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Marr Windfarm
Off Hangman Stone Road
South Yorkshire

Archaeological Excavations

January 2010

Report No. 2020

CLIENT

Marr Windfarms Ltd.

Marr Windfarm
Off Hangman Stone Road
Marr
South Yorkshire

Archaeological Excavations

Summary

Seventeen small open area excavations were undertaken at the site of Marr Windfarm in mitigation (preservation by record) for the proposed windfarm development. These areas were all excavated within the proposed development corridor to further investigate features (ditches and gullies) identified during the evaluation phase and interpreted as field divisions and trackways. The excavations have added information about the nature and form of the features and most significantly also provided dating evidence that was absent from the evaluation phase. Dating of the pottery suggests that there may have been two phases of field division on the site with an earlier (early Iron Age) phase and later Romano-British phase. Field boundaries from the two phases are on slightly differing alignments. No convincing evidence for settlement activity was identified in any of the excavation areas.

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Report Information

Client:	Marr Windfarms Ltd.
Address:	
Report Type:	Archaeological Excavations
Location:	Marr, near Doncaster
County:	South Yorkshire
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Project Management:	Alistair Webb BA MIfA
Fieldwork supervision:	Phil Weston, Andy Walsh, Dave Williams, Marina Rose
Report:	Marina Rose BA
Illustrations:	Ian Atkins
Specialists:	Ruth Leary (pottery) Phil Weston BSc MA (flint) Diane Alldritt PhD (plant remains) Jane Richardson PhD (animal bones)
Produced by:	Archaeological Services WYAS, PO Box 30, Nepshaw Lane South, Morley, Leeds LS27 0UG Telephone: 0113 383 7500 Email: admin@aswyas.com
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1 Introduction

Archaeological Services WYAS (ASWYAS) was commissioned by Marr Windfarms Ltd. to conduct a scheme of mitigatory archaeological strip and record excavation in advance of the preparatory work for the construction of a windfarm.

Site location and topography

The site comprised two areas north and south of Hangman Stone Road approximately 1km to the south of Marr. The site is centered on NGR SE 5050 0425. The topography of the area is very undulating ranging from about 80m above Ordnance Datum (aOD) to approximately 73.5m aOD.

Soils, geology and land-use

The underlying solid geology of the site is Lower Magnesian Limestone (British Geological Survey 1976) overlain by soils classified as shallow, locally brashy, well drained calcareous fine loams of the Aberford association (Soil Survey of England and Wales 1983). At the time of the fieldwork the area had just been cropped mostly of wheat and some beet.

2 Archaeological and Historical Background

The site lies within a heavily cropmarked landscape which characterize field systems, trackways and enclosures typical of the Iron Age/ Romano-British period. These cropmarks are clustered to the north of the site with a few extending into the proposed development area.

A geophysical survey conducted by ASWYAS (Webb 2006) confirmed and enhanced the cropmark evidence identifying anomalies indicative of a more extensive system of land division comprising fields, enclosures and trackways throughout the development area and this evidence was further enhanced by an archaeological evaluation by trial trenching also carried out by ASWYAS (Rose 2008). The trenching confirmed the presence of several features interpreted as field boundaries and trackways (as defined by flanking ditches) although the majority of the features were shallow and truncated and no datable or environmental evidence was recovered from any of the excavated features.

3 Aims and Objectives

To mitigate against the partial destruction of these features during the development of the windfarm South Yorkshire Archaeology Service requested that additional excavation be undertaken around those sixteen trenches where archaeological features had been identified during the evaluation.

The aims of the mitigation works were to:-

- Establish the presence/absence and extent of all archaeological features within a 10m radius of the known archaeological features within the development footprint.
- Undertake additional sampling of the known features in order to retrieve any ecofactual or artefactual material that will help to determine their date and function.

4 Methodology

Each excavation area, centred on archaeological features identified during the trial trenching evaluation, was laid out using a RTK GPS and excavated using a 360° wheeled excavator fitted with a toothless ditching bucket. Topsoil and any subsoil horizons were removed in level spits under direct archaeological supervision until the first archaeological horizon or undisturbed natural was reached. The resultant surfaces were then inspected for the presence of archaeological remains with any further excavation or clarification being conducted by hand.

All archaeological features were investigated using the following strategies:-

- Linear features: a minimum sample of 25% of the length of each linear feature was excavated, with each section measuring no less than 1m in length. Deposits at junctions or interruptions in linear features were sufficiently excavated to establish the relationship between the components. If the initial 25% excavation did not recover any securely datable artefacts, a further 25% of each linear feature was excavated.
- Discrete features: all discrete features were half sectioned in the first instance to record their form and nature, then fully excavated.

A full written, drawn and photographic record was made of all excavated material in accordance with ASWYAS standard method. Hand drawn plans and sections were produced for all excavated areas and included spot heights reduced to two decimal places above Ordnance Datum.

A soil sampling strategy was employed where by a minimum sample of 30 litres was taken, where possible, from the primary fill of each feature.

5 Results

Each excavation area was numbered according to the number of the trial trench around which it was centred. Unless stated otherwise all areas measured 20m by 10m.

Area 6 (see Fig. 3)

Area 6 was located to further investigate and record the area surrounding two linear ditch features identified within the evaluation trench which were assumed to be flanking ditches defining a trackway.

Only one of the ditches, the westernmost, was seen within the strip area due to the fact that the south-eastern half of the original trench fell just outside the development footprint (see Fig. 2). This ditch feature, 203, was aligned broadly north-west/south-east and was exposed for 12m measuring 1m in width and 0.36m in depth. A single fill was contained within the U-shaped profile of the ditch. Ditch 203 was the continuation of the western ditch defining a trackway as identified in Trial Trench 6.

Appended to the ditch on its western side was a small pit (205). The pit measured 1m in length, 1.3m in width and was 0.24m deep. The relationship between these two features was impossible to determine due to animal disturbance at the interface. One piece of animal bone was recovered from the single fill (204).

Area 8 (see Fig. 4)

Area 8 was excavated to investigate the area surrounding a large pit identified within Trial Trench 8.

Soil stripping exposed the line of two roughly parallel ditches. The eastern ditch (240) was only exposed for 9m in length as it crossed the southern corner of the area on a north-east/south-west alignment. Ditch 240 presented a U-shaped profile, measured 0.94m in width and 0.41m in depth, and contained a single mid-reddish brown sandy silt fill (239). No finds were recovered despite additional sample excavation.

Approximately 7m to the north a second ditch (206) was identified. At the northern end of the area this ditch was well defined measuring 1.18m in width and 0.40m in depth with a U-shaped profile containing a single fill (207). However, it became increasingly truncated to the south-west gradually disappearing altogether.

These two linear ditches are the continuation of the ditches defining a trackway identified in Trial Trench 6 and Area 6.

Area 9 (see Fig. 5)

Area 9, measuring 25m by 10m, was excavated to investigate the area surrounding two shallow, linear, features identified in Trial Trench 9.

Soil stripping revealed a curvilinear spread of material in the southern half of the area. Following hand cleaning a series of intersecting/intercutting gullies were identified in plan. However, the shallow nature of the features combined with the plough damage (the spread of

material was due to the mixing of the fills from the features below), and the similarity of the fills meant that few definite relationships between the features could be established.

Aligned roughly east/west across the width of the area was gully (218). It was 0.87m in width and 0.35m in depth with a single mid-red/brown sandy silt fill (217).

Perpendicular to Gully 218 and possibly cutting/intersecting with it was Gully 216. This feature was exposed for 9.4m in length and was at maximum 0.92m in width and 0.28m in depth. It had a U-shaped profile, containing a single fill (215) which was indistinguishable from that filling Gully 218. Gully 216 ended in a shallow terminal.

On the same alignment, and separated by less than 1m from Gully 216, was Gully 220 which was exposed for 8.2m in length and measured a maximum of 0.58m in width and 0.21m in depth. The fill (219) was again indistinguishable from those filling the other linear features in this area.

Parallel and immediately south of Gully 220 was the final linear feature within the original spread of material was positioned. Gully 222 was less well defined than 220 and faded out towards the southwest. It was exposed for 6m in length and measured a maximum of 0.7m in width and 0.11m in depth. A scrap of Roman grey ware was recovered from the fill (221).

Two small post-holes (224 and 232) were identified on the southern side of Gully 218. The relationship between these features was unclear and no other similar features were found.

Area 10 (see Fig. 6)

Area 10 was excavated to investigate further the area surrounding a single linear feature exposed within Trial Trench 10.

Ditch 212 crossed the area on a north-north-west/south-south-east alignment and was exposed for 12.5m in length. It measured 0.77m in width, 0.34m in depth and contained a single mid orangey brown silt fill (211). Adjacent to the western trench edge, Ditch 212 was intersected at right angles by a second ditch (214). Ditch 214 was exposed for a total length of 7.5m although there was a break caused by a large solid area of natural. At its widest point it was 0.8m in width and 0.4m in depth and contained a single mid orangey brown silt fill (213).

The shallow nature of both of the features and the similarity of the fills was such that a relationship between them could not be established although contemporaneity could not be ruled out. The fragmented remains of an animal bone was recovered from the base of Ditch 212.

The features revealed in Area 10 are probably the remains of field boundaries.

Area 11 (see Fig. 7)

Area 11 was excavated to investigate the area surrounding a linear ditch feature identified in Trial Trench 11.

The ditch (226) was exposed for 13.2m crossing the full width of the stripped area on a north-north-west/south-south-east alignment. It measured 1.12m in width, 0.29m in depth and contained a single fill comprising reddish brown sandy silt (225) from which no finds were recovered.

Ditch 226 was on an identical alignment to Ditch 212 within Area 10.

Area 13 (see Fig. 8)

Area 13, which measured 20m by 20m, was excavated to investigate the area surrounding a shallow gully identified in Trial Trench 13.

The full extent of Gully 234 was revealed showing it to meander across the full width of the stripped area on a north-west/south-east alignment. It was very irregular, varying in width between 0.3m and 0.7m in width and between 0.1m and 0.2m in depth with a shallow V-shaped profile. The single mid-brown sandy silt fill (233) contained frequent angular limestone inclusions but no finds were recovered despite the excavation of additional segments.

Area 14

Area 14 was positioned to further investigate the possible linear feature identified in Trial Trench 14.

Only a very faint trace of a possible feature in the south-eastern corner of the area was identified. However, this ‘feature’ was interpreted as natural by the excavator and not recorded. This may explain why the ‘feature’ was also not identified in Trial Trench 13 despite it clearly being identifiable as a linear magnetic anomaly (see Fig. 2).

This area is situated on a downslope and the natural in this area comprised silty sands, very different to that in other trenches and from the context descriptions from the evaluation phase it would seem that there was virtually no difference between the fill of the ‘feature’ recorded in TT14 and the surrounding natural deposits. It is therefore concluded that the ?ditch identified in TT14 may in fact have been a natural water cut channel into which the worked flint, recovered during the evaluation, had been washed from higher upslope.

Area 16

A similar situation prevailed in Area 16 where the stripping around the feature excavated during the evaluation clearly showed it to be a natural geological feature, probably an ice wedge. This interpretation was based on the fact that the ‘fill’ was very clean and with no

inclusions (very different from the fills described previously) and that the edges of the feature were very smooth and worn unlike the rough, angular, edges associated with the previously described archaeological features.

Area 18 (see Fig. 9)

Area 18 was positioned to further investigate the area surrounding two linear features recorded within Trial Trench 18. This area was originally planned to be 20m by 20m but was expanded out into an irregular trapezoidal shape measuring 26m in length and 22m in width to trace the continuations of the observed features and soil spreads.

Within the area two intersecting linear ditches (257 and 259) were identified. Ditch 257 was traced across the excavation area on a east/west alignment for 14.3m. It measured between 0.85m and 1.01m in width and approximately 0.39m in depth. Three sherds of pottery were recovered from the single fill (256) of this feature.

Ditch 259 was exposed within the excavation area for a length of 20.5m on a north/south alignment. It measured between 0.9m and 1.54m in width and between 0.2m and 0.45m in depth with a single fill (258) within a U-shaped profile. Animal bone and a worked flint were recovered from the fill of this feature. Despite investigation of the intersection between these two features no relationship between them could be established.

A large spread of material, similar to the subsoil, was seen in the southern corner of the area. On investigation this was interpreted as a natural deposit (260) within a natural depression (261). A modern sheep burial was also seen adjacent to the western limit of excavation.

Area 19 (see Fig. 10)

Area 19, measuring 25m by 10m, was excavated to further investigate the area surrounding a single linear ditch exposed within Trial Trench 19.

Area 19 measured 25m by 10m and exposed a ditch (298) extending for 14m on an east/west alignment across the stripped area. Ditch 298 measured 1.18m in width and 0.39m in depth with a single fill (297) contained within a U-shaped profile. Despite additional excavation no finds were recovered from this ditch which is interpreted as a linear field boundary.

Area 20 (see Fig. 11)

Area 20, measuring 30m by 10m, was excavated to further investigate the area surrounding two parallel linear ditches present in Trial Trench 20.

Two parallel ditches, 4.5m apart, aligned north/south have been identified crossing the stripped area. Both ditches exhibit similar profiles throughout their length with rather narrow and shallow profiles to the south where they were seemingly constricted by the solid nature

of the bedrock. At the northern side of the area both ditches became wider and deeper where they were cut into softer material.

The eastern ditch (290) measured between 0.83m and 1.52m in width and between 0.31m and 0.46m in depth. The western ditch (296) measured between 0.9m and 1.08m in width and 0.17m and 0.36m in depth. No finds were recovered from the ubiquitous red-brown sandy silt fills (289 and 295) from either ditch. These features are interpreted as flanking ditches either side of a former trackway.

Area 21 (see Fig. 12)

Area 21 was excavated to further investigate the area surrounding a segmented linear feature exposed within Trial Trench 21.

The stripping confirmed the presence of a linear ditch (292/306) aligned broadly north/south with a central gap 1.5m wide – (nb – the evaluation trench was located across the 'gap' just clipping the two terminals. The northern segment of the ditch measured 1.17m in width, 0.52m in depth and had a V-shaped profile that contained a single fill (291). The opposing, southern, section (306) of the ditch was exposed for 4.7m in length and measured 1.26m in width and 0.25m in depth. In contrast to the northern segment the southern segment had a shallow flat based profile. A single flint was recovered from the fill (305).

In addition three other features were identified to the eastern side of the southern ditch segment. The most northerly was a post-hole (294) 0.27m in diameter and 0.16m in depth. The steep U-shaped profile contained a single fill (293) but no finds.

Located 0.5m to the south-east of the post-hole was a roughly circular, U-shaped, pit (304) which was 0.86m in diameter and 0.25m in depth containing a single fill (303). No finds were present.

The full extent of Feature 308, 1.5m to the south-east and less than 1m east of Ditch 306, was not revealed as it continued beneath the southern baulk. The section that was excavated showed it to be 1.3m in width and 0.28m in depth. It is not clear whether this feature is the northern end of a linear feature or another pit. Its single fill (307) however yielded a single sherd of pottery.

Area 27 (see Fig. 13)

Area 27, measuring 20m by 20m, was excavated to further investigate a single substantial ditch identified within Trial Trench 27.

The main feature present was the curvilinear ditch, identified during the evaluation, which arcs across the area terminating at a possible butt end (278). An opposing butt end (266) extends beneath the eastern baulk edge. The close proximity of the terminals together with the similarity of their cuts and fills suggest that the ditch terminals were not formed as an

access point (they are only 0.7m apart), rather that the ditch was constructed in a segmented fashion.

The ditch terminal at butt end (266) was 1.48m wide and 0.86m deep, with a steep sided V-shaped profile. No finds were recovered from either of the two fills (265 and 267).

Terminal 278 was very similar in form also having a steep sided V-shaped profile with two fills (277 and 279) almost identical to their counterparts within 266. Terminal 278 measured 1.64m in width and 0.92m in depth.

A section excavated across the ditch (276) towards the northern part of the area suggested a possible recut (see S. 139 – 273) although no indication of a recut was seen elsewhere and the fills paralleled those previously seen.

Ditch 276 also cuts a small gully (271). Gully 271 was aligned east/west terminating in a shallow butt end on the western side of the main ditch. The gully measured 0.6m in width and 0.16m in depth, becoming deeper towards the west, and contained a single fill (270/262) from which a single flint was recovered. Gully 271 may have been the precursor to the construction of the larger ditch.

The final feature excavated within Area 27 consisted of a short curvilinear ditch section (286) measuring 4.6m in length. Sections excavated at each end this feature revealed differing profiles. The northern section seemed to show two cut features although the upper fill was universal. The western cut was not traced beyond the excavated section and appears to be an abortive attempt on a different alignment. The eastern cut curved to the south towards the second excavated section where the fills were comparable. The terminal at this end was less well defined, rising gently up rather than the steep side seen at the northern end. It is possible that this feature represents the intent to link Ditch 278 to other known cropmark features to the south. Whether this was achieved using a segmented ditch, of which 286 was part, or if 286 was abandoned is not clear.

Area 30 (see Fig. 14)

Area 30 was centred around the single ditch recorded within Trial Trench 30. Area 30 revealed the continuation of the ditch which was cut by a large pit at the western edge of excavation close to the junction with a smaller ditch feature.

Ditch 311 was aligned south-east/north-west running across the area for 11.5m before turning through 90° to the north-east. It was 1.45m in width and 0.28m in depth with a shallow U-shaped profile. A single very degraded copper alloy object was recovered from the fill (312).

At the north-western edge of the area the ditch (311) was cut by a large pit (313) with a possible recut (334). Pit 313 was exposed for 4.5m in length and 2.25m in width and was at

maximum 0.62m in depth. The fill (315) of recut 334 was very similar to that of the original pit fill (314) although it had distinctly fewer inclusions within it.

A narrow ditch (336) was seen to enter this complex from the south-west. It was also cut by the recut of Pit 313 and therefore had no relationship with Ditch 311. Ditch 336 was only exposed for 2.5m in length and measured 1.1m in width and 0.26m in depth. Its single fill (335) was extremely stony suggestive of deliberate backfill.

Ditch 336 may be the southern trackway ditch as identified from cropmarks intersecting with Ditch 311 which also corresponds with a cropmark and magnetic anomaly.

Area 32 (see Fig 15)

Area 32 was excavated around a single ditch identified within Trial Trench 32.

The continuation of the ditch (319) was exposed for 10.2m on a north-west/south-east alignment across the area. This ditch had an asymmetric profile with a gentler slope on the southern side, measuring 1.5m in width and 0.5m in depth.

A single possible post-hole (320), 0.45m in diameter and 0.17m in depth, was identified on the northern edge of the ditch. Its fill (a mid-orange brown silt) was indistinguishable from that of the ditch (318) and no relationship could be established between them.

Area 33

Area 33 was split into two areas although the features they were targeting were originally located within Trench 33, therefore they were given the suffixes a and b.

Area 33a (see Fig. 16)

Area 33a was excavated around a single gully exposed at the north-eastern end of Trial Trench 33.

The gully (317) extended for 8.4m on an north-west/south-east alignment terminating 2m from the western edge of the excavation. Gully 317 measured 0.7m in width and 0.16m in depth with a very irregular profile which seemed to be caused by the irregular, fractured nature of the limestone. The single fill (316) was very stony. No finds were recovered.

Area 33b (see Fig. 17)

Area 33b was excavated around the parallel pair of ditches identified within Trial Trench 33. The continuation of the ditches were exposed as well as a third ditch that intersected the northern ditch.

The southern ditch (323) was exposed for 14.5m in length on a broadly north/south alignment. It measured 1.03m in width and 0.48m in depth with U-shaped profile that

contained two fills (321 and 322). The upper fill although surviving only to 0.12m in depth yielded two small sherds of pottery.

The northern ditch (327) was exposed for 24m in length on a parallel alignment to Ditch 323. A narrow break in its line was identified towards the northern end of the area that was probably the result of construction methods as it allowed the ditch to avoid a large solid piece of limestone. The single fill (326) of this ditch yielded fifteen sherds of pottery.

At the intersection Ditch 327 was seen to be cut by the perpendicular ditch (325). Ditch 325 was exposed for 7.5m in length on an east/west alignment. It measured 0.74m in width and 0.27m in depth with a U-shaped profile and a single fill (324) of mid yellowish brown clayey silt. No finds were recovered from the fill of this feature.

Ditches 323 and 327 are interpreted as the flanking ditches of a trackway that is part of a field system for which Ditch 325 is a representative.

6 Artefact Record

The Pottery by Ruth Leary

Introduction

Twenty five sherds of pottery (352g.) were recovered during the excavations. Of these four were of prehistoric date, twenty were Romano-British in date with one glazed medieval sherd. The results are presented in Table 1.

Catalogue and discussion

One very tiny crumb of pottery from Area 21 (context 307) had coarse cream/buff inclusions which were probably grog or clay pellets. This scrap had no other diagnostic features but may be placed confidently in the prehistoric period, perhaps in the late Bronze Age or early Iron Age.

Three reduced shell-tempered sherds from the same vessel, a handmade cordoned necked jar with flat upright rather triangular shaped rim, from Area 18 (context 256), is a well-known type characteristic of the immediately pre-Conquest period in South Yorkshire, north Nottinghamshire and the Trent Valley. Petrological and chemical analysis of sherds in comparable fabrics at Stainton, South Yorkshire and Collingham, Nottinghamshire (Vince 2005a and 2005b, Leary 2006) suggested these were dissimilar to Iron Age/early Roman shell-tempered wares from central and North-West Lincolnshire and suggested a source within the Trent Valley, probably the lower Jurassic clays or perhaps exposures of the Penarth Group within the Trent Valley. The cordoned neck jars have recently been identified in groups with no post-Conquest pottery suggesting their date range is restricted to the late pre-Roman Iron Age (Leary 2005 and forthcoming). At Holme Pierrepont (Guilbert, Fearn and

Woodhouse 1994, fig. 3), Nottinghamshire, Scratta Wood (Leary unpublished), Willington (Elsdon 1979, 163-4 and 170) and Whaley, Derbyshire (Radley 1967, fig. 6 nos 18-19) associations are with pre-Roman types only. At Brough-on-Fosse, Nottinghamshire a group of jars in this form, also in shell-tempered wares, were excavated and were associated with jars with bead and bevelled bead rims and carinated and cordoned bowls dating to the late Iron Age (Leary forthcoming) and at Gallows Nooking Common, Nottinghamshire a similar late Iron Age date was suggested (Darling forthcoming). At Rampton, Nottinghamshire a later date in the Neronian-early Flavian period is suggested but these did not come from well-stratified groups (Ponsford, 1992, fig. 19 nos 4, 7 and 8). At Old Winteringham a similar handmade jar was illustrated from a Claudio-Neronian context (Rigby 1976, fig. 74 no. 7). In South Yorkshire the type occurred at Pickburn Leys where it was associated with a carinated and cordoned bowl of late Iron Age type (Sydes and Symonds 1985). Thus a date in the late Iron Age is indicated for this jar on the present evidence with some continuation or rubbish survival into the Conquest period.

The Romano-British material was very abraded and the original surfaces were eroded so that little in the way of decoration would have survived. Many of the sherds were little more than scraps and could not be given a narrow date range. Where identifiable, the sherds all came from jars and all the Roman sherds were in a common grey ware with medium, sub-rounded quartz inclusions typical of the kilns operating from the mid-2nd to mid-4th century around Doncaster (Buckland *et al* 1980). The bodysherds from Area 8 (context 207) were reminiscent of a BB1 jar or vessels of that type but the surfaces were too eroded to determine if the burnished lattice decoration typical of that form as present. If this tentative identification were correct a date in the mid-2nd to 3rd century would be appropriate. The fifteen sherds from Area 33b (context 326) probably all belong to the same vessel, coming from the base of a wide-mouthed jar of Buckland's type Hb (Buckland *et al* 1980). Unfortunately this is a long-lived type from the mid-2nd to 4th century and cannot be dated more precisely. The remaining Romano-British sherds were small undiagnostic scraps.

The small number of abraded sherds, all from common jar types, suggests this area was peripheral to the focus of domestic occupation and was not an area used for ceramic rubbish disposal. This means that little can be said about the nature of this settlement.

A glazed sherd from Area 18 (context 260) is of medieval or later type.

Table 1. Catalogue of pottery sherds

Area	Context	Ware	No.	Weight (G	Abrasion	Part	Form description	Date
33b	321	Grey ware with sparse, medium, sub-rounded quartz	2	1.7	Very	Scraps		Roman
21	307	Grog-tempered ware. Coarse, angular grog inclusions.	1	2.3	Very	Scrap		Prehistoric-late Bronze Age/early

								pre-Roman Iron Age?
9	221	Hard grey ware with medium, sub-angular and sub-rounded quartz	1	1.4	Very	Scrap		Roman
18	256	Brown ware with abundant, ill-sorted shell inclusions	3	14.3	Moderate	Rim and body scraps	Jar with upright triangular rim, flat on top and cordoned neck	Late pre-Roman Iron Age
18	260	Glazed ware	1	9.3	Not abraded	Body		Medieval
33b	326	Grey ware with medium sub-rounded quartz, South Yorkshire kilns type	15	302.7	Abraded	B+B	Closed vessel, probably from a wide-mouthed shouldered jar as Buckland et al 1980 type Hb	Roman, optimum mid 2nd-4th
8	207	Grey ware with medium sub-rounded quartz, South Yorkshire kilns type	2	20.6	Very	BDY	Closed vessel, jar	Roman, optimum mid 2nd-3rd

The Flint by Phil Weston

Introduction

A total of nine lithic artefacts were recovered during the excavations at Marr. The artefacts were from contexts which can be demonstrated to be late Iron Age or later and can therefore be regarded as residual.

The heavy patination present on all but one of the artefacts makes identification of the raw materials used difficult. However, modern damage and unpatinated patches indicate that eight of the nine pieces are made from a mid to dark grey flint. The exception is a broken bladelet made of a light, translucent honey-brown flint. The dark grey flint, where cortex is present, appears to have come from secondary (derived) deposits such as gravels or tills. Though not conclusive, the bladelet may also have originated from such deposits. The nearest identified source of flint baring gravels is the Trent Valley, approximately 35km to the east (Henson 1985).

Catalogue

Terminology after Andrefsky (1998, xxi-xxvii) and Butler (2005, 202-209).

Area 8, unstratified. Chunk. Primary. Mid tan-grey, opaque. Slightly patinated with a thin, milky patination.

Area 8, Context 209. Primary broken flake. Butt missing. Mottled light grey and white, opaque. Heavily patinated.

Area 9, Context 217. Tertiary broken blade. Trimmed butt, distal end missing. Mottled light grey and white, opaque. Heavily patinated. Broken distal end is patinated indicating the piece was broken in antiquity. Regular semi-abrupt retouch down the right lateral edge, slight retouch/use-ware down left edge.

Area 18, unstratified. Rough, exhausted, multi-platform core. Approximately 50% surviving cortex. Mottled grey and white, heavily patinated. Multiple removal scars. Poor quality, small nodule, appears to have been quickly discarded.

Area 18, unstratified. Fabricator made on a secondary blade with minimal modification. Trimmed butt. Distal end missing, broken in antiquity. Mid to light grey with white patination mottling. The right lateral side has regular, semi-abrupt/invasive retouch. The left lateral side has semi-abrupt retouch along the proximal third of the edge, evidence of use-wear along the remainder.

Area 21, Context 305. Heavily burnt, broken flake. Butt missing, hinge termination. White, heavily patinated, recent fracture has revealed a red-dark grey surface.

Area 27, Context 280. Secondary flake. Poorly trimmed butt. Mottled light grey and white, opaque. Heavily patinated. No evidence of retouch or use-wear, waste flake.

Area 27, Context 262. Broken, secondary bladelet. Butt missing. White, heavily patinated although recent damage indicates the original material was translucent, light honey brown. The right lateral edge still bares cortex, whilst the left edge exhibits use-wear. Two roughly parallel removal scars on the ventral face indicate the piece was removed from a well maintained blade core.

Area 30, unstratified. Broken tertiary flake. Unprepared butt, distal end missing. Mottled dark grey and white, heavily patinated.

Discussion

The flint assemblage from Marr represents a low level scatter of flint artefacts with no real concentrations. The assemblage consists of un-diagnostic artefacts with the exception of the bladelet. Artefacts of this type were used to make microliths for the construction of composite tools during the Mesolithic period.

Metalwork

During the excavation of Ditch 311 within Area 30, a patch of green staining associated with the degradation of copper alloy objects was identified. The area was taken as a block for later

investigation. The soil block was X-rayed but it was found that none of the metal had survived and consequently the object could not be identified.

7 Environmental Record

Carbonised Plant Remains By Diane Alldritt

Introduction

A total of 30 flots were examined for carbonised plant macrofossils and charcoal. Only one sample retent produced charred material, and this proved too small to identify. In addition a spot sample of hazel nutshell from Area 27 was recorded.

Methodology

Bulk environmental samples were processed by ASWYAS using an Ankara style water flotation system (French 1971). The flots were dried prior to examination under a low powered binocular microscope. Very small amounts of charred remains were encountered, with most recovered in trace quantities of <2.5ml to 2.5ml only. Six of the samples were devoid of any carbonised material. Modern root fragments were present, often in abundance, throughout the samples with amounts from <2.5ml to 45ml recorded. Other modern material such as earthworm egg capsules, non-carbonised seeds and fragments of straw and other cereal chaff recovered indicated a degree of contamination from bioturbation and/or shallow deposits. Cereal waste from modern harvesting was present in thirteen of the samples and reflected the modern use of some of the excavated areas.

Wood charcoal was extremely scarce with most fragments too small to identify. Specimens considered suitable for identification were examined using a high powered Vickers M10 metallurgical microscope at magnifications up to x200. The reference photographs of Schweingruber (1990) were consulted for charcoal identification. Plant nomenclature utilised in the text follows Stace (1997) for all vascular plants apart from cereals, which follow Zohary and Hopf (2000).

Results and Discussion

Results for Areas 6, 8, 9, 10, 11, 13, 18, 19 and 20 are presented in Table 2, whilst those for Areas 21, 27, 30, 32, 33a and 33b are given in Table 3. All results are discussed below.

The thirty samples from Marr produced very little carbonised plant material, with only trace amounts of wood charcoal and burnt peat recovered. Single specimens of charred hazel nutshell, a whole bud and a wheat cereal grain were also present. Twenty-four of the samples were devoid of identifiable carbonised remains, producing only modern material and,

occasionally, very small slivers of wood charcoal. Non-marine mollusc shell was recorded in almost every sample in varied amounts. Overall the majority of charred material could be considered trace or accidental inclusions in the deposits with very little plant evidence recorded to indicate the types of activities occurring.

Area 6

The single ditch sample (51 context 202) was devoid of environmental material.

Area 8

Three ditch samples from Area 8, contexts (207), (209) and (239) produced modern material only, indicating a degree of contamination, particularly through bioturbation of modern agricultural waste, including straw and other chaff.

Area 9

The four ditch samples from Area 9, contexts (215), (217), (219) and (221) produced modern material only and were barren of identifiable charred material.

Area 10

Ditch sample 64 (213) contained modern material only, whilst sample 65 (211) produced modern remains together with a single fragment of burnt peat. This was most likely a chance or accidental inclusion in context (211), although it does suggest waste from fire or other burning activity occurring to some degree in the vicinity.

Area 11

Gully sample 54 (229) was barren of identifiable carbonised remains, producing modern material and very small fragments of wood charcoal only.

Area 13

Gully sample 61 (233) was also barren of identifiable charred plant material producing only modern remains.

Table 2. Carbonised plant remains, Areas 6, 8, 9, 10, 11, 13, 18, 19 and 20

	Sample	51	55	56	62	57	58	59	60	64	65	54	61	63	73	71	72
	Context	202	207	209	239	217	221	219	215	213	211	229	233	247	297	289	295
	Area	A6	A8	A8	A8	A9	A9	A9	A9	A10	A10	A11	A13	A18	A19	A20	A20
	Feature	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Ditch	Gully	Ditch	Ditch	Gully	Gully
	Total CV	0	0	0	0	0	<2.5ml	<2.5ml	<2.5ml	<2.5ml	2.5ml	<2.5ml	<2.5ml	<2.5ml	<2.5ml	2.5ml	2.5ml
	Modern	<2.5ml	35ml	15ml	10ml	20ml	15ml	15ml	15ml	10ml	25ml	20ml	20ml	10ml	15ml	40ml	40ml
Carbonised Cereal Grain	**Common Name**																
Triticum sp.	wheat																1
Charcoal																	
Indeterminate																	
Carbonised Wild Resources																	
Burnt peat											1 (0.05g)						
Corylus avellana nutshell	hazel nutshell																
Indet. Whole bud														1			
Other Remains																	
Non-marine mollusc shell			5+	15+	10+	10+	1	10+	5+	10+	30+	20+	10+	5+	10+	20+	10+
Earthworm egg capsules			2	1	1	1					1	2	1	1	1	2	
Modern (non-carbonised) seeds					2			5+	5+	10+	5+	1		2		10+	5+
Modern straw and chaff fragments			10+		2	2	5+		2	3			1			2	5+
Fly pupae				1													

Table 3. Carbonised plant remains, Areas 21, 27, 30, 32, 33a and 33b

	Sample	74	76	78	Spot	67	68	69	70	79	80	82	81	83	84	85
	Context	291	303	307	285	265	275	283	268	309	314	318	316	322	328	326
	Area	A21	A21	A21	A27	A27	A27	A27	A27	A30	A30	A32	A33a	A33b	A33b	A33b
	Feature	Ditch	Pit	Ditch/Pit	Ditch	Ditch	Ditch	Ditch	Gully	Ditch	Pit	Ditch	Ditch	Ditch	Ditch	Ditch
	Total CV	<2.5ml	<2.5ml	<2.5ml	<2.5ml	2.5ml	<2.5ml	<2.5ml	<2.5ml	<2.5ml	<2.5ml	<2.5ml	<2.5ml	0	<2.5ml	<2.5ml
	Modern	20ml	15ml	25ml	N/a	10ml	10ml	15ml	15ml	5ml	5ml	5ml	5ml	5ml	5ml	2.5ml
Carbonised Cereal Grain	**Common Name**															
Triticum sp.	wheat															
Charcoal																
Indeterminate		1 (0.02g)							1 (0.02g)							
Carbonised Wild Resources																
Burnt peat						1 (0.03g)										
Corylus avellana nutshell	hazel nutshell				1 (0.05g)											
Indet. Whole bud																
Other Remains																
Non-marine mollusc shell		30+	20+	5+		50+	20+	10+	10+	5+	1	5+	2	10+	2	5+
Earthworm egg capsules		3	2					1					2	1	1	
Modern (non-carbonised) seeds		5		5+		5+		1	2	3			5+	5+		
Modern straw and chaff fragments			1	2		1				3						
Fly pupae																

Area 18

Modern contamination was recorded in ditch sample 63 (247) together with a single very small indeterminate charred bud. The bud was recovered whole but quite degraded, and was most likely a chance occurrence in the sample.

Area 19

Ditch sample 73 (297) contained modern remains only and was barren of identifiable charred material.

Area 20

Two gully samples 71 (289) and 72 (295) from Area 20 produced large amounts of modern material including straw, seeds and earthworm egg capsules. Interestingly a single carbonised *Triticum* sp. (wheat) was identified from (295) and recorded in a very good state of preservation. It is highly possible given the large amounts of modern wheat cereal remains noted in the assemblage that this charred specimen represents waste from modern crop burning. Occasional modern straw fragments were also recorded with slight charring damage. Also given the general lack of ancient environmental material in the samples the author would suggest this single cereal grain is also fairly modern.

Area 21

Three samples were examined from Area 21, with ditch terminal/pit sample 78 (307) and pit sample 76 (303) proving barren of identifiable charred remains with only tea-leaf sized slivers of wood charcoal recorded. Ditch sample 74 (291) contained a slightly larger fragment of wood charcoal (although still <0.5cm in size) which was indeterminate due to lack of diagnostic features in such a small piece. All three samples contained small amounts of modern material.

Area 27

A spot sample from ditch fill (285) in Area 27 produced one fragment of *Corylus avellana* (hazel) nutshell, which proved to be the only fully identified evidence for woodland recorded from the site as a whole. The hazel nutshell suggested the presence of light and open woodland or scrub in the vicinity, possibly being exploited for food in the form of gathered nuts, but equally likely that hazel wood was also being used as a source of fuel.

Ditch sample 68 (275) and curvilinear ditch sample 69 (283) were both barren of identifiable carbonised remains. Sample 67 (265) contained modern material together with a single fragment of burnt peat, possibly fire-waste or an accidental inclusion. Finally from Area 27, gully sample 70 (268) produced modern contamination plus a small fragment of indeterminate wood charcoal.

The carbonised fragments of peat, charcoal and hazel nutshell examined from Area 27 provided tentative indication of activity involving both woodland and heath or peat land resources for fuel and possibly also gathered food. The archaeobotanical evidence is however very scarce and should be considered with caution, particularly given the amount of modern material present in the deposits.

Area 30

Pit sample 80 (314) and ditch sample 79 (309) were both barren of identifiable charred material producing only very small fragments of wood charcoal.

Area 32

A single ditch sample 82 (318) from Area 32 proved barren of carbonised environmental remains.

Area 33a

The sample from shallow ditch deposit (316) contained only modern contamination together with very small tea-leaf sized charred detritus.

Area 33b

No identifiable charred material was present in any of the three ditch samples taken from Area 33b. Small amounts of modern contamination were also present.

Conclusion

The environmental samples from Marr produced very few carbonised plant remains whilst modern material was often present in abundance.

Trace specimens of burnt peat, indeterminate wood charcoal and a hazel nutshell provided tentative evidence for the use of heath and woodland resources for fuel and possibly also food, with the main (albeit very small) concentration of this material recorded from Area 27.

The single wheat cereal grain from Area 20, although recovered carbonised, is most likely a reflection of modern agricultural practice and not a particularly ancient specimen, especially given the large amounts of modern straw and cereal waste recorded in the assemblage.

Overall the samples provided very little indication of the types of activity occurring across the site as a whole, with only tentative suggestions for the use of peat and wood as sources of fuel and no solid evidence for the types of ancient agricultural practice taking place. Environmental evidence was scarce throughout the samples and much of the recorded carbonised material may have been subject to bioturbation or mixing in the deposits, probably as a result of modern ploughing and other agricultural activities.

Animal bone by J. Richardson

In total, 59 bone fragments were recovered from six contexts (Table 4). The bone fragments are typically poorly preserved, with eroded or flaking surfaces. They are also heavily fragmented.

Table 4. Animal bones by context

Context	Feature	Cattle	Horse	Large mammal-sized
204	Pit 205		1	
207	Ditch 206			1
211	Ditch 212			22
258	Ditch 259	1		
283	Ditch 284	2		1
299	Gully 300	3		28
Total		6	1	52

Two taxa were identified, cattle and horse. All bones identified to these taxa are in fact teeth; typically an indication of a poorly preserved assemblage. Unfortunately, given its poor condition, and the small sample size, no meaningful interpretation of this assemblage is possible.

8 Discussion

The features investigated within the defined mitigation areas were mostly ditches and gullies of varying shapes, sizes and state of preservation. Taken in isolation the results of the individual excavation areas would be difficult to interpret as wider landscape features. However adding the information from adjacent areas, where it is possible to follow the continuation of some of the features either as cropmarks, identified from aerial photographs, or as magnetic anomalies, interpreted from geophysical survey, the remains are confirmed as part of a complex of field boundaries and trackways.

There are, however, still limitations as the cropmark data stops at the north-west edge of the development area and the geophysical survey was limited to a fairly narrow corridor surrounding the originally proposed development locations. These limitations preclude definitive interpretation. For example, the trackway ditches identified within Area 33 are the probable cause for the parallel magnetic anomalies within that area. External to the boundary of the geophysical survey area, cropmark identification has produced similar looking parallel features that continue up to Area 30, but because the anomalies in this instance do not coincide it is difficult to be certain that they are the continuation of the same feature.

Discrete features were only present in three areas; in Area 9 and Area 32 these were found in close association with linear features and in Area 21 they were located adjacent to a ditch. In Area 9 the two possible post-holes located along the side of one of the gullies could be evidence for a palisade fence. However, further investigation did not reveal any other similar features that would provide supporting evidence for this interpretation. The post-hole in Area 32 was in a similar position but again with no other associated features to provide better interpretation. The discrete features identified in Area 21 do hint at additional activity but, despite the recovery of a fragment of pottery from feature 308, no function could be ascribed to any of them. Overall the presence of (albeit very few) discrete features might be seen as possible evidence of domestic activity. However, the dearth of artefactual and environmental evidence precludes against this interpretation.

The variation in depth and profile of the excavated features could be due to a number of possible factors, one being that construction methods varied over time and so variation could be indicative of different phases of activity on site. Unfortunately the paucity of artefacts recovered during the excavations on this occasion preclude the confirmation of this assumption.

Differences in construction may also lead to variation in survival which was illustrated, but not exclusively, by the very shallow survival of the remains in Area 9 and Area 13. Where the remains were particularly shallow, the depth of topsoil was usually only just at normal plough depth with no intermediate subsoil. It was also noted on more than one occasion that where the line of a ditch or gully encountered a particularly solid section of limestone, it would shallow until the obstacle was passed. This in conjunction with plough damage would result in an intermittent feature.

Further illustration of the natural strata having a command over the construction of the features is found within Area 20. Here the parallel ditches of a trackway are very shallow narrowing at the southern side of the area where the natural limestone was solid and thickly plated. In contrast the same features, on the opposing side of the area, were much deeper and wider in conjunction with a natural layer that was weathered and lacked the sedimental layers of its original deposition. Also in Area 20 and Area 30 features were found to be shallower than their width suggested, often bottoming at the next solid layer of limestone. This suggests that the necessity of a deeper cut was outweighed by the effort required to produce it. This in itself could be considered a method of construction that may relate to a particular period.

9 Conclusions

The results of the mitigation excavations have confirmed and enhanced the conclusions and interpretations drawn from the results of the geophysical survey and by the trial trench evaluation that in the late prehistoric and early post-Conquest period this part of South

Yorkshire was predominantly an agricultural landscape subdivided by ditches and trackways into a system of fields and enclosures which is known to extend to the north-west of the site. In this regard the excavations expand our understanding of the extent of that landscape. No convincing evidence for any settlement activity has been identified during any phase of the site investigations.

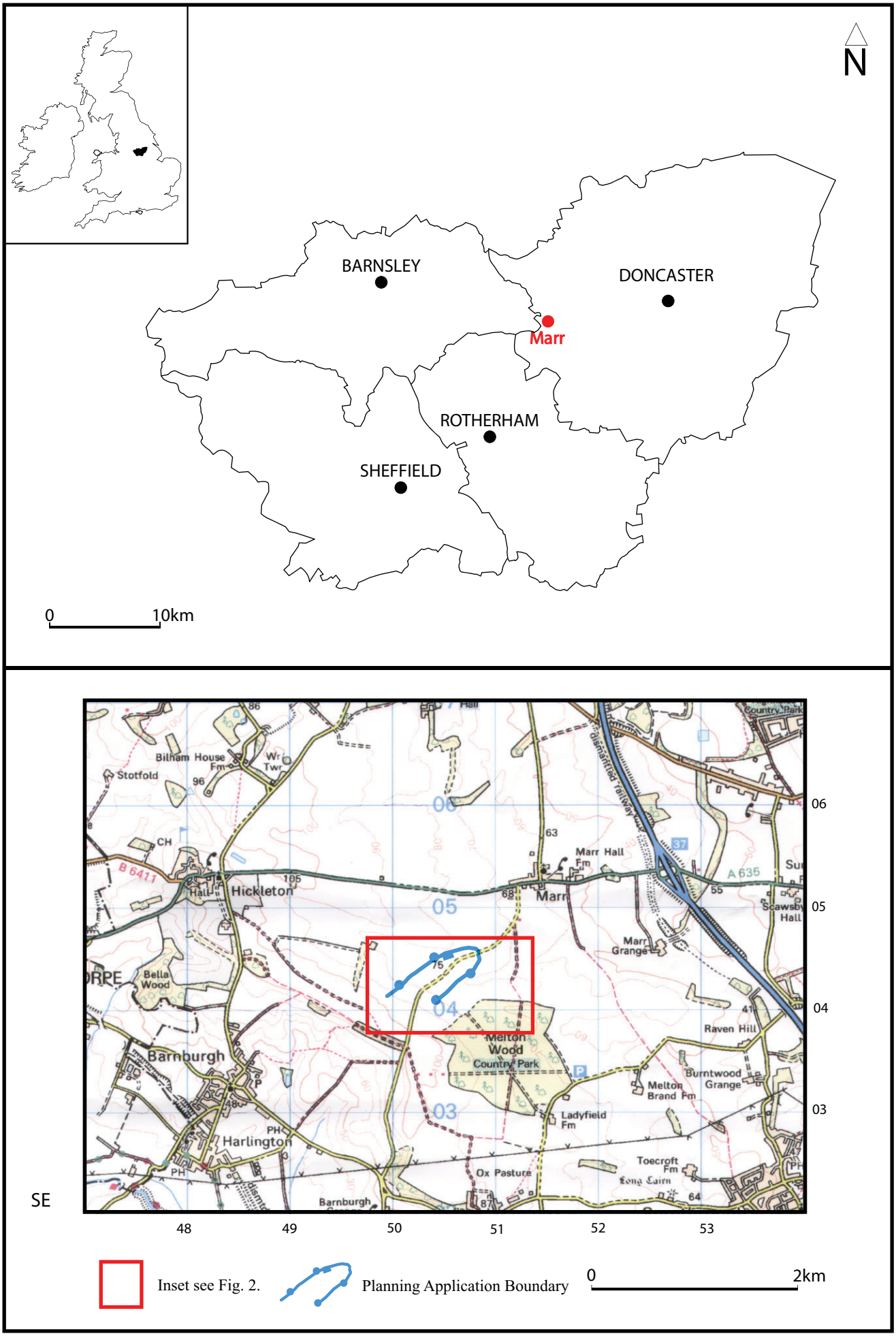

Fig. 1. Site location

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	PROPOSED TURBINE LOCATION AND ACCESS TRACKS
34	TRIAL TRENCH
	CROPMARK
	EXCAVATION AREA
	ARCHAEOLOGICAL FEATURE
	GEOPHYSICAL ANOMALY - ARCHAEOLOGY?
	GEOPHYSICAL ANOMALY - ARCHAEOLOGY

N

Area 27 Area 30 Area 32 Area 33a Area 33b Area 21 Area 20 Area 19 Area 18 Area 16 Area 14 Area 13 Area 11 Area 10 Area 9 Area 8 Area 6

HANGMAN STONE ROAD

77.8m 73.6m 75.2m 81.5m 91.3m

Def 1.22m RH 1.22m RH

4045^{00} 4042^{50} 4040^{00}

4500^{00} 4502^{50} 4505^{00} 4507^{50}

0 50m

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PO Box 30, Nepshaw Lane South, Morley, LS27 0UG
Tel: 0113 383 7500 Fax:0113 383 7501

Fig. 2. Excavation areas showing archaeological features, cropmarks and magnetic anomalies (1:2500 @ A3)

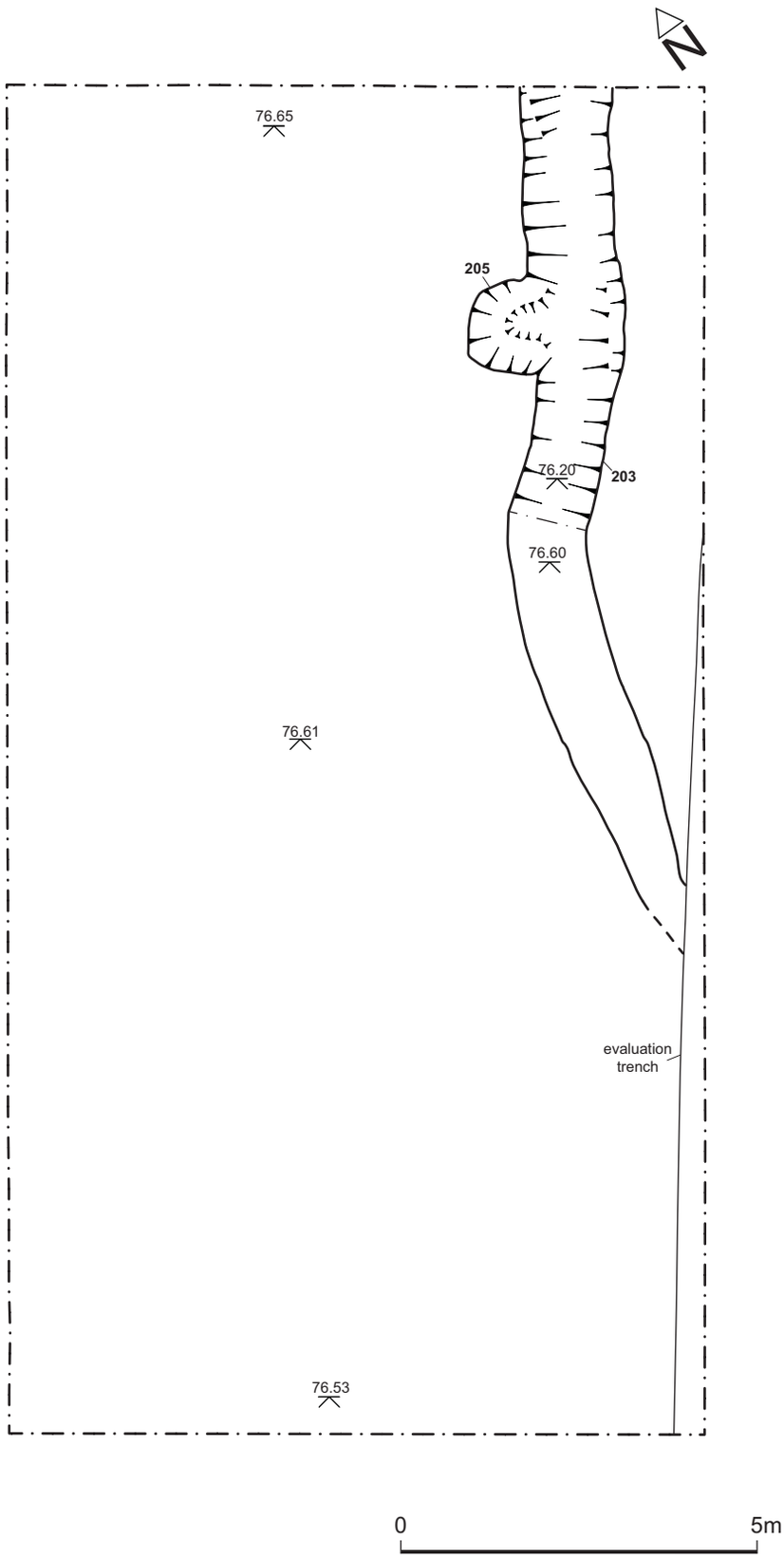


Fig. 3. Area 6; plan (scale 1:100)

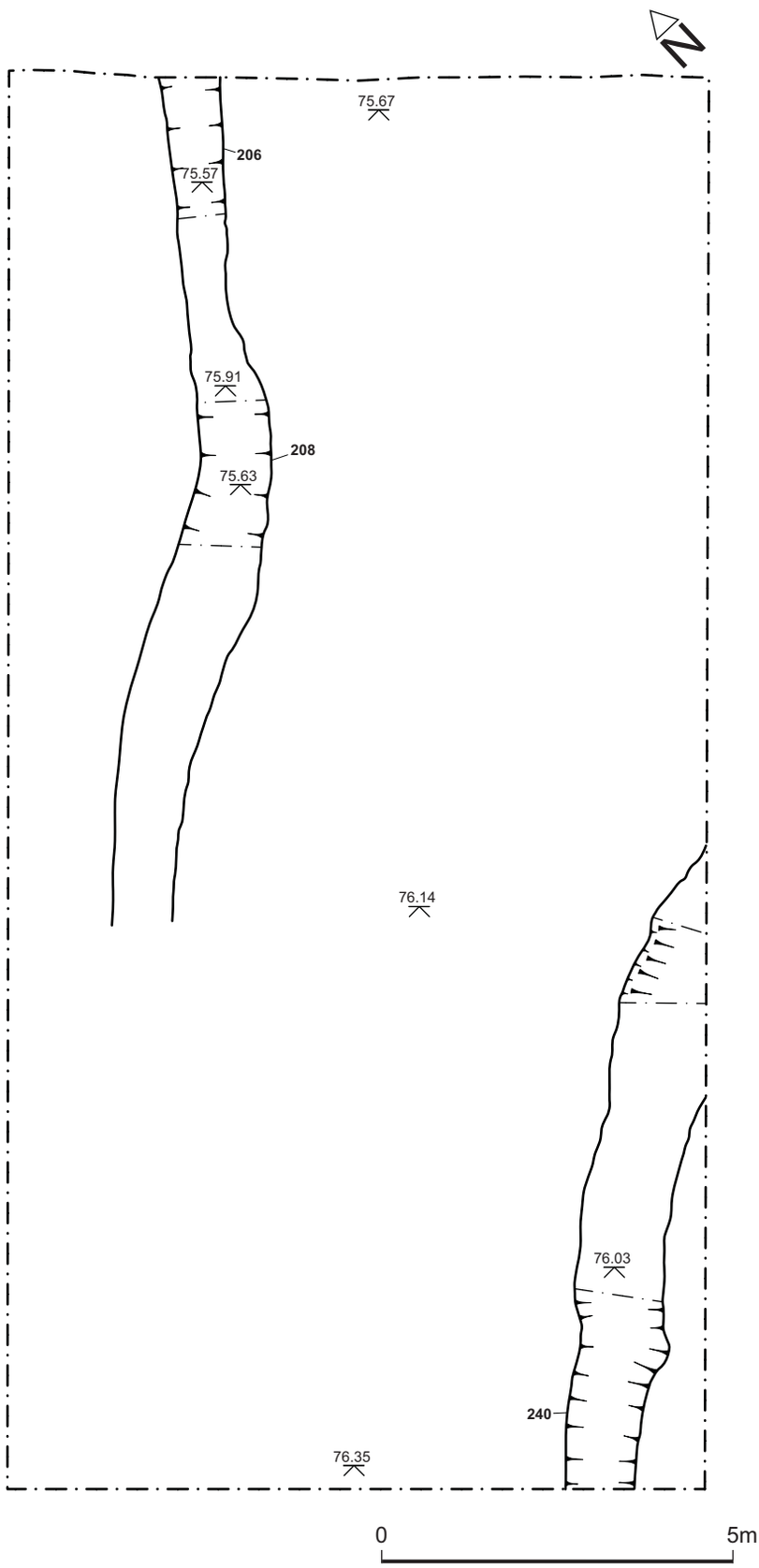


Fig. 4. Area 8; plan (scale 1:100)

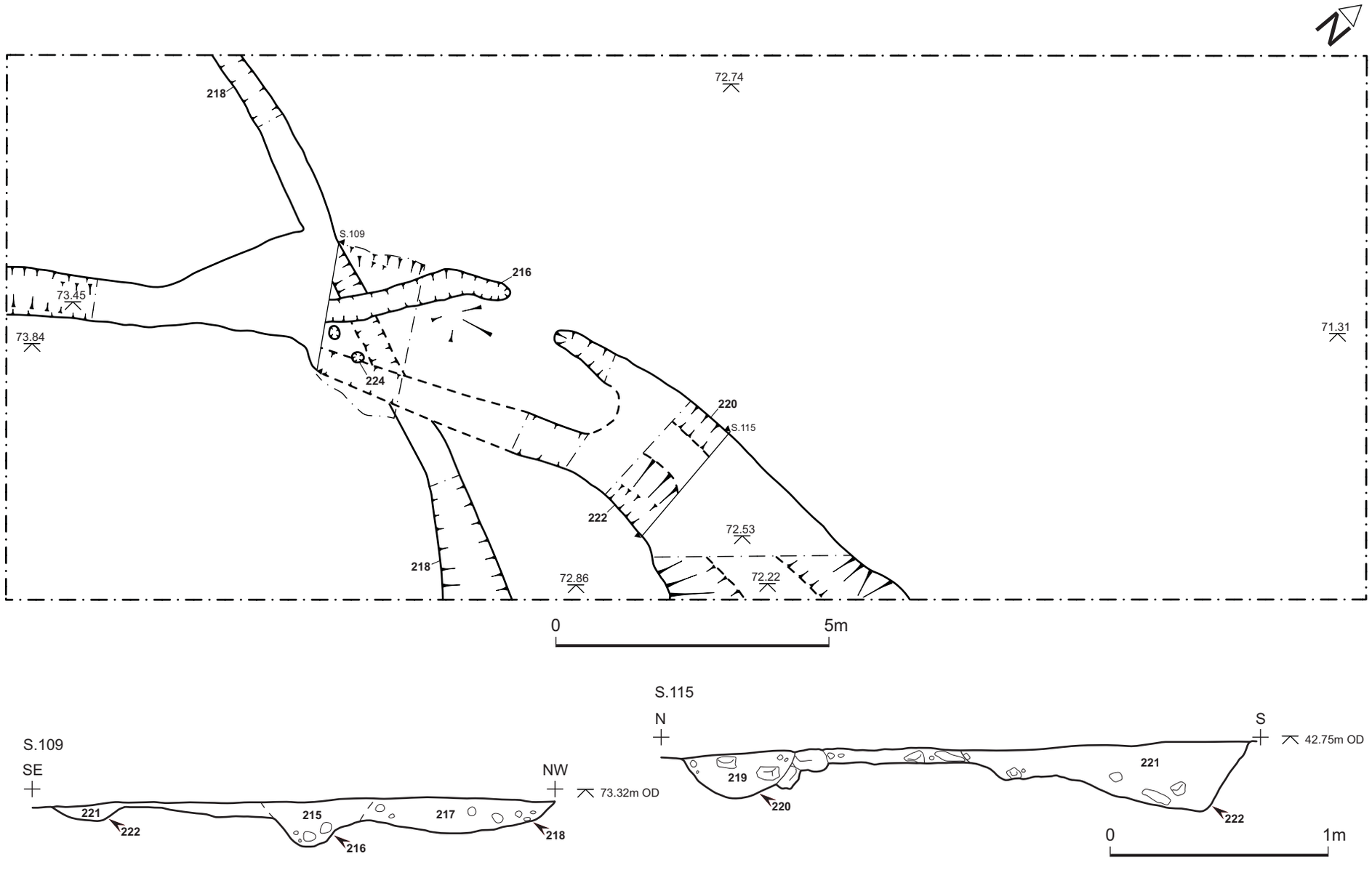


Fig. 5. Area 9; plan and sections (scale 1:100 and 1:25)

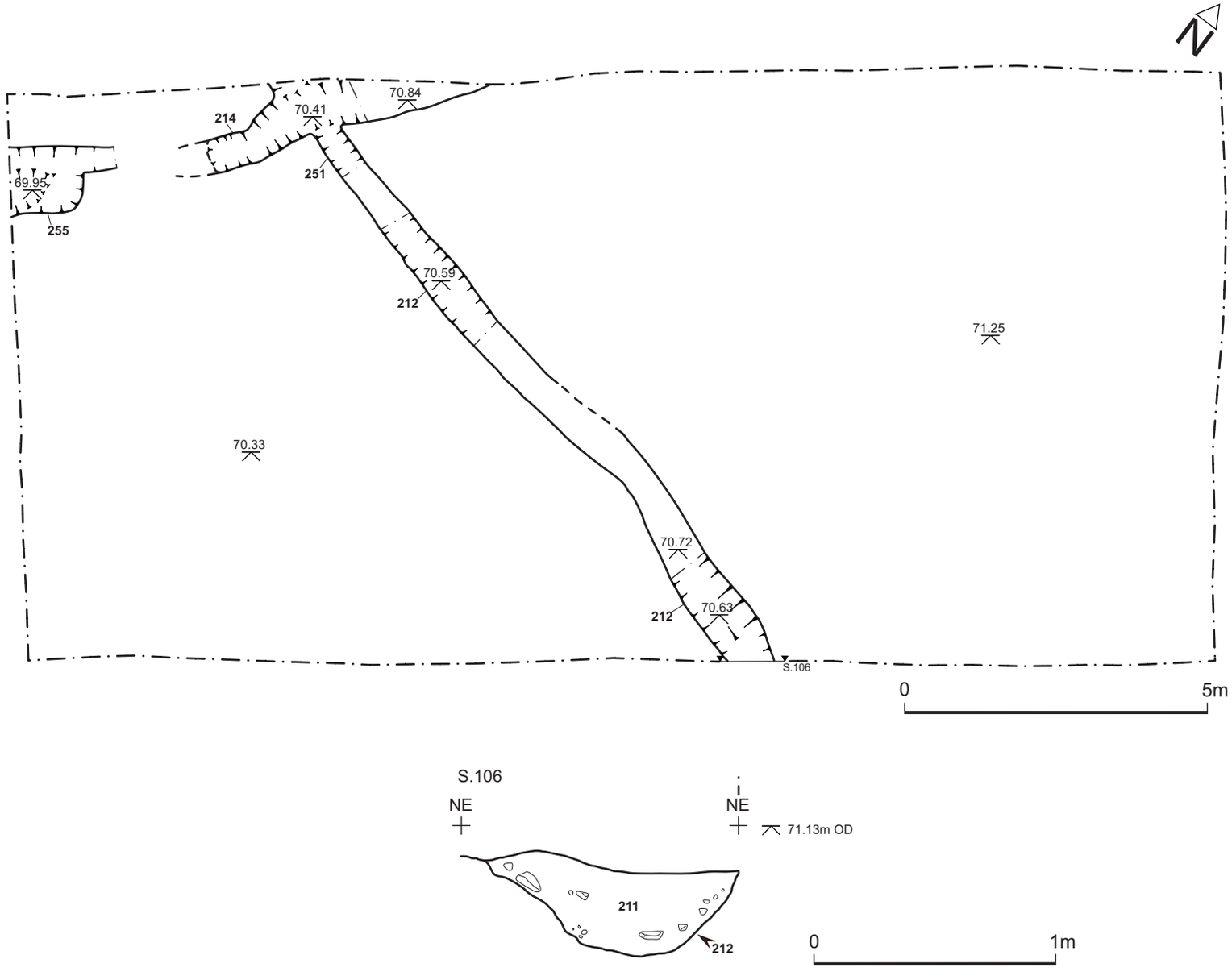


Fig. 6. Area 10; plan and section (scales 1:100 and 1:25)

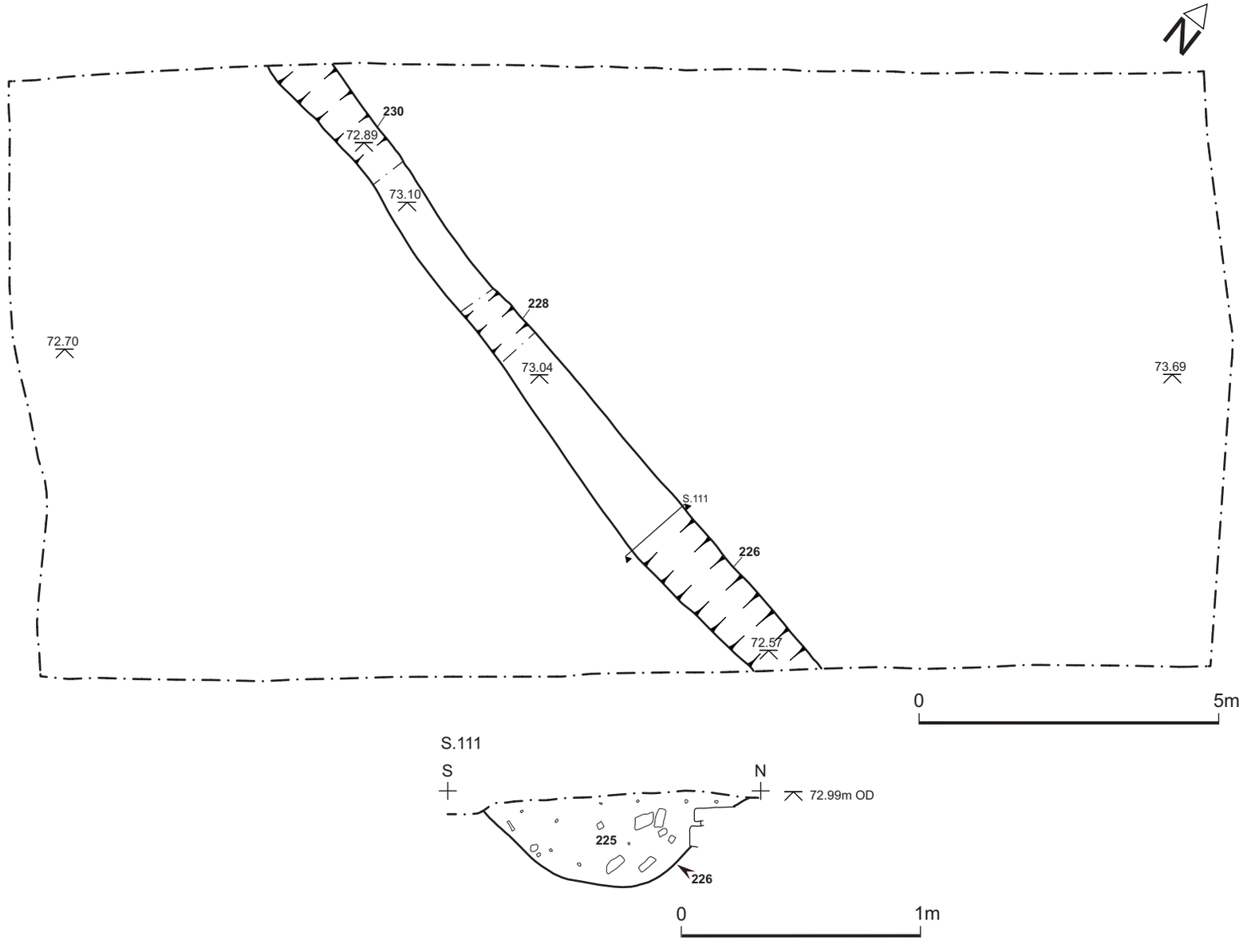


Fig. 7. Area 11; plan and section (scales 1:100 and 1:25)

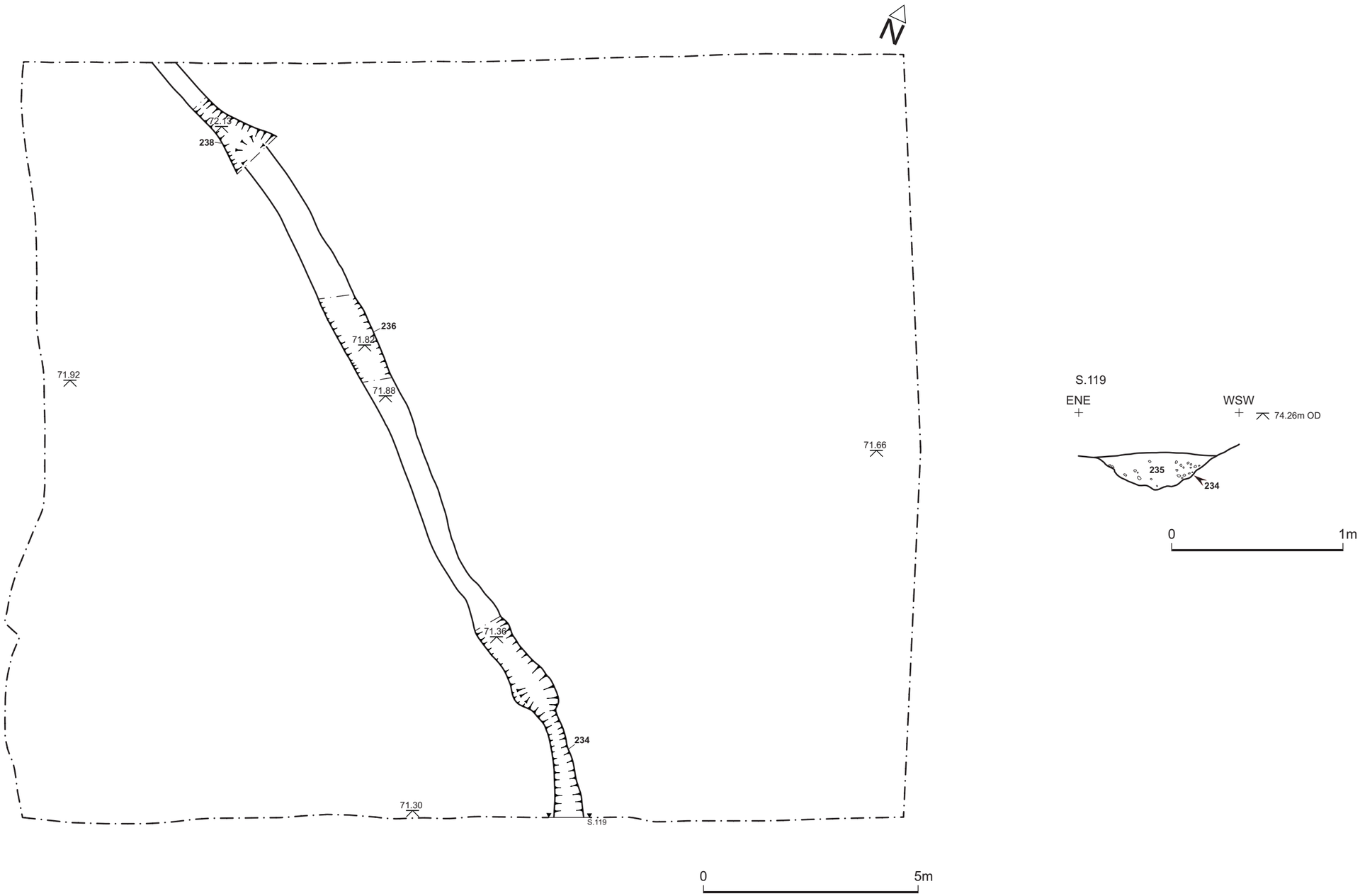
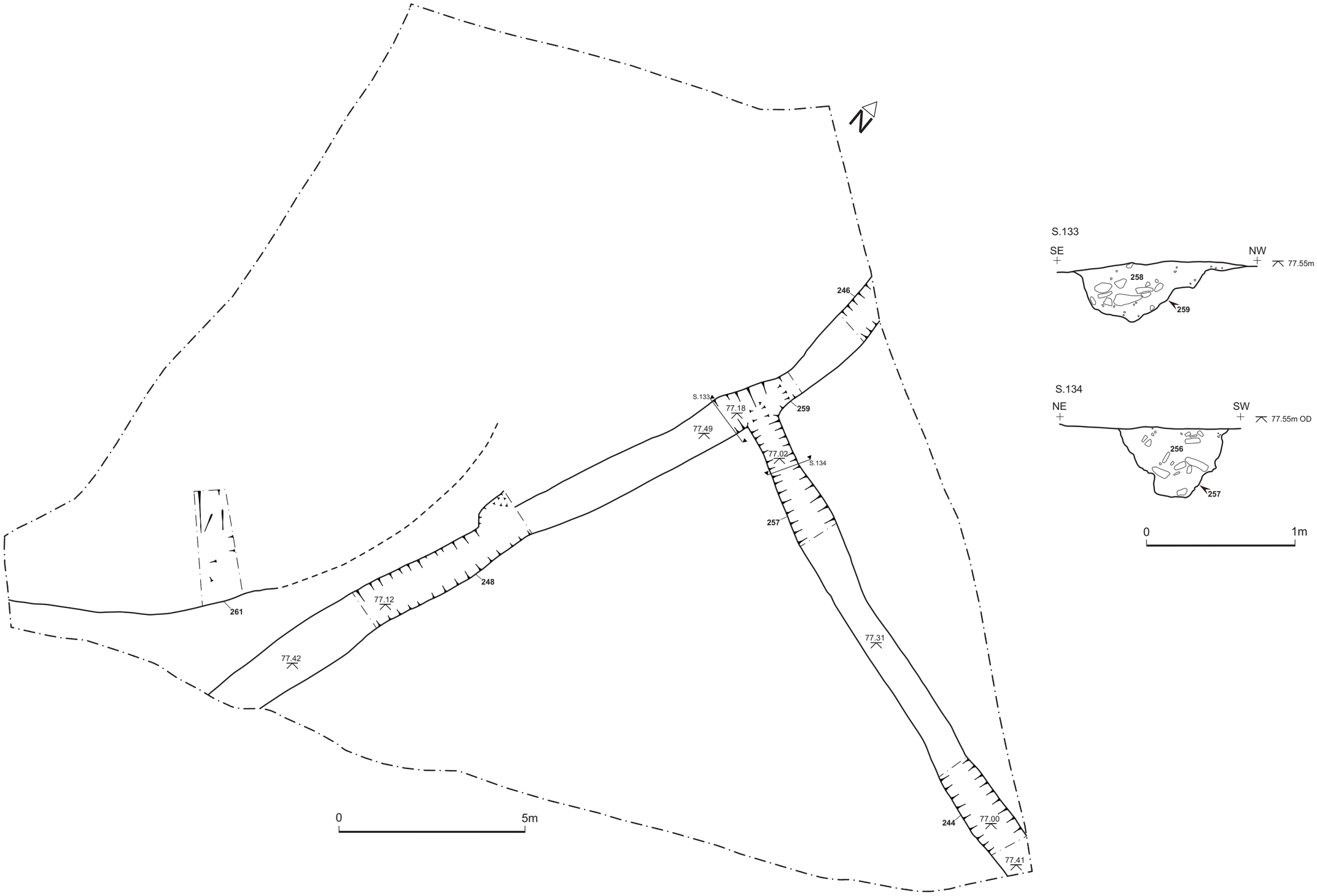


Fig. 8. Area 13; plan and section (scales 1:100 and 1:25)



S.133

S.134

Fig. 9. Area 18; plan and sections (scales 1:100 and 1:25)

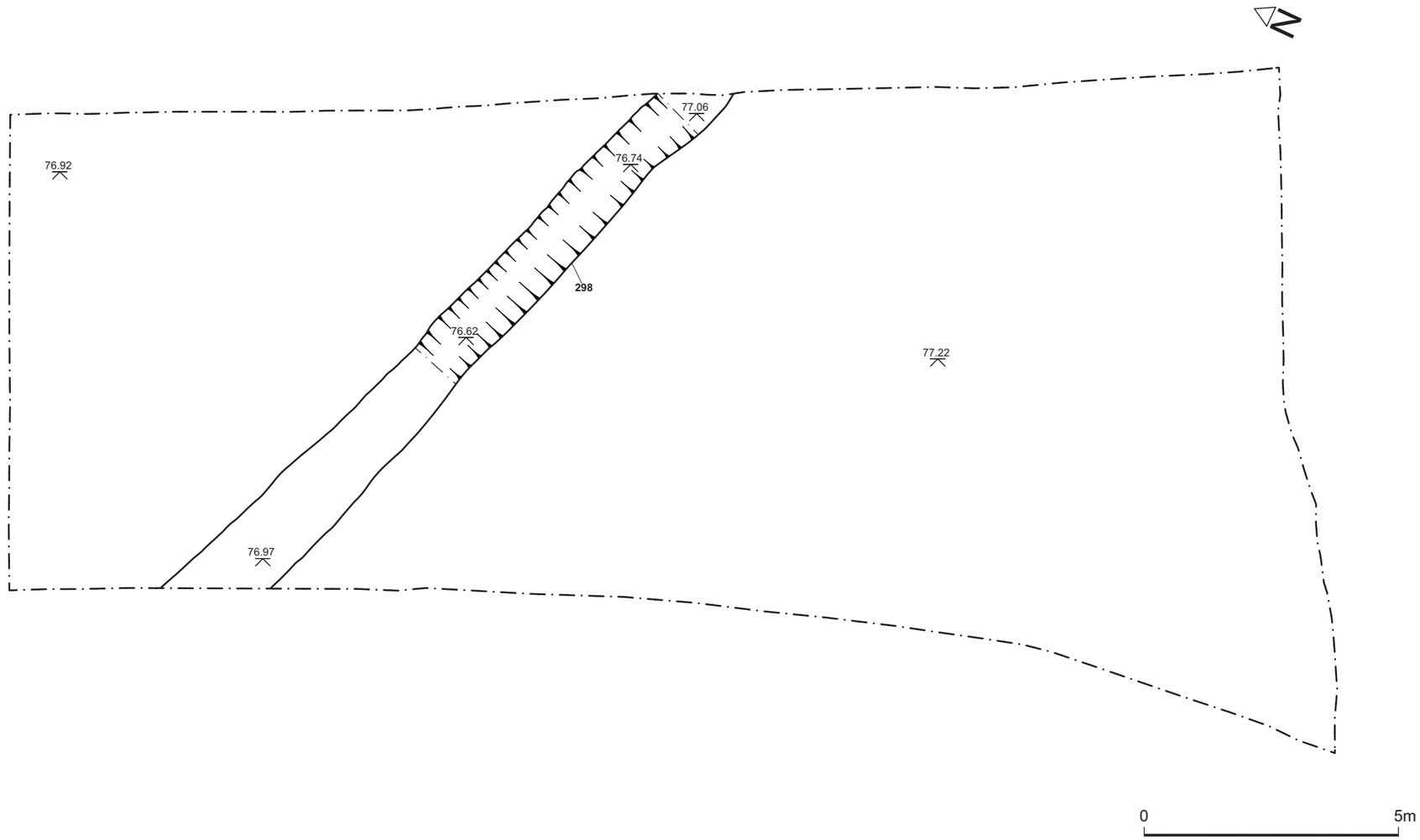
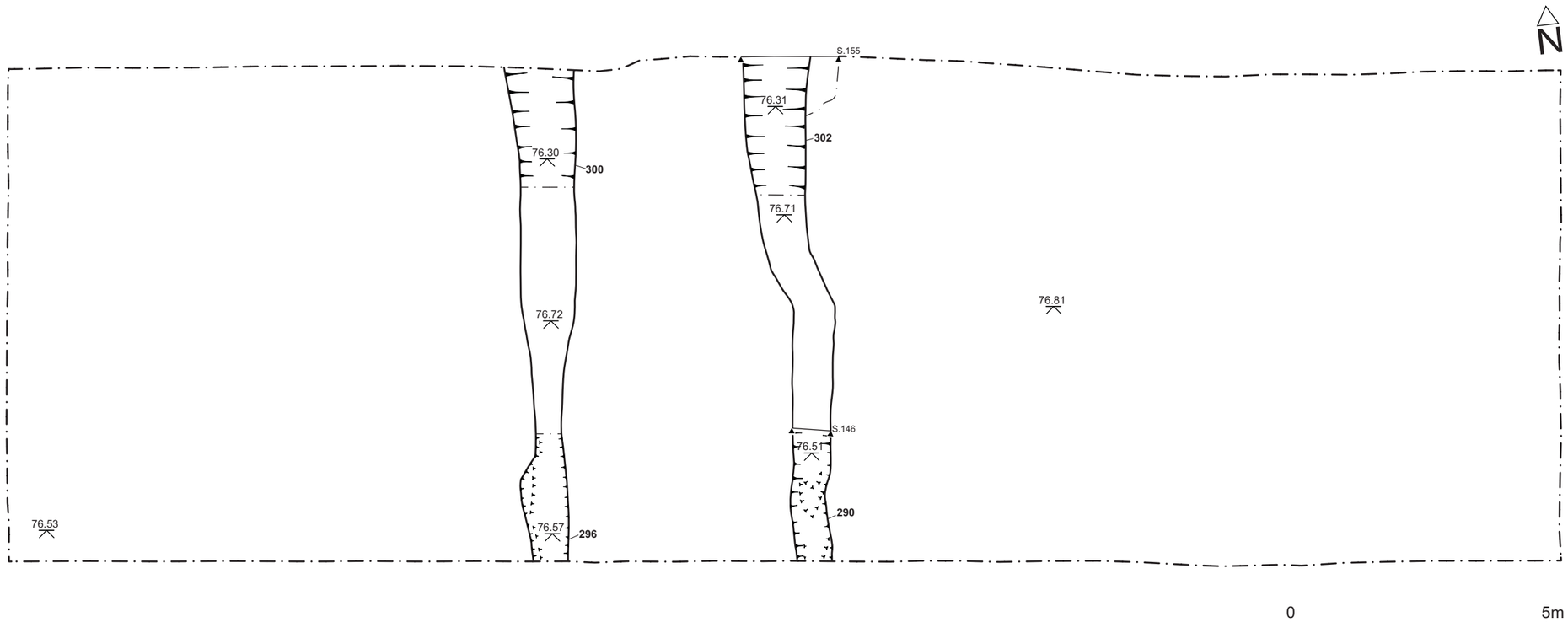


Fig. 10. Area 19; plan (scale 1:100)



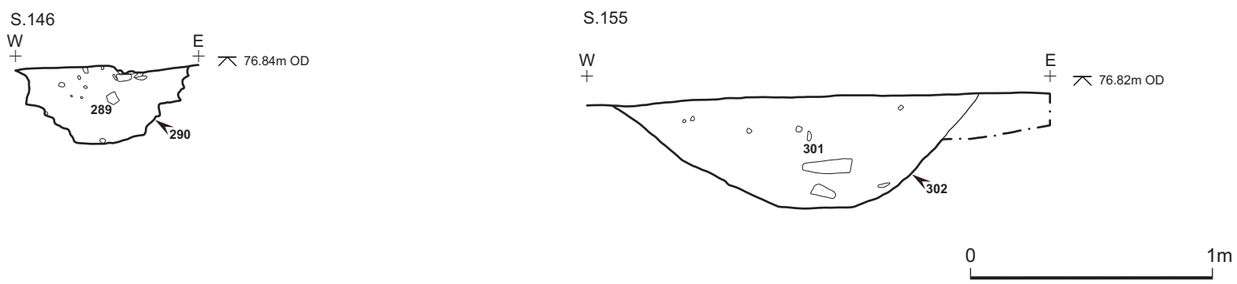


Fig. 11. Area 20; plan and sections (scales 1:100 and 1:25)

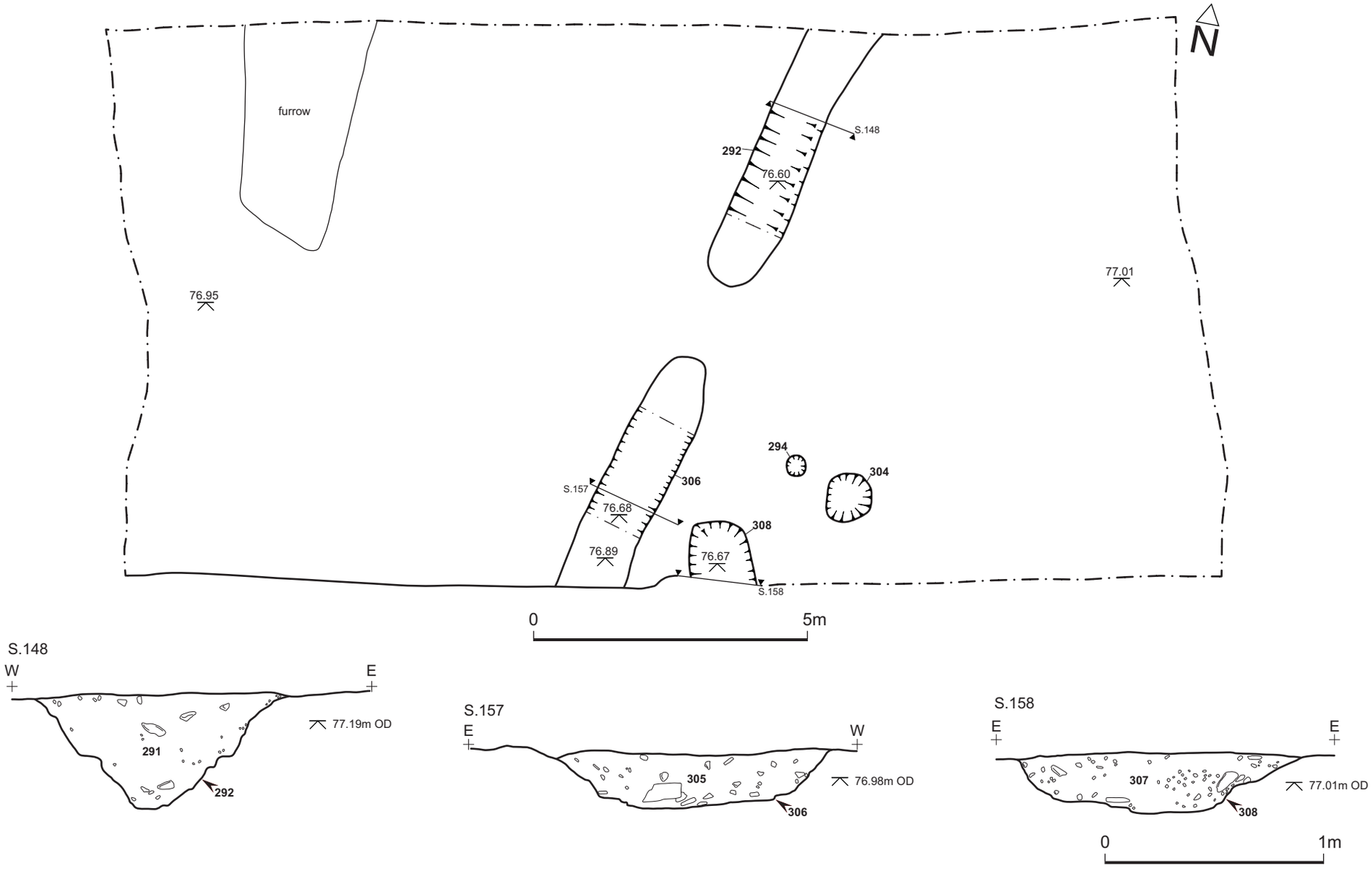
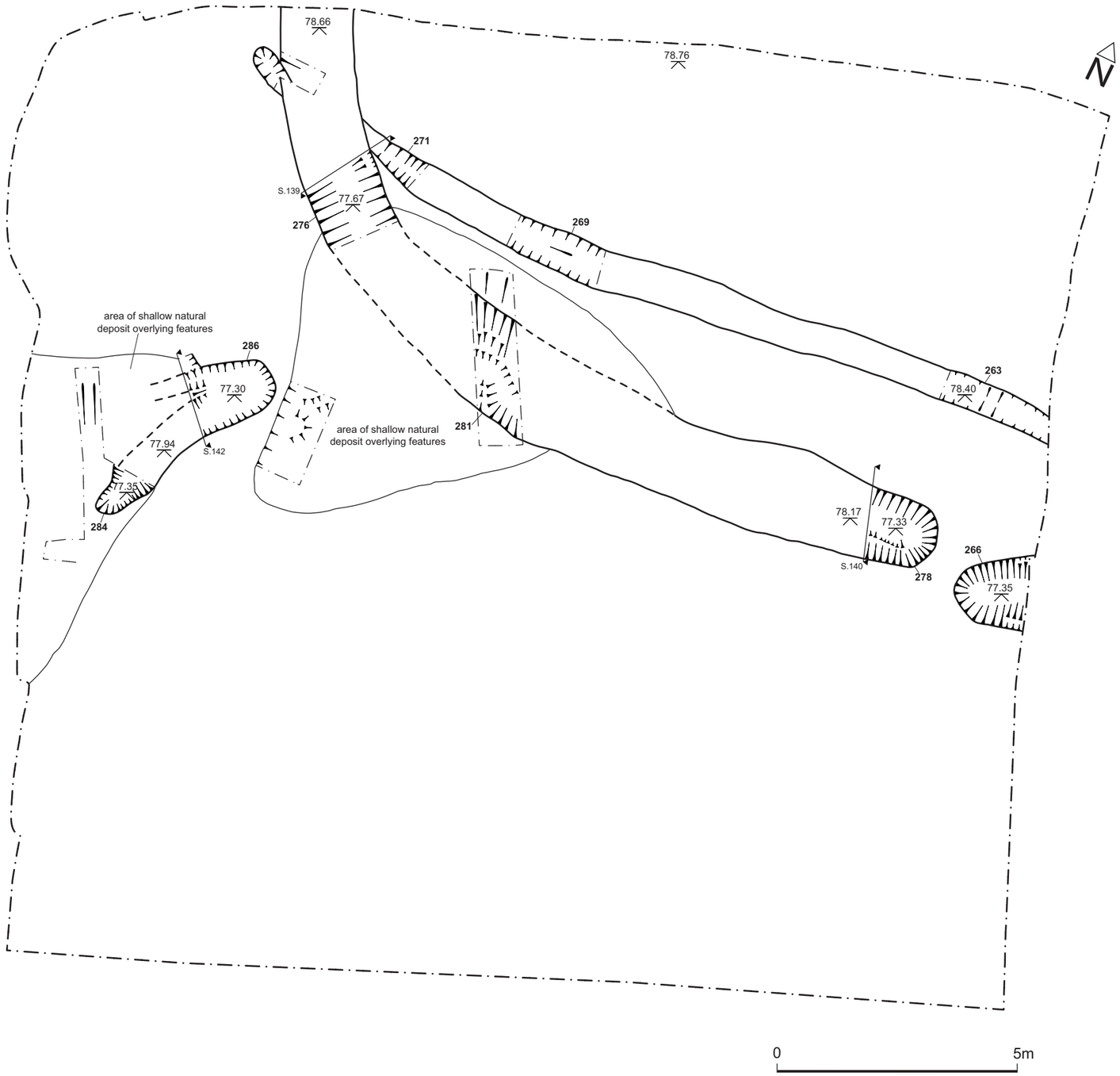
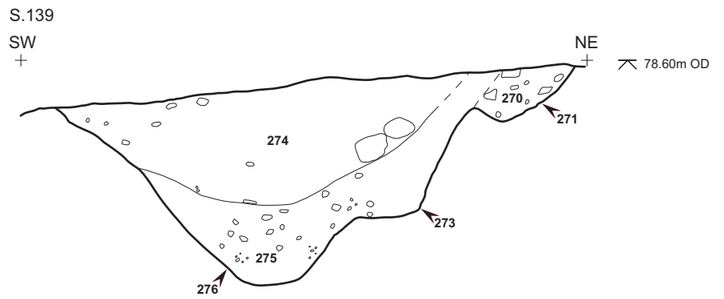
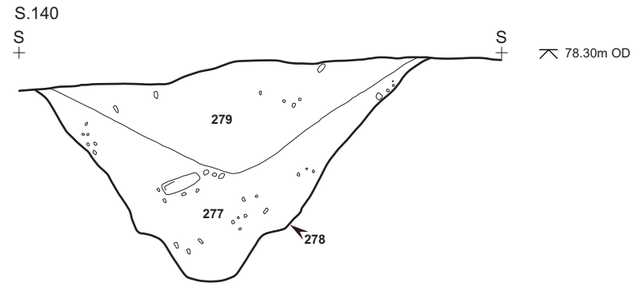


Fig. 12. Area 21; plan and sections (scales 1:100 and 1:25)







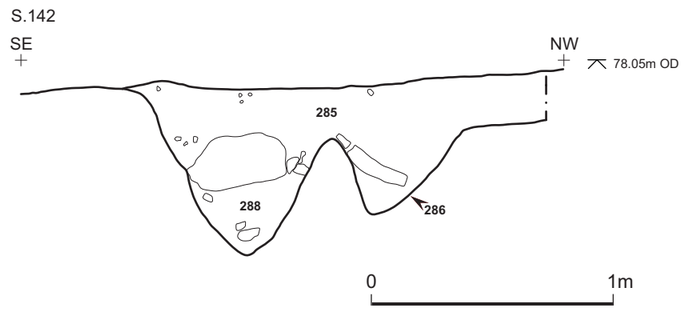


Fig. 13. Area 27; plan and sections (scales 1:100 and 1:25)

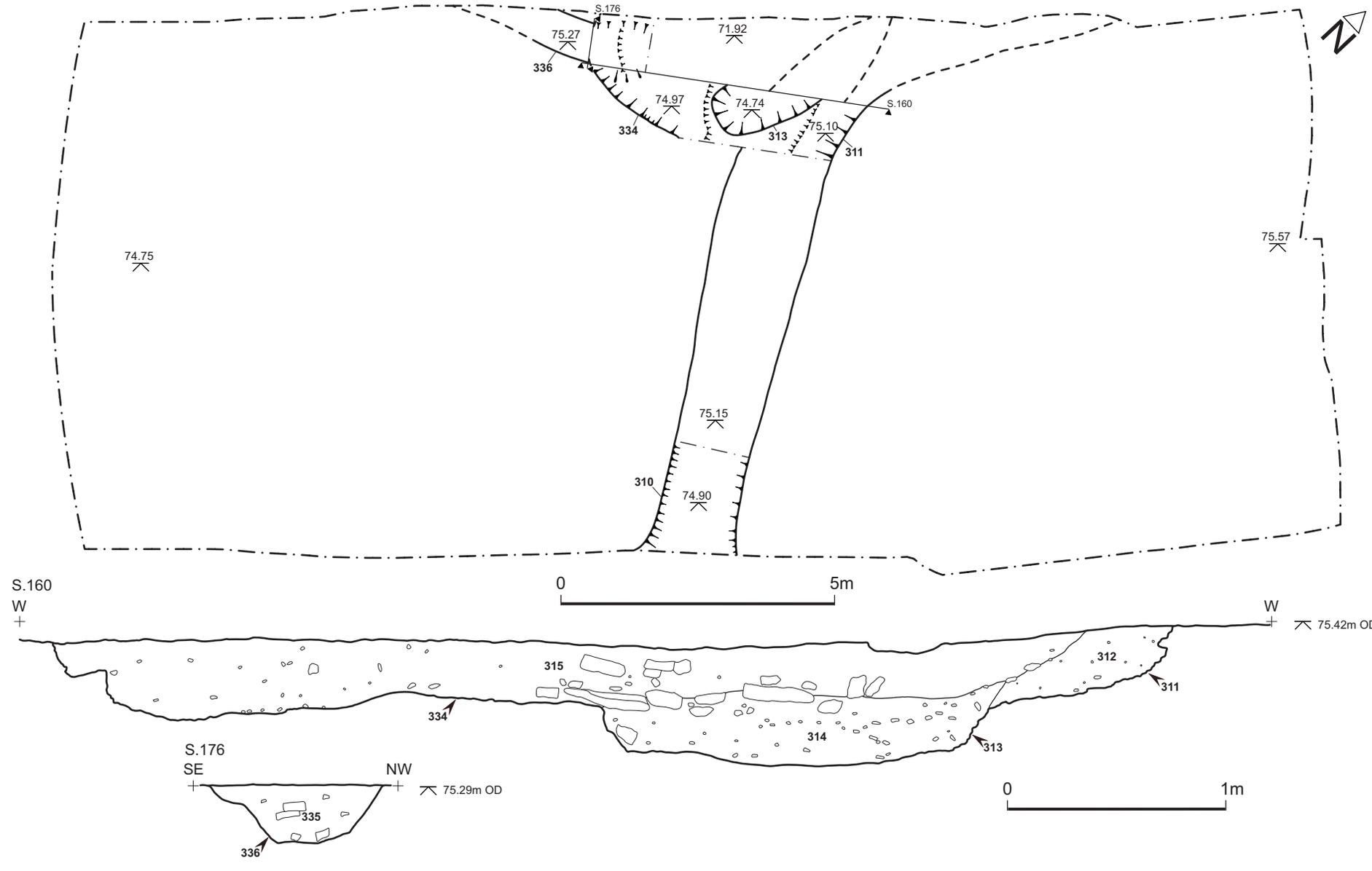


Fig. 14. Area 30; plan and sections (scales 1:100 and 1:25)

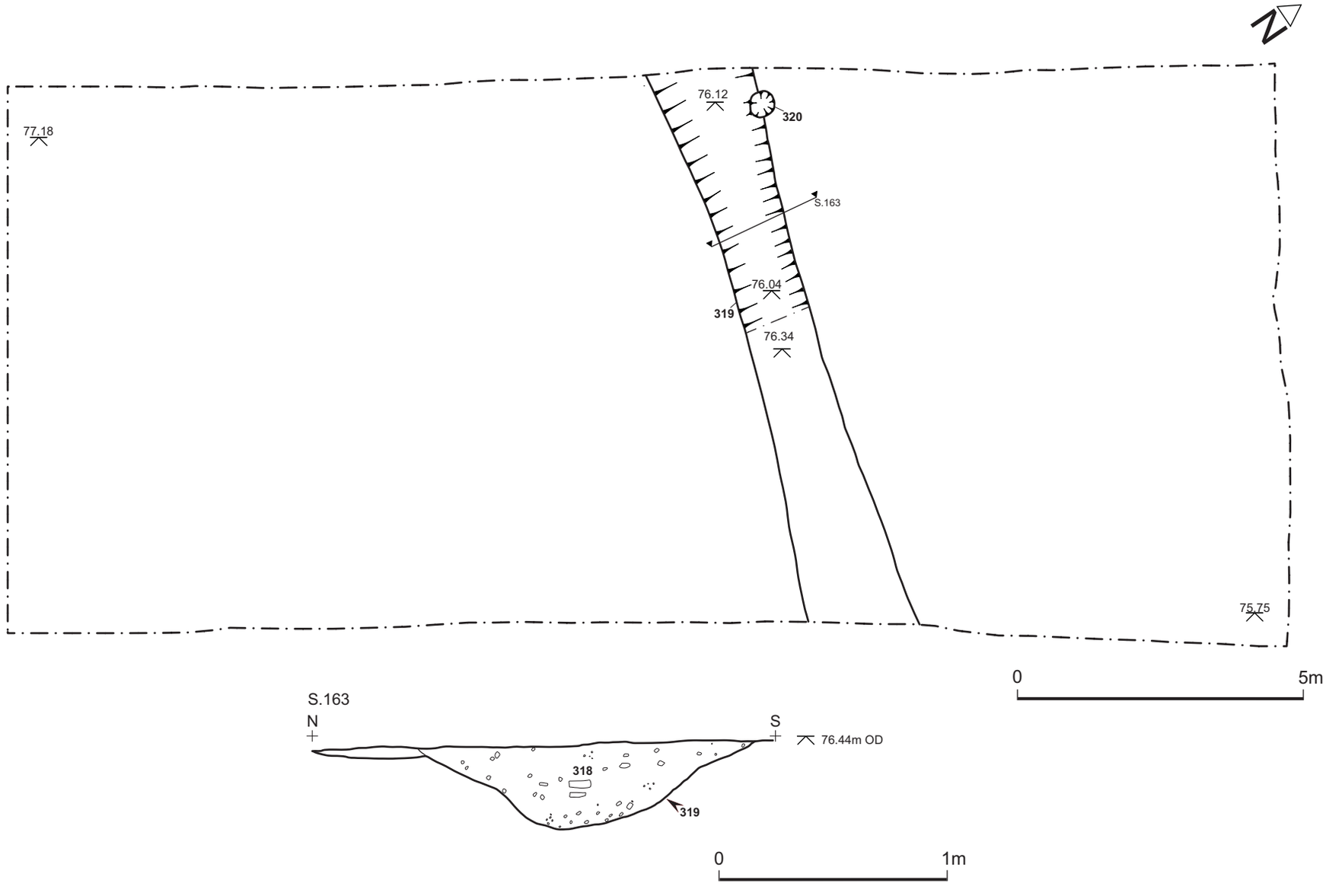


Fig. 15. Area 32; plan and section (scales 1:100 and 1:25)

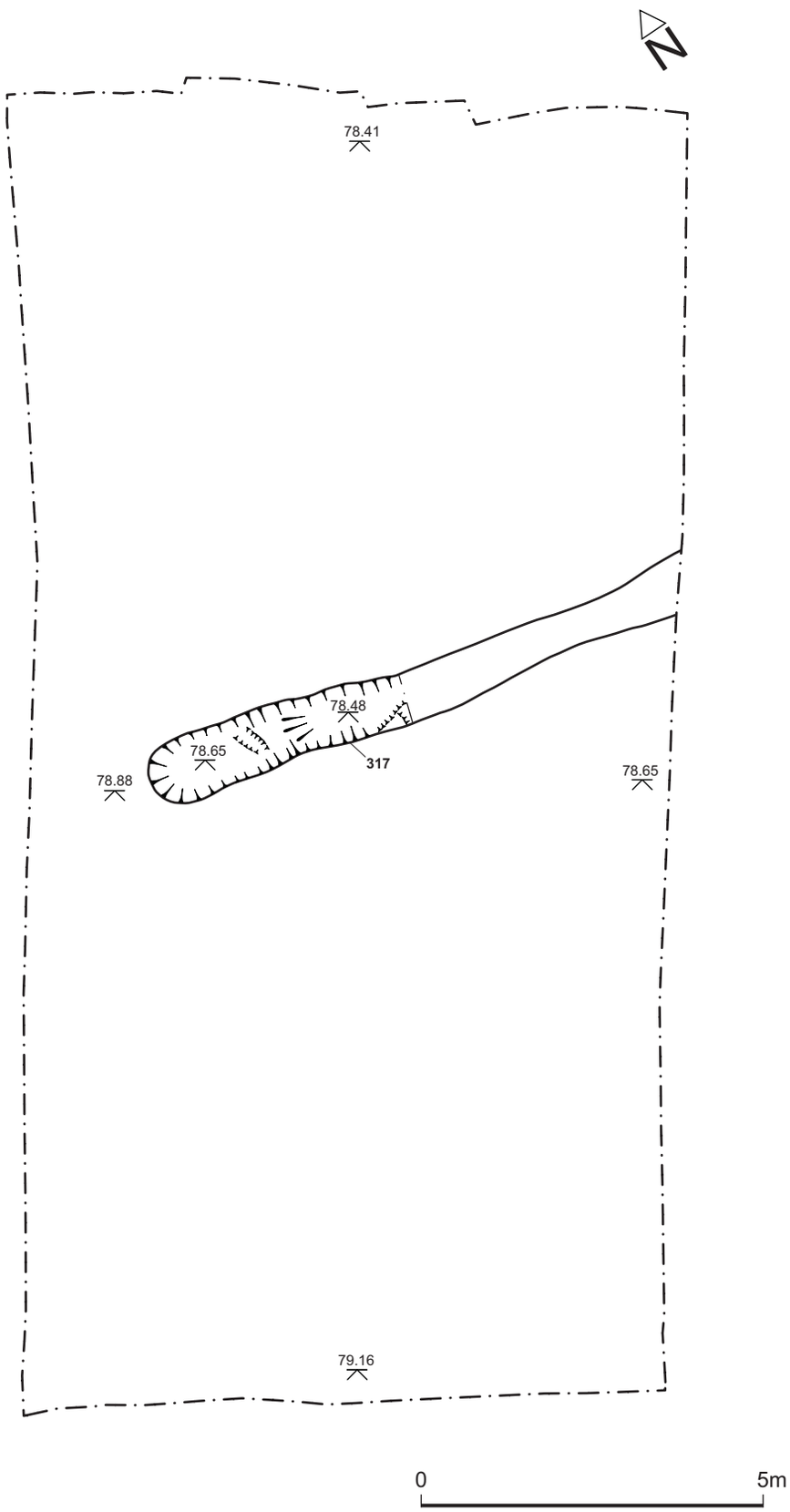
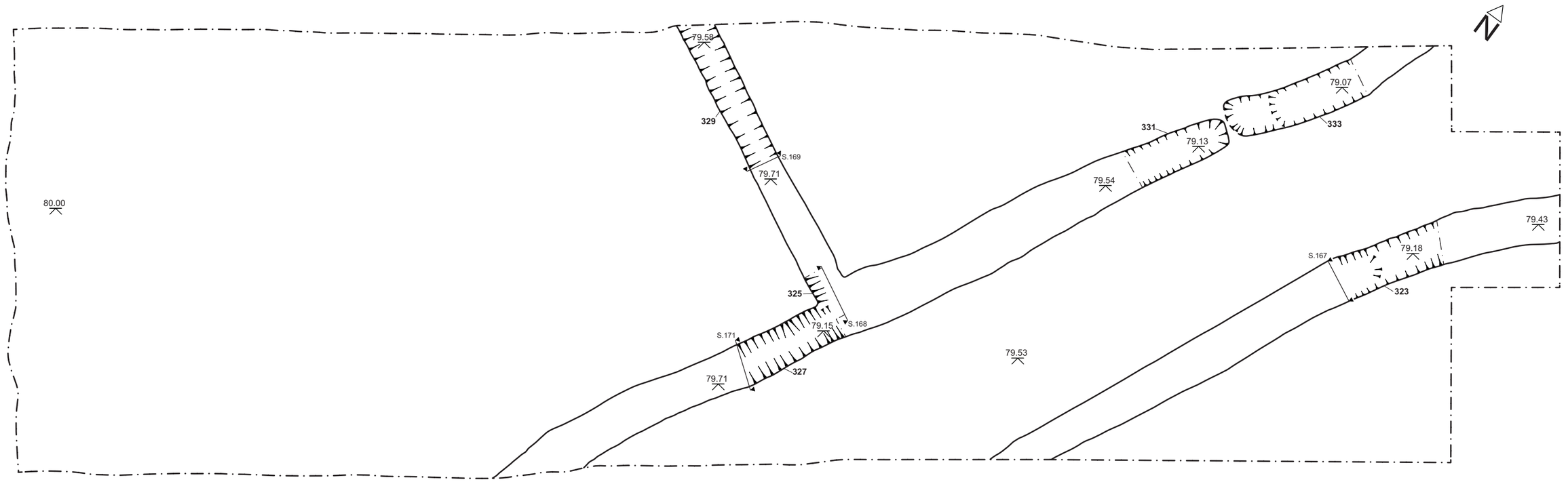


Fig. 16. Area 33a; plan (scale 1:100)



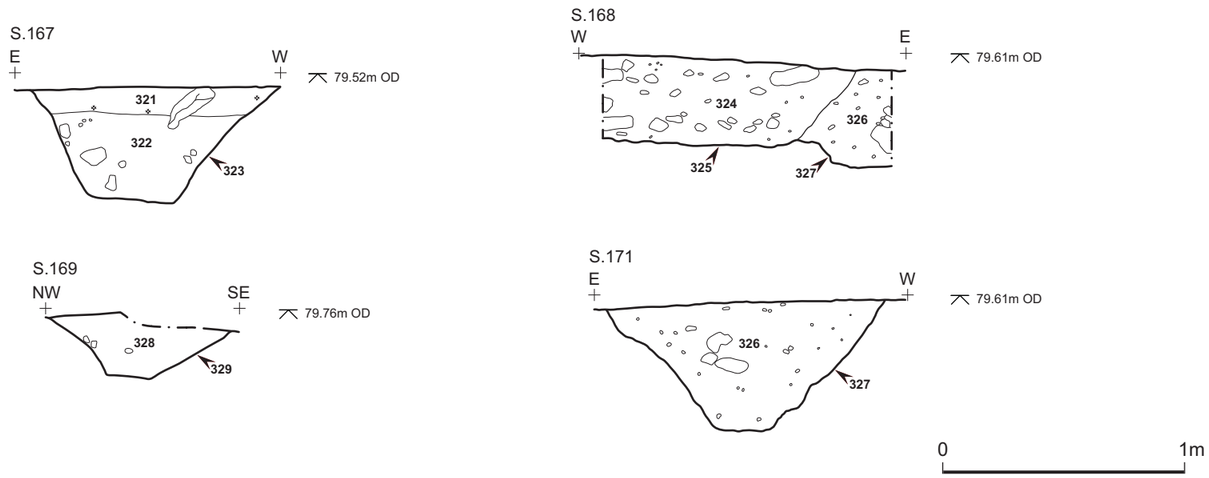


Fig. 17. Area 33b; plan and sections (scales 1:100 and 1:25)

Plate 1. Ditch 203 within Area 6, looking south-west

Plate 2. Area 9, Section 109 showing intercutting gullys and associated post-holes, looking south-west

Plate 3. Area 18 showing excavated features, looking south

Plate 4. Area 19 showing Ditch 298, looking north-east

Plate 5. Excavated intersection between Ditch 311 and Pit 313, Area 30 looking south-west

Plate 6. Area 32 showing Ditch 319, looking east

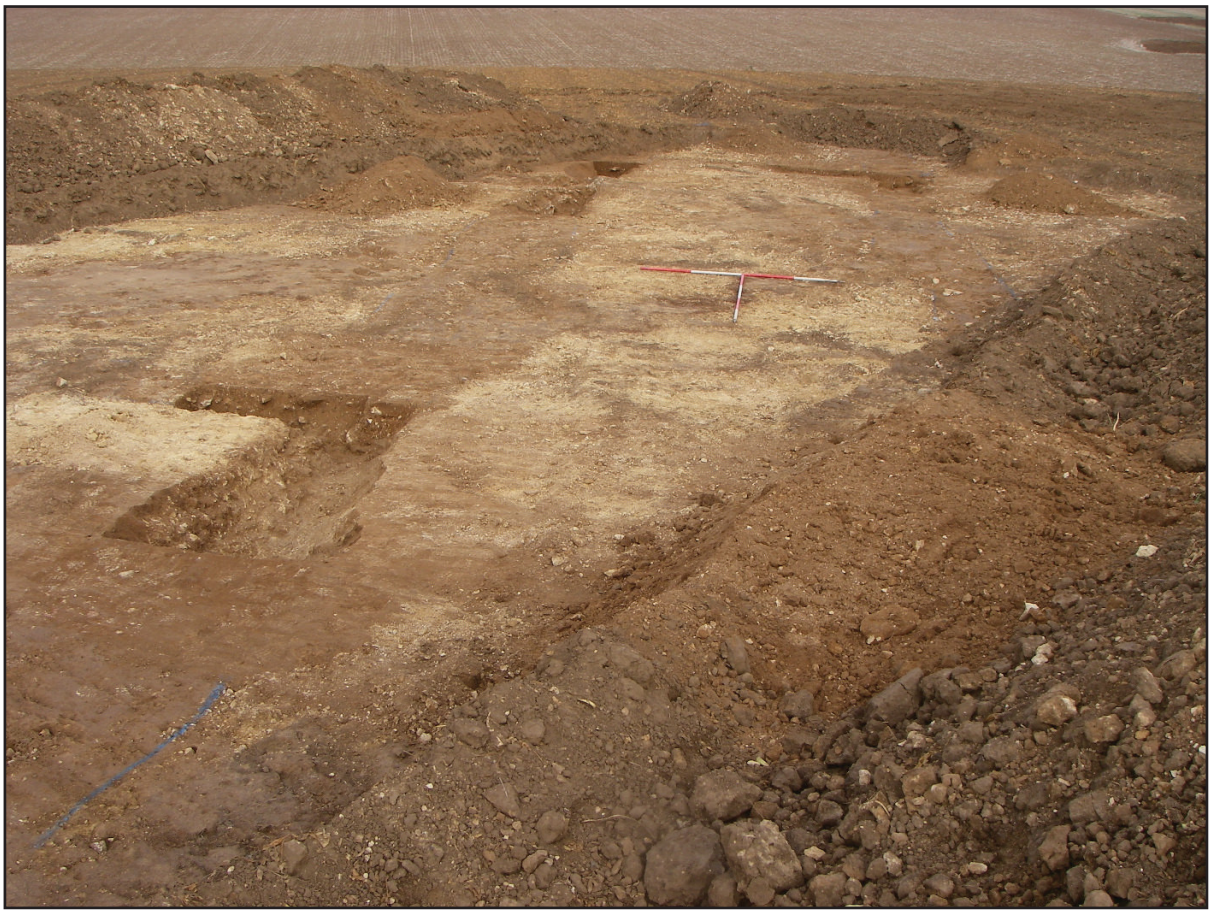


Plate 7. Trackway in Area 33b, looking north

Plate 8. Recording of Area 33b, looking north-east

Appendix 1: Inventory of primary archive

File No	Description	Quantity
1	Daily site recording form	23
1	Context register	6
1	Drawing sheet number record	2
1	Drawing register	4
1	Sample register	2
1	Photograph record sheet (Film nos 8669, 8670, 8671,8672, 8675, 8676, 8677, 8678, 8689, 8690, 8692,)	11
1	Black and white negatives (Film nos 8669, 8671, 8676, 8678, 8689, 8692)	6
1	Black and white contact sheets (Film nos 8669, 8671, 8676, 8678, 8689, 8692)	6
1	Colour transparencies (Film nos 8670, 8672, 8675, 8677, 8690)	5
1	Digital Photo record sheet (Downloads 09D090, 09D104, 09D92)	5
1	Trench record sheet	17
1	Small finds register	1
2	Context cards (200-251, 254-271, 272-336)	166
3	Permatrace sheet (Sheets 1- 34)	39

Appendix 2: Concordance of contexts yielding artefacts or environmental remains

Context	Area	Group	Description	Artefacts and environmental samples
200			Topsoil	
201			Subsoil	
202	6		Single fill of 203	Sample 51 GBA
203	6		Cut of ditch	
204	6		Single fill of 205	Sample 50 GBA, A. Bone x1
205	6		Cut of pit	
206	8		Cut of ditch (same as 208)	
207	8		Single fill of 206 (same as 209)	Sample 55 GBA, Pottery x2, A. Bone x1
208	8		Cut of ditch (same as 206)	
209	8		Single fill of 208 (same as 207)	Sample 56 GBA, Flint x1
210	8		Natural	
211	10		Single fill of 212 (same as 250)	Sample 65 GBA, A. Bone x22
212	10		Cut of ditch (same as 251)	
213	10		Single fill of 214	Sample 64 GBA
214	10		Cut of ditch	
215	9		Single fill of 216	Sample 60 GBA
216	9		Cut of ditch	
217	9		Single fill of 218	Sample 57 GBA
218	9		Cut of ditch	
219	9		Single fill of 220	Sample 59 GBA
220	9		Cut of ditch	
221	9		Single fill of 222	Sample 58 GBA, Pottery x1
222	9		Cut of ditch	
223	9		Single fill of 224	Sample 52 GBA
224	9		Cut of post-hole	
225	11		Single fill of 226 (same as 227 & 229)	Sample 53 GBA
226	11		Cut of gully (same as 228 & 230)	
227	11		Single fill of 228 (same as 225 & 229)	
228	11		Cut of gully (same as 226 & 230)	
229	11		Single fill of 230 (same as 225 & 227)	Sample 54 GBA
230	11		Cut of gully (same as 226 & 228)	
231	9		Single fill of 232	
232	9		Cut of possible post-hole	
233	13		Single fill of 234 (same as 235 & 237)	Sample 61 GBA
234	13		Cut of gully (same as 236)	

Context	Area	Group	Description	Artefacts and environmental samples
235	13		Single fill of 236 (same as 233 & 237)	
236	13		Cut of gully (same as 234 & 238)	
237	13		Single fill of 238 (same as 233 & 235)	
238	13		Cut of gully (same as 234 & 236)	
239	8		Single fill of 240 (same as 241)	Sample 62 GBA
240	8		Cut of ditch (same as 242)	
241	8		Single fill if 242 (same as 239)	
242	8		Cut of ditch (same as 240)	
243	18		Single fill of 244 (same as 256)	
244	18		Cut of ditch (same as 257)	
245	18		Single fill of 246 (same as 247 & 258)	
246	18		Cut of ditch (same as 248 & 259)	
247	18		Single fill of 248 (same as 245 & 258)	Sample 63 GBA
248	18		Cut of ditch (same as 246 & 259)	
249	18		Possible biodisturbance in 247	
250	10		Single fill of 251 (same as 211)	
251	10		Cut of ditch (same as 212)	
254	10		Single fill of 255	
255	10		Cut of ditch	
256	18		Single fill of 257 (same as 243)	Sample 66 GBA, Pottery x3
257	18		Cut of ditch (same as 244)	
258	18		Single fill of 259 (same as 245 & 247)	A. Bone x1, Flint x1
259	18		Cut of ditch (same as 246 & 248)	
260	18		Deposit within 261	Pottery x1
261	18		Cut of ‘spread’ area	
262	27		Single fill of 263 (same as 268 & 270)	Flint x1
263	27		Cut of shallow gully (same as 269 & 271)	
264	27		Natural	
265	27		Lower fill of 266	Sample 67 GBA
266	27		Butt end of ditch	
267	27		Upper fill of 266	
268	27		Single fill of 269 (same as262)	Sample 70 GBA

Context	Area	Group	Description	Artefacts and environmental samples
269	27		Cut of shallow gully (same as 263 & 271)	
270	27		Single fill of 271 (same as 262 & 268)	
271	27		Cut of shallow gully (same as 263 & 2769)	
273	27		Possible previous cut of 276	
274	27		Secondary fill of 276	
275	27		Primary fill of 276	Sample 68 GBA
276	27		Cut of ditch (same as 278 & 281)	
277	27		Primary fill of 278	
278	27		Cut of ditch (same as 276 & 281)	
279	27		Secondary fill of 278	
280	27		Primary fill of 281	Flint x1
281	27		Cut of ditch (same as 276 & 277)	
282	27		Secondary fill of 284	
283	27		Primary fill of 284	Sample 69 GBA, A. Bone x3
284	27		Cut of curvilinear ditch (same as 286)	
285	27		Secondary fill of 286	Charred nut x1
286	27		Cut of curvilinear ditch (same as 284)	
287	27		Secondary fill of 281	
288	27		Primary fill of ditch 286	
289	20		Single fill of 290 (same as 301)	Sample 71 GBA
290	20		Cut of gully (same as 302)	
291	21		Single fill of 292	Sample 74 GBA
292	21		Cut of ditch	
293	21		Single fill of 294	Sample 75 GBA
294	21		Cut of post-hole	
295	20		Single fill of 296 (same as 299)	Sample 72 GBA
296	20		Cut of gully (same as 300)	
297	19		Single fill of 298	Sample 73 GBA
298	19		Cut of ditch	
299	20		Single fill of 300 (same as 295)	A. Bone x31
300	20		Cut of gully (same as 296)	
301	20		Single fill of 302 (same as 289)	
302	20		Cut of gully (same as 290)	
303	21		Single fill of 304	Sample 76 GBA
304	21		Cut of pit	
305	21		Single fill of 306	Sample 77 GBA, Flint x1

Context	Area	Group	Description	Artefacts and environmental samples
306	21		Cut of ditch	
307	21		Single fill of 308	Sample 78 GBA, Pottery x1
308	21		Cut of ditch terminus or pit	
309	30		Single fill of 310 (same as 312)	Sample 79 GBA
310	30		Cut of ditch (same as 311)	
311	30		Cut of ditch (same as 310)	
312	30		Single fill of ditch (same as 309)	Cu Object x1
313	30		Cut of pit	
314	30		Single fill of 313	Sample 80 GBA
315	30		Fill of 334	
316	33a		Single fill of 317	Sample 81 GBA
317	33a		Cut of shallow ditch	
318	32		Single fill of 319	Sample 82 GBA
319	32		Cut of ditch	
320	32		Cut of post-hole	
321	33b		Secondary fill of 323	Pottery x2
322	33b		Primary fill of 323	Sample 83 GBA
323	33b		Cut of ditch	
324	33b		Single fill of 325 (same as 328)	
325	33b		Cut of gully (same as 329)	
326	33b		Single fill of 327 (same as 330)	Sample 85 GBA, Pottery x15
327	33b		Cut of ditch (same as 331)	
328	33b		Single fill of 329 (same as 324)	Sample 84 GBA
329	33b		Cut of ditch (same as 325)	
330	33b		Single fill of 331 (same as 326)	
331	33b		Cut of ditch (same as 327)	
332	33b		Single fill of 333	
333	33b		Cut of ditch	
334	30		Recut of 313	
335	30		Single fill of 336	
336	30		Cut of possible ditch	

Appendix 3: Written Scheme of Investigation for Archaeological Strip and Record Mitigation

Marr Windfarm, South Yorkshire

Written Scheme of Investigation for Archaeological Strip and Record Mitigation

1. Introduction

1.1 A scheme of mitigatory archaeological strip and record excavation is required in advance of or during the preparatory works for the creation of a windfarm off Hangman Stone Road, south of Marr, centred at SE5050 0425. This document is prepared to fulfil the South Yorkshire Archaeology Service's requirement that the archaeological features identified in the archaeological evaluation by trial trenching warrant preservation by record and is produced for Marr Windfarms Ltd.

2. Archaeological Background

2.1 The site is located within a heavily cropmarked landscape. Research undertaken to inform the Environmental Impact Assessment identified at least two or three cropmarks extending into the application area which were interpreted as being due to fields, trackways and enclosures that probably date to the Iron Age or Romano-British period.

2.2 A geophysical survey (Webb 2006) confirmed and enhanced the cropmark evidence identifying anomalies indicative of a more extensive system of land division comprising fields, enclosures and trackways across all parts of the proposed development area.

2.3 The evaluation trenching (Rose 2008) confirmed the presence of several ditch features interpreted as field boundary divisions and trackway boundary ditches. These features were shallow and truncated and no dating or environmental evidence was recovered. No evidence for occupation was seen.

2. Aims and Objectives and Methodology

3.1 The aims of this strip and record will be to:-

- establish the presence or absence of additional archaeological features within a 10m radius of the known archaeological features within the development footprint

- undertake additional sampling of the known features in order to retrieve any ecofactual or environmental material that will help determine the date and function.

The mitigation works will comprise the topsoil stripping of an area within a 10m radius centred on the known archaeological features within the defined development footprint. The strip areas are detailed below and shown on the attached figure.

Trench No	Dimension	Area	Rationale
6	20m x 10m	200m²	Investigate the area centred on T6
8	20m x 10m	200m²	Investigate the area centred on T8
9	250m x 10m	250m²	Investigate the area centred on T9
10	20m x 10m	200m²	Investigate the area centred on T10
11	20m x 10m	200m²	Investigate the area centred on T11
13	20m x 20m	400m²	Investigate the area centred on T13
14	25m x 10m	250m²	Investigate the area centred on T14
16	25m x 10m	250m²	Investigate the area centred on T16
18	20m x 20m	400m²	Investigate the area centred on T18
19	250m x 10m	250m²	Investigate the area centred on T19
20	30m x 10m	300m²	Investigate the area centred on T20
21	20m x 10m	200m²	Investigate the area centred on T21
27	30m x 10m	300m²	Investigate the area centred on T27
30	25m x 10m	250m²	Investigate the area centred on T30
32	25m x 10m	250m²	Investigate the area centred on T32
33	20m x 10m and 35m x 10m	550m²	Investigate the area centred on T33

3.2 A contingency of up to a further 10% of each area will be allowed for in order that feature clarification is needed without a formal further stage of

mitigation. The contingency will only be used if required and as directed by the South Yorkshire Archaeology Service.

3.3 Excavation will not exceed a depth of 1.2m without the trench edges being stepped or battered. All topsoil and/or modern deposits will be removed in level spits (not more than 0.2m) using a 360^0 excavator equipped with a smooth bladed ditching bucket under archaeological supervision. Machining will stop at the first identifiable archaeological horizon or natural deposits, whichever is the shallower. Thereafter all further investigation will be manual. The stripped surface will be inspected for archaeological remains and where these require clarification the relevant area will be cleaned by hand.

3.4 All identified archaeological features will be accurately recorded in plan at scales of either 1:20 or 1:50 as appropriate. All excavated feature sections will be drawn at scales of either 1:10 or 1:20 as appropriate. All plans and sections will include spot heights related to Ordnance Datum in metres.

3.5 All archaeological features will be investigated, normally employing the following sampling strategies:

- Linear features: a minimum sample of 25% of each linear boundary feature such as ditches and trackways will be sampled along their length (each section to be not less than 1m). Deposits at junctions or interruptions in linear features will be sufficiently excavated for the relationship between components to be established.

- Other linear features (e,g enclosure ditches): a minimum sample of 25% will be sampled along the length (each section to be not less than 1m). A further minimum 25% of the enclosure ditch will be available as additional contingency excavation depending upon the results achieved in the first 25% excavation. Should important remains be discovered e.g human remains, a concentration of significant finds etc. then the additional excavation would be required to be carried out by hand. Should no finds be made within the 25% excavation then additional excavation using a mini digger to the top of the primary silts would be permitted, the excavation of primary silts to be carried out by hand.

- Discrete features: all discrete features will be half-sectioned in the first instance, recorded and then fully excavated.

- Tertiary fills of deep features may be removed by judicious use of the machine after a metal detector has checked each feature and only after consultation with SYAS and in line with the above points. Particular attention will be paid to terminal ends, corners and intersections. Feature intersections will always be excavated in such a way so as to determine a stratigraphic relationship.

- A full written, drawn and photographic record will be made of all material revealed during the course of the excavation.

- All artefacts recovered will be recorded and removed from the site for appropriate storage in controlled environments. All artefacts recovered will be

retained, cleaned, labelled and stored as detailed in the guidelines laid out in the IFA Guidelines for Finds Work. Conservation of any artefacts, if required, will be undertaken by approved conservators. UKIC guidelines will also apply.

- Context recording will be by Archaeological Services WYAS standard method. All contexts, and any small finds and samples from them will be given unique numbers. Bulk finds will be collected by context.

- Colour slide and monochrome negative photographs at a minimum format of 35mm will be taken.

- Soil sampling will be undertaken where there is clear potential for environmental analysis. Where appropriate and practicable soil samples of up to 30-40 litres will be taken from excavated contexts, and larger samples will be taken of any rich carbonised deposits. Particular attention will be paid to the sampling of primary ditch fills, large discrete features (e.g. refuse pits), structural and occupational evidence, skeletal remains and any surviving buried soils. All primary ditch fills will be bulk sampled as a matter of course. Further, the recovery of material suitable for radiocarbon, archaeomagnetic, thermoluminescence and/or dendrochronological determinations will be sought, as appropriate. If buried soils or other appropriate deposits are encountered, column samples may be taken for micromorphological and pollen analysis. Magnetic susceptibility samples may also be collected. Where appropriate environmental material will be stored in controlled environments. Appropriate environmental and soil specialists may be consulted during the course of the evaluation with regard to the implementation of the sampling programme.

- All human remains will be recorded on-site prior to removal and analysis by the project's assigned osteoarchaeologist. Disturbance of human remains will only take place under appropriate government and environmental health regulations, and in accordance with the requirements of the Ministry of Justice prior to the commencement of any formal exhumation work.

- All finds of gold and silver and associated objects shall be reported to HM Coroner according to the procedures relating to the Treasure Act 1996, after discussion with the Client and the South Yorkshire SMR.

- After excavation each trench will be reinstated with the excavated soil, unless otherwise instructed by the client.

- No changes will be made to the agreed Written Scheme of Investigation without consultation with the South Yorkshire Archaeology Service.

4. Analysis and Reporting

4.1 The site archive will contain all the data collected during the excavation, including records, finds and environmental samples. It will be quantified,

ordered, indexed and internally consistent. Adequate resources will be provided during fieldwork to ensure that all records are checked and internally consistent. Archive consolidation will be undertaken immediately following the conclusion of fieldwork:

- the site record will be checked, cross–referenced and indexed as necessary;
- all retained finds will be cleaned, conserved, marked and packaged in accordance with the requirements of the recipient museum;
- all retained finds will be assessed and recorded using pro forma recording sheets, by suitably qualified and experienced staff. Initial artefact dating will be integrated within the site matrix;
- all retained environmental samples will be processed by suitably experienced and qualified staff and recorded using pro forma recording sheets.

4.2 The archive will be assembled in accordance with the specification set out in English Heritage's *Management of Archaeological Projects* (English Heritage 1991; Appendix 3). In addition to the site records, artefacts, ecofacts and other sample residues, the archive shall contain:

- site matrices where appropriate;
- a summary report synthesising the context record;
- a summary of the artefact record;
- a summary of the environment record.

4.3 The integrity of the primary field record will be preserved. Security copies will be maintained where appropriate.

4.4 Provision will be made for the deposition of the archive, artefacts and environmental material, subject to the permission of the relevant landowner (and if no further archaeological work is to be initiated), in the appropriate recipient museum, in this instance Doncaster Museum. The museum will be advised of the timetable of the proposed investigation prior to excavation commencing. The archive will be prepared in accordance with the guidelines published in "*Guidelines for the preparation of Excavation Archives for long–term storage"* (United Kingdom Institute for Conservation, 1990) and *Standards in the Museum care of archaeological collections* (Museums and Galleries Commission 1994). Provision will be made for the stable storage of paper records and their long–term storage.

4.5 Upon completion of the investigations, the artefacts, ecofacts and stratigraphic information shall be assessed as to their potential and significance for further analysis.

4.6 An interim report will be prepared within three weeks of completion of on-site archaeological investigations and include the following :

- a non–technical summary of the results of the work;
- a summary of the project's background;
- the site location;
- an account of the method;

- the results of the excavation, including phasing and interpretation of the site sequence and spot–dating of artefacts, if recovered;
- an assessment of the stratigraphic and other written, drawn and photographic records;
- a catalogue of the archaeological material recovered during the excavation
- a summary of the contents of the project archive and its location.

4.7 The report will produced within an agreed timetable. It will be supported by an overall plan of the site, accurately identifying the location of the trial excavations.

4.8 Finally, the report will outline the archaeological significance of the deposits identified, and provide an interpretation of the results in relation to other sites in the town.

4.9 Copies of the report will be supplied to Mr A. Milner and to the South Yorkshire Archaeology Service, who shall also receive a digital copy. SYAS will be provided with digital data files as well as a paper copy of the report, for the Sites and Monuments Record.

4.10 A final report, including all finds analysis and scientific dating results, shall be produced in accordance with English Heritage's *Management of Archaeological Projects* (English Heritage 1991). The distribution of reports will be as for the interim report.

4.11 It is possible that the excavation findings will warrant wider publication. This shall be effected either through one of Archaeological Service WYAS's in-house series of publications or through publication with an appropriate archaeological journal. On completion of the report an on-line OASIS form shall be completed.

5 Copyright, Confidentiality and Publicity

5.1 Unless the Client commissioning the project wishes to state otherwise, the copyright of any written, graphic or photographic record and reports will rest with the originating body (Archaeological Services WYAS).

5.2 The circumstances under which the report or records can be used by other parties will be identified at the commencement of the project, as will the proposals for the distribution of the report. Archaeological Services WYAS will respect any requirements regarding confidentiality, but will endeavour to emphasise the company's professional obligation to make the results of archaeological work known to the wider archaeological community within a reasonable time.

5.3 Illustrated notices will, with the client's agreement, be displayed on site, explaining what work is in progress and why.

5.4 Provision will be made for publicising the results of the work locally, e.g. through a press release (at the client's discretion), by presenting a paper at the South Yorkshire Archaeology Day, or talking to local societies (if the results warrant it).

5.5 A summary of appropriate length (to be discussed with SYAS) of the findings of the work, accompanied by appropriate illustrations, will be submitted to SYAS in digital format for inclusion in the South Yorkshire Archaeology Annual Review. Text will be supplied in ASCII format and any images in .tif form.

6 Health and Safety

6.1 Archaeological Services WYAS has its own Health and Safety policy which has been compiled using national guidelines such as SCAUM. These guidelines conform to all relevant Health and Safety legislation.

6.2 In addition each project undergoes a 'Risk Assessment' which sets project specific Health and Safety requirements to which all members of staff are made aware of prior to on–site work commencing. Health and safety will take priority over archaeological matters. Necessary precautions will be taken over underground services and overhead lines at the outset of the project.

7 Insurance

7.1 Archaeological Services WYAS is covered by the insurance and indemnities of the City of Wakefield Metropolitan District Council. Insurance has been effected with: Zurich Municipal Insurance, Park House, 57–59 Well Street, Bradford, BD1 5SN (policy number RMP 03GO39–0143). Any further enquiries should be directed to: The Chief Financial Officer, Insurance Section, Wakefield MDC, PO Box 55, Newton Bar, Wakefield WF1 2TT.

8 Monitoring

8.1 The South Yorkshire Archaeology Service will be responsible for monitoring the project, acting on behalf of the local planning authority, and their officers will be afforded the opportunity to inspect the site and the records at any stage of the work.

8.2 The project will be discussed with the relevant museum curator in advance of work commencing on site. An advance notification form will be completed and forwarded to the museum before fieldwork commences.

9 Resources and Programming

9.1 Project personnel :

Project Management:	Alistair Webb

Project Supervisor:	M. Rose?

9.2 Post–excavation specialists :

Prehistoric pottery specialists:	Dr Chris Cumberpatch
Roman pottery specialist:	Dr Ruth Leary
Medieval pottery specialist:	Dr Chris Cumberpatch
Flint specialist:	Dr Ian P Brooks
Environmental:	Dr Jane Richardson
Faunal analyst:	Dr Jane Richardson
Human bone specialist:	Malin Holst MA
Metalwork specialist:	Dr Hilary Cool
Artefact conservationist:	Karen Barker

9.3 The list of Archaeological Services WYAS project personnel may be subject to change.

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