Appendix D – Evaluation Excavations (ASWYAS, June 2018)

WYAS Archaeological Services

Wings Across The Ings
Wombwell
South Yorkshire

Archaeological Evaluation

Report no. 3136
June 2018

Client: The Garganey Trust

Wings Across The Ings, Wombwell
South Yorkshire

Archaeological Evaluation

Summary

The archaeological excavations at the site of a proposed nature lagoon has helped to clarify the results of an earlier geophysical survey and has also defined the areas that contain archaeological deposits. The archaeological features and deposits appear to be Romano-British in date and conform to known patterns of brickwork field systems and enclosures that exist in this part of the region. Limited pottery recovered from the site suggests that it may have been made on or close to site, perhaps associated with the kilns at Rossington Bridge and the wider Doncaster area.

WYAS
Archaeological
Services

Report Information

Client:	The Garganey Trust
Address:	11 Springfields, Barnsley, S75 1JS
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1 Introduction

Archaeological Services WYAS (ASWYAS) were commissioned by Kirsten Holland of KH Consulting, on behalf of the Garganey Trust, to carry out an archaeological evaluation on land at Wombwell Ings, Wombwell, South Yorkshire. The work was in advance of proposed landscaping in relation to the Wings Across the Ings project (WATI) involving the creation of new wetland habitat and an improvement in flood defences. The work was carried out in accordance with the requirements of the National Planning Policy Framework (DCLG 2012) and by employing standards laid down by Historic England (2008) and the Chartered Institute for Archaeologists (2014). The work was carried out during March 2018.

Site location and topography and land use

The site is centred on NGR SE 414 033 and is located 1.40km east of Wombwell, 0.97km south of the village of Darfield and approximately 7.50km to the south-east of the centre of Barnsley (Fig. 1).

The site lies within the floodplain formed by the River Dove and River Dearne. The confluence of the two rivers lies 0.44km to the north-east of the site boundary. The site is bounded to the north by the Billing Dike, to the west by a sewerage treatment plant and waste ground and to the south and east by a mix of agricultural land and wetland habitat. The site itself consists of two agricultural fields divided by a hedgerow. The larger western field had been ploughed in advance of seeding and the smaller field had been left as pasture (Fig. 2).

Soils and geology

The solid bedrock geology of the area comprises mudstone, siltstone and sandstone of the Pennine Middle Coal Measures Formation - sedimentary bedrock formed approximately 310 to 318 million years ago in the Carboniferous Period in an environment dominated by swamps, estuaries and deltas. Superficial deposits are recorded across much of the site largely consisting of glaciofluvial sand and gravel deposits of mid-pleistocene date. Quaternary alluvial deposits are recorded at the north-eastern end of the site (BGS 2018).

The soils across most of the site are of the Dale association, described as slowly permeable, seasonally waterlogged clayey, fine loamy and fine silty soils on soft rock. The north-east of the site is covered by soils recorded as part of the Conway association described as deep, stoneless fine silty and clayey soils variably affected by groundwater (Soil Survey of England and Wales 1983).

2 Archaeological and Historical Background

The site has been subject to a heritage assessment (FAS 2018) and a geophysical survey (Magnitude Surveys 2017). The results of these reports are used as a basis for the following background.

Cropmarks, of likely Iron Age to Romano-British date, have been recorded from aerial photographs within the site. Aerial photographs, held by SYAS and Historic England, have

been used to plot cropmarks across the site which suggest the presence of an enclosure and connected rectilinear features. Some potential has been identified for alluvial deposits, recorded in the north-eastern extent of the site, to mask archaeological features. Lillie and Cheetham (1999) note the upper 1-2m of alluvium could equate to uniform deposition of sediments since deforestation in the post-Roman period. Roman activity in the wider landscape has also been suggested by a 17th-century account of a coin hoard encountered in the fields 'in Darfield', assumed to be Roman in date.

Evidence for early medieval activity is found in the wider landscape at All Saints' Church in Darfield. Here, fragments of 8th and 9th-century sculpture are reused in the walls of the medieval church and the socket for a medieval standing cross is located in the churchyard. The site of the former Wombell Old Hall represents the site of the medieval manorial seat of the Wombwell family, now demolished.

To the south of the site, extant ridge and furrow earthworks of medieval and/or post-medieval date is noted. Into the modern period the area became increasingly industrial in character, although the site itself appears to have remained undeveloped. Exploitation of the coal resources of the area saw numerous collieries established. With it, local settlements saw an increase in size and population.

Available editions of historic Ordnance Survey maps detail the development of the site from the mid-19th century onwards. The 1854 Ordnance Survey map shows the site as a series of regular fields extending to the Bulling Dike. By 1938 the field boundaries had been removed and the area appears to have taken the open character displayed today.

In November 2017 a fluxgate gradiometer survey was completed across the site (Magnitude Surveys 2017). The survey detected several strong, ditch-like anomalies that strongly correlate with cropmark features previously identified in the west of the site by aerial photography. However, the geophysical survey identified further indications of probable field boundaries and enclosures extending towards the east of the site. Overall, the configuration of the anomalies detected in the geophysical survey could support an Iron Age/Romano-British date for the features, while the detection of intercutting ditch-like anomalies may suggest the potential for multi-phased activity. Several possible kiln or fired features have been identified around the fringes of the apparent settlement area. Agricultural activity has primarily been identified in the form of ploughing, both modern and ridge and furrow. The potential remnants of a former field boundary have been identified also. A large expanse of ground along the north-eastern edge of the site suggested a deposit of mixed waste or ferrous material.

3 Aims and Objectives

The overarching aim of the archaeological evaluation is to advance understanding of the significance of archaeological remains at the site, to inform an assessment of the potential impact of the proposed work, in line with cultural heritage policies set out in NPPF (DCLG 2012). The archaeological evaluation should assess the presence, preservation, character and depth of deposits across the site, so that the impact of the proposed development, including excavation, deposition of material and changes to water levels, can be fully assessed.

The specific objectives of the evaluation are set out below:

- to gather sufficient information to established the presence/absence, character, extent, state of preservation and date of archaeological deposits at the site, in terms of horizontal and vertical extent;
- to assess the significance of any remains present;
- to assess the preservation of archaeological remains across the site, and the contribution that their state of preservation makes to significance;
- to assess the impact of the proposed scheme on archaeological deposits across the site, in terms of direct impact, and also the changing hydrological and environmental conditions that would result from the scheme;
- to inform the design of an appropriate mitigation strategy, by design or record.

4 Methodology

All work was undertaken in accordance with accepted professional standards and guidelines (Historic England 2008; CIfA 2014) and in accordance with the ASWYAS site recording manual (ASWYAS 2011) and in adherence to the Written Scheme of Investigation (Appendix 1).

A series of trenches, totalling 2% of the site, were positioned to investigate areas of archaeological deposits, and also to define the deposit model in areas where the geophysical survey produced negative results (Fig. 2). Trenches measured 100m x 4m (Trench 2, 3, 5, 7, 8, 10 and 11), 75m x 2m (Trench 12 and 16) or 50m x 2m (Trench 1, 4, 6, 9, 13, 14, 15).

All trenches were set out and the limits resurveyed using a Trimble VRS differential GPS accurate to +/-0.01cm. The trenches were opened in a controlled manner using a mechanical excavator using a flat-bladed ditching bucket under direct archaeological supervision. All topsoil deposits were removed in level spits with the topsoil and subsoil being separated to allow for re-instating in reverse order. Machining stopped at the first archaeological horizon or natural deposits, whichever was encountered first. All excavations of archaeological

deposits were undertaken manually with the stripped surface being cleaned and investigated for archaeological remains. Spoil heaps were then scanned using a metal detector.

All trenches were accurately recorded in plan using GPS. Feature sections were drawn at a scale of 1:10 or 1:20. All plans and sections include spot heights that relate to Ordnance Datum in metres.

A full written, drawn and photographic record was made of all archaeological work undertaken. An inventory of the primary archive is provided in Appendix 2 and a concordance of contexts is provided in Appendix 3. ASWYAS currently hold the site archive in a stable and secure location, and it will be deposited with a local museum in due course.

5 Results

A total of sixteen evaluation trenches were excavated on the site, the results of which are summarised in Appendix 4. Across the site, a dark brown or greyish-brown clayey-silt topsoil was found at the surface, measuring between 0.10m and 0.35m in depth. The topsoil sealed a thin naturally occurring subsoil, generally consisting of mid-brown silty-sand or silty-clay, up to 0.50m in depth. The topsoil had been recently ploughed across most of the site, whilst the area around Trenches 14 and 15 had been left as pasture. Here, the topsoil was much thinner and the subsoil thicker. In Trench 1 a much deeper subsoil, probably alluvial in origin, was encountered at its northern end. At the eastern end of Trench 5, the northern end of Trench 12 and throughout Trench 13, a landfill deposit measuring up to 0.75m in depth was recorded. This deposit filled a cut through the subsoil and natural and was overlain by topsoil (Plates 5 and 11). It consisted of a dark blackish or greyish, burnt deposit containing numerous bottles, pottery vessels, leather objects and animal bones. A sample of objects from this deposit were retained and are discussed below. Each trench was excavated to the level of the natural geology. This consisted of light yellowish-brown weathered sandstone and sandy-clay, occasionally overlain by deposits of loose sand and gravel.

Archaeological features were encountered in Trenches 1-3, 6-11 and 15. They consisted of a series of ditches, gullies, furrows and small discrete pits with a kiln excavated in Trench 10. The results of these trenches are discussed in detail below. The remaining trenches contained no archaeological features. Any geophysical anomalies that these trenches targeted appeared to be the result of geological variations or modern features such as land drains. These trenches are not discussed in detail but their results can be seen in Appendix 4.

Trench 1 (Fig. 3, Plate 1)

Trench 1 contained a north to south aligned furrow at is southern extent which was investigated to confirm its origin but not recorded any further. A short distance to the north, a small linear gully (103) ran westwards into the trench before ending a rounded, well-defined terminus. Both upper (105) and lower (104) fills contained no finds. The feature probably represents a small boundary ditch of unknown date.

At the northern end, the trench was crossed by a linear geophysical anomaly. Around this point the trench became much deeper, with the subsoil (101) increasing from 0.20m to 0.50m in depth. There were no clear sign of the feature that caused the anomaly but hand-excavation through the subsoil revealed possible traces of it in section. The most likely origin of the anomaly was recorded as Ditch 106. It had a wide, V-shaped profile, measured 1.25m wide and 0.35m deep and was aligned south-east to north-west. Its single fill (107) contained no finds, was sterile of carbonised materials and appeared to have been sealed by the subsoil (101). Two later features (108 and 110) cut through the subsoil and Ditch 106 on each side. They had irregular profiles and are probably the result of natural disturbance but may be later ditch re-cuts. Each feature had a single fill (109 and 111), neither of which contained any finds.

Trench 2 (Figs. 4-5, Plate 2)

Trench 2 contained a series of ditch features crossing the trench with an approximately south-west to north-east alignment and some possible discrete pits.

Ditch 203 crossed the trench near the north-western extent running in a south-west to north-east direction. It measured 2.00m wide and 0.44m deep with a steep, V-shaped profile. Its single fill (218) contained no finds and the soil sample produced only modern material and coal.

Ditch 206 crossed the trench towards the centre and ran in a south-west to north-east direction. It measured 0.90m wide and 0.26m deep with a wide, V-shaped profile. Its single fill (207) contained no finds and the soil sample, again, contained modern material and coal.

Ditch 208 was found crossing the trench a few metres to the south-east of 206 and ran in the same general direction as 206. It measured 1.60m wide and 0.36m deep with a wide, flat profile. Its single fill (209) contained no finds and a soil sample taken contained modern material and coal.

Ditch 210 crossed the trench towards its south-eastern end. It measured 2.90m wide and 0.80m deep with a wide, U-shaped profile with steep sides and a flat base. Ditches 203 and 210 correlate closely with two geophysical anomalies which appears to form part of a rectangular enclosure. The upper fill (204) produced a small amount of clinker while the lower fill (205) contained modern material and coal. Neither fill produced any finds.

Pit 214 and 216 were found within an area of natural disturbance to the north-west of the trench. They may represent isolated small pits but are more likely to be part of the natural disturbance. Pit 214 was round in shape with a circumference of 0.44m, was 0.06m deep and contained a single fill (215) which contained no finds. Pit 216 measured 0.60m in length, 0.48m wide and 0.12m deep . It contained a single fill (217) which contained no finds.

Trench 3 (Figs 6-7, Plates 3-4)

Trench 3 contained a large number of linear ditches and gullies with occasional small, discrete pits. The features all correlate strongly with the geophysical anomalies.

A series of three shallow segmented gullies with a roughly south-west to north-east alignment were excavated towards the south-western end of the trench. They correspond with a weak geophysical anomaly.

Gully 336 ran from the south-western end of the trench for 2m before ending in a rounded, gradually sloping terminus. It was up to 0.70m wide and was 0.09m deep. Its single fill (337) contained no finds. There was a void of 8m to the north-east of Gully 336 before a second gully was excavated (303, 305). It had a width of up to 0.80m and a depth of up to 0.12m with gradually sloping, rounded termini at each end. Its single fill (304, 306) contained no finds but samples taken contained a substantial amount of clinker indicating a possible post-medieval waste deposit. A gap of 11m separated it from a third gully (307, 309, 315) which ran for 9m before extending beyond the north-western side of the trench. At this point the feature appeared to turn north-westwards. This gully was up to 1.02m wide and 0.28m deep. It contained a single fill throughout the feature (308, 310) aside from its northernmost end where two distinct fills were recorded (316, 317). It contained pottery and slag finds throughout. Fill contexts 308 and 310 were sterile of environmental material, however, fill 317 was unique amongst the samples as it contained a small assemblage of carbonised cereal grains. Two small, round pits were found along the edge of the third gully. Pit 311 had a circumference of between 0.62m and 0.75m and a depth of 0.28m. It was almost entirely truncated by Gully 309 and contained a single fill (312) which produced pottery of 2nd-century AD date or later. Pit 313 had a circumference of 0.70m and a depth of 0.30m. Its single fill (314) contained no finds and was environmentally sterile. Some large stones within 314 may represent packing stones around a post.

Ditch 338 crossed the trench with a north-west to south-east direction, between the second and third segmented gullies, *c.* 18m from the south-western end of the trench. It measured 3.57m wide and 1.27m deep with a steep, V-shaped profile. The majority of the fill was a homogenous light greyish-brown material (339). A mid-reddish brown fill was also visible (340) against the north-eastern side of the feature. Neither fill contained any finds or environmental material.

Ditch 332 crossed roughly the centre of the trench with a north-west to south-east direction. It measured 1.96m wide and 0.94m deep with a wide, U-shaped profile. It contained three fills (333, 334, 335). The uppermost fill (333) contained pottery dating between the late 2nd and mid-3rd century AD but no environmental material.

Ditch 320 crossed the trench, in a general east-west direction approximately 20m from the north-east limit of Trench 3. It measured 0.56m wide and was 0.17m deep with a U-shaped profile and flat base. Its single fill (321) contained pottery of 2nd-century AD or later date but no environmental material was recovered.

Pit 318 lay between to the Ditches 332 and 320. It had a circumference of between 0.65m and 0.70m and a depth of up to 0.09m. No finds were recovered from its single fill (319).

Ditch 322 crossed the trench, near its north-eastern limit. It measured 1.10m wide and 0.45m deep with a steep, V-shaped profile. Its single fill (323) contained a flint burin but was devoid of environmental material.

Gully 326/330 crossed the trench on a roughly north to south orientation, between Ditches 320 and 322. It measured between 0.40m and 0.90m wide and up to 0.22m deep and its single fill (327, 321) contained no finds or environmental remains. The feature cut two irregular patches of light grey or greyish-brown sandy or silty material (324, 328) which were investigated but appeared to be natural in origin.

Trench 6 (Fig. 8, Plate 6)

Trench 6 targeted a single large linear geophysical anomaly in its centre which correlated strongly with a large ditch and subsequent recut. A furrow was investigated at the far north-western end of the trench but was not recorded any further.

Ditch 603 was the earliest feature in the trench. It survived to a width of 2.07m and a depth of 0.40m with a U-shaped profile. It contained two fills (604, 605), neither of which contained any finds. Fill 604 was environmentally sterile bar modern straw.

Ditch 606 truncated Ditch 603 on its north-western side. It measured 3.31m wide and 0.84m deep, with a wide U-shaped profile and contained three fills (607, 608, 609). The feature contained no finds and probably represents a recut of Ditch 603.

Gully 610 was the latest feature, cutting Ditch 606 on its north-western edge. It measured 1.19m wide and 0.21m deep, contained one fill (611) with no finds and is probably the trace of a plough furrow.

Trench 7 (Fig. 9, Plates 7-8)

Trench 7 contained five furrows and a single larger ditch, all of which correlate strongly with the results of the geophysical survey.

Ditch 703 was found at the far south-eastern extent of the trench. It measured 2.00m wide and 0.53m deep with a wide, U-shaped profile. It contained two fills. The lower fill (704) contained no finds and an environmentally sterile sample. The upper fill (705) also contained no finds.

Trench 8 (Fig. 10)

Trench 8 contained a number of furrows with parallel north-south orientations and a ditch on an east-west alignment. These results correlate well with the geophysical survey though no trace was found of two north-west to south-east anomalies crossing the south-western end of the trench.

Ditch 802 crossed the centre of the trench on a north-west to south-east alignment. It contained two fills. The lower fill (803) continue no material culture but produced a small concentration of crushed charcoal and a sliver of birch. The upper fill (804) contained two sherds of white glazed pottery and a flint bulb of percussion.

Trench 9 (Fig. 11, Plates 7-8)

Trench 9 contained a single ditch crossing close to the centre of the trench on a south-west to north-east alignment which corresponds closely with a geophysical anomaly.

Ditch 903 measured 1.06m in width and 0.32m in depth. It contained a single fill (904) which contained no finds but a few fragments of clinker and modern straw assigned to post-medieval or modern intrusion.

Trench 10 (Fig. 12, Plate 9)

Trench 10 contained shallow traces of plough furrows at its south-western end, a ditch at its north-eastern end and a kiln close to its centre. These results correlate very closely with those of the geophysical survey.

Kiln 1004 correlates well with a strong geophysical anomaly, one of several interpreted on the site as possible kilns. It lay partially beyond the trench edge, with probably just under half of the feature within the trench. Within the trench it measured 5.30m long and up to 1.80m wide with a typical ‘teardrop’ or ‘keyhole’ shape. Along the edge of much of the feature the natural was scorched with a reddened colour and a burnt reddish-brown clay along part of the edge (1014) may have been the remains of a clay lining of the kiln. Much of the base of the feature was filled with 1005 which was silty and contained large fragments of heated stone, including larger sandstone fragments and smaller pieces of limestone. Some of the stones may be the remains of a kiln structure that collapsed into the base. No finds were recovered though it was rich in charcoal and coal. Large fragments of clinker were present within fill 1005, the majority of which appeared to be coal derived fuel material. Two distinct clayey fills lay above this (1006, 1002), both of which contained little stone in comparison with 1005 and are probably the result of backfilling or natural silting of the feature after it went out of use. Both contexts contained well-preserved animal bone while more clinker was evident in 1006.

Ditch 1007 crossed the trench with a north-west to south-east alignment approximately 15m from the north-western extent of excavation. It measured 2.06m wide and 0.64m deep with a steep, U-shaped profile. It contained numerous fills. The base was filled with three fills (1013, 1012, 1011) which appeared to fill the feature from its north-eastern side, possibly the result of a bank of material eroding from this edge of the ditch. The remainder of the feature was filled with two distinct fills (1010, 1008). The uppermost fill (1008) contained a fragment of glass and produced oak and birch charcoal as well as clinker. Fill 1011 contained two retouched flint blades of possible Neolithic/Bronze Age origin.

Trench 11 (Figs. 13-14, Plate 10)

Trench 11 targeted a number of geophysical anomalies which appear to make up series of field boundaries and small enclosures and parallel plough furrows. These anomalies correlate strongly with the features investigated in the trench.

Ditch 1109 crossed close to the south-eastern end of the trench on a south-west to north-east alignment. It had a width of 2.30m and was 0.60m deep and its two fills (1110 and 1113) contained no finds. The ditch was later recut by Ditch 1111, truncating the centre of the feature. Ditch 1111 measured 1.04m wide and 0.52m deep and its single fill (1112) contained no finds and a soil sample where only modern material was evident. Both ditches were then covered by a tertiary fill (1114) which contained no finds.

Gully 1103 crossed the trench on a south-west to north-east alignment approximately 35m from the south-east extent. It measured 0.65m wide and 0.18m deep with a steep, U-shaped profile. Its single fill (1104) contained no finds and a soil sample which contained only modern material. Immediately to the north-west, Gully 1105/1117 entered the trench from the north-eastern edge, ran parallel south-westwards and turned to the north-west before terminating. It measured up to 0.65m wide and 0.18m deep and its single fill (1106, 1118) contained no finds and a soil sample which produced only modern material.

Ditch 1119 measured 1.40m wide and 0.58m deep, crossing close to the centre of the trench with a north-east to south-west alignment. It contained three fills (1120, 1121, 1122) though each had diffuse boundaries, suggesting gradual silting of the feature over a long period. Fill 1122 contained post-medieval pottery.

Ditch 1128 entered the trench from the north, towards its north-western end, running for approximately 6m before a well-defined, rounded terminus. It measured 1.2m wide and 0.84m deep and had a steep, V-shaped profile. Its single fill (1129) contained no finds and a environmental sample where only modern material was identifiable.

Ditch 1125 crossed the trench close to its north-western end with a south-west to north-east alignment. It measured 1.30m wide and 0.54m deep and contained two fills (1126, 1127), neither of which contained any finds. The lower fill (1126) appeared to be a layer of silted material underlying the later backfill (1127). Environmental samples contained only modern material.

Ditch 1132 entered the trench near its north-western extent with a western orientation. The feature curved north-westwards slightly before rapidly becoming shallower and terminating. It measured 1.78m wide and 0.34m deep and its single fill (1133) contained no finds but an environmental sample produced a small deposit of highly crushed charcoal and evidence for later intrusion through clinker and straw.

A number of furrows were test excavated along the trench, exhibiting similar broad, shallow profiles, two of which were recorded (1107, 1130).

Trench 15 (Fig. 15, Plate 12)

Trench 15 targeted a number of geophysical anomalies which show some correlation with the features excavated.

Pit 1503 lay partially beyond the south-eastern edge of the trench. It extended into the trench for 1.10m and had a width of 0.85m and a depth of 0.16m. Its single fill (1504) contained no finds, however, several crushed slivers of oak were identified within the environmental sample.

Gully 1505 crossed the centre of the trench on an approximate north-south alignment. It measured *c.* 0.30m wide and 0.08m deep and its single fill (1506) contained no finds and an environmental sample with only unidentifiable crushed waste.

Pit 1507 lay partially beyond the south-eastern edge of the trench. It extended into the trench for 0.60m and was 0.80m wide and 0.36m deep. Its single fill (1508) contained no finds and the environmental sample recovered was sterile.

Gully 1509 crossed the trench with a south-east to north-west alignment, near its north-eastern limit. It measured 0.60m wide and was 0.16m deep. Fill 1510 produced no finds and the environmental sample was sterile.

6 Artefact Record

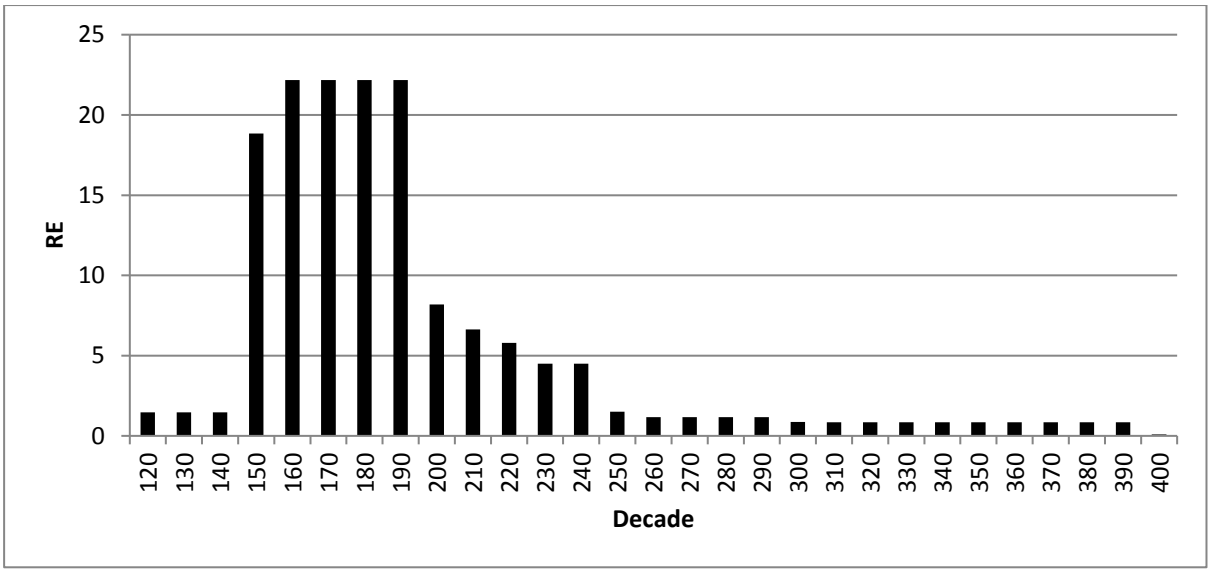
The Romano-British pottery, fired clay and stone by Phil Mills

The pottery

There were 64 sherds weighing 1173g presented for study, of which 63 sherds, 1160g were stratified. Material was examined by context and recorded by number of sherds (NoSh) weight in grams (Wt), minimum number of rims (MNR), and rim equivalents (RE). There were a total of twelve vessels based on rim count with a RE of 154% and five bases.

All the forms identified and the fabrics are consistent with products of the South Yorkshire greyware industry, the focus of which is some 13km to the east around Blaxton (Buckland and Dolby 1980) and Bessacarr (Mills and Evans 2016).

Chart 1. Date distribution for all rims



The date distribution of the pottery rims is shown in Chart 1. This shows a probable date range of the mid to late 2nd century AD. The main evidence for dating comes from a number of BB copy jars (as Buckland and Dolby 1980, nos 58, 61, 62, 63 (x2) and 65). There is also a flanged rim bowl of probable Antonine date (Buckland and Dolby 1980, type Ca.24) and an undercut bead rim dish (Buckland and Dolby 1980, 14) as well as some less precisely dated large handled jar (Buckland and Dolby 1980, type F.131) and wide mouth jars/basins (Buckland and Dolby 1980, types Hb.150, Hc-d 191 and 195). Whilst this is a small assemblage, it should be noted that there are no lid seated vessels in the group.

Table 1. Pottery by context type

Context	No%	Wt%	MNR%	RE%
Ditch	95.2%	99.0%	100.0%	100.0%
Pit	4.8%	1.0%	0.0%	0.0%
N	62	1159	12	154

Table 1 shows the breakdown of the pottery by context type. The majority of material is from ditches with a small amount from pits. This is consistent with a mainly rural site with some industrial aspects. There is a single example of a possible Rossington bridge type/South Yorkshire black burnished ware (B03) bead rim bowl (Buckland and Dolby 1980, Ca.14). All the other vessels are in South Yorkshire fabric R112, although some examples have coarser sand than is usual in the fabric range. A number of the sherds are overfired with oxidised

surfaces, consistent with probable waste material from on-site production. There is one unstratified sherd of grog tempered fabric R50.

This is a small group of pottery which may have been made on site and can be considered an outlier of the South Yorkshire pottery industry (Buckland and Dolby 1980). The range of forms suggests that this was operating in the mid-point of the industries development perhaps mid to late 2nd century AD and as such further investigation of the site could yield important data about the development of the South Yorkshire industry.

The burnt clay

There were 175 fragments weighing 233g of burnt clay submitted for study. They were recovered from contexts 1005 and 1006 (see Appendix 5). These were all in the form of unidentifiable fragments. There were no pieces obviously from any kiln furniture, and what is present is consistent with a clay lining.

The stone

There were 127 pieces of stone, weighing 2155g, submitted for study. They were again recovered from contexts 1005 and 1006 (see Appendix 5). This comprises one fragment of a red calcareous sandstone and the rest of a soft limestone. None of the pieces are diagnostic and may perhaps be packing from the kiln structure.

Post-medieval pottery by Chris Cumberpatch

The pottery assemblage consists of a total of fifteen sherds, vessels and objects weighing 3464g. The details are summarised in Appendix 5. The material consists of a sample of complete, decorative or diagnostic sherds recovered from the landfill deposits recorded in Trench 12.

The assemblage is not a typical domestic one and consists primarily of utilitarian wares, decorative and novelty items with domestic tablewares notable by their absence.

Utilitarian wares are represented by sherds from three or four Yellow Glazed Coarseware pancheons (unstratified). Such vessels are difficult to date with any accuracy but these examples appear to be of 19th or early to mid-20th-century date rather than any earlier.

Retail vessels included a number of small bottles, jam or marmalade jars and part of a flagon (deposit 1202). The flagon bears part of the name of a Barnsley brewery (The Barnsley Botanical Brewery) although bears no details of this brewery could be traced. The bottles and jars are unmarked and presumably once carried paper labels identifying the contents.

A small jug (deposit 1202) is stamped with a registration number (116267) under a red-brown lead glaze. Such numbers usually indicate the date of registration of a specific shape or design with the Patent Office and superseded the earlier diamond marks in 1884. Numbers 64520 to 141273 were used between January 1887 and January 1890 but vessels of this design could have been used after these dates (Godden 1991, 526 - 528).

Trench 12 also contained two items that might have formed part of the same object. This is an inkwell consisting of an elaborate triangular object advertising bottled Bass beer and a small receptacle to hold the ink with a 'non-spill' design. The base of the object bares a maker's mark (Royal Doulton/England) and a registration number (473834) on the underside. The number indicates a registration date between 1905 and 1922 although the specific maker's mark was used (in impressed form at least) between *c*. 1902 and 1922 and again between *c*. 1927 and 1936 (Godden 1991, 215).

Two teapots, one bearing an elaborate black-printed oriental scene with coloured detailing, the other plain, are both too small for practical use (although both were functional) and may have been decorative items or parts of a child's toy tea set. The final item is the upper part of a rather flamboyant decorative item, moulded and with gold detailing and a transfer printed design showing the head and shoulders of a woman in stylised 18th or early 19th-century dress.

The unusual nature of the assemblage suggests that it derived, at least in part, from a public house or a licensed hotel and the fact that it seems to have been recovered from a landfill deposit might suggest that it came from the demolition or clearance of such an establishment, probably sometime in the mid-20th century.

Other finds by Zoe Horn

Clay tobacco pipes

Two unstratfied tobacco clay pipe bowls were recovered. One is a promotional item for Harvey's Port with handshake detail. The second is undecorated although the rim of the bowl is milled and there is a marker's mark 'DUBLIN' in an oval cartouche. The clay pipes are of late 19th or early 20th-century date.

Glass bottles

Glass bottles were recovered from two landfill deposits, five from Trench 5 and fourteen from Trench 12. These are catalogued below and provide a date in the later 1880s or early 1900s, as indicated by the post-medieval pottery.

- a small clear complete bottle marked 'ATKINSON & BARKER' which would have contained the Royal Infant Preservative as patronised by Queen Victoria. The mixture's composition was listed in the druggist general receipt book of 1878, but first went on sale in the 1790s (Quack Doctor 2018). *Context 503, Trench 5*
- a rectangular clear bottle with front and side panels, marked '"HARLENE" FOR THE HAIR'. The word Harlene was trademarked in 1903 by Edwards Harlene Company Limited (Hair Raising Stories 2018). *Context 503, Trench 5*
- two rectangular clear bottles with front and side panels marked 'TABLETALK' on one panel, 'SAUCE' on another and 'LEEDS' on a third. *Context 503, Trench 5*

- an incomplete codd-neck bottle marked 'J. BECKETT, SHAW LANE, MINERAL WATER WORKS, BARNSLEY', dated to the late 1800s (Worthpoint 2018). It also displays the same handshake as seen on one of the clay pipes, which is a reputed masonic symbol. *Context 503, Trench 5*
- three square clear, three panelled bottles: one marked 'FLETCHER'S SAUCE, SHIPLEY' , one marked 'FLETCHER'S GRILL SAUCE' and one marked 'FLETCHER'S TIGER SAUCE, SELBY'. Fletcher initially produced sauce at the Airedale Works in Shipley. He also had a glass bottle manufacturing plant in Leeds. Fletchers (Shipley) Ltd was registered in 1907 with a share capital of £20,000. The sauce and bottling works were transferred to a model garden factory at Selby near York in 1915 (Letslookagain 2018). *Context 1202, Trench 12*
- a square clear bottle with no panels marked '"CAMP" COFFEE & CHICORY, GLASGOW', dating from 1885 (Brian Edwards 2018). *Context 1202, Trench 12*
- a moulded clear round bottle marked 'POSIONOUS' on a fluted panel. Around the neck is labelled 'NOT TO BE TAKEN'. *Context 1202, Trench 12*
- a rectangular clear bottle with chamfered edges, labelled with 'VENO'S LIGHTNING COUGH CURE'. *Context 1202, Trench 12*
- a rectangular clear bottle with rounded edges, labelled with 'KOMPO' and 'REGISTERED' in a lozenge-shaped panel. *Context 1202, Trench 12*
- two medicine bottles (slightly different sizes) are noted, one in green glass and one clear, both labelled 'TABLE-SPOONS' with accompanying graduations. *Context 1202, Trench 12*
- a rectangular, rounded clear bottle, labelled 'G DUTTON & SON', 'WHOLESALE DRUGGIST, BOLTON', 'CHEST & LUNG MIXTURE OR SYRUP OF LINSEED & LIQOURICE'. *Context 1202, Trench 12*
- a rectangular, rounded clear bottle, labelled 'FENNINGS' FEVER CURER'. *Context 1202, Trench 12*
- a rectangular, clear bottle with chamfered corners, labelled '"ANZORA" REGD' for the hair, from the Anzora perfumery company, London (What the Victorians threw away 2018). *Context 1202, Trench 12*
- a square clear sauce bottle with chamfered corners, labelled 'THE "A1" SAUCE'. *Context 1202, Trench 12*
- a square clear sauce bottle with rounded corners, labelled 'GARTON'S HP SAUCE'. The original HP recipe was invented and developed in 1899 by Frederick Gibson Garton, a grocer from Nottingham. Garton sold the recipe for the sum of £150 to settle a debt with Edwin Samson Moore, the founder of the Midlands Vinegar

Company, who launched what we know today as HP Sauce (HPsauce 2018). *Context 1202, Trench 12*

Leather shoes

Part of four leather shoes were recovered from the landfill deposits in Trenches 5 and 12. This footwear does not contradict the dates provided by the glass bottles and pottery. These are listed below.

- small ladies leather boot, mid-calf. Opposing rows of fifteen copper-alloy buttons. Decorative toe. *Context 503, Trench 5*
- ladies size 4 Oxford lace-up shoe with a small heel. *Context 1202, Trench 12*
- child-size Oxford lace-up shoe with a flat heel. *Context 1202, Trench 12*
- man-size lace-up boot with a flat heel. Metal protectors for the leather sole present. *Context 1202, Trench 12*

Given the relatively modern date for the finds from the landfill deposits, these are recommended for discard. It is proposed that the clay pipes are retained.

Flint by Jason Dodds

Four flint objects are catalogued below. These are likely to be intrusive in later deposits but should be retained as part of the site archive.

- Secondary flint flake. Edge damage. East Yorkshire Wolds origin. *Unstratified*
- Flint dihedral burin, generally used for engraving - a point is created at the tip. Possible Lincolnshire origin. Mesolithic. *Ditch 322, Fill 323, Trench 3*
- Bulb of percussion. East Yorkshire Wolds origin. *Ditch 802, Fill 804, Trench 8*
- Two retouched blades made from the same flint (may be the same tool). Probably a Neolithic/Bronze Age knife. East Yorkshire Wolds origin. *Ditch 1007, Fill 1011, Trench 10*

7 Environmental Record

Carbonised plant macrofossils and charcoal by Diane Alldritt

A total of 46 environmental sample flots were taken during the evaluation and were examined for carbonised plant macrofossils and charcoal. No carbonised remains were present in the retents. The environmental samples were processed by Archaeological Services WYAS using a Siraf-style water flotation system (French 1971). The flots were dried before examination under a low power binocular microscope typically at x10 magnification. The samples varied from 5 to 40 litres in volume. Identified plant remains including charcoal were removed and

bagged separately by type. Wood charcoal was 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).

The presence of carbonised remains within the environmental samples is extremely scarce at <2.5ml up to 5ml of trace charred detritus found and with a number of sterile samples also encountered (Appendix 6). Five of the samples produced small concentrations of carbonised material, mostly charcoal fragments and cereal grain, in amounts 5ml to 25ml. Large quantities of clinker and coal are present in some of the samples, in particular from kiln 1004, suggesting probable post-medieval activity or industrial processes using high levels of heat. Modern material was found throughout the samples in amounts from <2.5ml up to 25ml, and mostly consists of modern seeds, straw fragments and occasional earthworm egg capsules, indicating potential for bioturbation and plough disturbance.

A single sample from Ditch 106 (fill 107) is sterile of carbonised remains. Five samples were taken from Trench 2 with all proving sterile of carbonised remains. Ditch 210 (fill 204) produced a small amount of clinker. Ditches 203 (fill 218), 206 (fill 207), 208 (fill 209) and 210 (fill 205) are sterile of carbonised material and contain modern material and coal.

Eighteen samples were examined from ditches and gullies in Trench 3 with seventeen of these proving sterile of carbonised remains. Gully terminus 315 (fill 317) was unique amongst the samples in producing a small assemblage of carbonised cereal grain, probably a mixed deposit of cereal drying waste. The grain consists mostly of *Triticum aestivum* (spelt wheat) along with a small amount of *Avena* sp. (oat) and *Hordeum vulgare* sl. (barley), whilst a few specimens of *Bromus* sp. (bromes) are also present, perhaps a weed of the cereal crop or itself a cultivar. The grain shows some slight degradation but is generally fairly good, suggesting it had not been moved far from the source of burning. These remains are probably from Iron Age or Romano-British period agricultural activity in the vicinity. Ditch terminus 305 (fill 306) was sterile of carbonised material but did produce a very large amount of clinker, possibly a post-medieval industrial waste deposit. Similarly gully 303 (fill 304) also contained a quantity of clinker in amongst modern straw and seed detritus.

Ditch 802 (fill 803) produced a small discrete concentration of crushed charcoal with a single sliver of 5mm *Betula* (birch) identifiable. This was probably a trace inclusion from burning activity occurring nearby.

A single sample from Ditch 903 (fill 904) produced no carbonised remains but did contain a few fragments of clinker and modern straw suggesting post-medieval or modern intrusion and mixing.

Six samples were examined from Trench 10 with four found to be sterile of carbonised remains.

Four samples from kiln 1004 were found to contain high concentrations of clinker and coal from fills 1005 and 1006. The clinker in fill 1005 was present in large fragments 20mm to 30mm in size with some fragments resembling oak, although not accurately identifiable, whilst the majority of it is probably originally coal derived fuel material. The kiln is probably post-medieval with an industrial purpose given the nature of the content or at least involved in processes requiring very high levels of heat.

Ditch 1007 (fill 1008) produced a fairly large concentration of *Quercus* (oak) charcoal with a small amount of *Betula* (birch) charcoal also present. This is probably a discrete deposit of fuel waste. Clinker is also present in this sample.

Eight samples from Trench 11 were all found to be sterile apart from sample 12 (ditch 1132, fill 1133) which contained a small deposit of highly crushed charcoal which was possibly oak type but too small to identify accurately. It also contained clinker and modern straw so there was probably representing later intrusion.

Four samples were examined from Trench 15, with two proving sterile and two producing small quantities of charcoal. Pit 1503 (fill 1504) contained a few crushed slivers of *Quercus* (oak), whilst gully 1505 (fill 1506) also produced crushed detritus with nothing identifiable. This is possibly wind-blown or trampled material from burning activity occurring nearby. Samples taken from pit 1507 (fill 1508) and gully 1509 (fill 1510) are sterile.

The environmental samples overall were largely found to be sterile with only a few discrete deposits of burnt remains encountered, but many features contained clinker and coal probably originating from post-medieval industrial activity in the area which had subsequently become mixed through the deposits by ploughing and general bioturbation. Kiln 1004 contained large amounts of clinker and coal and probably had an industrial purpose. This feature was possibly the origin for some of the clinker spread across the rest of the site.

Cereal grain was present in one feature only, gully terminus 315 (fill 317) and consists of a mixed deposit of spelt wheat, barley and oat grains, probably waste from a number of cereal drying events perhaps using a corn drier or hearth. These remains are probably Iron Age or Romano-British in date and suggest agricultural activity occurring in the vicinity.

Further work at the site has a fairly low potential to produce any significant quantities of carbonised material except perhaps in the area around Trench 3 where the cereal grain was recovered.

Animal bone by Jane Richardson

Animal bones were recovered exclusively from kiln 1004 (across fills 1005 and 1006). They include numerous fragments representing a horse skull and mandibles, atlas, and axis. The loose teeth present (upper and lower cheek teeth) are extremely well worn, with one tooth worn to a peg, indicating an aged animal at death. Vertebrae and a fragment of horse pelvis are also present and it is likely that a single animal is represented. No further analysis of this assemblage is recommended but it should be retained as part of the site archive.

8 Discussion and Conclusions

Feature visibility and preservation

Generally the features investigated correspond well with the geophysical survey anomalies and crop mark data, although some of the features identified, such as those in Trench 3, indicated that the enclosures are likely to contain internal archaeological remains not detected by the geophysical survey. Several trenches that were targeted upon anomalies failed to identify any archaeological remains, instead identifying modern agricultural land drains or ploughing activity. This was most clearly seen in in Trenches 4, 5, 14 and 16.

Where both crop marks and geophysical survey data concur, archaeological features were exposed. The contrast between archaeological features and plough furrows was clear in all trenches.

The geophysical survey, did identify possible kiln like structures and this was confirmed by the presence of a kiln in Trench 10. Large areas of disturbance were also identified towards the north of the site. The trenching confirmed that these were large areas of landfill deposits from the later 19th and 20th centuries.

The features, although truncated by modern ploughing in some areas, were generally well preserved. None of the features investigated had any indication of having been waterlogged. As such any change in the hydrological and environmental conditions by the proposed development is unlikely to impact significantly upon the archaeological remains.

Dating and phasing

The residual flint finds from across the site add to the evidence of prehistoric activity in the area, although the features excavated as part of the evaluation are unlikely to be of an early prehistoric date.

The pottery recovered from the evaluation conforms to the previous identification of a Romano-British enclosure and field system. The pottery all has a form that suggest it locally produced and dates to the mid to late 2nd century AD.

A number of the sherds are overfired with oxidised surfaces, consistent with probable waste material. Either wasters from the kilns were traded to this site or wasters came from local pottery production. Although the geophysical survey identified kilns, the excavated example in Trench 10 is probably post-medieval in origin with an industrial purpose given the nature of the content. At this stage the purpose of the other possible kilns on site and their use for pottery production cannot be ruled out.

Much of the later activity on site relates to the landfill deposits along the northern side of the proposed development area. The unusual nature of the assemblage suggests that it derived from a public house perhaps following demolition or clearance sometime in the early to mid-20th century.

Environmental evidence

The environmental samples overall were largely found to be sterile with only a few discrete deposits of burnt remains encountered. The majority of the features contained clinker and coal probably originating from post-medieval industrial activity in the area. This is most clearly seen in the kiln excavated in Trench 10.

Cereal grain was present in one feature in Trench 3. This gully terminus 315 (fill 317) contained a mixed deposit of spelt wheat, barley and oat grains, probably waste from a number of cereal drying events perhaps using a corn drier or hearth. These deposits are also focused within the most archaeologically busy part of the site.

Conclusions

The archaeological excavations have helped to clarify the results of the geophysical survey and have also helped define the areas that contain archaeological deposits. The archaeological excavation has demonstrated that many of the geophysical survey anomalies are archaeological and the area of disturbance towards the north of the site is a result of 20th-century landfill.

The majority of archaeological features and deposits investigated appear to be Romano-British in date and conform to known patterns of brickwork field systems and enclosures that exist in this part of the region. The pottery recovered from the evaluation, is a significant assemblage, given the limited quantity of pottery recovered from other brickwork enclosures in this area and it has the potential to add to the growing picture of Romano-British activity in this area, as well as the pottery kilns at Rossington Bridge and the wider Doncaster area.

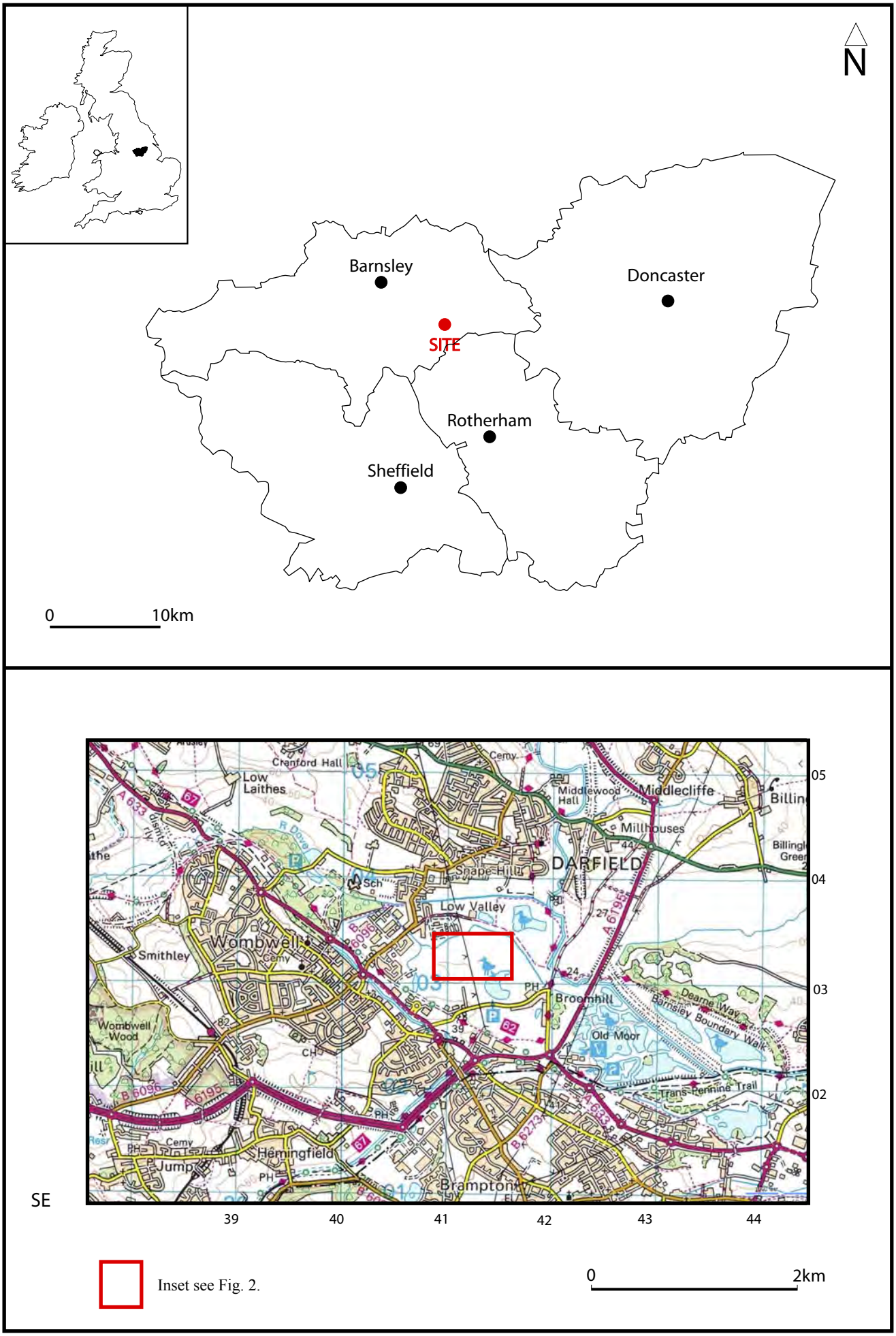


Fig. 1. Site location

SITE BOUNDARY
GEOPHYSICAL ANOMALY
TRIAL TRENCH LOCATION
ARCHAEOLOGICAL FEATURE
PLOUGH FURROW

Wombwell Ings

N

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15
16

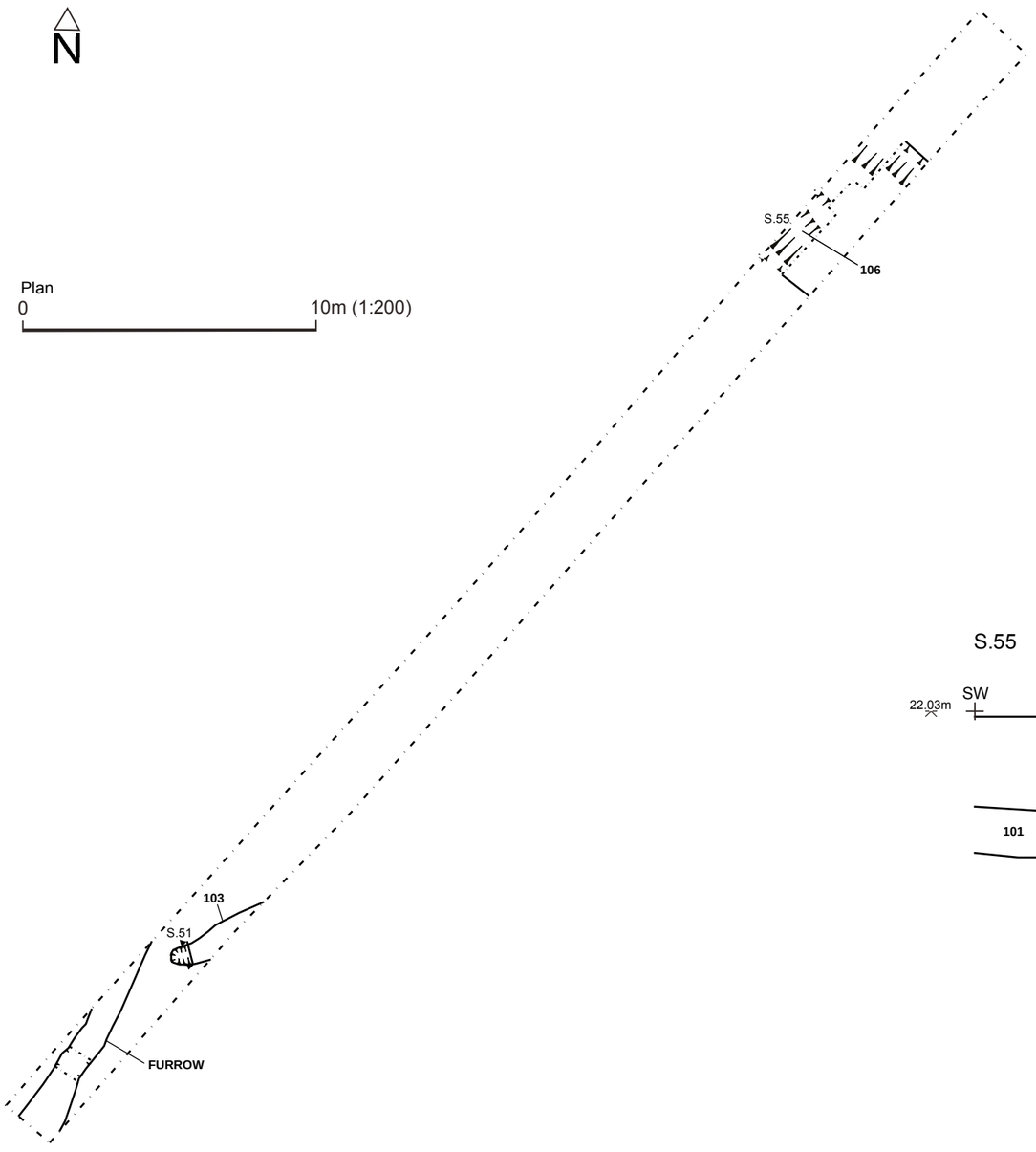
403400
403200

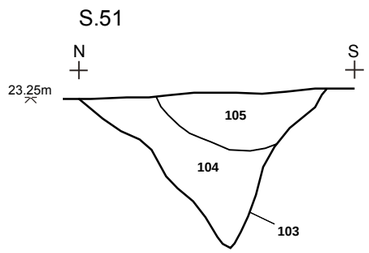
412200
414200
416200

Archaeological Services W Y A S
Nepshaw Lane South, Morley, LS27 7JQ
Tel: 0113 535 0163

0 100m

Fig. 2. Sit plan showing trench locations, geophysical survey results and locations of archaeological features (1:2000 @ A3)





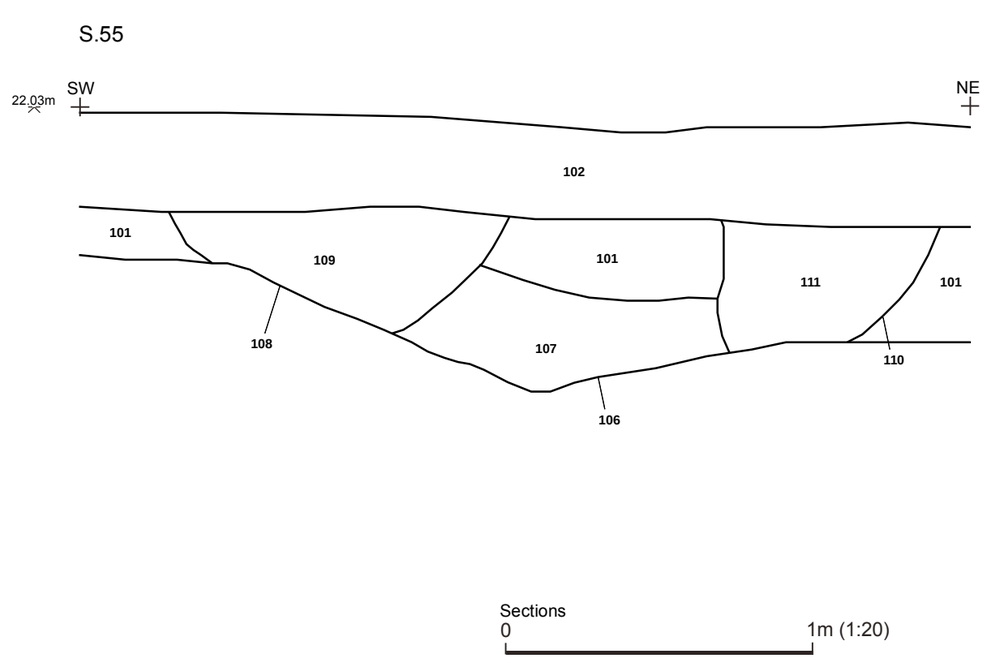


Fig. 3. Trench 1 plan and sections

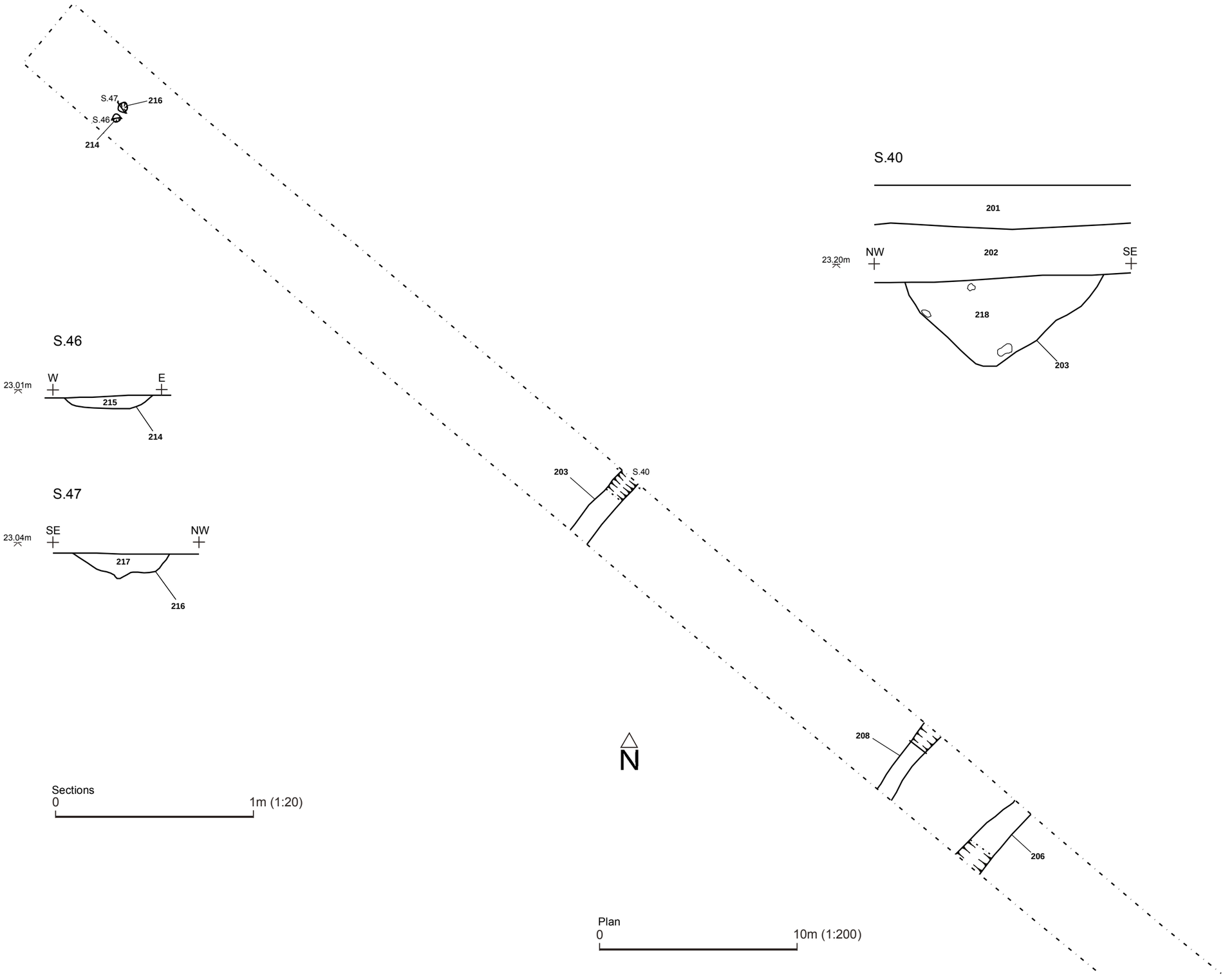


Fig. 4. Trench 2, NW end plan and sections

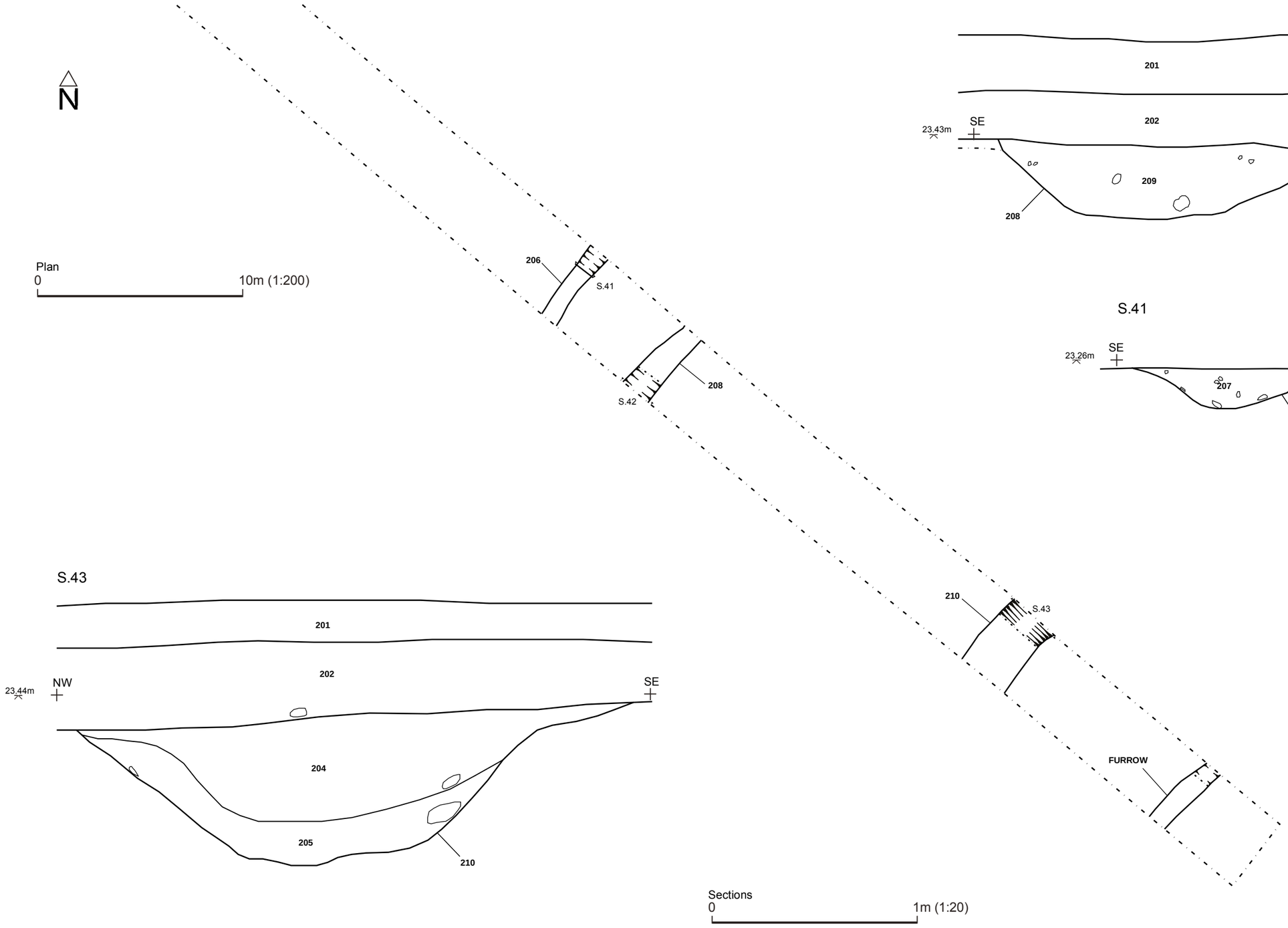
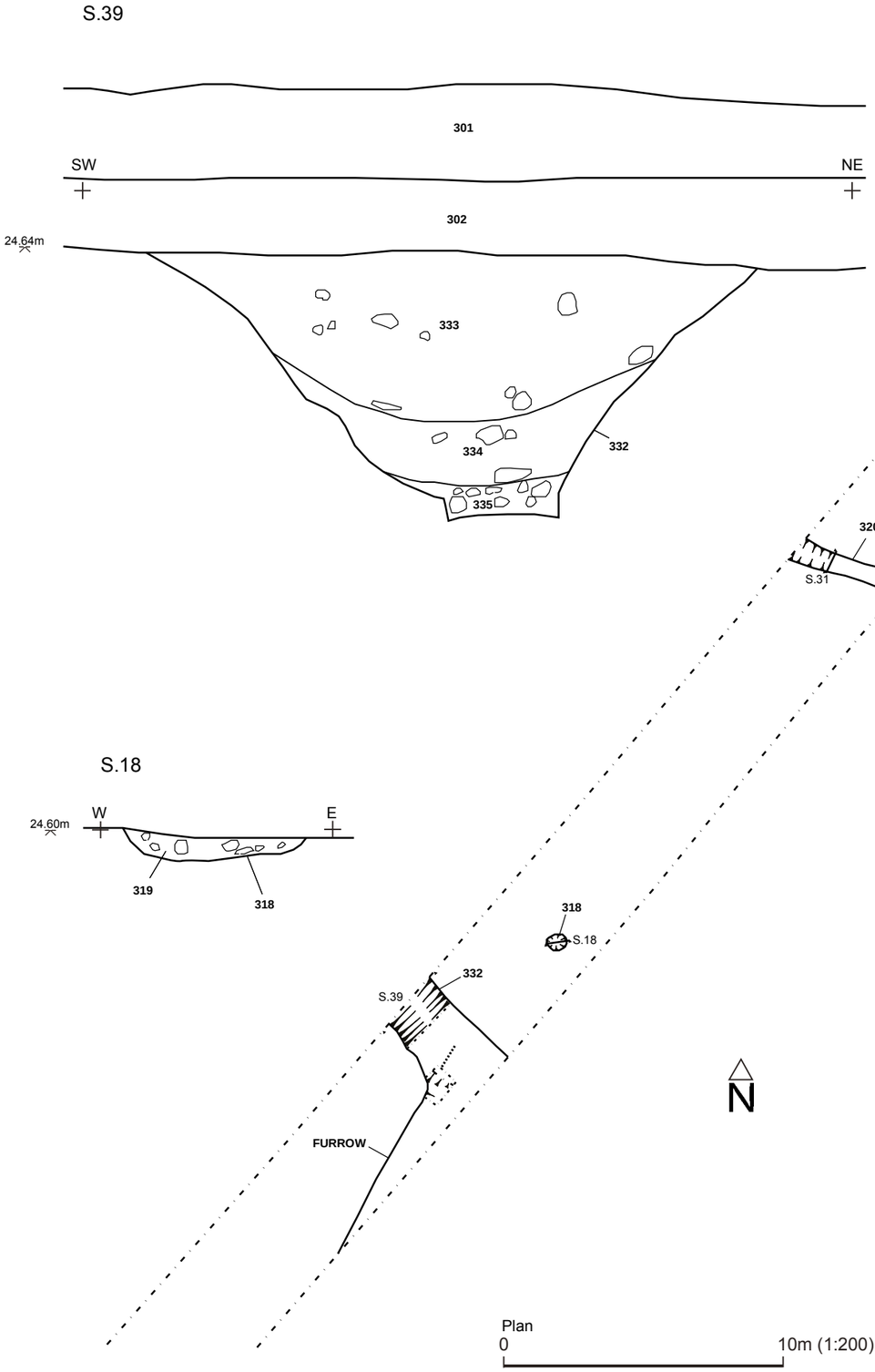
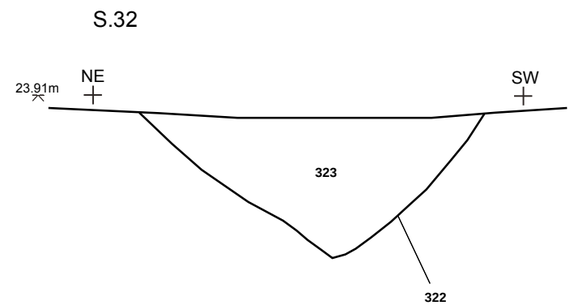
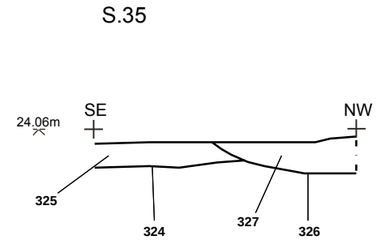
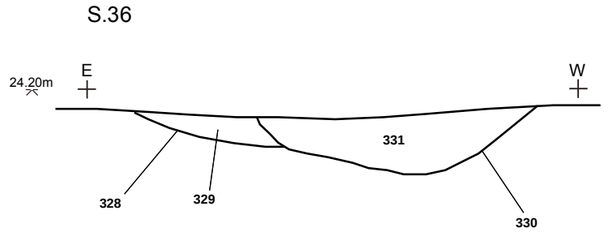


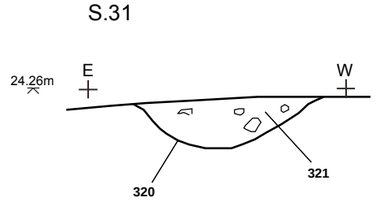
Fig. 5. Trench 2, SE end plan and sections











Sections
0 1m (1:20)

Fig. 6. Trench 3, NE end plan and sections

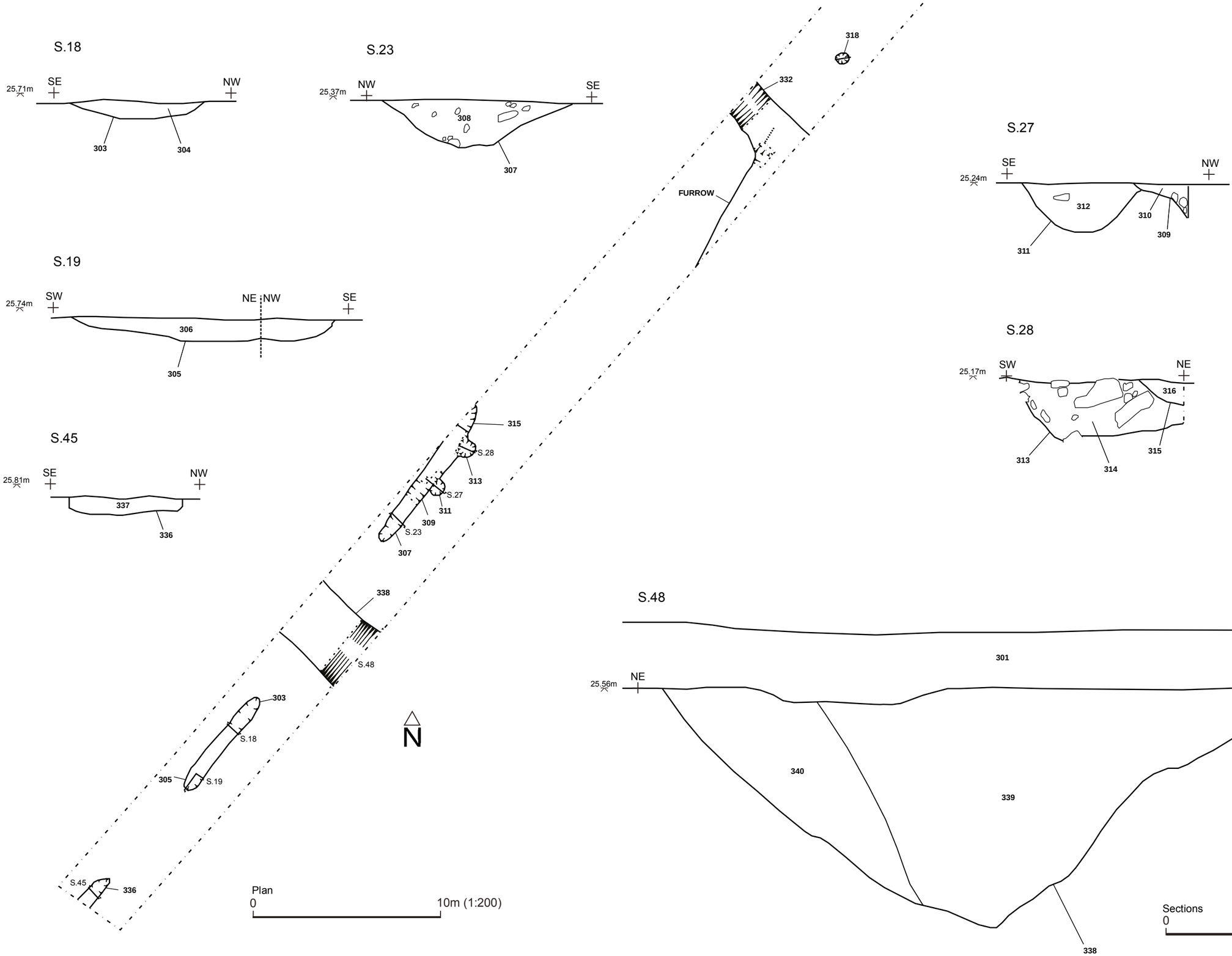


Fig. 7. Trench 3, SW end plan and sections

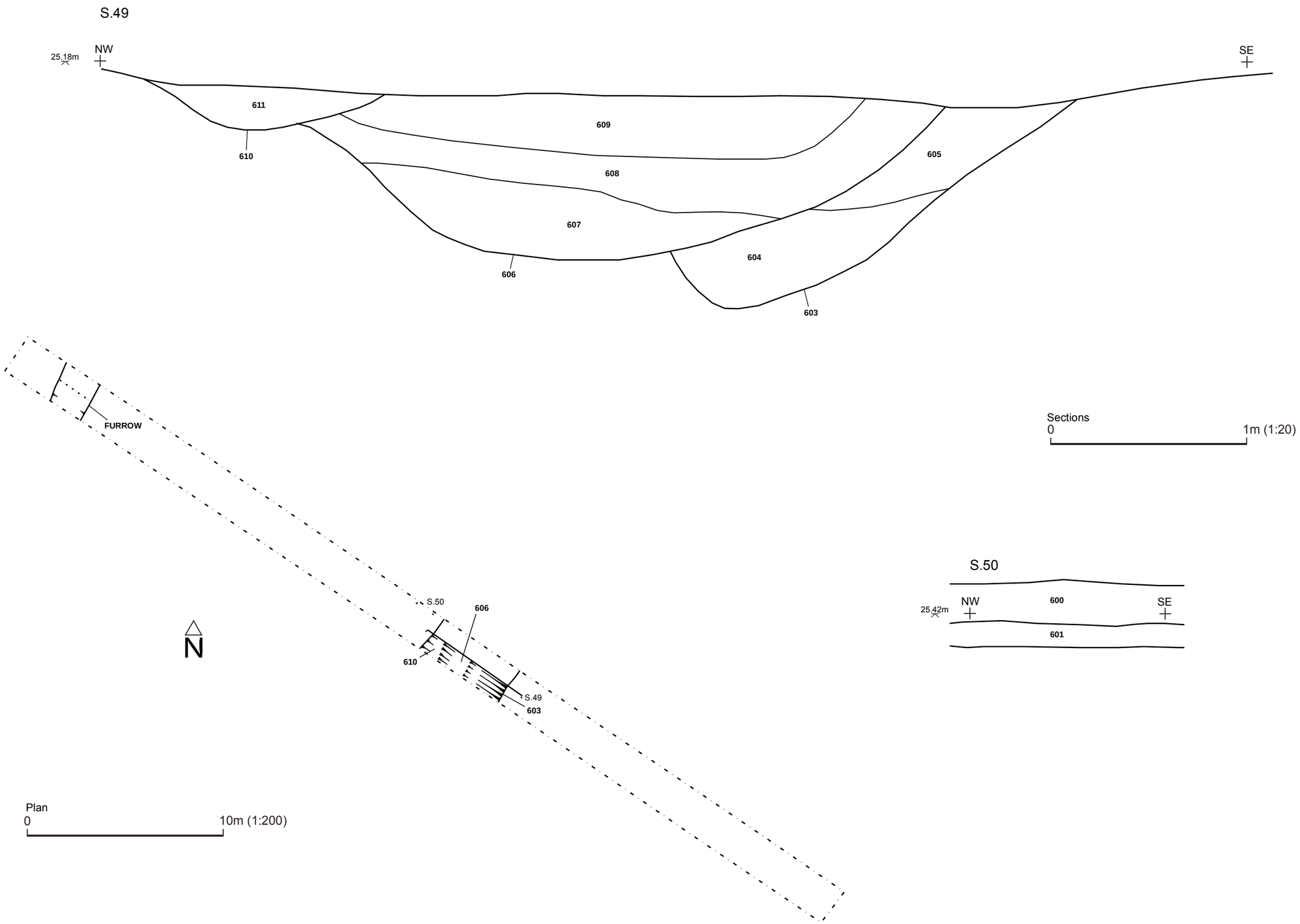


Fig. 8. Trench 6 plan and sections

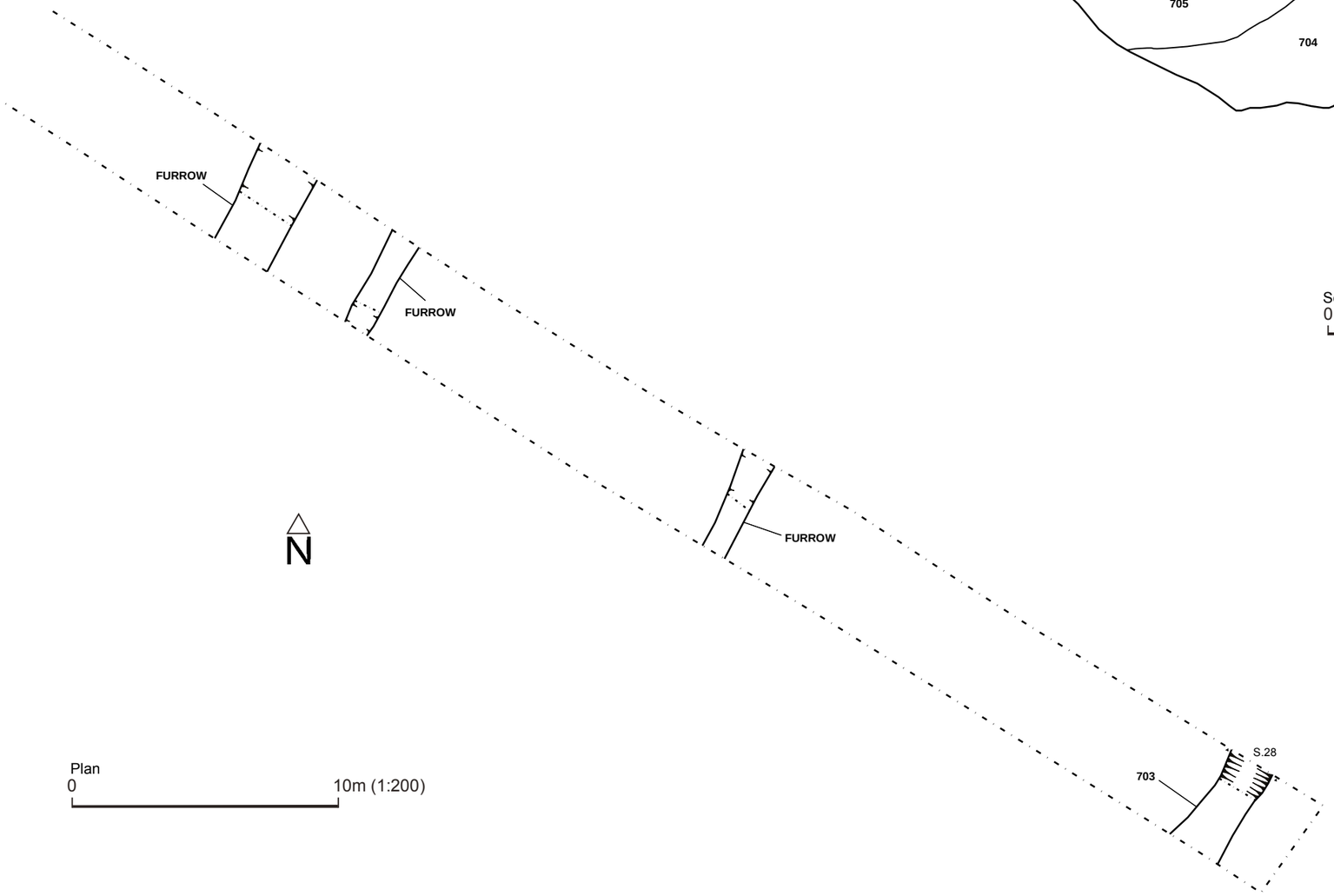
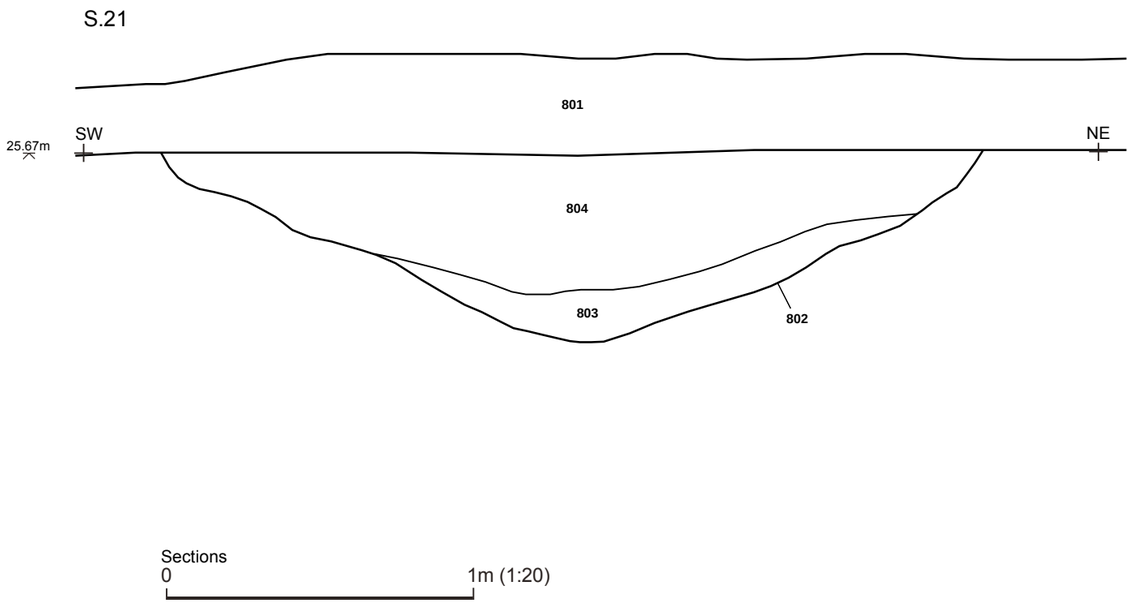


Fig. 9. Trench 7 plan and section



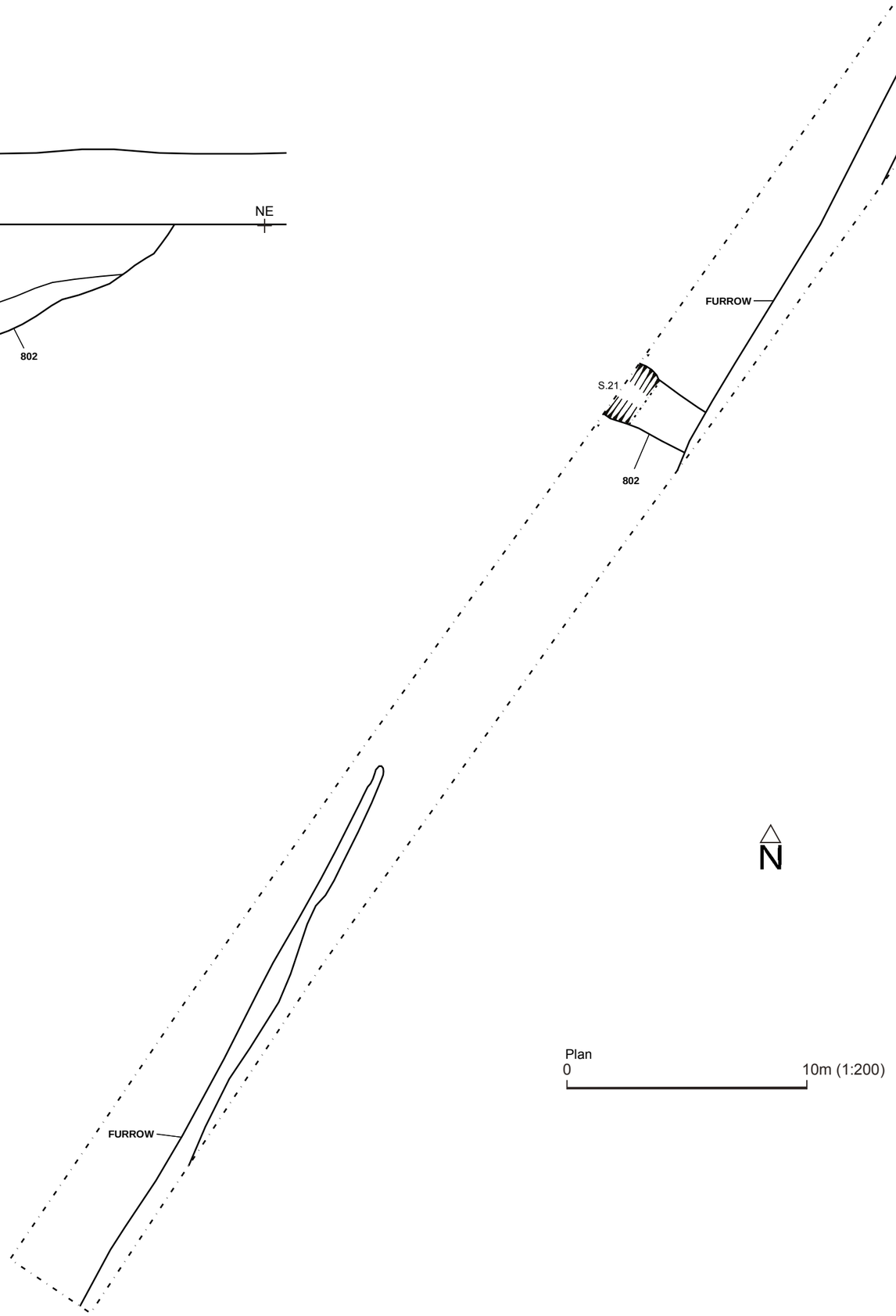


Fig. 10. Trench 8 plan and section

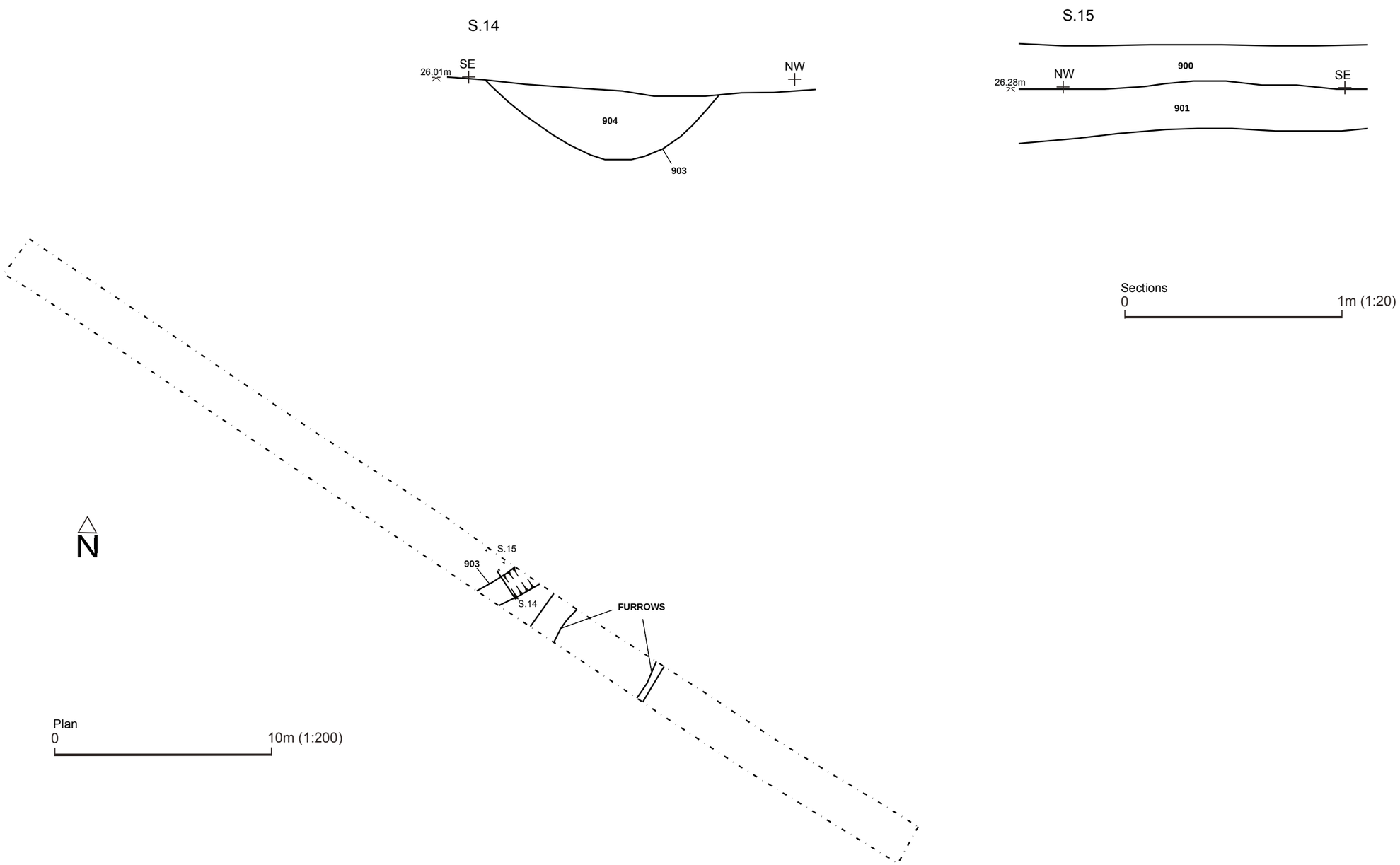


Fig. 11. Trench 9 plan and sections

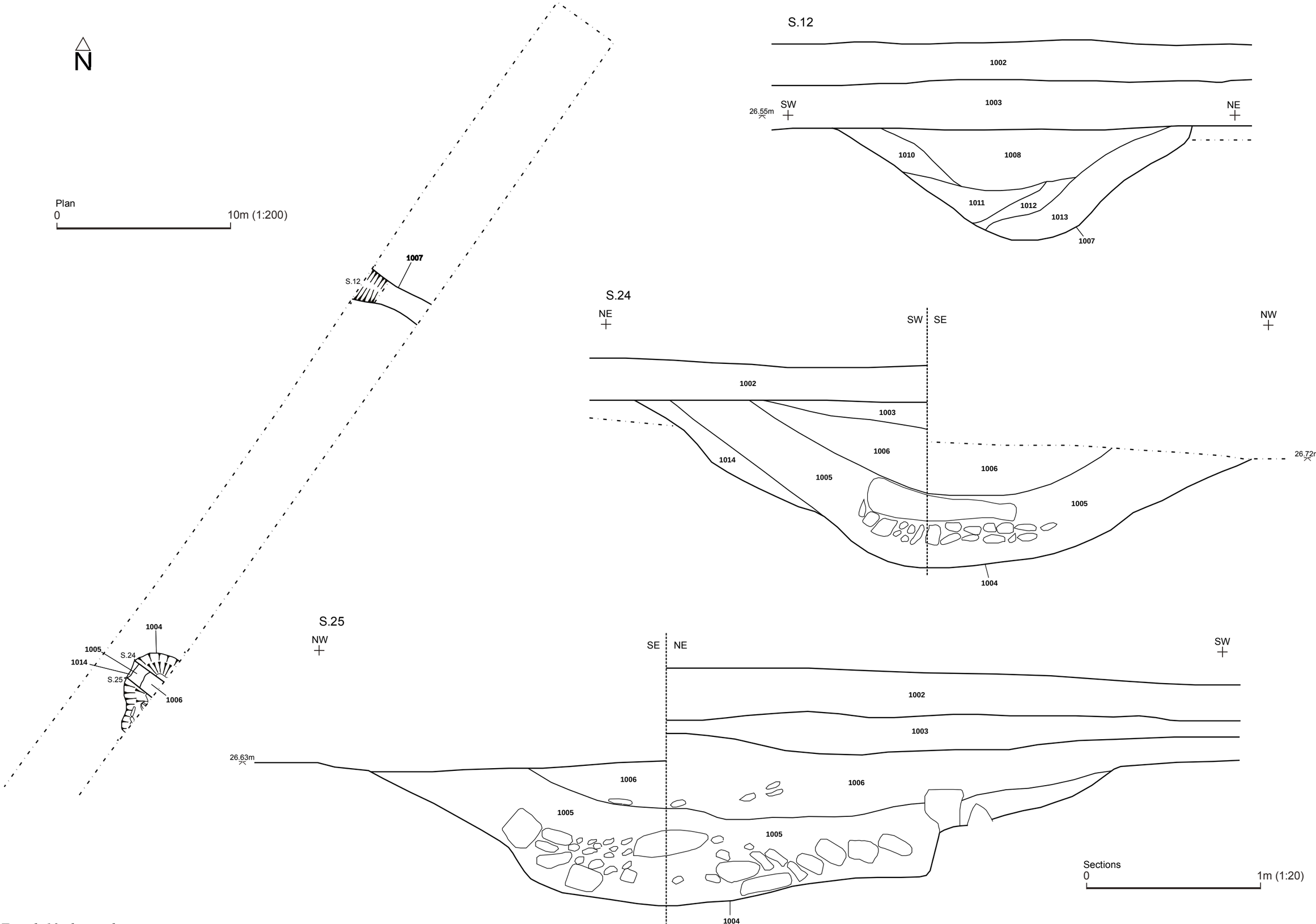


Fig. 12. Trench 10 plan and sections

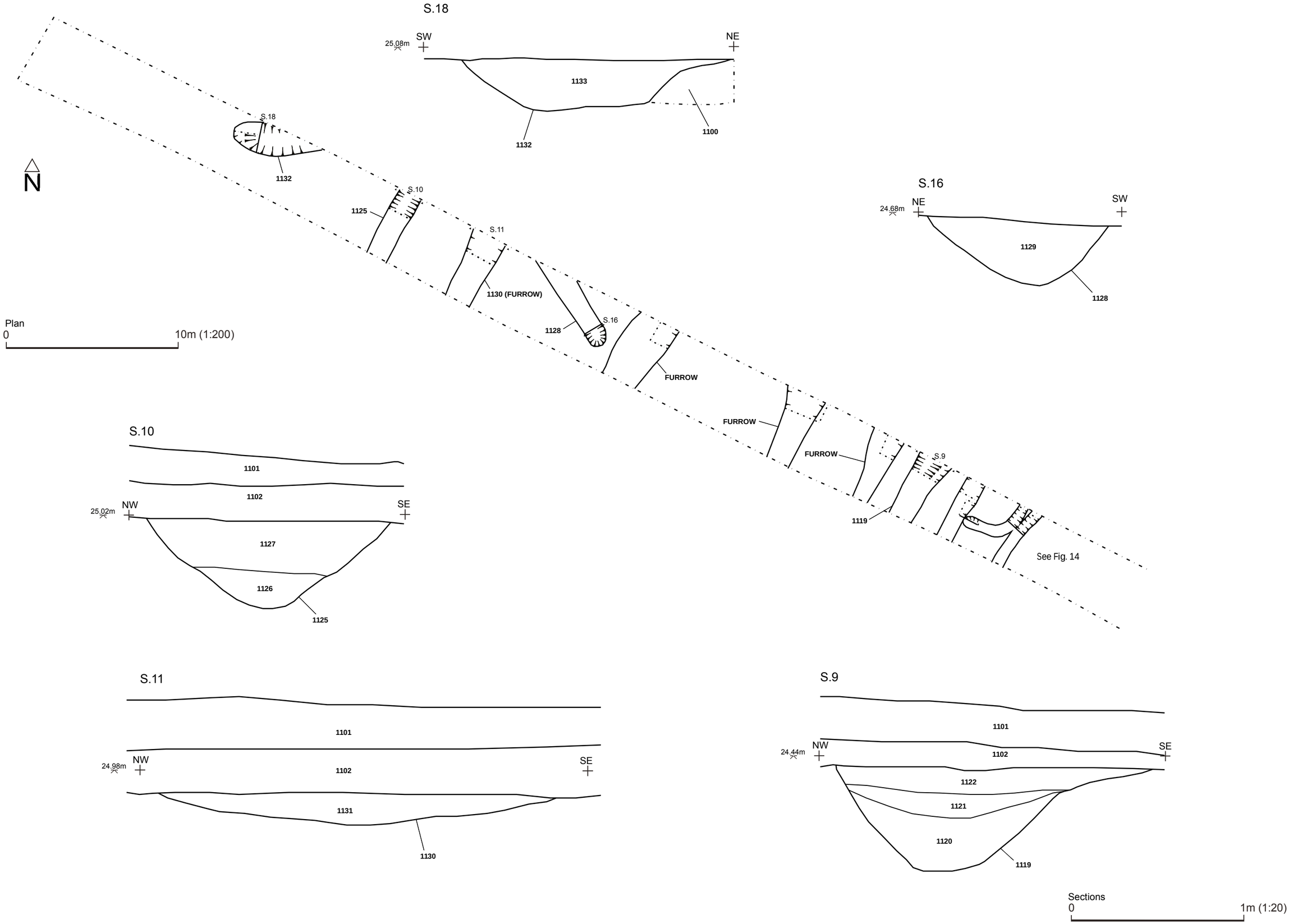


Fig. 13. Trench 11, NW end plan and sections

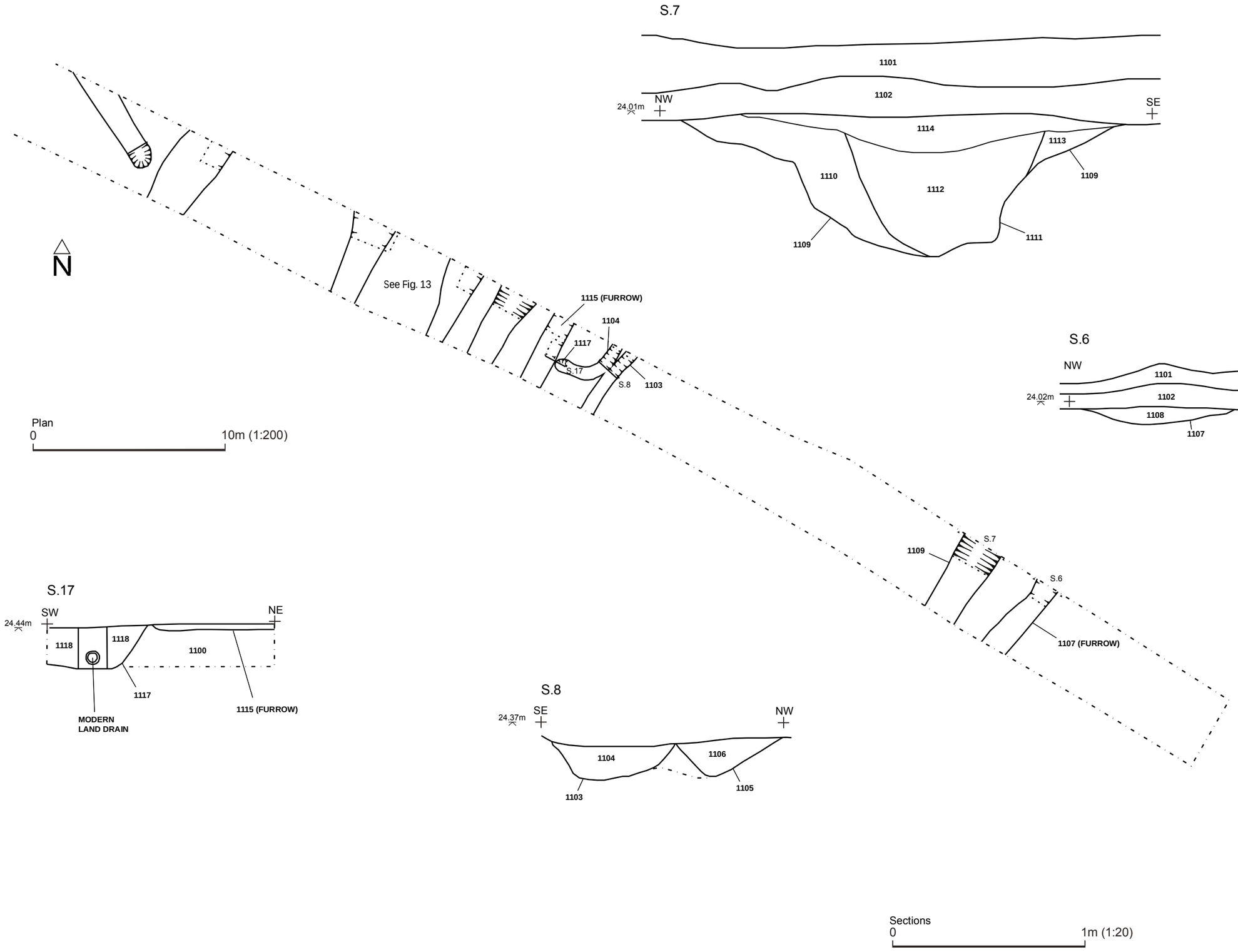
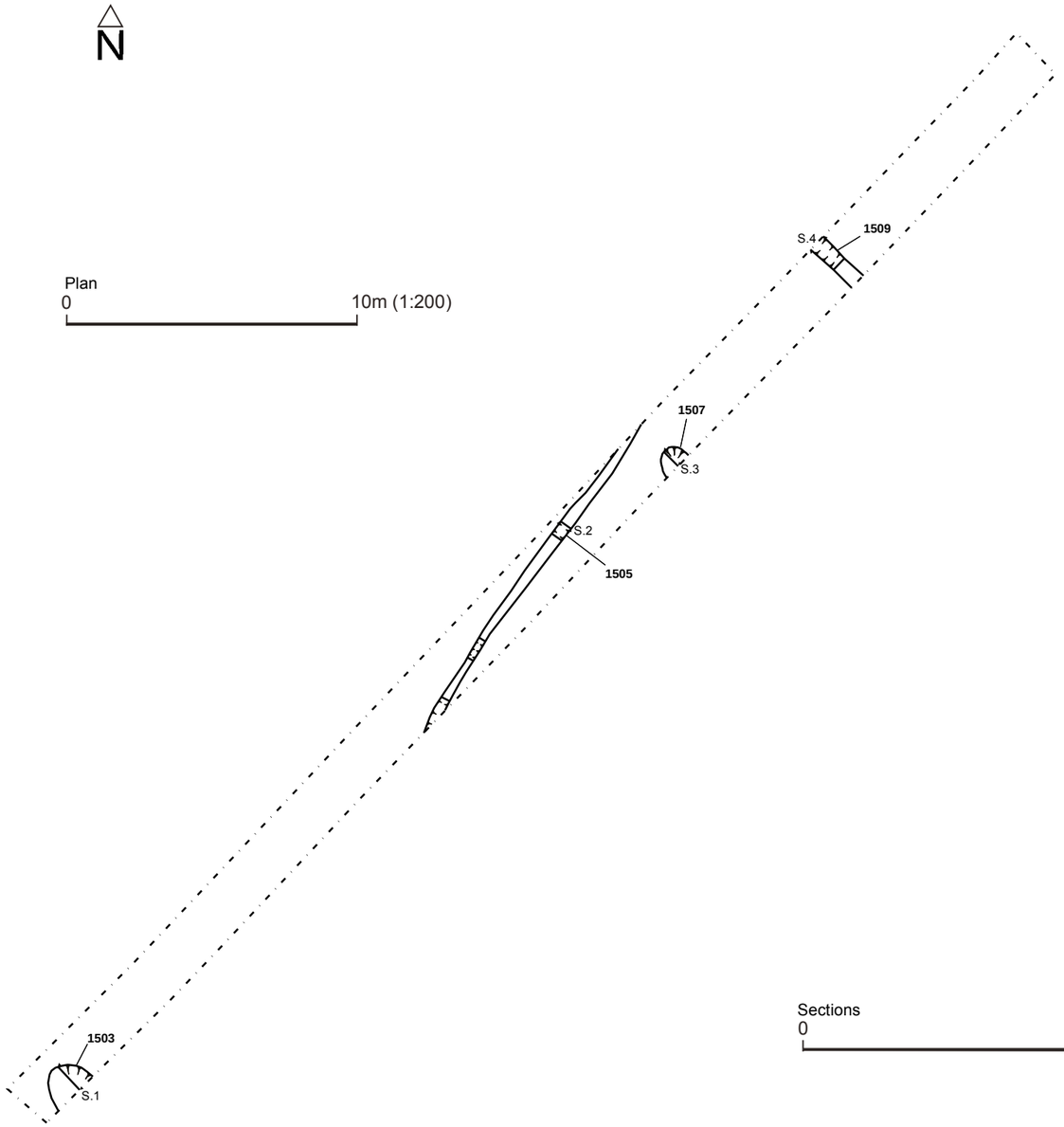
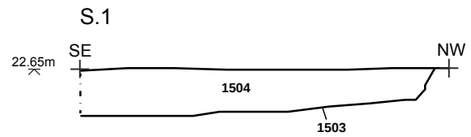
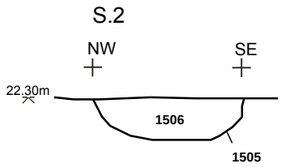
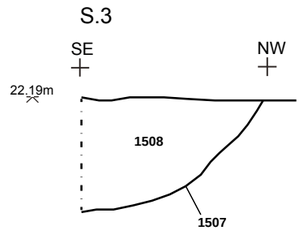


Fig. 14. Trench 11, SE end plan and sections









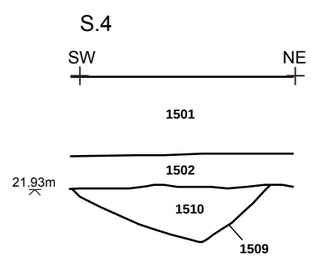


Fig. 15. Trench 15 plan and sections

Plate 1. Trench 1, looking south-west

Plate 2. Trench 2, ditch 210, looking north-east

Plate 3. Trench 3, pit 313, looking north-west

Plate 4. Trench 3, ditch 322, looking north-west

Plate 5. Trench 5, landfill deposit 503, looking south-west

Plate 6. Trench 6, ditches 603 and 606 and furrow 610, looking east

Plate 7. Trench 9, ditch 903, looking south-west

Plate 8. Trench 9, looking north-west

Plate 9. Trench 10, kiln 1004, looking south

Plate 10. Trench 11, furrow 1130, looking south-west

Plate 11. Trench 13, looking north-west

Plate 12. Trench 15, lookng north-east

Appendix 1: Written scheme of Investigation

FAS HERITAGE

WOMBWELL – ARCHAEOLOGICAL EVALUATION

WRITTEN SCHEME OF INVESTIGATION

1.0 INTRODUCTION

This document presents a Written Scheme of Investigation (WSI) for an archaeological evaluation to be undertaken to support a planning application for proposed wetland creation at Wombwell, South Yorkshire. The WSI has been prepared by FAS Heritage on behalf of the Garganey Trust, following discussions with Andy Lines, South Yorkshire Archaeology Service (SYAS).

1.1 LOCATION AND LAND USE

The main part of the proposed site lies to the east of Wombwell, occupying a large arable field bounded by Bulling Dike to the north. Land rises to the south, and a sewage works occupies land to the northwest (NGR: SE 414 033)(Plate 1; Figure 1). A second parcel of land to the north, to the south of Doveside, also forms part of the proposed scheme.

1.1.1 Proposed scheme

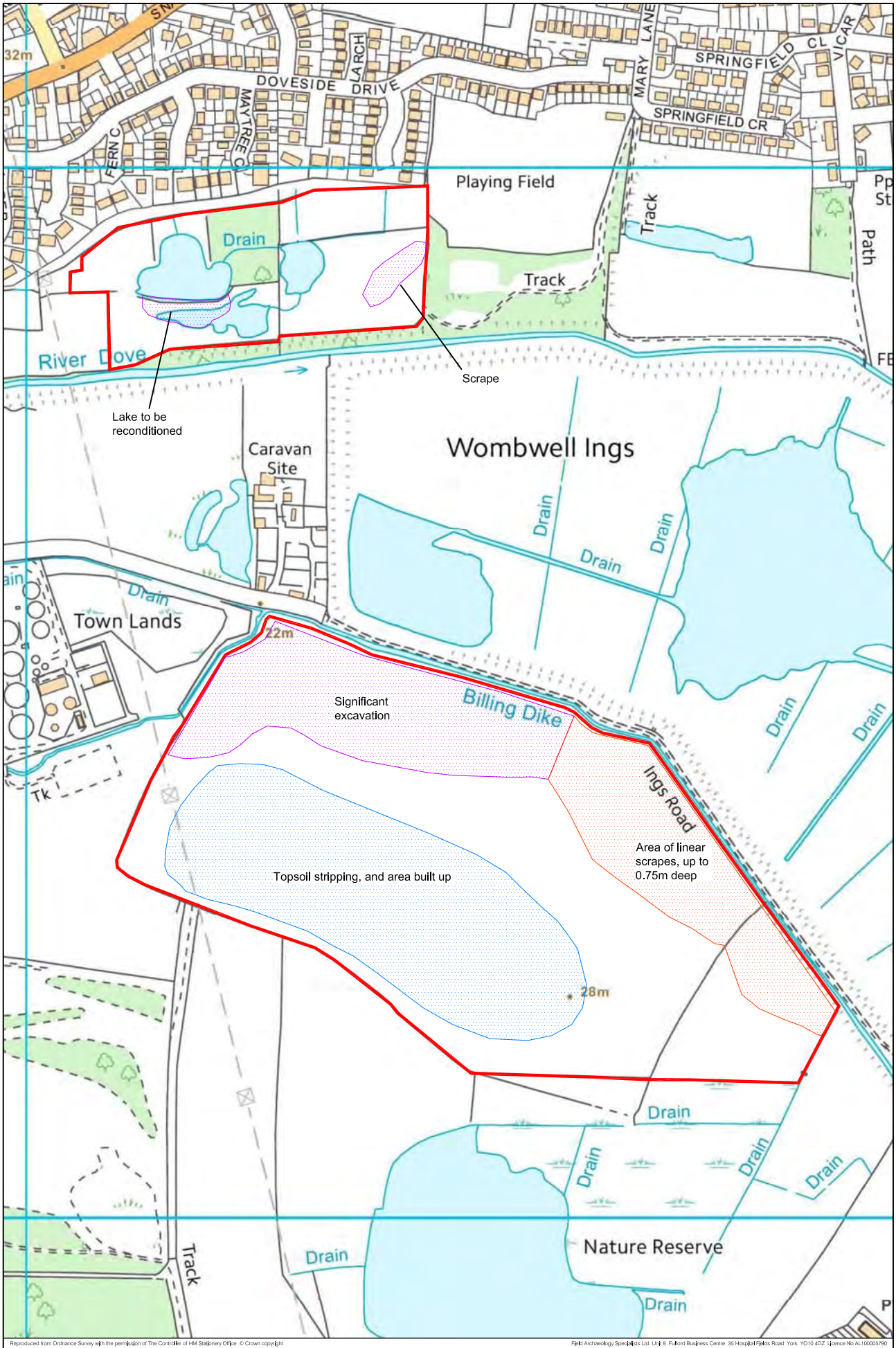
The proposed wetland creation would see a large amorphous cut excavated in the northern part of the Wombwell site to form a large body of water; to the northeast a series of scrapes would create a wetland habitat. The resulting material would be deposited to form a raised mound on the southern part of the site. At the Doveside site, an existing lake would be reconditioned, and a scrape created at the eastern part of the site (see Figure 1).

1.2 AIMS AND OBJECTIVES

The overarching aim of the archaeological evaluation is to advance understanding of the significance of archaeological remains at the site, to inform an assessment of the potential impact of the proposed work, in line with cultural heritage policies set out in NPPF (DCLG 2012).

The objectives of the evaluation are set out below:

- to gather sufficient information to established the presence/absence, character, extent, state of preservation and date of archaeological deposits at the site, in terms of horizontal and vertical extent;
- to assess the significance of any remains present;
- to assess the preservation of archaeological remains across the site, and the contribution that their state of preservation makes to significance;
- to assess the impact of the proposed scheme on archaeological deposits across the site, in terms of direct impact, and also the changing hydrological and environmental conditions that would result from the scheme;
- to inform the design of an appropriate mitigation strategy, by design or record.



Location of proposed works | Scale 1:5000 | Figure 1