the English Heritage regional environmental specialist, Peter Murphy, from the University of East Anglia. A programme of environmental sampling was enacted following his advice and the wooden object was fully exposed, and lifted, on the following day.

This object has not yet been analysed but the general shape is rectangular with a, lowered, sub-rectangular central section. Its general proportions are: 1.35m in length x 0.52m wide, its, flat based, cut out central section was 0.83m long. Interpretations as to its function are necessarily speculative, particularly as it is at present undated. These range from a

cooking trough to a sledge or possible boat (examples of tiny boats, with timber stabilisers are known from Sweden, McGrail, 1978)

A series of levels were taken alongside the trenches to record the slope. These have been related to a bench mark established along the concrete road to the north of the quarry. This is *approximately* established at 42.5mOD based on a contour map of the quarry. Relative to each other the levels are accurate.

The Finds

Sue Anderson and Cathy Tester,

Finds consisted of 27 sherds of pottery weighing 154g, one burnt flint, three animal bones, two abraded pieces of fired clay and one lead ?weight.

Pottery

The pottery is listed in the table below.

Fabric name	Code	Fabric No.	No.	Weight/g
Iron Age Flint Tempered	IAFT	0.41	4	14
Iron Age Quartz Tempered	IAQT	0.42	1	5
Total Iron Age			5	19
Roman Greyware	RBGW	1.10	3	12
Roman Grey Micaceous	RBGM	1.20	16	93
Roman Redware	RBRW	1.40	2	24
Samian (Central Gaulish)	SACG	1.61	1	6
Total Roman			22	135
Grand Total			27	154

This material is typical of Iron Age and Roman pottery from North Suffolk, with frequently occurring micaceous wares typical of Wattisfield and other kilns. Identified vessels included several jars of 2nd century type (0027), and a Mid-Late Antonine Samian Form 80.

Animal bone

Three animal bones were found. All were metapodials, one of a cow (0025) and two of sheep (0028).

Miscellaneous

Two fragments of daub were found (0023 and 0027). One burnt flint was collected from 0027. A lump of lead of roughly spherical shape was found in 0023. This may have functioned as a weight and could be Roman or Medieval in date. During the evaluation a large, prehistoric, saddle quern was recovered from the section of the Phase 6 quarry. It was projecting from the base of a grey/white sandy deposit within a few metres of the projected edge of the mere. This layer is likely to be the continuation of the colluvial layer, 0023/0027, from the current evaluation.

Discussion

In general, the finds from this site were of Roman date, although there appears to have been a small amount of earlier activity. Some of the pottery was heavily abraded, including the sherds from 0022 and 0023, but the material from 0025, 0027 and 0028 is generally

unabraded (with the exception of the Samian) and probably indicates an approximate 2nd century date for these features.

Interpretation.

Parallel stratigraphy can be traced down-slope between the two trenches. Ploughsoil overlies natural sand for the first 20m in Trench 1, and the first 25m in Trench 2. At these points a deposit of red/brown, sandy/silt with gravel, began to appear in the trench profile. This is interpreted as a colluvial deposit accumulating down-slope; it continued, becoming thicker, to the bottom of the field although the soil matrix changed to contain more clay and silt at the foot of the slope.

At 33m in Trench 1 and 37m in Trench 2 a second colluvial deposit of grey white sand appeared beneath the first (0023 and 0027 respectively). This layer is interpreted as a colluvial deposit which accumulated down-slope of a settlement site, probably Iron Age/Roman in date. From ditch 0022 which cut this layer three sherds of Roman pottery, and one of Iron age were recovered. Both this ditch and 0026 which was parallel are likely to be Roman but post-date the colluvium. The flints, slumped into the south-western side of Ditch 0026, may be the remains of a raised bank on the mere side. This feature is likely to have been levelled by the very severe down-slope erosion recorded in the colluvium. A ditch within the upper colluvial deposit in Trench 1 is likely to be medieval or post medieval.

At 50m in Trench 1 and 44m in Trench 2 the waterlogged brown clay over peat appeared in the section indicating the edge of buried wetland or possible mere which was continuous to the south western end of both trenches. In Trench 2 the course of a palaeochannel, presumably a former river was sectioned by the trench. As this did not appear in Trench 1 it suggests it turned, abruptly, to the south-west, between the evaluation trenches (Fig. 2). The nature of the 'mere', and its relationship to the palaeochannel, could not be established during the excavation although both features were overlain by the grey clay. From the coarse gravel below the peat and clay, it is clear that fast flowing water was instrumental in creating this landscape before clay, peat and silt buried the channel. It is at present unclear how the paddle and 'boat' came to rest where they were excavated.

This evaluation has produced findings very similar to those made during the monitoring 'Phase 6' area of the quarry (Fig. 3, Gill, 1996). The edge of an ancient mere and river course ran parallel to the south-western edge of the site. Evidence of human settlement along the edge of the mere from Phase 6 was predominantly prehistoric but included Roman pottery. This area produced predominantly Roman finds. The Roman/Iron Age colluvial layer 0023 and 0027, however, was not removed and it is probable that earlier material was sealed beneath it. The objects of wood are likely to be Roman *at the latest* in date and could easily be earlier.

Recommendations

By projecting the archaeological stratigraphy between trenches it is possible to divide the site into three areas. (Figures 6 and 7)).

A. The lower strip of field with the mere and buried watercourse.

This area is revealed to have a very high archaeological potential. The wooden artefacts, discovered from only 2% trenching are undoubtedly of national importance, a view confirmed by Peter Murphy, and worthy of detailed study and preservation. There is every chance that further wooden artefacts and environmental remains lay undisturbed sealed in anaerobic conditions. If these deposits were to be disturbed, or the watertable lowered so as to threaten

preservation, full excavation would be justified. If waterlogged materials, of similar importance to those already made, were discovered they might require preservation as well as detailed recording.

B. The strip alongside the mere delineated by the early 'colluvial' spread.

This colluvial layer contained Roman and Iron Age finds and was cut by Roman ditches. It was only removed in a small area which uncovered a pit. From the adjoining area (Phase 6), and from the sample section dug in Trench 2 there was evidence for prehistoric occupation, including Neolithic, alongside the mere. There is still some potential for waterlogging within mere-side pits but prehistoric features are to be expected.

These features are also worthy of excavation. This stage would require careful machining to allow adequate recording of the two levels of archaeology, however, the amount of excavation would be significantly less than that required for Area 1. Care would need to be taken to insure the adjoining mere deposits were not de-watered.

C. Layers up-slope of the colluvium.

This area is likely to have contained settlement (judging from the contents of the colluvium in Area B) but the section evidence suggests massive erosion. It may be appropriate to monitor topsoil removal with a small contingency for excavation during this stage.

Andrew Tester

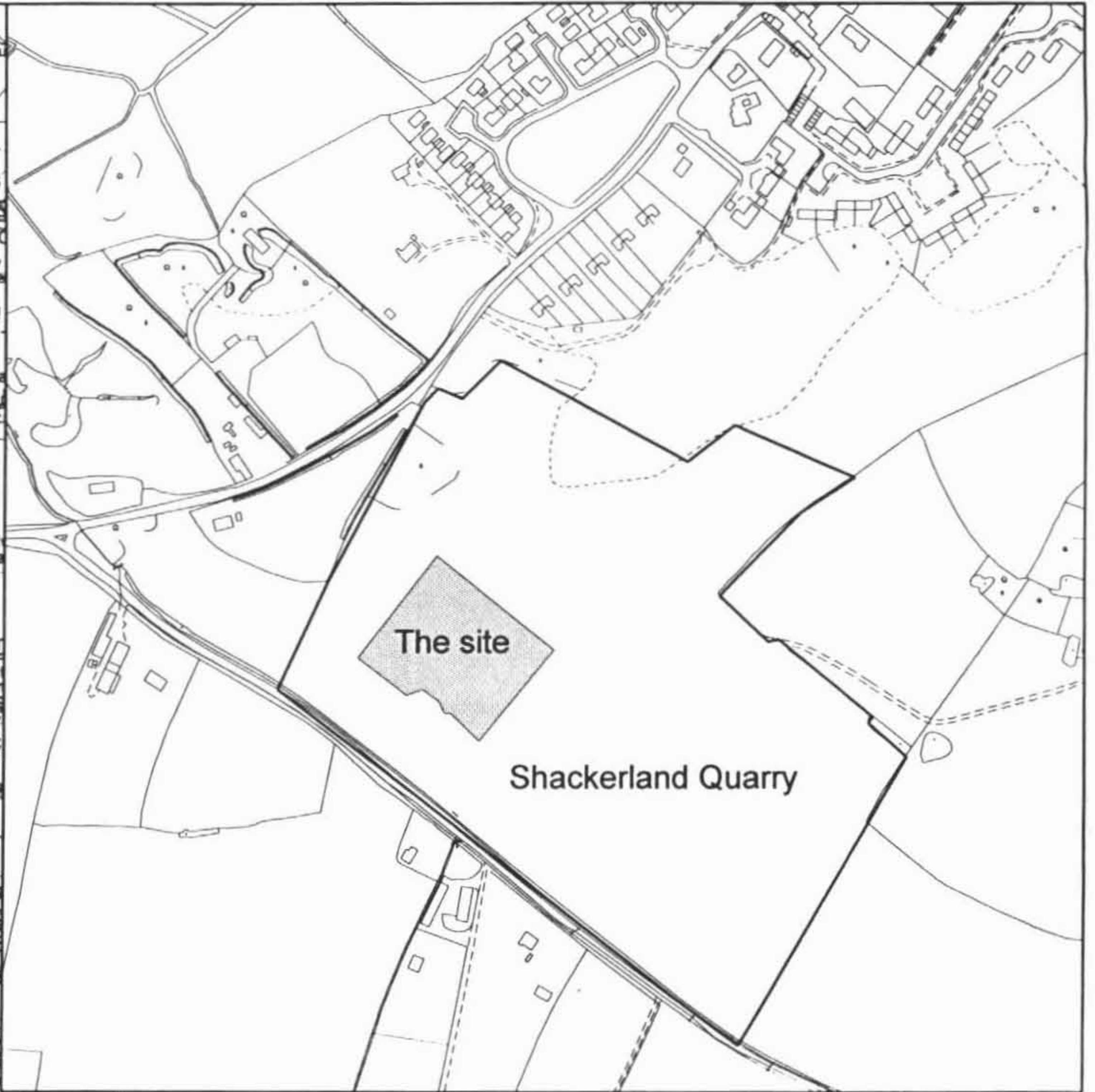
October 1998

Bibliography,

Gill, D., J., 1996, *Monitoring Report, 96/52*. Shackerland Quarry, Badwell Ash. BAA 013. Unpublished

MaGrail, S., 1978, *The logboats of England and Wales with comparative material from European and other countries*. BAR 51(ii)

Any opinions expressed in this report about the need for further archaeological work are those of the Field Projects Division alone. The need for further work will be determined by the Local Planning Authority and its archaeological advisors when a planning application is registered. Suffolk County Council's archaeological contracting service cannot accept responsibility for inconvenience caused to clients should the Planning Authority take a different view to that expressed in the report.



Suffolk County Council
Environment and Transport

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Scale 1:50000



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Fig. 1 Site Location Plan

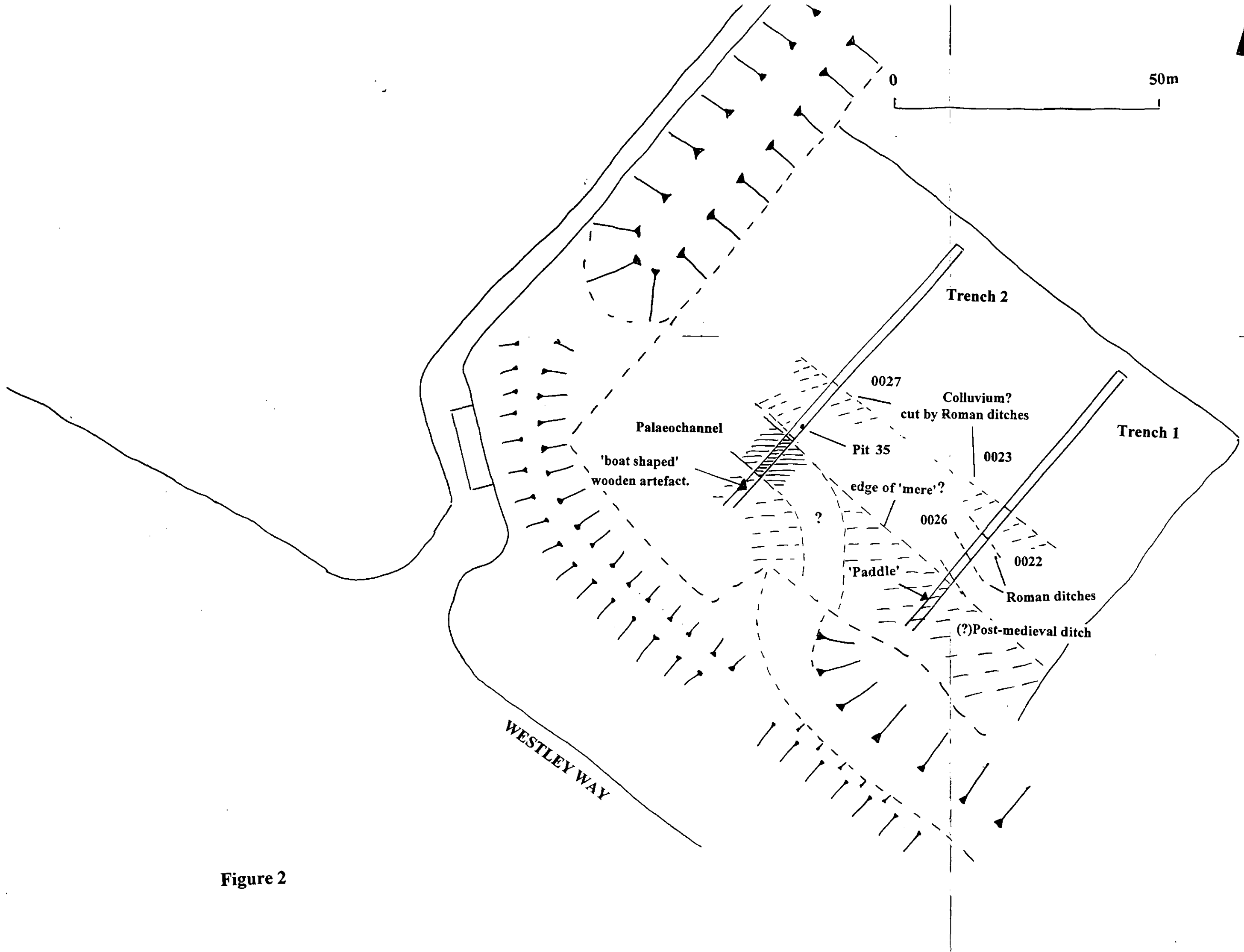


Figure 2

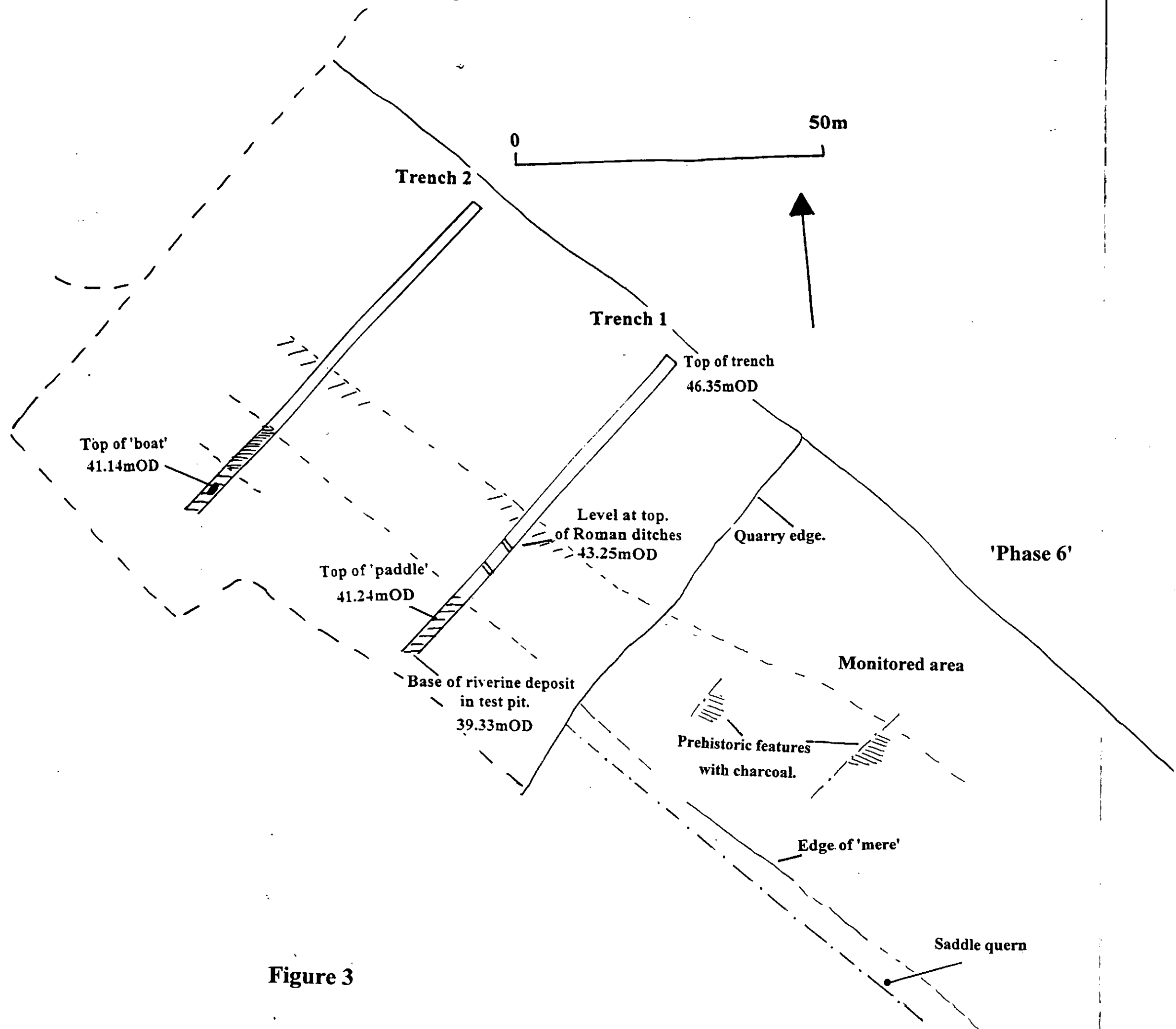


Figure 3

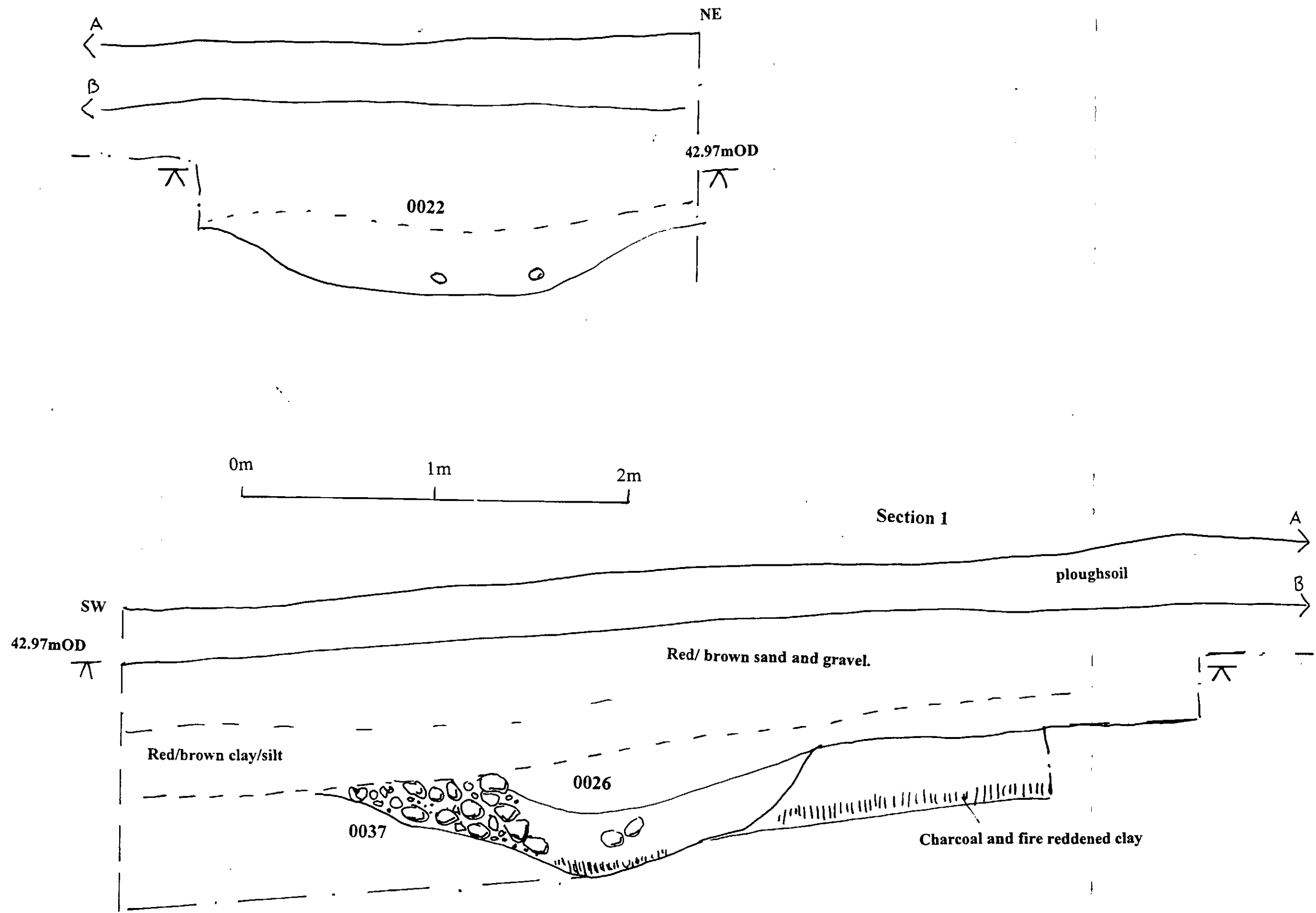


Figure 4

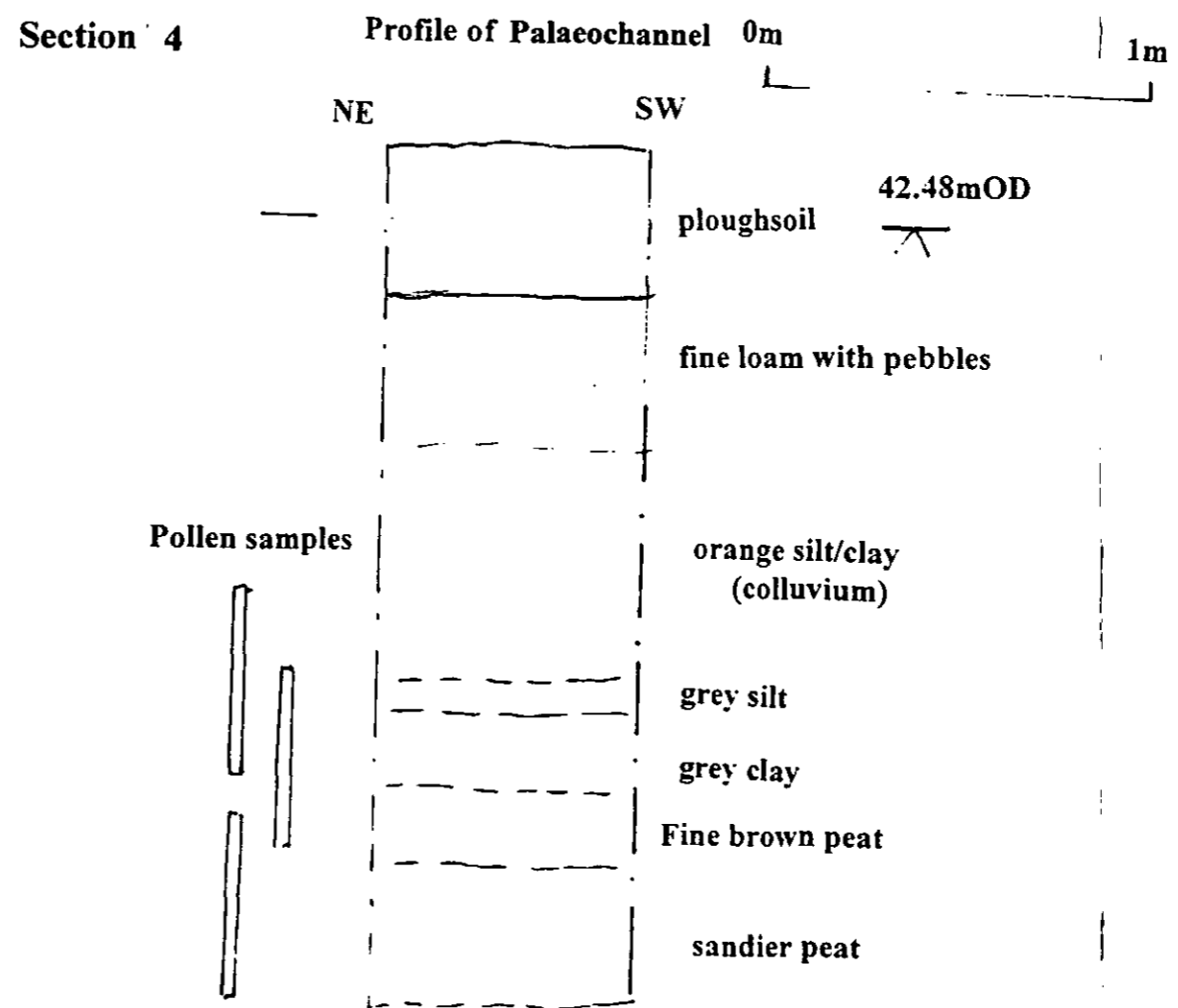
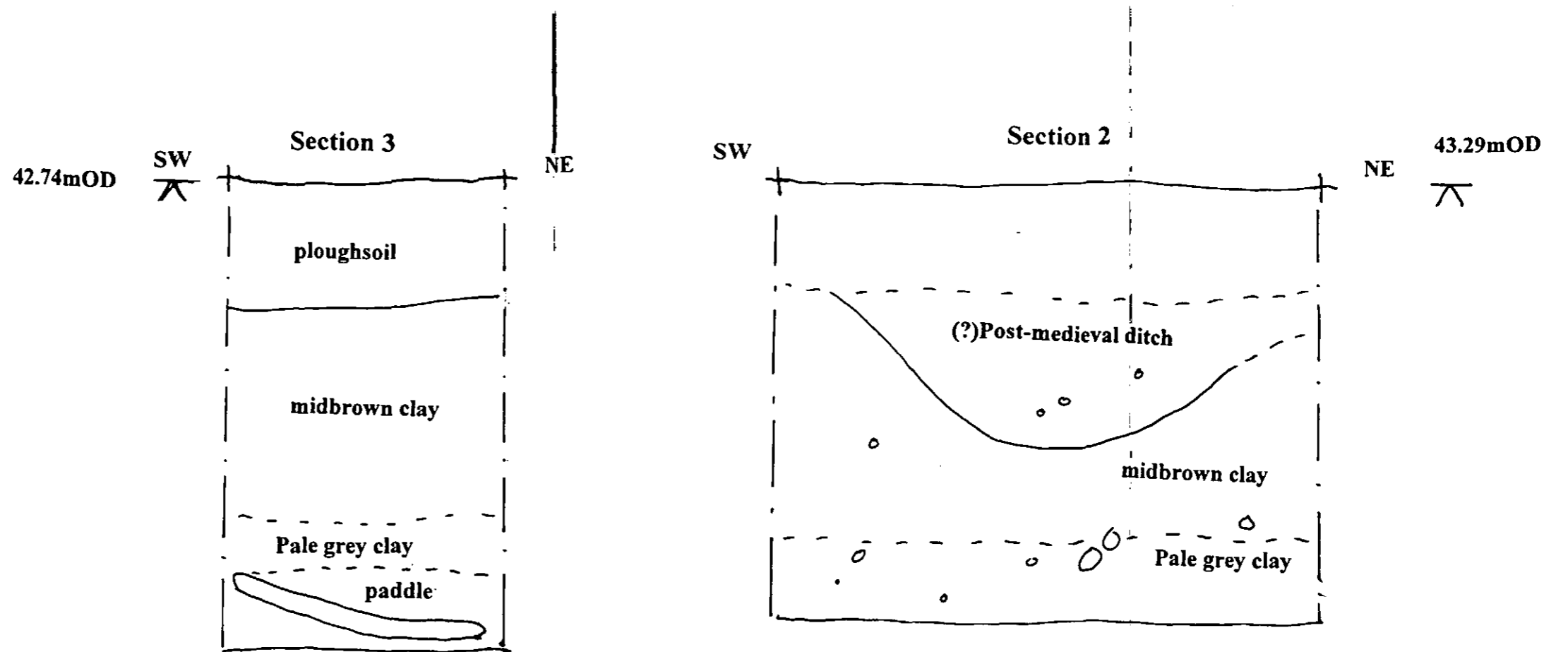


Figure 5

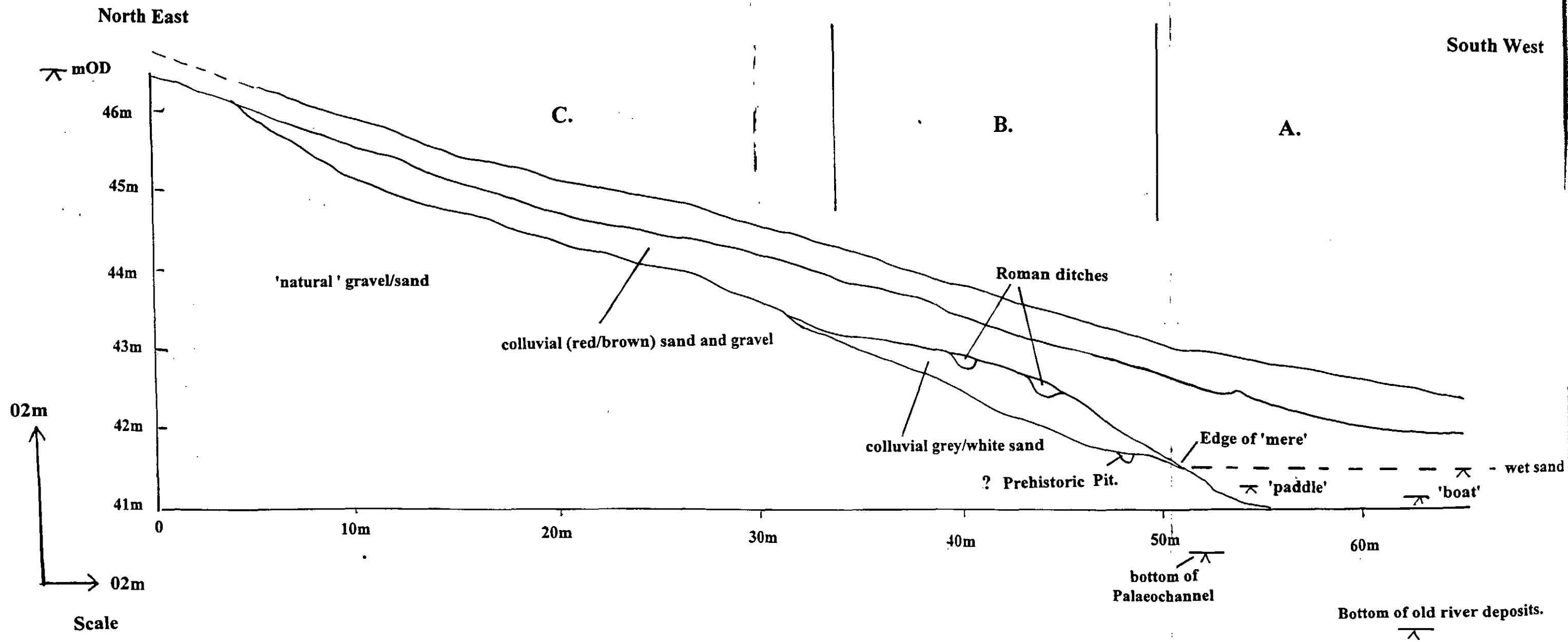


Figure 6

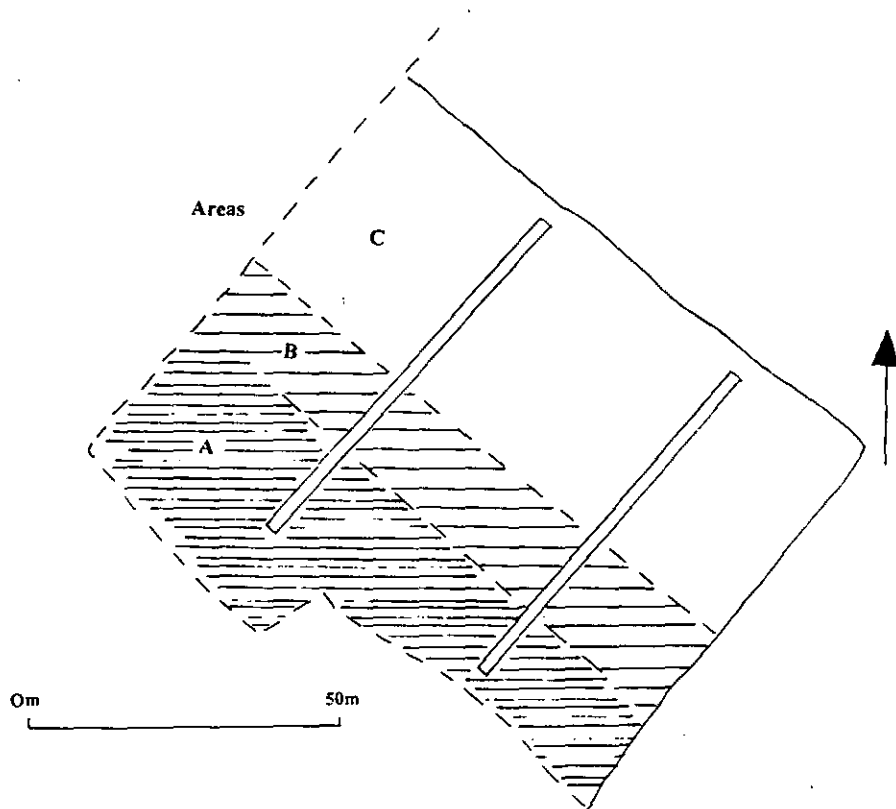


Figure 7

**SUFFOLK COUNTY COUNCIL
ARCHAEOLOGICAL SERVICE - CONSERVATION TEAM**

Brief and Specification for an Archaeological Evaluation

**MS/588/88, MS/680/96 & MS/389/98 - EXCAVATION OF SAND AND GRAVEL,
BADWELL ASH QUARRY, SHACKERLAND HALL, BADWELL ASH (PHASE 7)**

1. Background

- 1.1 A watching brief on soil-stripping under consent MS/588/88 revealed an area containing prehistoric artefacts and features (Suffolk Sites and Monuments Record No BAA 013). A condition was therefore applied to consent MS/680/96 for Phase 7 of the quarry requiring a prior archaeological evaluation of the Phase 7 area.
- 1.2 All arrangements for the field evaluation of the site, the timing of the work, and access to the site, are to be negotiated with the commissioning body.
- 1.3 The submission of a Project Design based upon this brief and accompanying outline specification is an essential requirement. Selection of an approved archaeological contractor should not take place until the Project Design has been approved by this office.

2. Brief for Archaeological Evaluation

- 2.1 Establish whether any archaeological sites exist in the Phase 7 area, with particular regard to any which are of sufficient importance to merit preservation *in situ*.
- 2.2 Identify the date, approximate form and purpose of any archaeological sites within the application area.
- 2.3 Evaluate the likely impact of past land uses, the possibility of masking colluvial/alluvial deposits.
- 2.4 Evaluate whether waterlogged organic deposits are likely to be present in the proposal area.
- 2.5 Provide sufficient information to construct an archaeological conservation strategy, dealing with preservation, the recording of archaeological deposits, working practices, timetables and orders of cost.

3. Specification A: Desk-Based Assessment

- 3.1 Consult the County Sites and Monuments Record, both the computerised record and any backup files.

4 **Specification B: Field Evaluation**

- 4.1 Examine the area for earthworks e.g. banks, ponds, ditches. If present these are to be recorded in plan at 1:2500, with appropriate sections. A record should be made of the topographic setting of the site (e.g. slope, plateau etc). The Conservation Team of SCC Archaeological Service must be consulted if earthworks are present and before proceeding to the excavation of any trial trenches.
- 4.2 Trial trenches should be excavated to cover a minimum 2% of the Phase 7 area and be positioned to sample all areas of the site. Linear trenches are thought to be the most appropriate sampling method. Trenches should be a minimum of 1.5m wide; the length of trench to fulfil the percentage requirement should be computed on the nominal basis of 1m wide trenches. In practice trench width will be determined by machine bucket size; a toothless 'ditching bucket' of at least 1.40m width is expected unless special circumstances can be demonstrated. The trench design should be approved by the Archaeological Service Conservation Team before field work begins.
- 4.3 The topsoil may be mechanically removed using an appropriate machine fitted with toothless bucket and other equipment. All machine excavation is to be under the direct control and supervision of an archaeologist. The topsoil should be examined for archaeological material.
- 4.4 The top of the first archaeological deposit may be cleared by machine, but must then be cleaned off by hand. The decision as to the proper method of further excavation will be made by the senior project archaeologist with regard to the nature of the deposit; there is a presumption that excavation of archaeological deposits will be done by hand unless it can be shown there will not be a loss of evidence by using a machine.
- 4.5 In all evaluation excavation there is a presumption of the need to cause the minimum disturbance to the site consistent with adequate evaluation; that significant archaeological features, e.g. solid or bonded structural remains, building slots or post-holes, should be preserved intact even if fills are sampled.
- 4.6 There must be sufficient excavation to give clear evidence for the period, depth and nature of an archaeological deposit. The depth and nature of colluvial or other masking deposits must be established across the site.
- 4.7 Any natural subsoil surface revealed should be hand cleaned and examined for archaeological deposits and artefacts. Sample excavation of any archaeological features revealed may be necessary in order to gauge their date and character.
- 4.8 Metal detector searches should take place at all stages of the excavation by an experienced detector user.
- 4.9 All finds will be collected and processed (unless variations in this principle are agreed with the Conservation Team of SCC Archaeological Service during the course of the evaluation).

- 4.10 Human remains should be left *in situ* except in those cases where damage or desecration are to be expected, or in the event that analysis of the remains is shown to be a requirement of satisfactory evaluation of the site. However, the excavator should be aware of, and comply with, the provisions of Section 25 of the Burial Act 1857.
- 4.11 Plans of the archaeological features on the site should be drawn at 1:20 or 1:50, depending on the complexity of the data to be recorded. Sections should be drawn at 1:10 or 1:20 again depending on the complexity to be recorded. Any variations from this will need to be agreed with the Conservation Team.
- 4.12 A photographic record of the work is to be made, consisting of both monochrome photographs and colour transparencies.
- 4.13 Topsoil, subsoil and archaeological deposit to be kept separate during excavation to allow sequential backfilling of excavations.

5. General Management

- 5.1 A timetable for all stages of the project must be agreed before the first stage of work commences, including monitoring by the Conservation Team of SCC Archaeological Service.
- 5.2 The composition of the project staff must be detailed and agreed (this is to include any subcontractors).
- 5.3 A general Health and Safety Policy must be provided, with detailed risk assessment and management strategy for this particular site.
- 5.4 No initial survey to detect public utility or other services has taken place. The responsibility for this rests with the archaeological contractor.
- 5.5 The Institute of Field Archaeologists' *Standard and Guidance for Archaeological Desk-based Assessments* and for *Field Evaluations* should be used for additional guidance in the execution of the project and in drawing up the report.

6. Report Requirements

- 6.1 An archive of all records and finds must be prepared consistent with the principle of *Management of Archaeological Projects*, English Heritage 1991 (particularly Appendix 3.1 and Appendix 4.1).
- 6.2 The data recording methods and conventions used must be consistent with, and approved by, the County Sites and Monuments Record.
- 6.3 The objective account of the archaeological evidence must be clearly distinguished from its archaeological interpretation. The conclusion should include a statement of the archaeological potential of the site.

- 6.4 An opinion as to the necessity for further evaluation and its scope should be given. A second phase will not be embarked upon until the primary fieldwork results are assessed and the need for further work is established. A second phase cannot be developed in detail at this stage.
- 6.5 Finds should be appropriately conserved and stored in accordance with *UK Institute of Conservators Guidelines*. The finds, as an indissoluble part of the site archive, should be deposited with the County SMR if the landowner can be persuaded to agree to this. If this is not possible for all or any part of the finds archive, then provision must be made for additional recording (e.g. photography, illustration, analysis) as appropriate.
- 6.6 The site archive is to be deposited with the County SMR within three months of the completion of work. It will then become publicly accessible.
- 6.7 Where positive conclusions are drawn from a project (whether it be evaluation or excavation) a summary report, in the established format, suitable for inclusion in the annual 'Archaeology in Suffolk' section of the *Proceedings of the Suffolk Institute for Archaeology*, should be prepared and included in the project report.
- 6.8 County SMR sheets should be completed, as per the county SMR manual, for all sites where archaeological finds and/or features are located.

Specification by: E Martin

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Tel: 01284 352442

Date: 4 September 1998

Reference: badwell.doc

This brief and specification remains valid for 12 months from the above date. If work is not carried out in full within that time this document will lapse; the authority should be notified and a revised brief and specification may be issued.

The results of this evaluation, if they are to be used as part of a planning application, will need to be considered by the Conservation Team of the Archaeological Service of Suffolk County Council, who have the responsibility for advising the appropriate Planning Authority.