

An Early Bronze Age (Beaker) pit and Roman occupation and industry at Ashgrave, RSPB Otmoor, Noke, Oxfordshire

An Archaeological Recording Action

for the **RSPB**

by Andrew Mundin

Thames Valley Archaeological Services Ltd

Site Code AOO 05/65

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Summary

Site name: Ashgrave, RSPB Otmoor, Noke, Oxfordshire

Grid reference: SP 5550 1250

Site activity: Recording action

Date and duration of project: 17th August -14th September 2009

Project manager: Andrew Mundin

Site supervisor: Andrew Mundin, Tim Dawson

Site code: AOO 05/65

Area of site: c.40 ha of a 98 ha field

Summary of results: Fifty-five ponds or 'scrapes' were excavated through an area of this large field. Several previous phases of work had identified a density of both earlier and later Roman activity including small scale iron production, and probable 3rd century pottery production and along with some prehistoric finds.

The new work revealed further Roman activity mostly of 3rd century AD date, again probably, but not conclusively indicating pottery production. Prehistoric activity consisted of a pit which produced Early Bronze Age Beaker pottery, along with a few flint flakes and Beaker pottery elsewhere on the site. A few sherds of Iron Age pottery were also recovered.

Location and reference of archive: The archive is presently held at Thames Valley Archaeological Services, Reading and will be deposited with Oxfordshire County Museum Service, with the accession code OXCMS:2006.157.

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An Early Bronze Age (Beaker) pit and Roman occupation and industry at Ashgrave, RSPB Otmoor, Noke, Oxfordshire An Archaeological Recording Action

by Andrew Mundin

with contributions by Ceri Falys, Steve Ford, Jo Pine and Jane Timby

Report 05/65c

Introduction

Thames Valley Archaeological Services carried out a recording action on land known as Ashgrave at the RSPB nature reserve on Otmoor, Noke, Oxfordshire (SP 5550 1250) (Fig. 1) in August and September 2009. Planning permission (04/01643/F) had been gained from Cherwell District Council to create wet habitats and associated access and bird-watching hides across parts of the field. This permission was subject to a condition relating to archaeology, requiring a programme of archaeological fieldwork during the mechanical excavation and shaping of a number of 'scrapes' or ponds. This area which affected c. 40ha of the overall 98ha of the field was thought to extend into a zone where archaeology had previously been identified. From the densities of pottery and kiln debris found, it was thought that these remains indicated possible pottery production sites.

As a result of likely damage to or destruction of further deposits during the excavation of the ponds, a formal programme of archaeological recording was required for 55 ponds (Fig. 2). A specification was prepared for this programme of works, in accordance with the Department of the Environment's Planning Policy Guidance *Archaeology and Planning* (PPG16, 1990) and the District Council's policies on archaeology, in order to satisfy the archaeological condition placed on the planning permission. This specification was approved by Mr Richard Oram, Planning Archaeologist with Oxfordshire County Archaeological Service.

The archaeological potential of the site was highlighted by a design brief prepared by Oxfordshire County Archaeological Service (Oram 2006), which brought together findings from the Historic Environment Record and two phases of archaeological evaluation in the field (Pine 2005; Pine and Oram 2005). The first field evaluation confirmed the presence of archaeological deposits in the central northern part of the field, mostly of 3rd-century Roman date, but also remains of Late Iron Age/Early Roman date, possibly with an association to metal working (Pine 2005). Limited features were identified on the higher ground mostly investigated by the second evaluation (Pine and Oram 2005), which provided useful information for focusing further investigation to the northern part of the field.

The fieldwork was supervised by Andrew Mundin with the assistance of Susan Colley and Tim Dawson, from 17th August to 14th September 2009. The archive is currently held by Thames Valley Archaeological

Services Ltd but it will be deposited with Oxfordshire Museum Service, with the accession code OXCMS:2006.157. The site code is AOO05/65, and this is the third report produced in relation to the archaeological works for this field.

Location, topography and geology

The site comprises an irregular-shaped field for which most of the 'scrapes' were dug from the east to the centre of the site following the 60m contour (Fig. 2). The site rises gradually to the south to a height of approximately 69m above Ordnance Datum (OD). According to the British Geological Survey, the underlying geology consists of Oxford Clay, ranging from Upper Clay (calcareous mudstone) in the east present above 63m AOD, with Middle Clay (mudstone and limestone) across the centre and west of the site to a height of c. 60m AOD. To the north of the nature reserve, below 59m above OD, the ground is alluvium, mostly flood deposits from the River Ray, which forms the north boundary of the area.

Archaeological background

The archaeological potential of the site had been highlighted in a brief prepared for the recording action by the County Archaeological Service (Oram 2006). Though Otmoor has not been subject to much in the way of intrusive archaeological excavation, aerial photography has been studied, tracing the course of the Roman road running north-south through the middle of Otmoor. This road originally linked Alchester and Dorchester-on-Thames. Ashgrave itself lies at the south-west part of the land owned by the nature reserve, which sits to the west of the course of the road. Limited fieldwalking and geophysical survey have also taken place (Oram 2006). The Sites and Monuments Record (now Historic Environment Record) noted a number of entries for this field, most relating to possible kiln sites due to the densities of pottery recovered during fieldwalking. Two Bronze Age axe heads have also been recorded as finds from the field (Fig. 2). On the northern boundary edge of the field, a moated enclosure is believed to be of medieval date (Fig. 2). The name 'Noke' is derived from 'at the oak trees' suggests that any early settlement probably existed in a clearing in woodland and was supposedly only partly surveyed for Domesday Book (VCH 1959).

The evaluations

The field has been subject to systematic field walking survey and limited geophysical survey, the results of which suggested the presence of Roman pottery production with misfired pottery and kiln debris concentrations

present along with magnetic anomalies indicative of burning which might indicate the presence of kilns. These

concentrations include:

SP 5579 1260 Kiln? SP 5602 1282 Kiln? SP 5603 1278 Kiln? SP 5565 1266 Kiln? SP 5561 1246 Kiln? SP 5556 1268 Kiln? SP 5550 1255 metalworking area?

Two evaluations were carried out in 2005. Phase 1 focused on the northern part of the field, with Phase 2 giving general coverage of the remainder of the field across the central and southern parts. Forty-two trenches excavated in Phase 1 (Pine 2005) identified three main concentrations of archaeological features. These features seem to confirm the location of the carlier findspots indicating a density of archaeological features and finds with both Late Iron Age/Early Roman and later Roman periods represented. Substantial kiln debris was identified in Trench 15 with large quantities of pottery from the 3rd century AD (Fig. 2). Large quantities of pottery were also recovered from Trench 11, with fieldwalking also uncovering pottery here (SMR 16275). Nearly all of this pottery seemed to be from local production, most notably of *mortaria*. An area of iron production was also recorded.

Of the 75 trenches excavated in Phase 2, only three contained possible archaeological features, all of which were doubtful and none of which contained finds. It seemed that the activity on the site was limited to a small area mostly on the siltier clay geology seen in the northern half of the site, rather than the denser clay geology upslope (above 61m AOD).

Area 1(Fig. 6)

Trench 16 was targeted to examine a possible pottery production site. A gully (45) was aligned north-south and two slots (1 and 2) were excavated and illustrated that this feature was 0.75m wide and 0.28m deep. The gully contained pottery dating from the 3rd century AD and a piece of animal bone. It was probably also excavated in Trench 6 as slot 37, in Trench 18 as slot 36, in Trench 19 as slot 35 and Trench 20 as slots 33 and 34.

Area 2(Fig. 4)

This area comprised features excavated in Trenches 13-15 and 24-7, with Roman pottery recovered from the subsoil in several other trenches.

Trench 13 was targeted on a possible pottery production site; it revealed a small gully (43) and a possible pit (14). The gully was aligned east-west and the two slots (10 and 11) excavated through it showed it to be

0.70m wide and 0.20m deep. It contained 73 sherds of pottery, the majority dated to the later 1st-2nd century AD. The gully was also probably excavated in Trench 25, where a slot through it (15) showed it to 0.48m wide, 0.19m deep and contained 16 pottery sherds dated to the early Roman period; and it was planned in Trench 24, but not excavated there. Possible pit 14 contained 3rd century pottery. This feature was badly truncated by a field drain and its nature is unclear.

Trench 14 was targeted on a geophysical anomaly that was possibly part of the same pottery production area as that examined in Trench 13. This trench contained gullies 41, 42 and 49. Gully 41 was 0.68m wide and between 0.20–0.28m deep. The pottery recovered, a surface find, was only identified as Roman. This was cut by gully 42 aligned SE–NW. This was 0.72m wide and contained pottery only identified as Roman. This in turn was truncated by Gully 49 (slot 9), which contained a 3rd-century sherd. Similarly dated pottery was recovered from the subsoil (56) of this trench.

Trench 15 was targeted to examine a pottery production area possibly 3rd/4th century in date. Topsoil was removed by machine onto a subsoil deposit (52) which contained 1280g of 3rd-century pottery probably incorporated into this layer by being disturbed from the lower deposits by ploughing. This subsoil was removed to reveal a concentration of archaeological deposits.

A spread (53) was recorded 7.50m by 6.00m and at least 0.15m deep. This consisted of large quantities of pottery fragments and fired clay in a silty clay matrix, which had accumulated within a slight hollow in the natural clay. 214 sherds of pottery weighing 1.52kg and fired clay was collected from a test-pit (TP1) excavated through this material. A grab sample was taken from the surface of this deposit. The analysis of this material (see below) suggests spread 53 is kiln waste from a pottery kiln situated nearby. The assemblage suggests pottery production in the first half of the 3rd century which was probably not continuing much beyond the middle of the century. Spread 79, slightly to the north of 53, was also a dark silty clay but the pottery concentration was markedly less in this deposit. It is probable this is also a dump of kiln waste.

Based on the spatial distribution of the pottery dumps it is more than likely the kiln lay to the south of deposit 53 and a good candidate was feature 22 which was located less than a metre to the south (Fig. 4). This was only partially exposed in the trench but was at least 2.0m by 0.58m marked by a high concentration of charcoal. It was decided not to disturb this deposit further and thus it was preserved *in situ*. A small number of sherds collected from its surface suggest it is contemporary with deposits 53 and 79.

A gully (23) was also recorded in the trench and was visible as a linear concentration of pottery sherds. A slot excavated through this feature showed it to be 0.40m wide and 0.35m deep containing two fills. Its primary

fill (80) was a silty sand with no pottery present. However, within its secondary fill (78) was a concentration of over 200 sherds including a near complete greyware necked jar, heavily distorted by blistering.

A small gully, (19) was recorded at the northern end of Trench 25. It contained seven sherds of pottery in production between AD250–400. This trench had also been badly disturbed by ploughing and 3rd-century pottery was recovered from these plough marks (17, 18) and the subsoil of this trench. Finally, in this area, twenty-four sherds of 3rd-century pottery were recovered from a natural hollow (20) in Trench 27.

Area 3(Fig. 5)

Archaeological deposits were recorded in Trenches 11, 12, 29-32, and 42.

Trench 11 was again targeted on a suggested pottery production area. Geophysical survey identified two possible ditches. The sandy clay geology heavily had been disturbed by ploughing. No archaeological deposits were observed but 27 sherds of pottery of 3rd-century AD date were recovered from the subsoil and four sherds of similar date from plough marks. This may suggest another kiln close by.

Metalworking debris had been recovered in quantities during fieldwalking in the vicinity examined by Trenches 12 and 42, and it was suggested this area may have been used for metal working. Trench 12 revealed a ditch (44) aligned approximately NE-SW marked by a linear concentration of slag debris. Trench 42 was then excavated to extend Trench 12, and a further 6m of ditch 44 was observed, again shown by a concentration of metalworking debris. A slot (13) through this feature showed it to be 1.90m wide and 0.80m deep. It contained three fills (66–68). Primary fill 68 contained six sherds only identifiable as Roman. Secondary fill 67 contained a sherd of late Iron Age-1st century date. The tertiary fill (66) contained 1 sherd of pottery only datable to the Roman period together with large quantities of metal working debris.

In Trench 42 several further features were exposed. A small pit 26 was 0.75m by 0.60m and 0.29m deep, with several fills. It contained 15 sherds of pottery at the latest 1st-2nd century in date, together with charcoal. Ditch 24 was observed but not excavated. Pottery collected from its surface could only be given a Roman date. A small pit (25), 0.80m by 0.50m and 0.13m deep produced no finds. At the western end of Trench 42 a ditch (46) was recorded. It was exposed for 6m, was 2m wide and 0.50m deep and contained a sherd only designated 'Roman'.

A possible large pit 27/28 was recorded in Trench 29. This was 7m by 2m and c. 0.40mdeep. It contained five sherds of 2nd-3rd century pottery together with animal bone.

Trench 30 was located to the north of Trenches 12/42 and exposed the northern continuation of ditch 44. Here slot, 38, did not contain a concentration of slag but did contain a sherd of Iron Age pottery together with

animal bone fragments. A possible return of this ditch (39) was observed and contained a sherd which again could only be designated Roman. Its relationship with ditch 44 was uncertain. A gully terminal (47, slot 12) was also excavated. This contained a sherd of 2nd-3rd century pottery.

Ditch 16 crossed Trench 31 NW-SE; it was 1.3m wide and 0.51m deep; it produced a single sherd of Iron Age pottery.

The southern continuation of ditch 44 was recorded in Trench 32, where it appeared to change orientation and was following a NW-SE direction. The slot excavated (31) contained five sherds of Iron Age pottery and occasional slag debris. Another ditch (48) was recorded in the same trench. An excavated slot through it (29) showed it was 1.0m wide and 0.30m deep and contained Iron Age and late Iron Age-1st century Roman pottery. A possible pit (32) was also planned, although not excavated and four sherds of grog-tempered pottery were recovered from its surface.

Aims and objectives of the excavation

The aim of the project was to observe ground disturbance to the lowest extent in the location of all 'scrapes' and ascertain the presence/absence of archaeological deposits within. The area where the recording action took place was limited to a zone east of Lower Farm, which corresponds with the main areas of archaeology recorded in the evaluation exercise, broadly following the 60m contour (Fig. 2).

Methodology

The work on the site involved monitoring of the impact of fifty-five ponds on ground across the north, central and eastern part of the site. The western part of these scrape locations (ponds 34 to 49) was excavated between two of the archaeologically dense zones identified from the Phase 1 evaluation. Ponds were also located on areas of previous trenching (ponds 9 and 113–117 inclusive).

Topsoil and overburden was removed by a 360° type mechanical excavator fitted with a toothless bucket, under constant archaeological supervision. The 'scrapes' were constructed with shallow sloping sides such that for most of their area, the natural geology was not exposed. Only at the lowest point of the scrapes was the natural geology or archaeologically relevant level exposed. This was generally at a depth of 0.35m to 0.47m below ground level. The natural geology exposed varied slightly to the west, which was a orange brown silty clay, whereas the natural to the east was a plastic chalky grey-brown clay. In general all the archaeological

features were sealed by the subsoil, apart from a modern boundary (304) and ditch 322, which cut plough soil, underlying topsoil in Pond 47.

Where the base of the proposed scrape was to be deeper than the level of the exposed archaeological features, the latter were excavated. Small features that were unlikely to survive reburial or subsequent use as a water feature were also excavated. For other deposits, usually the more substantial ones, where no further disturbance was proposed and preservation *in situ* could be achieved, these were recorded only in plan except for the recovery of any exposed dating evidence from the surface of these features. All archaeological deposits were investigated by hand. Pits and post-holes, were half-sectioned and recorded and then fully excavated to maximize finds and recovery of soil samples. At least one part of each of the large ditches was sectioned and sampled. Samples were taken from twenty contexts in all.

A full written, drawn and photographic record of the works was created. A catalogue of features and contexts is to be found in Appendix 1.

Results

Of the fifty-five 'scrapes' or ponds excavated, eighteen contained archaeological features and finds (Figs 3 to 5). No features that had previously been discovered in either of the evaluation phases were encountered.

Pond 15 (Figs 3 and 6; Pl. 1)

A gully (302) aligned north-south was 0.52m wide, with a depth of 0.17m. It contained two fills. The secondary fill (352) was compact brown/grey silty clay with occasional charcoal flecking. The primary fill (355) was compact yellowy brown/grey clay which contained 13 sherds of possible Bronze Age and Iron Age pottery and 7 Roman sherds.

Located to the east of slot 302 was pit/post-hole 303, which contained 25 sherds of possible Beaker (Bronze Age) pottery. It was 0.48m by 0.38m across and 0.16m deep with straight sides and a flat base. Its fill (353) was a firm brown/grey clayey silt with charcoal flecks.

A second linear feature (304) was observed in this pond. This was sectioned and had a width of 1.1m and a depth of 0.27m. It was noted to cut the subsoil and is thought to be of modern origin, though no dating evidence was recovered.

Pond 16 (Figs 3 and 6; Pl. 1)

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This pond contained a ditch (301) also on a north- south alignment with a width of 0.48m and a depth of 0.17m. It contained a single fill (351) of firm brown/grey silty clay. No finds were recovered despite sieving of a soil sample.

Pond 19 (Figs 3 and 6; Pl. 1)

This pond contained a ditch (300) on a north- south alignment with a width of 0.75mand a depth of 0.2m. It contained a fill (350) of light grey/brown clay. No finds were recovered.

Pond 34 (Figs 4 and 6)

Two features (305, 306) were noted in this pond. They were similar in character, both roughly the same width and similar fill type. Ditch 306 was 0.75m wide aligned north - south but was not excavated. A single Roman *mortarium* sherd was recovered from its surface.

Ditch 305 was aligned north -south and was 0.73m wide and 0.21m deep. It contained a single fill (356) of firm yellow/brown clay with very occasional small rounded flint gravel inclusions. One small sherd of Roman pottery and a fragment of tile were recovered from this feature.

Pond 35 (Figs 4 and 6)

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This pond contained two linear features. Gully 310 aligned north - south contained a single fill (365), which was a brown/grey silty clay with occasional charcoal flecks. It was 0.2m wide and 0.15m deep. No finds were recovered despite sieving of a soil sample. Slot 309 investigated the terminal of a second gully. It was 0.4m wide and 0.25m deep. The single fill (364) was a yellow/brown silty clay. The only find recovered was a fragment of tile despite sieving of a soil sample.

Pond 36 (Figs 4 and 6)

One feature was noted in this pond. A small gully terminus (307) was noted entering from the north - east and ending 2.3m within the trench. This gully was 0.4m wide and 0.07m deep. It contained a single fill (361) which was a friable light brown/grey silty clay. This fill contained one fragment of tile but no closely datable finds.

Pond 37 (Figs 4 and 6)

Three gullies were present in this pond. Gully 311 terminated within pond 37. It was aligned north east - south west and was 0.35m wide and 0.07m deep. It contained a single fill of brown/yellow silty clay (366). No finds were recovered despite sieving of a soil sample.

Gully 312 was aligned north-south and was 0.45m wide and 0.07m deep at the north end though no terminus was seen. It contained a single fill (367) which comprised a brown/grey silty clay. No finds were recovered despite sieving of a soil sample.

Gully 313 was parallel to 312, approximately 0.6m to the east. It was 0.45m wide but shallow (0.07m). It contained a single fill (368) of yellow/brown silty clay. No finds were recovered despite sieving of a soil sample.

F (Pond 40 (Figs 5 and 6)

One feature was identified; a gully (308) aligned north - south on the east side of this small stripped area. It was 0.25 m wide and 0.11 m deep. On the surface of this feature, at the northern end, was a cremation deposit (362). No individual cut was visible and the deposit seems to fill the upper level of the gully. The section showed the filled spread within the top of the feature, with a diameter of c. 0.3 m. This layer was fully excavated which entailed the taking of three 0.02 m thick spits. Sample 39 contained all the soil from this context. Human bone was recovered from this fill. Five sherds of Roman pottery were recovered from this deposit but none from the remaining fill of the gully (363). Though not clearly visible, this gully seemed to terminate within the stripped area.

Pond 41 (Figs 5 and 7; Pl. 3)

A large ditch (319) was recorded in this pond aligned north- south. The feature was c. 3m and it was 0.68m deep. This feature was overlain by topsoil and subsoil overburden/ploughsoil. 407 sherds of 3rd century pottery were recovered from the four fills of this ditch, (372-5) and from the surface of this feature (105 sherds). Seven fragments of animal bone, 19 fragments of tile and 3 fragments of fired clay were also recorded along with two residual prehistoric flint flakes. The upper fill of this feature was friable dark brown/grey silty clay (375). Its tertiary fill was a light blue/grey clayey silt (374) and it secondary fill was a light yellow/grey clayey silt (373). The slumped primary fill was an orangey yellow/grey silty clay (372).

Pond 43 (Figs 5 and 7; Pl, 3)

Ditch 346 was aligned north - south and was only partially exposed within this pond. It was unexcavated. A ploughsoil spread (463) to the south-east edge of this feature contained five Roman pottery sherds.

Pond 44 (Fig. 5)

This area contained a spread of plough soil (359), which contained a quantity of Roman pottery (38 sherds, 296g). This spread was seen in the south- west portion of the stripped area and was roughly 4m by 2m in plan.

Pond 45 (Figs 5 and 6)

Two features were noted in this pond. Ditch 400 was investigated, with a full width section (3) and a relationship section (318). Ditch 400 cut a shallow gully perpendicular to it (317). Ditch 400 was 1.08m wide and 0.29m deep aligned east- west. Slot 316 contained a single fill (369) of mottled dark blue/grey and orange sandy clay. The fill in slot 318 (371) was the same as 316. The fill of 317 (370) was a grey/orange clayey silt. This feature was 0.36m wide and 0.06m deep. Some 84 and 1 sherds of Roman pottery were recovered from both slots 316 and 318 respectively, but no pottery was recovered from 317. Nine fragments of cattle-sized bone came from slot 316 along with 3 fragments of tile and a residual flint scraper. Two fragments of fired clay came from 318.

Pond 46 (Figs 5 and 7)

This pond partially uncovered a ditch (402) along its eastern edge. Slots 320 and 321 recovered 10 and 6 sherds of Roman pottery from the single fill of this feature (378 and 379) respectively along with 3 fragments of tile from 320 and 2 fragments from 321. This feature was at least 0.5m wide and between 0.15–0.17m deep, and was filled with grey/orange sandy clay.

Pond 47 (Figs 5 and 7; Pl. 4)

Two features were uncovered in this pond. A pit (323) seen in the southern end of the area is tentatively dated as Roman with just two tiny sherds of pottery from the same vessel and a fragment of tile. This pit was 0.53m in diameter and 0.14m deep.

A ditch to the north (322) was aligned east - west. This ditch was 1.31m wide and 0.59m deep and contained a single fill (379) of mottled dark blue/grey and orange sandy clay. 52 sherds of 3rd-century Roman date (and one residual sherd of Beaker) and a fragment of tile were recovered from its fill.

Pond 48 (Figs 5 and 1; Pl. 5)

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This stripped area did not expose the natural geology, but uncovered a linear feature (345) and spread (461) at a depth of 0.49m from ground level, through topsoil and subsoil. A full length section was dug along this pond base to find the natural geology and discovered that the spread covered the length of the base which was 10.2m long. The SW-NE aligned ditch was found in the east-south-east end of the strip. Here, slot 345 uncovered a partial, but almost complete oblique section across this ditch, 1.6m wide and revealed it to be 0.54m in depth. It contained a single fill (460) which was a dark grey/dark yellow sandy clay. Forty-six sherds of Roman pottery and three fragments of animal bone were recovered from its fill, while spread 461 produced over 100 sherds of Roman pottery and the site's largest concentration of animal bone.

Pond 49 (Figs 5 and 7)

Two parallel ditches aligned east -west were uncovered with the eastern part of the two strips associated with this pond. These parallel gullies (343 and 344) were similar in character, though only one piece of Roman pottery was recovered from 343. Both of these gullies were shallow, between 0.14m and 0.16m in depth and contained single fills. The fill of the northern ditch (344) was filled with a friable mid brown-grey silty clay (459). The other (343) was filled with grey/dark orange sandy clay (458).

Pond 50 (Figs 5 and 6; Pl. 2)

This pond revealed pit 314 which was 2.04m across and 0.2m deep Its fill (357) was a firm, dark grey/brown sandy clay it contained 18 fragments of tile, 54 sherds of Roman pottery (late 3rd century) and nine fragments of animal bone.

Pond 51 (Fig. 5)

This area contained a spread of plough soil (358), which contained a quantity of Roman pottery (19 sherds). This spread over the north part of the stripped area and was at least 3m by 1.5m wide.

Drainage breaking trench (Figs 5 and $\frac{1}{2}$)

Though many features were noted in this trench (324 to 342), only one of these was excavated giving a full section (324). This was due to its position in the trench cut by a modern land drain that needed to be broken with deeper excavation. This feature was shallow to the north, so was thought to be a ditch terminus or possibly an elongated N-S aligned pit. It was 1.9m wide and 0.35m deep. Five sherds of Roman pottery was recovered from

its single fill (376), which was brown/grey silty clay, 13 fragments of cattle-sized animal bone were also recovered.

Late Roman pottery and some bone was recovered from the surfaces many of these features (324: 5 sherds; 327: 2 sherds, 4 bone fragments and 5 tile fragments; 329: 3 sherds; 330: 1 sherd; 331: 40 sherds, 1 cattle bone and 2 tile fragments; 332: 17 sherds; 333: 14 sherds and 2 tile fragments; 336: 13 sherds; 337: 37 sherds and 8 tile fragments including a *pila*; 338: 2 sherds; 340: 2 sherds and 4 fired clay fragments; 339: a tile fragment only; 341: 58 sherds and a fragment of tile; 342: 3 sherds; spread 457: 26 sherds).

Finds

Pottery by Jane Timby

The evaluation and subsequent excavation resulted in the recovery of 2526 sherds of pottery weighing c. 26.5 kg accompanied by a quantity of fired clay and ceramic building material. Whilst most of the assemblage dates to the Roman period there are small quantities of earlier and later prehistoric material present and a single post-medieval sherd. Pottery was recovered from some 75 contexts with further substantial amounts from surfaces of features and sub-soil levels. The sherds were generally quite fragmented with an overall average sherd weight of just 10.5g. There were a few instances of multiple sherds from single vessels and one almost complete over-fired jar.

The assemblage was sorted into fabrics based on the type, size and frequency of the inclusion in the clay. Known regional or traded wares were coded using the National Roman fabric reference collection (Tomber and Dore 1998). Other wares were coded more generically according to the fabrics or surface finish. The entire assemblage was quantified by sherd count, weight and estimated vessel (rim) equivalence (EVE).

Earlier prehistoric

, ON WHAT BASIS?

A total of 28 sherds, weighing 75g, was recovered dating to the Beaker period. Most of the sherds, 26, came from pit 303 with single pieces from ditch 322 and Trench 14 pit 14. The latter two are residual in Roman features. The group of sherds from pit 303 were unfeatured and fragmentary. The sherds had a sandy texture and contained sparse grog and had surface voids. The exterior was oxidized and the interior reduced to black. Gully 302 contained 12 very fragmentary sherds in an oxidized, grog-tempered fabric which may also chronologically belong here. The same feature had a haematite-coated sherd and Roman pieces.

Later prehistoric

Some 18 sherds were designated Iron Age on the basis of fabric. Most of these are fossil shell and limestonetempered wares, which could be of middle or later Iron Age date. Also present, redeposited in gully 302, is a single grey sandy ware sherd with a haematite-slipped burnished finish which is more characteristic of the earlier Iron Age. There are, in addition a variety of grog-tempered wares which could be later Iron Age or early Roman. In most cases these occur with Roman wares proper and are thus included with the Roman material.

Most of the calcareous sherds occurred residually alongside sherds of Roman date but there are three features where these constitute the only material: ditches 16 and 31, and gully 38. In ditches 13 and 29 the shelly wares occur with grog-tempered wares suggesting a later Iron Age date.

<u>Roman</u>

Most of the assemblage, 97.6% by sherd count, dates to the Roman period. Whilst there are a few continental

and regional imports, most of the group comprises wares typical of the Oxfordshire pottery industries. The

nature of many of the sherds would strongly suggest the presence of nearby kilns although only one tentative

structure (22) was identified during the fieldwork. Appendix 2 provides a quantified summary of the Roman

wares.

Imports

- Central Gaulish samian (LEZ SA). Five sherds were noted, four of which were extremely small scrappy pieces. The only recognizable forms are a dish Drag 31 and a cup Drag 33.
- Central Gaulish black-slipped ware (CNG BS) (Tomber and Dore 1998, 50). Two very small sherds came from ditch 316. Such wares generally date from the mid 2nd century through to the early 3rd century.
- Dorset black burnished ware (DOR BB1) (Tomber and Dore 1998, 127). A total twelve sherds were recorded, five coming from ditch 319. This latter group includes a grooved-rim bowl dating to the later 2nd-early 3rd century. The only other rimsherd is from a plain-walled dish from ditch [316].
- Lower Nene Valley colour-coated ware (LNV CC) (Tomber and Dore 1998, 118). Two small sherds, both associated with ditch 319.
- Verulamium white ware (VER WH) (Tomber and Dore 1998, 154). A single mortarium bodysherd from ditch 316.

Local wares

14

Grog-tempered wares (BWGR, GRSJ, GROG, GRLI, GROR, GRSA, GYGR, OXGR). The assemblage contains a large number of handmade and wheelmade grog-tempered wares in black (BWGR), grey (GYGR) and oxidized (OXGR) fabrics. There are also four variants: a reddish-brown wheelmade ware typical of the later Iron Age (GROG); one with added organic material (GROR); one with a very sandy paste (GRSA) and one with limestone (GRLI), all of which may be later Iron Age or early Roman in date. In addition there are sherds of handmade Oxfordshire-type grog-tempered storage jar (GRSJ) typical of the 2nd and 3rd centuries. With the exception of a dish copying the imported Gallo-Belgic platter form *Cam* 12 from spread 461 (Fig. 10.2), all the featured sherds in the grog-tempered wares come from jars including beadrimmed, necked everted and rolled rim types (Fig. 10. 3-4). One example with a bulged upper body (Fig. 10.1) from ditch 29 resembles similar 1st century BC-AD examples from Silchester (Timby 2000, fig. 117.316-17).

Sandy wares (BW, GREY, OXIDSY) Amongst the local wares not specifically identifiable to the standard Oxfordshire range as defined by Tomber and Dore (1998) are some black, grey and orange sandy wares. These all form minor components of the assemblage. The oxidized group is the largest accounting for 4% by sherd count and could well be a slightly sandier variant of OXF OX. This includes everted rim, bifid rim

and triangular-rimmed jars, flat-rim and rolled rim (Fig. 10. 7) bowls. Several sherds from a single triangular-rimmed jar came from ditch 319. Two vessels had deliberately blackened rims.

Oxfordshire burnt white ware (OXF BWH) (Young 2000, 113). Just seven sherds of this ware were recorded with six sherds coming from as bifid rim jar in ditch 322 (Fig. 10.10). This form is not shown in this fabric category in Young. The ware is generally dated from the mid 3rd to 4th centuries.

Oxfordshire oxidized ware (OXF OX) (Young 2000, 185 ff). These wares make up 41.7% by count of the total Roman assemblage. The group is dominated by jars most of which fall into the rather broad category of Young (2000) type O10 (x24) (Fig. 10. 5-6). Within this are a number of squat, sharply undercut, slightly angular hooked rim variants as Young R17 (x27) but in oxidized ware. Collectively these jars account for 70% of the EVE of the group. Of the remainder, 18% are beakers similar to Young type O20 (x5) (Fig. 10.8); 3% to a rouletted beaker similar to Type O19 (Fig. 10.9); 6% to flasks (Type O7 (x2)); 1% to a mortarium and less than 1% to a plain-sided dish (Type O35). Where datable most of these types seem to belong to the periods AD 240-400; the jars have a wider chronological span. The ovoid beakers with triangular rims in oxidised and reduced wares perhaps closest to Young type O20, were dated originally to the 3rd century but have subsequently been dated slightly earlier at Alchester (Evans 2002).

Oxfordshire reduced ware (OXF RE; OXF FR) (Tomber and Dore 1998, 173; Young 2000, 202ff). This group contributes 20.8% to the recovered assemblage by count. Of particular note is the substantial part of a semi-complete, overfired jar with large blisters (Fig. 10. 12) from gully 23 probably falling within Young's type R24. Apart from one vessel, a shallow platter derived from a *Camulodunum* type 2 (Hawkes and Hull 1947), all the featured sherds, 98% by EVE, come from jars. Amongst the forms present are Young types R16-17 (x11), R20 (x8), R30-1 (x6) and a lid R76. A flanged rim, handled jar (Fig. 10. 11) may be a variant of type R18. The emphasis again appears to be towards the later Roman period.

Oxfordshire colour-coated ware (OXF RS) (Tomber and Dore 1998, 176; Young 2000, 123ff). Only four sherds, all from a single beaker with barbotine decoration, were recovered from ditch 316. The poor preservation of some surfaces might mean other sherds have been included in the oxidized category but generally this ware is not common.

Oxfordshire white-ware (OXF WH) (Tomber and Dore 1998, 175; Young 2000, 93ff). Plain white wares account for 5.9% by count of the group. Most of the featured sherds, 90.4% EVE are from small flagons including Young types W9 (x1) and W15 (x3) (Fig. 10. 13). Also present is a flagon form (Fig. 10.15) not present in Young's typology. Other forms present include two jars (types W33 and W34), a beaker or small jar and two shallow bowls (type W52) (Fig. 10. 15). The small flasks that fall into the category Young type W15 were dated AD240-300 by Young. At the time the original work was published this type was thought to be made exclusively at the Churchill kilns and the dating is based solely on this deposit. Evidence from Silchester might suggest the form was in circulation slightly earlier.

Oxfordshire white-ware mortaria (OXF WH(M)) (Tomber and Dore 1998, 175; Young 2000, 56ff). Whiteware mortaria account for 17.2% by count, 36.6% by weight. Several sherds are discoloured and many of the flanges have become detached from the rims or are broken making it difficult to ascribe all to Young's form types. Spouts were rare. Of the rims that can be classified there is are single examples of types M19, ?M20/21 (Fig. 10.24, 26) and M21; two examples M12 and M20 (Fig. 10.25); three examples of M18 and M10/11; five examples of M11 (Fig. 10.18) and M10 (Fig. 10.16-17) and 21 examples of M17 (Fig. 10. 19-21). Chronologically the earliest are types M10-12 probably produced between AD180-240 and M17-21 from AD240 to 300. Many of the sherds showed slightly different nuances of form to the illustrated examples in Young.

Oxfordshire white-slipped oxidized ware (OXF WS) (Tomber and Dore 1998, 177; Young 2000, 117). Limited to four small bodysherds form ditches 319 and 337.

Oxidized limestone-tempered ware (OXLI). A single sherd from a large jar in an oxidized fabric containing a sparse frequency of limestone inclusions from ditch 322.

Shelly wares (SHELL). A single everted rim jar was recovered from ditch 319.

Discussion

Approximately 22.9% of the assemblage derives from surface or subsoil collection; most of the remainder comes from negative features, particularly ditches and gullies. On ceramic grounds the Roman period pottery can perhaps be split into three phases. The earliest groups are very small but potentially date to the later Iron Age or carly Roman period, predating the appearance of any Roman wares proper. In all cases the groups comprise various grog-tempered sherds. This group encompasses gully 12, ditches 29 and 32 and pit 26. The second ceramic phase potentially dates to the 2nd century. In all cases oxidized and reduced Oxfordshire products are present alongside various grog-tempered wares but no *mortaria*. These include gullies 10, 11, 15, 302, and ditches 24 and 320. Of particular note are some sherds from an over-fired grog- and limestone-tempered jar from ditch 24. It is not unknown for inverted jars to be used as oven floor supports (Swan 1984, fig. III). Gully 15 contained some reduced ware sherds decorated with barbotine dots.

The third and largest phase contains Oxfordshire forms and fabrics typical of the 3rd century. Three ditches, one layer (53) and spread 461 account for over half (56%) of the total site assemblage. Of note is gully 23, in evaluation Trench 15, with 477 sherds weighing 3887g, 18% by count of the total. Apart from a single grog-tempered storage jar sherd this group comprises exclusively Oxfordshire products including the waster jar (Fig. 10.12). The range of forms (Young 2000, types O19, O20, R24, R31, W15, W52, M10, M12 and M17) on conventional dating indicate a likely date around the middle of the 3rd century. Although no definite evidence of kiln activity was found and there was negligible fired clay or other associated industrial waste with this material, it strongly suggests pottery production waste.

A further substantial group of material was recovered from ditch 319 with 525 sherds weighing 5195g. Oxfordshire wares contribute most of the sherds but there are a few other types present including Central Gaulish samian, DOR BB1, oxidized sandy wares and grog-tempered storage jar. The range of forms is similar to ditch 23 indicating a date around the middle of the 3rd century.

Ditch 316 with 84 sherds also shows a slightly more diverse range of material and is the only feature on the site to produce Oxfordshire colour-coated ware which generally starts to appear around AD 240 onwards. If there is nearby pottery production it would seem that it produced white, oxidized and reduced wares and white ware *mortaria* but not colour-coated ware. This would also imply that the site was abandoned at some point in the second half of the 3rd century. Ditch 316 also produced the Central Gaulish black-slipped ware and DOR BB1 along with examples of Young types W9, W52, M17 and M19.

Layer 53 in Trench 15, in close proximity to gully 23, produced 214 sherds, weighing 1524g, also exclusively Oxfordshire wares and broadly contemporary. The sherds were noticeably more fragmentary with an average weight of 7g compared to around 10.5g from the ditches and spread 461. Spread 461 with 121 sherds has a much more mixed character, but again with a range of Oxfordshire forms indicative of a similar date to the three ditches. There were quite a few sherds of grog-tempered ware present. Other features with smaller assemblages but which can also be allocated to this phase include ditches 20, 318, 322, 331–3, 336–7, 341, 345; gully 19; pit 314 and spread 457.

Appendix 2 summarizes the incidence of forms by EVE. Jars dominate the group at 51.7% followed by *mortaria* at 19.4%, and flagons and beakers both at 11.3%. Bowls and dishes are poorly represented at 3.5% and 1.4% respectively. This profile is not a typical domestic profile. The level of *mortaria* for example, is much higher than normal. If this profile is compared with Alchester period 6 (AD 180/90 – 240/50) (Evans 2001, table 7.31) jars account for 46.7%, bowls/dishes for 22.8% and *mortaria* for just 1.9%. Beakers are higher at 23.5%. The range of specific types within the *mortaria* range from Ashgrave, all of which are in Oxfordshire whiteware, is moderately well-matched with the range of *mortaria* present at Alchester (Period 7 mid-late 3rd-early 4th century) in that a similar, but smaller spectrum of types are represented with type M17 the most popular. The occurrence of *mortaria* by date at Alchester (Evans 2001, fig. 7.13) shows a peak in the second half of the 3rd century which would neatly coincide with the main postulated production period at Ashgrave.

Summary

The pottery recovered from Ashgrave, Noke, appears to indicate a low level of activity in the Beaker, later Iron Age and early Roman periods. Most of the pottery however, dates to the 3rd century and circumstantial evidence would suggest that this is a pottery production site perhaps with some proceeding, and coincident, domestic occupation. This is deduced not from any clear archaeological/structural evidence but from the abnormally high levels of certain wares and recurrence of certain forms. The moderately low incidence of clear waster material and over-fired sherds is not necessarily a problem for this interpretation, as a similar situation was noted at the pottery production site at Nuncham Courtenay (Booth 1993, 135) where it is suggested that much of the material was under-fired and thus subject to greater surface erosion. The recovery of material from more than one location could suggest the presence of several kilns in the immediate area, but the greatest concentration of material appears to lie around the central part of the field found between evaluation trenches 11 and 15, and trench 42 (Fig. 2). The presence of numerous ditches and gullies, probably from small enclosures, can be paralleled with those excavated at the Churchill Hospital site, another Oxfordshire pottery production site (Young 1975).

The area around Noke was already suspected as a possible production site from fieldwalking (Cheetham 1996). The recent work would appear to confirm this suspicion thus extending the known production area focused in the area immediate east of Oxford to north of the Beckley ridge. As with many of the production sites, Ashgrave is relatively close to the Roman road connecting Dorchester to Alchester and the latter site would have provided a ready market for the wares.

The complete absence of any colour-coated wares would suggest that production had ceased before the third quarter of the 3rd century. This is unusual as many of the other sites to the south continued to flourish well into the 4th century, although at Nuneham Courtenay the greatest volume of production lay in the 3rd century, declining in the first half of the 4th century. Young (2000, 232–5) originally regarded the 2nd century as a period of growth for the Oxfordshire industry, followed by a recession in the later 2nd to early 3rd century followed by regeneration in the second half of the 3rd century. The evidence from Alchester contests this model, suggesting that Oxfordshire products as a proportion of the assemblage show a steady rise from the 2nd century and appear to show a major expansion in the later 2nd–3rd century (Evans 2001, 383). This coincides with the main phase of activity at Ashgrave and probably at Nuneham Courtenay. At the latter site however, production continued into the 4th century whereas at Ashgrave it seems to have stopped before the diversification into colour-coated fine wares. Further, the lack of later Roman or post-Roman material at Ashgrave would suggest the area was never reused.

Fired clay by Jane Timby

Only 39 fragments of fired clay weighing 377g were recorded. To this can be added a further 47 fragments weighing 143g which may be fired clay or very degraded brick/tile. The fired clay can be divided into sandy fragments and those with organic matter present. Although there are no featured elements the latter may originate from non-permanent kiln furniture. The material was quite sparsely distributed, a total 18 fragments, 102g, from pit 314 being exceptional.

Ceramic building material by Jane Timby

A total 84 fragments of ceramic building material, weighing 1658g was noted, spread across 24 contexts. Again the material was very fragmentary precluding the recognition of specific types although at least three *tegulae* and one *pila*/flat tile could be identified. The largest concentration came from spread (461) with 25 pieces weighing 510 g.

Metal working debris by Chris Salter

A small quantity of metalworking debris (just under 10.kg.) was recovered, all from the first evaluation phase. The majority of this (over 7kg) came from a sample of a much larger deposit in ditch 44 (slot 13). The initial examination of this material shows six main classes of material (Appendix 3, along with definitions of types). Although only a sample of a larger deposit, there is sufficient diagnostic material present to be almost certain that this was the result of primary iron production; that is iron smelting.

The material consisted mainly of the heavier and more robust types of debris associated with iron smelting, the denser slag types and the more heavily vitrified fragments of hearth or furnace lining. Only a very limited amount of the more fragile slag types (cinder, low density and fuel ash slag), were recorded. No *tuyere* fragments were observed.

The first two classes of debris (tap slag and furnace slag) would have been produced during iron smelting, thus over 75% of the material examined is definitely associated with iron smelting activity. Even the slag type defined as smithing slag could have been directly associated with primary iron production, as the raw iron bloom produced by the smelting process was normally consolidated by high temperature smithing on the production site. This process would have produce smithing type slag.

The presence of tap slag indicates that slag tapping furnaces were used. The material is consistent with a Roman date, but evidence from Syresham (Salter 2003) shows that slag tapping furnaces were in use in the region as early as the latter part of the Middle Iron Age. However, our knowledge of Saxon and Medieval iron production in this region is very limited. Therefore at present it is impossible to rule out a possibility of Anglo-Saxon or medieval iron production on the basis of slag type alone. Ditch 44 would appear to be Roman, but the pottery evidence is ambiguous.

The source of the iron ore used on this site is not clear, as it is well outside the known iron-production area of the Northamptonshire Sands ironstone. However, one large piece of box-type ironstone was recovered together with the slag. This would appear to be the type of box-stone that can develop in the Jurassic ironstones such as were found around Banbury, Towcester and Northampton. Fragments of these ironstones are common in the river gravels of the Upper Thames Valley. However, this fragment was much larger than the ironstone fragments normally found in this area, and was not heavily abraded by fluvial action, suggesting a more local source.

The local context

If it difficult to put this Noke-Otmoor site in a local context, due to the lack of modern work on ironworking (smithing) and smelting sites which contrasts with the work carried on the sites further to the north and east on the Jurassic ridge. Iron slag has been reported from a number of sites both on the Ridge and to the south towards Oxford. Unfortunately, often the reports are limited to stating that slag occurred without defining the type of slag. There are likely iron smelting sites around Banbury. However, the site at Syresham was several kilometres from the nearest ironstone and may have been using either local hard-pan/bog-ore or fluvio-glacial transported

ironstone. These sites lie in a line well to the north of the present site, on the Jurassic Ridge. Another possible iron smelting site to the west, at Shakenoak, was associated with the Fawler ironstone. The site at Drun's Hill might be worth reconsidering in terms of being a possible smelting site. There is a certain iron smelting site in the Boarstall parish (M. Farley pers. comm. and material seen by the author). The date of this site is unknown, but it is assumed to be of a similar date to this site on the basis of slag morphology. It is likely that the geological setting of this site was very similar to that at Noke – at the edge of Otmoor where bog-ores are likely to develop. Rather than being isolated iron smelting sites it is thought likely that the sites at Noke and Boarstall are representative of small iron industry running round the southern margins of the moor between the two locations.

Charred plant remains by Jo Pine

Twenty-one samples of between 3 and 15 litres were submitted for an analysis of their palaeoenvironmental remains. This is in addition to five samples from the evaluation (identified by Lucy Cramp)(Appendix 5). The samples were floated with the residues collected using a 0.25mm mesh. The flot was examined under a hand lens at x10 magnitude. These samples were from features of Roman date apart from sample 31 from pit 303 (353) dated to the 'Beaker' period (late Neolithic/early Bronze Age).

Seventeen of the samples contained botanical remains but in extremely low densities, with little interpretative potential. The charred seeds were weeds of sedge and goosefoot, these, often in higher numbers, could suggest damp, disturbed habitats. The charcoal fragments noted were mostly less than 2mm, thus not suitable for taxon identification, however its presence has been noted in Appendix 5.

Flint by Steve Ford

A small collection comprising just three struck flints were recovered from the site. These comprised a broken scraper from ditch 316 (369) and two flakes from the top of ditch 319. None of the pieces have distinctive chronological attributes and could be Neolithic or Bronze Age in date. Two flakes and a scraper were recovered during the evaluation, along with a mesolithic blade core.

Animal bone by Ceri Falys

A small assemblage of animal bone was recovered from 13 contexts across the investigated area. A total of 187 fragments were present for analysis, weighing 574g (Appendix 4). The bone varied in preservation between contexts, with some deposits displaying exceptionally high fragmentation, while others displayed poor surface

preservation with frequent cortical exfoliation. No complete skeletal elements were present. The teeth were the elements most suitably preserved to allow for identification.

Many small unidentified fragments of long bone shafts were present, although not useful for species identification. Due to the lack of element duplication, it the minimum number of individuals (animals) was found to be four: a horse, a cow, a sheep/goat and a pig. The horse was identified by two teeth in context (461), the cattle individual was represented by a talus in context (389), as well as two teeth and a distal phalanx in context (461). The sheep/goat was primarily represented by small tooth fragments in context (321) and (461), and finally the pig was identified by the presence of a portion of mandible and several teeth in context (373). No further information could be determined from these remains.

Burnt bone by Ceri Falys

A single deposit of burnt bone was recovered from the top of feature 308 (362). The bone was whole-earth recovered in a series of three 0.02m spits, with a small amount also collected during surface cleaning of the feature. A total of 23g of burnt bone was present for analysis. The preservation of the bone was generally poor, as the remains were notably brittle and small in size, with a maximum fragment size of 18mm. All fragments were fully-oxidized white in colour, indicating they were subjected to sufficient time and heat for all of the organic components to be removed from the bone's composition. The remains were determined to be human, based on the presence of pieces of cranium, a tooth root and a small portion of the midshaft of an ulna. These few fragments were not able to provide any clues as to the age or sex of the individual represented, and no further information could be derived.

Discussion

Archaeological interest in this site was aroused when fieldwalking identified clusters of misfired Roman pottery, kiln debris and slag concentrations (Cheetham 1996). Later geophysical survey identified areas of possible subsoil features but, more notably, areas of possible intense burning, suggested to be kiln sites. Evaluation of the site by machine trenching as a response to this development proposal confirmed the presence of archaeological deposits of Roman date, and possibly identified the location of kilns, without showing any structural evidence for kilns themselves.

The earliest material recorded by the fieldwork described here is, though, of earlier prehistoric date. The presence of a few flints of mesolithic and later date is not unexpected from any site given the use and discard of

this material both on occupation sites and across the contemporary landscape, but in this instance a pit containing Beaker pottery of Early Bronze Age date was found along with a few residual sherds of similar pottery in Roman features. The likely presence of some prehistoric activity on the site was suggested by the presence of two previously recorded bronze finds, one a flat axe of Early Bronze Age date and the other a socketed axe of Late (CAMPAN WAND VIPAL - (APA IN DRF)) Bronze Age date, In the event, no other material of this latter period was found. Occupation deposits surviving as features cutting the subsoil of Early Bronze Age date are rarely encountered, and in Oxfordshire this is especially so for geological outcrops away from the gravel terraces of the Thames.

A small amount of Iron Age pottery was also recovered though no features were convincingly assigned to this period.

The observations made during construction of the scrapes has indicated that the dominant period of activity belongs to the 3rd century AD with only a small amount of Late Iron Age/ Early Roman (1st century) and 2nd century pottery recorded. However, this contrasts with the date of deposits examined in the previous evaluations where a number of the features investigated were considered to be of early Roman date. Figure 9 summarizes the phasing of the site. These deposits of early Roman date appear to represent a range of types (ditches/gullies, pits and postholes) typical of rural occupation sites for this period, without any obvious industrial specialization though small scale iron working was recorded. Tentatively, the focus of this earlier activity lies further to the west than the later Roman activity.

The later Roman activity recorded certainly comprises domestic activity and probably pottery production, though kiln sites are suspected but not yet definitively identified. Due to the 'keyhole' nature of the investigations here it is not possible to describe the layout and sequence of the site in any detail but it is clear that the settlement includes ditched enclosures and boundaries, perhaps trackways with both small and large linear features revealed. Pits, postholes and spreads (middens) are also noted.

Timby (above) has compared the site with other Roman pottery production sites within the Oxford region. Reasonable comparisons may be made with production sites such as at Lower Farm, Nuneham Courtenay (Booth 1993) or Churchill Hospital, Headington (Henig and Booth 2000). The work here would extend the known production area focused in the area immediate east of Oxford to north of the Beckley ridge. One contrast with these other Oxford production sites though is the apparent end of production and abandonment of the site before the end of the 3rd century; for the other Oxford sites, continued use and even increased output well into the 4th century is the norm.

The final comment on this project is a negative one and observes the lack of finds of medieval and post-

medieval date with respect to the possible medieval moated site on the northern boundary of Ashgrave.

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APPENDIX 1: List of features

Trench	Cut	Deposit	Group	Туре	Date	Dating evidence
		50		Topsoil	<u> </u>	
12	13	66-8	44	Ditch	Late Iron Age-1st Century AD	Pottery
13		59		subsoil		
13	10	64	43	Gully	2nd Century AD	Pottery
13	11	65	43	Gully	2nd Century AD	Pottery
13	14	70		Pit/Feature?	3rd Century AD	Pottery
14		56		Subsoil		
14	4	57	42	Gully		
14	5	58	41	Gully	Roman	Pottery
14	6	60	41	Gully	Roman /Pre Roman	Pottery
14	7	61	42	Gully	Roman	Pottery
14	8	62	42	Gully	Roman	Pottery
14	9	63	49	Gully	2nd/3rd Century AD	Pottery
15	<u> </u>	52	L	subsoil		Pottery
15		53		Dump/layer	3rd Century AD	Pottery
15		79		Dump/layer	3rd Century AD	Pottery
15	22	77		Kiln?	3rd Century AD	Pottery
15	23	78,80		Gully	3rd Century AD	Pottery
16	1	51	45	Gully	2nd/3rd Century AD	Pottery
16	2	54	45	Gully	Roman	Pottery
16		55		Spread	3rd Century AD	Pottery
18	36	93	45	Gully	Roman	Pottery
19	35	92	45	Gully	3rd Century AD	Association
20	33	89	45	Gully	3rd Century AD	Pottery
20	34		45	Gully	3rd Century AD	Association
25	15	71	43	Gully	2nd century AD	Pottery
25	17	72	43	Plough Scars		rollery
25	18	72		Plough Scars		
25	10	73		Gully	3rd Century AD	Datter
25	20	75	<u> </u>	Ditch/hollow	3rd Century AD	Pottery
27	20	75		Pit?	Sid Century AD	Pottery
27	21		<u> </u>	Pit?	2rd Cooner AD	Detter
29	27	84 85			3rd Century AD	Pottery
30	12	85 69	47	Possible Pit/dump		Pottery
	38	<u> </u>	47	Guily	Late Iron Age-1st Century AD	Pottery
30	38 39		44	Gully	Late Iron Age-1st Century AD	Pottery
30		97	44 !	Pit/ditch?	Late Iron Age-1st Century AD	Pottery
31	16	88	40	Ditch	Iron Age?	Pottery
32	29	867	48	Ditch	Late Iron Age-1st Century AD	Pottery
32	32	91, 156		Pit?	3rd Century AD	Pottery
32	31	155	44	Ditch	Iron Age-1st Century AD	Pottery
42	24	81		Ditch	2nd century AD	Pottery
42	25	82		Pit		<u> </u>
42	26	83, 98-9, 150-2		Pit		Pottery
42	40	153	46	Ditch	Iron Age-1st Century AD?	Pottery
6	37	94	45	Gully		l

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APPENDIX 1: List of features (cont'd).

B: From the recording action

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Cut	Deposit	Туре	Phase	Dating evidence
300	350	Linear terminus		
301	351	Linear gully		
302	352, 355	Lincar gully	2nd century AD	Pottery (but much residual too)
303	353	Pit/post-hole	Early Bronze Age	Pottery
304	354	Ditch	Post-medieval/modern	Stratigraphy
305	356	Ditch	Roman	Pottery
-	358	Spread	Roman	Pottery
-	359	Spread	Roman	Pottery
306	360	Gully (not dug)	Mid/late Roman	Pottery
307	361	Gully terminus	?Roman	Tile
308	362	Cremation within gully	Roman	Pottery
308	363	Guily	Roman	Association
309	364	Gully terminus	?Roman	Tile
310	365	Gully	Undated	
<u>311</u>	366	Gully terminus	Undated	
312	367	Gully	Undated	-
313	368	Gully	Undated	•
314	357	Pit/kiln deposit?	Late 3rd century AD	Pottery
316	369	Ditch	Late 3rd century AD	Pottery
317	370	Pit	Undated	•
318	371	Ditch, same as 316	3rd century AD	Pottery
319	372-5	Large ditch	3rd century AD	Pottery
320	377	Ditch	2nd century AD	Pottery
321	378	Ditch, same as 320	Roman	Pottery
322	379	Ditch	3rd century AD	Pottery
323	380	Pit	Roman	Pottery
324	376	Pit/ditch terminus	Roman	Pottery
325	381	Unexc. pit	Undated	-
326	382	Unexc. post-hole	Undated	-
327	383-4	Unexc. ditch	Roman	Association
328	385	Unexc. gully	Roman	Pottery
329	386	Unexc. ditch	Undated	-
330	387	Unexc. gully	Roman?	Pottery
331	388-92	Unexc. large ditch	3rd century AD	Pottery
332	393	Unexc. gully	3rd century AD	Pottery
333	394	Unexc. ditch	3rd century AD	Pottery
334	395	Unexc. gully terminus	Undated	•
335	396	Plough scar	?Modern	(?Pottery residual)
336	397	Unexc. ditch	3rd century AD	Pottery
337	398-9	Unexc. ditch	3rd century AD	Pottery
338	450	Unexc. guily	Roman	Pottery
339	451	Unexc. ditch	Roman?	Tile
340	452	Unexc. guily	Roman	Pottery
341	453-4	Unexc. ditch	3rd century AD	Pottery
342	455-6	Unexc. ditch	Roman	Pottery
-	457	Spread	3rd century AD	Pottery
343	458	Guily	Undated	-
344	459	Gully	Undated	-
345	460	Ditch	3rd century AD	Pottery
•	461	Plough soil (surface)	3rd century AD	Pottery
-	462	Plough soil (pond 47)	Roman	Pottery
-	463	Plough soil (pond 43)	Roman	Pottery
-	464	Plough soil (pond 42)	Roman	Pottery
346	465	Unexc. ditch, same as 319	Roman	Association

APPENDIX 2: Pottery

	Fabric	Description	No	No %	Wt	W1 %	EVE	% EVE
IMPORTS	LEZ ŜA	Central Gaulish samian	5	0.2	10.5	-	10	0.4
	CNG BS	Central Gaulish black-slipped ware	2	0.1	1	-	-	-
REGIONAL	DOR BB1	Dorset black burnished ware	12	0.5	61	0.2	10	0.4
	LNV CC	Lower Nene Valley colour-coat	2	0.1	6	-	-	-
	VER WH	Verulamium white ware	1	-	10	-	-	-
LOCAL	BW ·	black sandy ware	18	0.7	114	0.4	37	1.5
	BWGR	black grog-tempcred	15	0.6	44.5	0.2	8	0.3
	GREY	grey sandy wares	19	0.8	147	0.6	26	1.0
	GRSJ	hm grog-tempered storage jar	9	0.4	999	3.8	21	0.8
	GROG	hm and wm grog-tempered	23	0.9	229	0.9	7	0.3
	GRSA	hm sandy with grog	3	0.1	100	0.4	15	0.6
	GRLI	grog and limestone/shell	35	1.4	465	1.8	18	0.7
	GROR	grog and organic-tempered	19	0.8	124.5	0.5	14	0.5
	GYGR	grey grog-tempered	32	1.3	514	2.0	58	2.3
	OXIDSY	medium sandy ware	98	4.0	772	2.9	172	6.8
	OXGR	oxidised grog-tempered	20	0.8	255	1.0	19	0.7
	OXF BWH	Oxon burnt white ware	7	0.3	91	0.3	17	0.7
	OXF OX	Oxon oxidised wares	1034	41.9	6365	24.3	819.5	32.2
	OXF RE	Oxon grey wares	499	20.2	5004	19.1	455	17.9
	OXF REF.	fine grey ware	18	0.7	77	0.3	43	1.7
	OXF RS	Oxon colour-coated ware	4	0.2	16	0.1	-	0.0
	OXF WH	Oxon whiteware	147	6.0	1080.5	4.1	293	11.5
	OXF WHM	Oxon whiteware mortaria	427	17.3	9623	36.7	504	19.8
	OXF WS	white-slipped oxidised	4	0.2	9	-	-	-
	OXLI ·	oxidised limestone-tempered	1	-	28	0.1	•	-
	SHELL	shelly wares	1	-	4	0.0	-	-
UNKNOWN	MISCSY	miscellancous sandy	13	0.5	78	0.3	-	-
TOTAL	•	-	2468		26228		2546.5	
(EVE x	100)							

Table 1: Summary of pottery by fabric

Table 2: Summary of pottery forms by Estimated Vessel Equivalent (x100)

Form	Young type	EVE	% EVE
Jar		1321	51.7
Bowl		89	3.5
Dish		36	1.4
Mortaria	unclass.	130	5.1
	M10	48	1.9
	M10/11	16	0.6
	M11	35	1.4
	M12	18	0.7
	M17	170	6.6
	M18	36	1.4
	M19	17	0.7
	M20	26	1.0
	M21	1	0.0
Flask	07	32	1.3
Flagon	W9, W15	289.5	11.3
Beaker	O19, O20	288	11.3
Lid		5	0.2
TOTAL		2557.5	

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APPENDIX 2: Pottery (cont'd)

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Table 3: Catalogue of pottery by context

Trench 9	Cut	Context surf	<i>Fabric</i> OXFRE	Form XI	Wt 10	No	Rim 1	Eve 5	Comment R76
· 9		surf	OXFOX	***	6	ι	•	~	
9		surf	OXFOX		3	ì			
· 11		subs	OXFOX	I	116	9	2	8	
11 .		subs	OXFOX	I			1	7	
. 11		subs	OXFRE		18	1			
11		subs	OXFWH		10	1			
11		subs	OXFWHM		242	13			discoloured
11			OXFOX	112	13		1	8	Young Ol0
11			OXFWHM	M20?	92	2	1	8	
. 12	13	68	IACALC	l	10		1	3	?LIA
12	13	67	OXFRE	12	10		1	4	R20
12 12	13	67	GRLI		30	4			
12	13 11	66 65 .	BW		6	1			
· 13	11	65 ·	BWNSY OXFOX		12 20	1 3			
13	ü	65	OXFRE	12	45	3	2	22	R20
13	ü	65	GYGR	12	220	13	2	17	R20
13	11	65	GRLI	112	28	9	2	17	
13	10	64	OXGR	11	112	7	1	12	as G4
13	10	64	GRSJ	14	424	•	1	21	
13	10	64	GRLI		14	2			
- 13	10	64	GROG		133	2			
13	10	64	OXFOX		5	1			
<u>1</u> 3	10	64	OXFRE		95	19			
13		subs	OXFWHM	M11	98	4	1	7	*
13		subs	OXFOX		16	3			
· 13		subs	OXFWH		20	1			
13 . 14	14	subs	OXFWHM		37 6	2			
14	14 14	70 70	BA? BWGR		8	1 1			
14	14	70	OXFOX		12	6			
14	14	70	OXFWH		5	2			
14	14	70	OXFWHM		6	ī			
14	14	70	OXFWHM		18	1			
14	14	70	OXGRSJ		11	1			
14	9	surf	OXFWH?		7	1			
14	9	surf	OXGR		40	ι			
14	6	surf -	BWNSY		9	1			
· 14	4	57	00		31	1		_	
14	-	56	OXFRE	112	24	1	1	8	
. 14 14		56 56	OXFOX OXFOX		15 12	4			
15	23	85	GRSJ		28	3 1			
15	23	85	PNKSY		20	1			
15	23	78	OXFOX	I	20	•	1	10	
- 15	23	78	OXFRE	i			i	10	2=1
15	23	78	OXFOX	i			i	8	
15	23	78	OXFRE	1			ł	7	
15	23	78	OXFRE	111			1	17	
15	23	78	OXFRE	I2	355		1	88	1 VESSEL second; Ige air bubbles R24
· 15	23	78	OXFOX	16			1	10	
15	23	78	OXFOX	17	<u>.</u> -		3	25	
. 15	23	78	OXFWH	II	25		1	7	*W52 240-400+
15	23	78	OXFWHM				2	16	no flange
15 15	23 23	78 78	OXFWHM OXFWHM	IX IX			1	8 7	
15	23	78	OXFWHM	ix			1 1	7	
15	23	78	OXFWHM	M*			1	5	
15	23	78	OXFWHM	MIO	190	1	1	13	*
15	23	78	OXFWHM	MI2		•	i	5	180-240?
15	23	78	OXFWHM	M17			3	47	
15	23	78	OXFOX	VI	134	10	5	50	Young O20 240+
15	23	78	OXFOX	VI	85	10	3	32	* Young O20
15	23	78	OXFOX	VI	52	5	1	25	rouletted, Young O19? *
. 15	23	78	OXFOX	VI			1	20	* Young O20
15	23	78	OXFRE	VI	410	1.7	1	17	R31
15 15	23 23	78 78	OXFRE	VI	210	15	1	13	240-400 R31
15	23	/0	OXFRE	VI			1	10	R31
		•							

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3 78 OXFWH VII 1 100 ?W15 3 78 OXFWH W15 145 9 1 100 ?W15 3 78 OXFOX 307 39 1 100 ?W15 3 78 OXFOX 177 53 1 100 ?W15 3 78 OXFOX 177 53 1 100 ?W15 3 78 OXFRE 108 10 3 3 78 OXFRE 12 38 1 1 7 3 78 OXFWH 7 1 7 1 7 1 7 1 7 1 7 1 7 1 1 1 * 1 1 * 1 1 * 1 * 1 * 1 1 * 1 1 * 1 1 * 1 1 * 1 1 1 1 * 1 1 1 1 1 1 <	Trench 15	Cut 23	Context 78	Fabric OXFOX	<i>Form</i> VI tri	Wt 57	No 63	Rim 3	35	Comment Young O2
3 78 OXFOX 307 39 3 78 OXFOX 177 53 3 78 OXFRE 177 53 3 78 OXFRE 108 10 3 78 OXFRE 12 6 3 78 OXFRE 12 6 3 78 OXFWH 7 1 3 78 OXFWH 7 1 3 78 OXFWH 7 1 2 77 OXFWHM 10 1 7 2 77 OXFWH 10 1 1 * 2 77 OXFWH 100 1 8 1 2 77 OXFWH 101 1 8 1 3 0XFOX<	15 15 15	23 23 23	78	OXFWH	VII			1	100	?W15
3 78 OXFOX 18 25 3 78 OXFRE 870 55 3 78 OXFRE 108 10 3 78 OXFRE 12 38 3 78 OXFWH 7 1 3 78 OXFWH 7 1 3 78 OXFWH 7 1 2 77 OXFWHM 10 1 1 2 77 OXFWHM M20? 134 1 11 * 2 77 OXFWH 10 1 3 1 8 2 77 OXFWH 10 1 1 8 2 77 OXFWH 10 1 1 8 3W OXFWH M10 101 3 1 8 SW OXFWM M10 132 17 1 10 53 OXFOX 1 132 17 1 10 53 OXFOX 1 <td< td=""><td>15 15</td><td>23 23</td><td>78</td><td>00</td><td></td><td>3</td><td>1</td><td>•</td><td></td><td>210 500</td></td<>	15 15	23 23	78	00		3	1	•		210 500
3 78 OXFRE 108 10 3 78 OXFRE 212 38 3 78 OXFWH 7 1 3 78 OXFWH 7 1 3 78 OXFWHM 7 1 3 78 OXFWHM 7 1 2 77 OXFWHM 1 1 1 2 77 OXFWHM M20? 134 1 11 * 2 77 OXFOX 20 2 1 * * 2 77 OXFWHM M10 101 3 1 8 SW OXFWHM M10 1 8 * red core SW OXFOX 37 7 * * red core SW OXFOX 1 132 17 1 10 79 OXFOX 1 132 17 1 10 53 OXFOX 1 15 5 53 0XFOX 11 <td>15 15</td> <td>23 23</td> <td>78 ·</td> <td>OXFOX</td> <td></td> <td>18</td> <td>25</td> <td></td> <td></td> <td></td>	15 15	23 23	78 ·	OXFOX		18	25			
3 78 OXFRE 12 6 3 78 OXFWH 7 1 3 78 OXFWHM 775 26 3 78 OXFWHM 77 1 2 77 OXFWHM 10 1 1 2 77 OXFWHM M202 134 1 11 2 77 OXFWHM M202 134 1 11 * 2 77 OXFWH M202 134 1 1 * 2 77 OXFWHM M202 134 1 1 * 2 77 OXFWH 16 3 * * 2 77 OXFWH M10 101 3 1 8 SW OXFWH M10 101 3 1 8 * SW OXFOX 2 1 10 * 1 6 53 OXFOX 1 132 17 1 10 1	15 15	23 23 23	78	OXFRE		108	10			
3 78 OXFWH 12 3 3 78 OXFWHM 77 26 3 78 OXFWHM 1 1 7 2 77 OXFWHM 1X 1 7 2 77 OXFWHM M202 134 1 11 * 2 77 OXFOX 20 2 1 * * 2 77 OXFOX 8 1 * * * 2 77 OXFWH 16 3 * * * 2 77 OXFWHM M10 101 3 1 8 SW OXFWHM M10 101 3 1 8 * SW OXFOX 2 1 * * * * * 79 OXFOX 1 132 17 1 10 * * * * * * * * * * * * * * * <td< td=""><td>15 15 15</td><td>23 23 23</td><td>78</td><td>OXFRE</td><td></td><td>12</td><td>6</td><td></td><td></td><td></td></td<>	15 15 15	23 23 23	78	OXFRE		12	6			
3 78 OXFWHM IX I 7 2 77 OXFWHM IX I 7 2 77 OXFWHM M20? 134 I 11 * 2 77 OXFOX 20 2 I 11 * 2 77 OXFOX 8 I - - 2 77 OXFWH 16 3 - - 2 77 OXFWH 16 3 - - 2 77 OXFWHM M10 10 3 1 8 50 OXFWHM M10 10 3 1 8 - 50 OXFWHM M10/11 53 2 - red core \$20 OXFOX 1 132 17 10 - 53 OXFOX 1 132 17 10 - 53 OXFOX 17 28 2 10 - 53 OXFOX 17 80 <t< td=""><td>15 15</td><td>23 23</td><td>78</td><td>OXFWH</td><td></td><td>12</td><td>3</td><td></td><td></td><td></td></t<>	15 15	23 23	78	OXFWH		12	3			
2 77 OXFOX 20 2 1 2 77 OXFOX 8 1 2 77 OXFRE 7 1 2 77 OXFWH 16 3 tops OXFWHM M10 1 3 1 8 SW OXFWH M10 1 3 1 8 SW OXFWH M10 1 3 1 8 SW OXFWH M10 1 3 1 8 SW OXFOX 37 7 - red core SW OXFOX 1 132 17 1 10 53 OXFOX 1 132 17 1 10 53 OXFOX 1 132 17 1 10 53 OXFOX 1 22 1 12 R20 53 OXFOX 17 28 2 1 10 53 OXFOX 17 80 42 1 <td< td=""><td>15 15</td><td>23 22</td><td>78</td><td>OXFWHM</td><td>ıx</td><td></td><td></td><td>1</td><td>7</td><td></td></td<>	15 15	23 22	78	OXFWHM	ıx			1	7	
2 77 OXFRE 7 1 2 77 OXFWH 16 3 tops OXFOX 5 1 SW OXFWHM M10 101 3 1 8 SW OXFWHM M10 101 3 1 8 SW OXFWHM M10 1 3 1 8 SW OXFWHM M10/11 53 2 red core SW OXFRE 10 1 7 9 79 OXFOX 1 132 17 1 10 53 OXFOX 1 132 17 1 10 53 OXFOX 1 132 17 1 10 53 OXFOX 1 12 R20 13 132 11 12 R20 53 OXFOX 17 28 2 1 10 14 12 15 17 53 OXFOX 17 80 42 1 8 17<	15 15	22 22	77		M20?		2		11	*
tops OXFOX 5 1 SW OXFWHM M10 101 3 1 8 SW OXFWHM M10 1 8 red core SW OXFOX 37 7 red core SW OXFOX 37 7 red core SW OXFOX 37 7 red core SW OXFRE 10 1 7 SW OXFOX 2 1 10 53 OXFOX 1 132 17 1 10 53 OXFOX 1 1 1 5 1 53 OXFOX 17 80 32 1 12 R20 53 OXFOX 17 80 42 1 8 1 53 OXFRE Ipend 60 4 1 11 R17 53 OXFWH 1X 272 1 10 10<	15 15	22 22	77	OXFRE		7	1			
SW OXFWHM M10 1 8 SW GY 6 2 red core SW OXFOX 37 7 SW OXFRE 10 1 79 OXFOX 2 1 53 OXFOX 1 15 53 OXFOX 1 12 R20 53 OXFOX 17 28 2 1 53 OXFOX 17 80 42 1 8 53 OXFRE 17 1 5 R17 53 OXFRE Ipend 60 4 1 11 R17 53 OXFWH 1X 29 3 53 OXFWH 125 240-300 53	15 15	22	tops	OXFOX		5	1		~	
SW OXFOX 37 7 SW OXFRE 10 1 79 OXFOX 2 1 53 OXFOX I 132 17 1 10 53 OXFOX I 132 17 1 10 53 OXFOX I 1 5 5 53 OXFOX I 1 5 53 OXFOX I 1 6 53 OXFOX I7 28 2 1 10 53 OXFOX I7 80 42 1 8 53 OXFOX I7 80 42 1 8 53 OXFOX I7 80 42 1 8 53 OXFRE Ipend 60 4 1 11 R17 53 OXFWH IX 272 12 1 10 53 OXFWH IX 29 3 11 11 11 11 11 11 <td< td=""><td>15 15 15</td><td></td><td>SW ·</td><td>OXFWHM</td><td></td><td></td><td></td><td></td><td></td><td>and some</td></td<>	15 15 15		SW ·	OXFWHM						and some
79 OXFWHM M10/11 53 2 79 OXFOX 2 1 53 OXFOX 1 132 17 1 10 53 OXFOX 1 132 17 1 10 53 OXFOX 1 1 5 5 5 5 7 1 10 53 OXFOX 1 2 80 32 1 12 R20 53 OXFOX 17 28 2 1 10 5 53 OXFOX 17 80 42 1 8 5 53 OXFOX 17 80 42 1 8 5 53 OXFRE Ipend 60 4 1 11 R17 53 OXFWH 1X 29 3 5 5 240-300 53 OXFWH 1X 29 3 5 5 240-300 53 OXFOX 118 10 5 5 240 <	15 15 15		SW .	OXFOX		37	7			
53 OXFOX I 1 6 53 OXFOX I 1 5 53 OXFRE 12 80 32 1 12 R20 53 OXFOX I7 28 2 1 10 53 OXFOX I7 28 2 1 10 53 OXFOX I7 80 42 1 8 53 OXFOX I7 80 42 1 8 53 OXFRE Ipend 60 4 1 11 R17 53 OXFWHM IX 272 12 1 10 53 OXFWH IX 272 20 2 53 53 OXFOX 52 14 53 53 0XFWH 1 </td <td>15 15</td> <td></td> <td>79 79</td> <td>OXFWHM</td> <td>M10/11</td> <td>53 2</td> <td></td> <td></td> <td></td> <td></td>	15 15		79 79	OXFWHM	M10/11	53 2				
53 OXFRE 12 80 32 1 12 R20 53 OXFOX 17 28 2 1 10 53 OXFOX 17 93 9 1 8 53 OXFOX 17 93 9 1 8 53 OXFOX 17 80 42 1 8 53 OXFRE 17 80 42 1 8 53 OXFRE Ipend 60 4 1 11 R17 53 OXFWH 1X 272 12 1 10 53 OXFWH 1X 29 3 3 53 OXFWH 1X 29 3 3 53 OXFWH 1X 29 4 3 3 3 53 OXFOX 52 14 14 25 240-300 53 OXFRE 29 4 1 15 1 1 53 OXFRE 140 9 <	15 15		53	OXFOX	I	132	17	1	6	
53 OXFOX 17 93 9 1 8 53 OXFOX 17 80 42 1 8 53 OXFRE 17 80 42 1 8 53 OXFRE 17 1 5 R17 53 OXFRE Ipend 60 4 1 11 R17 53 OXFWH 1X 272 12 1 10 10 53 OXFWH 1X 29 3 - - - - 53 OXFWH W15 10 4 1 25 240-300 53 OXFWH W15 10 4 1 25 240-300 53 OXFWH 118 10 - - - - 53 OXFRE 29 4 - - - - - 53 OXFRE 30 3 - - - - - - - 53 OXFWH 13 </td <td>15 15 15</td> <td></td> <td>53</td> <td>OXFRE</td> <td>12</td> <td></td> <td></td> <td>1</td> <td>12</td> <td>R20</td>	15 15 15		53	OXFRE	12			1	12	R20
53 OXFRE I7 1 5 RI7 53 OXFRE Ipend 60 4 1 11 R17 53 OXFWHM IX 272 12 1 10 53 OXFWHM IX 29 3	15 15 15		53	OXFOX	17	93	9	1	8	
53 OXFWHM IX 29 3 53 OXFWH W15 10 4 1 25 240-300 53 GY 20 2 2 2 2 2 2 2 2 2 3 0 300 53 0 300 53 0 3	15 15		53	OXFRE OXFRE	17			1	5	
53 GY 20 2 53 OXFOX 52 14 53 OXFOX 118 10 53 OXFRE 29 4 53 OXFRE 30 3 53 OXFRE 30 3 53 OXFRE 140 9 53 OXFRE 140 9 53 OXFRE 36 10 53 OXFWH 13 1 53 OXFWH 10 5 53 OXFWH 16 5 53 OXFWH 8 1 53 OXFWH 83 5 53 OXFWHM 83 5 53 OXFWHM 30 2 52 OXFWH 1258 19 52 OXFRE 1 <td< td=""><td>15 15</td><td></td><td>53</td><td>OXFWHM</td><td>IX</td><td>29</td><td>3</td><td>•</td><td></td><td></td></td<>	15 15		53	OXFWHM	IX	29	3	•		
53 OXFOX 118 10 53 OXFRE 29 4 53 OXFRE 30 3 53 OXFRE 140 9 53 OXFRE 36 10 53 OXFRE 36 10 53 OXFWH 13 1 53 OXFWH 10 5 53 OXFWH 16 5 53 OXFWH 8 1 53 OXFWH 88 1 53 OXFWH 80 2 53 OXFWH 80 2 53 OXFWH 81 5 53 OXFWH 80 2 53 OXFWH 83 5 53 OXFWHM 83 5 53 OXFWHM 80 2 53 OXFWHM 80 2 53 OXFWHM 80 2 54 OXFWHM 10 2 52 OXFWHM 1258	15 15		53	GY	W15	20	2	1	25	240-300
53 OXFRE 30 3 53 OXFRE 140 9 53 OXFRE 36 10 53 OXFWH 13 1 53 OXFWH 10 5 53 OXFWH 10 5 53 OXFWH 16 5 53 OXFWH 8 1 53 OXFWH 8 1 53 OXFWH 8 2 53 OXFWH 8 5 53 OXFWHM 83 5 53 OXFWHM 80 2 53 OXFWHM 30 2 53 OXFWHM 300 2 52 OXFWH 10 9 52 OXFWH 1258 35 1 52 OXFOX 1 258 35 1 52 OXFRE I 1 10	15 15 15		53	OXFOX		118	10			
53 OXFRE 36 10 53 OXFWH 13 1 53 OXFWH 10 5 53 OXFWH 10 5 53 OXFWH 16 5 53 OXFWH 16 5 53 OXFWH 8 1 53 OXFWH 8 1 53 OXFWH 8 1 53 OXFWH 8 1 53 OXFWHM 83 5 53 OXFWHM 80 2 53 OXFWHM 30 2 52 OXFWHM 30 2 52 OXFWH 1 9 52 OXFWH 1 1 52 OXFOX 1 258 35 1 12 52 OXFRE I 1 10	15 15		53	OXFRE		30	3			
53 OXFWH 57 1 53 OXFWH 16 5 53 OXFWH 8 1 53 OXFWH 8 1 53 OXFWHM 58 2 53 OXFWHM 83 5 53 OXFWHM 80 2 53 OXFWHM 30 2 52 OXFWHM (M17) 327 6 1 9 52 OXFWE I 22 20 52 OXFRE I 1 12 52 OXFRE I 1 10	15 15		53	OXFWH		13	1			
53 OXFWH 8 1 53 OXFWHM 58 2 53 OXFWHM 83 5 53 OXFWHM 40 4 53 OXFWHM 30 2 52 OXFWHM (M17) 327 6 1 9 52 OXFWE I 2 20 52 OXFRE I 1 10	15 15		53	OXFWH		57	l			
53 OXFWHM 83 5 53 OXFWHM 40 4 53 OXFWHM 30 2 52 OXFWHM (M17) 327 6 1 9 52 OXFRE I 2 20 52 OXFRE I 258 35 1 12 52 OXFRE I 1 10	15 15 15		53	OXFWH		8	1			
53 OXFWHM 30 2 52 OXFWHM (M17) 327 6 1 9 52 OXFRE I 2 20 52 OXFOX I 258 35 1 12 52 OXFRE I 1 10	15 15 15		53 -	OXFWHM		83	5			
52 OXFRE I 2 20 52 OXFOX I 258 35 1 12 52 OXFRE I 1 10	15 15		53	OXFWHM	(M17)	30	2	1	9	
	15 15		52	OXFOX	I	258	35	1	12	
	15 15		52 -	OXFOX	I			1	7	
52 OXFOX I 1 6 52 OXFOX I I 6 52 OXFOX I I 5	15 15 15		52	OXFOX	I			-	6	
52 OXFRE I hook 923 4 1 5 R20 52 OXFRE 17 2 7 R17	15 15		52	OXFRE	I hook	923	4	-	5	
52 OXFRE 17 83 4 1 7 R17 52 OXFWHM IX 1 10 bkn flang	15 15		52 52	OXFRE OXFWHM	IX			1	10	
52 OXFWHM IX 290 13 1 7 52 OXFWHM IX 1 7 1 7 52 OXFWHM IX 1 7 1 7	15 15		52	OXFWHM	IX	290	13	I	7	L1 7
52 OXFWHM IX I 6	15 15 15		52	OXFWHM	IX	105	25	I	6	bkn flang Young O

Trench	Cut	Context	Fabric	Form	Wt	No	Rim	Eve	Comment
15 15		52 52	OXFWH OXFWH		12 23	1 6			
15	3	55	OXFOX	17	23 21	U	1	8	
16	2	54	OXFRE		12	2			
16			OXFWHM	M17	295	4	1	3	
16 16			OXFOX OXFWHM		39 55	3 3			
16	•	subs	OXFWHM	IX	33	د	ł	8	
16		subs	OXFWHM	MH	348	8	1	8	
16		subs	OXFWHM	MH			1	4	180-240?
16 16		subs subs	GYGR OXFOX		10 36	1			
16		subs	OXFRE		6	i			
16		subs	OXFWHM		40	3			
16		51	OXFWH		22	8			
16 18	36	51 93	OXFWHM OXFWH		200 3	3			or OXFRE
20	33		OXFWH		ň	i			U OATRE
25	19	74	OXFWH	I/VI	5		1	10	
25	19	74	OXFRE	12	7		1	8	R20
25 · 25	19 19	74 74	BWSY OXFRE	11 R 18	7 91	1	1	7 17	handled, 250-400 R
25	19	74	OXFOX	RIO	5	i	•	••	111111111111111111111111111111111111111
25	19	74	OXFWHM		15	1			
25	18	73	OXFOX	17	27	1	1	12	
25 25	18 17	73 72	OXFRE BWSY	1	27 8	I	1	7	
25 .	17	72	OXFWHM	M17	117	3	î	5	
25	17	72	GRSJ		53	1			
25	17	72	OXFOX		61	4			
25 25	17 15	72 71	OXFRE GRLI	1	6 280	1 3	2	6	hm. Blackened inter
25	15	71	OXFRE	B	130	8	ĩ	13	x3 barbotine dots; R
25	15	71	GRLI		6	t			
25	15	71	OXFOX	N/10/11	10	2		4	
25 25		surf surf	OXFWHM OXFWHM	M10/11 M12	156	3	1 2	6 13	
25		surf	GROG		29	3			hm
25		surf	OXFOX		55	8			
25 25		surf surf	OXFRE OXFRE		26 15	2 1			
25		surf	OXFWHM		33	1			
25		subs	OXFWHM	IX		•	1	5	
25		subs	OXFWHM	M10/11	235	3	1	10	
25 25		subs . subs	OXFWHM OXFWH	M17	30 10	1 1			
25		sheap	OXFWHM	M10	10	L	1	7	180-240
25		sheap	OXFWHM	2M20	50		1	7	
25		shcap	OXFRE		10	1			overfired
25 25		nr 18 - nr 18	OXFWH OXFWHM		46 50	1 1			
26		ploughs	BWNSY		10	3			
26		ploughs	OXFOX		6	1			
27	20	75	OXFOX	112	28	4	1	7	Young Ol0
27 27	20 20	75 · 75	OXFWH OXFWHM	19 IX	23	1	1	7 7	W34
27	20	75	OXFWHM	M 11	267	10	1	8	
27	20	75	OXFWHM	M11			1	8	
27 27	20 20	75 75	BWSY OXFOX		4 6	1 2			
27	20	75	OXFOX		7	2			
27	20	75	OXFWHM		79	3			
27		subs	OXFWHM	M21	27	1	1	1	
27		subs	00 OVERE		4 10	20			
27 29	27	subs 84	OXFRE OXFOX		27	1 3			
29		subs	OXFWHM	M17	50		1	7	
30	38	95	IACALC		2	1			
30 30	38 12	95 69	IACALC GROG		13 10	2 2			
31	12	88	IACALC		5	1			
32	32		GYGR	17	31	•	1	12	
32	32		GRSA	II	100	1	2	15	profile C1 st AD *
32	31	155	IACALC		29	5			
32	29	87	IACALC		11	4			
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32	Cut 29	Context 86	Fabric GROG	Form I	Wt 14	No	Rim 1	7	Comment * as Sil G4
32 32	29 29	86 86	GYGR	112	11	3	1	6	
36	29	subs	IACALC OXFOX		32 10	3 1			
39			OXFWHM		7	ī			
42	40	153 -	BWSY	12	5		1	7	
42	26	151	GROG		27	12			
42	26	99	GRLI		7	3	•		
42 42	24 24	81 81	GRLI	112	100	9	2	12	wavy line overfire
42	24	81	OXFOX OXFRE		2 15	1 2			
43	24	01	GROG		10	2			
	Pond 51		GYGR		10	ĩ			
	Pond 51		OXFOX		100	19			
	Pond 51		OXFWH		24	4			
	Pond 51		OXFWHM	17	162	14		•	
	Pond 50 Pond 50		OXFOX OXFOX	17 11/1X	15 42		1	9 10	
	Pond 50		DORBBI	10171	1	1		10	
	Pond 50		OXFOX		90	19			
	Pond 50		OXFRE		55	10			
	Pond 50		OXFWH		30	1			
	Pond 50		OXFWHM		124	6		-	
	Pond 47 Pond 47		GYSY	11	4		1	5 7	11/22
•	Pond 47 Pond 47		OXFWH OXFRE	112	38 6	1 1	1	1	W33
	Pond 47		OXFWH		1	1			
	Pond 47		OXFWHM		55	3			
	Pond 44		OXFWHM	IX	81	4	1	7	
	Pond 44		BW		4	1			
	Pond 44		OXFOX		48	11			
	Pond 44		OXFRE	110	8 12	3	1	-	
	Pond 43 Pond 43		OXIDSY OXFOXF	112 112	12		1	7 3	Young O10
	Pond 43		OXIDSY	112	36	3		5	Toung OTO
	Pond 42		OXFRE		6	2			
	Pond 42		OXFWH		83	4			
	Pond 42		OXFWHM		35	3			
	Pond 40		OXFWHM	M17	68	4			
	Pond 37 Pond 36		BUFF OXFOX	112	27 21	5 6	1	10	Young Old
	Pond 36		OXFRE	12	10	0	1 1	3	Young O10 R20
	Pond 36		OXFWH		5	1		5	N10
	Pond 36		OXFWHM		31	2			
	Pond 36		PMGRE		80	1			
	Pond 19		OXFOX	FR 4.04	5	1	~		
	345 345	460 460	OXFOX OXGR	FLASK Ihook	10 35	3	2	32 7	Young O7
	345	460	ORGGR	HIOOK	18	3	1		
	345	460	OXFOX		480	21			
	345	460	OXFRE		22	3			
	345	460	OXFWH		1	1			
	345	460	OXFWHM		140	10			
	345	460	OXFWHM		5	1			
	345 343	460 458	OXIDSY GROG		4 6	1			wheelmade
	343	455	OXFRE	XII/Ih	11	1	1	7	wheethaue
	342	455	GYGRSJ		39	1	•	•	
	342	455	OXFOX		11	i			
	341	454	GYGR		12	1			
	341	454	OXFOX		16	4			
	341 341	454 454	OXFRE		20 7	4			
	341 341	454 454	OXFREF OXFWHM		/ 98	2 3			
	341	453	OXFOX	17	234	23	2	20	
	341	453	OXFOX	ü	54	9	2	9	not in Young
	341	453	OXFWHM	M17	20	1			0
	341	453	GYGRSJ	х	305	1			
	341	453	OXFREF		4	3			
	341	453	OXFWH		5	3		~	•
	340 338	452 450	OXFWHM	M17	77 0.5	1	t	8	*
	338	450 450	BWGR OXFREF		0.5	1			
	337	399	OXFREF	VI2	34	3	3	31	R30
	337	399	OXFOX		22	Š	-	- •	

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Trench ·	Cut	Context	Fabric	Form	Wt	No	Rim	Eve	Comment
	337 337	399	OXFRE	22	55	3			
	337	398 398	LEZSA OXFOXF	33 112	0.5 5	1	1	5	Young O1
	337	398	OXFOX	112	49	13	i	ĩ	Young Ol
	337	398	GYSY		8	ĩ	•	-	i oung o i
	337	398	OXFWH		19	3			
	337	398	OXFWHM		23	2			
	337 336	398 397	OXFWS		1	1			
	336	397	GYSY OXFOX	1	11 9	2 8	1	8	
	336	397	OXFRE		ź	1			
	336	397	OXFWHM		54	1			
	335	396	OXFRE	L	38	2	1	12	Young R1
	335	396	OXFOX	17	112	7	2	12	
	335 333	396	GYSY	MID	21	6		175	V 01
	333	394 394	OXFOXF DORBB1	VII?	3 1	1	1	17.5	Young O7
	333	394	OXFOXF		2	i			
	333	394	OXFRE		25	8			
	333	394	OXFWHM		24	3			
	332	393	OXFRE	II	13		1	5	R17
	332	393	BWGR		2	1			
	332 332	393 393	LEZSA OXFOX		0.5	l			
	332	393	OXFOX		10 11	1 8			
	332	393	OXFRE		3	ĩ			
	332	393	OXFREF		2	1			
	332	393	OXFWH		0.5	2			
	332	393	OXFWHM		11	1	_	-	
	331 331	392 392	OXIDSY	17	4		1	7	D21
	331	392	OXFREF GYSY	VB	2 3	1	1	12	R31
	331	392	OXFOX		3	2			
•	331	392	OXFWHM		3	ī			
	331	392	OXGR		15	2			
	331	391	LEZSA		0.5	1			
	331 331	391 391	OXFOX OXFRE		22 8	5 3			
	331	391	OXFWH		ŝ	3			
	331	391	OXFWHM		19	2			
•	331	390	GYGR		72	3			
	331	390	OXFREF		3	3			
	331	389	GYGR		20	2			4=2
	331 331	389 389	GYGRSA OXFOX		2	1 2			
	331	388	OXFRE	12	6	2	1	10	R20
	331	388	GYGR		20	1	•	10	NLO
	331	388	OXFOX		6	3			
	331	388	OXFWH		2	1			
	331	388	OXFWHM		24	1			
	330	387	GY		29	1			
	329 329	385 385	OXFOX DORBB1	I	3 2	1	1	4	
	329	385	OXFREF		24	1			
	327	384	BW	17	7	1	1	1	
	327	384	OXFWH		7	2			
	324	376	OXFBWH		19	1			
	324	376	BW		4	1 2			
	324 324	376 376	ORGGR OXFOX		5 115	1			
	323	380	ORGGR		1	2			
	322	379	LEZSA	31	8	-	1	10	
	322	379	OXFOX	112	81	22	3	20	Young OI
	322	379	OXFBWH	19	72	4	2	17	
	322	379	OXFWHM	M10	62	~	1	12	*
	322 322	379 379	OXFWHM	M17	147 4	5 1	1	11	
	322	379	BKR? BWSY		4 5	2			
	322	379	OXFRE		14	3			
	322	379	OXFWH		49	7			
	322	379	OXIDLI		28	1			
			A						
	321	378	OXFOX		1	2			
	321 321 321	378 - 378 378	OXFOX OXFWHM OXGR		1 2 7	2 1 3			

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Trench	Cut 320 320 320	Context 377 377 377	<i>Fabric</i> OXFOXF OXFRE OXFWH	Form	Wt 22 12 0.5	No 7 1	Rim	Éve	Comment
	319	SURF	OXFOX	I	4	•	1	6	
	319 319	SURF SURF	OXFOX OXFOX	112 112	10 10		1 1	8 8	Young Ol Young Ol
	319 319	SURF SURF	OXFOX OXFOX	112 112	9 11		1	7 6	Young Ol
	319	SURF	OXFOX	112	7		i	6	Young OI Young OI
	319 319	SURF SURF	OXFOX OXFRE	112 12	9 168	13	1	5 3	Young O1 R20
	319 319	SURF SURF	OXFOX OXFOX	17 17	20 23		1 1	12 8	
	319	SURF	OXFOX	17	6		1	5	
	319 319		OXFOX OXFRE	17 17	5 7		1 1	5 5	R17
	319 319	SURF	OXFOX	17	11		1	3	
	319	SURF SURF	OXFOX OXFOX	lhook Ihook	8 9		1 1	6 5	Young Ol Young Ol
	319 319	SURF SURF	OXFOX OXFWHM	lhook IX	8 86	4	1 1	5 6	Young Ol
	319	SURF	DORBBI	121	5	1	•	v	
	319 319	SURF SURF	GYSY LEZSA		4 1	1 1			
	319 319	SURF SURF	LNVCC OXFOX		1 474	1 73			
	319	SURF	OXFWH		97	5			
	319 319	SURF [*] 375	OXGRSJ OXFOX	1	35 18	1 8	1	5	
	319 319	375 375	OXFRE OXFOX	l 17	147 35	15	1 8	5 20	
	319	375	OXFOX	17	40		2	13	
	319 319	375 375	OXIDSY BWSY	17 17	19 6		1 1	12 7	
-	319 319	375 375	OXFRE OXIDSY	17 17	10 5		1	7 7	R17
	319	375	OXIDSY	17	440	63	1	6	
	319 319	375 375	OXFOX OXIDSY	17/12 11	25 25		1 1	7 8	
	319 319	375 375	BWSY OXFWHM	IIB M18?	9 157	12	1 1	6 8	
	319 319	375 375	OXFWH DORBB1	VII	40 5	6 2	I	12	
	319	375	OXFRE		7	6			
	319 319	375 374	OXFWH OXIDSY	I	0.5 46	1 2	3	32	blackened
	319 319	374 374	GYSY OXIDSY	1 112	10 18		1 1	7 11	
	319	374	OXIDSY	112	8		1	10	
	319 319	374 374	OXGY OXFOX	112 112	15 10		1 1	8 7	med-fine Young Ol
	319 319	374 374	OXGY OXIDSY	112 112	24 6		1	7 7	med-fine
	319	374	GYSY	112	18		1	6	
	319 319	374 374	OXFRE OXIDSY	112 [12	99 4	18	1 1	6 6	blackened
	319 319	374 374	OXFOX OXFOX	112 17	10 19		1 1	5 12	Young Ol
	319	374	OXGY	17	30		1	12	med-fine
	319 319	374 374	OXFRE OXFOX	17 17	89 20	11	1 1	10 8	R17
	319 319	374 374	OXFOX OXFRE	17 17	12 13		1	7 7	R17
	319	374	OXFOX	17	5		i	5	
	319 319	374 374	OXFRE OXFOX	17 17	9 125	23	1 1	5 3	R17
	319 319	374 374	OXIDSY OXIDSY	19 19	18 7		1 1	10 6	
	319	374	OXIDSY	IIB	11		i	8	
	319 319	374 374	DORBBI OXFWHM	IV3 M17	18 304	1 4	1 3	5 10	spo 240-3
	319 319	374 374	OXFWHM BWSY	M17	117 23	8 2	1	7	
	319 319	374 374	ORGGR OXFOX		0.5 183	2 30			

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Trench	Cut	Context	Fabric	Form	Wt	No	Rim	E	C
	319	374	OXFOX	rom	380	23	KIM	Eve	Comment
	319	374	OXFWH		4	1			
	319	374	OXFWH		16	3			x1 neck flagon
	319	374	OXFWHM		20	- E			-
	319	373	OXFOX	I	132	22	1	1	
•	319	373	OXFRE	111	176	n	1	8	
	319 319	373 373	SHELL OXFOX	12	4		1	3	
	319	373	OXFOX	17 17	4 15		1	8	
	319	373	OXFOX	17	24		1	6 6	
	319	373	OXFOX	17	6		i	5	
	319	373	OXFOX	17	ň		î	5	
	319	373	BW	17	25	1	1	2	
	319	373	OXFWHM	M17	66		ŧ	12	gyish in colour; sharp underc
	319	373	OXFWHM	M17	383	п	1	5	
	319	373	BW		1	1			
	319	373	OXFOX		4	2			
	319	373	OXFRE		8	2			
	319 319	373 373	OXFWH OXFWS		1 8	13			
	319	373	OXFWS	112	44	5	3	19	Young O10
	319	372	OXFOX	112	35	2	2	7	Young Ol0
	319	372	OXFWHM	M17	84	-	ĩ	10	Toung Old
	319	372	OXFWHM	M18	43		ī	10	*
	319	372	LNVCC		5	t			
	319	372	OXFOX		3	ł			
	319	372	OXFOX		6	1			
	319	372	OXFOX		2	1			
	319	372	OXFRE		20	2			
	319 319	372 372	OXFWH		30	8			
	319	372	OXFWHM OXFWHM		5 342	1 23			V2 floore M19
•	318	371	OXFWHM		342 48	20			X3 flange M18
•	316	369	OXFOX	t	27		ì	13	
•	316	369	OXFOX	112	186	42	i	7	Young O10
	316	369	OXFOX	112	13		1	6	Young OI0
	316	369	OXFOX	112	6		1	6	Young Ol0
	316	369	OXFWH	IIB	22	3	1	4	W52
	316	369	DORBBI	IIC	12	1	1	5	
	316	369	OXFWHM	M17	54		1	7	
	316	369	OXFWHM	M17?	356	16	1	7	
	316 316	369 369	OXFWHM OXFWH	M19 W9	110 6		1 1	17	240.200
	316	369	CNGBS	w9	1	2	L	28	240-300
•	316	369	OXFRE		12	4			
	316	369	OXFRS		16	4			barbotine dec
•	316	369	OXFWHM		13	- i			
	316	369	VERWHM		10	1			
	314	357	OXFOX	I12	11		1	12	Young O10
	314	357	OXFOX	17	48	6	3	16	
	314	357	OXFWHM	M17	18	1	ł	10	
	314	357	OXFWHM	M17	446	34			
	314 314	357 357	OXFRE OXFWH		3 11	1 7			
	308	362	OXIDSY		15	5			company aband
	306	360	OXFWHM		25	1			scrappy abrad gy surface oxid core
•	305	356	OXIDSY		1	1			gy surface oxid core
	303	353	BKR?		65	26			
	302	355	HAEM		2	1			gy sy ware ? Date EIA
	302	355	PREHOXGR		37	12			date ? Preh
	302	352	BWGR		11	6			
	302	352	OXFOX		6	t			
		461	GYGR	Cam 12	17		1	10	
		461	OXFRE	Cam 2	9		1	6	
		461	BWGR	1	23	4	2	8	
		461	ORGGR	1	77	6	1	1	oxid and bw
		461	GYGRSA	112	36	1	2	13	similar to SAVGT
•		461 461	ORGGR	[12 112	6 17	ł	1	10 3	
		461 461	ORGGR OXIDSY	112 12	3	L	1	3	
		461	OXIDST	lic	222	46	1	5	Young O34
		461	OXFWHM	MI7	60	70	1	7	- 040B 00 T
•		461	OXFWHM	M17	322	18	i	5	
		461	OXFWHM	M18	199		i	18	
		461	OXFRE	VI2	4		i	8	R30

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Trench	Cut	Context	Fabric	Form	Wı	No	Rim	Ëve	Comment
		461	OXFWH	XIII	36	7			
		461	DORBB1		17	2			
		461	GRSJ		150	4			some f lint
		461	GYSY		13	3			
		461	OXFRE		71	14			
		457	OXFRE	12	31	8	1	12	R20
		457	GYGR		53	1			
		457	OXFOX		30	6			
		457	OXFWH		1	2			
		457	OXFWHM		194	8			

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APPENDIX 3: Metalworking debris

a) summary	•	
Debris Type	Weight (kg)	%
Tap Slag	3.03	29.6
Furnace Slag	4.69	45.8
Smithing Slag	1.03	10.1
Undiagnostic Slag	0.64	6.3
Hearth Lining	0.52	5.1
Natural	0.32	3.1
Total	10.25	

b) catalogue by context

Trench	Cut	Dep osit	Group	Туре	No	Wt (g)	Comment
· 12	13	66	44	Ditch	80	7146	
12	13	66	.44	Ditch	6	360	hearth or kiln lining?
· 25		subsoil			1	100	_
25	15	71	43	Gully	2	260	
25	18	73		Plough Scars	1	38	hearth or kiln lining?
25	19	74		Gully	2	504	_
. 29	28	85		Possible Pit/dump	1	18	
30	12	69	47	Gully	1	48	
. 30	38	95	44	Gully	6	278	
30	39	97	44	Pit/ditch?	1	6	
31	16	88		Ditch	4	172	
32		spoil			1	220	
32	29	86	48	Ditch	6	168	
36		subsoil			4	66	
42	24	81		Ditch	8	342	
42	25	82		Pit	7	124	

c) Slag type definitions

Tap-slag: Slag that has been run out of the furnace, which shows the typical upper ropy-flow surface and evidence the lower surface had formed on contact with a cool surface. This slag type is the result of smelting.

Furnace-slag: This can take a number of forms, but the case of this set of samples the majority of the material was in the form of slag that had flowed and solidified around the fuel in the furnace or against heavily vitrified furnace lining. This slag type is the result of smelting. Unusually, one fragment was of slag that had solidified in the tapping hole, as it had retained the shape of the hole.

Smithing type slag: Smithing produces a number of types of slag that are characteristic of the process – planoconvex forms (smithing hearth bottoms), and two forms hammer scale (flake and spherical).

Undiagnostic Slag: This is any type of dense ironworking slag that cannot be placed into a more distinctive slag type. This may include slag produced during primary or secondary smithing as well as smelting.

Hearth Lining: Highly fired clay hearth lining material is not indicative of a particular type of metalworking process, or even metalworking in general, as it may be generated by any pyrotechnic process. At this site the clay is very sandy, this may have been due to the liberal addition of sand to clay from the local solid geology, or to the selection of a local superficial clay of the right composition 1.

Natural / Iron Ore: During the preliminary examination one large fragment of ironstone. This was of a boxstone type – in this case dark iron-rich material had formed round the hollow interior, showed a coarse sandy texture, whereas, the exterior shell was much lighter limonitic colour and the retained soil was of the very finer silt. This material is not from the local solid geology. It is more typical of material to the north and east (the Northamptonshire orefield) or to the south (the Lower Greensands outlier at Shotover, on the outskirts of Oxford) but similar material may form in the superficial deposits under the right conditions (hard-pan/bog iron ore). However, as this piece had not been roasted it occurrence with the slag may have been purely coincidental.

APPENDIX 4: Inventory of animal bone

A: from the evaluation

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Trench	Cut	De posit	Group	Sample	Frags	Wt (g)	Type
16	1	51	45		1	1	Unident
· 13	11	65	43		24	24	Sheep/goat sized frags
30	12	69	47		2	8	Limb shaft fragment sheep/goat sized
. 12	13	66	44		17	74	Limb shaft cow sized; Limb shaft tooth fragment goat/sheep sized
42	24	81			2	10	Rib sheep/goat sized
42	26	151		4	7	2	
29	28	85			5	78	Tooth sheep-sized and frags
32	32	91			33	50	Phalanges and metatarsals sheep/goat sized
30	38	95	44	•	8	110	Jaw fragments cow
42	40	153	46		1		Sheep/goat sized
15		53	•	i	i	1	• -

B: from the recording action

Cut	Deposit	Frags	W1 (g)	Large	Medium	Small
316	369	9	10	l (cattle)	1	-
319	373	· 10	63	-	10 (pig)	-
319	374	4	27	3	-	-
319	375	. 3	12	•	2	•
324	376	13	102	13		-
321	378	12	5	-	12 (sheep/goat)	-
322	379	53	31	-	-	-
325	381	1	• 2	-	<u> </u>	-
327	384	4	3	-	-	-
331	389	1	23	l (cattle)	-	-
345	460	3	8	-	-	-
-	461	65	284	20 (horse, cattle)	1 (sheep/goat)	-

APPENDIX 5: Charred Seed Remains

A: from the evaluation

Sample		1	4	5
Cut			26	26
Fill		53	151	151
Context type		Kiln waste	Pit	Pit
Sample volume (litres)		15	5	5
Cereal		No. c	f items	l
Free-threshing Triticum sp. (aestivum or turgidum).	Free-threshing bread or rivet wheat	2		
Weed seeds		·	·····	
Galium aparine	Goosegrass		1	
Charcoal				
Quercus sp.	Oak		+++	+
Corylus sp.	Hazel		+	
Pomoideae	Hawthorn etc.		++	+

+ present ++ some (<10 fragments) +++ much (>10 fragments)

B: from the recording action

	Sample	31	32	33	35	36	37	38	39	T
	Cut	303	302	310	312	313	307	314	308	Habitat
	Deposit	353	355	365	367	368	361	357	362	
Chenopodium sp.	Goose foot	3	3		2			2	1	C/D
Rumex sp.	Dock	· · · · · · · · · · · · · · · · · · ·		1		1	1		1	C/D/G
Carex sp.	Trigonous sedge	1			t	1		T i		P/D
Weed seed indet		1					-	1		
Charcoal		XXX	x	XX		x	x	x	XXX	

(continued)

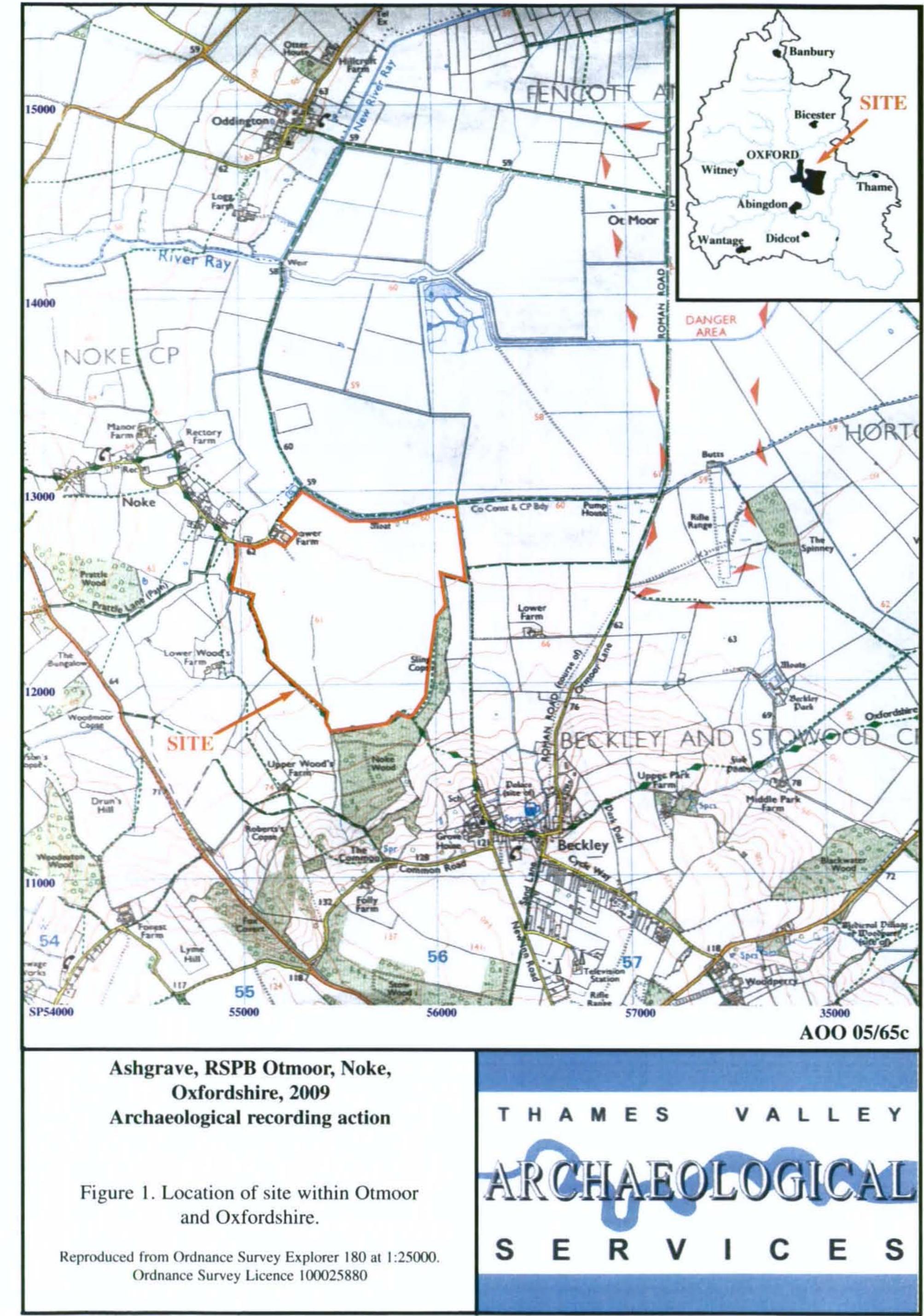
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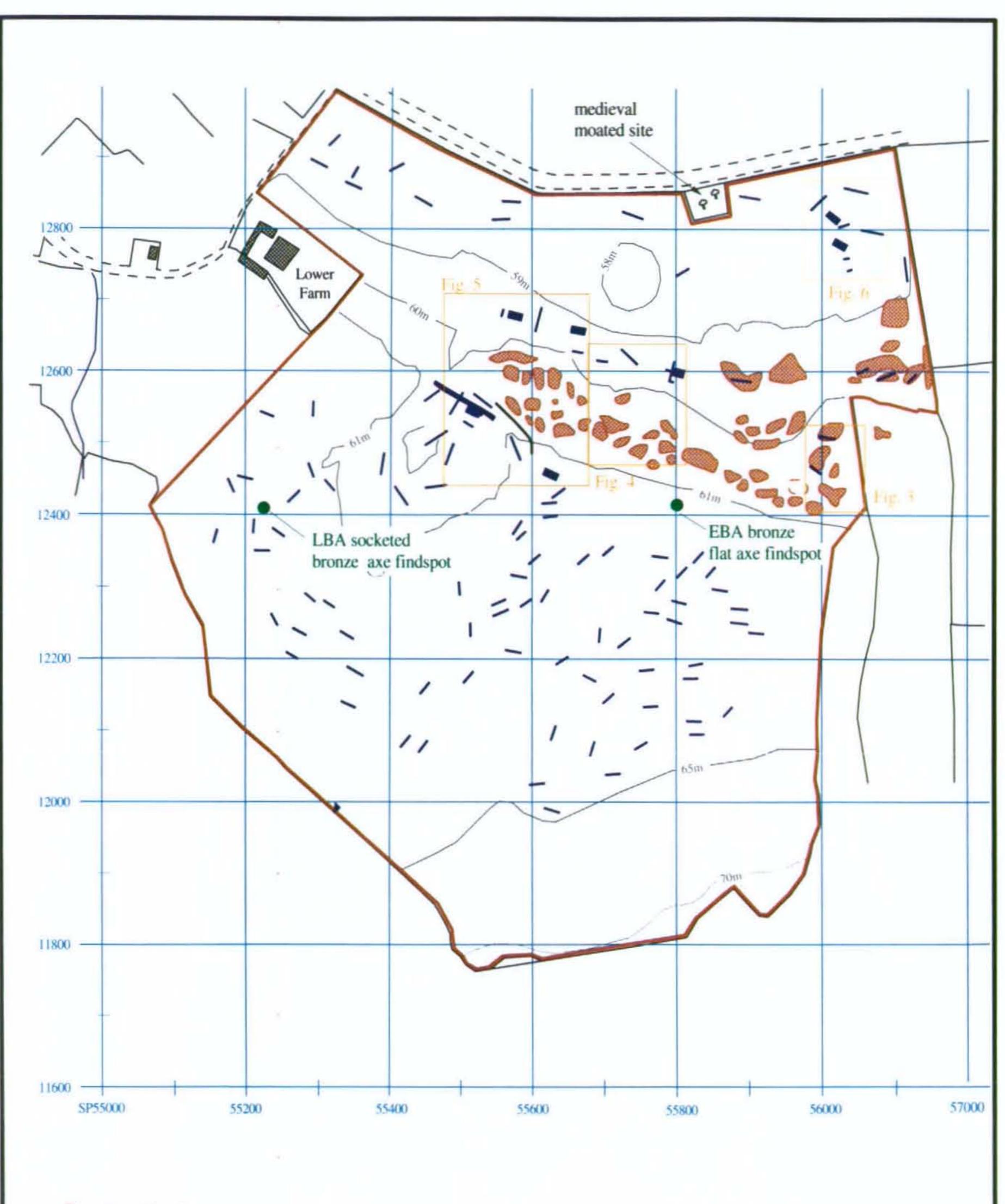
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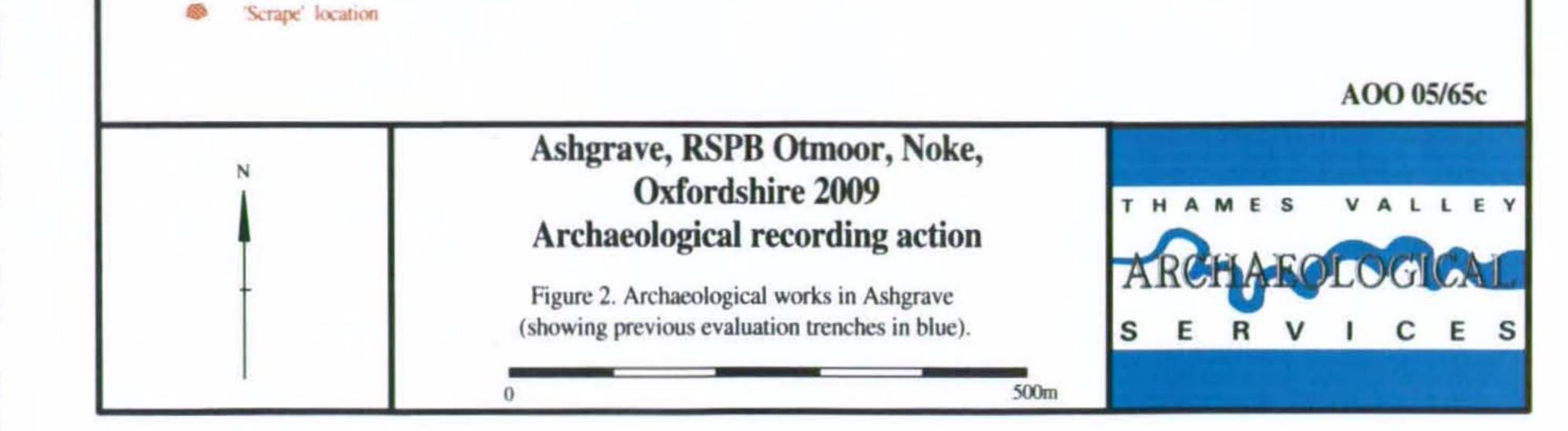
	Sample	40	41	42	43	44	45	46	47	49	
·····	Cut	308	319	319	319	319	324	322	345	309	
	Deposit	363	372	373	374	375	376	379	460	364	Habitat
Plantago sp.	Plantain	1			1	1	1	1	i		D
Chenopodium sp.	Goose foot	1								3	C/D
Rumex sp.	Dock				1	1	·····	1			C/D/G
Carex sp.	Trigonous sedge	1	1						1	1	P/D
Charcoal		x	XXX	x	XX	XX	x	x	XX	x	

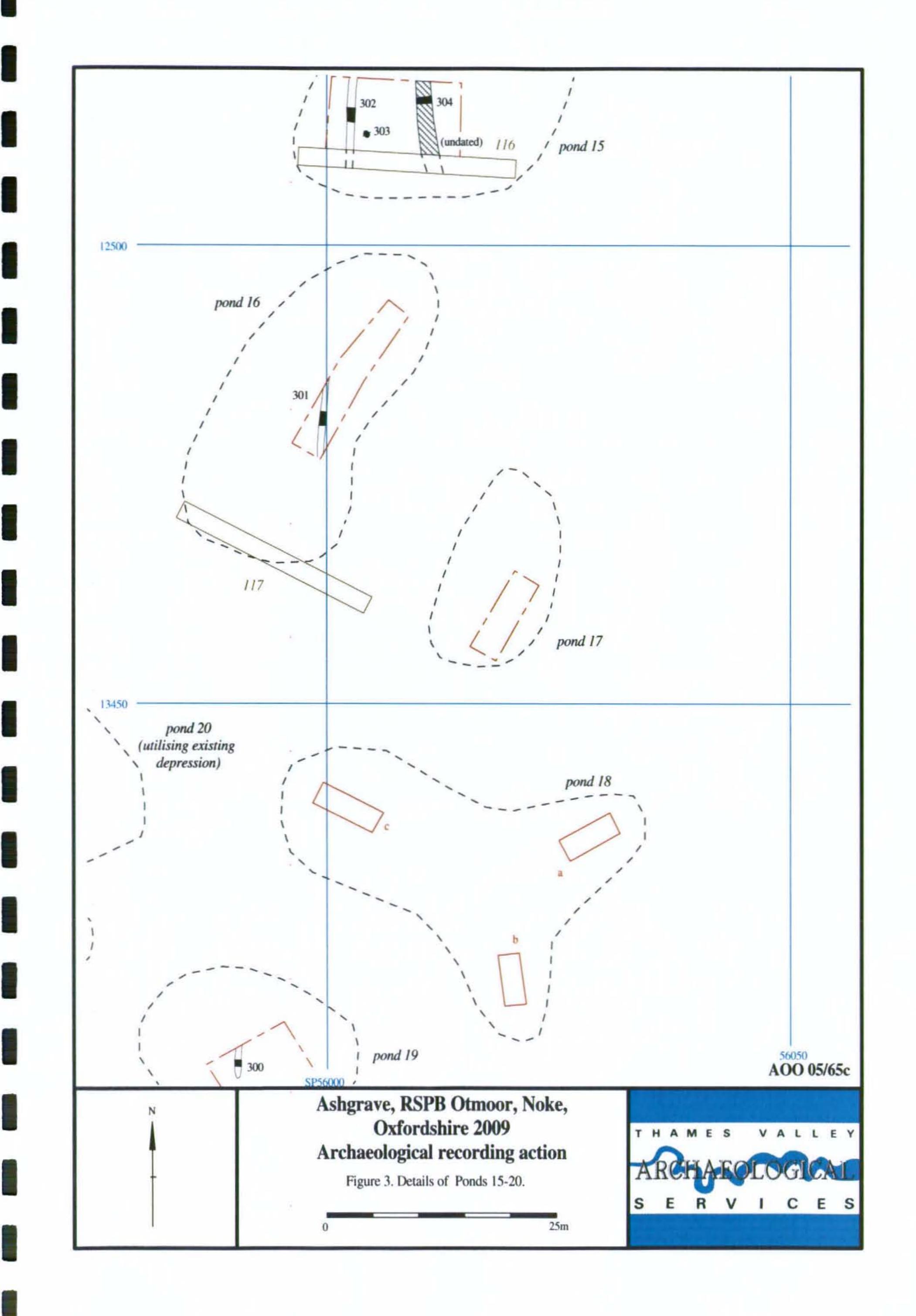
KEY A-Arable, C- cultivated; D -disturbed, G -grassland; H-hedge; P-pond/ditches; S-Scrub; W-wood; Ywayside

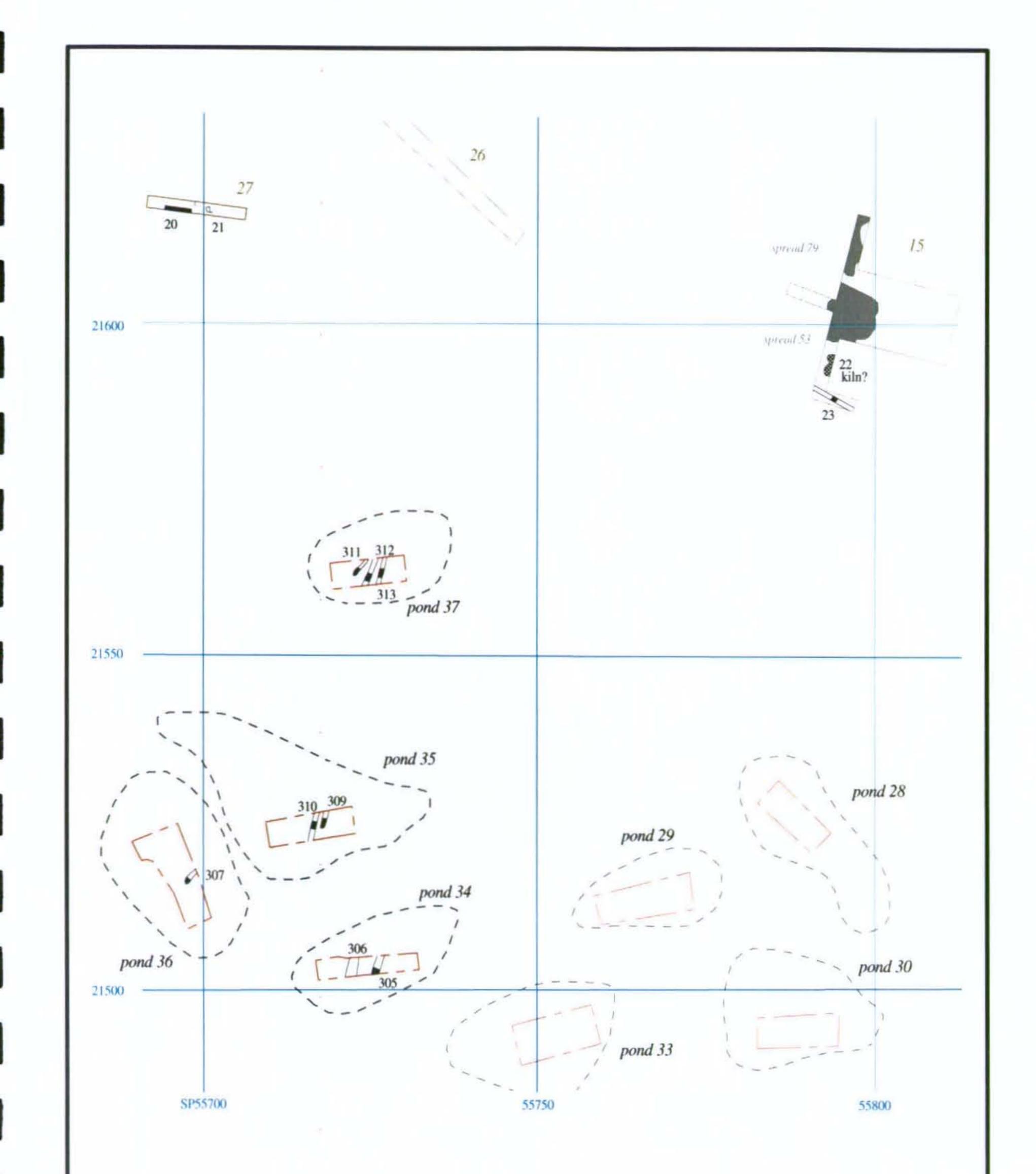
Charcoal x=present, xx= some and xxx =abundant

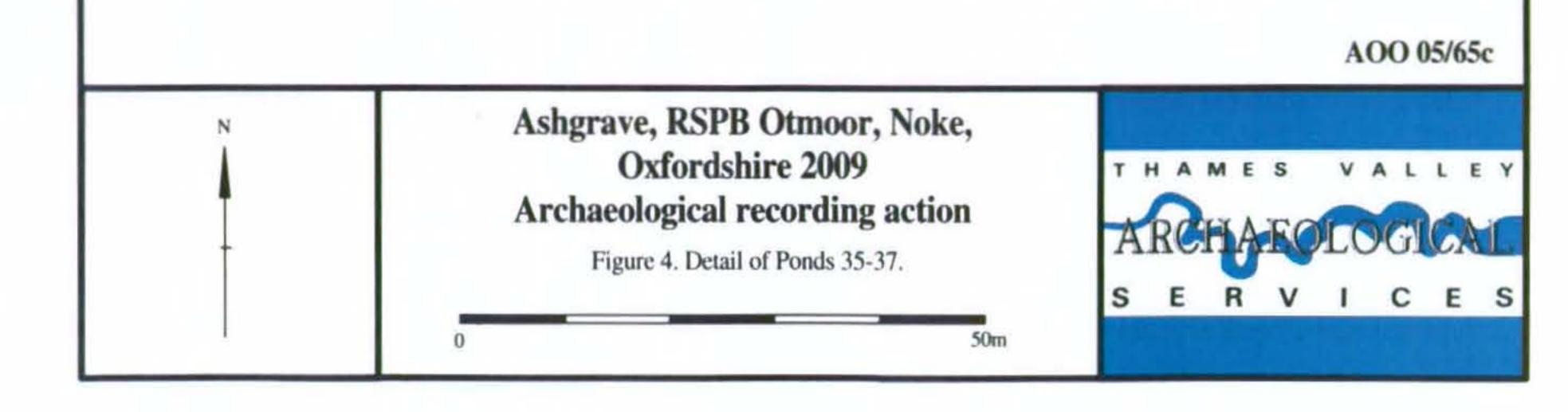


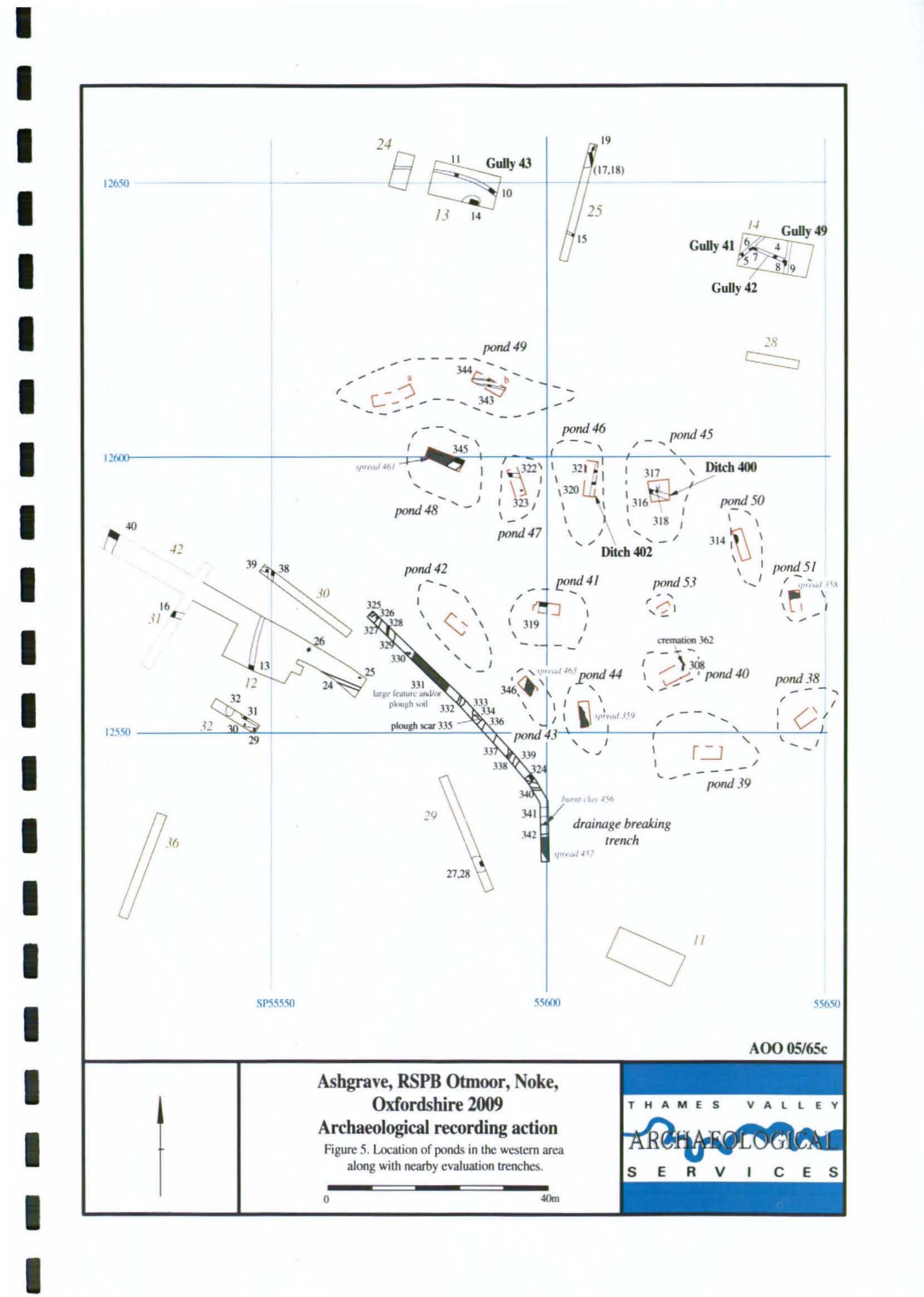


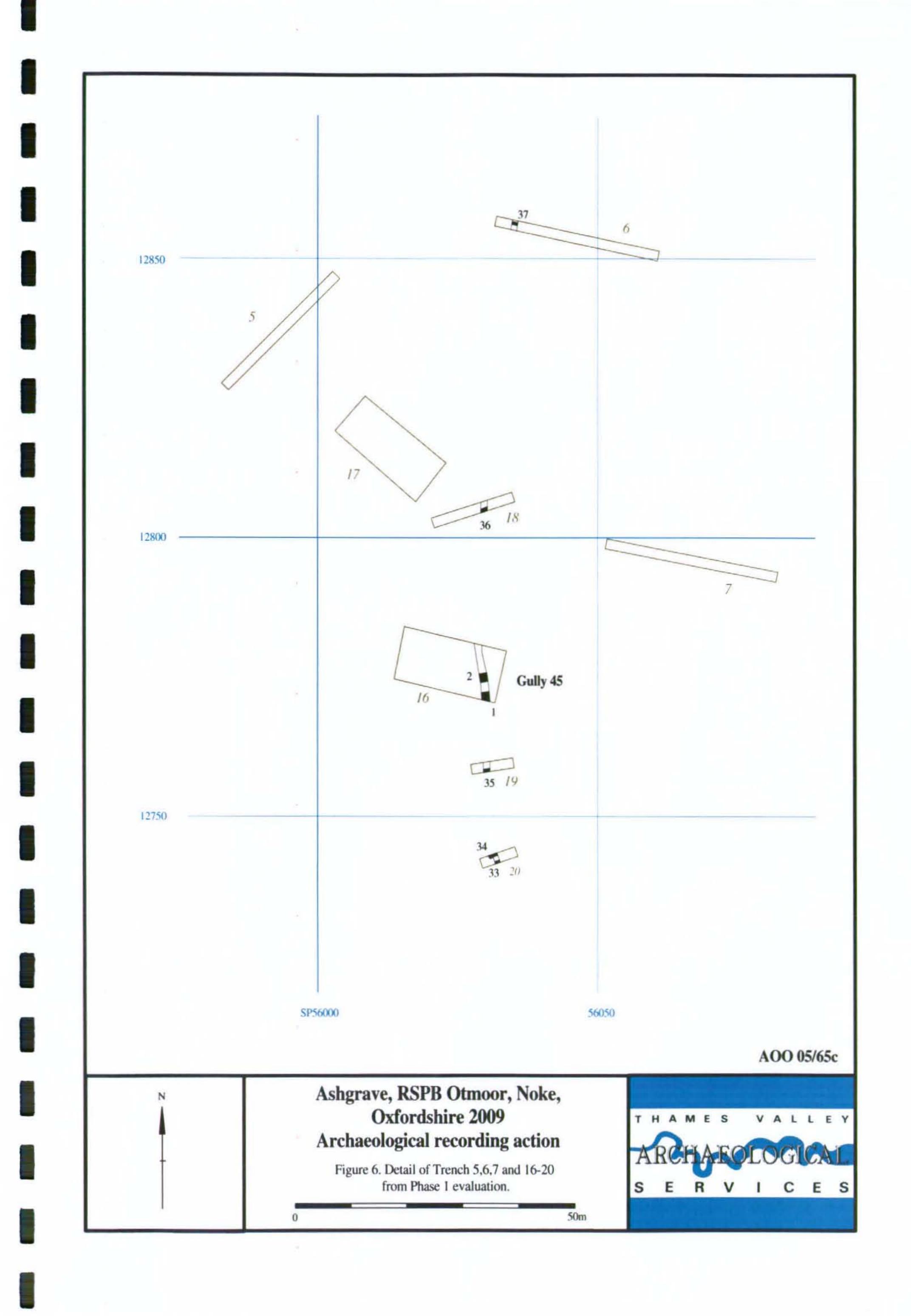


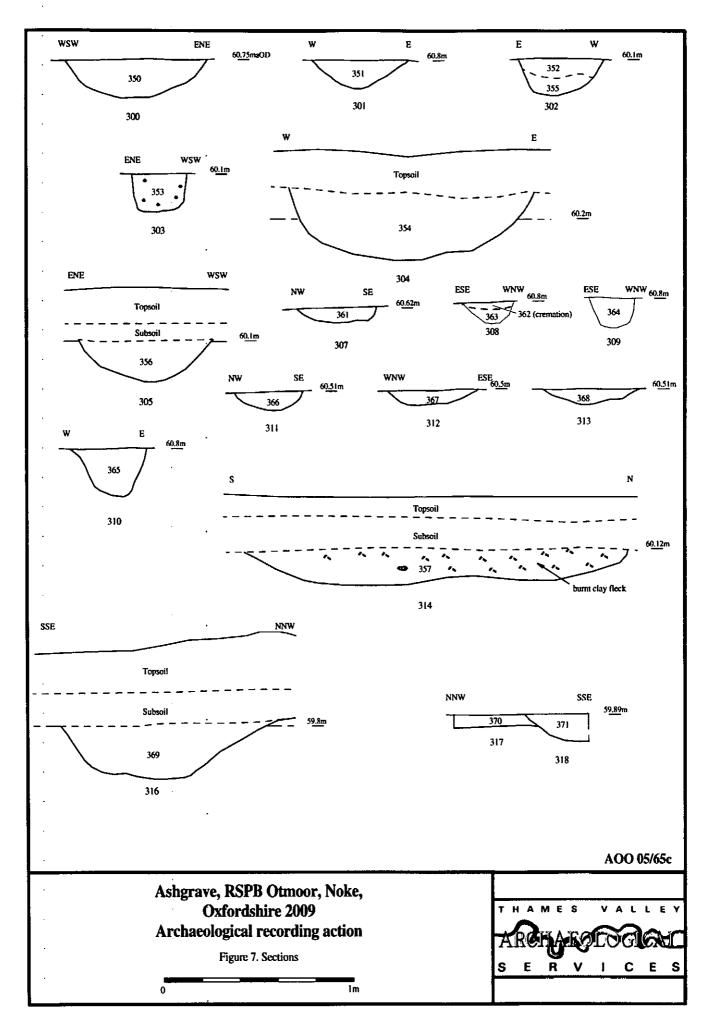






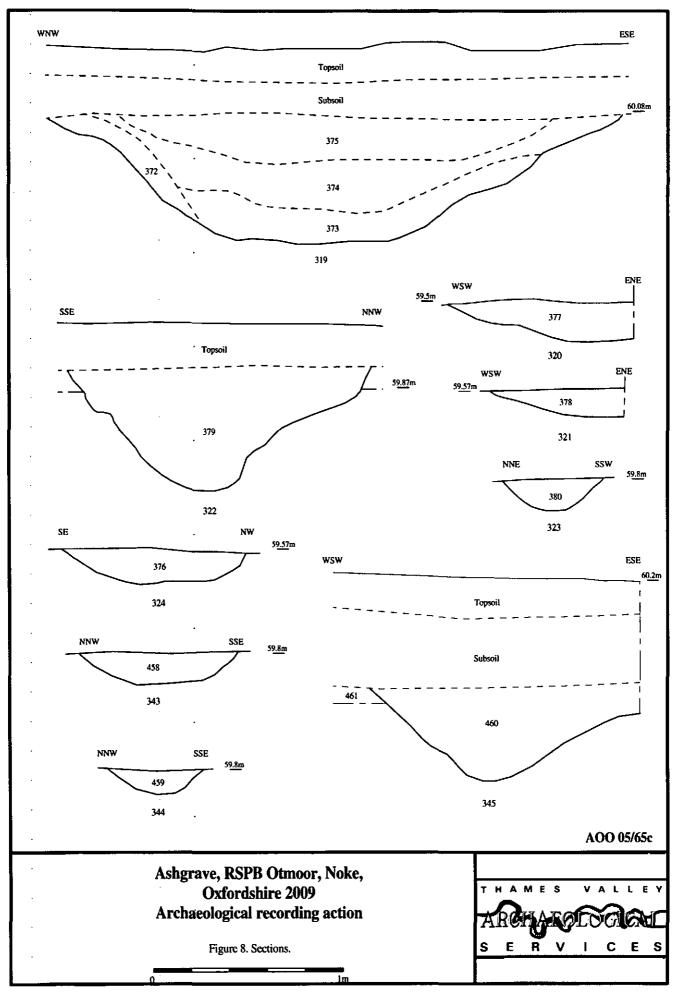






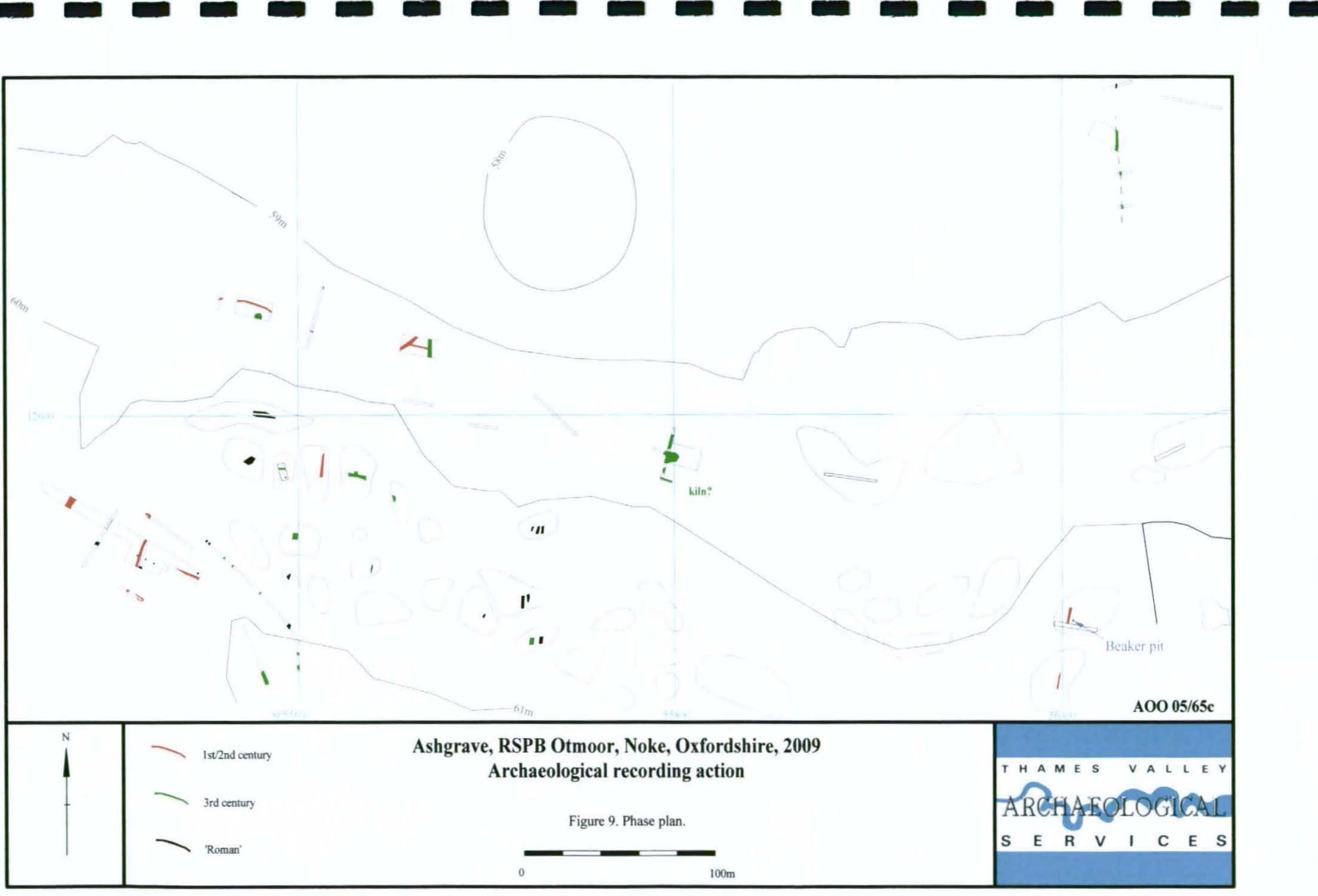
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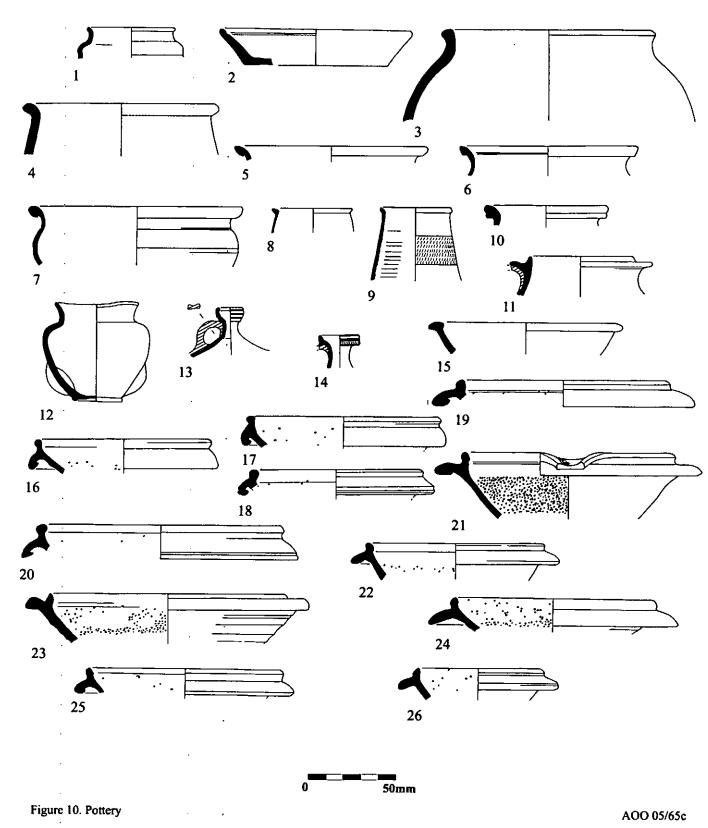
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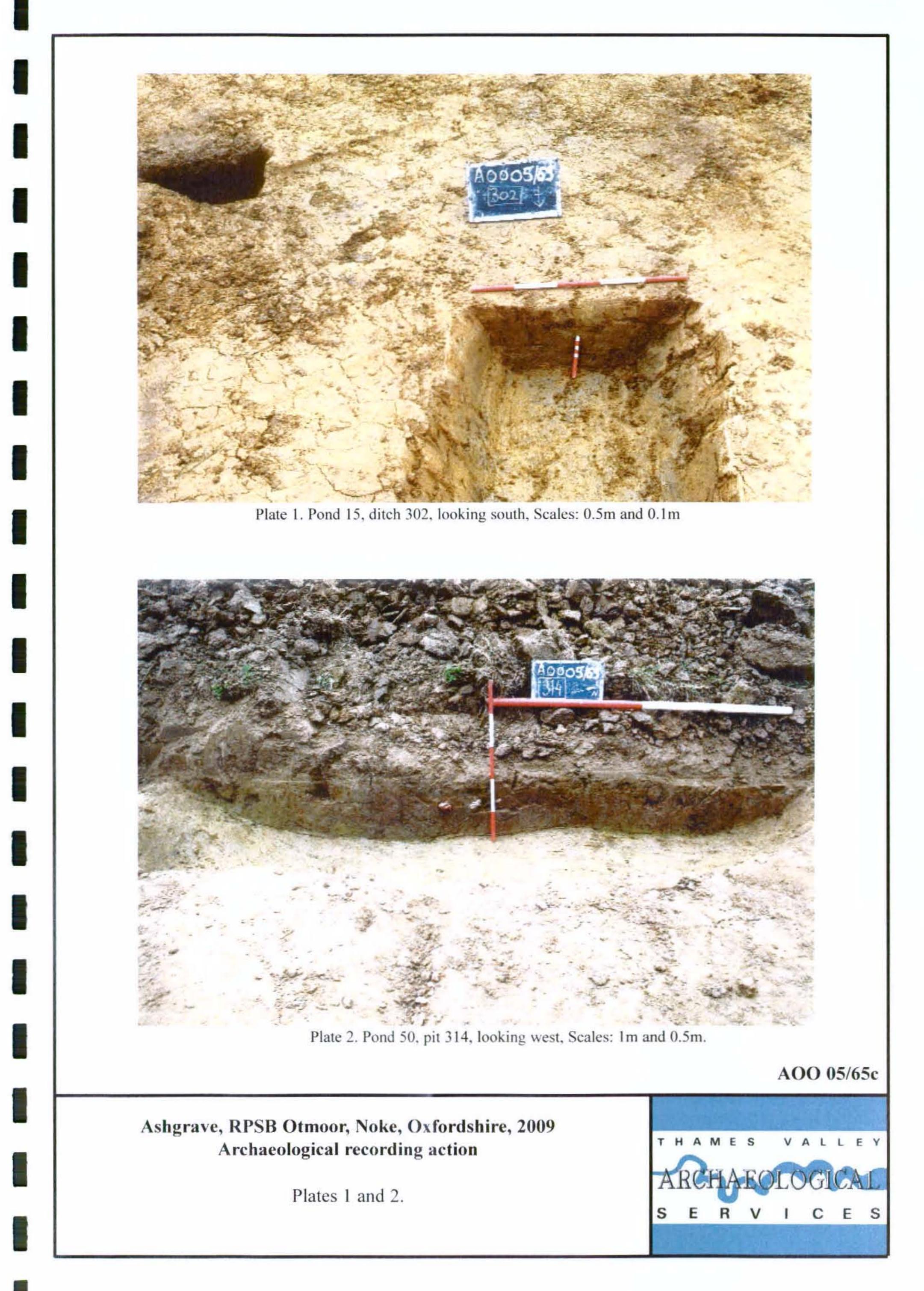
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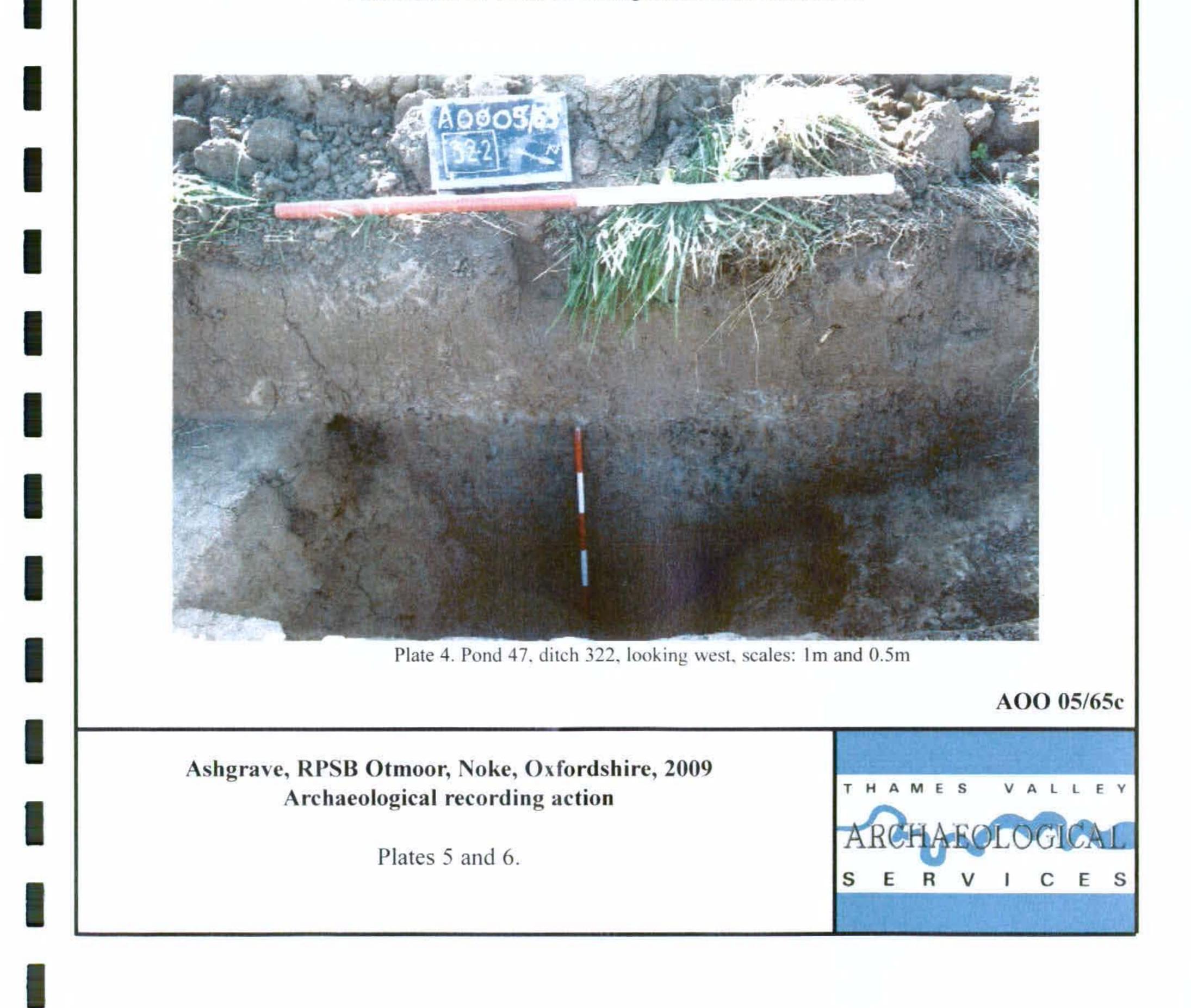


Plate 3. Pond 41, ditch 319, looking north, Scales: 2m and 1m.

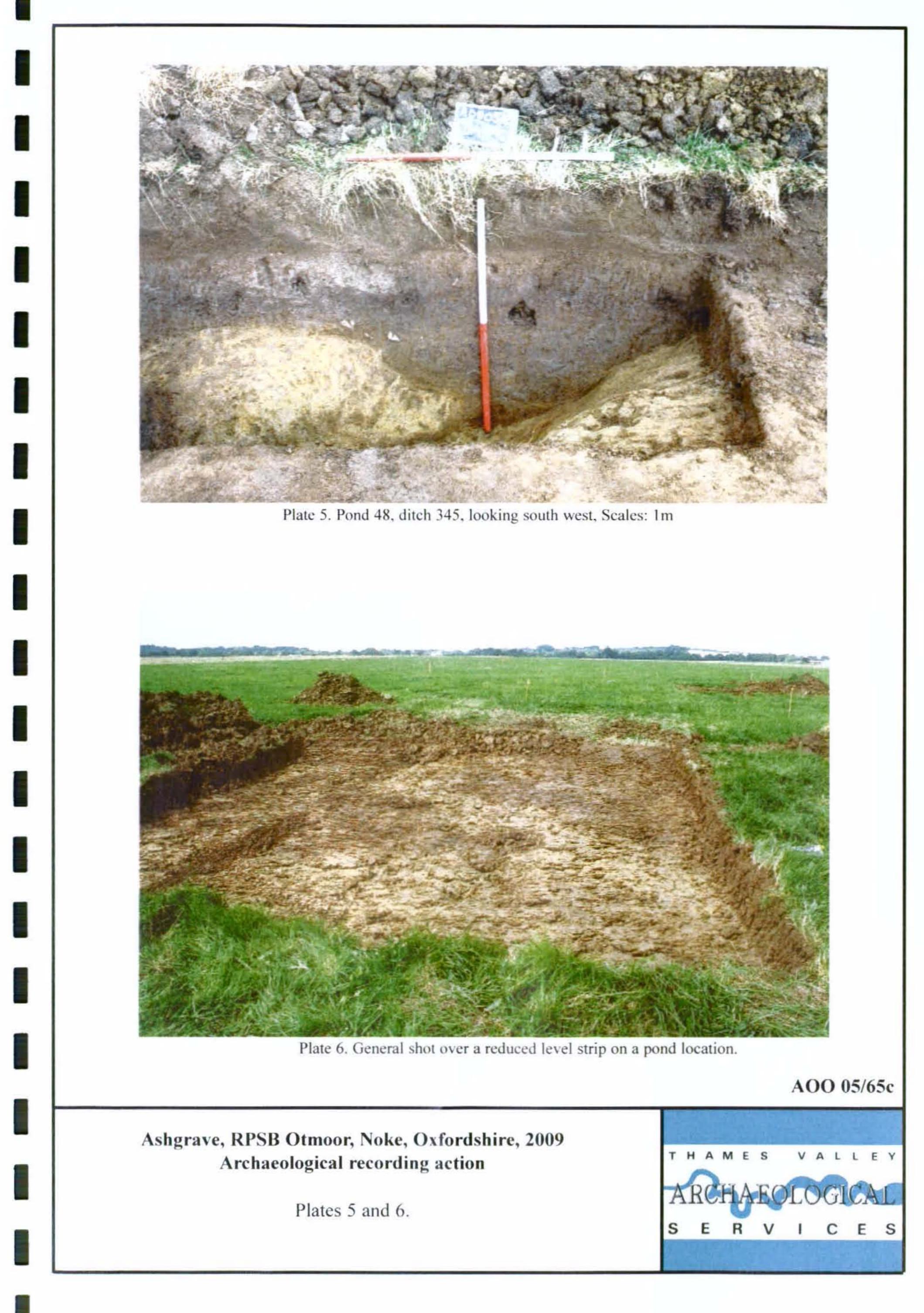
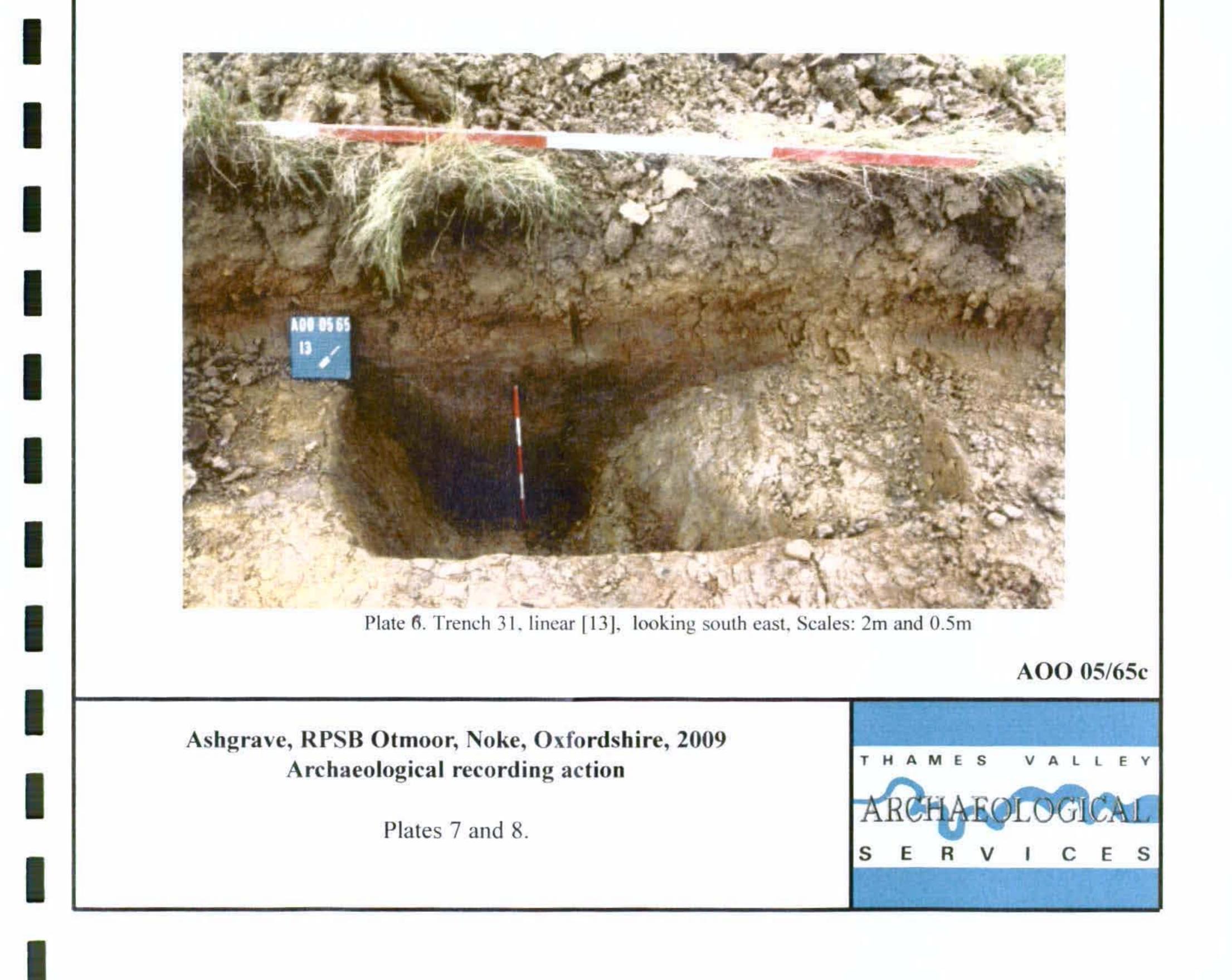




Plate 7. Trench 15, kiln(?) 22, looking east, Scales: 2m and 0.3m.



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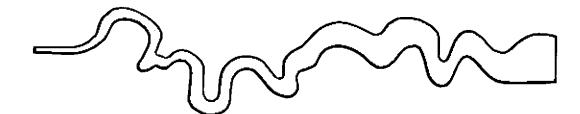
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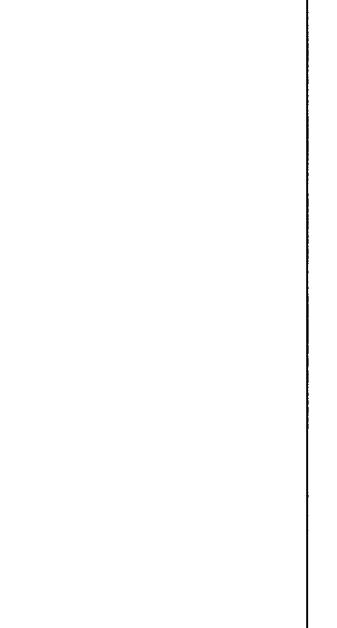
Calendar Years

Modern	AD 1901
Victorian	AD 1837
Post Medieval	AD 1500
Medieval	AD 1066
Saxon	AD 410
Roman	AD 43 AD 0 BC 750 BC
Bronze Age: Late	1300 BC
Bronze Age: Middle	1700 BC
Bronze Age: Early	2100 BC
Neolithic: Late	3300 BC
Neolithic: Early	4300 BC
Mesolithic: Late	6000 BC
Mesolithic: Early	10000 BC
Palaeolithic: Upper	30000 BC
Palaeolithic: Middle	70000 BC
Palaeolithic: Lower	2,000,000 BC
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