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## **A1 Bramham to Wetherby Upgrading Scheme West Yorkshire**



*Archaeological Evaluation*

*Report No. 1362*

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CLIENT  
Atkins Heritage

# **A1 Bramham to Wetherby Upgrading Scheme**

## ***West Yorkshire***

### *Archaeological Evaluation*

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### *Summary*

*An extensive archaeological evaluation via trial trenching was carried out in advance of the proposed road upgrade of the existing A1 along the section between Bramham to Wetherby in West Yorkshire. This work was undertaken following previous investigations, which included a desk-based assessment, air photo mapping, geophysical surveys, metal detector survey and fieldwalking, as well as a smaller scale evaluation and watching brief associated with geotechnical investigations. The culmination of this exploratory work was the excavation of eighty-seven trial trenches, spread out along the scheme route, targeting known anomalies from the geophysical surveys and air photo mapping, as well as apparent blank areas. This work confirmed the surviving remains, in the area to either side of Wattle Syke (A659), of enclosed settlements associated with an extensive field boundary system that are likely to date to the Late Iron Age/Romano-British period.*

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## **1. Introduction**

- 1.1 Archaeological Services WYAS was commissioned by Mr Rob Sutton of Atkins Heritage to carry out a programme of archaeological evaluation by trial trenching adjacent to the existing A1 prior to the proposed road upgrade along the section between Bramham and Wetherby in West Yorkshire. This section runs from Spen Common lane to the south of Bramham (SE 4312 4090) to Sandbeck House on the north east side of Wetherby at SE 4116 4960, although the majority of the trenching was carried out immediately west of Boston Spa.
- 1.2 The road upgrading scheme lies within an area of Magnesian Limestone, although in discrete areas the permeable limestone is overlain by slower draining Permian mudstones. To the north of the River Wharfe at Wetherby the limestone is overlain by glaciofluvial drift. The soils are predominantly characterised as well-drained typical brown calcareous earths of the Aberford Association, but to the north of the River Wharfe they are less permeable stagnogleyic argillic brown earths of the Bishampton 1 Association (Soil Survey of England and Wales, 1983).
- 1.3 Archaeological work previously undertaken in the area relating to the A1 (M) upgrade includes an appraisal report by Northern Archaeological Associates (NAA 1993) and a Cultural Heritage Appraisal Report (BHWB 2001).

## **2. Archaeological Background**

- 2.1 More recently a study mapping and interpreting cropmarks seen on air photographs (Deegan 2002) was completed and this was used in part to determine areas for a geophysical (magnetometer) survey (Webb 2003). This survey, covering approximately 10 hectares, was carried out at several sites. At the two largest sites the results confirmed the presence of 'ladder' settlements comprised of numerous connecting enclosures. Discrete anomalies, indicative of occupational activity, were also identified in most enclosures. Excavations undertaken by the West Yorkshire Archaeology Service during 1990 in the easternmost enclosure at Wattle Syke (the most northerly of the two 'ladder' settlements) revealed a possible roundhouse, three burials, pits and a 'T' shaped oven (WYAS 1991). The excavation confirmed the site to be of Iron Age/Romano-British date.
- 2.2 Two smaller geophysical surveys were carried out to the east of the A1 between Spen Common Lane in the south and Paradise Farm to the north. This area is located on the western periphery of the Spen Common cropmark complex and is also thought to be close to the site of the Battle of Bramham Moor, fought in 1409 between forces of Henry IV and rebellious barons and the Scottish army. The general area of Bramham Moor has also been proposed as the site for several other significant conflicts, including the battles of Winwaed in AD 654 and Vinheidhr and Brunanburh in the 10<sup>th</sup> century. However, only anomalies caused by ridge and furrow ploughing and quarrying activity were identified.
- 2.3 A further programme of detailed magnetometer (fluxgate gradiometer) survey covering approximately 20 hectares was carried out adjacent to the A1 (M) on land that may be affected by the road upgrade (Webb 2004). The proposed

survey of a further 18 hectares was not undertaken due to access restrictions. At the northern end of the corridor anomalies indicative of infilled ditches provided further evidence of the extent of two late Iron Age/ early Roman period 'ladder' settlements and associated field systems. Large areas of magnetic disturbance revealed the extent of quarrying and infilling. At the southern end of the corridor isolated ditch type anomalies have also been identified.

### **3. Method, Aims and Objectives**

- 3.1 The evaluation strategy originally comprised the opening of 102 trenches covering an area of 4080m<sup>2</sup>. All of the trial trenches measured 20m in length and 2m in width. They were located adjacent to the A1, within the corridor of the proposed scheme for the new road upgrade between Bramham and Wetherby. Due to site access constraints, however, only 87 trenches were excavated, covering an area of a 3520m<sup>2</sup>.
- 3.2 The aims and objectives of the trial trenching were:
- to determine, within the constraints of the trial trenching exercise, the presence/absence, nature, depth, extent, date and stratigraphic complexity of archaeological deposits or features that might be affected by the proposed road upgrading scheme;
  - to determine the presence/absence, nature, depth, extent, date and stratigraphic complexity of the features causing the identified magnetic and crop mark anomalies;
  - to establish the presence/absence of any archaeological features/deposits in the areas where geophysical survey has not previously been undertaken;
  - to provide an assessment of the potential and significance of any identified archaeological deposits and features in order to inform any decision about the likely scope, cost and duration of any further evaluation and/or excavation works that might be required to mitigate against the proposed road upgrade;
  - to contribute positively to the national and regional heritage through the dissemination of the results of the archaeological investigations.
- 3.3 The trench positions have been based upon the most up to date plan for the proposed upgrading, taking into account the width restrictions of the road corridor, suitability for excavation and previously acquired archaeological data (e.g. desk-based research, air photo mapping, geophysical survey and excavations). Finally, the trench locations were defined using a differential GPS system based upon digital data.
- 3.4 In all trenches the topsoil and subsoil was stripped under direct archaeological supervision using a 360° mechanical excavator fitted with a 1.8m wide toothless ditching bucket. The topsoil and subsoil layers were removed in controlled, level spits until the first archaeological horizon or undisturbed

- natural deposits were identified. The resulting surface was then cleaned manually and inspected for archaeological remains.
- 3.5 In addition the topsoil and subsoil (where present) were sampled sieved (with a minimum of 80 litres per trench) in order to attempt to recover worked flint objects. Further more, the spoil heaps were routinely scanned using a metal detector to aid of recovery of any ancient metalwork contained therein.
  - 3.6 The trench limits were subsequently surveyed using a 600 series Geotronics Geodimeter total station theodolite and fixed in relation to nearby permanent structures and to the Ordnance Survey national grid.
  - 3.7 All archaeological and potentially archaeological features were investigated. An appropriate written, drawn and photographic record was made of all of the features and trenches, in accordance with the Archaeological Services WYAS standard method (ASWYAS 2004).
  - 3.8 The plough soil or topsoil (context 1000) was on average 0.30m in depth and consisted of a dark brown clay-silt. The subsoil (context 1001) comprised a mid brown sandy clay-silt with an average depth of 0.20m. The topsoil and subsoil remained consistent in description and depth throughout the excavated trenches.
  - 3.9 The natural deposit, in all the trenches, consisted of a mixed yellow/white limestone gravel.
  - 3.10 An environmental sampling programme based upon a strategy devised by Archaeological Services WYAS was undertaken in order to assess the potential for environmental reconstruction. Soil samples of up to 20 litres were taken from the primary fills of all archaeological features.
  - 3.11 The archive is listed in Appendix I and contexts, artefacts and samples are given in Appendix II to IV. The osteological and palaeopathological catalogue is contained in Appendix V. A copy of the Written Scheme of Investigation for the archaeological evaluation is given in Appendix VI.

## **4. Results**

### **Trenches 1 – 9 (Figs 4 and 5)**

- 4.1 These trenches were not excavated due to restriction of site access.

### **Trench 10 (Fig. 5)**

- 4.2 Measuring 20m by 2m and orientated north south, Trench 10 was excavated to a depth of 1.30m. The removal of topsoil (0.30m in depth) revealed a layer of mixed sandy-silt and stones, interpreted as alluvial that measured about 0.7m in depth. The trench was excavated a further 0.30m in order to establish the presence/absence of any archaeology that may have been buried under the alluvial deposit.
- 4.3 The removal of the topsoil, and the alluvial deposit, were done under professional archaeological supervision, carried out using a mechanical excavator fitted with a toothless bucket. Trench 10 contained no archaeological remains.

**Trench 11 (Fig. 5)**

4.4 Orientated north south, Trench 11 measured 20m by 2m, and was excavated to a maximum depth of 1.30m. The stratigraphy in this trench consisted of topsoil that measured 0.30m deep, a layer of orange-brown silty-sand material mixed with gravel which measured 0.35m in depth and a maximum of 0.70m of alluvial deposit, covering the natural limestone geology. No further archaeology was identified within the trenches limits.

**Trench 12 (Fig. 5)**

4.5 Excavated to a depth of 0.65m, Trench 12 measured 20m by 2m and was orientated on a north to south alignment. The topsoil had an average depth of 0.35m, covering an orange brown sandy-silt deposit interpreted as subsoil, which had an average depth of 0.20m. This overlay the limestone natural. No archaeology was found during the excavation of this trench.

**Trench 13 (Fig. 5)**

4.6 Positioned on a north south alignment, and measuring 20m by 2m, Trench 13 was excavated to an average depth of 0.50m where the natural limestone geology was reached. An average of 0.20m deep, orange brown sandy-silt deposit (subsoil) was found overlaying the natural. The topsoil in this trench had an average depth of 0.30m. The excavation of Trench 13 revealed no archaeological deposits.

**Trench 14 (Fig. 5)**

4.7 Orientated north-west south-east, this trench was excavated to a depth of 0.35m and measured 20m by 2m. The topsoil was the only deposit recovered within the limits of this trench, and overlay the natural limestone. Trench 14 proved to be absent of any archaeological evidence.

**Trench 15 (Fig. 5)**

4.8 Measuring 20m by 2m, and orientated north south, Trench 15 was excavated to a maximum depth of 0.60m where the natural limestone geology was reached. The topsoil measuring 0.35m in depth, overlay an orange brown sandy-silt subsoil mixed with pebbles, and with an average depth of 0.20m. No archaeological evidence was found during the excavation of this trench.

**Trench 16 (Fig. 5)**

4.9 This trench was not excavated due to restriction to site access.

**Trench 17 (Figs 6 and 10)**

4.10 Orientated north-south, this trench was excavated to a depth of *c.* 0.60m, and measured 20m by 2m in dimension. The topsoil had an average depth of 0.35m, whereas the subsoil was found to be present only towards the southern end of this trench and measured 0.10m in depth. The removal of topsoil and subsoil revealed a total of three linear features.

4.11 Ditch 1123 was found to represent a large linear feature (Fig. 10; S.54). Measuring 1.8m wide and 0.50m deep and with a V shaped flat-bottomed profile, this ditch was orientated from north-west to south-east and was identified by both the geophysical survey and the aerial photographic mapping

- (AP). This linear feature cuts the natural and was filled by a single deposit of a pink-brown sandy-silt (1122) containing a small amount of rounded burned pebbles and limestone fragments. A few fragments of infant human bones were found during the excavation of this deposit. No other material was recovered.
- 4.12 This linear feature (1123) appeared to have been cut by a later field boundary ditch (1121) measuring 4.63m in width and 0.63m in depth and running on a similar alignment to the early ditch.
- 4.13 Ditch 1121 (Fig.10; S.54) was filled by four deposits; the primary fill (1120) consisted of a shallow pink-orange sandy silt, containing two small metal objects (a small fragment of iron nail, and a piece of silver wire measuring 15mm in length and 0.5mm thick). Sealing this primary fill was an orange-brown sandy-silt deposit (1137) mixed with sporadic angular large limestone fragments and rounded burned pebbles. The third deposit (1136) was identified as a shallow orange-brown sandy-silt deposit mixed with a small amount of angular limestone fragments. No dating material was recovered from these deposits. The latest deposit (1119) was identified as possible redeposit natural and consisted of very pale brown silty-sand and limestone fragments, which included a few fragments of infant human bones.
- 4.14 The third linear feature (1114), running on an east-west alignment, and cutting into the natural geology, was discovered towards the southern end of the trench. This ditch measured 2.48m in width and 0.53m in depth and contained two deposits, and had a large U shaped profile (Fig. 10; S.51).
- 4.15 The upper fill (1112) appeared to be a deep layer of redeposited natural characterised by a very pale pink-brown silty-sand material mixed with limestone fragments. The primary fill (1113) was a dark reddish-brown sandy-silt material with sporadic inclusion of limestone angular fragments. No dating material was recovered during the excavation of these deposits.

#### **Trench 18 (Figs 6 and 11)**

- 4.16 This trench measured 20m by 2m, was excavated to a maximum depth of 0.35m and was also orientated north-south. The topsoil was 0.30m deep, overlaying the subsoil deposit, which measured 0.05m in depth. Cutting into the natural were four linear features positioned on an east-west alignment. The geophysical survey and the AP mapping were able to identify three of these linear features.
- 4.17 A large enclosure ditch (1079), U shaped in profile, was located at the northern end of the trench and measured 2.10m in width and 0.40m in depth. It was found to be backfilled by a single deposit (1080) of dark-orange sandy-silt material mixed with sporadic angular limestone fragments. No dating material was found during the excavation of this deposit (Fig.11; S.32).
- 4.18 A second linear feature (1096) was located at the centre of the trench, cutting into the natural, with a sub-rectangular shape in profile, measuring c.2.10m in width and 0.12m in depth. After excavation, this shallow ditch appeared to have had an earlier phase, represented by a deeper narrow cut (1132) running parallel to ditch 1096. This linear feature (1132), had a U-shaped profile, and measured 0.88m in width and 0.20m in depth (Fig.11; S. 39).

- 4.19 Both features appeared to be in-filled by a single, very sterile orange-brown sandy-silt deposit (1097, 1133). Due to the similarity of these deposits, it was impossible to establish the stratigraphic relationship of the two linear features. In addition, there was no datable material recovered from these deposits.
- 4.20 Two further gullies, running parallel to each other were found towards the southern end of the trench. Gully 1109 measuring 0.55m in width and 0.11m in depth, was found to have a shallow V shape profile infilled by a single mid-orange-brown sandy-silt deposit (1108), containing sporadic angular limestone gravel.
- 4.21 The second gully (1111) was represented by a shallow V shape profile measuring 0.55m in width and 0.22m deep, and infilled by a single orange-brown silty-sand deposit (1110), which contained a single fragment of medieval clay pipe (Fig. 11; S. 50).

### **Trench 19 (Figs 6 and 11)**

- 4.22 Measuring 20m by 2m, this east-west orientated trench was positioned at the southern end of Trench 18, to form an L-shape in plan, and was excavated to a depth of 0.40m. This trench was positioned in order to investigate a linear anomaly revealed by the geophysical survey and the APs. The removal of topsoil (0.30m deep) and subsoil (0.10m deep) revealed a presence of large linear feature located towards the eastern end of the trench, in addition to two sets of double post-holes.
- 4.23 Cutting the natural geology, ditch 1124 was found to have a large V-shaped profile, measuring 3.97m in width and 1.16m in depth, and was filled by four deposits, of which one (1174) appeared to be the remains of a possible external revetment wall, suggesting that this ditch may have had two chronological phases (Fig. 11; S. 56).
- 4.24 The primary fill (1125) of this ditch was identified as a pale yellow-orange sandy-silt material mixed with small sub-angular limestone fragments, measuring 0.10m in depth. The secondary fill (1126) measured 1.12m in depth and appeared to be a brown sandy-silt material containing a substantial amount of small angular limestone fragments, and sporadic large sub-square limestone blocks. Among all the deposits excavated within ditch 1124, the fill 1126 was the only one which contained archaeological remains including: animal bones, several sherd of pottery dating to the Romano-British period, and a single fragment of a possible quern stone.
- 4.25 The third fill (1174) was characterised by large sub-square limestone blocks deposited along the western edge of the ditch, and interpreted as a possible external revetment wall. A mid orange-brown sandy-silt deposit (1127) containing a small amount of angular limestone fragments, was found along the western edge of the ditch, abutting the stones (1174).
- 4.26 After the excavation of ditch 1124, it appeared that this linear feature had two chronological phases. The first phase was characterised by the large V shape cut interpreted as enclosure ditch, whereas only later in date, along the internal western edge of this ditch, was a limestone blocks structure (1174, 1127) constructed perhaps as part of a defence program.

- 4.27 Central to the trench, a set of two double post-holes were noted. The first set of these post-holes (1115, 1128) measured 0.52m in length, 0.25 in width, and 0.19 in depth. These post-holes appeared to be filled by a single identical brown sandy-silt deposit (1116, 1129) containing an abundant amount of small pebbles and limestone fragments. The other set of post-holes (1117, 1130) also appeared to have been filled by an identical single brown sandy-silt deposit (1118, 1131) and measured 0.50m in length, 0.22m in width, and 0.27 in depth (Fig. 11; S.52 and 53). No dateable material was recovered from any of these features.

### **Trench 20 (Figs 6 and 12)**

- 4.28 Excavated to a depth of about 0.40m, measuring 20m by 2m, this trench was orientated north-south, and positioned in order to investigate one possible linear feature shown by the APs.
- 4.29 After the removal of the topsoil and subsoil, three narrow linear features were found at the northern end of the trench, both running on an east-west alignment. A fourth linear feature was found central to the trench, also running on an east-west alignment. Towards the southern end of the trench a single shallow pit/post-hole was noted.
- 4.30 The first narrow linear feature, gully 1075 (Fig.12; S. 30), having a shallow U-shaped profile, was found to be 0.45m wide and 0.35m deep, and was filled by a single dark-brown sandy-silt deposit (1076). This gully seems to join into a second gully (1077). Gully 1077 (fig. 12; S. 31), which appeared to be a curvilinear feature with a V shape profile and concaved bottom, measuring 0.65m in width and 0.30m in depth, was filled by a single orange-brown sandy-silt deposit (1078). A third linear feature, also found to be a shallow gully (1062), measuring 0.55 in width and 0.15 in depth, was located immediately south of linear feature 1077, and was filled by a single dark-brown sandy-silt deposit (1063). Gully 1062 appeared to have cut a possible post-hole (1064). Located close to the eastern edge of the trench, this feature measuring c.0.80m in width and 0.30m in depth, was filled by a single dark-brown sandy-silt deposit (1065), similar to deposit 1063 (Fig.12; S. 27).
- 4.31 A fourth linear feature, ditch 1068 (Fig.12; S. 26), was found central to the trench. Measuring 1.27m in width and 0.36m in depth, this U-shaped, linear feature was filled by two deposits. The primary fill (1067), which measured 0.05 in depth, appeared to be a mixture of limestone small fragments and a pale yellow silty-sand. This primary fill appeared to be overlaid by a brown sandy-silt deposit (1066) containing a small amount of angular limestone fragments. No datable material was recovered from any of these features.
- 4.32 A single shallow pit/post-hole (1070) was excavated at the southern end of the trench (Fig. 12; S. 28). Measuring 0.50m in width, 0.60m in length and 0.15m in depth, this feature was filled by two deposits (1069, and 1085). The primary fill 1085 consisted of a shallow (0.02m) pale yellow silty-sand mixed with limestone fragments, whereas the upper fill was characterised by a dark-grey/brown sandy-silt deposit (1069) containing a small amount of angular limestone fragments. Within this second deposit two artefacts were found, one was a piece of medieval clay pipe, and the second appeared to be a sherd of pottery dating to the Roman period.



**Trench 21 (Fig. 6)**

- 4.33 Orientated east-west, this trench was positioned at the southern end of Trench 20, to form an L-shape in plan. Measuring 20m by 2m, Trench 21 was excavated to a depth of 0.40m, and positioned in order to investigate a linear anomaly revealed by the APs. The removal of the topsoil that measured 0.30m in depth and the subsoil (0.10m deep) revealed that there were no archaeological features or deposits within the limits of this trench.

**Trench 22 (Figs 6 and 13)**

- 4.34 This trench was orientated north-east to south-west, measured 20m by 2m, and was excavated to a depth of *c.*0.30m. This trench was positioned to target a linear anomaly depicted by both the geophysical survey and the AP mapping.
- 4.35 After the topsoil was stepped, two linear features were found within the limits of this trench, both orientated approximately east-west and bisecting each other.
- 4.36 The latest ditch (1058) measured 1.75m in width and 0.50m in depth, and appeared to have a large V shape profile with a flat bottom (Fig. 13; S. 25). This linear feature was filled by a single dark-brown silty-sand deposit (1057), which included an abundant amount of angular limestone fragments.
- 4.37 The earliest linear feature (1061) also with a V shape profile, and measuring 0.85m in width and 0.55m in depth, appeared to have been filled by two deposits. The primary fill (1060) consisted of a reddish orange-brown sandy-silt deposit containing a small percentage of angular/rounded limestone fragments. The secondary fill (1059) was a light yellow-brown sandy-silt deposit with an abundant presence of angular limestone fragments.
- 4.38 There was no datable material recovered during the excavation of these features, with the exception of a few fragments of animal bone.

**Trench 23 (Figs 6 and 14)**

- 4.39 Measuring 20m by 2m, and excavated to a depth of 0.25m, this trench was orientated north-west to south-east. Trench 23 was positioned to investigate a linear anomaly shown by the results of the geophysical survey and AP interpretation.
- 4.40 With the removal of topsoil, which measured 0.25m in depth, two shallow linear features, and a possible pit were encountered within the limits of this trench. Ditch 1052 (Fig. 14; S. 24), appeared to be a shallow linear feature running on a north-east to south-west alignment, measuring 1.58m in width, 0.50m in depth, and filled by two deposits. The upper fill (1053) was a brown silty-sand deposit with occasional inclusion of limestone fragments. The primary fill (1054) was an orange sandy deposit containing very few sub-rounded pebbles. During the excavation of these deposits, a single piece of flint and several animal bone fragments were found.
- 4.41 Along the northern edge of the trench, ditch 1052 was found to cut both a possible small pit (1073), and a second linear feature (1055/1071). This earlier shallow ditch (1055/1071) measuring 1.26m in width and 0.29m in depth, crossed the trench on an east west alignment, and was filled by a single

dark-brown sandy-silt deposit (1056/1072) containing occasional small angular limestone gravel, a were few fragments of animal bones and several sherds of pottery dating to the Roman period (Fig.14; S. 29) .

- 4.42 The small pit 1073, measured 0.50m in width and 0.30m in depth. This feature was found along the northern edge of the trench, and was filled by a single dark orange sandy-silt deposit (1074) containing a few small round pebbles (Fig. 14; S. 24). During the excavation of this deposit, only a small piece of metal slag was found.

#### **Trench 24 (Figs 6 and 15)**

- 4.43 Orientated east west, this trench measured 20m by 2m and was excavated to a depth of *c.*0.70m. Trench 24 was positioned in order to investigate a large anomaly identified by the AP mapping and geophysical surveys. The removal of topsoil confirmed the presence of a large feature (1147) that extended beyond the western edge of the trench.
- 4.44 Feature 1147 (Fig. 15; S. 71) has been interpreted as a possible quarry pit. It was partially excavated with a mechanical excavator, to a depth of 0.70m and contained a single brown silt deposit (1146) mixed with a moderate amount of medium limestone fragments and pebbles. In addition, a few fragments of Roman pottery were recovered.

#### **Trench 25 (Plate 4; Figs 6 and 16)**

- 4.45 This trench, orientated on a north-west to south-east alignment, and measuring 20m by 2m, was positioned to investigate the south-west corner of a large square enclosure identified by the geophysical survey and the APs. Trench 25 was excavated to a depth of 0.30m, and the removal of topsoil confirmed the presence of a large linear feature flanked by a narrower gully.
- 4.46 The excavation of the large linear feature revealed that the enclosure ditch had two phases (Fig. 16; S. 34). The first phase was characterised by a U-shaped, shallow ditch (1102), which measured *c.*1.30m in width, 0.58m in depth and was filled by two deposits. The primary fill (1101) consisted of an orange-brown sandy-silt deposit mixed with a small percentage of angular limestone fragments. Made of an orange-brown sandy-silt deposit containing a substantial amount of limestone fragments, fill 1100 overlay the primary fill 1101, and was identical to deposit 1092 (see below).
- 4.47 The later ditch 1084, a large V-shaped in profile with a flat bottom and measuring 3.65m wide and 1.34m deep, was filled with nine deposits and appeared to have a revetment wall along its western edge. The primary fill 1083 consisted of a uniform light orange-brown sandy-silt. Overlaying this on the eastern side of the ditch was a orange-brown sandy-silt deposit mixed with a substantial amount of angular limestone fragments (1086). Along the internal edge of the ditch, covering fill 1086, was a very light orange-brown sity-sand mixed with limestone gravel deposit (1088). Covering deposits 1083 and 1086 was a fill (1087) characterised by a large amount of limestone fragments and pebbles mixed with a brown sandy-silt, that contained animal bones and fragments of Roman pottery. Overlying fill 1088, was a very thin layer of small white-grey limestone fragments mixed with an orange sandy-silt (1091). Covering this fill was a deposit 1092 which consisted of an orange-

brown sandy-silt identical to fill 1100. Also similar to deposit 1092 was fill 1090, found on top of deposit 1087. Above deposits 1090 and 1100, was a mixture of limestone fragments and pebbles mixed with a brown sandy-silt (1093), this fill contained an abundant amount of animal and infant human bones. The latest deposit (1094) was an orange-brown sandy-silt deposit with a small percentage of limestone gravel inclusions and a small sherd of pottery that may date to the Roman period.

- 4.48 Along the eastern edge of ditch 1102, a possible shallow sub-square pit was also investigated. This pit (1104) measured *c.*1.50m in width and 0.50m in depth, and was filled by a deposit (1103) identical to fill 1101. Parallel to ditch 1102 was a shallow gully (1099) that measured 0.60m in width and 0.17m in depth was filled by a single deposit of brown sandy-silt containing a moderate amount of angular and rounded pebbles (Fig. 16; S. 38). No dating material was recovered from these two features.

#### **Trench 26 (Figs 6 and 17)**

- 4.49 Measuring 20m by 2m, orientated on an east west alignment, this trench was originally excavated to a depth of *c.*0.30m. In order to clearly establish the presence/absence of archaeology, from the centre to the western end of the trench, the subsoil was gradually removed to a depth of 0.70m. Towards the centre of the trench a linear feature (1047) was exposed, running on a north south alignment, and measuring 1.58m in width and 0.70m in depth (Fig. 17; S. 20). This ditch was filled by a brown sandy-silt with sporadic limestone fragments (1046) and a few fragments of animal bones.
- 4.50 Adjacent to this feature, a post-hole (1049) was also investigated, measuring 0.36m in diameter and 0.30m deep and was filled by a single brown silty deposit (1048) mixed with few sub-angular limestone fragments (Fig. 17; S. 23). No archaeological artefacts were recovered during the excavation of this feature.

#### **Trench 27 (Figs 6 and 18)**

- 4.51 Excavated to a depth of *c.*0.30m, measuring 20m by 2m, this trench was orientated north-east to south-west, and positioned to investigate two geophysical anomalies. After the removal of the topsoil, three linear features crossing the trench were discovered, running parallel to each other and located towards the centre of the trench. A large pit was also noted, extending beyond the eastern edge of the trench.
- 4.52 Pit 1042 (Fig. 18; S. 21 and 22) measured 2.50m in length, 1.00m in width and 0.70m in depth, and was filled by a single mid brown sandy-silt deposit mixed with sporadic small limestone fragments. No dateable artefacts were recovered during the excavation of this feature.
- 4.53 Immediately north of pit 1042, a shallow gully (1051) was observed crossing the trench on a north-west to south-east direction (Fig. 18; S. 22). Measuring 0.55m in width and 0.23 in depth, it was filled by a single dark orange brown sandy-silt deposit (1050) mixed with a small angular limestone fragments. Although gully 1051 was found immediately adjacent to pit 1042, due to the similarity of their deposits the relationship between the two features was not established.

- 4.54 Running parallel to gully 1051, a small linear feature (1045) was observed. This small ditch (1045) with a V-shaped profile, measured 0.77m in width and was 0.47m deep (Fig. 18; S. 19). It was filled by a single dark orange brown sandy-silt deposit (1044) containing a small amount of angular limestone fragments.
- 4.55 Positioned *c.*2.40m north from ditch 1045, the third linear feature (1038) measuring 1.20m in width and 0.21m in depth, was filled by a reddish brown sandy-silt deposit (1037) mixed with sporadic small limestone fragments (Fig. 18; S. 17).
- 4.56 During the excavation of these three linear features no dating material was found, with the exception of few fragments of animal bones found within deposit 1037.

### **Trench 28 (Figs 6 and 19)**

- 4.57 Trench 28 was orientated east-west, and excavated to a depth of *c.*0.40m. This trench, which measured 20m by 2m, was located to investigate a linear anomaly identified by the geophysical survey and the APs. After the removal of topsoil, two linear features located one at the centre and one close to the east end of the trench, both running on a north-south alignment, were observed.
- 4.58 The ditch (1034) located at the centre of the trench, appeared to be a shallow linear feature measuring 2.20m in width and 0.20m in depth (Fig. 19; S. 13). It was filled by a single brown silt deposit (1033) containing a small amount of angular limestone fragments, and sporadic fragments of animal bones.
- 4.59 The linear feature positioned at the east end of the trench was a two-phased ditch (1030 - 1032). The earlier ditch (1030) measured 0.96m in width, 0.95m in depth, had a V-shape profile with a flat bottom. Ditch 1030 contained three deposits, the primary fill (1029) appeared to be a yellow-brown sandy-silt mixed with an abundant amount of small angular limestone fragments and the secondary fill (1028) consisted of an orange-brown sandy-silt containing few angular small limestone fragments, which accumulated along the western edge of the linear feature. Overlaying these two deposits was a yellowish-brown sandy-silt deposit (1027), mixed with a small amount of angular limestone fragments (Fig. 19; S. 11).
- 4.60 The latest ditch (1032), had a U-shaped profile with a concaved bottom, measuring 1.20m in width and 0.81m in depth, and was infilled by three deposits. The most upper fill (1025) was a dark orange-brown sandy-silt with a small amount of angular limestone fragments inclusions. This deposit was observed overlaying a grey-brown sandy-silt deposit (1026) mixed with sporadic angular limestone fragments. The primary fill (1031) consisted of a dark orange-brown sandy-silt containing a few fragments of small angular limestone blocks (Fig. 19; S. 11).
- 4.61 During the sampling excavation of the ditches, fragments of Roman pottery, fragmented animal bones and a piece of flint were found.
- 4.62 From the excavated section (S.11) of the double-phased ditch, it appeared that both features were cut by a shallow linear feature interpreted as a possible furrow (1172) that measured 2.07m in width, 0.32m in depth and was infilled

by a single reddish-brown clay-silt deposit (1024). No dating material was recovered from the excavation of this linear feature.

#### **Trench 29 (Figs 6 and 19)**

- 4.63 Excavated to a depth of 0.25m, and measuring 20m by 2m, this trench was orientated north-east to south-west, and positioned in order to investigate a single AP and geophysical anomaly. After the removal of the topsoil, a single linear feature running on a north to south direction was encountered.
- 4.64 Ditch 1010 (Fig. 19; S. 5), located towards the east end of the trench was observed having a V shape profile. Measuring 2.40m in width and 1.00m in depth, this ditch appeared to have been filled by two deposits. The primary fill (1009) was an orange-brown sandy-silt mixed with small angular limestone fragments. The secondary fill (1008) appeared to be similar to the primary fill, except that the limestone fragments inclusions were seen to be more abundant. Only a few fragments of animal bones were recovered during the excavation of these deposits.
- 4.65 The secondary fill 1008 was cut by a shallow linear feature interpreted as possible furrow (1007) filled by a single dark brown sandy-silt deposit (1006). No dating material was recovered from this feature.

#### **Trench 30 (Figs 6 and 20)**

- 4.66 Positioned in order to investigate the same geophysical and AP anomaly observed in Trenches 28 and 29, Trench 30 measured 20m by 2m, was orientated north-east to south-west, and was excavated to a depth of c.0.25m. A single linear feature, positioned at the centre of the trench, running on a north-west to south-east alignment was observed.
- 4.67 This linear feature (1019) measuring 2.60m in width and 0.98m in depth, was V-shaped in profile, and was filled by three deposits (Fig. 20; S. 9). The primary fill (1022) consisted of a red-brown silty-sand mixed with a gravel deposit, covered by a light brown silty-sand (1021) with small limestone fragments inclusion. The latest deposit (1020) consisted of a reddish-brown sandy-silt deposit containing occasional small limestone fragments. During the excavation of the primary fill fragmented animal bones and a few sherds of Roman pottery were found.

#### **Trench 31 (Plate 5; Figs 6 and 21)**

- 4.68 Trench 31 measuring 20m by 2m was excavated to depth of 0.30m and was orientated north-east to south-west. This trench was positioned to investigate a large enclosure ditch observed from the AP and geophysical survey. After the removal of the topsoil, a large linear feature running on a north-west to south-east direction was located towards the north-east end of the trench.
- 4.69 This linear feature (1011) measured 3.65m in width, and for safety reasons was only excavated to a depth of 1.45m. Seven deposits and a revetment wall built along the eastern edge of the ditch were observed (Fig. 21; S. 8). The primary fill (1014), an orange sand and small gravel, was covered by a mid-orange sandy-silt and gravel infill (1013). The third fill (1035) which consisted of a deposit of large limestone blocks mixed with a brown silt, was observed mainly along the north-east part of the ditch, partly abutting (and

possibly associated with) the revetment wall (1015). This revetment wall built with relatively large limestone blocks, was erected along the internal edge of the ditch. Partially overlaying fill 1035 was a brown silt deposit (1036) mixed with sporadic limestone fragments. Both deposits 1035 and 1036 appeared to have been covered by a brown sandy-silt soft deposit (1012) with limestone gravel inclusion. The upper-most fill appeared to be a mid brown-orange silty-sand deposit (1018) mixed with occasional limestone fragments. An orange-brown sandy silt deposit (1173) was observed along side the upper edge of the enclosure ditch, abutting the eastern face of the revetment wall.

- 4.70 Several fragments of pottery dating to the Roman period, tiles and animal bones, were found within the deposits of this enclosure ditch.

#### **Trench 32 (Fig. 6)**

- 4.71 Excavated to a depth of 0.30m, Trench 32 measured 20m by 2m and was orientated on an east to west alignment. The topsoil had an average depth of 0.30m, directly overlaying the limestone natural. No archaeology was found during the excavation of this trench.

#### **Trench 33 (Fig. 6)**

- 4.72 Positioned on a north-west to south-east alignment, and measuring 20m by 2m, Trench 33 was excavated to an average depth of 0.40m where the natural limestone geology was reached. An orange brown sandy-silt subsoil 0.15m deep was found overlaying the natural. The topsoil in this trench had an average depth of 0.25m. The excavation of Trench 33 revealed no archaeological features.

#### **Trench 34 (Fig. 6)**

- 4.73 Orientated north-east south-west this trench was excavated to a depth of 0.50m and measured 20m by 2m. The topsoil was observed to measure 0.25m in depth and overlay a 0.25m red-brown sandy-silt subsoil, which had accumulated above the natural limestone. Trench 34 proved to be absent of any archaeological evidence.

#### **Trench 35 (Fig. 6)**

- 4.74 Measuring 20m by 2m, and orientated north-west to south-east, Trench 35 was excavated to a depth of 0.30m where the natural limestone was reached. Only topsoil was observed. No archaeological features were seen.

#### **Trench 36 (Plate 6; Figs 6 and 22)**

- 4.75 Orientated north-east to south-west, this trench measuring 20m by 2m was excavated to a depth of 0.30m, and positioned to investigate the same linear anomaly encountered in Trench 31. The removal of top soil revealed the presence of a linear feature located towards the north-east end of the trench.
- 4.76 Ditch 1005 (Fig. 22; S. 4) appeared to be orientated on a north-west to south-east alignment and measured 2.98m in width. For safety reasons it was only excavated to a depth of 1.35m. The infilling of this ditch was made by the accumulation of four deposits. The latest deposit (1004) an orange-brown silt mixed with an abundant percentage of limestone gravel, overlay a similar orange-brown silt deposit (1023) with less gravel inclusions. This sealed a fill

(1016) of orange-brown sandy-silt containing an abundant amount of sub-angular limestone pebbles. The earliest fill (1017) to be observed consisted of a pale orange sandy gravel.

- 4.77 Fragmented animal bones and two pieces of worked stones were encountered during the partial excavation of this enclosure ditch.

#### **Trench 37 (Fig. 6)**

- 4.78 Excavated to a depth of 0.30m, Trench 37 measured 20m by 2m and was orientated on a north to south alignment. The topsoil had an average depth of 0.3m, directly overlaying the limestone natural. No archaeology was found during the excavation of this trench.

#### **Trench 38 (Figs 6 and 23)**

- 4.79 Positioned on a north-west to south-east alignment, and measuring 20m by 2m, Trench 38 was excavated to an average depth of 0.45m where the natural limestone was reached. An orange brown sandy-silt subsoil and topsoil were observed. The excavation of Trench 38 revealed a very shallow linear feature believed to be natural in origin due to the irregularity of the its sides (Fig. 23; S. 1).

#### **Trench 39 (Fig. 6)**

- 4.80 Orientated east west this trench was excavated to a depth of 0.30m and measured 20m by 2m. The topsoil was the only deposit recovered within the limits of this trench, and was found overlaying the natural limestone. Trench 39 proved to be absent of any archaeological evidence.

#### **Trench 40 (Fig. 6)**

- 4.81 Measuring 20m by 2m, and orientated east west, Trench 40 was excavated to a depth of 0.40m where the natural limestone geology was reached. The topsoil, measuring 0.30m in depth, overlay an orange-brown sandy-silt subsoil mixed with pebbles, with an average depth of 0.10m. No archaeological evidence was found during the excavation of this trench.

#### **Trench 41 (Plate 3; Figs 6 and 24)**

- 4.82 This trench was excavated to a depth of 0.40m and orientated on a north-west to south-east alignment, measured 20m by 2m. Although the positioning of this trench was not targeting any geophysical or AP anomaly, a single linear feature was observed within the limits of this trench.
- 4.83 Aligned east to west, this linear feature (1135) was found to have a V-shaped profile measuring 1.30m in width, 0.50m in depth and filled by a single light brown silty-sand deposit (1134) with sporadic limestone gravel (Fig. 24; S. 57). No dating material was recovered during the excavation of this feature.

#### **Trench 42 (Plate 3; Fig. 6)**

- 4.84 Excavated to a depth of 0.40m, Trench 42 measured 20m by 2m and was orientated on an east to west alignment. The topsoil had an average depth of 0.35m, directly overlaying the limestone natural geology. No archaeology was found during the excavation of this trench.

#### **Trench 43 (Plate 3; Fig. 6)**

4.85 Positioned on a north-west to south-east alignment, and measuring 20m by 2m, Trench 43 was excavated to an average depth of 0.40m where the natural limestone was reached. At an average depth of 0.05m an orange brown sandy-silt subsoil was found overlaying the natural. The topsoil in this trench had an average depth of 0.35m. The excavation of Trench 43 revealed to be negative of any archaeological evidence

#### **Trench 44 (Plate 3; Fig. 6)**

4.86 Orientated north-west south-east, this trench was excavated to a depth of 0.30m and measured 20m by 2m. The topsoil was the only deposit recovered within the limits of this trench, and was found overlaying the natural limestone. Trench 44 contained no archaeological evidence.

#### **Trench 45 (Plate 3; Fig. 6)**

4.87 Measuring 20m by 2m, and orientated north south, Trench 45 was excavated to a depth of 0.40m where the natural limestone was reached. No archaeological evidence was found during the excavation of this trench.

#### **Trench 46 (Plate 3; Fig. 6)**

4.88 Excavated to a depth of 0.40m, Trench 46 measured 20m by 2m and was orientated on a north-west to south-east alignment. The topsoil had an average depth of 0.30m, covering an orange brown sandy-silt subsoil, which had an average depth of 0.10m. This overlay the limestone natural. No archaeology was found during the excavation of this trench.

#### **Trench 47 (Plate 3; Fig. 6)**

4.89 Positioned on an east west alignment, and measuring 20m by 2m, Trench 47 was excavated to an average depth of 0.40m where the natural limestone was reached. At an average depth of 0.10m, an orange brown sandy-silt subsoil was found overlaying the natural. The topsoil in this trench had an average depth of 0.30m. The excavation of Trench 47 revealed to be negative of any archaeological evidence.

#### **Trench 48 (Plate 3; Figs 6 and 25)**

4.90 Orientated north south, and measuring 20m by 2m, this trench was excavated to a depth of 0.30m, and was located to investigate a single linear anomaly shown by the AP and geophysical survey. After the removal of topsoil two east west aligned linear features were encountered.

4.91 The linear feature 1138 was observed in the south-east corner of the trench. Only partially excavated, this ditch measured 1.10m in width and 0.45m in depth and was filled by a single light orange-brown sandy-silt deposit (1139) with sporadic small limestone gravel inclusion (Fig. 25; S. 59). There was no dating material recovered from this deposit.

4.92 The second linear feature, located *c.*5.00m north of ditch 1138 was a very shallow feature (less than 0.05m in depth). This feature was interpreted as a furrow and was also observed in Trench 49.



**Trench 49 (Plate 3; Figs 6 and 26)**

- 4.93 Positioned in order to investigate the same geophysical and AP anomaly targeted in Trench 48, Trench 49 was excavated to a depth of 0.35m and orientated north south. Two parallel linear features running on an east west alignment were found within the limits of this trench.
- 4.94 One of these linear features appeared to be a possible furrow (1156), which measured 3.00m in width and 0.20m in depth. This feature, also seen in Trench 48, was filled by a single pale orange-brown sandy-silt deposit (1157) containing sporadic large angular limestone blocks and gravel (Fig. 26; S. 82).
- 4.95 The second linear feature (1154), also filled by a single deposit, measured 2.70m in width and 0.70m in depth (Fig. 26; S. 81). Deposit 1155 was an orange-brown silty-sand with occasional small limestone fragments inclusions, a single fragment of medieval clay pipe and worked slate.

**Trench 50 (Plate 3; Figs 6 and 27)**

- 4.96 This trench was orientated east west, measured 20m by 2m and was positioned to investigate two linear anomalies revealed by the APs and the geophysical survey. It was excavated to a depth of 0.40m where two linear features were observed, one running (for most of the trench length) on an east west alignment, and the second one crossing the trench on a north south direction to join the east to west ditch.
- 4.97 Feature 1140/1165 was a V-shaped boundary ditch measuring 1.62m in width and 0.53m in depth and was filled by a single brown sandy-silt deposit (1141/1175) with sporadic angular and rounded limestone blocks and occasional fragmented animal bones (Fig. 27; S. 67).
- 4.98 The north south ditch (1166) measured 2.95m in width and 0.81m in depth, and was filled by a single brown sandy silt deposit (1167) similar to the fill 1141/1175. No dating material was recovered from the excavation of this feature (Fig. 27; S. 88).

**Trench 51 (Plate 3; Fig. 6)**

- 4.99 Excavated to a depth of 0.30m, Trench 51 measured 20m by 2m and was orientated on a north to south alignment. The topsoil had an average depth of 0.25m, directly overlaying the limestone natural. No archaeology was found during the excavation of this trench.

**Trench 52 (Plate 3; Fig. 6)**

- 4.100 Orientated on a north to south alignment, and measuring 20m by 2m, Trench 52 was excavated to an average depth of 0.30m where the natural limestone was reached. The topsoil in this trench had an average depth of 0.25m. The excavation of Trench 43 revealed no archaeological features.

**Trench 53 (Plate 3; Figs 6 and 28)**

- 4.101 Excavated to a depth of c.0.30m, this trench measuring 20m by 2m was orientated east west and positioned in order to investigate a single linear anomaly identified by the geophysics and AP mapping.

4.102 After the removal of the topsoil, a single linear feature (1160) was encountered, measuring 1.00m in width and 0.32m in depth and having a U-shaped profile. This ditch was filled by two deposits (Fig. 28; S. 83). The primary fill (1161) was an orange-brown silt with few of limestone gravel inclusions. The secondary fill (1162) contained a much more abundant amount of angular limestone fragments included within an orange-brown sandy silt soil. No dateable material was encountered during the excavation.

**Trench 54 (Plate 3; Fig. 6)**

4.103 Excavated to a depth of 0.30m, Trench 54 measured 20m by 2m and was orientated on a north-east to south-west alignment. The topsoil was directly over the limestone natural. No archaeology was found during the excavation of this trench.

**Trench 55 (Plate 3; Figs 6 and 29)**

4.104 Orientated north south this trench was excavated to a depth of *c.*0.25m. Measuring 20m by 2m, Trench 55 was located to test a linear anomaly shown from the AP and the geophysical survey. The removal of topsoil revealed a north-west south-east running linear feature located towards the southern end of the trench.

4.105 Ditch 1168 (Fig. 29; S. 87) measured 1.25m in width, 0.52m in depth, and was found to be filled by a single pale brown sandy-silt with sporadic limestone angular fragments inclusions (1169).

**Trench 56 (Plate 3; Figs 6 and 30)**

4.106 This trench was positioned to investigate the same linear anomaly encountered in Trench 55. Trench 56, measuring 20m by 2m, was orientated north-east to south-west and excavated to a depth of *c.*0.25m.

4.107 A single linear feature (1164) was encountered, measuring 1.0m in width and 0.57m in depth (Fig. 30; S. 86). With a V-shaped profile and a flat bottom, this ditch contained a single dark orange-brown sandy-silt deposit (1163), which was similar to fill 1169 (see above). No dateable material was found.

**Trench 57 (Plate 3; Figs 6 and 31)**

4.108 Orientated north-west to south-east, measuring 20m by 2m and excavated to a depth of *c.*0.25m, this trench was positioned to investigate the linear anomaly encountered in the previous two trenches.

4.109 The removal of topsoil exposed a single linear feature (1170), aligned east west and measuring 1.60m in width and 0.50m in depth. This ditch was observed crossing the trench in the north-west corner. It contained a single infill (1171) of a dark reddish-brown sandy-silt with occasional large and small limestone block inclusions (Fig. 31; S. 89). No dateable artefacts were recovered.

**Trench 58 (Figs 6 and 32)**

4.110 This trench was positioned in order to target a single AP anomaly. Measuring 20m by 2m Trench 58 was orientated north-east to south-west and excavated

to a depth of *c.*0.60m, where a single linear feature was revealed crossing the trench on an east-west direction.

- 4.111 Ditch 1144 (Fig. 32; S. 70) measured 1.23m in width 0.48m in depth, and with a U-shaped profile was filled by a single orange-brown sandy-silt deposit (1145) with a large amount of limestone gravel inclusions. No dating material was recovered during the excavation of this feature.

#### **Trench 59 (Fig. 6)**

- 4.112 Excavated to a depth of 0.50m, Trench 59 measured 20m by 2m and was orientated on a north-west to south-east alignment. The topsoil had an average depth of 0.30m, covering an orange-brown silt subsoil, which measured 0.20m in depth. The subsoil overlay the limestone natural. No archaeology was found during the excavation of this trench.

#### **Trench 60 (Fig. 6)**

- 4.113 Positioned on a north to south alignment, and measuring 20m by 2m, Trench 60 was excavated to an average depth of 0.55m where the natural limestone was reached. At an average depth of 0.25m, an orange brown sandy-silt subsoil was found overlaying the natural. The topsoil in this trench had an average depth of 0.30m. The excavation revealed no archaeological deposits.

#### **Trench 61 (Fig. 6)**

- 4.114 Orientated north-west south-east, this trench was excavated to a depth of 0.60m and measured 20m by 2m. The topsoil was observed to measure 0.30m in depth and overlay 0.20m of red-brown sandy-silt subsoil, accumulated above the natural limestone. Trench 61 contained no archaeological features.

#### **Trench 62 (Figs 7 and 33)**

- 4.115 Orientated north-east to south west, and positioned to investigate an AP linear anomaly, this trench was excavated to a depth of *c.*0.50m.
- 4.116 A single linear feature (1142) was exposed, aligned north-west to south-east and measured 1.40m in width and 0.40m in depth. This ditch had a U-shaped profile with a flat bottom and was filled by a single orange-brown sandy-silt deposit (1143) containing occasional moderate limestone fragments (Fig. 33; S. 69). A single sherd of pottery possibly dating to the Roman period was found during the excavation of this deposit.

#### **Trench 63 (Fig. 7)**

- 4.117 Excavated to a depth of 0.50m, Trench 63 measured 20m by 2m and was orientated on a north-west to south-east alignment. The topsoil had an average depth of 0.30m, and overlaid an orange-brown sandy-silt subsoil, which measured *c.*0.20m in depth. This sealed the limestone natural. No archaeology was found during the excavation of this trench.

#### **Trench 64 (Fig. 7)**

- 4.118 Positioned on a north-east to south-west alignment, and measuring 20m by 2m, Trench 64 was excavated to an average depth of 0.40m where the natural limestone was reached. This was sealed by an orange brown sandy-silt

subsoil. The topsoil in this trench had an average depth of 0.30m. The excavation encountered no archaeological deposits.

#### **Trench 65 (Fig. 7)**

4.119 Orientated north-west to south-east, this trench was excavated to a depth of 0.60m and measured 20m by 2m. The topsoil measured 0.30m in depth and overlay a reddish-brown subsoil, which measured 0.30m in depth and sealed directly the natural limestone. Trench 39 contained no archaeological deposits.

#### **Trench 66 (Fig. 7)**

4.120 Measuring 20m by 2m, and orientated north-east to south-west, Trench 66 was excavated to a depth of 0.50m. The topsoil, measuring 0.30m in depth, was the only deposit observed within the limits of this trench, apart from the natural limestone. No archaeological features were found during the excavation of this trench.

#### **Trench 67 (Fig. 7)**

4.121 Excavated to a depth of 0.50m, Trench 67 measured 20m by 2m and was orientated on a north-west to south-east alignment. The topsoil had an average depth of 0.30m, and overlay the subsoil, which measured 0.20m in depth and sealed the limestone natural. No archaeology was found during the excavation of this trench.

#### **Trench 68 (Figs 7 and 34)**

4.122 Orientated on a north-east to south-west alignment, and measuring 20m by 2m, Trench 68 was excavated to an average depth of 0.50m where the natural limestone geology was reached. The topsoil in this trench had an average depth of 0.45m. This trench was positioned in order to investigate a possible terminus of a linear feature identified by the APs.

4.123 After the removal of the topsoil, a possible terminus of a linear feature was revealed on the western edge of the trench. This feature (1148) measured 1.60m in width and 1.00m in depth, and was filled by a single reddish-brown sandy-silt deposit (1149) with sporadic limestone fragments inclusions (Fig. 34; S. 72). No dateable artefacts were found during its excavation.

#### **Trench 69 (Fig. 7)**

4.124 Orientated north-west to south-east this trench was excavated to a depth of 0.35m and measured 20m by 2m. The topsoil was the only deposit recovered within the limits of this trench and overlay the natural limestone. Trench 69 contained no archaeological deposits.

#### **Trench 70 (Figs 7 and 35)**

4.125 Measuring 20m by 2m, and orientated north south, Trench 70 was excavated to a depth of 1.20m where the natural limestone geology was reached. The topsoil, measuring 0.30m in depth, overlay an orange-brown sandy subsoil mixed with pebbles, with an average depth of 0.90m.

4.126 A large feature (1159), which measured 18m in width and was excavated to a depth of c.2.60m (but not bottomed), was investigated. The infill (1158) was

observed to be an orange-brown sandy-silt deposit containing occasional limestone fragments. This feature extended beyond the northern and southern limits of the trench.

#### **Trench 71 (Fig. 7)**

4.127 Excavated to a depth of 0.60m, Trench 71 measured 20m by 2m and was orientated on a north to south alignment. The topsoil had an average depth of 0.30m, overlaying the subsoil, which measured c.0.25m in depth. This sealed the limestone natural. No archaeology was found during the excavation of this trench.

#### **Trench 72 (Fig. 7)**

4.128 Positioned on a north-west to south-east alignment, and measuring 20m by 2m, Trench 72 was excavated to an average depth of 0.60m where the natural limestone geology was reached. At an average depth of 0.30m, an orange brown sandy-silt subsoil was found overlaying the natural. The topsoil in this trench had an average depth of 0.30m. The excavations failed to reveal any archaeological features.

#### **Trench 73 (Figs 7 and 36)**

4.129 Orientated east-west this trench was excavated to a depth of 0.45m and measured 20m by 2m. The topsoil was the only deposit recovered within the limits of this trench, and was found overlaying the natural limestone geology.

4.130 A single linear feature (1150) was encountered, aligned north-south, which measured 0.78m in width, 0.27m in depth, and was found to have been filled by a single orange-brown silt (1151) with very sporadic small angular limestone fragments (Fig. 36; S. 73 and S. 74). No dating materials were found during the excavation of this feature.

#### **Trench 74 (Fig. 7)**

4.131 Excavated to a depth of 0.50m, Trench 74 measured 20m by 2m and was orientated on a north to south alignment. The topsoil had an average depth of 0.40m, found to be directly above the subsoil, which measured 0.10m in depth and was overlaying the limestone natural. No archaeology was found during the excavation of this trench.

#### **Trench 75 (Fig. 7)**

4.132 Positioned on a north-east to south-west alignment, and measuring 20m by 2m, Trench 75 was excavated to an average depth of 1.50m where the natural limestone was reached. At an average depth of 1.20m, an orange brown sandy-silt subsoil was found overlaying the natural. The topsoil in this trench had an average depth of 0.30m. The excavations revealed no archaeological features.

#### **Trench 76 (Fig. 7)**

4.133 Orientated east west this trench was excavated to a depth of 0.60m and measured 20m by 2m. The topsoil, measuring 0.40m overlay a 0.20m deep subsoil, sealing the natural limestone. Trench 76 proved to be absent of any archaeological evidence.

**Trench 77 (Fig. 7)**

4.134 Measuring 20m by 2m, and orientated north south, Trench 77 was excavated to a depth of 0.40m where the natural limestone was reached. The topsoil measured 0.20m in depth, and overlay an orange-brown sandy-silt subsoil mixed with pebbles, with an average depth of 0.15m. No archaeological evidence was found during the excavation of this trench.

**Trench 78 (Fig. 7)**

4.135 Excavated to a depth of 0.80m, Trench 78 measured 20m by 2m and was orientated on a north-east to south-west alignment. The topsoil had an average depth of 0.40m, directly overlaying the subsoil, which had an average depth of 0.35m and was observed above the limestone natural. No archaeology was found during the excavation of this trench.

**Trench 79 (Figs 7 and 37)**

4.136 Positioned on an east to west alignment, and measuring 20m by 2m, Trench 79 was excavated to an average depth of 0.50m where the natural limestone geology was reached. The topsoil in this trench had an average depth of 0.40m. The location of Trench 79 was associated with a linear AP anomaly.

4.137 After the removal of the topsoil a single linear feature (1152) was exposed on a north-south alignment, and measured 1.63m in width and 0.52m in depth. This ditch was observed having a U-shaped profile with flat bottom and was filled by a single brown sandy-silt deposit (1153) with a moderate amount of small angular limestone fragments inclusions (Fig. 37; S. 75). No dateable material was recovered from the excavation of this feature.

**Trench 80 (Fig. 7)**

4.138 Orientated north south this trench was excavated to a depth of 0.75m and measured 20m by 2m. The topsoil measuring *c.*0.40m in depth overlay a subsoil deposit of *c.* 0.35m in depth, and found directly over the natural limestone. Trench 80 contained no archaeological features.

**Trench 81 (Fig. 7)**

4.139 Measuring 20m by 2m, and orientated north south, Trench 81 was excavated to a depth of 0.90m where the natural limestone geology was reached. The topsoil measured 0.40m in depth, and overlay an orange-brown sandy-silt subsoil mixed with pebbles, and with an average depth of 0.35m. No archaeological evidence was found during the excavation of this trench.

**Trench 82 (Fig. 8)**

4.140 Excavated to a depth of 0.90m, Trench 82 measured 20m by 2m and was orientated on a north-east to south-west alignment. The topsoil had an average depth of 0.40m, directly overlaying the subsoil, which measured *c.*0.35m in depth and sealed the limestone natural. No archaeology was found during the excavation of this trench.

**Trench 83 (Fig. 8)**

4.141 Positioned on a north-west to south-east alignment, and measuring 20m by 2m, Trench 83 was excavated to an average depth of 0.80m where the natural

limestone geology was reached. At an average depth of 0.35m, an orange brown sandy-silt subsoil was found overlaying the natural. The topsoil in this trench had an average depth of 0.45m. The excavation of Trench 38 revealed no archaeological deposits.

#### **Trench 84 (Fig. 8)**

4.142 Orientated north-east to south-west this trench was excavated to a depth of 0.40m and measured 20m by 2m. The topsoil was the only deposit recovered within the limits of this trench and overlay the natural limestone. Trench 84 contained no archaeological deposits.

#### **Trench 85 (Fig. 8)**

4.143 Measuring 20m by 2m, and orientated east west, Trench 85 was excavated to a maximum depth of 0.35m where the natural limestone geology was reached. No archaeological evidence was found during the excavation of this trench.

#### **Trench 86 (Fig. 8)**

4.144 Excavated to a depth of 0.40m, Trench 86 measured 20m by 2m and was orientated on a north-west to south-east alignment. The topsoil had an average depth of 0.35m, and overlay the limestone natural. No archaeology was found during the excavation of this trench.

#### **Trench 87 (Fig. 8)**

4.145 Positioned on a north-west to south-east alignment, and measuring 20m by 2m, Trench 87 was excavated to an average depth of 0.35m where the natural limestone geology was reached. The topsoil in this trench had an average depth of 0.30m. The excavations revealed no archaeological features.

#### **Trench 88 (Plate 7; Figs 8 and 38)**

4.146 Orientated north-west to south-east, this trench was excavated to a depth of c. 0.80m and measured 20m by 2m. The topsoil, measuring 0.50m in depth was the only deposit recovered within the limits of this trench, and overlay the natural limestone.

4.147 A single feature (1175) was encountered within this trench, which appeared to be a circular structure (identified as a possible shallow well of post-medieval date), measuring 0.90m in width and 0.50m in depth. The edges of this feature were lined with limestone blocks (1105), and the infill (1106) appeared to be a red-brown silt deposit mixed with limestone fragments, rubble material, and fragments of ceramic building material of late 18<sup>th</sup>-early 19<sup>th</sup> century date.

#### **Trench 89 (Fig. 8)**

4.148 Measuring 20m by 2m, and orientated south-east to north-west, Trench 89 was excavated to a maximum depth of 1.20m where the natural limestone geology was reached. The topsoil measured 0.50m in depth. No archaeological evidence was found during the excavation of this trench.

#### **Trench 90 (Fig. 8)**

4.149 Excavated to a maximum depth of 1.20m, Trench 90 measured 20m by 2m and was orientated on a north to south alignment. The topsoil had an average

depth of 0.50m, directly overlaying the limestone natural. No archaeology was found during the excavation of this trench.

#### **Trench 91 (Fig. 8)**

4.150 Positioned on a north-east to south-west alignment, and measuring 20m by 2m, Trench 91 was excavated to an average depth of 0.80m where the natural limestone geology was reached. The topsoil in this trench had an average depth of 0.35m. No archaeological deposits were encountered.

#### **Trench 92 (Fig. 8)**

4.151 Orientated north south, this trench was excavated to a depth of 1.20m and measured 20m by 2m. The topsoil, measuring 0.60m in depth, was found overlaying the subsoil deposit, which measured *c.*0.60m in depth and sealed the natural limestone. Trench 92 contained no archaeological deposits.

#### **Trench 93 (Fig. 8)**

4.152 Measuring 20m by 2m, and orientated north-east to south-west, Trench 93 was excavated to a depth of 1.20m where the natural limestone geology was reached. The topsoil measured 0.60m in depth, and overlay an orange-brown sandy-silt subsoil mixed with pebbles, and with an average depth of 0.50m. No archaeological evidence was found during the excavation of this trench.

#### **Trench 94 – 96 (Fig. 8)**

4.153 These trenches were not excavated due to restriction on site access.

#### **Trench 97 (Fig. 9)**

4.154 Excavated to a depth of 0.30m, Trench 97 measured 20m by 2m and was orientated on a north to south alignment. The topsoil had an average depth of 0.10m, directly overlaying the subsoil, which had an average depth of 0.20m and observed covering the limestone natural. No archaeology was found during the excavation of this trench.

#### **Trench 98 (Fig. 9)**

4.155 Positioned on a north to south alignment, and measuring 20m by 2m, Trench 98 was excavated to an average depth of 0.50m where the natural limestone geology was reached. At an average depth of 0.25m, an orange brown sandy-silt subsoil was found overlaying the natural. The topsoil in this trench had an average depth of 0.25m. The excavations revealed no archaeological deposits.

#### **Trench 99 (Fig. 9)**

4.156 Orientated north south, this trench was excavated to a depth of 0.50m and measured 20m by 2m. The topsoil measured 0.30m in depth and overlay the subsoil, which was *c.*0.20m in depth and sealed the natural limestone. Trench 99 contained no archaeological features.

#### **Trench 100 (Fig. 9)**

4.157 Measuring 20m by 2m, and orientated north to south, Trench 100 was excavated to a depth of 0.30m where the natural limestone was reached. The topsoil measured 0.30m in depth. No archaeological evidence was found during the excavation of this trench.



**Trench 101 – 102 (Fig. 9)**

4.158 These trenches were not excavated due to restriction on site access.

**5. Artefact Record****The Iron Age and Romano-British pottery by R.S. Leary and Alan Vince***Introduction and methodology*

- 5.1 The pottery has been recorded according to the study group for Roman Pottery guidelines (Darling 1994) with reference to the National fabric. Quantification tables use sherd count and weight, rim % values and minimum vessel count. The ceramics are catalogued on Excel spreadsheets.
- 5.2 All the pottery was laid out in context groups and assessed in terms of quantity, condition, date range, pottery diversity and regional/national significance. A total of 76 sherds of Romano-British and Iron Age pottery were identified. The pottery was listed in a table recording ware, form, decorative features, condition and joins. Quantification was carried out by sherd count and weight and spot dating was recorded for each context group as well as for each diagnostic sherd.

Table 1. Fieldwalked pottery

Field	Code	Ware	Count	Weight	Part	Form	Diam	Rim %	Date
1	W20	EYCT	1	24	Rim	Huntcliff jar with internal grooved rim	20	1	Mid-late 4th to early 5th century AD
1	X15	Black ware with paler grey core. large angular ironstone fragments, large rounded quartz grains and abundant angular quartz in the c.01mm to c.0.3mm range	1	22	Rim, body and part of handle	Possibly handmade vessel with flat inturned rim and handle stump just below rim. The handle has a subrectangular cross section >> and has been inserted through the body, with the extra clay smeared over the inside of the vessel.	c. 16	6	The date of this vessel is uncertain.
1	U14	Grey, medium, quartz-tempered fabric. It was not possible to obtain a clean break at this stage in the analysis. Fabric analysis is recommended	1	22	Rim	Everted rim of wide-mouthed jar with trace of a groove inside the rim at the junction with the neck similar to Huntcliff jars. Burnt with surface cracking and battered. Either a waster or heavily burnt.	28?	4?	Uncertain due to overfired/burnt condition
Total			3	68					

Table 2. Pottery totals from trenches and contexts

Trench	Context	Count	Weight (g)	Average sherd weight (g)
U/S	1000	11	104	9.45
19	1126	25	504	20.16
21	1070	1	2	2.00
23	1053	1	17	17.00
23	1072	8	47	5.88
24	1146	3	31	10.33
25	1087	4	117	29.25
25	1094	1	95	95.00
28	1025	1	34	34.00
28	1026	3	17	5.67
28	1029	1	47	47.00
28	1033	1	14	14.00
30	1022	2	22	11.00
31	1011	9	54	6.00
49	1155	1	2	2.00
62	1143	1	14	14.00

*Pottery wares*

CRA RE Crambeck ware

GRB unsourced grey wares

SYGRB South Yorkshire grey ware

R03 grey ware with brown margins. Probably South Yorkshire

EYCT calcite gritted ware. All diagnostic sherds were Huntcliff ware

CTA2 Dales ware

*Provenance and quantity of pottery*

- 5.3 Three sherds of pottery (68g) were recovered from fieldwalking undertaken in 2004 (Table 1; Webb 2004). A larger group of 73 sherds of pottery (1121g) was recovered in the course of excavation. These were distributed over ten trenches and sixteen contexts. Most of the contexts contained only one or two sherds. The largest group of 25 sherds came from Trench 19, ditch 1124 fill 1126.

*Condition of pottery*

- 5.4 Much of the pottery was abraded or very abraded and the average sherd weights varied considerably from trench to trench. The overall mean sherd weight was 15g and is average for this area. All the pottery was in stable condition and needs no further stabilising work.

*Chronology***Fieldwalked pottery WTB04**

- 5.5 The Huntcliff ware jar (W20) can be confidently dated to the late 4<sup>th</sup> or early 5<sup>th</sup> century AD and sherd U15 may be of similar date. The date of the handled sherd (X15) is more difficult to identify. The handle has a sub-rectangular cross section and has been inserted through the body, with the extra clay smeared over the inside of the vessel. Thus this may be a Romano-British vessel, which looks handmade because of the insertion of the handle. However the fabric is not easily paralleled and Alan Vince commented that its fabric is probably indicative of a Yorkshire but there are no rounded quartzes or ironstone lumps in the Ebor wares, nor any of the other fabrics found at York. The rim form is quite unlike Roman handled jars and vessels in the area. If a Roman date is not favoured Alan Vince commented that there are handles on early and mid Anglo-Saxon vessels, but they tend to be small and applied as a single lump of clay, which is then pierced. They can occur as non-functional handles on cremation urns and on small accessory vessels, of cup or bowl form. However, this vessel does not compare with such vessels. The third possibility is the "ginger jar" form which was produced in East Anglia, and more rarely elsewhere, in the late Saxon period. The lack of a neck and the extremely globular profile are reminiscent of these vessels but in that case the handle form would be unusual (most handles on these Thetford-type wares tend to be wheel thrown, strap handles). Furthermore, the fabric is unlike any Thetford-type or Torksey-type ware, since it contains large angular ironstone fragments, large rounded quartz grains and abundant angular quartz in the c.0.1mm to c.0.3mm range. Another possible attribution for this sherd would be to the Iron Age. Again handled jars such as this are rare and the form would not be easily paralleled in the region (information from Dr. David Knight). Handled vessels are rare in both the Iron Age and Saxon period partly due to the differential survival of rim and bodysherds vis-à-vis handle fragments and partly due to their actual rarity during these periods. A late Iron Age handled vessel was identified recently at Topham Farm, Sykehouse (Cumberpatch *et al.* 2003, 22 no. 43) but the lug like form of the Sykehouse vessel is unlike the vessel from field 1. The possibility of a Saxon date must at least be entertained. The fabric contrasts with recently excavated Iron Age groups from the route of the A1 around Wetherby (Cumberpatch 2004). This vessel must, therefore, remain an enigma. However in any period it is unusual.
- 5.6 The sherds from Trenches 31 and 28 fills 1029 and 1031 are likely to be of 2<sup>nd</sup> century date and the Dales ware and grey ware sherds, including Crambeck ware, from Trench 23 fill 1072 suggest a date in the early-mid 4<sup>th</sup> century. Activity dating to the second half of the 4<sup>th</sup> century AD and perhaps as late as the early 5<sup>th</sup> century is indicated over a wide area extending from Trench 19 to Trench 30 by sherds of Crambeck ware and Huntcliff ware jars typical of the

late 4<sup>th</sup> century in this region. Sherds from the primary fills of features indicate that the settlement had a long life. There are primary deposits of 2<sup>nd</sup>, early and late 4<sup>th</sup> century AD date. Although certain 1<sup>st</sup> century AD material is absent the late fill sherds from Trench 31 fill 1012, of 2<sup>nd</sup> century AD date, probably indicate that this feature is likely to begin its life in the early 2<sup>nd</sup> century or earlier. A settlement of some longevity might, therefore, be expected.

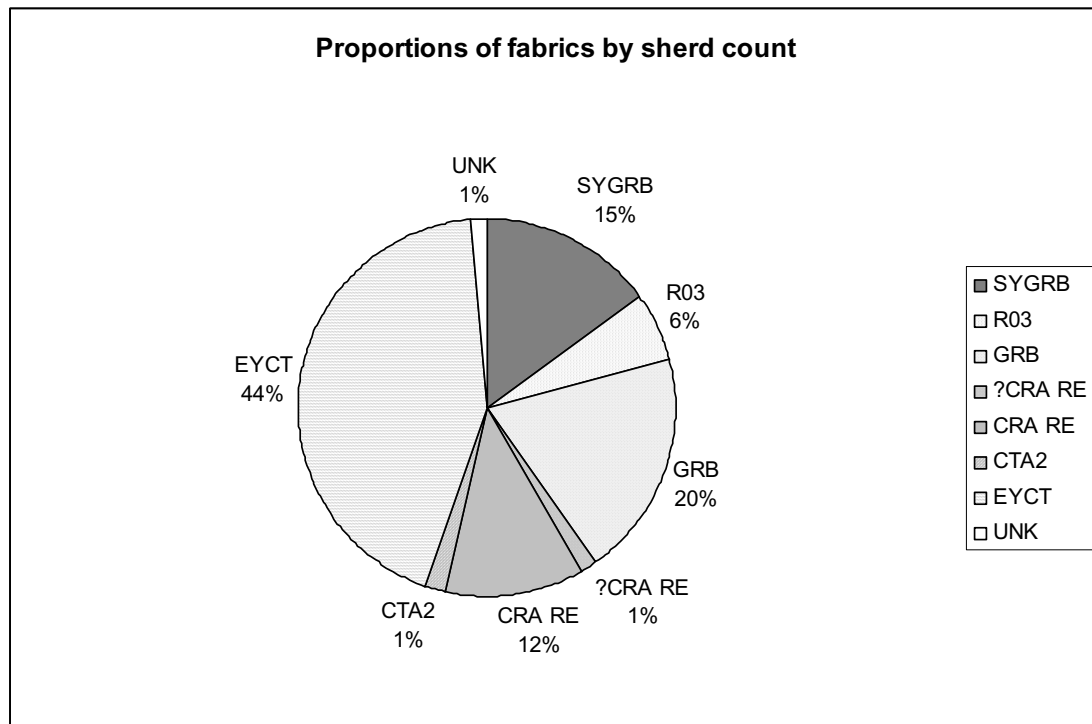
- 5.7 The Roman pottery falls predominantly into the late Roman period and includes material dating to the very end of the Roman occupation. Some of the grey wares compare with fabrics known from Crambeck and some is similar to samples from the South Yorkshire kilns. A fine grey ware from Trench 24 fill 1046 was not like the samples from Crambeck or South Yorkshire and may be from the East Yorkshire kilns around Holme-on-Spalding although it was rather finer than the samples available from this area. The sequence known from Dalton Parlours (Sumpter 1990), Doncaster (Buckland and Magilton 1986), Castleford (Rush 2000) and other sites excavated along the line of the M1-A1 Link Road (Evans 2001a) suggest that, although East Yorkshire grey wares were present from the second half of the 3<sup>rd</sup> century AD, the Crambeck wares were far more common in and after the middle of the 4<sup>th</sup> century when Huntcliff wares also appeared (Sumpter 1990, 244, Evans 2001a, Roman Ridge 6.6% Crambeck ware, Rush 2000, 158, Buckland and Magilton 1986, 176-8 and Leary 2005, Oxford Unit North excavations at site C4SA Crambeck 7.7% of assemblage on late 4<sup>th</sup> century AD site on the A1). Huntcliff ware jars of the type present in this assemblage have been dated to the late 4<sup>th</sup> to early 5<sup>th</sup> centuries (Evans 2002, 372 type 6.6) and after AD350 (Monaghan 1997, 985 type JH3). An assemblage of pottery published from Wetherby confirms the impression that Huntcliff and Crambeck wares superseded the common South Yorkshire and Dales wares sometime after the middle of the 4<sup>th</sup> century AD (Kent and Kitson-Clark 1934). This small group was recovered in 1928 during quarrying activities and although the finds cannot be considered well stratified, several Huntcliff jars and vessels comparable to Crambeck products were present along with the small number of Dales ware and South Yorkshire types. The presence of mid to late 4<sup>th</sup> century coins at Wetherby would support the suggestion that these latter wares may have fallen out of use by the mid-4<sup>th</sup> century AD and been replaced by Crambeck wares and Huntcliff ware jars.
- 5.8 Evidence for Saxon activity was encountered in the form of handmade sherds from Trench 25 fill 1087, identified and reported upon here by Alan Vince. The sherds from context 1087 can be identified as coming from an early to mid Anglo-Saxon vessel. The form, which has a slightly globular body, rounded rim and no neck, is typical of later 5<sup>th</sup> to early 7<sup>th</sup>-century AD vessels. Most of those found in Mid Saxon/Anglian contexts at Whitby Abbey and Fishergate, York, are shouldered jars with short everted rims. The fabric is visually identical to the most common fabric in the Vale of York (abundant fragments of quartz and sandstone, both derived from lower Carboniferous Millstone Grit sandstones). If a thin section and chemical analysis were obtained the fabric could be compared with samples from Heslington Hill (York), Fishergate (York), Otley, Catterick, Scorton Quarry, and West Lilling. A small scrap of pottery from trench 21 may also belong to this period.

*Range and variety of material*

- 5.9 The Romano-British sherds recovered from field walking comprised a rim from a Huntcliff jar of late 4<sup>th</sup> to early 5<sup>th</sup> century AD type and a badly burnt or over-fired rim sherd, possibly of a similar form. The distortion caused by heat may have distorted this sherd and made the firm identification of the fabric difficult. It is certainly of Roman type and most probably dates to the late 2<sup>nd</sup> to 4<sup>th</sup> century AD with a 4<sup>th</sup> century date most likely. The third sherd was a fine handmade handled vessel with inturned rather flat rim (see above).
- 5.10 The excavated assemblage is made up mostly of wares coming from East Yorkshire with a smaller proportion of South Yorkshire fabrics. The assemblage is dominated by jars. The very small amount of Dales ware conforms to the late 4<sup>th</sup> century AD characteristics of the group when Crambeck and Huntcliff wares seem to have superseded this fabric group, and some of the grey ware, which has not been sourced, is very likely to come from an East Yorkshire kiln. Fabric R03 is common in small numbers on West and South Yorkshire sites in forms suggesting a source at the South Yorkshire kilns or kilns working in that tradition.
- 5.11 The identifiable forms indicated roughly half the vessels were bowls or dishes and half were jars. One possible flask was identified. Such a large proportion of tableware is unusual for rural sites in West Yorkshire and indicates a site of fairly high status. The lack of fine ware is not unusual at this late period. The early-middle Saxon vessel is extremely unusual for this area and its position in the middle fill of a ditch implies settlement of this date on the site.

*Statement of potential***Site Potential**

- 5.12 Both the Roman and Anglo-Saxon ceramic assemblage has considerable potential in terms of dating the site and indicating the nature of the occupation. Although small the Romano-British assemblage included vessels that indicates a relatively high status and permits a relatively optimistic view in terms of the reliability of the assemblages, which might be recovered through further excavations. Nearly 70% of the sherds were diagnostic in terms of date and/or status suggesting further excavation should recover a useful and representative assemblage. The assemblage has revealed a significantly higher status than might be expected on the site and this will add to our understanding of social stratification in this period at the end of the Roman occupation. Despite the relatively small size of the group there is some evidence for activity in this landscape from at least the 2<sup>nd</sup> century AD, the early 4<sup>th</sup> century AD and the late 4<sup>th</sup> to early 5<sup>th</sup> century AD. Continuous occupation is quite likely even if some phases are not represented ceramically. In South and West Yorkshire rural sites such as this one may have fallen in and out of the ceramic habit according to personal preference and depending upon the availability of pottery in the region.



- 5.13 The Anglo-Saxon sherds give evidence for a period of settlement for which there is scarcely any evidence in the region whatsoever. As such they have unparalleled significance particularly given the late date of the Roman settlement and their position within a partially silted up ditch.

*Regional and national potential*

- 5.14 The group offers considerable potential for furthering our understanding of two significant times of change, namely the late Roman period and Anglo-Saxon period. The assemblage can be assessed in reference to the Research Frameworks for the study of Romano-British pottery (Willis 1997) to determine its potential significance. This document highlights the importance of rural Roman assemblages in this area (Willis 1997, 25) and Evans has commented upon the scarcity of late 4<sup>th</sup> century AD sites in the region (Evans 2001, 175), citing Wattle Sykes as one of the rare examples of this date range. Excavation of the site will, therefore, go some way to filling the gap in our understanding of the end of the Roman period. In terms of settlement patterns, the pottery will allow the palimpsest to be unravelled chronologically. In terms of our understanding of what happened to the well-known Roman pottery industry at Doncaster, the group confirms the impression from the few other sites yielding the date of pottery that these potteries simply ceased to supply the local sites by about the middle of the fourth century. Pottery from the settlement is likely to clarify the dating of these changes that profoundly altered exchange systems and which had functioned for just less than 300 years. Such information clearly impacts on key areas of importance highlighted by the Research frameworks relating to rural sites. The Framework document stressed the need to study the rural settlements and their relationship to local military installations, particularly in respect to changes in the supply networks revealed by the study of the pottery on the site (Willis 1997, 16-17).

- 5.15 Due to the restricted areas excavated it is not possible to discern spatial patterns in the pottery distribution but larger groups may permit this kind of analysis, which can reveal areas of particular function, such as cooking areas, water storage and wells and ritual areas.
- 5.16 Furthermore, the information recovered from the site will add to our growing dataset collected during the excavations of an impressive number of rural sites along the course of the M1 in this region. The integration of information from these sites with the materials recovered from the excavation will amplify the value of the individual datasets and allow a more complete understanding of the settlement pattern and relationships. The site is particularly important in bring evidence for the latest period of Roman settlement since although small amounts have previously been recovered this period was especially rare.
- 5.17 Very few Saxon assemblages have been recovered from this region and all groups are likely to add significantly to our understanding of the ceramics themselves, in terms of chronology and exchange, and also to inform all aspects of our study of the post-Roman settlements in West Yorkshire. Some evidence for settlement of this period was recovered at Parlington Hollins (Evans 2001, 162-3) and a sub-Roman vessel was identified at Dalton Parlours (Mainman 1990) but otherwise ceramic evidence for this period is absent.

#### *Recommendations*

- 5.18 No further work need be carried out on the sherds at this time but the above observations indicate that the further excavation is likely to uncover a site of national and regional importance both for the late Roman period, perhaps with an inception in the 2<sup>nd</sup>-3<sup>rd</sup> century AD settlement, and for the Anglo-Saxon period. In addition to full publication of the results, scientific analysis of pottery sherds, particularly the handmade ones, is likely to add to our understanding of the exchange mechanisms of that period and be highly desirable.

### **The Ceramic Building Material by John Tibbles**

#### *Introduction*

- 5.19 An assemblage of 14 fragments of ceramic building material, with a total weight of 1555 gm, was submitted for analysis. Assessment of the ceramic assemblage was based upon a visual scan of the retained material, with a more detailed examination of the diagnostic examples. The resulting information was then compared, where possible, with the known typologies and any correlation was recorded.
- 5.20 It should be noted that the diversity of size and colour within brick and tile caused during the manufacturing process must be taken into consideration when comparing samples within collected assemblages and local typologies. The varying sizes and colours can be attributed to the variation in the clays used, shrinkage during drying, firing within the kiln or clamp and the location of the brick/tile within the kiln. This particular assemblage has also been heavily affected by its usage within flues etc during its lifetime. The dating of ceramic building material can be highly contentious due to its re-usable nature and therefore the date range given is that of the known dates where such bricks have been recorded.

*Methodology*

- 5.21 The assemblage was examined using a x15 magnification lens where appropriate to aid and refine dating. Fabric analysis was not undertaken as it was considered beyond the scope of this assessment. Information regarding the dimensions, shape and fabric (where applicable) was recorded and catalogued accordingly and a Munsell colour code has been incorporated where appropriate. The presence of the original surfaces was also taken into consideration to aid identification.

*The Assemblage*

- 5.22 The assemblage comprised of fourteen fragments of ceramic building material (see Table 4).

Table 4: Assemblage Analysis

	No of Fragments	Weight
Ridge tile?	9	1320g
RB?	5	235g
<b>Total</b>	<b>14</b>	<b>1555g</b>

*The Ceramic Building Material*

- 5.23 A single form (ridge tile?) was identified within the ceramic building material assemblage. The remainder was unidentifiable by form but the fabric suggests a possible RB manufacture. The majority 64% of the assemblage displayed evidence of moulding sand and mortar adhesions were recorded on 29% of the assemblage.

*Roof Tiles***Ridge tiles**

- 5.24 The nine fragments of ridge tile of which four were joining fragments, recorded from pit fill 1105 exhibited moulding lips, residual moulding sand and was manufactured in a light red (10R/6/8) fabric. All the fragments were 15mm thick and residual mortar adhesions were identified adhering to several fragments. Although ridge tiles have been recorded from the 13<sup>th</sup> century (Armstrong et al 1987) the manufacturing characteristics and fabric of the recorded examples suggest a provisional late eighteenth to nineteenth century date.

*Unidentifiable by Form*

- 5.25 Five fragments of non-diagnostic ceramic building material were recovered from enclosure ditch 1011. None were conclusively identifiable by form however, the fabrics (F2) tends to suggest a possible Romano-British manufacture.

*Discussion*

- 5.26 Although bricks and tiles alone cannot provide a firm date because of their re-usable nature, it is possible to date types of brick and roof tile by their earliest occurrence within dated contexts. The presence or absence of particular bricks can suggest a variety of structural forms. Ceramic building material not only



provides valuable information pertaining to the method of construction, fabric and possible form of the buildings that once occupied the site, it can also show the construction techniques of hearths, ovens kilns and chimneys and their likely uses, with possible reference to local industries.

- 5.27 Generally, the brick and tile fragments within the assemblage appear to be manufactured in at least two fabrics: homogenous red clays (10R/6/8-10R/5/8).
- 5.28 No complete or near complete bricks were identified within the assemblage. One fragment of tile 20mm thick from the enclosure ditch 1011 displayed a slight curvature suggesting part of an Imbrix/ridge tile. However, the non-diagnostic fragments were tentatively identified based on fabrics and general characteristics. All were manufactured in a soft fabric of a vasicular appearance (F2) and is likely to be of a possible Romano-British date of manufacture rather than medieval.
- 5.29 Four joining fragments of tile from pit fill 1105 formed approximately 45% of a complete ridge? tile. The remaining five fragments are likely to have originated from the same tile. The residual diagnostic elements of the tiles tend to suggest a late 18<sup>th</sup>-early 19<sup>th</sup> century date of manufacture.
- 5.30 Caution, however, must be taken over the ridge tile identification. Its manufacture fabric and diagnostic traits are near identical to late 18<sup>th</sup> century horse-shoe land drains (Tibbles in prep). The examples examined display mortar adhesions indicating structural use. Late 18<sup>th</sup>-19<sup>th</sup> century barns and stables often incorporated land drains within either their eaves for ventilation or pidgeon/dove access (Tibbles *op sit*).

#### *Recommendations*

- 5.31 It is recommended that any published account of this excavation should include a short discursive account of the ceramic building material. Upon completion of work on the ceramic building material assemblage, a selective discard policy should be implemented. The material deemed worthy of retention as part of the archive should be processed and packaged in accordance with the delegated museum's guidelines, prior to deposition of the finds assemblage as a whole within the appropriate museum.

#### *Catalogue*

##### **Context 1106 Pit fill Trench 88**

**Total Weight: 1320g Total: 9 Fragments**

- 5.32 Nine fragments of ridge? tile 15mm thick. F1 fabric. Moulding sand. Moulding lip. Residual mortar.

##### **Context 1011 Enclosure ditch Trench 31**

**Total Weight: 235g Total: 5 Fragments**

- 5.33 One fragment of cbm F2 fabric 28mm thick. Single flat surface.  
One fragment of Imbrix/ridge tile. 20mm thick. F2 fabric. Slight curvature.  
Three fragments of non-diagnostic CBM. F2 fabric

## **The Lithics by S. I. Toase MA**

### *Raw material*

- 5.34 Any discussion of the sources of flint must be undertaken with the understanding that flint does not respond to petrological sourcing in the same way as other worked stone such as the volcanic tuff from the Langdale region. In addition, especially in regions that have been affected by glaciation, the flint may not be derived from primary extraction sources but secondary drift deposits, river borne or moraine material. However, broad patterns in the material can be recognised. The flint in the assemblage is dominated by raw material that can be broadly classified as Wolds flint. One piece (Artefact 7) is produced from a very fine brown translucent flint. This material has traditionally been believed to come from the Trent Valley or the Boulder Clays of East Yorkshire. Recent work has demonstrated that it can also be found in the Cheshire-Lancashire region from similar geology to that of East Yorkshire (Barnatt *et al.* forthcoming.)

### *Chronology*

- 5.35 Out of twelve artefacts nine are considered chronologically diagnostic. The chronological spread represented by the diagnostic artefacts is broad, ranging from the Early Mesolithic to the Bronze Age. However the emphasis within the assemblage is on the Mesolithic period with three microliths and one microburin with both the Early and Late Mesolithic represented. The geometric rod microlith (Artefact 8) is believed to form the points of Late Mesolithic composite tools. The microburin (Artefact 7) may be derived from the same period due to its overall form owing more to the process of retouching rather than the form of the flint flake from which they are derived ([http://www.le.ac.uk/archaeology/pdf\\_files/emidmeso.pdf](http://www.le.ac.uk/archaeology/pdf_files/emidmeso.pdf)). Interestingly the microburin has also seen retouch along the distal edge. Of the remaining pieces the side scraper (Artefact 4) is of an Early Neolithic blade technology. The hinge fracture and cortex on the distal end may suggest that it was the best piece recovered from working a poor quality piece of flint. Artefact 5 appears to be a medial blade fragment representing the Earlier Neolithic. However, as there are no significant previous removals it may be that this is purely a secondary flake that has been damaged post deposition. The arrowhead (artefact 6) seems to be Late Neolithic in date with the invasive ripple flaking on the dorsal side, along with the retouch on both edges on the dorsal and ventral sides, characteristic of this period. It is not possible to securely identify the form of the projectile as the distal end has been snapped off. The thumbnail scraper is characteristic of the Bronze Age (Edmonds, Evans and Gibson 1999, 65).

### *Catalogue*

#### **1 Thumbnail Scraper**

- 5.36 A thumbnail scraper produced from pale grey mottled flint, commonly referred to as Wolds flint (Cowling 1973), it display parallel abrupt retouch along the distal edge and is diagnostically Bronze Age. *Trench 28 (1027); L 21.9mm; w. 24.5mm; th 8.7mm*

### **2 Tertiary Flint Flake**

- 5.37 A tertiary flint flake produced from pale grey mottled Wolds flint. *Trench 23 (1054); L 19.3mm; w. 34.7mm; th 6mm;*

### **3 Non Geometric Microlith**

- 5.38 A non-geometric microlith produced from a light grey tertiary flint flake with slight retouch on the right hand side distal end of the dorsal face.

*S22 field 1; L 19.3mm; w. 12.8mm; th. 4.4mm; Topsoil*

### **4 Side Scraper**

- 5.39 A side scraper produced from a secondary flake of light grey mottled flint of Wolds type. The blade displays a major hinge fracture at the distal end the left hand dorsal side has seen parallel retouch all the way along the edge while the rest of the dorsal side shows multi directional removals. *M9 field 1; L 51.4mm; w. 22.5mm; th. 3.8mm; Topsoil*

### **5 Medial Blade Fragment?**

- 5.40 A possible medial blade fragment produced from a secondary flake with a single removal on the dorsal side. This displays the characteristic broken form of medial blade where the proximal and distal ends are removed. However there is no evidence of retouch and with the majority of the dorsal side covered in cortex it is unclear how this piece of flint would have been utilised. It is possible, therefore, that the breaks relate to taphonomic processes rather than a product of working. *AP 22 field 1; L 15.4mm; w. 28mm; th.3.2mm; Topsoil*

### **6 Arrowhead**

- 5.41 This is a projectile point which has been snapped off at the distal end making accurately identifying the type difficult, however the invasive ripple flaking on the dorsal side, combined with the retouch along both edges suggests a Late Neolithic date, and a similar type, though complete, can be seen in Edmonds 1995 (p 99). *Q15 Field 1; L 23.8mm; w. 16.5mm; th. 3mm; Topsoil*

### **7 Microburin**

- 5.42 The only artefact produced from translucent flint, this artefact shows a high degree of working with retouch along the distal end as well as both edges of the dorsal side. It seems to be of late Mesolithic date when the form of microliths was less influenced by the shape of the initial flake than the subsequent working and retouch. *W19 field 1; L 19.1mm; w. 12.2mm; th. 3.4mm; Topsoil*

### **8 Geometric Microlith**

- 5.43 A geometric microlith of narrow blade type made on a semi-patinated blade of creamy blue flint. The left margin of the rod microlith carries abrupt retouch removals that are more prevalent towards the proximal end and the point of the artefact. Further retouch is also present on the right proximal margin of the flake creating the point of the microlith. Rod microliths are commonly believed to have formed the points of Terminal Mesolithic, microlithic composite tools. Such a view may be confirmed by the damage to the tip of the artefact. A removal evident upon the upper right margin of the blade

appears to have been to facilitate hafting. *Trench 13; L. 25mm; w. 11mm; th. 5.5mm; Topsoil*

#### **9 Tertiary Flint Flake**

- 5.44 A tertiary flint flake made on light grey flint. The flake appears heavily water worn, perhaps suggesting the selection of local drift flint. *Trench 13; L. 17.5mm; w. 15mm; th. 11mm; Topsoil*

#### **10 Retouched Flake**

- 5.45 A tertiary flint flake made on a patinated creamy white flint. The right margin of the flake carries small sub-parallel retouch removals along its length, these are more pronounced towards the distal end of the flake. *Trench 47; L. 29.5mm; w. 15mm; th. 6mm; Topsoil*

#### **11 Non-Geometric Microlith**

- 5.46 A non-geometric microlith of broad blade type made on a secondary flake of creamy brown flint. The right margin of the flake has abrupt sub-parallel retouch removals. The artefact dates to the Early Mesolithic period. *Trench 76; L. 22.5; w. 15mm; th. 3.5mm; Topsoil*

#### **12 Secondary Flint Flake**

- 5.47 *A secondary flint flake made on poor quality dark grey flint. Trench 82; L. 17.5mm; w. 13mm; th. 9.5mm; Topsoil*

### **Metal objects by H. Cool**

- 5.48 The possible iron nail and silver wire fragment were examined by Hilary Cool, but as the objects were so poorly preserved and interpreted as probably intrusive, no further analysis was recommended.

### **Worked Stone by David Heslop**

Tr 36 (1004) - Possible saddle quern upper stone

- 5.49 Approx half of hand-sized rubbing stone, with one flat, possibly worn surface. It measures 92 mm in width, max height 58 mm and the extant fragment is 105 mm long. Wear along one of the upper edges, and wearing marks or irregular tooling marks spread across the top of the stone. Very slight trace of burning on flat surface, and one part of side and upper surface.
- 5.50 Light brown-grey fine grained well-sorted sandstone, no larger inclusions or fossil casts. Possible Coal Measures sandstone.
- 5.51 Clearly a water-rounded boulder, it appears to have been used as a rubbing stone, and is the right shape and proportion for a saddle quern top-stone, although if used as such, it was deposited before significant usage had worn the grinding face convex, as is usually the case with saddle upper stones.

#### *Other stone finds*

Tr 36 (1016)

- 5.52 Small triangular frag. (42 x 53 x 51 mm in plan and 16 mm thick) of flaggy, micaceous, fine-grained sandstone. Not worked.

Tr 36 (1126)

- 5.53 Water-rounded cobble-stone, of very fine, dense rock. No obvious wear marks for tool sharpening on the flat surfaces, but there is damage on one of the ends, the wider, suggesting it may have been used as a hammer stone. Dark orange-brown, very fine-grained, possibly basalt or similar.

## **6. Environmental Record**

### **Human skeletal material by Malin Holst MSc**

#### *Introduction*

- 6.1 In January 2005 York Osteoarchaeology Ltd was commissioned by Archaeological Services WYAS to carry out the osteological analysis of fragmentary human remains. The skeletal assemblage had been excavated in November 2004 during archaeological trial trenching prior to upgrading of the A1 between Bramham and Wetherby in West Yorkshire (SE 4056 4605 and SE 4063 4591).
- 6.2 The human remains were recovered from a boundary ditch [1121] and an enclosure ditch [1123] in Trench 17. The latter ditch fill also revealed a sheep-size animal bone fragment. Further human skeletal remains were found in an enclosure ditch [1084] in Trench 25, which also contained the bones of cattle, pig and dogs (Richardson *pers. comm.*).

#### *Aims and objectives*

- 6.3 The aim of the skeletal analysis was to determine the age of the skeletons, as well as to record and diagnose any skeletal manifestations of disease and trauma.

#### *Methodology*

- 6.4 The skeletal remains were analysed in detail, assessing the preservation and completeness, as well as determining the minimum number of individuals and their age (Appendix V). Any pathological lesions were recorded and described.

#### *Osteological analysis*

- 6.5 Osteological analysis is concerned with the determination of the identity of a skeleton, by estimating its age, sex and stature. Robusticity and non-metric traits can provide further information on the appearance and familial affinities of the individual studied. This information is essential in order to determine the prevalence of disease types and age-related changes.

#### *Preservation*

- 6.6 Skeletal preservation depends upon a number of factors, including the age and sex of the individual as well as the size, shape and robusticity of the bone. Burial environment, post-depositional disturbance and treatment following excavation can also have a considerable impact on bone condition. Preservation of human skeletal remains is assessed subjectively, depending upon the severity of bone surface erosion and post-mortem breaks, but disregarding completeness.
- 6.7 Preservation was assessed using a grading system of five categories: very poor, poor, moderate, good and excellent. Excellent preservation implied no

bone surface erosion and very few or no breaks, whereas very poor preservation indicated complete or almost complete loss of the bone surface due to erosion and severe fragmentation.

Table 5. Summary of osteological and palaeopathological results

Fill No	Cut No	Trench	Preservation	Completeness	Age	Age	Pathology
1119	1121	17	Moderate	10%	Infant	6 months – 1 year	Growth-related new bone formation
			Poor	3%	Juvenile	1-2 years	-
1122	1123		Good	5%	Foetus	38 weeks <i>in utero</i>	-
1093	1084	25	Good	50%	Neonate	40 weeks <i>in utero</i>	Growth-related new bone formation
			Good	1%	Foetus-neonate	38-40 weeks <i>in utero</i>	-

6.8 The skeletons of three individuals from Contexts 1122 and 1193 were in a good condition (Table 5). They had not suffered from post-mortem breaks and exhibited little bone surface erosion. The femur and humerus of an infant from Context 1119 were more severely eroded and in a moderate condition. The least well-preserved bone was a partial femur from Context 1119, which belonged to a young juvenile and was fragmentary and eroded.

6.9 None of the individuals recovered from the site were complete and some individuals were represented by one bone only (Appendix 1). The individual with the greatest bone representation was a neonate from Context 1193, which was 50% complete.

*Minimum number of individuals*

6.10 A count of the ‘minimum number of individuals’ (MNI) recovered from a cemetery is carried out as standard procedure in osteological reports on inhumations in order to establish how many individuals are represented by the articulated and disarticulated human bones (without taking the archaeologically defined graves into account). The MNI is calculated by counting all long bone ends, as well as other larger skeletal elements recovered. The largest number of these is then taken as the MNI. The MNI is likely to be lower than the actual number of skeletons that would have been interred on the site, but represents the minimum number of individuals that can be scientifically proven to be present.

6.11 The presence of three left femora suggested a MNI of three individuals (Plate 1). However, the different ages of the skeletal remains implied that at least four individuals were represented. It is possible that the left pelvis from Context 1093 represented a further individual that was slightly younger than the partial skeleton from the same context. The age of this pelvis was,

however, slightly ambiguous, as it was partly eroded and therefore difficult to measure.

*Assessment of age*

- 6.12 Age was determined using standard ageing techniques, as specified in Scheuer and Black (2000a; 2000b) and Cox (2000). Age estimation relies on the presence of the pelvis and uses different stages of bone development and degeneration in order to calculate the age of an individual. Age is split into a number of categories, from foetus (up to 40 weeks in *utero*), neonate (around the time of birth), infant (newborn to one year), juvenile (1-12 years), adolescent (13-17 years), young adult (ya; 18-25 years), young middle adult (yma; 26-35 years), old middle adult (oma; 36-45 years), mature adult (ma; 46+) to adult (an individual whose age could not be determined more accurately as over the age of seventeen).
- 6.13 In this instance, it was possible to estimate the age of the majority of individuals using bone length measurements, with the exception of the remains from Context 1119 (see Plate 1). The bones from this context were incomplete and age was therefore estimated, based on the surviving bone length and width. A humerus and femur from this context appeared to belong to the same individual, which was aged between six months and one year (infant). A further broken femoral shaft fragment from the same context was much larger and is thought to derive from a juvenile, aged one to two years (see Table 1).
- 6.14 The left femur and ribs found in the primary fill (1122) of enclosure ditch [1123] belonged to a 38 week old foetus. Further skeletal remains were recovered from the upper backfill (1093) of enclosure ditch [1087]. One partial skeleton was full term (neonate). A pelvis fragment from the same context was slightly smaller and may have belonged to a 38 to 40 week old foetus; alternatively, the bone may have belonged to the neonate.

*Sex determination*

- 6.15 Sex determination is usually carried out using standard osteological techniques, such as those described by Mays and Cox (2000). Assessment of sex in both males and females relies on the preservation of the skull and the pelvis and can only be carried out once sexual characteristics have developed, during late puberty and early adulthood.
- 6.16 Because none of the individuals had reached puberty, it was not possible to estimate sex.

*Metric analysis and non-metric analysis*

- 6.17 Stature depends on two main factors, heredity and environment. However, stature can also fluctuate between chronological periods. Stature can only be established in skeletons if at least one complete and fully fused long bone is present. In this instance, the lack of fully developed skeletons meant that it was not possible to estimate stature.
- 6.18 Non-metric traits are additional sutures, facets, bony processes, canals and foramina, which occur in a minority of skeletons and are believed to suggest hereditary affiliation between skeletons (Saunders 1989). The origins of non-metric traits have been extensively discussed in the osteological literature and it is now thought that while most non-metric traits have genetic origins, some can be produced by factors

such as mechanical stress (Kennedy 1989) or environment (Trinkhaus 1978). Non-metric traits were not observed in any of the individuals.

#### *Conclusion*

- 6.19 Osteological analysis of the skeletal remains established that the individuals recovered were well-preserved, but incomplete. The assemblage included the remains of an almost full-term foetus, a neonate, an infant and a young juvenile.

#### **Pathological and dental analysis**

- 6.20 Pathological conditions (disease) can manifest themselves on the skeleton, especially when these are chronic conditions or the result of trauma to the bone.
- 6.21 New bone formation was observed on the femur of an infant from Context 1119 and the femur of a neonate from Context 1193. New periosteal bone formation can be indicative of inflammation, which may be related to disease. However, bone formation of similar appearance can also develop during growth. Considering the age of the two children, it is probable in this case that the bone formation was growth- rather than inflammation-related.
- 6.22 No further evidence of possible pathology was observed and the cause of death of these young children could not be established. Infanticide was practised in different societies across the world. It usually involves exposure and subsequent death, or actual killing of unwanted babies immediately after birth (Mays 1993, 883). However, perinatal (at birth) burials can also represent stillborn babies or infants who died of natural causes. Roman cases of possible infanticide have been identified both in Britain (*ibid*) and the Near East (Faerman and Bar-Gal 1998). Considering the wide age range of the infants from the site, it is, however, unlikely that these children represent victims of infanticide.
- 6.23 Analysis of the teeth from archaeological populations provides vital clues about health, diet and oral hygiene, as well as information about environmental and congenital conditions. However, no teeth were recovered from this site.

#### **Mortuary practice**

- 6.24 The four young children from the site were placed in enclosure and boundary ditches, which formed part of a Romano-British ladder settlement. The assemblages were interred in secondary or upper fills of the ditches, with the exception of Context 1122, suggesting that the majority of remains were deposited once the features had gone out of use. In the case of Context 1122, a partial foetus had been deposited in the primary and only fill of enclosure ditch [1123].
- 6.25 All skeletons recovered were incomplete, with a bone representation of between 1% and 50%. The incomplete nature of the remains suggests two possibilities: the children may have been left exposed after death, or received primary burial, and may have been recovered at a later stage for secondary deposition in the ditches, explaining the loss of parts of the skeletons. It is notable, though, that even some of the tiny bones, such as vertebral fragments, less than 5mm in size, have been recovered.



- 6.26 Alternatively, the infants may have been placed in the ditches after death and may have become partly disassembled, perhaps through scavengers, resulting in loss of some of the bone. It was, however, not possible to detect animal tooth marks or evidence for gnawing on the bones. If the sections through the ditches were to be extended, further remains belonging to the same skeletons might be recovered.
- 6.27 Association of infants with animal bone is common (Fulford 2001), as in this case, where the neonate from Context 1093 was found to be associated with bones of cattle, pig and dog (Richardson *pers.comm.*). Correlations have been noted particularly with young animals (Fulford 2001), and this was also the case in Context 1093, where three of the bone fragments belonged to juvenile cattle (Richardson *pers. comm.*).
- 6.28 Other partial and complete infant burials are known from several other Romano-British sites, including the Iron Age site at Baldock and Roman sites at Portchester (Fulford 2001), Vicars Farm and Earith in Cambridgeshire (Dodwell *pers comm.*) and Biddenham Loop in Bedfordshire (Holst 1999).
- 6.29 The Roman custom of non-cemetery disposal of infants may have been a continuation of the Iron Age practice of placing infants in pits, ditches and rubbish dumps (Fulford 2001). In fact, neonates have been excluded from communal burial since the Neolithic; and even in Christian contexts they are often set apart from the main cemetery, particularly in liminal areas (Scott 1999, 124). This suggests that infants played a significant cultural role in society. According to Scott (*ibid*), they were associated with fertility, rebirth, monumentality, memory and liminality and were often found in agricultural contexts (Scott 1991, 120).

### **Discussion and summary**

- 6.30 The excavation of fragmentary human remains from a Romano-British ladder settlement to the south of Wetherby has provided interesting information about Romano-British cultural practices. The fragmentary remains represent at least four individuals, none of which was complete. They included an almost full term foetus, a neonate, an infant and a young juvenile. The wide age range of the children suggests that they died of natural causes, rather than being victims of infanticide.
- 6.31 The children were deposited in enclosure and boundary ditches, while these were already partly in-filled. In two cases, the remains were associated with animal bones, including three juvenile cattle bones from Context 1093. Associations of infants with young animals have also been observed in other Romano-British contexts.
- 6.32 It is not clear, whether the infants represented primary or secondary depositions in the ditches. It is possible, that the infants were initially left exposed or received primary burial, only to be placed in the ditches at a later stage, once they were decomposed and partly disassembled. Alternatively, the infants may represent primary depositions in the ditches and were dispersed later through animal disturbance or other factors.

- 6.33 The presence of young children is not uncommon in Romano-British non-cemetery contexts, particularly in agricultural settings. It has been suggested that the children may have been part of Romano-British cultural practice, linked with liminality and fertility rituals.

**Future recommendations**

- 6.34 Should further work be carried out at the ladder settlement discovered between Bramham and Wetherby, it is recommended that any future excavations consider the possible presence of infant remains in the domestic features. It is proposed that any bone fragments discovered are examined carefully, as to whether they are human or non-human, articulated or disarticulated. This is particularly vital in those areas close to where infants were found during the recent excavations.

If the ditch sections already excavated were extended, an especially designed sampling and sieving strategy might reveal the remaining parts of the infants. It might also provide evidence for the method of disposal of the bodies in the ditches and indicate whether they represented primary or secondary depositions in these features.

**Environmental material by Diane Alldritt PhD**

*Summary results*

- 6.35 A total of 56 flots from the Bramham to Wetherby evaluation were sent to the author for assessment of remains, and where appropriate, identification of carbonised plant macrofossils and charcoal. A further 36 small bags of potential charcoal, sorted from the sample retents, were also received for analysis. Of these approximately 25 contained carbonised material, although a large proportion of this was found on closer analysis to be burnt peat and coal, rather than the hoped for charcoal fragments. Samples originated from a range of potentially Romano-British dated contexts, with the majority of samples taken from a series of ditch features. Other areas sampled included pits and post-holes, a linear feature, a gully and a possible quarry.

*Methodology*

- 6.36 Bulk environmental samples were processed by WYAS using an Ankara style water flotation system (French 1971). A standard sample size of 10 litres was employed for all features at this site. Subsequent flots were sorted with the aid of a low powered binocular microscope at magnifications of x4-45. Most flots were found to contain <5ml of charred material with often up to 25ml of modern roots and dust. Carbonised cereals, weeds, burnt peat and so forth were counted but not removed from the original flot. No identifiable charcoal was recovered from the flots other than *Quercus* (oak) fragments, so these too were left in their respective flots, as this type is unsuitable for radiocarbon dating. An approximate count of non-marine molluscs was also made, and an analysis of these remains by an appropriate specialist may prove enlightening particularly concerning the ditch environment.
- 6.37 All charcoal suitable for identification was examined using a high-powered Vickers M10 metallurgical microscope. Occasional charcoal fragments from the retents were identified as short-lived types, and these were subsequently bagged by species in preparation for dating. 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*

- 6.38 Results from the various ditch samples are presented in table 6, whilst all other features are presented in table 7. All material is discussed by feature type in the following sections.

### *Discussion*

#### **Ditch Samples:**

- 6.39 A total of 40 samples were taken from various ditch contexts across the evaluation area. Almost all ditch samples produced large numbers of non-marine mollusc shells, which could be usefully analysed by an appropriate specialist in order to provide some idea of the environmental conditions in the ditches, for instance, siltation processes, regular cleaning of defensive features, waterlogging, and so forth. Large amounts of non-carbonised weed seeds were also present and probably originated from the natural seed bank present in the soil, and from a certain degree of bioturbation of deposits by worm action.
- 6.40 Carbonised cereal grain was thinly scattered throughout the samples, with no context having particularly high concentrations, although sample 6 (1031) deserves a mention as it produced the only cereal chaff recovered from the site as a whole. The chaff was almost certainly a *Triticum spelta* (spelt wheat) glume base, and was the only firm indication of agricultural activity actually occurring on site to be recovered. Other cereal grain, such as oat, wheat and barley, all recovered in very low numbers, may have been imported as a cleaned product from elsewhere, but this small fragment of chaff suggested that farming activity was taking place in the vicinity of the ditches, albeit perhaps only the final stages of corn drying.
- 6.41 Oak was a fairly common type amongst the samples containing charcoal, and may have been utilised as fuel for metalworking or domestic hearths. Recovery of other types of charcoal was very rare indeed, with only very small quantities of willow, birch and hazel present in the ditches. A fairly light open woodland covering, or woodland edge environment is suggested by these types, although low recovery prevents strong conclusions being drawn. Sparse finds of burnt peat and heather stems (roots and twigs) also suggested the exploitation of heathy or peatland environments for fuel purposes. Coal fragments recovered from the samples did not show any signs of being burnt, and this resource was probably naturally occurring in the local geology hence its presence throughout the samples.
- 6.42 A further twelve samples originated from features other than ditches. These included: three samples from gully features, one from a linear feature, three from post-holes, two from quarry deposits, and three samples from pit features. All of these sample areas produced a large number of non-carbonised weed seeds together with small-sized non-marine molluscs. A high degree of mixing/bioturbation or shallowness of the deposits is suggested by the modern plant remains. Coal fragments were also present, probably as a natural deposit, in the soil matrix. Very small amounts of burnt peat and charcoal

Table 6. Results from the ditch samples

Sample	2	3	4	5	6	8	9	11	12	13	14	15	18	19	20	21	23	24	25	26	28				
Context	1017	1009	1014	1022	1031	1037	1044	1050	1057	1060	1046	1038	1054	1072	1076	1078	1080	1067	1083	1097	1101				
Total Carbonised	0	0	0	<5ml	<5ml	<5ml	<5ml	<5ml	<5ml	<5ml	<5ml	<5ml	<5ml	<5ml	<5ml	<5ml	0	<5ml	<5ml	5ml	<5ml				
Modern	10ml	10ml	5ml	10ml	5ml	10ml	<5ml	10ml	10ml	10ml	5ml	10ml	10ml	10ml	10ml	10ml	15ml	15ml	10ml	25ml	15ml				
<b>Carbonised Cereal Grain</b>	<b>Common Name</b>																								
<i>Avena</i> sp.																					1				
cf. <i>Triticum aestivum</i> sl.																									
<i>Triticum</i> sp.					1													1							
<i>Hordeum</i> sp.					1																				
<i>Triticum</i> / <i>Hordeum</i> sp.																		1							
Indeterminate cereal (+embryo)				2	5	3				3				6			2	2				2	1		
<i>Triticum spelta</i> glume base					1																				
<b>Carbonised Weeds</b>																									
<i>Galium aparine</i>																									
Apiaceae																1									
<b>Charcoal</b>																									
<i>Quercus</i>										1			1							2					
<i>Salix</i>																		1							
cf. <i>Betula</i>																				1					
cf. <i>Corylus</i>																					1				
<b>Other Carbonised Plant</b>																									
Burnt peat				<5ml						<5ml					<5ml	<5ml				<5ml	<5ml				
<i>Calluna</i> stems												1													
<b>Non-carbonised remains</b>																									
<i>Chenopodium album</i>			10+				30+	2	20+	10+			10+	10+	6	3	5				50+	2	10+		
<i>Sambucus nigra</i>																									
<i>Fallopia convolvulus</i>																		3							
<i>Fumaria</i> sp.							1				10+	2			7	2	4	2	2	10+				5	
Earthworm egg capsules			1						3			3			4	7					2	3			
<b>Other Remains</b>																									
Coal				<5ml						<5ml	<5ml			<5ml			<5ml				<5ml	<5ml	<5mls		
Non marine molluscs	20+	20+	30+	10+	20+	10+	10+	20+	20+			10+	10+	20+	10+	10+	20+	20+	10+	50+	10+	10+			
Beetle fragments																		1							





were recovered, with a tiny fragment of possible birch (cf. *Betula*) in sample 48 (1146) from a quarry pit.

- 6.43 The three pit samples, 10 (1043), 17 (1074) and 22 (1081), two of the post-hole samples, 16 (1069) and 32 (1116 and 1129), gully sample 1 (1003) and linear feature 7 (1033), all produced a small scattering of carbonised cereal grain. The majority of this grain was poorly preserved and badly distorted by carbonisation, but it was possible to discern barley and wheat from the pit specimens, and possibly bread / spelt wheat from post-hole (1069). None of this cereal would be particularly suitable for dating due to its small size / poor preservation and lack of firm identification. No carbonised weeds of cultivation were recovered and so it is likely that the cereal arrived in these deposits as a processed / cleaned product, perhaps burnt accidentally during drying or cooking. Overall however, the low numbers recovered and the poor preservation does not allow firm conclusions to be drawn at this stage of the evaluation.

#### *Summary and Conclusions*

- 6.44 The trial trenching and evaluation from Bramham to Wetherby has produced a small quantity of carbonised plant remains in the form of cereal grains, burnt peat and occasional weed seeds, with very little wood charcoal present. Indeed, only three samples produced short-lived charcoal types, but even these may be considered too small for radiocarbon dating purposes. Identification of oat, barley and wheat cereals indicated the use of these species by the local inhabitants. Scarce finds of spelt wheat chaff suggested that some of these cereals were locally grown, or at least locally processed, perhaps in a corn drying kiln belonging to a nearby farmstead. The low quantities of plant remains found in the ditches suggested that these features were kept free of household and farmyard refuse, with only trace, perhaps windblown cereal waste finding its way into the ditch deposits. Indeed, the three pit samples produced approximately half the quantity of grain (17 cereal grains) compared to those found in all 40 ditch samples (total 39 grains). Further excavation work at this site has the potential to produce greater quantities of carbonised material, particularly if more pit or other domestic features are identified. However, recovery of sufficient carbonised remains for dating purposes at this stage is problematic.

#### **Animal bones by Jane Richardson PhD**

- 6.45 In total, 765 animal bone fragments were recovered from the evaluation, although typically bone condition was poor and surface were eroded. With the exception of two fragments of deer antler (one identified as red deer) and a rat-sized vertebra, the animal bones are likely to represent domestic debris. This includes meat waste from cattle, sheep and pigs and the remains of possible work animals such as horses and dogs. From Context 1029 (Trench 28) a partial skeleton of a juvenile dog and a neonatal sheep/goat were retrieved, while from Context 1056 (Trench 23) a prevalence of sheep metapodials and phalanges were found that might indicate primary butchery or skinning activity.

## **7. Discussion**

- 7.1 The archaeological features exposed and investigated in the field located to the west of the A1 and to the north of Wattle Syke (A659), included a large number of linear and curvilinear ditches, the majority of which were identified by the aerial photographing mapping (AP) and by the more recent geophysical survey, which confirmed the remains of a series of interconnecting enclosed settlement areas, with smaller annexes attached to these concentrated along the northern part of the field.
- 7.2 These enclosures were all observed to append, on their northern site, a north-west/south-east aligned boundary ditch (1121). Whether this was a single event construction or the result of a more organic development of the northern boundary was not established. With the positioning of Trench 17 it was possible to investigate the nature of this linear feature. The result of the excavation confirmed the presence of a two-phased linear ditch (1121 and 1123). Although no dating material was found, two small metal objects (a small fragment of a possible iron nail and a piece of silver wire) were recovered from the excavation of ditch 1121. In addition, the remains of disarticulated human bones were also found within the deposits of both ditches.
- 7.3 Taking into consideration the well-preserved nature of the silver wire and the fact that it was recovered from a non-waterlogged primary deposit, Cool suggested that this object could only date as far back as the late medieval period and as a result is considered intrusive. Accordingly, the only means to date the boundary ditch 1121 will be via a radiocarbon date from the human bones.
- 7.4 Whilst the latest ditch (1121) appeared to run on a north-west/south-east direction, the earliest ditch (1123) was veering more towards the south-south-east. Unfortunately there was insufficient evidence to establish which one of these two linear features should be attributed to the enclosure and which one to the boundary.
- 7.5 The most northerly enclosure was evaluated within Trenches 17, 18, and 19, and was confirmed by the excavation of ditches 1123 and 1124. In addition, ditch 1124 provided evidence of a revetment (defensive?) wall erected alongside the internal edge of the enclosure ditch. Evidence of possible internal partitioning and occupation activities were represented by gullies 1114, 1079, 1096, 1109 and 1111, and a double set of post-holes, 1115 and 1117. The finds recovered from the excavation of this enclosure ditch included animal bones, a fragment of a possible quern stone, a metal object (as mentioned above) and pottery. The pottery sherds recovered from the fill of the enclosure ditch 1124 appeared to date to the late Roman period (4<sup>th</sup> century AD).
- 7.6 Trench 25 investigated the south-west corner of the second principal enclosure. The linear feature excavated within this trench provided evidence of a double phased ditch, with the earliest phase characterised by a large V-shaped ditch (1084), and the latest phase represented by a shallower linear feature (1102). Within the ditch (1084) along the western edge (external), a dry stone wall (1095) was observed. In addition, a step, cut alongside the



opposite edge of the ditch suggested a possible foundation for an internal wall. Amongst the finds recovered from the excavation of ditch 1084 were animal bones, several sherds of pottery and disarticulated human bones. The majority of the pottery assemblage came from fill 1087 of ditch 1084 and may date to the Early Anglo-Saxon period, although a single fragment of pottery which appears to date to the Late Roman period was recovered from a subsequent deposit (1094). A radiocarbon date of the animal or human bones recovered from the ditch may help to resolve the dating of this feature.

- 7.7 The investigation of the third principal enclosure by Trenches 31 and 36 identified a single linear feature (1005/1011) running through both trenches on a north-west alignment. Ditch 1005 in Trench 31 included the remains of a revetment wall built along the upper part of the internal edge of the enclosure ditch. Interestingly, this wall was not present in Trench 36 and an alternative interpretation for the function of the wall might be the foundation support for a bridged walkway (the enclosure lacking a discernible entranceway). Animal bones, a fragment of possible quern stone, and sherds of pottery were found during the excavation of this ditch. The pottery ranged in date from the early second to the early third centuries AD.
- 7.8 An additional small sub-circular enclosure was observed from the AP and geophysical survey, annexed to the south-west side of the above enclosure (Fig. 6). The positioning of Trenches 28, 29 and 30, targeted this feature and its presence was ascertained by the excavation of a V-shaped ditch (1010, 1019 and 1030/1032). Artefacts recovered from this enclosure ditch included pottery sherds, animal bones and a fragment of flint. The pottery suggested a date from the second to the fourth century AD.
- 7.9 Several others linear features located to the north-west and south-west of the enclosures described above were identified by the AP and geophysical survey (Fig. 6). These features encompassed small areas close to the settlement enclosures that may have been used to contain livestock (although no evidence were found during the excavation to confirm this). The investigation of these linear features occurred in Trenches 20, 22, 23, 26 and 27.
- 7.10 The location of Trench 20 confirmed the presence of two parallel, east-west aligned, linear features (1062 and 1067) both previously recognised by the geophysical and AP surveys. In addition, a sub-circular gully (1077) located towards the northern end of the trench, and a shallow pit (1070) found at the opposite end were also observed. No dateable material was recovered from the excavation of these linear features, although two pottery fragments were recovered during the excavation of pit 1070. One fragment dates to the Late Iron Age, while the second, which was found towards the top of fill 1069, and very likely to be considered intrusive, dates to the late medieval period.
- 7.11 The excavation of a north-east to south-west aligned ditch (1052) in Trench 23 confirmed the results of the AP and geophysical surveys. In addition, a further linear feature (1071) not previously identified by the geophysical survey and aerial photographic mapping, was observed running on an east to west orientation. Both the linear features encountered in Trench 22 and Trench 23 appeared to form a small sub-square enclosure. The artefacts recovered from these linear features consisted of fragmented animal bones, a single piece of

- flint and several sherds of pottery. The pottery confirmed an activity date that ranged from the third to the fourth century AD.
- 7.12 A large sub-square anomaly recognised by the AP and geophysical surveys was targeted by Trench 24. The result of the excavation confirmed the presence of a large shallow feature (1147), which extended beyond the southern limits of the trench, and was interpreted as a possible quarry pit dating to the Late Roman period.
- 7.13 A couple of parallel linear anomalies, revealed by the AP and geophysical surveys were targeted by Trenches 26 and 27. The excavation of Trench 26, however, identified only one linear feature (1047) and a small post-hole (1049), whereas in Trench 27 two parallel linear ditches (1038 and 1045) were observed. A third small gully (1050) observed running parallel to ditch 1045, and a large pit (1042) located alongside the eastern edge of the trench, were also identified. Only fragmented animal bones were recovered during the investigation of these features.
- 7.14 The AP mapping and the geophysical survey also revealed the presence of a second group of 'ladder' settlement in the fields south of Wattle Syke, straddling either side of Moor Lane. These settlement enclosures were appended to an east-west aligned linear field ditch. This ran parallel to at least three other linear ditches set approximately 80m apart (Fig. 6).
- 7.15 Although this 'ladder' settlement will not be directly affected by the proposed road upgrade, the scheme will affect an area to the east, which is occupied by the remains of the associated linear field system. As a result, a series of exploratory trenches were positioned to investigate this field system and an apparent blank area to the north of the settlement. The only dateable material recovered from the excavation of these trenches consisted of a single sherd of pottery dating to the Romano-British period (from Trench 62).
- 7.16 The most northerly of the field system ditches was investigated by Trenches 48, 49, and 50. They all confirmed the presence of an east to west aligned V-shaped ditch (1138/1140/1154/1165). A further linear anomaly, not identified by the AP and the geophysical surveys, was also investigated and interpreted as a medieval furrow running on an east-west orientation. In addition, a north to south aligned ditch (1166) was seen to converge with the east-west ditch 1165 in Trench 50. A similar north-south aligned ditch (1160) was observed in Trench 53.
- 7.17 The second east-west field system ditch was targeted by Trenches 55, 56, 57 and 58. Four segments of this linear feature (1168, 1164, 1170 and 1144) were excavated to reveal a shallow V-shaped ditch.
- 7.18 With the positioning of Trenches 62, 64, 68, 75, and 79, it was possible to investigate further linear anomalies identified by the AP mapping survey (Fig. 7). These linear features appeared to be shallow, V-shaped ditches interpreted as field boundaries. Only a single sherd of pottery dating to the Romano-British period was recovered from ditch 1142 in Trench 62.
- 7.19 A large cut feature was observed in Trench 70. Although not identified by the aerial photographic mapping, pit 1159 measured *c.* 18m in width and had been

excavated to a depth of at least 2.60m (not bottomed). It appeared to be the likely location of a former quarry pit.

- 7.20 Finally, a small circular stone-built structure (1105) was observed in Trench 88. This shallow feature, interpreted as either a well or the support for a large post, contained several fragments of ceramic tiles dating between the late 18<sup>th</sup> and early 19<sup>th</sup> centuries.

## **8. Conclusions**

- 8.1 The evaluation trenches to the north of Wattle Syke have confirmed the results of the combined aerial photographic mapping and geophysical surveys, but have also revealed the presence of smaller discrete features, such as post-holes that indicate occupational activity in this area. The major linear ditches observed in this area are believed to be a component part of a large 'ladder' settlement, which appears to date from the Late Iron Age to the Late Roman period. There is a possibility that activity extended into the Early Anglo-Saxon period, although this is still to be confirmed.
- 8.2 To the south of Wattle Syke the aerial photographic mapping and geophysical surveys identified another 'ladder' settlement, with related field system. The field system, which extended to the east, was confirmed by the evaluation trenches and is probably of Romano-British date.
- 8.3 Evaluation trenches also investigated areas in which the AP and geophysical surveys identified no anomalies. In the vast majority of these trenches no archaeological features were found, confirming and corroborating the accuracy of archaeological prospection in the earlier surveys.

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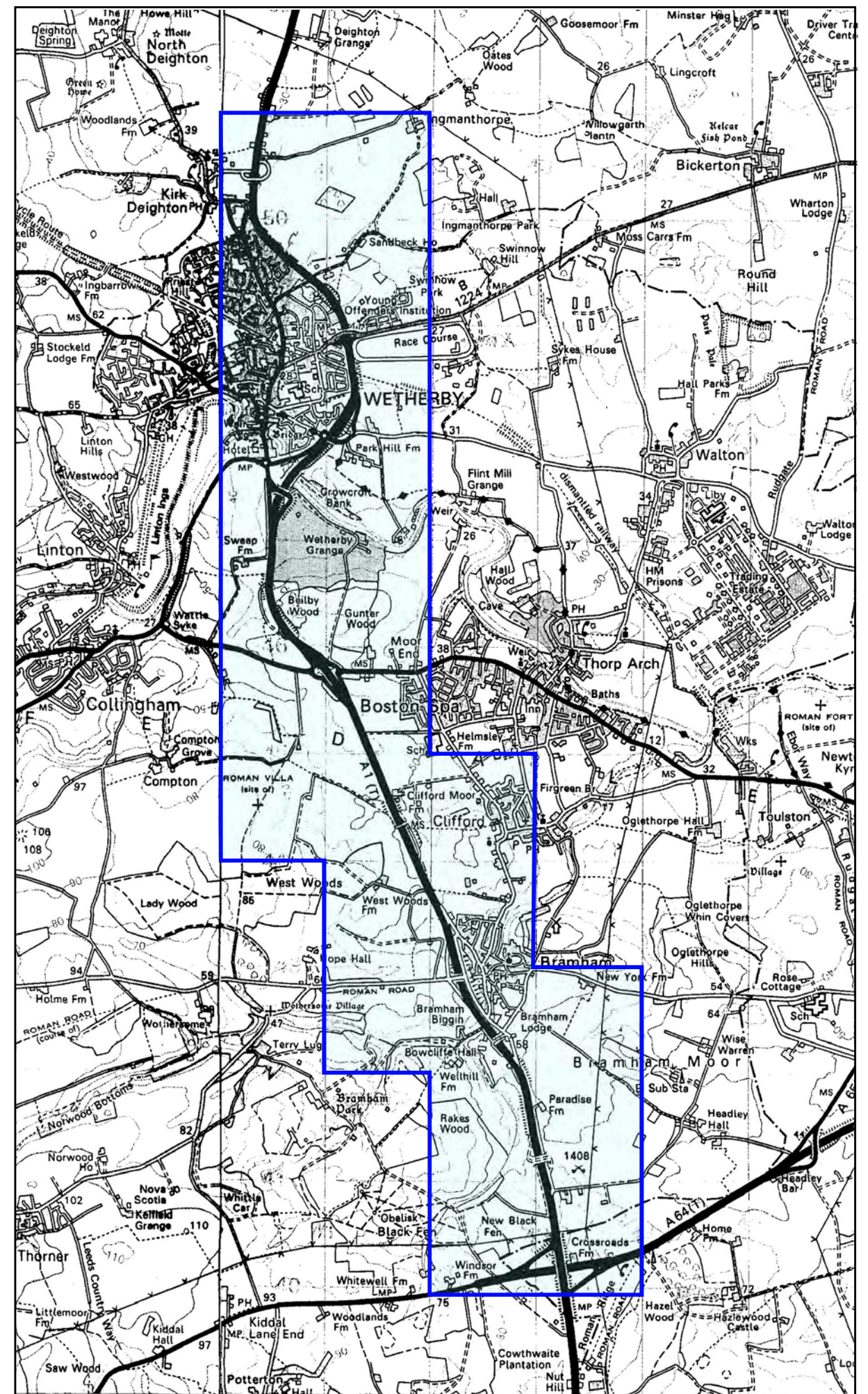
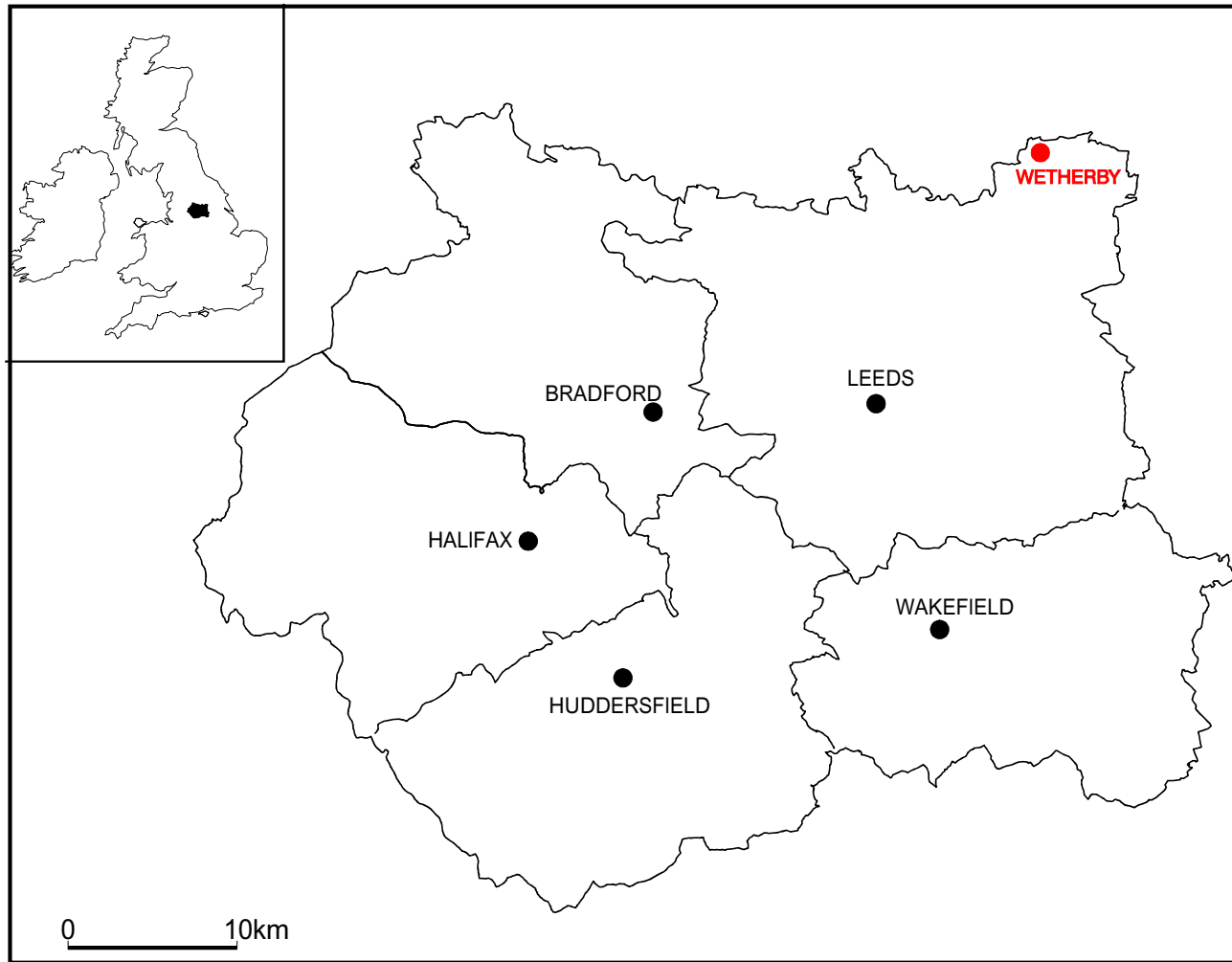
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
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 Inset see Figs 2 and 3

0 2km

Fig. 1. Site location



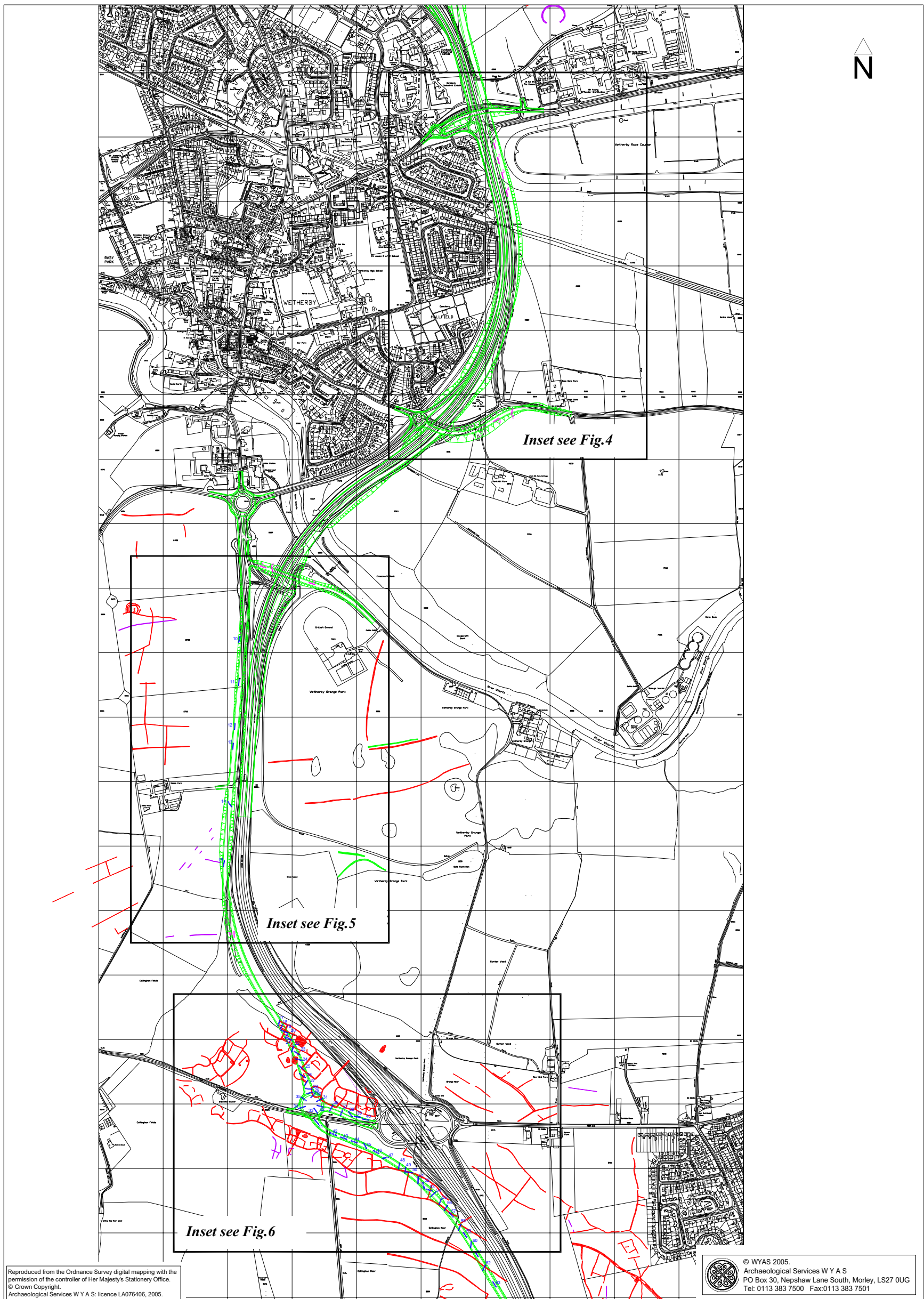


Fig. 2. Site location showing insets 1 to 3 (scale 1:12,500)



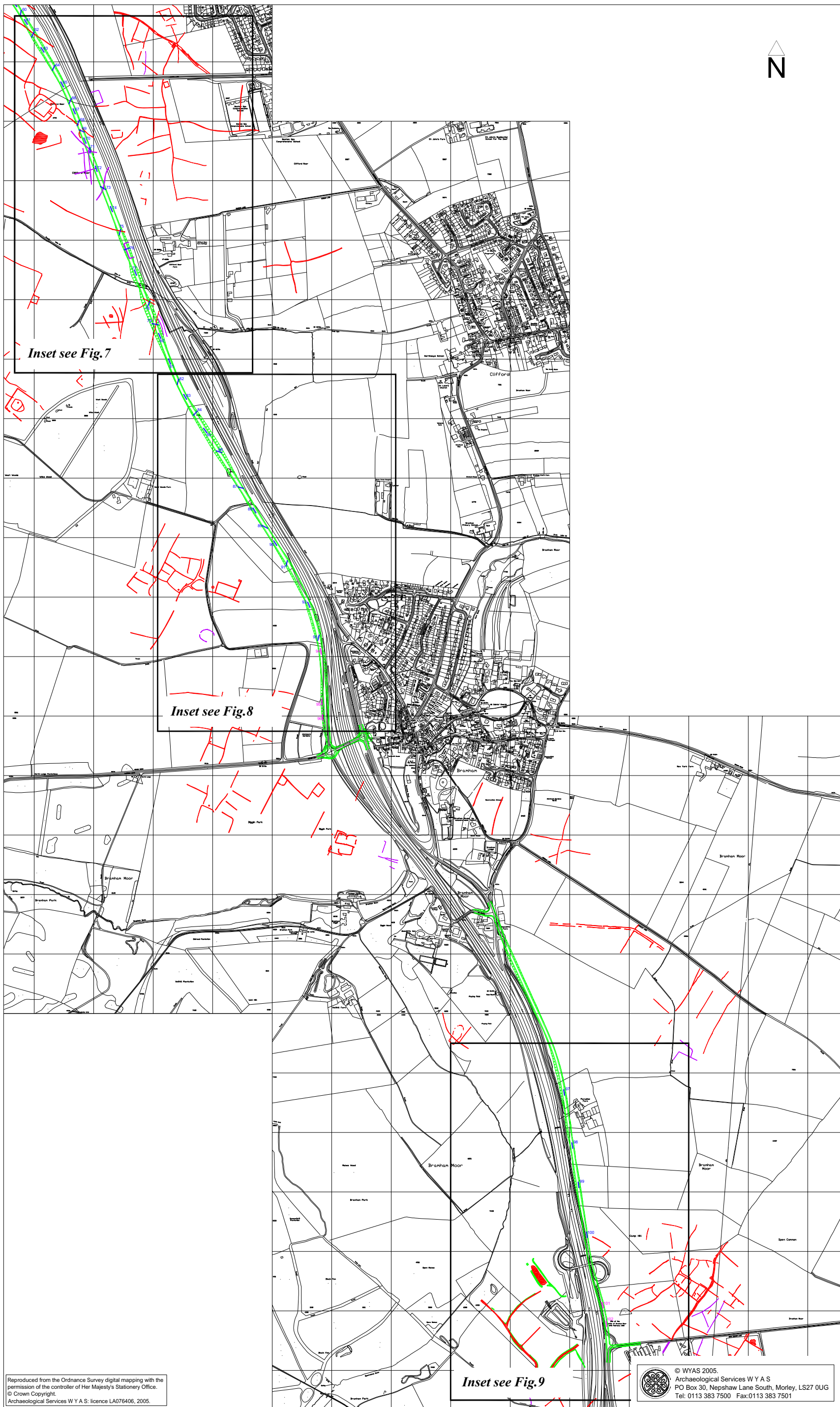


Fig. 3. Site location showing insets 7 to 9 (scale 1:12,500)

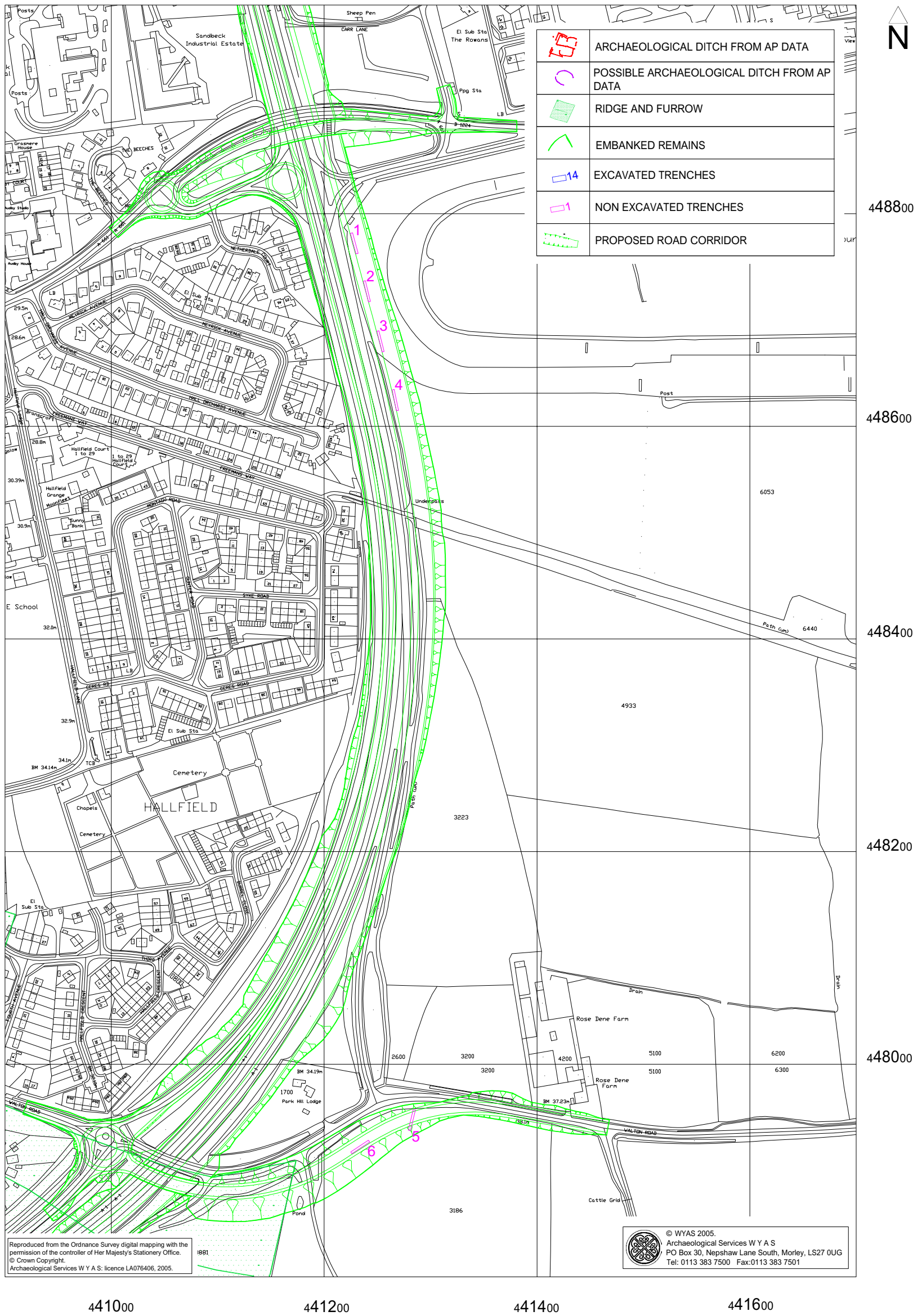


Fig. 4. Site location of trenches 1 to 6

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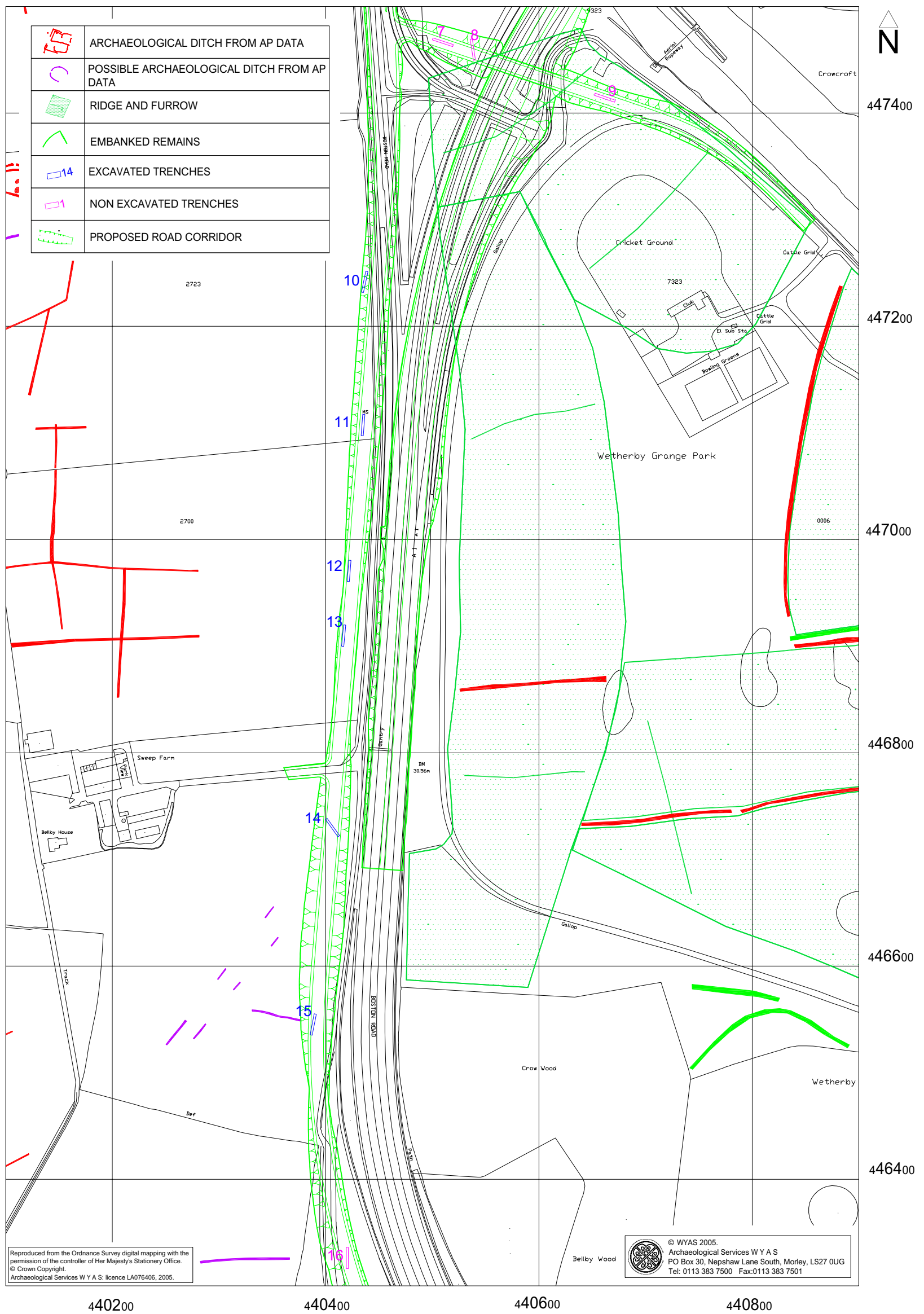


Fig. 5. Site location of trenches 7 to 16

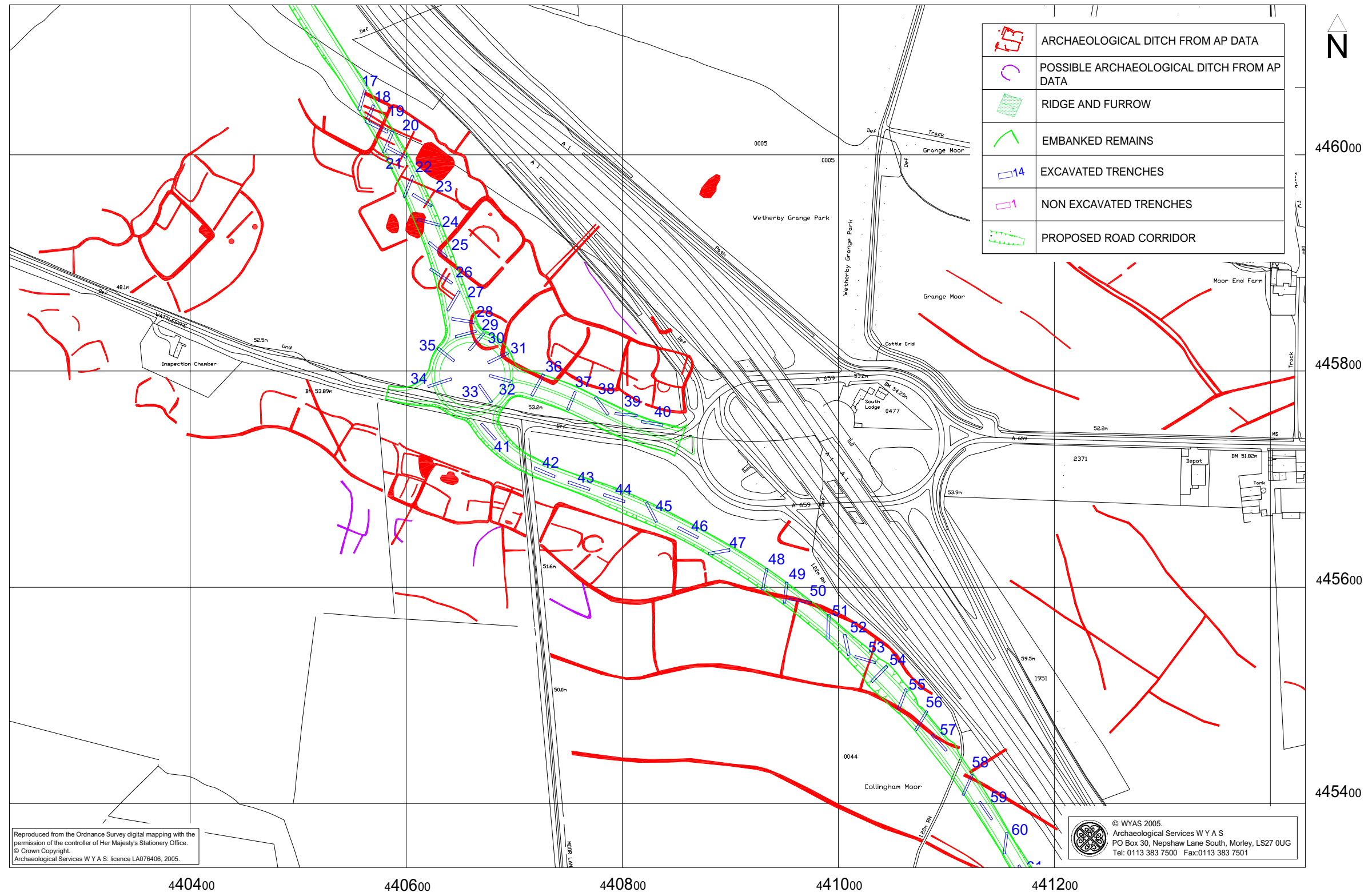


Fig. 6. Site location of trenches 17 to 60



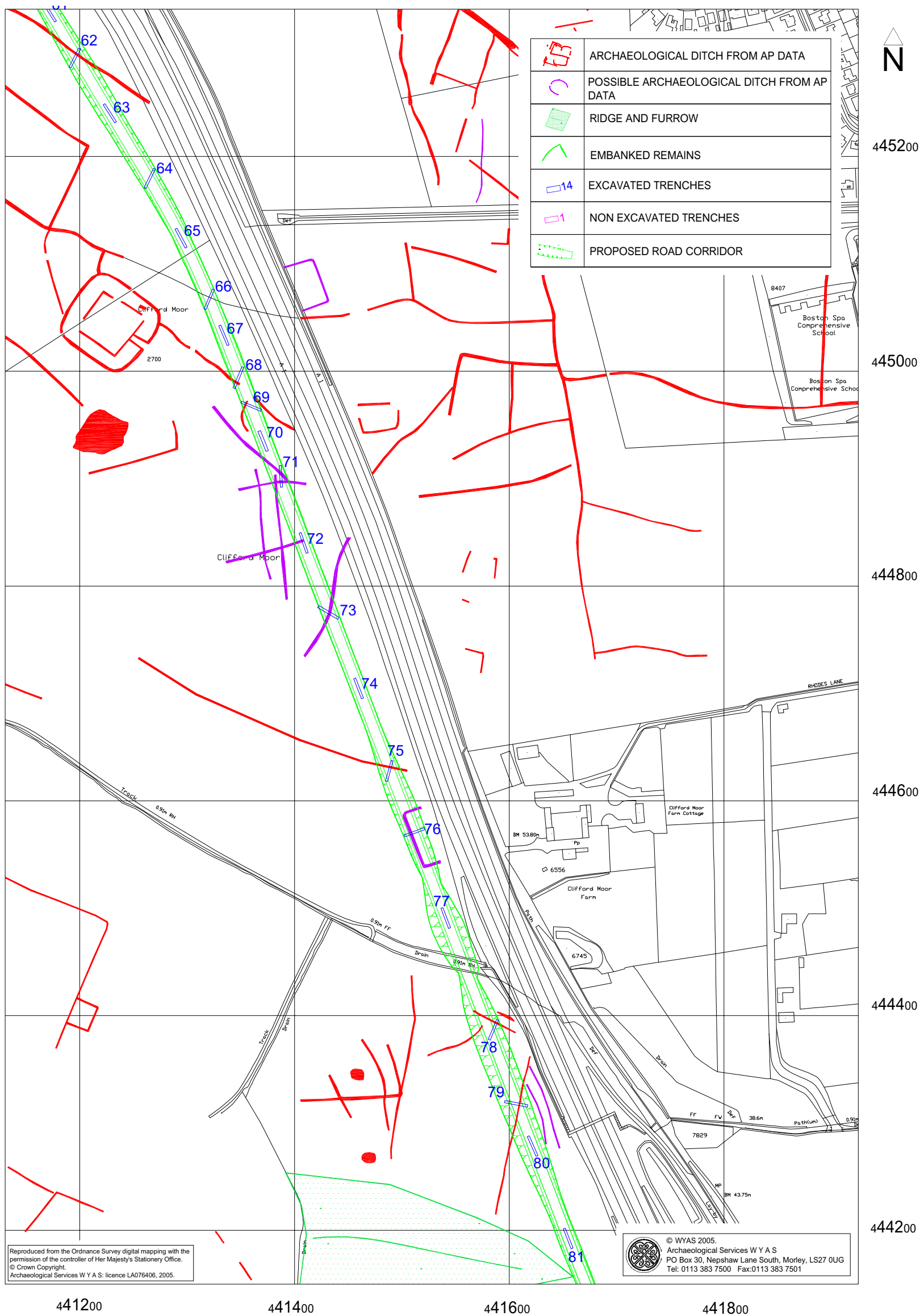


Fig. 7. Site location of trenches 62 to 81

0 200m



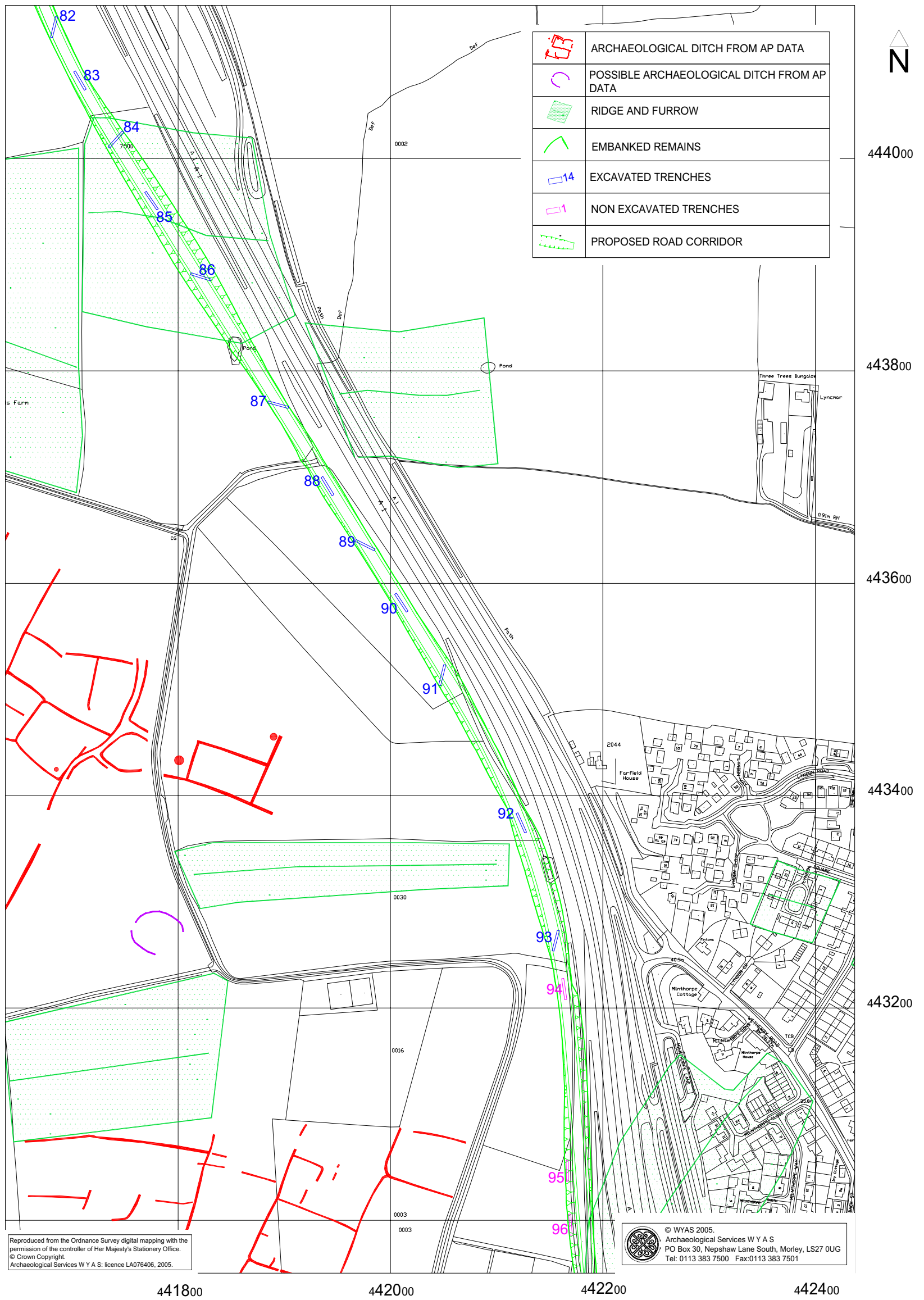


Fig. 8. Site location of trenches 82 to 96

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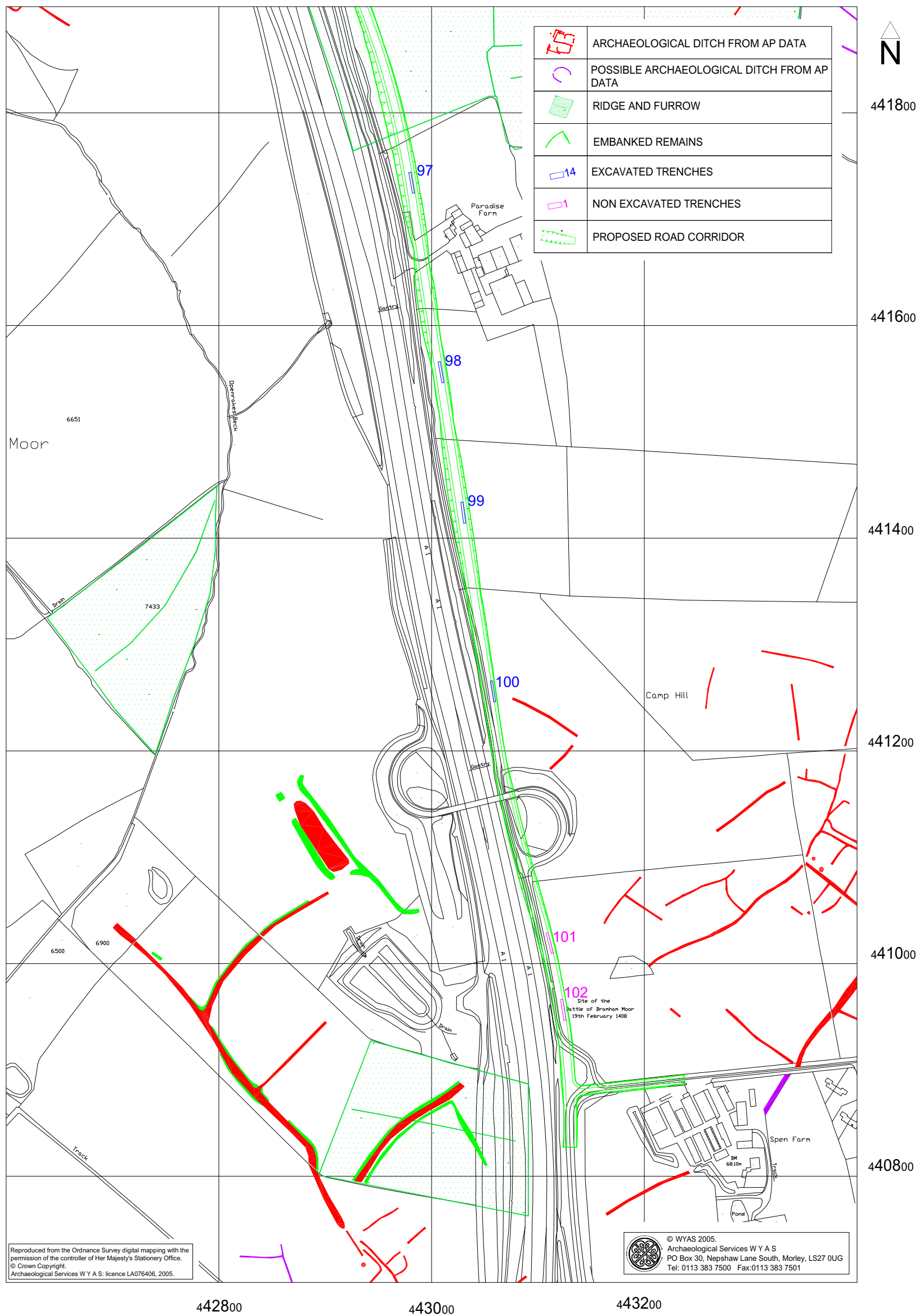


Fig. 9. Site location of trenches 97 to 102

0 200m

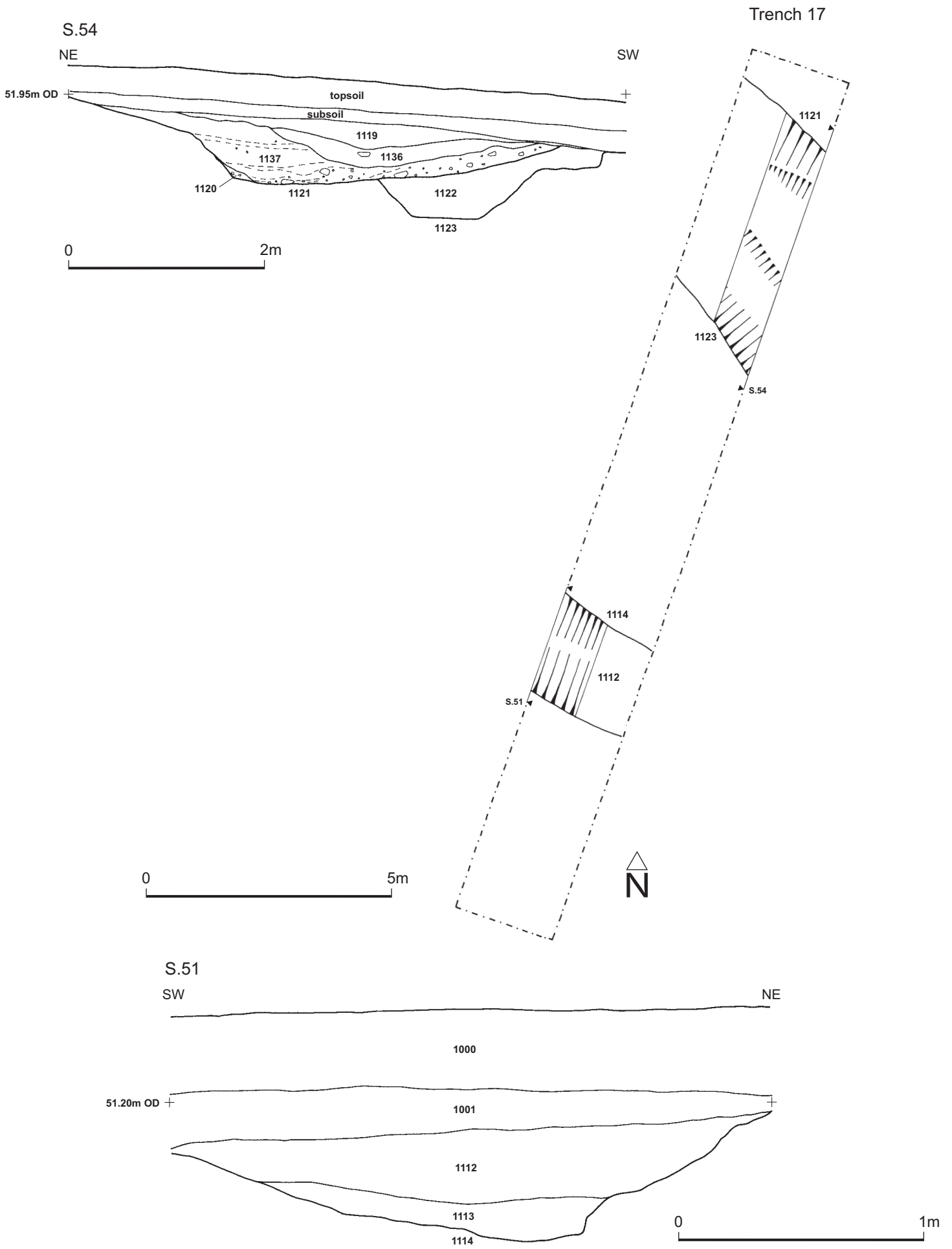


Fig. 10. Trench 17 plan and sections



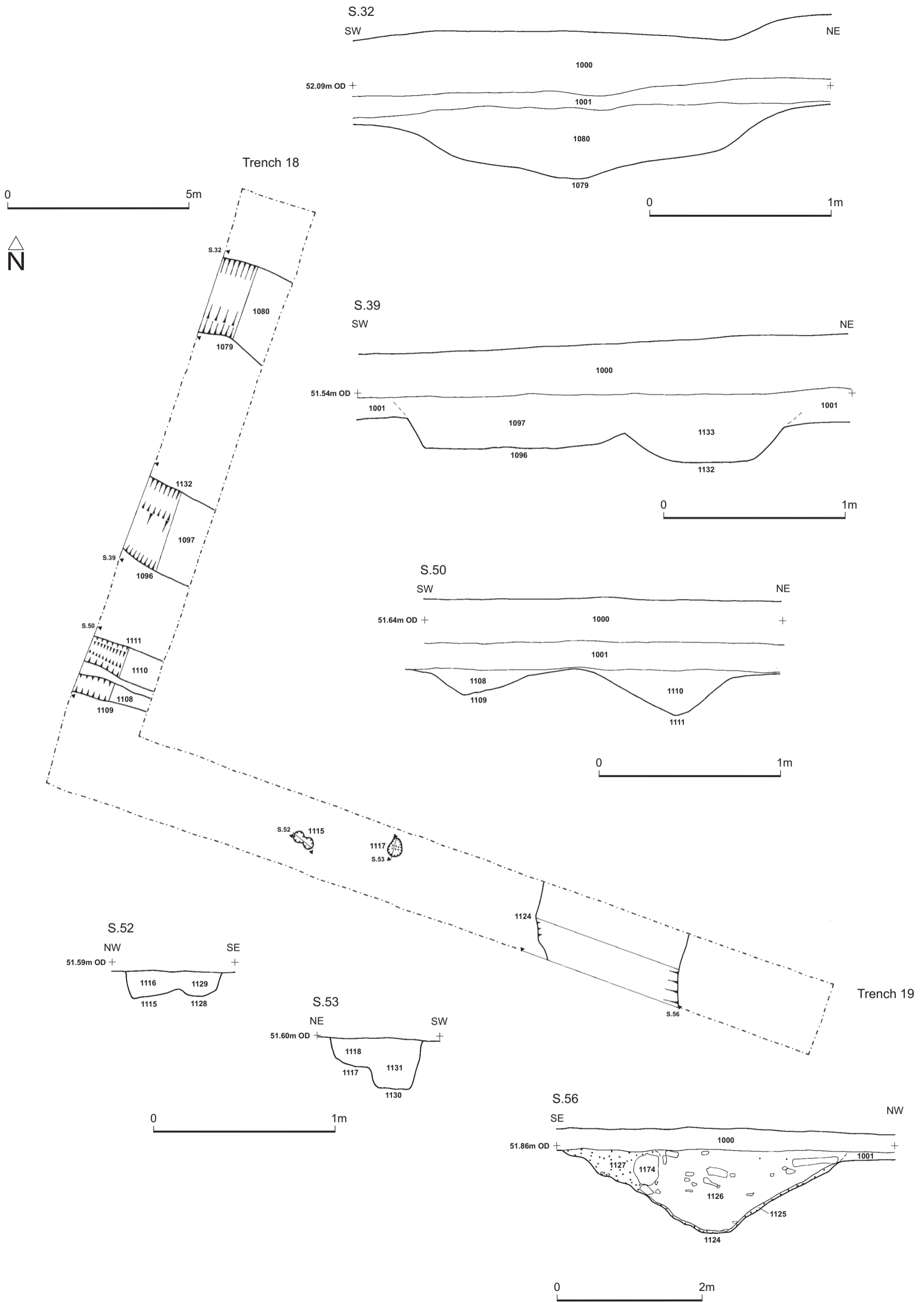


Fig. 11. Trenches 18 and 19 plans and sections

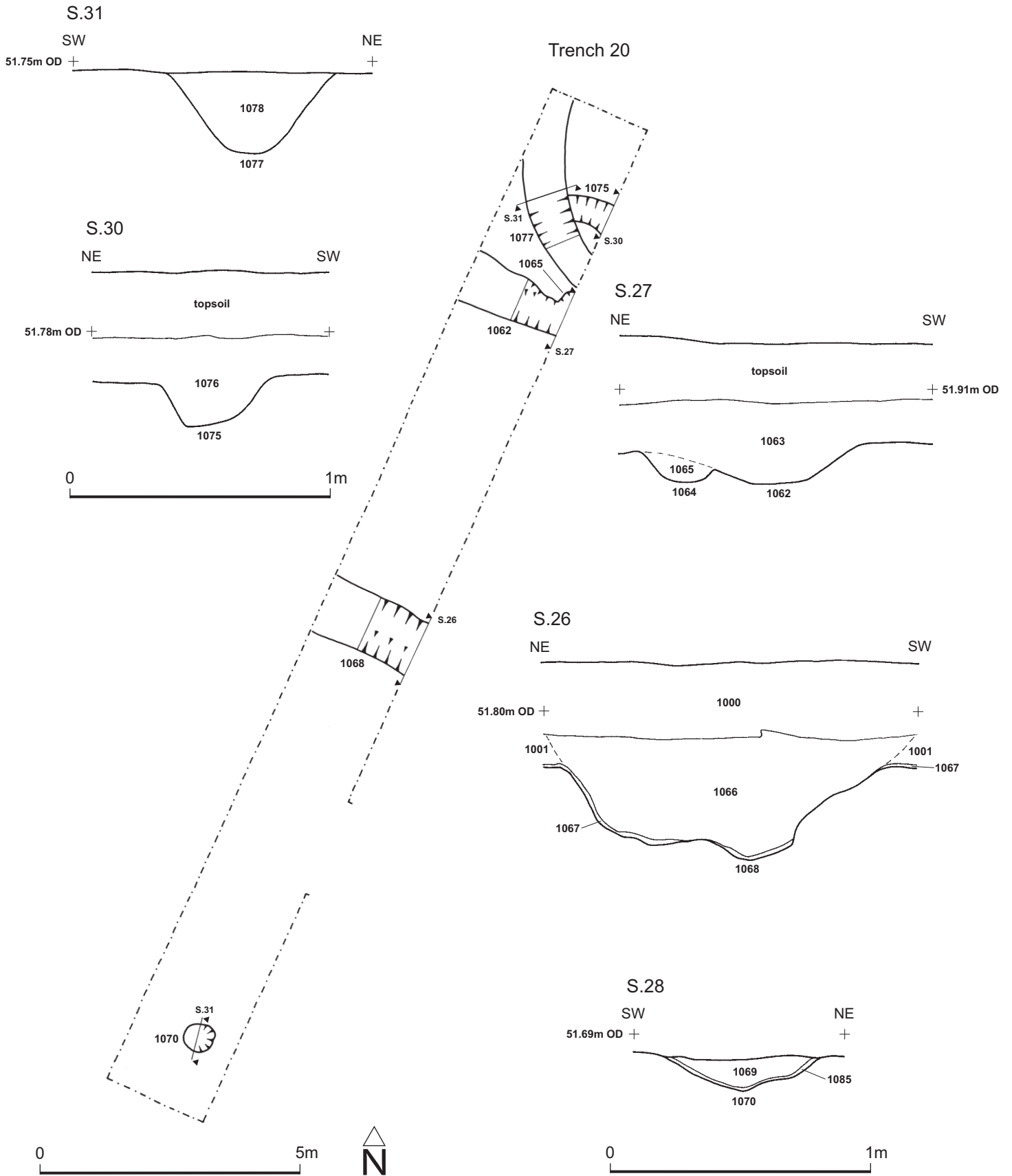


Fig. 12. Trench 20 plan and sections

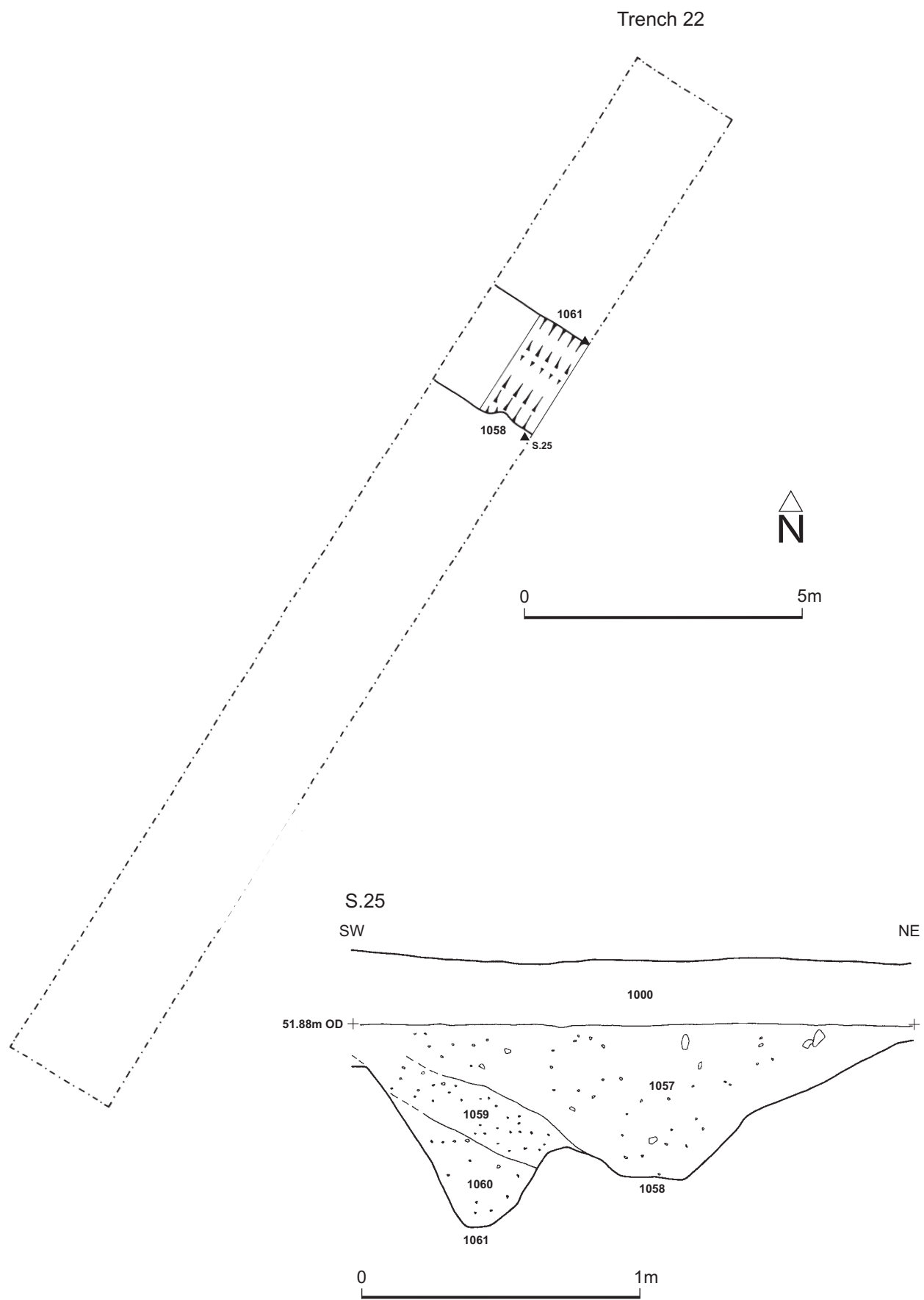


Fig. 13. Trench 22 plan and sections

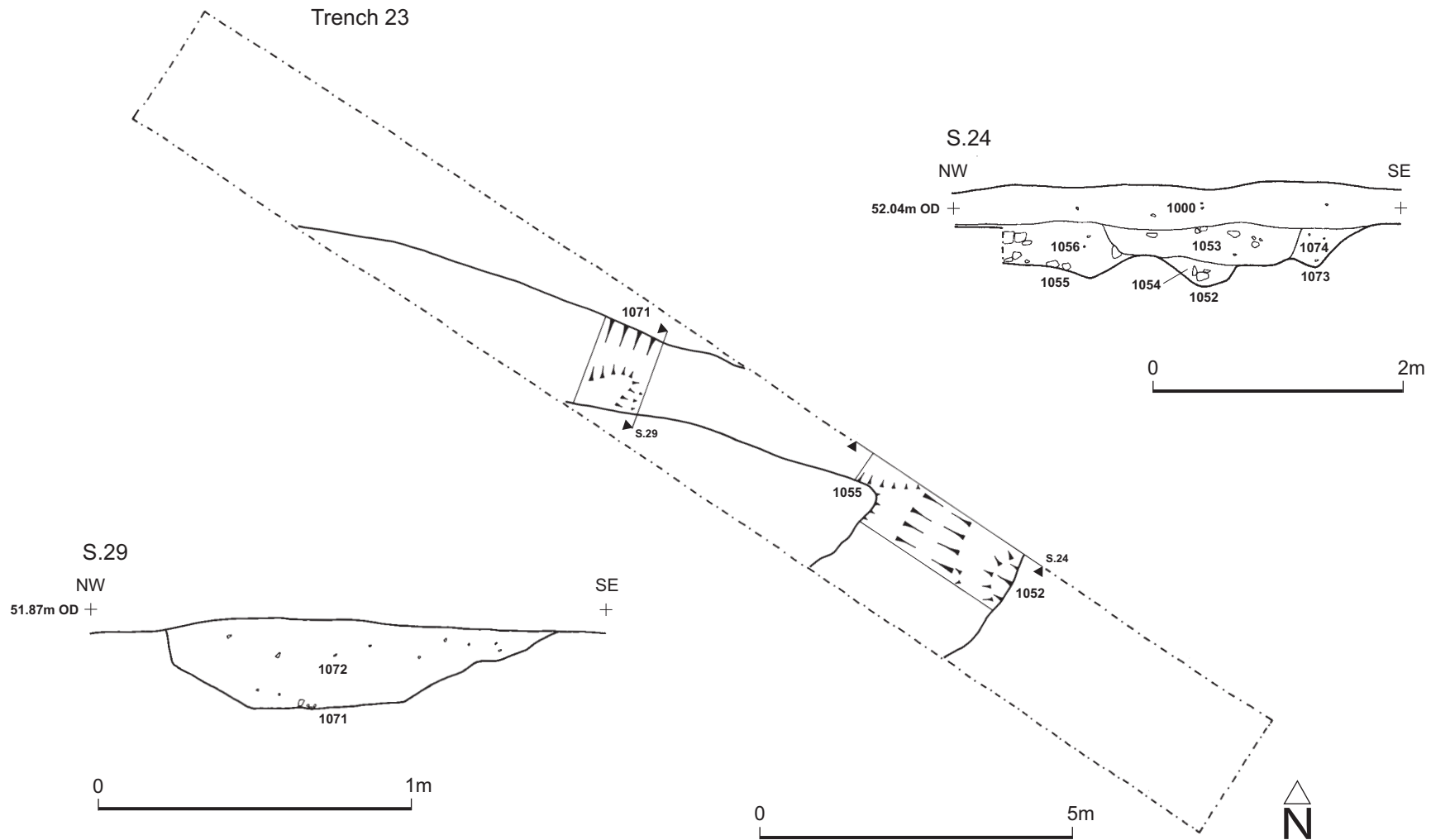


Fig. 14. Trench 23 plan and sections

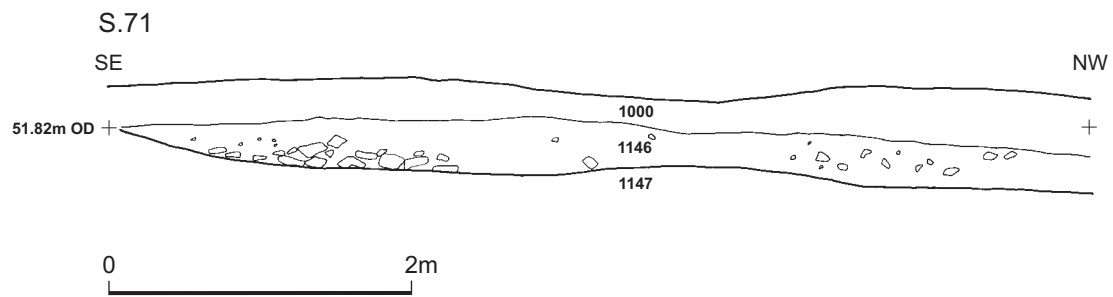
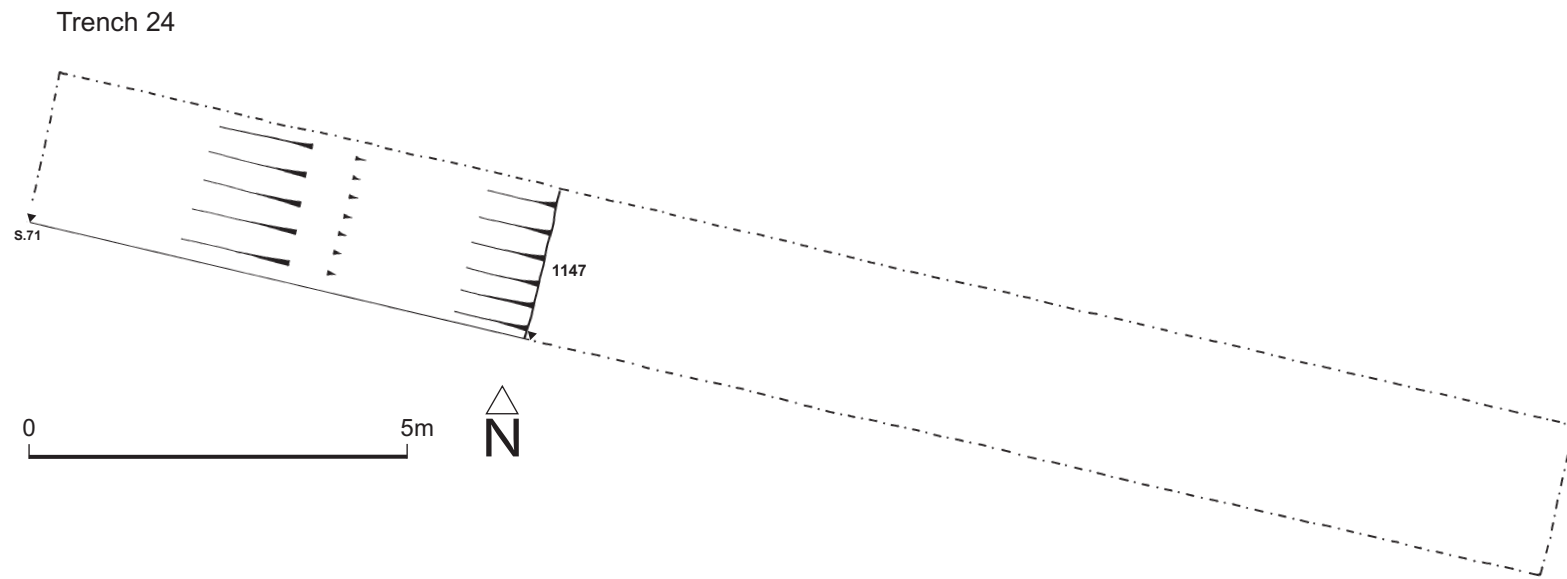


Fig. 15. Trench 24 plan and section

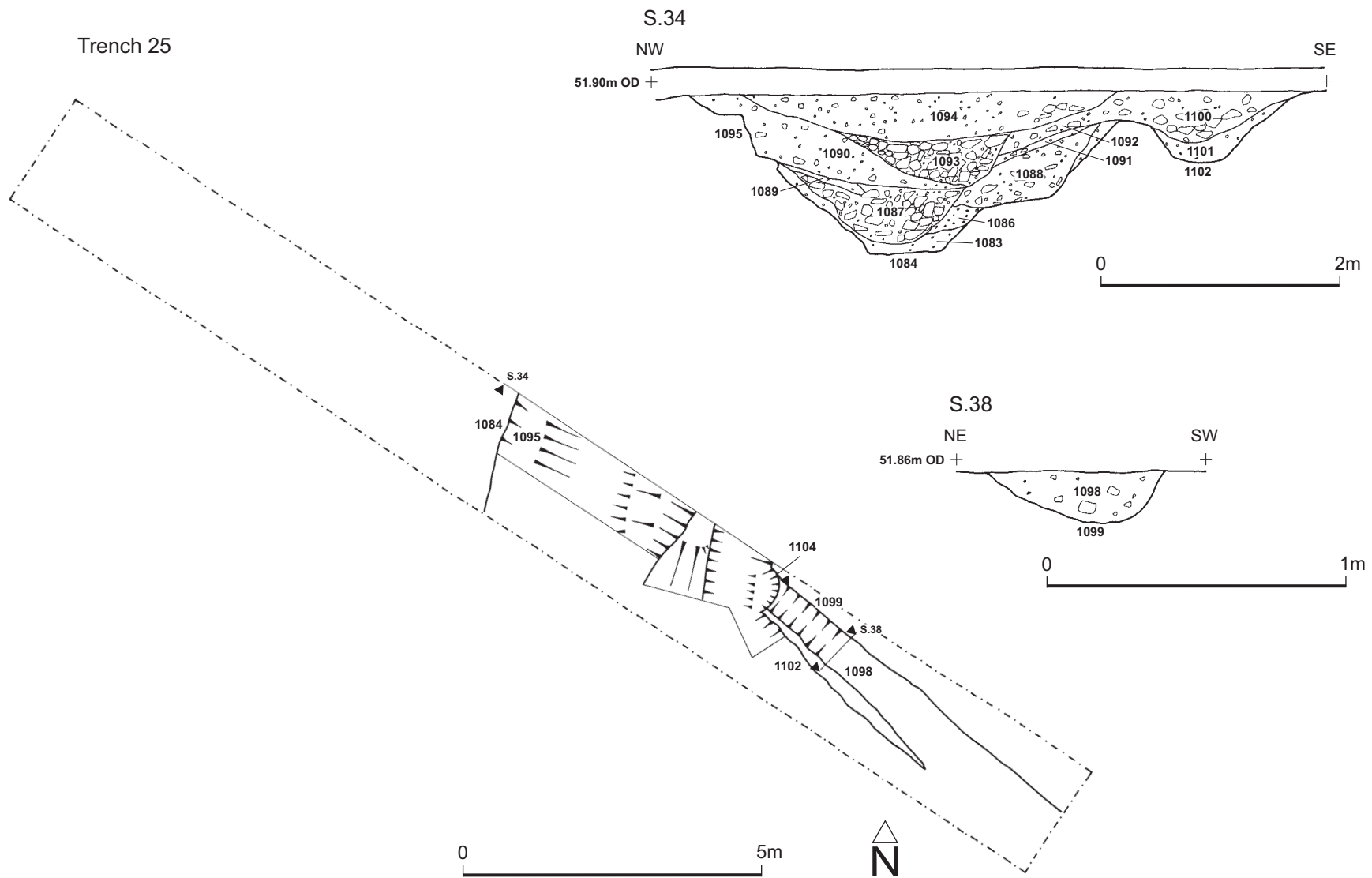


Fig. 16. Trench 25 plan and sections

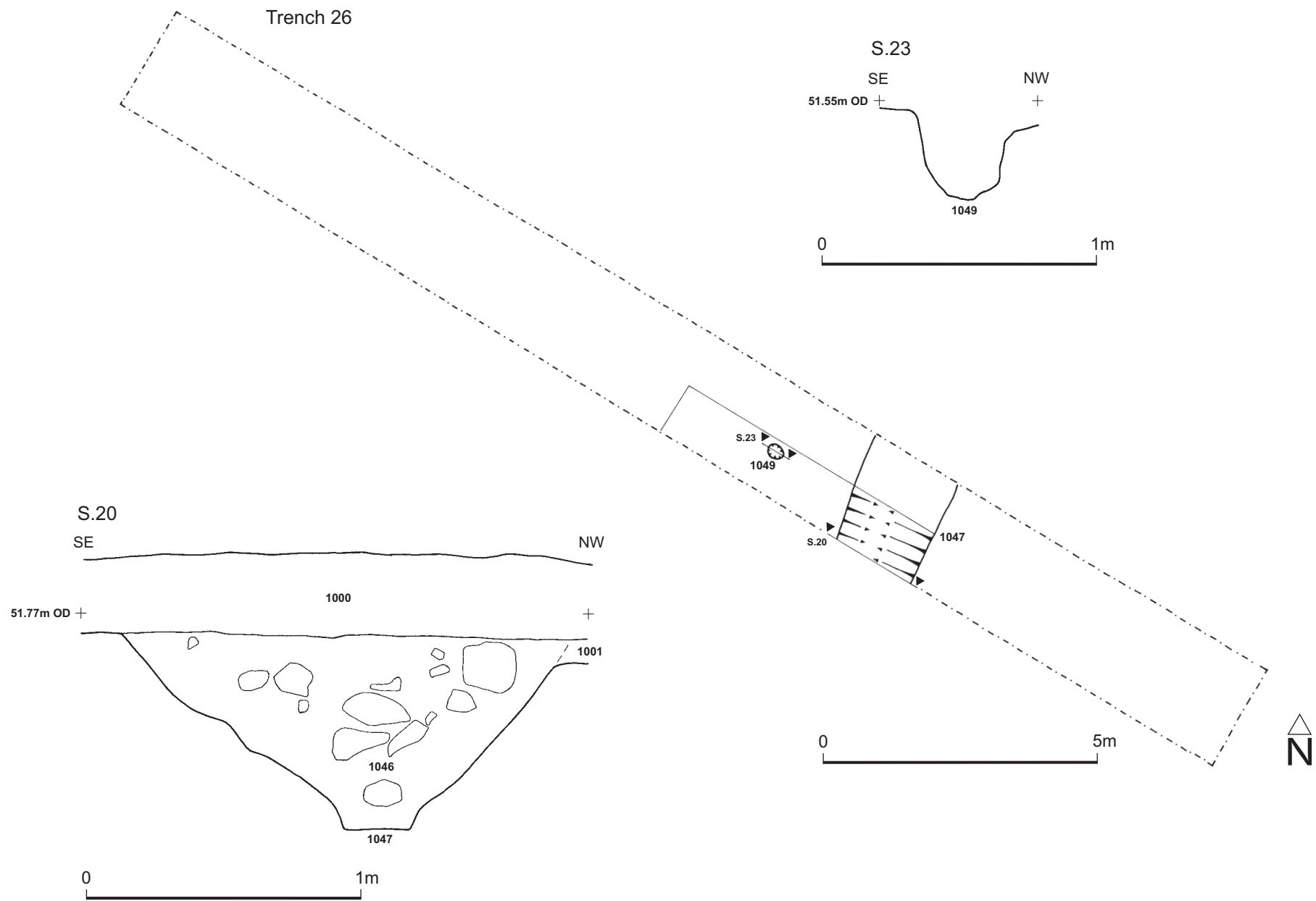


Fig. 17. Trench 26 plan and sections

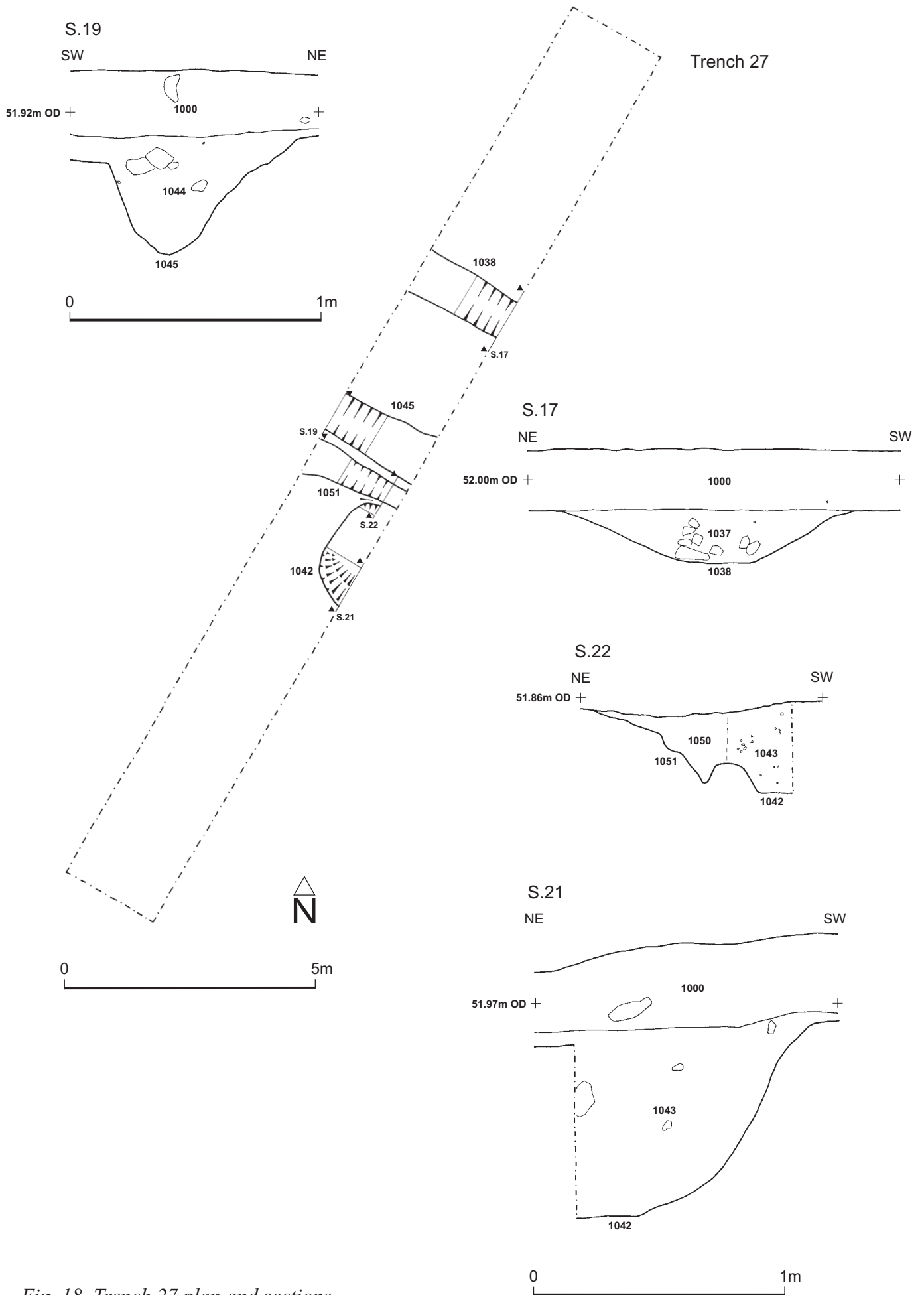


Fig. 18. Trench 27 plan and sections



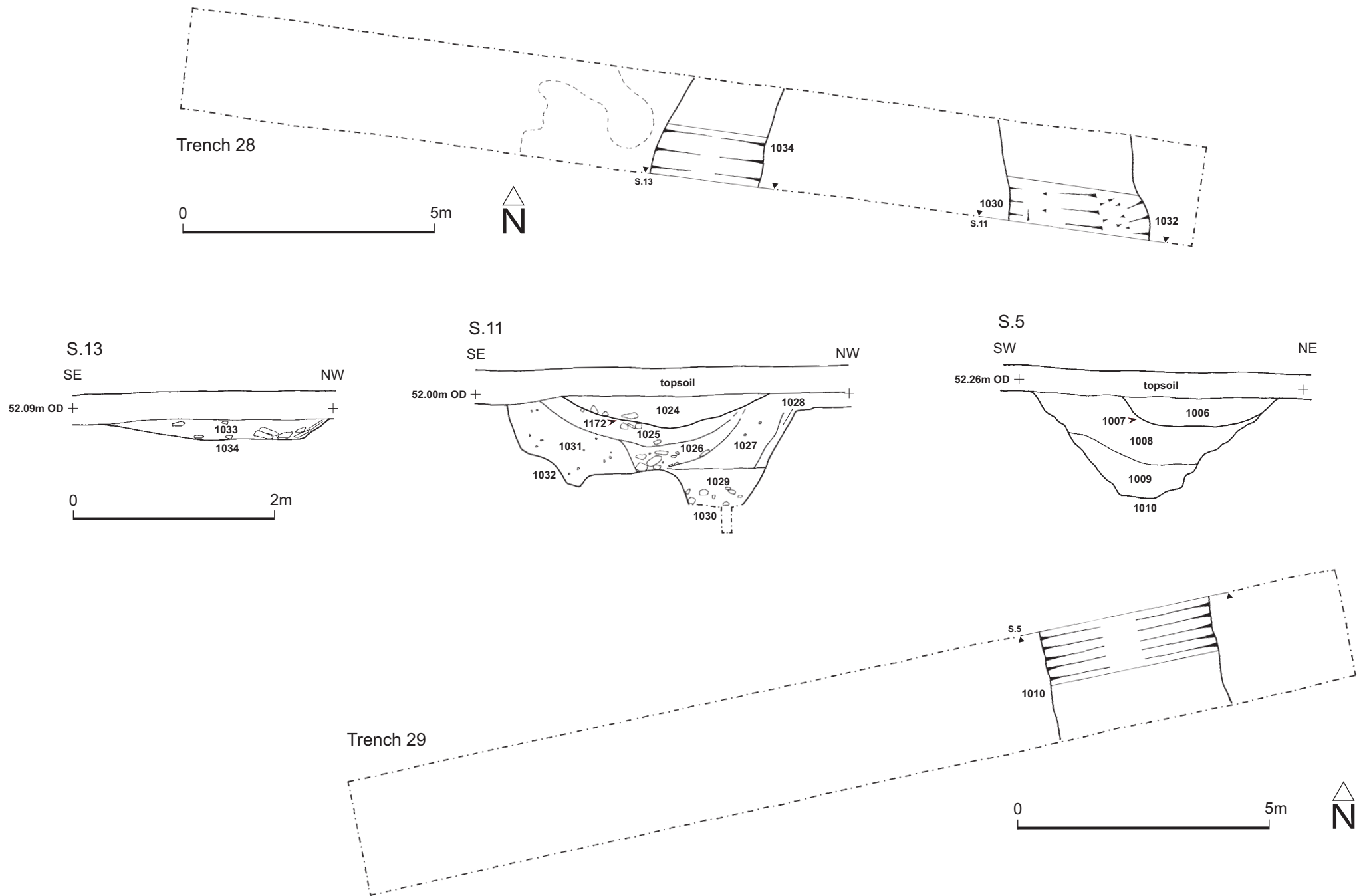


Fig. 19. Trenches 28 and 29 plans and sections

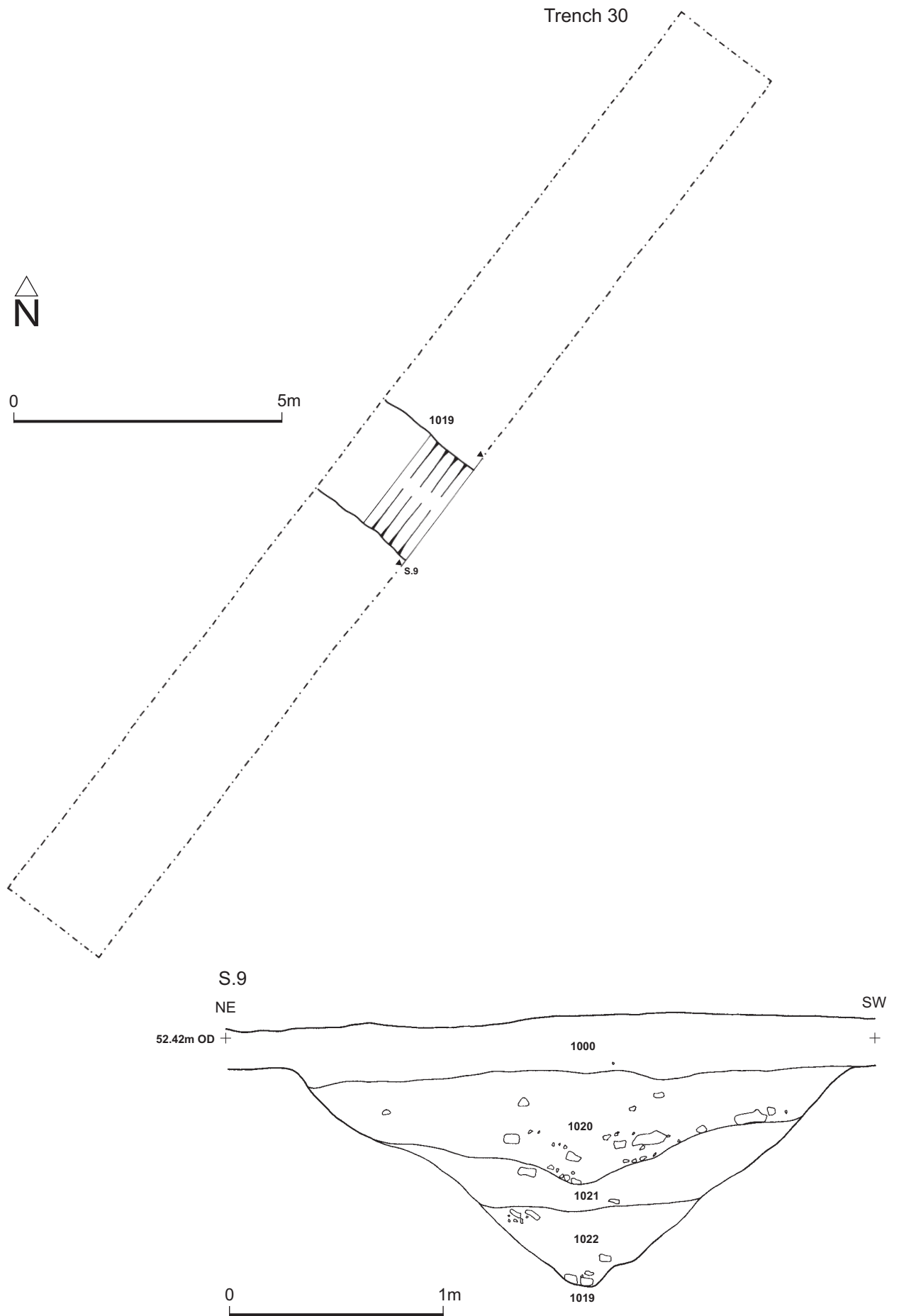


Fig. 20. Trench 30 plan and section

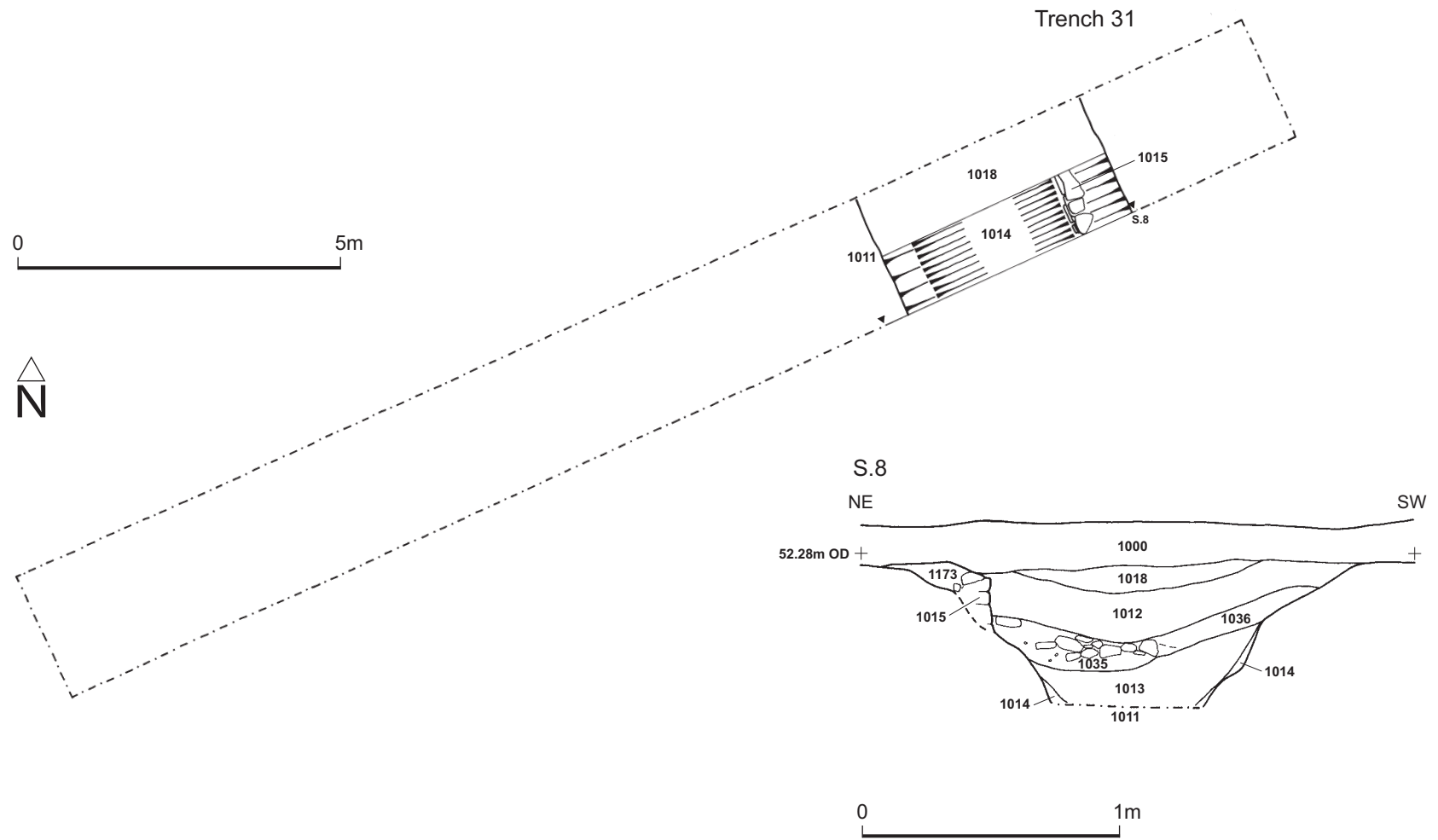


Fig. 21. Trench 31 plan and section

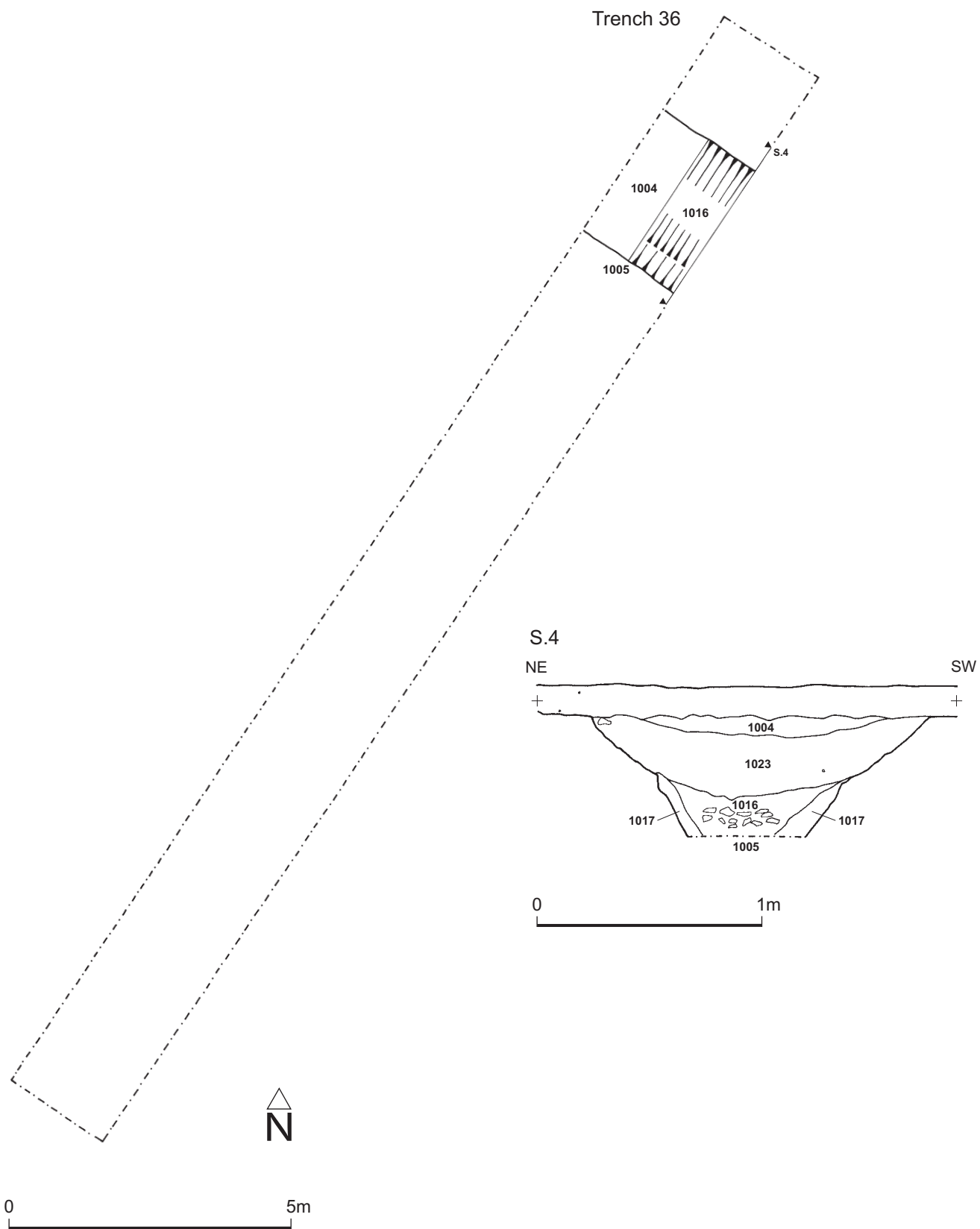


Fig. 22. Trench 36 plan and section

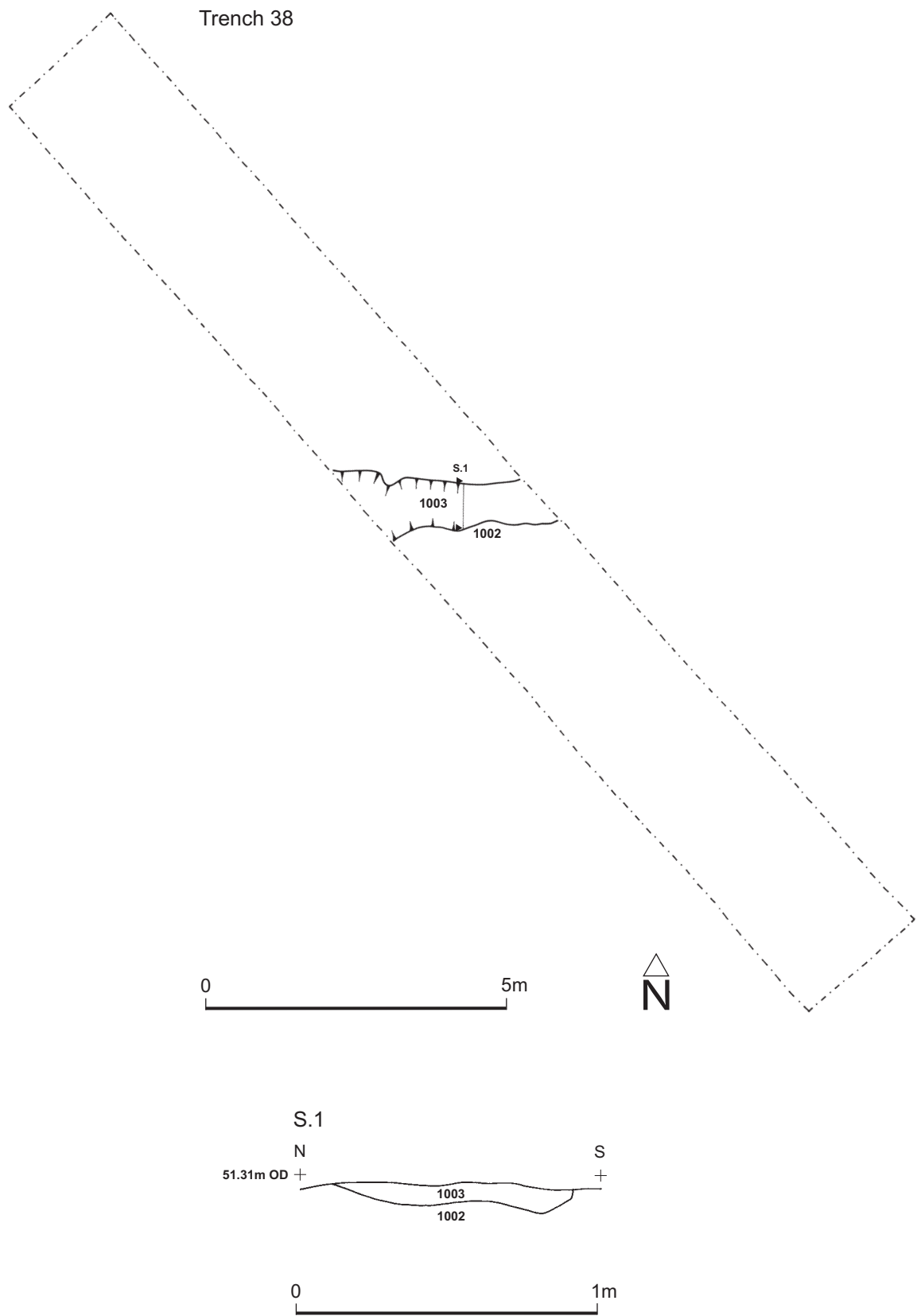


Fig. 23. Trench 38 plan and section

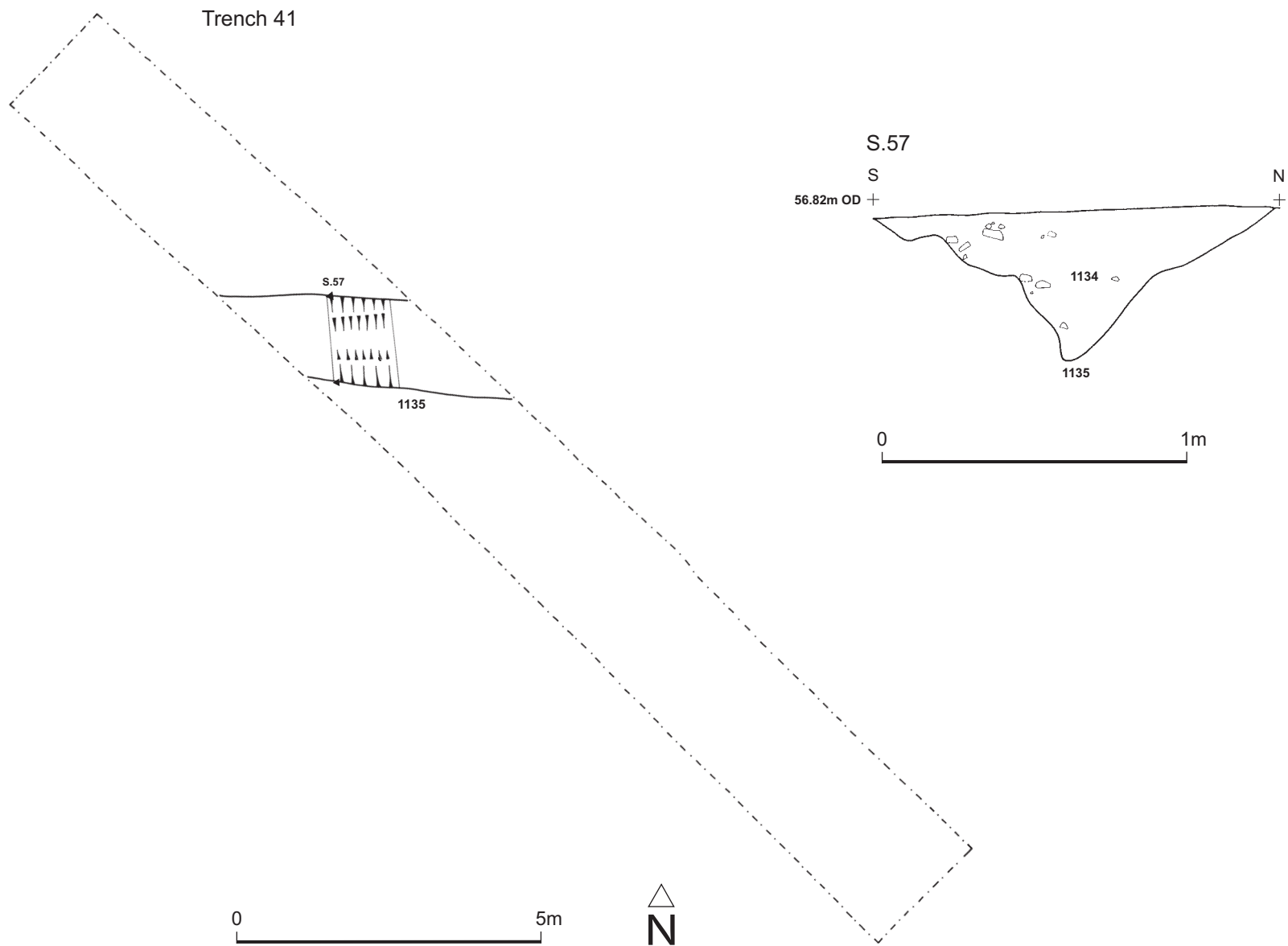


Fig. 24. Trench 41 plan and section

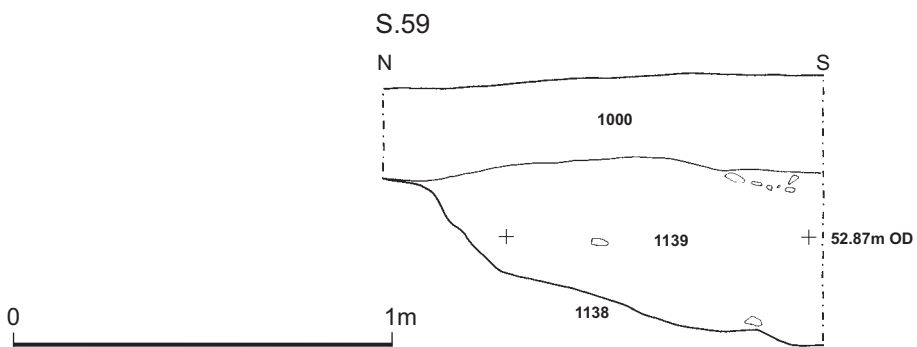
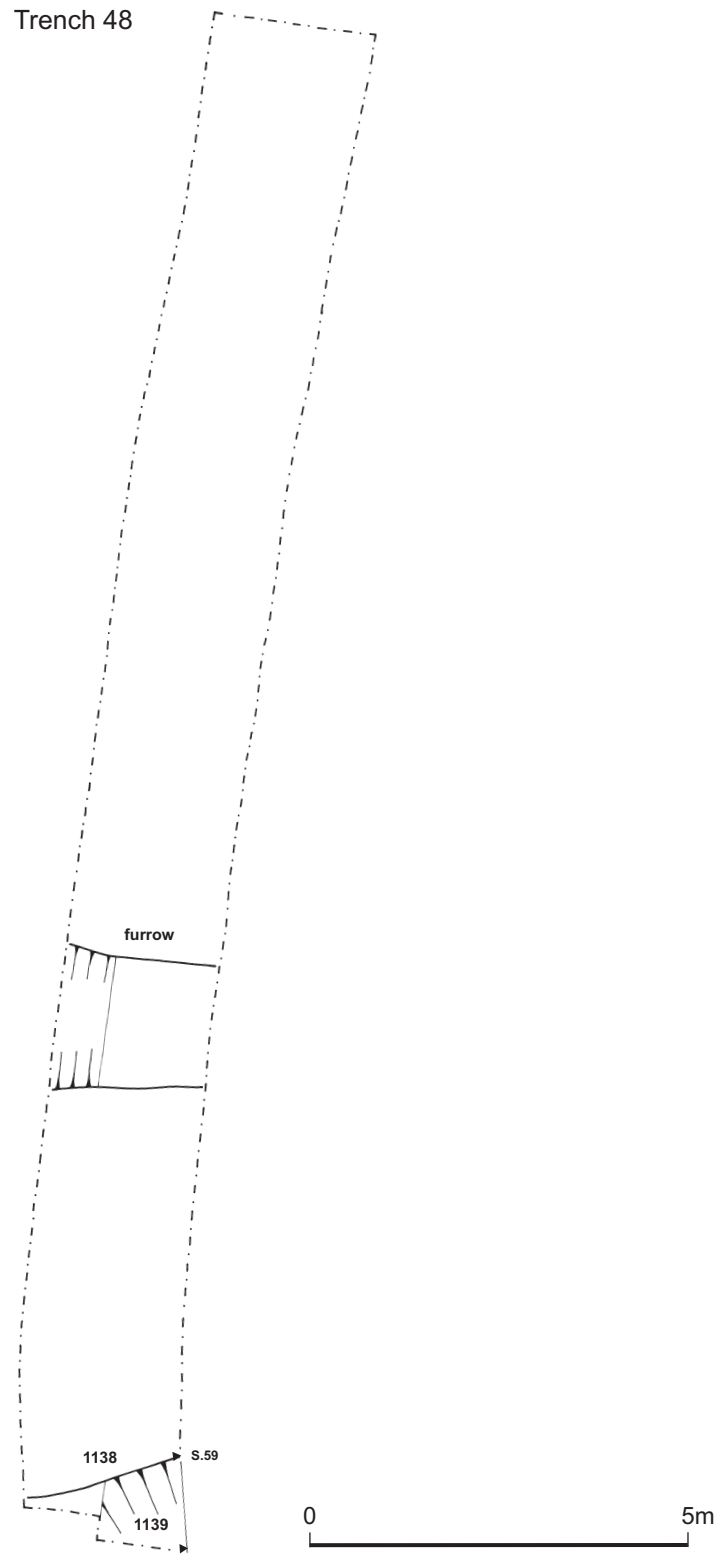


Fig. 25. Trench 48 plan and section

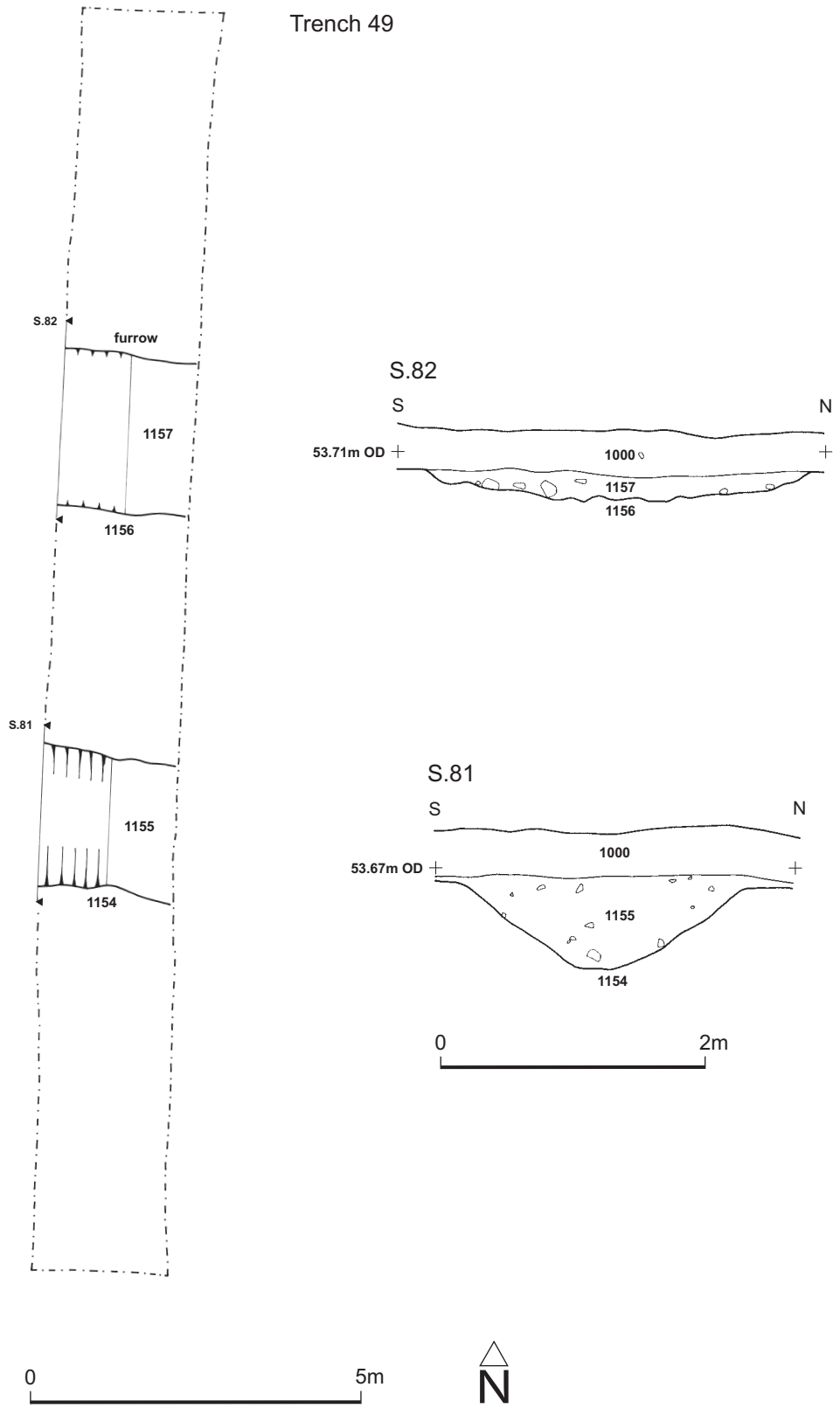


Fig. 26. Trench 49 plan and sections



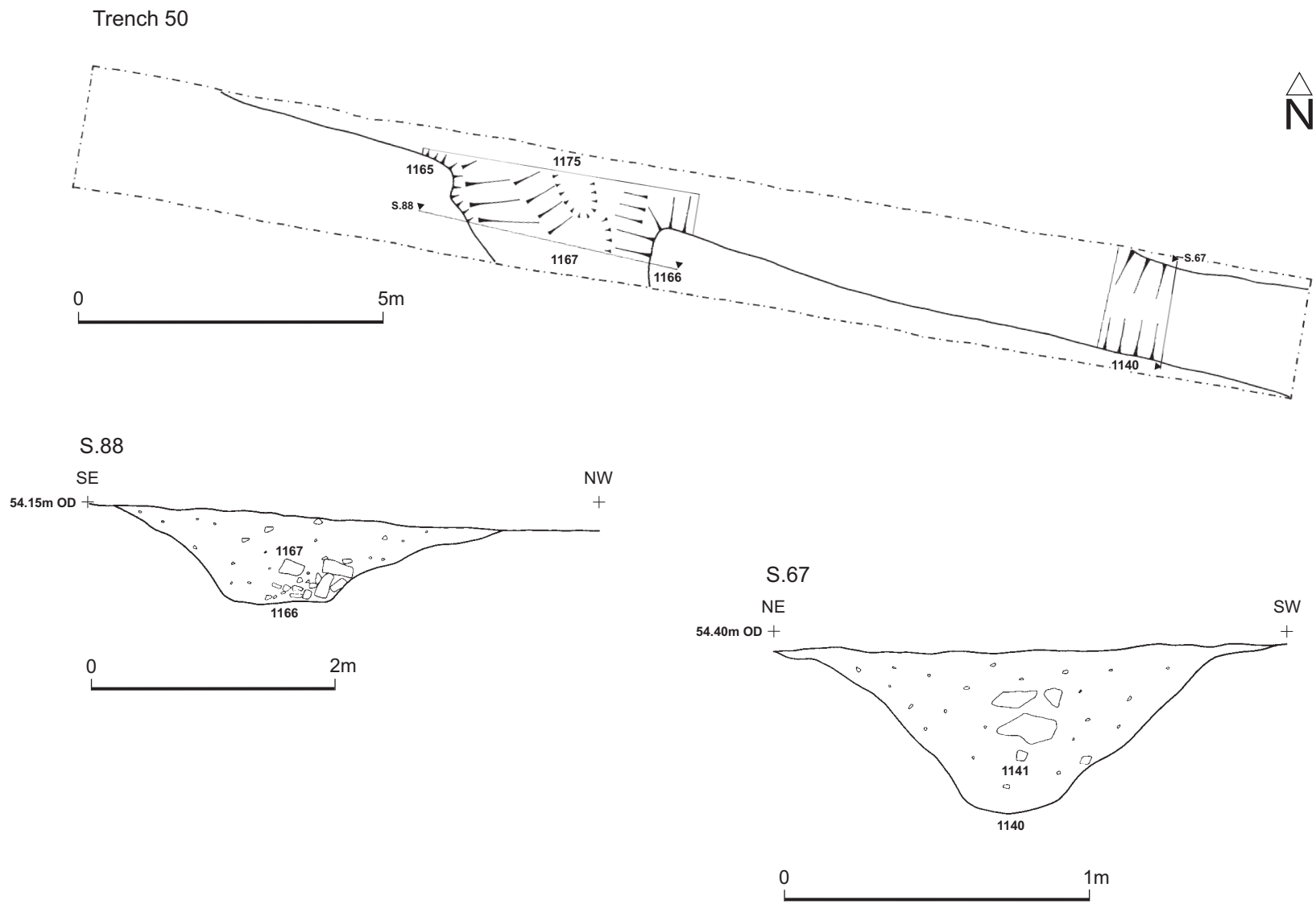


Fig. 27. Trench 50 plan and sections

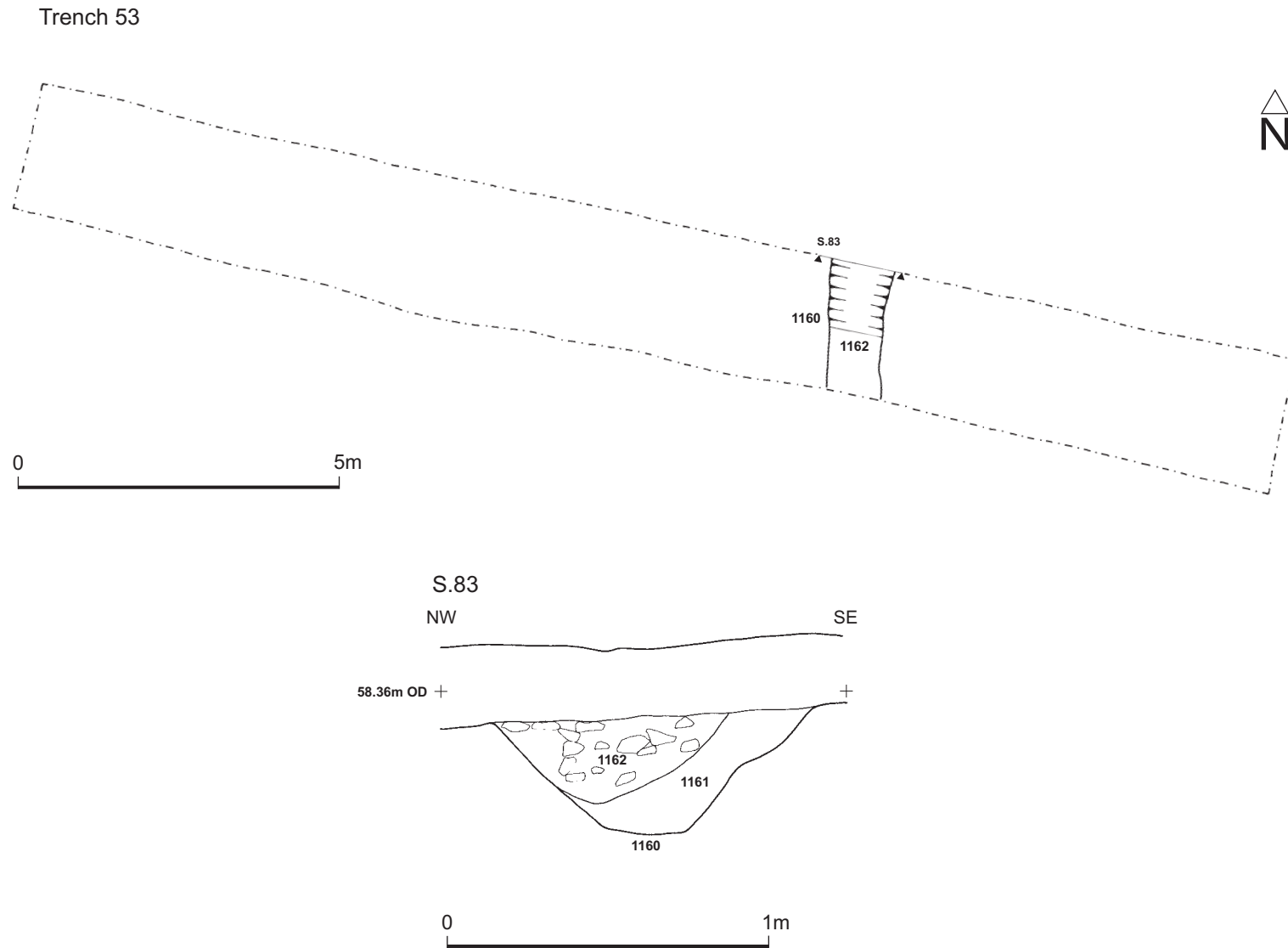


Fig. 28. Trench 53 plan and section

Trench 55

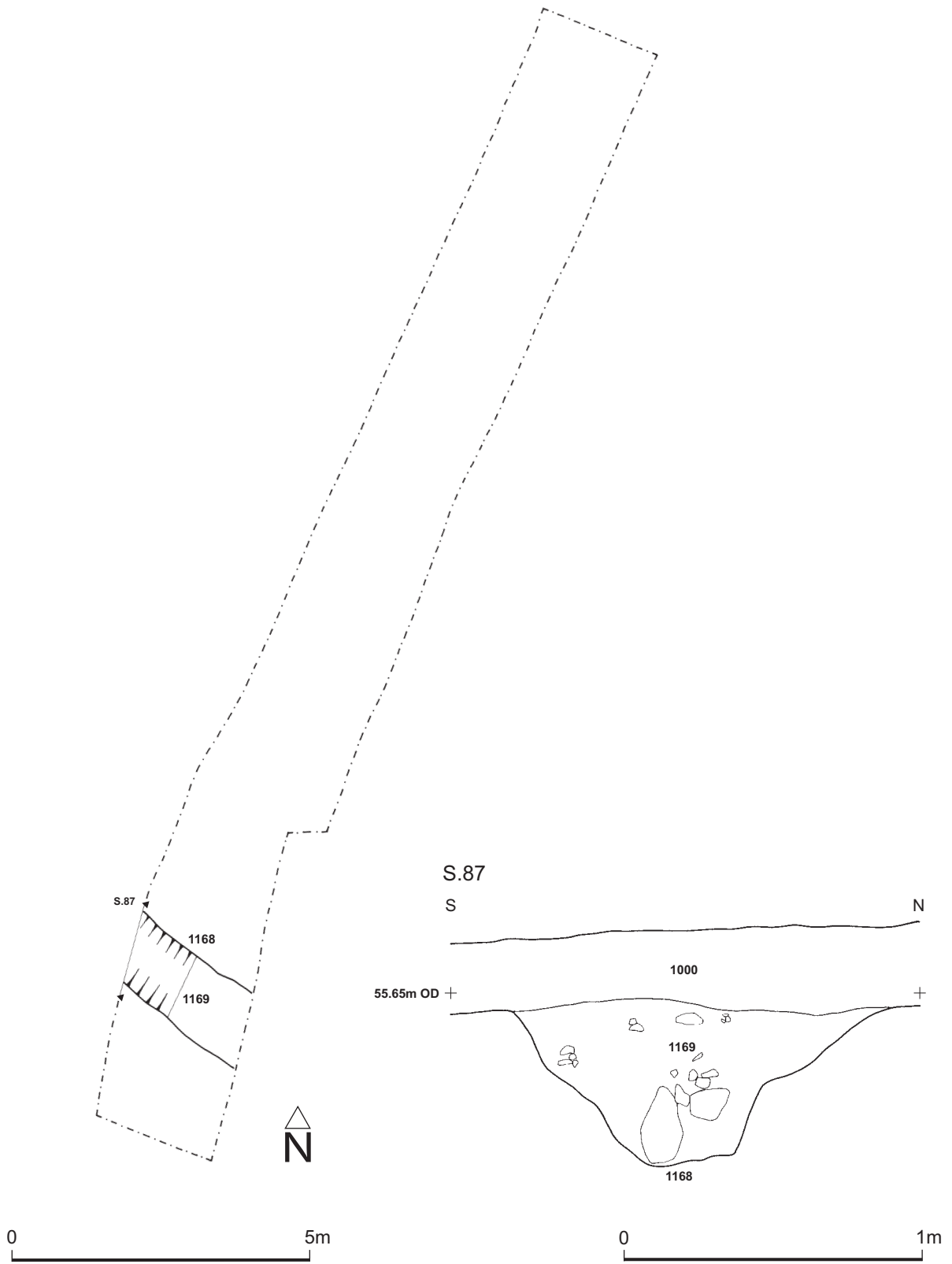


Fig. 29. Trench 55 plan and section

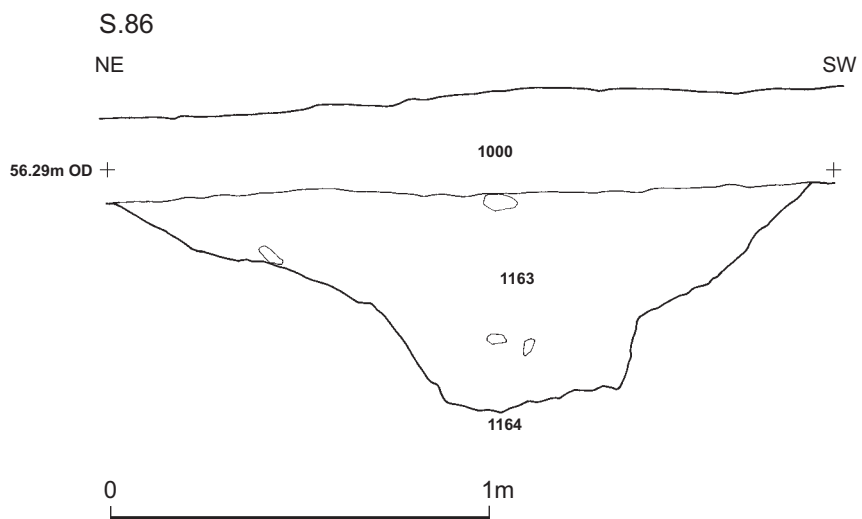
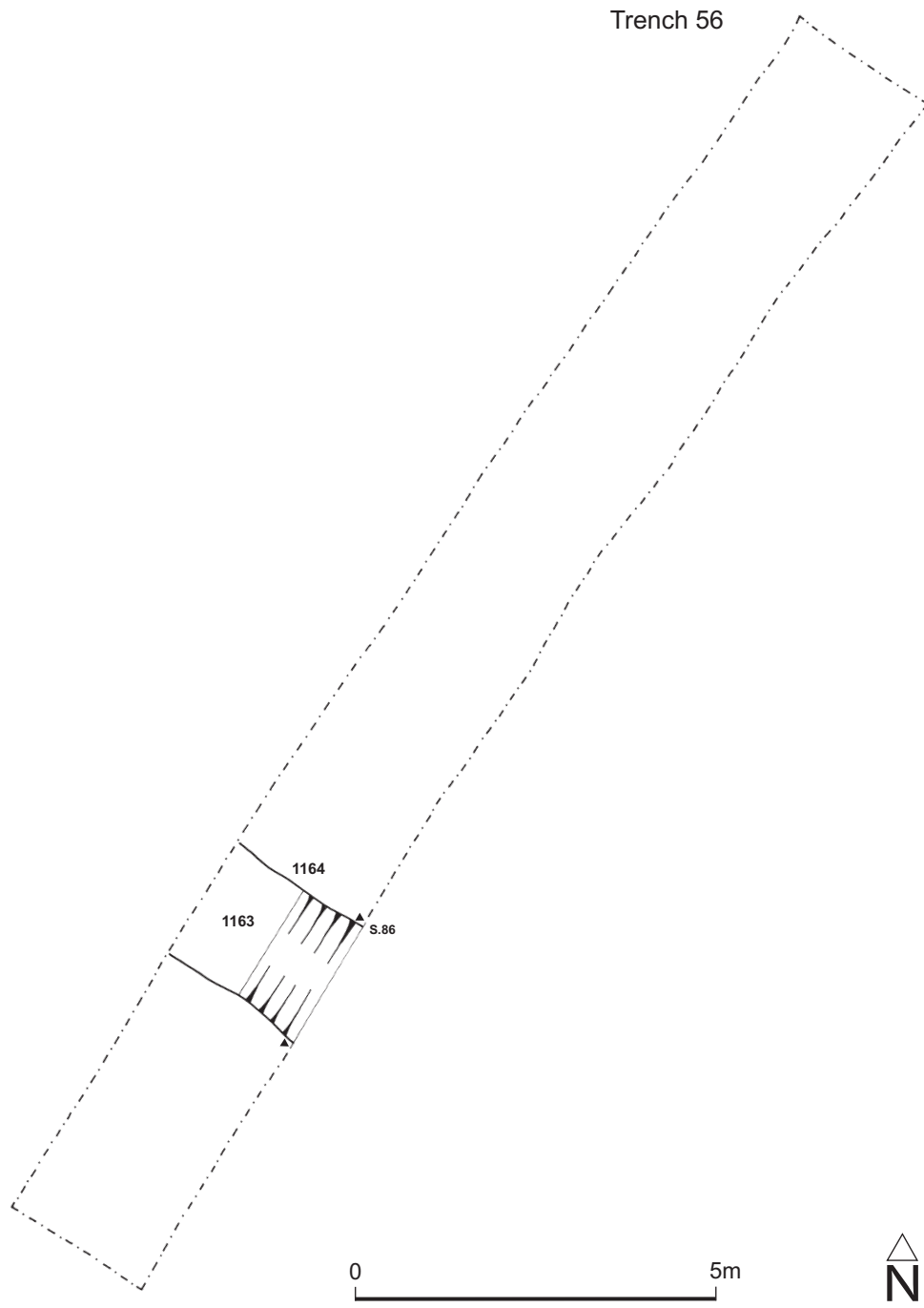


Fig. 30. Trench 56 plan and section

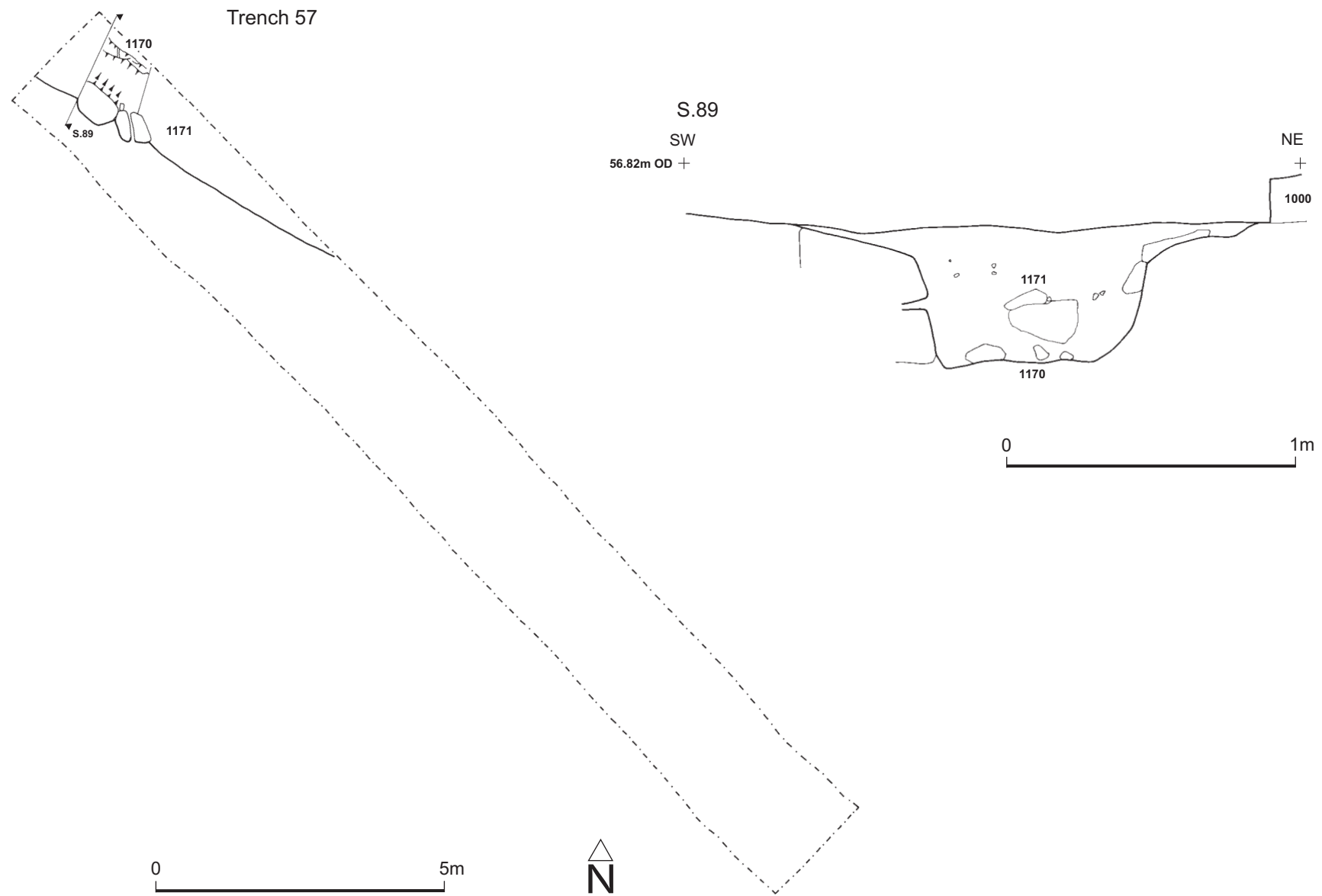


Fig. 31. Trench 57 plan and section

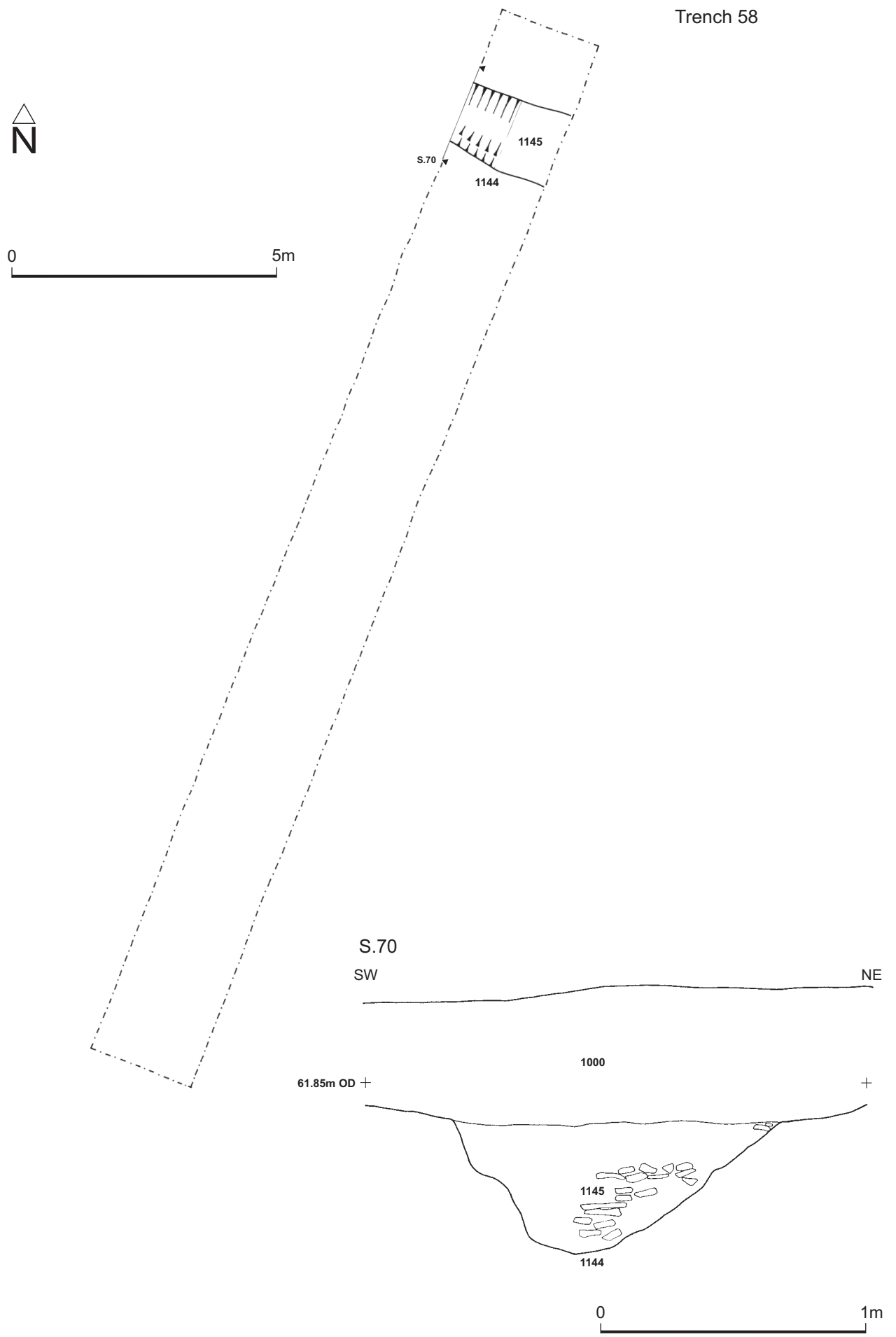


Fig. 32. Trench 58 plan and section

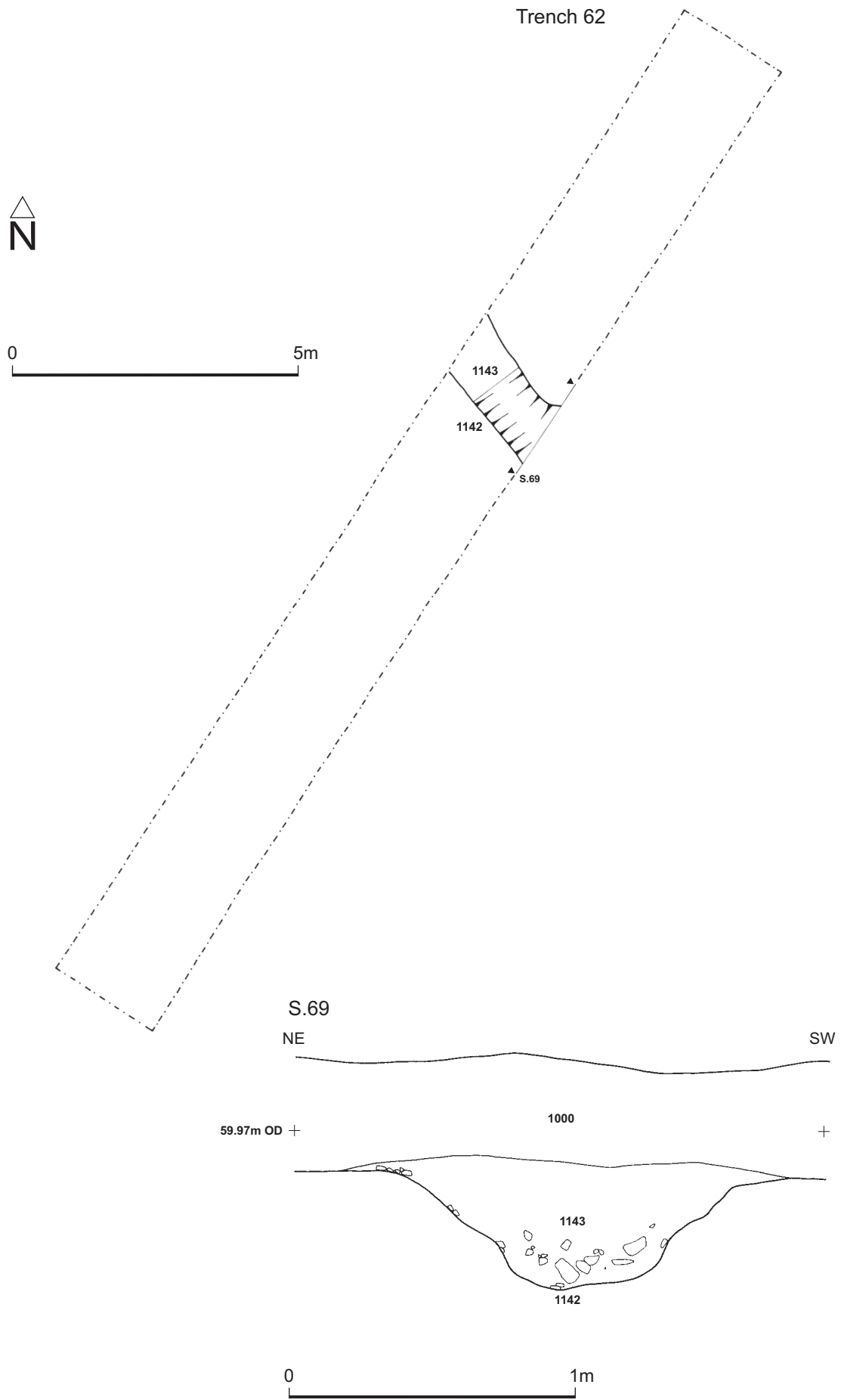


Fig. 33. Trench 62 plan and section

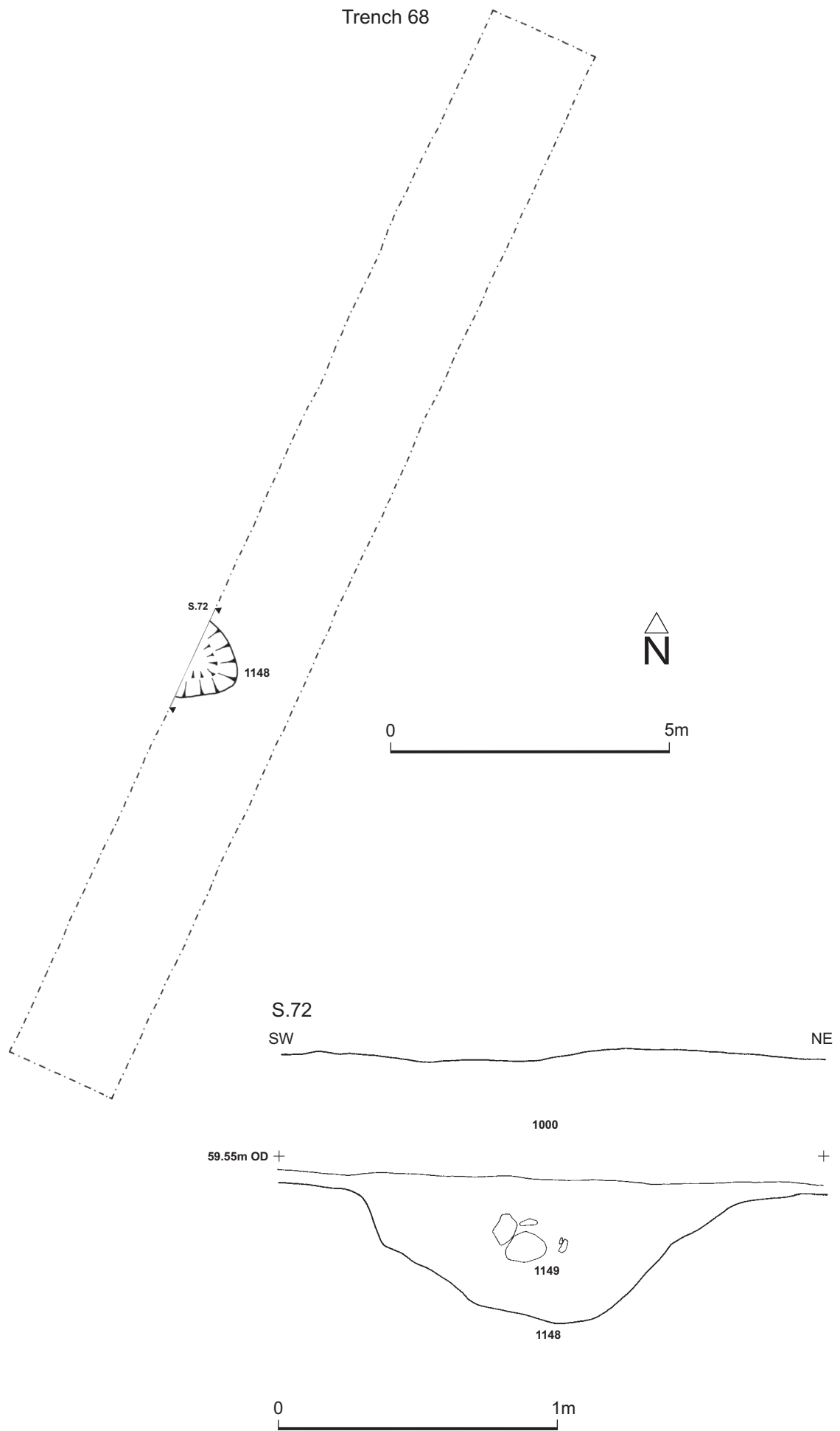


Fig. 34. Trench 68 plan and section



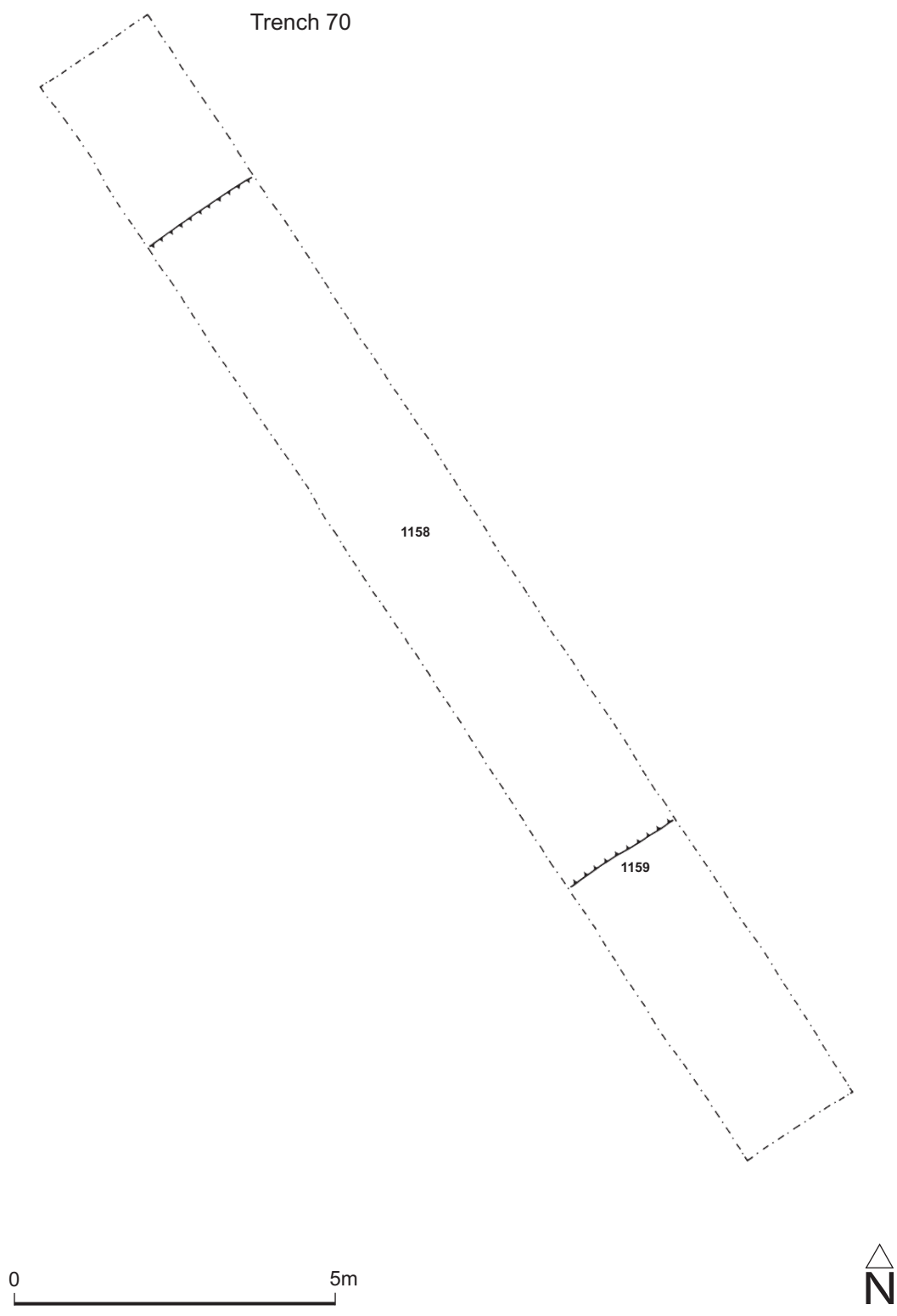


Fig. 35. Trench 70 plan

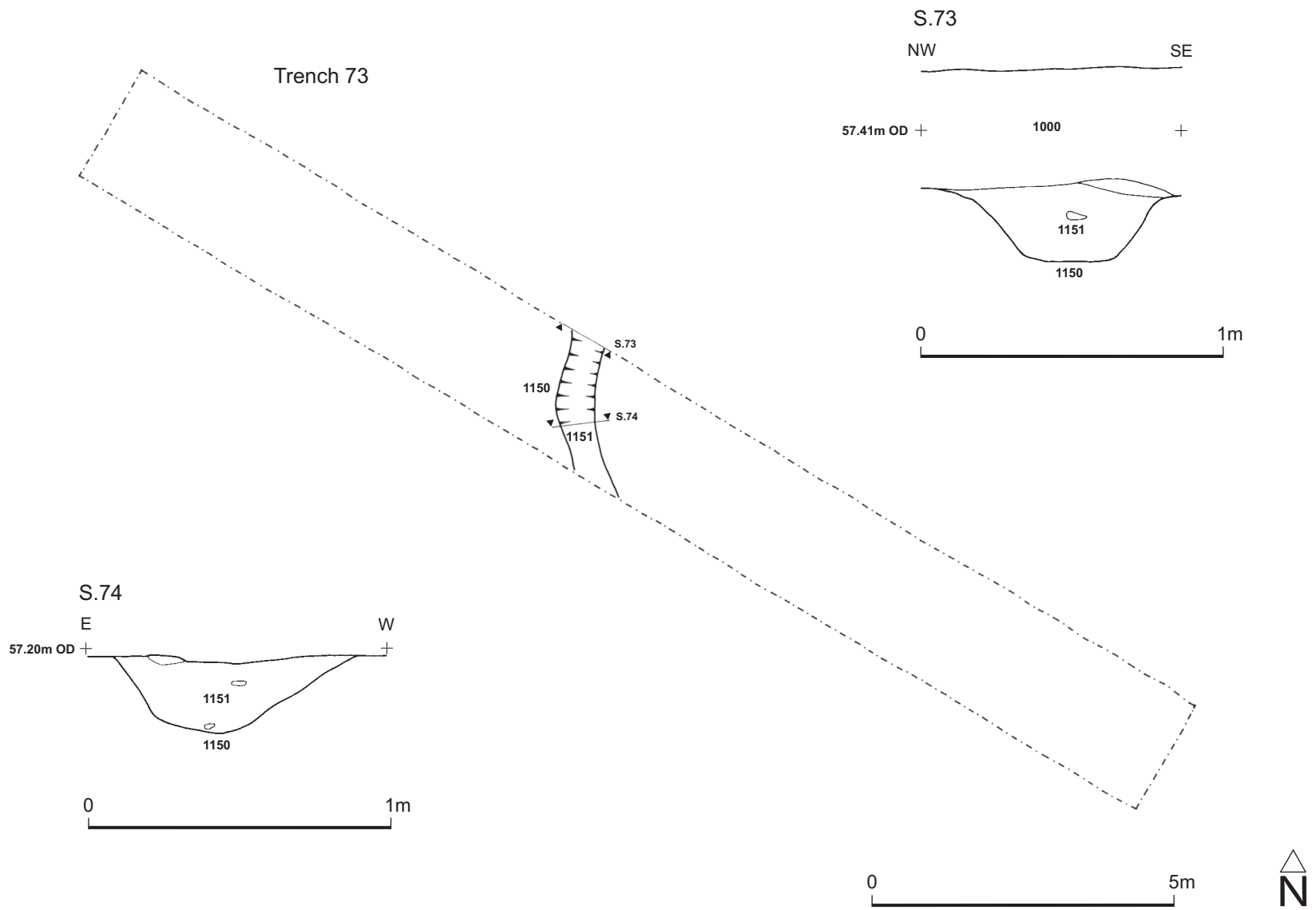


Fig. 36. Trench 73 plan and sections

Trench 79

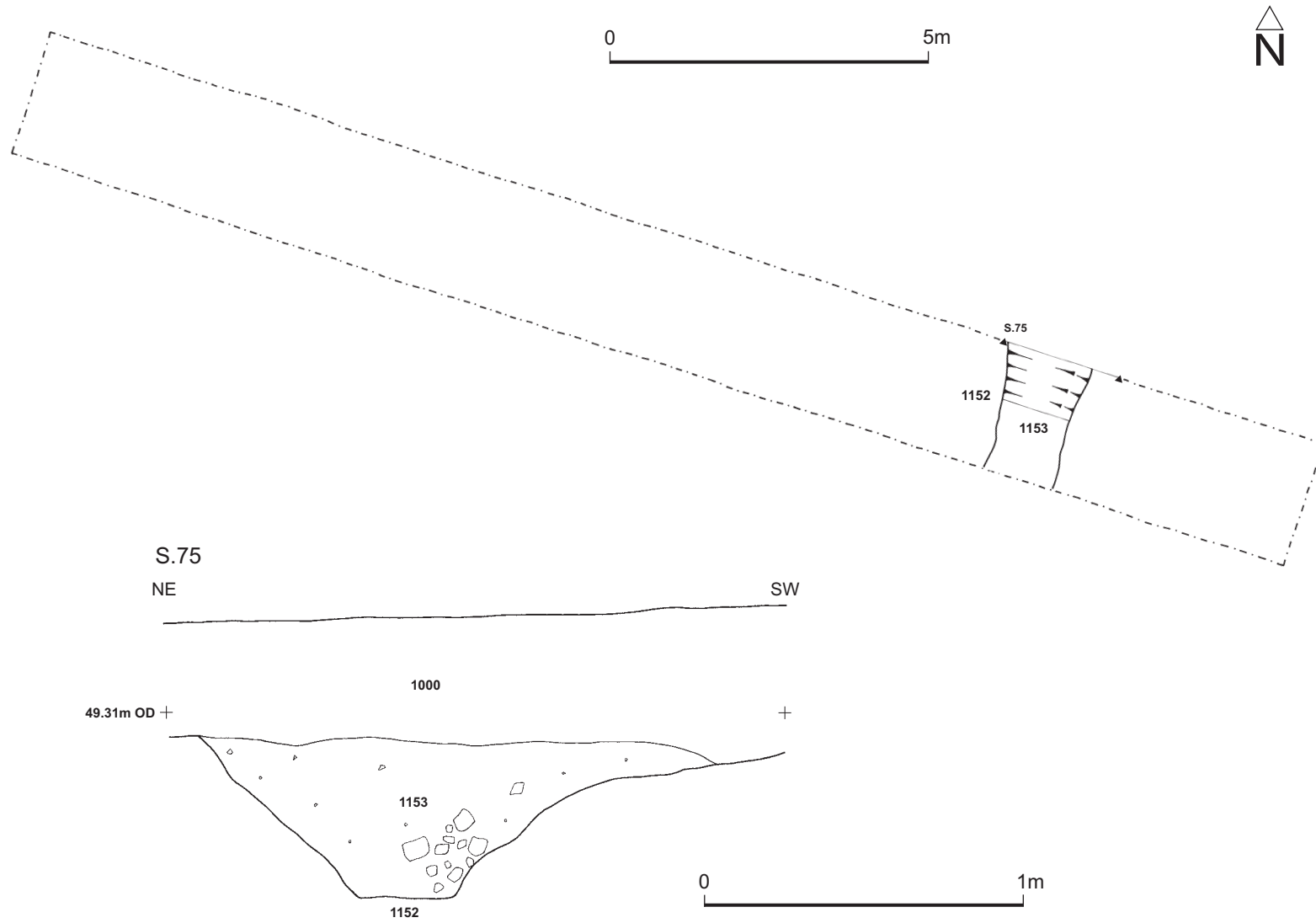


Fig. 37. Trench 79 plan and section

Trench 88

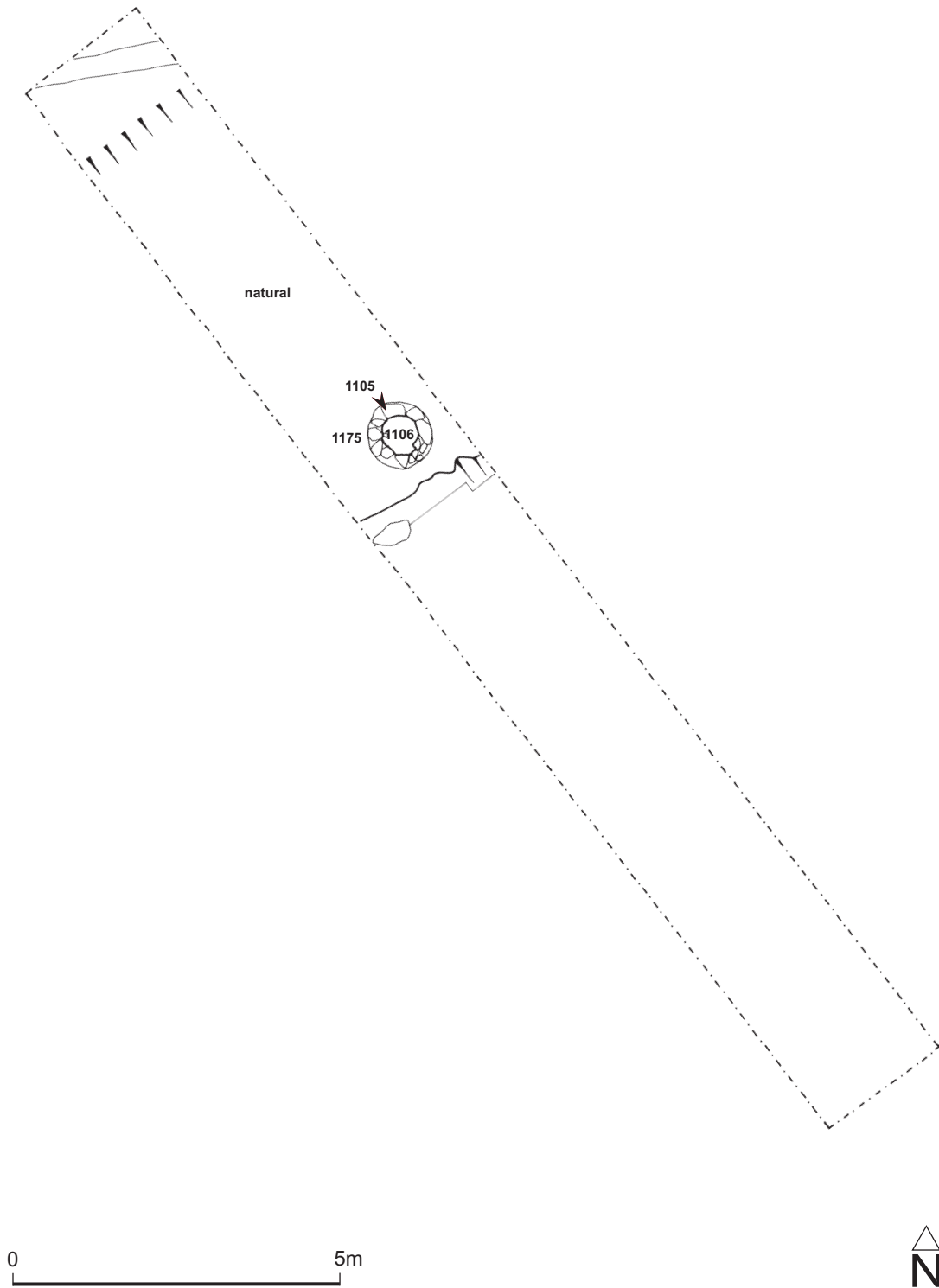


Fig. 38. Trench 88 plan

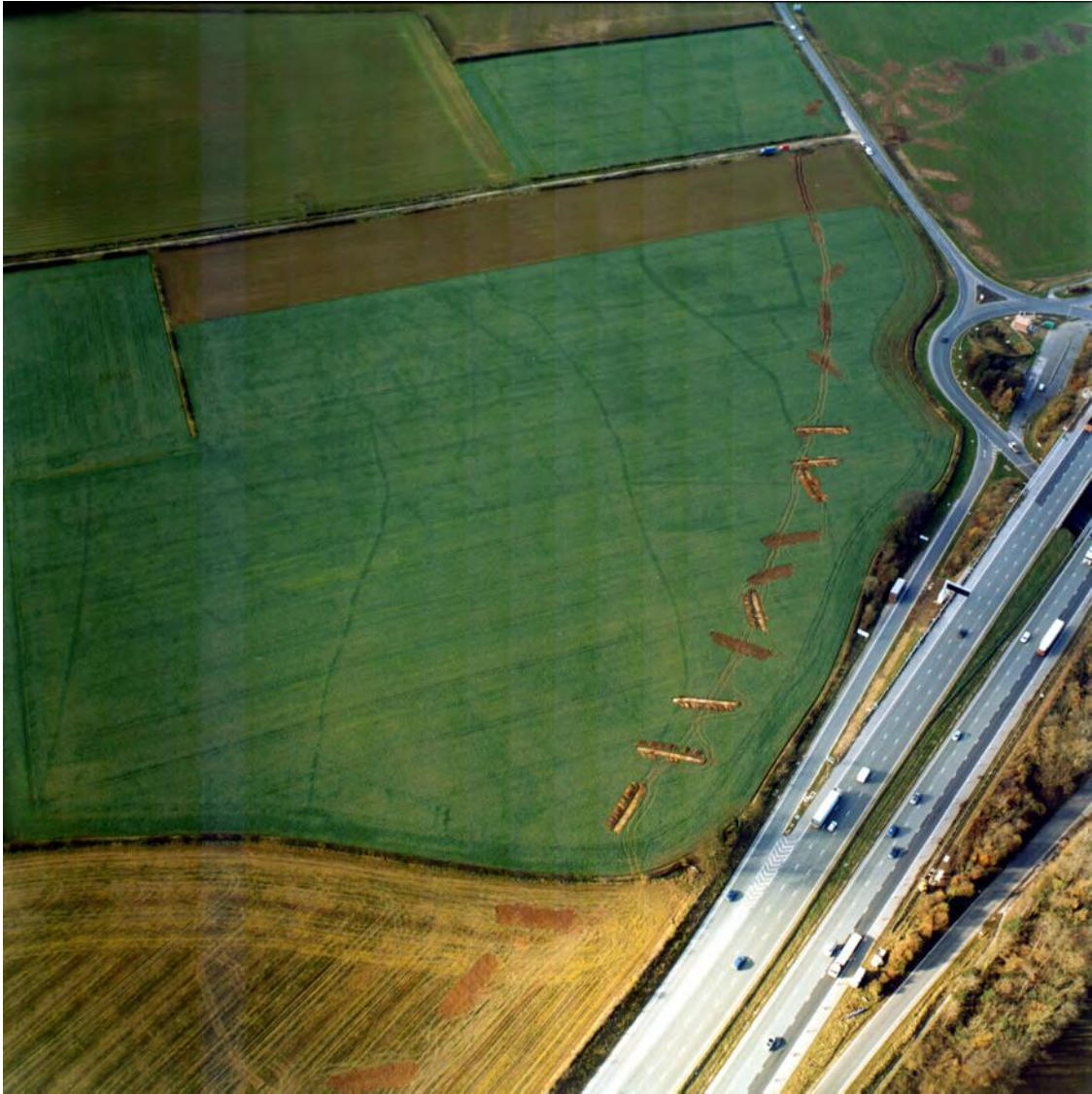


*Pl. 1. The left femora of the juvenile from Context 1119, the infant from Context 1119 and the neonate from Context 1093*



*Pl. 2. An aerial photograph of the proposed route of the A1 Bramham to Wetherby Upgrading Scheme, showing crop marks within the field to the north of Wattle Syke (A659), looking north-east (ASWYAS)*





*Pl. 3. An aerial photograph of the fields south of Wattle Syke showing Trenches 40 to 57, looking north-west (English Heritage: NMR 20194 frame 04)*





*Pl. 4. Trench 25, looking north, showing the exposed wall 1095 in ditch 1084 (ASWYAS 7220/24)*





*Pl. 5. Wall and rubble (1015) within ditch 1011 in Trench 31, looking south (ASWYAS 7122/16)*



*Pl. 6. A view of Trench 36 looking north-east showing ditch 1005 immediately after machine stripping*





*Pl. 7. The well within Trench 88 looking east (ASWYAS 7235/21)*

**Appendix I****Inventory of primary archive**

<b>File no.</b>	<b>Description</b>	<b>Quantity</b>
1	Context register	8
2	Context cards	174
1	Drawing register	5
	Drawings	86
3	Small drawing sheets	20
Loose	Large drawing sheets	14
1	Levels record sheets	12
1	Environmental samples register	2
	Environmental samples taken	52
1	Environmental sample laboratory sheet	52
1	Trench records	88
1	Finds & sample records	6
1	Photographic record sheets	12
1	35mm colour films (film n° 7122, 7219, 7220, 7235, 7241, 7247)	6
1	35mm black and white contacts and negatives (film n° 7123, 7221, 7222, 7236, 7242, 7246)	6

## **Appendix II**

### **Inventory of contexts**

<b>Context</b>	<b>Trench</b>	<b>Description</b>
1000	All	Top soil
1001	All	Subsoil
1002	38	Cut of gully, running on a north-east alignment
1003	38	Fill of 1002
1004	36	Fourth fill of ditch 1005
1005	36	Cut of ditch, running on an east-west alignment
1006	29	Fill of linear feature 1007
1007	29	Cut of linear feature (possible furrow) running on a north-south alignment
1008	29	Secondary fill of ditch 1010
1009	29	Primary fill of ditch 1010
1010	29	Cut of ditch, running on a north-south alignment
1011	31	Cut of enclosure ditch, running on an east-west alignment
1012	31	Fifth fill of ditch 1011
1013	31	Secondary fill of ditch 1011
1014	31	Primary fill of ditch 1011
1015	31	Revetment wall in 1011
1016	36	Secondary fill of ditch 1005
1017	36	Primary fill of ditch 1005
1018	31	Seventh fill of ditch 1011
1019	30	Cut of ditch, running on an east-west alignment
1020	30	Tertiary fill of ditch 1019
1021	30	Secondary fill of ditch 1019
1022	30	Primary fill of ditch 1019
1023	36	Tertiary fill of ditch 1005
1024	28	Fill of linear feature (furrow?) 1172
1025	28	Fifth fill of ditch 1030
1026	28	Fourth fill of ditch 1030
1027	28	Tertiary fill of ditch 1030
1028	28	Secondary fill of ditch 1030
1029	28	Primary fill of ditch 1030
1030	28	Cut of ditch, running on a north-south alignment
1031	28	Fill of ditch 1032
1032	28	Cut of ditch, running on a north east- south west alignment
1033	28	Fill of linear feature 1034
1034	28	Cut of possible furrow, running on a north-south alignment
1035	31	Tertiary fill of ditch 1011
1036	31	Fourth fill of ditch 1011
1037	27	Fill of ditch 1038
1038	27	Cut of ditch, running on a north west – south east alignment
1039		Not used

<b>Context</b>	<b>Trench</b>	<b>Description</b>
1040		Not used
1041		Not used
1042	27	Cut of oval pit
1043	27	Fill of pit 1042
1044	27	Fill of ditch 1045
1045	27	Cut of ditch, running on a north – south alignment
1046	26	Fill of ditch 1047
1047	26	Cut of ditch, running on a south west – north east alignment
1048	26	Fill of post-hole 1049
1049	26	Cut of post-hole
1050	27	Fill of ditch 1051
1051	27	Cut of ditch, running on a north – south alignment
1052	23	Cut of ditch, running on a north east – south west alignment
1053	23	Secondary fill of ditch 1052
1054	23	Primary fill of ditch 1052
1055	23	Cut of ditch, running on an east – west alignment
1056	23	Fill of ditch 1055
1057	22	Fill of ditch 1058
1058	22	Cut of ditch, running on an east – west alignment
1059	22	Secondary fill of ditch 1061
1060	22	Primary fill of ditch 1061
1061	22	Cut of ditch, running on an east – west alignment
1062	20	Cut of ditch, running on an east – west alignment
1063	20	Fill of ditch 1062
1064	20	Cut of ditch, running on an east – west alignment
1065	20	Fill of ditch 1064
1066	20	Secondary fill of ditch 1068
1067	20	Primary fill of ditch 1068
1068	20	Cut of ditch, running on a north west – south east alignment
1069	20	Secondary fill of post-hole 1070
1070	20	Cut of post-hole
1071	23	Cut of ditch, running on an east – west alignment
1072	23	Fill of ditch 1071
1073	23	Cut of pit
1074	23	Fill of pit 1073
1075	20	Cut of ditch, running on an east – west alignment
1076	20	Fill of ditch 1075
1077	20	Cut of ditch, running on a north – south alignment
1078	20	Fill of ditch 1077
1079	18	Cut of ditch, running on a south east – north west alignment
1080	18	Fill of ditch 1079
1081	22	Fill of pit 1082
1082	22	Cut of pit (modern?)
1083	25	Fill of ditch 1084
1084	25	Cut of enclosure ditch, running in a north – south alignment
1085	20	Primary fill of post-hole 1070

<b>Context</b>	<b>Trench</b>	<b>Description</b>
1086	25	Secondary fill of ditch 1084
1087	25	Fourth fill of ditch 1084
1088	25	Tertiary fill of ditch 1084
1089	25	Fifth fill of ditch 1084
1090	25	Sixth fill of ditch 1084
1091	25	Seventh fill of ditch 1084
1092	25	Eighth fill of ditch 1084
1093	25	Ninth fill of ditch 1084
1094	25	Tenth fill of ditch 1084
1095	25	Revetment wall in ditch 1084
1096	18	Cut of ditch, running on a south east – north west alignment
1097	18	Fill of ditch 1096
1098	25	Fill of gully 1099
1099	25	Cut of gully, running on a north east – south west alignment
1100	25	Secondary fill of ditch 1102
1101	25	Primary fill of ditch 1102
1102	25	Cut of enclosure ditch, running on a north south alignment
1103	25	Fill of pit 1104
1104	25	Cut of pit 1104
1105	88	Circular stone structure
1106	88	Fill of 1105
1107	25	Clay-silt bonding material for wall 1095
1108	18	Fill of shallow ditch 1109
1109	18	Cut of shallow ditch, running on a south west – north east alignment
1110	18	Fill of ditch 1111
1111	18	Cut of ditch, running on a south west – north east alignment
1112	17	Secondary fill of ditch 1114
1113	17	Primary fill of ditch 1114
1114	17	Cut of ditch, running on an east – west alignment
1115	19	Cut of post-hole
1116	19	Fill of post-hole 1115
1117	19	Cut of post-hole
1118	19	Fill of post-hole 1117
1119	17	Fourth fill of ditch 1121
1120	17	Primary fill of ditch 1121
1121	17	Cut of enclosure ditch, running on a north west – south east alignment
1122	17	Primary fill of ditch 1123
1123	17	Cut of enclosure ditch, running on a north west – south east alignment
1124	19	Cut of ditch, running on a north west – south east alignment
1125	19	Primary fill of ditch 1124
1126	19	Secondary fill of ditch 1124
1127	19	Tertiary fill of ditch 1124
1128	19	Cut of post-hole
1129	19	Fill of post-hole 1128

<b>Context</b>	<b>Trench</b>	<b>Description</b>
1130	19	Cut of post-hole
1131	19	Fill of post-hole 1131
1132	18	Cut of ditch, running on a south east – north west alignment
1133	18	Fill of ditch 1132
1134	41	Fill of ditch 1135
1135	41	Cut of ditch, running on an east – west alignment
1136	17	Tertiary fill of ditch 1121
1137	17	Secondary fill of ditch 1121
1138	48	Cut of ditch, running on an east – west alignment
1139	48	Fill of ditch 1138
1140	50	Cut of ditch, running on a north west – south east alignment
1141	50	Fill of ditch 1140
1142	62	Cut of ditch, running on an east – west alignment
1143	62	Fill of ditch 1142
1144	58	Cut of ditch, running on an east – west alignment
1145	58	Fill of ditch 1144
1146	24	Fill of possible quarry pit 1147
1147	24	Cut of quarry pit (?)
1148	68	Cut of possible butted end of a ditch, running on an east – west alignment
1149	68	Fill of ditch 1148
1150	73	Cut of ditch, running on a north – south alignment
1151	73	Fill of ditch 1150
1152	79	Cut of ditch, running on a north – south alignment
1153	79	Fill of ditch 1152
1154	49	Cut of ditch, running on a north west – south east alignment
1155	49	Fill of ditch 1154
1156	49	Cut of gully, running on a north west – south east alignment
1157	49	Fill of gully 1156
1158	66	Fill of pit 1159
1159	66	Cut of pit
1160	53	Cut of ditch, running on a north – south alignment
1161	53	Primary fill of ditch 1160
1162	53	Secondary fill of ditch 1160
1163	56	Fill of ditch 1164
1164	56	Cut of ditch, running on an east – west alignment
1165	50	Cut of ditch, running on an east – west alignment
1166	50	Cut of ditch, running on a north – south alignment
1167	50	Fill of ditch 1166
1168	55	Cut of ditch, running on a north east – south west alignment
1169	55	Fill of ditch 1168
1170	57	Cut of ditch, running on a north east – south west alignment
1171	57	Fill of ditch 1170
1172	28	Cut of possible furrow, running on a north – south alignment
1173	31	Sixth fill of ditch 1011
1174	19	Possible stone structure in ditch 1124

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<b>Context</b>	<b>Trench</b>	<b>Description</b>
1175	50	Fill of ditch 1165
1176	88	Cut of circular structure 1105

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## Appendix III

### Inventory of artefacts

#### Pottery / CBM

Context	Trench	Fabric	Quantity	Period	Description
1000	All	Pottery	10	Late Roman	
1012	31	CBM	5	R/B	Brick fragments
1012	31	Pottery	9	R/B	
1022	30	Pottery	2	Late Roman	
1025	28	Pottery	1	Roman	
1026	28	Pottery	3	R/B	
1029	28	Pottery	1	Roman	
1033	28	Pottery	1	Late Roman	
1053	23	Pottery	1	Roman	
1069	20	Pottery	1	Medieval	Clay pipe
1070	20	Pottery	1	R/B	
1072	23	Pottery	8	Roman	
1087	25	Pottery	5	IA / Saxon?	
1094	25	Pottery	1	Roman	
1106	88	CBM	9	Post Med?	Tiles fragments
1110	18	Pottery	1	Medieval	Clay pipe
1126	19	Pottery	24	Late Roman	
1139	49	Pottery	1	Medieval	Clay pipe
1143	62	Pottery	1	R/B	
1146	24	Pottery	3	Roman	
Total			88		

#### Animal Bones

Context	Trench	Quantity	Description
1008	29	21	Cattle, sheep/goat, large and small-mammal sized
1009	29	1	Large-mammal sized
1012	31	46	Cattle, sheep/goat, dog, large and small-mammal sized
1013	31	26	Cattle, sheep, sheep/goat, dog, horse, large and small-mammal sized
1014	31	7	Cattle, dog, horse, microfauna
1016	36	21	Cattle, sheep/goat, large and small-mammal sized
1020	30	48	Cattle, deer, large-mammal sized
1022	30	21	Cattle, sheep/goat, large and small-mammal sized, undiagnostic
1026	28	45	Cattle, sheep, sheep/goat, dog, horse, large-mammal sized
1029	28	158	Cattle, sheep/goat, dog
1033	28	13	Horse, large-mammal sized, undiagnostic
1037	27	5	Large-mammal sized
1038	20	4	Cattle, sheep/goat, undiagnostic
1044	27	1	Undiagnostic
1046	26	9	Cattle, sheep, sheep/goat
1053	23	42	Cattle, sheep/goat, large and small-mammal sized
1054	23	16	Cattle, sheep, sheep/goat, large-mammal sized

<b>Context</b>	<b>Trench</b>	<b>Quantity</b>	<b>Description</b>
1056	23	51	Sheep, sheep/goat, pig, large, medium and small-mammal sized
1057	22	3	Sheep, horse, small-mammal sized
1059	22	6	Cattle, large-mammal sized
1060	22	2	Undiagnostic
1072	23	11	Cattle, red deer, large-mammal sized, undiagnostic
1081	22	5	Undiagnostic
1083	25	11	Sheep/goat, undiagnostic
1087	25	19	Cattle, sheep/goat, dog, horse, large-mammal sized
1093	25	46	Cattle, pig, dog, horse, large and small-mammal sized
1098	25	23	Large-mammal sized, undiagnostic
1100	25	7	Cattle, sheep, sheep/goat, small-mammal sized
1122	17	1	Small-mammal sized
1126	19	88	Cattle, sheep/goat, pig, dog, horse, large and small-mammal sized
1141	50	6	Cattle, large and small-mammal sized
1146	24	2	Undiagnostic
Total		765	

### ***Human Bones***

<b>Context</b>	<b>Trench</b>	<b>Quantity</b>	<b>Description</b>
1093	25	35	Infant
1119	17	3	Infant
1122	17	7	Infant
Total		45	

### ***Stone and Flint***

<b>Context</b>	<b>Trench</b>	<b>Quantity</b>	<b>Description</b>
1004	36	1	Quern stone?
1016	36	1	Sandstone fragment
1027	28	1	Flint
1054	23	1	Flint
1057	22	1	Charcoal?
1126	19	1	Whetstone?
1155	49	1	Slate
Total		7	

### ***Metal Objects***

<b>Context</b>	<b>Trench</b>	<b>Quantity</b>	<b>Description</b>
1074	23	1	Slag
1120	17	1	Small iron fragment
1120	17	1	Silver wire
1146	24	1	Slag
Total		4	

**Appendix IV****Inventory of samples**

<b>Sample</b>	<b>Trench</b>	<b>Context</b>	<b>Type</b>	<b>Description</b>
1	38	1003	GBA	Primary fill of gully 1002
2	36	1017	GBA	Primary fill of ditch 1005
3	29	1009	GBA	Primary fill of ditch 1010
4	31	1014	GBA	Primary fill of ditch 1011
5	30	1022	GBA	Primary fill of ditch 1019
6	28	1031	GBA	Primary fill of ditch 1032
7	28	1033	GBA	Primary fill of possible furrow 1034
8	27	1037	GBA	Primary fill of possible furrow 1038
9	27	1044	GBA	Primary fill of ditch 1045
10	27	1043	GBA	Primary fill of ditch 1042
11	27	1050	GBA	Primary fill of ditch 1051
12	22	1057	GBA	Primary fill of ditch 1058
13	22	1060	GBA	Primary fill of ditch 1061
14	26	1046	GBA	Primary fill of ditch 1047
15	20	1063	GBA	Primary fill of ditch 1062
16	20	1069	GBA	Fill of post-hole 1070
17	23	1074	GBA	Primary fill of pit 1073
18	23	1054	GBA	Primary fill of ditch 1052
19	23	1072	GBA	Primary fill of gully 1071
20	20	1076	GBA	Primary fill of ditch 1075
21	20	1078	GBA	Primary fill of ditch 1077
22	22	1081	GBA	Primary fill of pit 1082
23	18	1080	GBA	Primary fill of ditch 1079
24	20	1067	GBA	Primary fill of ditch 1068
25	25	1083	GBA	Primary fill of ditch 1084
26	18	1097	GBA	Primary fill of ditch 1096
27	25	1098	GBA	Primary fill of gully 1099
28	25	1101	GBA	Primary fill of ditch 1102
29	18	1108	GBA	Primary fill of possible furrow 1109
30	18	1110	GBA	Primary fill of possible furrow 1111
31	17	1113	GBA	Primary fill of ditch 1114
32	19	1116	GBA	Primary fill of post-hole 1115
33	19	1118	GBA	Primary fill of post-hole 1117
34	17	1120	GBA	Primary fill of ditch 1121
35	17	1122	GBA	Primary fill of ditch 1123
36	19	1126	GBA	Secondary fill of ditch 1124
37	41	1134	GBA	Primary fill of ditch 1135
38	48	1139	GBA	Primary fill of ditch 1138
39	50	1141	GBA	Primary fill of ditch 1140
40	62	1143	GBA	Primary fill of ditch 1142
41	58	1145	GBA	Primary fill of ditch 1144
42	24	1146	GBA	Primary fill of pit 1147
43	68	1149	GBA	Primary fill of ditch 1148

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<b>Sample</b>	<b>Trench</b>	<b>Context</b>	<b>Type</b>	<b>Description</b>
44	73	1151	GBA	Primary fill of gully 1150
45	49	1155	GBA	Primary fill of ditch 1154
46	49	1157	GBA	Primary fill of shallow gully 1156
47	79	1153	GBA	Primary fill of ditch 1152
48	53	1161	GBA	Primary fill of ditch 1160
49	50	1167	GBA	Primary fill of ditch 1166
50	55	1169	GBA	Primary fill of ditch 1168
51	56	1163	GBA	Primary fill of ditch 1164
52	57	1171	GBA	Primary fill of ditch 1170

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## Appendix V

### Osteological and Palaeopathological Catalogue

<b>Context Number</b>	1119
<b>Trench Number</b>	17
Preservation	Moderate
Completeness	Two individuals 10% - left humerus and left femur 3% - distal femoral fragment
Age	Infant - 6 months to 18 months Juvenile – 1 to 2 years
Sex	-
Stature	-
Non-Metric Traits	-
Pathology	New bone formation indicative of growth on femur of older individual
Dental Health	-

<b>Context Number</b>	1122
<b>Trench Number</b>	17
Preservation	Good
Completeness	5% - left femur, 7 rib fragments, 1 vertebral arch fragment
Age	Foetus – 38 weeks <i>in utero</i>
Sex	-
Stature	-
Non-Metric Traits	-
Pathology	-
Dental Health	-

<b>Context Number</b>	1093
<b>Trench Number</b>	25
Preservation	Good
Completeness	Two individuals ? 50% - right clavicle, humerus, radius, ulna, left ulna, femur, tibia and fibula 1% - left ilium (might be the same individual)
Age	Neonate – 40 weeks <i>in utero</i> Foetus – 38 weeks <i>in utero</i>
Sex	-
Stature	-
Non-Metric Traits	-
Pathology	New bone formation indicative of growth on femur of older individual
Dental Health	-

**Appendix VI****CBM catalogue**

Fabric Type	Colour	Munsell	Comments
F1	Light Red	10R/6/8	No visible inclusions
F2	Red	10R/5/5	Vasicular in appearance. No visible inclusions

Context	Trench	Frag	Non-diaa	Wat ams	Th mm	Fabric	CBM Type	Mould sand	Mortar	Mould lip	Comments
1106	88	1	No	550	15	F1	Ridge tile	Yes	Yes	Yes	
1106	88	1	No	250	15	F1	Ridge tile	Yes	Yes	Yes	
1106	88	1	No	130	15	F1	Ridge tile	Yes	Yes	No	
1106	88	1	No	200	15	F1	Ridge tile	Yes	Yes	No	
1106	88	1	No	50	15	F1	Ridge tile	Yes	No	No	
1106	88	1	No	40	15	F1	Ridge tile	Yes	No	No	
1106	88	1	No	40	15	F1	Ridge tile	Yes	No	No	
1106	88	1	No	25	15	F1	Ridge tile	Yes	No	No	
1106	88	1	No	35	15	F1	Ridge tile	Yes	No	No	
1011	31	1	No	110	28	F2	RB	No	No	No	Flat surface
1011	31	1	No	100	20	F2	Ridge/Imbri	No	No	No	Slight curvature
1011	31	1	Yes	15	0	F2	RB	No	No	No	
1011	31	1	Yes	10	0	F2	RB	No	No	No	

## ***Appendix VII***

### ***Written Scheme of Investigation for archaeological evaluation***

***Bramham to Wetherby Upgrading***  
***West Yorkshire***

***Archaeological Trial Trenching***  
***Written Scheme of Investigation***

**Contents**

1. Introduction and Archaeological Background
  2. Aims and Objectives
  3. Method
  4. Archive Preparation and Deposition
  5. Report Preparation, Contents and Distribution
  6. Publication and Dissemination
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  8. Health and Safety
  9. Insurance
  10. Monitoring
  11. Resources
  12. Timetable
- Bibliography  
Figures



## 1. Introduction and Archaeological Background

- 1.1 Archaeological Services WYAS has been commissioned by Mr Rob Sutton of Atkins Heritage to carry out a programme of archaeological evaluation by trial trenching adjacent to the existing A1 prior to the proposed road upgrade along the section between Bramham and Wetherby. This section runs from Spen Common Lane to the south of Bramham (SE 4312 4090) to Sandbeck House on the north-east side of Wetherby at SE 4116 4960, although the majority of the trenching will be carried out immediately west of Boston Spa.
- 1.2 The road upgrading scheme lies within an area of Magnesian limestone, although in discrete areas the permeable limestone is overlain by slower draining Permian mudstones. To the north of the River Wharfe at Wetherby the limestone is overlain by glaciofluvial drift. The soils are predominantly characterised as well drained typical brown calcareous earths of the Aberford Association, but to the north of the River Wharfe though they are less permeable stagnogleyic argillic brown earths of the Bishampton 1 Association (Soil Survey of England and Wales, 1983).
- 1.3 Archaeological work previously undertaken in the area relating to the A1(M) upgrade includes an appraisal report by Northern Archaeological Associates (NAA 1993), and a Cultural Heritage Appraisal Report (BHWB 2001) which outlined thirteen sites that would be affected by the proposed route.
- 1.4 More recently a study mapping and interpreting cropmarks seen on air photographs (Deegan 2002) was completed and this was used in part to determine areas for a geophysical (magnetometer) survey (Webb 2003). This survey, covering approximately 10 hectares, was carried out at several sites. At the two largest sites the results confirmed the presence of 'ladder' settlements comprised of numerous connecting enclosures. Discrete anomalies, indicative of occupational activity, were also identified in most enclosures. Excavations undertaken by the West Yorkshire Archaeology Service during 1990 in the easternmost enclosure at Wattle Syke (the most northerly of the two 'ladder' settlements) revealed a possible roundhouse, three burials, pits and a 'T' shaped oven (WYAS 1991). The excavation confirmed the site to be of Iron Age/Romano-British date.
- 1.5 Two smaller geophysical surveys were carried out to the east of the A1 between Spen Common Lane in the south and Paradise Farm to the north. This area is located on the western periphery of the Spen Common cropmark complex and is also thought to be close to the site of the Battle of Bramham Moor, fought in 1409 between forces of Henry IV and rebellious barons and a Scottish army. The general area of Bramham Moor has also been proposed as the site for several other significant conflicts, including the battles of Winwaed in AD 654 and Vinheidhr and Brunanburh in the 10<sup>th</sup> century. However, only anomalies caused by ridge and furrow ploughing and quarrying activity were identified.
- 1.6 A further programme of detailed magnetometer (fluxgate gradiometer) survey covering approximately 20 hectares was carried out adjacent to the A1(M) on land that may be impacted by the road upgrade a year later (Webb 2004). The proposed survey of a further 18 hectares was not undertaken due to access problems. At the northern end of the corridor anomalies indicative of infilled ditches provided further evidence of the extent of two late Iron Age/early Roman

period 'ladder' settlements and associated field systems. Large areas of magnetic disturbance revealed the extent of quarrying and infilling. At the southern end of the corridor isolated ditch type anomalies have also been identified.

- 1.7 No significant finds or clusters of finds were recovered either through a selective programme of fieldwalking, centred on the settlement areas, or by a metal detector survey undertaken at Bramham Moor.
- 1.8 The results of the geophysical surveys, as well as cropmark information derived from examination of air photographs, has been used, in part, to determine the scheme of works outlined below. It is expected that the results of the trial trenching will help to determine the scope and scale of any further stages of archaeological work that may be carried out in advance of and/or during the groundworks associated with the proposed road upgrade, including the possibility for preservation in-situ of suitable archaeological remains.

## 2. Aims and Objectives

2.1 The aims and objectives of the trial trenching are:

- to determine the date, nature, depth, function and stratigraphic complexity of the features causing the identified magnetic and cropmark anomalies
- to establish the presence/absence of any archaeological features/deposits in the areas where geophysical survey has not previously been undertaken
- to provide an assessment of the potential and significance of any identified archaeological deposits and features in order to inform any decision about the likely scope, cost and duration of any further evaluation and/or excavation works that might be required to mitigate against the proposed road upgrade.

## 3. Method

- 3.1 The evaluation strategy will comprise the opening of 102 trenches, in total covering an area of 4080m<sup>2</sup>. A further five trenches (200m<sup>2</sup>) will be held back for contingency purposes.
- 3.2 The proposed trench dimensions and their rationale are summarised in Table 1 below and their proposed locations illustrated on the attached figures. The trench positions have been based upon the most up to date plan for the proposed upgrading, taking into account the width restrictions of the road corridor, suitability for excavation and previously acquired archaeological data (e.g. desk-based research, air photo mapping, geophysical survey and excavations).

Table 1. Trial trench dimensions and rationale

Trench	Dimensions	Area	Rationale
1	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
2	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
3	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
4	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
5	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor

<b>Trench</b>	<b>Dimensions</b>	<b>Area</b>	<b>Rationale</b>
6	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
7	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor in the vicinity of a WW2 P.O.W. camp
8	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor in the vicinity of a WW2 P.O.W. camp
9	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
10	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor, where a linear feature has been mapped running in this direction
11	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
12	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor, where a linear feature has been mapped running in this direction
13	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor, where a linear feature has been mapped running in this direction
14	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor, where a linear feature has been mapped running in this direction
15	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
16	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
17	20m by 2m	40m <sup>2</sup>	To investigate a linear magnetic anomalies interpreted as ditches
18	20m by 2m	40m <sup>2</sup>	To investigate a linear magnetic anomalies interpreted as ditches
19	20m by 2m	40m <sup>2</sup>	To investigate a linear magnetic anomalies interpreted as ditches
20	20m by 2m	40m <sup>2</sup>	To investigate a linear magnetic anomaly interpreted as a ditch
21	20m by 2m	40m <sup>2</sup>	To investigate a linear magnetic anomaly interpreted as a ditch
22	20m by 2m	40m <sup>2</sup>	To investigate a linear magnetic anomaly interpreted as a ditch
23	20m by 2m	40m <sup>2</sup>	To investigate a linear magnetic anomaly interpreted as a ditch
24	20m by 2m	40m <sup>2</sup>	To investigate a large discrete magnetic anomaly interpreted as a possible quarry pit
25	20m by 2m	40m <sup>2</sup>	To investigate a linear magnetic anomaly interpreted as a ditch
26	20m by 2m	40m <sup>2</sup>	To investigate two parallel linear magnetic anomalies interpreted as ditches
27	20m by 2m	40m <sup>2</sup>	To investigate the possible continuation of two parallel linear magnetic anomalies interpreted as ditches.
28	20m by 2m	40m <sup>2</sup>	To investigate a linear magnetic anomaly interpreted as a ditch
29	20m by 2m	40m <sup>2</sup>	To investigate a linear magnetic anomaly interpreted as a ditch
30	20m by 2m	40m <sup>2</sup>	To investigate a linear magnetic anomaly interpreted as a

<b>Trench</b>	<b>Dimensions</b>	<b>Area</b>	<b>Rationale</b>
			ditch
31	20m by 2m	40m <sup>2</sup>	To investigate a linear magnetic anomaly interpreted as a ditch
32	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
33	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
34	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
35	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
36	20m by 2m	40m <sup>2</sup>	To investigate a linear magnetic anomaly interpreted as a ditch
37	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
38	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
39	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
40	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
41	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
42	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
43	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
44	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
45	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
46	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
47	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
48	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
49	20m by 2m	40m <sup>2</sup>	To evaluate the linear magnetic anomaly interpreted as an archaeological ditch
50	20m by 2m	40m <sup>2</sup>	To evaluate the linear magnetic anomaly interpreted as an archaeological ditch
51	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
52	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures

<b>Trench</b>	<b>Dimensions</b>	<b>Area</b>	<b>Rationale</b>
53	20m by 2m	40m <sup>2</sup>	To evaluate the linear magnetic anomaly interpreted as an archaeological ditch
54	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
55	20m by 2m	40m <sup>2</sup>	To evaluate the linear magnetic anomaly interpreted as an archaeological ditch
56	20m by 2m	40m <sup>2</sup>	To evaluate the linear magnetic anomaly interpreted as an archaeological ditch
57	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
58	20m by 2m	40m <sup>2</sup>	To evaluate the linear magnetic anomaly interpreted as an archaeological ditch
59	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
60	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
61	20m by 2m	40m <sup>2</sup>	To sample along the proposed road corridor adjacent to the known archaeological enclosures
62	20m by 2m	40m <sup>2</sup>	To evaluate the linear crop mark feature interpreted as an archaeological ditch
63	20m by 2m	40m <sup>2</sup>	To sample adjacent to a crop mark enclosure
64	20m by 2m	40m <sup>2</sup>	To sample adjacent to a crop mark enclosure
65	20m by 2m	40m <sup>2</sup>	To sample adjacent to a crop mark enclosure
66	20m by 2m	40m <sup>2</sup>	To sample adjacent to a crop mark enclosure
67	20m by 2m	40m <sup>2</sup>	To sample adjacent to a crop mark enclosure
68	20m by 2m	40m <sup>2</sup>	To evaluate the linear crop mark feature interpreted as an archaeological ditch
69	20m by 2m	40m <sup>2</sup>	To evaluate the curvilinear crop mark feature interpreted as an archaeological ditch
70	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
71	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
72	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
73	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
74	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
75	20m by 2m	40m <sup>2</sup>	To evaluate the linear crop mark feature interpreted as an archaeological ditch
76	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
77	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
78	20m by 2m	40m <sup>2</sup>	To evaluate the linear crop mark feature interpreted as an archaeological ditch
79	20m by 2m	40m <sup>2</sup>	To evaluate the linear crop mark feature interpreted as an archaeological ditch

Trench	Dimensions	Area	Rationale
80	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
81	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
82	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
83	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
84	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
85	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
86	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
87	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
88	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
89	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
90	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
91	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
92	20m by 2m	40m <sup>2</sup>	To sample along this section of the road corridor
93	20m by 2m	40m <sup>2</sup>	To sample across the line of projected crop mark feature
94	20m by 2m	40m <sup>2</sup>	To sample across the line of projected crop mark feature
95	20m by 2m	40m <sup>2</sup>	To sample across the line of projected crop mark feature
96	20m by 2m	40m <sup>2</sup>	To sample across the line of projected crop mark feature
97	20m by 2m	40m <sup>2</sup>	To sample across the line of projected crop mark feature
98	20m by 2m	40m <sup>2</sup>	To sample across the line of projected crop mark feature
99	20m by 2m	40m <sup>2</sup>	To sample across the line of projected crop mark feature
100	20m by 2m	40m <sup>2</sup>	To sample across the line of projected crop mark feature
101	20m by 2m	40m <sup>2</sup>	To sample adjacent to the postulated battlefield site
102	20m by 2m	40m <sup>2</sup>	To sample adjacent to the postulated battlefield site

- 3.3 Archaeological Services WYAS will establish and set out all trench locations using electronic survey equipment (either total station theodolite or differential GPS) based upon digital data.
- 3.4 The trenches will be machine excavated, using an appropriate mechanical excavator fitted with a flat bladed ditching bucket, under direct archaeological supervision, in level spits to either the top of the first archaeological horizon or to undisturbed natural, depending on whichever is encountered first. The resulting surface is to be inspected for archaeological remains and any features tagged. Where archaeological remains require clarification, the relevant area will be cleaned by hand. The resultant spoil will be carefully stockpiled for reinstatement.
- 3.5 Archaeological Services WYAS will hand excavate all archaeological features in an archaeologically controlled and stratigraphic manner in order to meet the aims and objectives of the project.
- Linear features: A suitably sized sample of each feature will be excavated (each sample section to be not less than 1m), of the deposits within linear

features such as boundary or drainage ditches associated with domestic, agricultural, industrial, funerary or ritual enclosures, or fields, or trackways, will be excavated to their full depth. Where possible one section will be located and recorded adjacent to the trench edge.

- Intersections of linear features: The deposits at the junctions of or interruptions in linear features will be totally removed over a sufficient length to determine the nature of the relationship between the components. Excavation of an 'L'-shaped section will be undertaken in the first instance to demonstrate and record relationships and then expanded to the full widths if necessary, planned and recorded.
- Discrete features: Pits, post-holes and other isolated features will normally be half-sectioned to determine and record their form with a minimum sample of 50% of discrete features in each trench. Larger features may be subject to a smaller sample of 25%. The exceptions will be potential sunken-floored buildings, wall-settings, working hollows, floor levels, hearths, kilns, storage pits or other identifiable domestic, agricultural, industrial, funerary or ritual structures or buildings. These will be excavated to a degree whereby their extent, and location are defined and if possible the nature, form, date, function and relationship to other features and deposits may also be established.
- Built structures, such as walls, will be examined and sampled to a degree whereby their extent, nature, form, date, function and relationship to other features and deposits can be established.

3.6 Archaeological Services WYAS shall make a full written, drawn and photographic record of all material revealed in the trench during the course of the evaluation, even where no archaeological features or deposits have been recognised. The trench limits will be surveyed using electronic survey equipment with larger scale hand-drawn plans of the trench illustrating archaeological features at 1:50 or 1:20 scale, as appropriate. Sections of linear and discrete features will be drawn at 1:10 scale. All sections, plans and elevations will include spot-heights related to Ordnance Datum in metres as correct to two decimal places. Survey tie-in information will be undertaken during the course of the evaluation and will be fixed in relation to nearby permanent structures and roads and to the Ordnance Survey National Grid.

3.7 Small finds will be recorded three dimensionally. Bulk finds will be collected by context. All non-modern artefacts recovered will be retained and removed from the site for processing and analysis. Non-modern artefacts will be collected from the excavated spoil. Topsoil and subsoil (if present) will be sample sieved (75 litres per trench) to attempt to recover worked flint objects. If during the course of the initial sampling it is shown that recovery is negative the size of the sample sieved will be reduced. In addition, the spoil heaps will be routinely scanned using a metal detector in the aid of recovering any ancient metalwork contained therein. Finds material will be stored in controlled environments, where appropriate at the Archaeological Services WYAS offices in Morley. All artefacts recovered will be retained, cleaned, labelled and stored as detailed in the guidelines laid out in the IFA Guidelines for Finds Work. Any conservation will be undertaken by approved conservators. UKIC guidelines will apply (UKIC 1990).

- 3.8 Archaeological Services WYAS will fully record all excavated archaeological contexts by detailed written records giving details of location, composition, shape, dimensions, relationships, finds, samples, and cross-references to other elements of the record and other relevant contexts, in accordance with best industry practice and in accordance with the Archaeological Services WYAS recording guidelines. All contexts, and any small finds and samples from them, will be given unique identifying numbers. Colour transparency and monochrome negative photographs will be taken at a minimum format of 35mm.
- 3.9 A soil-sampling programme will be undertaken during the course of the evaluation for the recovery of carbonised and waterlogged remains, vertebrate remains, molluscs and small artefactual material. An environmental specialist will be consulted prior to the commencement of works the excavation in order that a suitable sampling programme is devised.
- 3.10 Environmental material removed from site will be stored in appropriate controlled environments at the Archaeological Services WYAS offices. The collection and processing of environmental samples will be undertaken in accordance with Archaeological Services WYAS standard guidelines which are based upon those set out in the Association for Environmental Archaeology's (1995) Working Paper No. 2, *Environmental Archaeology and Archaeological Evaluations - Recommendations concerning the environmental archaeology component of archaeological evaluations in England* and English Heritage's (2002) guidelines, *Environmental Archaeology. A Guide to the theory and practice of Methods, from Sampling and Recovery to Post-excavation*.
- 3.11 In the event of human remains being discovered during the evaluation these will be left *in situ* by the on site archaeologists, covered and protected, in the first instance. If human remains are identified, Archaeological Services WYAS will inform the Supervising Officer. The removal of human remains will only take place under appropriate Home Office and Environmental Health regulations, and in compliance with the Burial Act 1857.
- 3.12 Archaeological Services WYAS will make provision for the recovery of samples suitable for scientific dating.
- 3.13 All finds that fall within the purview of the Treasure Act 1996 will be reported by to H.M. Coroner according to the procedures outlined in the Act.

#### **4. Archive Preparation and Deposition**

- 4.1 The site archive will contain all the data collected during the exploratory work, including records, finds and environmental samples. It will be quantified, ordered, indexed and internally consistent. Adequate resources will be provided 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 with the site matrix;
- all retained environmental samples will be processed by suitably experienced and qualified staff and recorded using *pro forma* recording sheets, to identify at this stage presence or absence of environmental remains.

4.2 The archive will be assembled in accordance with the specification set out in English Heritage's *Management of Archaeological Projects 2* (English Heritage 1991; Appendix 3). In addition to the site records, data and reports produced during excavation, post-excavation, finds processing, conservation and analysis, and the artefacts, ecofacts and other sample residues, the final archive shall contain:

- a project summary;
- the specification and the approved project design;
- an archive guide (an introduction to the archive stating its principle and layout);
- an index to the contents of the archive;
- interim and post-excavation assessment reports.

4.3 The integrity of the primary field record will be preserved.

4.4 Provision will be made for the deposition of the archive, artefacts and environmental material, subject to the permission of the relevant landowner, in Leeds Museum. Archaeological Services WYAS will be responsible for the deposition of the site archive. Archaeological Services WYAS will adhere to any reasonable requirements the museum may have regarding conservation and storage of the excavated material and the resulting archive. The archive will be prepared in accordance with the *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).

## 5. Report Preparation, Contents and Distribution

5.1 The artefacts, ecofacts and stratigraphic information shall be assessed as to their potential and significance for further analysis.

5.2 The illustrated final report, incorporating a post-excavation assessment, will conform to the requirements defined in English Heritage's *Management of Archaeological Projects 2* (English Heritage 1991). It will include the following:

- a non-technical summary of the entire report;
- a summary of the project's background (including reference to planning application numbers, site codes, the archaeological background and the dates when fieldwork took place);
- a detailed site description;
- an account of the methodology and techniques used and the objectives of the evaluation;

- the results of the evaluation, including phasing and interpretation of the site sequence;
- a post-excavation assessment of the stratigraphic and other written, drawn and photographic records;
- a catalogue and post-excavation assessment of each category of artefact recovered during excavation, including spot-dating, each undertaken by a relevant archaeological specialist and detailing the potential for any further analytical work and recommendations for selection of material to be deposited for long-term storage with the site archive;
- a catalogue and post-excavation assessment of any faunal remains recovered during the excavation, each undertaken by an archaeological specialist and detailing the potential for any further analytical work and recommendations for selection of material to be deposited for long-term storage with the site archive;
- a catalogue of soil samples collected and a post-excavation assessment of the results of the soil sampling programme, undertaken by a relevant archaeological specialist and detailing the potential for any further analytical work and recommendations for selection of material to be deposited for long-term storage with the site archive;
- catalogues and post-excavation assessments and/or summary reports of all scientific dating procedures or other analyses carried out and detailing the potential for any further analytical work and recommendations for selection of material to be deposited for long-term storage with the site archive;
- individual specialist reports to contain non-technical summaries and tabulation of data in relation to site phasing contexts, and presented as unedited appendices to the main report;
- a statement of potential for all categories of evidence, including stratigraphic, artefactual and ecofactual data, a deposit model indicating the likely nature and state of preservation of any archaeological strata, within the limits imposed by the scale of the evaluation;
- recommendations regarding storage and curation requirements;
- an appendix containing a list and summary descriptions of all contexts recorded;
- a summary of the contents of the project archive and its location;
- if further post-excavation work is recommended an outline research design will be prepared, although the implementation of any such work will depend on whether further work is required, and will be the subject of a separate contract and project design;
- a full list of acknowledgments, references and bibliography of all sources used.

5.3 The report will be supported by an overall plan of the site accurately identifying the location of each trench on Ordnance Survey mapping, plus an individual trench plan as excavated (irrespective of results), indicating the location of

archaeological features with supporting section drawings and photographs (including those of finds), where appropriate.

- 5.4 Copies of the final report will be submitted to the Atkins Heritage for distribution to all relevant parties; one will also be included in the project archive prior to deposition. A digital copy in PDF format will also be produced.

## **6. Publication and Dissemination**

- 6.1 The information contained within the assessment report will enable decisions to be taken regarding the future treatment of the archaeology at the site and any material recovered during the evaluation.
- 6.2 If the results of the evaluation do not lead to a further stage of work, it may be possible that the results warrant publication. Where no further work is envisaged, Archaeological Services WYAS will make an allowance for the preparation and publication of a brief note in a local journal outlining the results of the evaluation.
- 6.3 If further work is proposed, the publication of the results of the evaluation will be covered by and included in the requirements for the further work.

## **7. Copyright and Confidentiality**

- 7.1 At the end of the project, Archaeological Services WYAS will assign copyright of all project documentation and reports as defined in the Copyright, Designs and Patents Act 1988 to the Atkins Heritage upon written request. However, Archaeological Services WYAS and/or their subcontractors shall retain the right to be identified as the author(s) of the report and/or its component parts and to be duly referenced as such.
- 7.2 The Client will also retain absolute control over the use and dissemination of any project documentation or reports, although Archaeological Services WYAS may apply in writing for permission to use or disseminate any of the material themselves. Such permission will not be unreasonably withheld.

## **8. Health and Safety**

- 8.1 Archaeological Services WYAS has its own Health and Safety policies compiled using national guidelines and which conform to all relevant Health and Safety legislation.
- 8.2 In addition, Archaeological Services WYAS will undertake a Risk Assessment detailing project-specific Health and Safety requirements, which all members of staff are made aware of prior to on-site work commencing. This will take into account the location of the nearest Accident and Emergency Unit Department to the site, take precautionary measures for overhead and below-ground services, dangers to/from the public and the identification of potential dangers and risks to the archaeologists and approved visitors to the site during fieldwork and when the site is not in operation (e.g. evenings and weekends).
- 8.3 Archaeological Services WYAS will ensure that Health and Safety takes priority over archaeological matters. All necessary precautions will be taken to locate and avoid disturbance to underground services and overhead lines at the outset of the project.

## 9. Insurance

- 9.1 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.

## 10. Monitoring

- 10.1 The work may be monitored by Atkins Heritage who will be afforded the opportunity to inspect the site and the records during any stage of the fieldwork and post-excavation processes. West Yorkshire Archaeology Service – Advisory Services and English Heritage will be invited to view the evaluation work in progress. Such arrangements will be made via Atkins Heritage.

## 11. Resources

- 11.1 Archaeological Services WYAS is an accredited ISO9001:2000 organisation operating to set guidelines, processes and procedures. These are set within a framework that endeavours to carry out the required work and submit the final report in a manner that meets with our client’s specific needs providing quality assurance throughout the project and for the end product. These guidelines, processes and procedures are contained within a Quality Manual and all staff work in accordance with this manual.
- 11.2 Archaeological Services WYAS will ensure that the relevant archaeological personnel involved in the evaluation are professionals and are competent to undertake the work required.
- 11.3 Project personnel :

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Senior Management:	Paul Wheelhouse BA
Project Supervisor:	Marina Rose BA
Assistant Supervisor:	Antony Brown BA
Site Assistants:	TBC
Artefact/ecofact co–ordinator:	Jason Dodds BA
Illustrator/CAD operator:	Andy Swann MAAIS
Photographer:	Paul Gwilliam BA (Hons)

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### **Paul Wheelhouse BA MIFA – Senior Manager**

Over ten years experience including excavation, post-excavation analysis and project management. Graduate of the University of Manchester with a BA in Ancient History and Archaeology. Directed and managed a wide range of archaeological projects of all periods, including the Iron Age/Roman landscapes at Leadenham in Lincolnshire, Catterick Racecourse in North Yorkshire and the Ferrybridge landscape in West Yorkshire. Also has experience of the investigation of battlefields. Member of CBA Yorkshire and the Yorkshire Archaeology Society and has recently been asked to sit on the Liaison Committee for the National Mapping Programme project for Lower Wharfedale.

**Marina Rose BA – Project Supervisor**

Awarded a BSc in Archaeology from the University of Bournemouth in 1997. Seven years experience, mainly in excavation and field survey, on a wide range of both rural and urban sites of all periods in Worcester and Yorkshire. Long-term involvement with the Wood Hall moated manor project and a project on the River Aire excavating and recording 18th-century river craft and associated industrial remains. Has worked for Archaeological Services WYAS since 1999 on a multitude of different sites and has supervised the excavation and evaluation of a number of Iron Age/Romano-British enclosures and field systems from West and South Yorkshire.

## 11.4 Post–excavation specialists :

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Prehistoric pottery specialists:	Blaise Vyner
Roman pottery specialist:	Ruth Leary PhD
Medieval pottery specialist:	Chris Cumberpatch PhD
Flint specialist:	Jason Dodds*
Soils and environmental:	Ruth Young PhD
	Dianne Alldritt MSc
	Jane Richardson PhD*
	John Carrott PhD
Faunal analyst:	Jane Richardson PhD*
Human bone specialist:	Malin Holst MSc
Non-ceramic artefact specialist:	Holly Duncan MIFA
	Hilary Cool PhD
Artefact conservator:	Karen Barker

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\* Archaeological Services WYAS staff

11.5 The list of Archaeological Services WYAS project personnel may be subject to change. A finalised list will be available at the outset to the project if this differs from the above.

11.6 Where possible the external specialists have been contacted and notified of the projected timetable.

**12. Timetable**

12.1 The on-site works will commence as quickly as possible after the receipt of a formal instruction to proceed. At present it is anticipated that work will commence in late October 2004. A site specific 'Risk Assessment' will be prepared in advance of any fieldwork commencing.

12.2 It is anticipated that the final report will be submitted within an agreed period following completion of on-site works, dependant on the availability of any external specialists. If the final report is likely to be delayed an interim report may be produced.

- 12.3 The archive will be deposited with the Leeds Museum following the submission of the final report.

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- UKIC, 1990, *Guidelines for the Preparation of Excavation Archives for Long-term Storage*

Prepared by Alistair Webb BA, September 2004

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