YORK ARCHAEOLOGICAL TRUST

AREA B5, HESLINGTON EAST,

YORK

EVALUATION REPORT

by J.M. McComish

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YORK ARCHAEOLOGICAL TRUST

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YAT York Archaeological Trust

AOD Above Ordnance Datum

BGL Below Ground Level

ABSTRACT

In March 2010, York Archaeological Trust undertook an archaeological evaluation within a field (designated Area B5), located part-way along the southern slope of Kimberlow Hill, Heslington East, the University of York, North Yorkshire. The results of the excavations showed that palaeochannel deposits were present in three of the five trenches excavated, but that archaeologically derived features were poorly preserved, being present in only two of the trenches.

1. INTRODUCTION

Between 19th and 23rd March 2010, YAT undertook an archaeological evaluation within a field (designated Area B5) located on the southern slopes of Kimberlow Hill, Heslington East, the University of York, North Yorkshire (NGR SE 6433 5086; Figure 1). The evaluation was undertaken prior to quarrying Area B5 as a source of clay. The work was commissioned by the University of York, in compliance with a planning condition imposed by City of York Council at the instigation of their Principal Archaeologist, John Oxley. The placement of the trenches (Figure 2) was decided by University of York's Archaeological Consultant, Dr. P.J. Ottaway (PJO Archaeology), on the basis of the results obtained from earlier archaeological works.

The trenches (Figure 2) were positioned to assess

a) Whether Roman occupation seen in Field A3 to the north continued southwards
b) To determine the survival of features seen in trenches 31, 32 and 47 of the 2004 trial work (Macnab 2004, 75-6 and 126-7)
c) To assess the presence or otherwise of palaeochannels in the area

2. METHODOLOGY

All the ground-works were undertaken, under archaeological supervision, with a tracked, 360° excavator fitted with a toothless 2.5m wide ditching bucket. Trenches 22-5 measured c. 5 x 20m while Trench 26 measured 2.5 x 50m.

In the case of Trenches 22-24 the uppermost deposit of plough soil was removed to assess the survival of archaeological features at the interface between the plough soil and underlying deposits. As no features were visible two 0.1m thick spits were removed to further assess the survival of archaeological features, but none were present. The southern half of

each trench was then removed in a series of thin spits to a point where any overlying colluvium deposits had been removed; this was to assess the survival of any features located at a greater depth. Finally the south-westernmost 8 x 2.5m of these trenches was removed to a depth of 1.5m to assess the presence or otherwise of palaeochannels.

Trench 25 was treated almost identically except that following the removal of the plough soil a 0.6m wide strip along the northern side of the trench was trowelled clean to try and locate features seen in earlier trial excavations undertaken in 2004 (Macnab 2004, Trench 32, 76).

In the case of Trench 26 the uppermost deposit of plough soil was removed to assess the survival of archaeological features at the interface between the plough soil and underlying deposits. A 0.6m wide strip along the northern side of the trench was then trowelled clean to define and excavate a number of linear features observed during the machining. The westernmost 8m of the trench was then excavated to a depth of 1.3m to assess the survival of palaeochannel deposits; the sides of the deeper portion proved so unstable that 0.4m in depth of deposits were removed over a 2.5m wide strip to either side of the westernmost 8m of the trench to enable the sides to be battered back; even this did not prevent repeated collapse caused by running sand.

The trenches were recorded following a standard YAT methodology and a series of digital photographs were taken. To avoid re-use of numbers already allocated to works at the site the trenches were numbered 22-26 and the context series began at 28050. The site archive is currently stored with YAT under the Yorkshire Museum accession number YORYM: 2007.6006.

Trenches 22-25 were inspected by Dr. Ottaway on 22 March and were infilled immediately afterwards for safety considerations (the sides of the deeper portions of excavation were highly unstable and had begun to collapse). Trench 26 was infilled immediately after excavation for identical safety reasons.

3. LOCATION, GEOLOGY AND TOPOGRAPHY

The site lies in the easternmost third of the Heslington East development, c. 1km to the south-west of the Grimston Bar Interchange. Area B5 is located on the lower reaches of the south facing slope of Kimberlow Hill, which is a glacial moraine. The highest point on the excavation is the northern side of the Area B5, which is almost aligned with the 15m AOD

contour line. The ground then slopes gently towards the south-east, the lowest point in the field being at c.11m AOD.

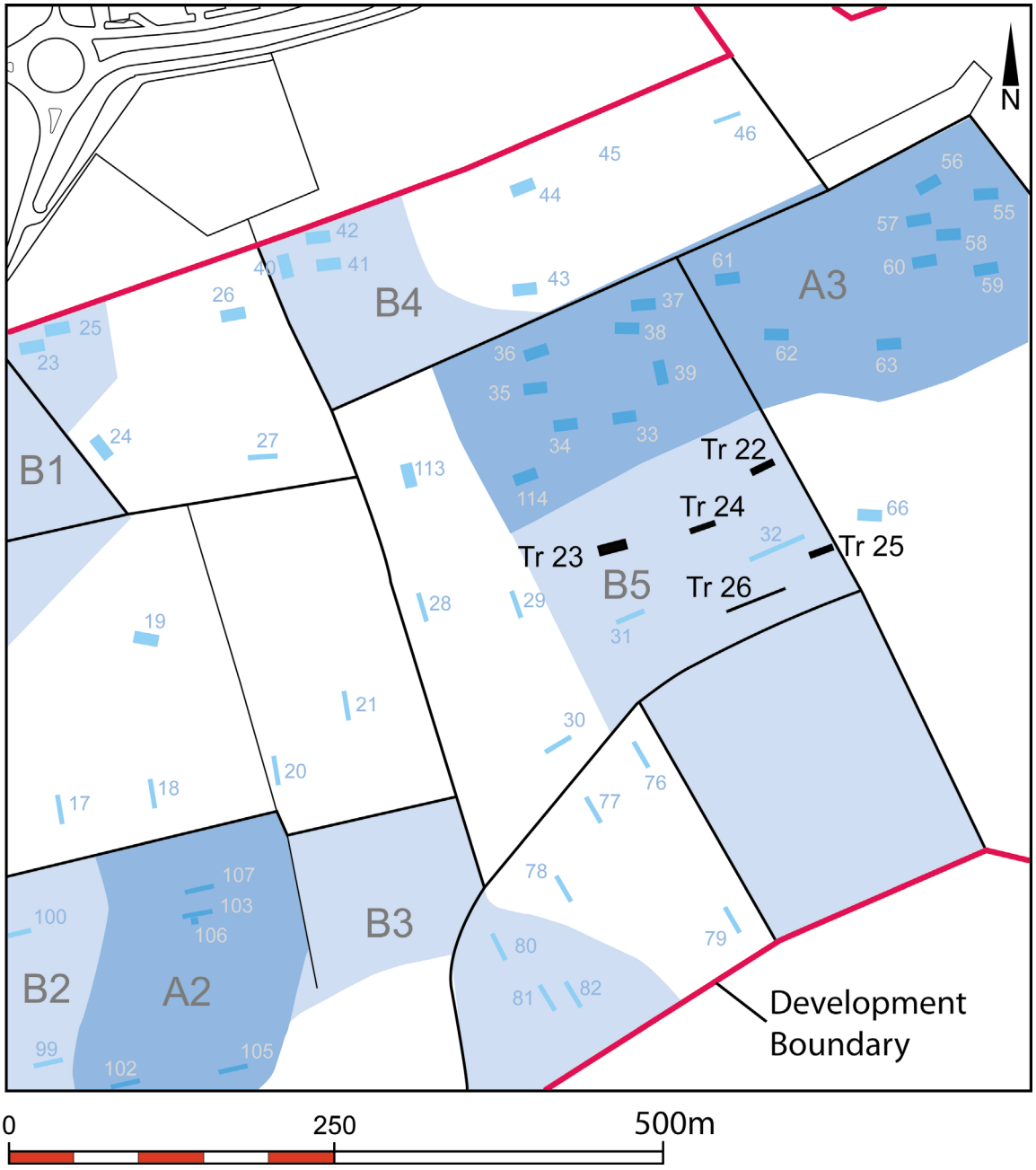

Figure 1 Site location

The solid geology of the area comprises Bunter and Keuper sandstones (Geological Survey of England and Wales, Sheet 63).

4. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

A detailed review of the archaeological and historical background has been prepared for the earlier area A1 and A2 excavations at the Heslington East site (Antoni, McComish and Johnson forthcoming); in the interest of brevity the results are not repeated here.

5. RESULTS

5.1 TRENCH 22

Trench 22 (Figure 3, Plate 1) was located in the north-eastern corner of Area B5; it measured 5 x 19.6m in area and was machine excavated to a depth of between 0.8-1.5m BGL.

Plate 1 Trench 22 facing east, scale unit 0.1m

The earliest deposit observed (Context 28054) was naturally occurring and formed part of the glacial moraine. This deposit comprised mid brown slightly sandy-clay with frequent small stones up to 0.05 x 0.08m in size and moderate cobbles up to 0.15 x 0.15 x 0.2m in size. This deposit was only seen in the south-westernmost portion of the trench, where excavation was deepest, and it continued beneath the depth limits of the excavation. The uppermost surface of Context 28054 was at c. 14.04-14.24m AOD.

In the south-easternmost corner of the trench the earliest deposit seen was mid orange-brown clayey-sand with frequent gravel and cobbles up to 0.08 x 0.8m, and occasional very large cobbles up to 0.3 x 0.25 x 0.25m in size (Context 28052). The stratigraphic relationship

between contexts 28052 and 28054 is unknown. Context 28052 could represent either the continuation of the stony natural 28054 eastwards, or the lower levels of colluvium of post-glacial date.

Sealing both 28054 and 28052 was a deposit of mid-dark brown clayey-sand up to 1.11m thick with frequent gravel, small stones and cobbles up to 0.08x0.08m in size and occasional large stones up to 0.3 x 0.2 x 0.25m in size (Context 28051). This context was very similar in nature to 29052, though with a slightly higher clay content. Within context 28051, in the north-western corner of the trench, was a pocket of pale yellow sand with frequent cobbles up to 0.08 x 0.08m in size (Context 28053). Contexts 28051 and 28053 represent colluvium of post-glacial date.

The uppermost deposit of plough soil (Context 28050) was c.0.24m thick and comprised mid-brown sandy clay with occasional small stones up to 0.04 x 0.03m in size. The height of the ground level of the trench varied from 15.39-15.43m on the southernmost side of the trench to 15.79-15.80m on the northern side of the trench.

5.2 TRENCH 23

Trench 23 (Figure 3, Plate 2) was located in the north-western portion of Area B5. The trench was 5 x 20.4m in extent and was machine excavated to a depth of between 0.4-1.5m BGL. It was not possible to draw a section of the deepest portion of this trench as the sides were too unstable for safe working.

The earliest deposit within the trench (Context 28060, Plate 3) was naturally occurring clean pale yellow to pale grey-yellow sand with occasional rounded cobbles up to 0.08 x 0.12m in size and one large cobble 0.25 x 0.17 x 0.1m in size. This deposit was in excess of 0.8m thick, and continued beneath the depth limits for excavation, and the lack of lamination within this deposit showed that it was not a palaeochannel backfill. The uppermost surface of Context 28060 was at c.13.50-13.7m AOD.

Sealing the natural sand was a 0.45m thick deposit of light brown slightly clayey-sand with occasional small stones up to 0.03m x 0.02m in size (Context 28059). This deposit was interpreted as being colluvium of post-glacial date. A modern animal burrow (Context 28058) had disturbed the upper surface of 28059; the burrow was a neat circular hole 0.12m in diameter, running at an angle of 45 degrees into the hillside descending to a depth of 0.8m below ground level in the northern side of the trench. The burrow was largely devoid of soil, but where it had collapsed the void had been infilled with mid-brown sandy-clay with occasional small stones up to 0.04 x 0.03m in size (Context 28057).

Plate 2 Trench 23 facing west, scale unit 0.1m

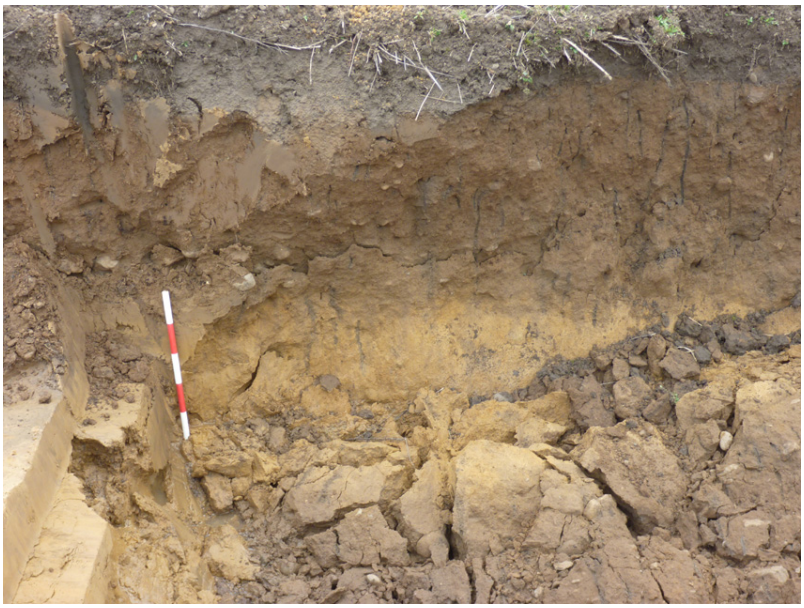

Plate 3 Trench 23 southern section, facing south, Context 28060 adjacent to the scale, scale unit 0.1m

The uppermost deposit observed within the trench was plough soil c.0.34m thick (Context 28056) which comprised mid-brown sandy-clay with occasional small stones up to 0.04 x 0.03m in size; a single fragment of 13-16th century roof tile was present within the plough soil (not retained). The height of the ground level of the trench varied from 14.09-14.21m on the southernmost side of the trench to 14.47-14.60m on the northern side of the trench.

5.3 TRENCH 24

Trench 24 (Figure 4, Plate 4) was located almost centrally in Area B5; it measured 5 x 21.4m in area and was machine excavated to a depth of between 0.43-1.5m BGL.

Plate 4 Trench 24 facing west, scale unit 0.1m

The natural within the trench (Context 28071) was mid-brown slightly sandy-clay with frequent small stones up to 0.05 x 0.08m in size and moderate cobbles up to 0.15 x 0.15 x 0.2m in size. The upper surface of this deposit, which was at c.13.7m AOD, was only seen in the south-westernmost portion of the trench and it continued beneath the depth limits of excavation. It is possible that this deposit represents the continuation of the stony natural (Context 28054) seen to the north-east in Trench 22.

Sealing the natural were a series of deposits of sand which represented the infilling of a palaeochannel (Plate 5). It was not possible to draw a section through these deposits, or to examine them, in detail, as the sides of the trench were too unstable for safe working. The earliest palaeochannel infill was soft pale yellow laminated sand, Context 28070, which was 0.06m thick. This was sealed by laminated grey-black sand, Context 28069, up to 0.07m thick, which was in turn below laminated yellow sand 0.28m thick (Context 28068). Sealing 28068 was a second band of by laminated grey-black sand up to 0.09m thick, Context 28067. This was in turn beneath soft pale yellow-grey sand (Context 28066) with occasional rounded cobbles up to 0.06 x 0.012 in size; this deposit was 0.34m thick and extended across the entire southernmost half of the trench; this represented the uppermost deposit

within the palaeochannel. The palaeochannel backfill deposits were rising-up the western end of the trench (Plate 6), suggesting that the westernmost limits of the palaeochannel were just beyond the western limits of excavation.

Plate 5 Trench 24 section through the palaeochannel deposits facing north-west, scale unit 0.1m

Plate 6 Trench 24 section through the palaeochannel deposits facing south,

Above Context 28066 was a 0.43m thick deposit of mid grey-brown moderately compacted clayey-sand with occasional cobbles up to 0.13m x 0.08m in size but typically 0.07 x 0.05m in size (Context 28065); within this deposit was a naturally occurring patch of cobbles 0.8 x 0.8m in extent, the cobbles being up to 0.08 x 0.08m in size (Plate 7). Context 28065 was interpreted as colluvium of post-glacial date.

Plate 7 Trench 24, cobbles within Context 28065, facing east, scale unit 0.1m

A modern field drain ran diagonally across the trench on a north-west to south-east alignment. The cut for the drain was 0.15m wide with vertical sides and a flat base (Context 28064), and contained a ceramic field drain (Context 28063) comprising square cross-sectioned pipes 0.34m x 0.075 x 0.075m in size, with a groove running centrally down each side and a circular bore. The backfill of the cut was mid-brown sandy-clay with frequent gravel (Context 28062). This was sealed by plough soil (Context 28061) c.0.34m thick, comprising mid-brown sandy-clay with occasional small stones up to 0.05 x 0.04m in size. The height of the ground level of the trench varied from 13.7-13.71m on the southernmost side of the trench to 14.08-14.1m on the northern side of the trench.

5.4 TRENCH 25

Trench 25 (Figure 4, Plate 8) was located parallel to the southern limits of area B5. The trench was 5 x 20m in extent and was machine excavated to a depth of between 0.40-1.5m BGL

The earliest deposits within Trench 25 were a series of laminated silty-sands and sands interpreted as the infilling of a palaeochannel (Plate 9). The earliest was soft pale yellow laminated silty-sand, Context 28085, which was in excess of 0.08m thick. This was sealed by laminated grey-black sand, Context 28084, up to 0.1m thick, which was in turn below laminated pale grey silty-sand 0.08m thick (Context 28083). Sealing 28068 was laminated yellow sand up to 0.26m thick, Context 28082, which was in turn beneath laminated pale grey sand up to 0.09m thick (Context 28081). The uppermost of these deposits, Context 28080, was soft pale yellow-grey sand 0.16m thick.

Plate 8 Trench 25 facing west, scale unit 0.1m

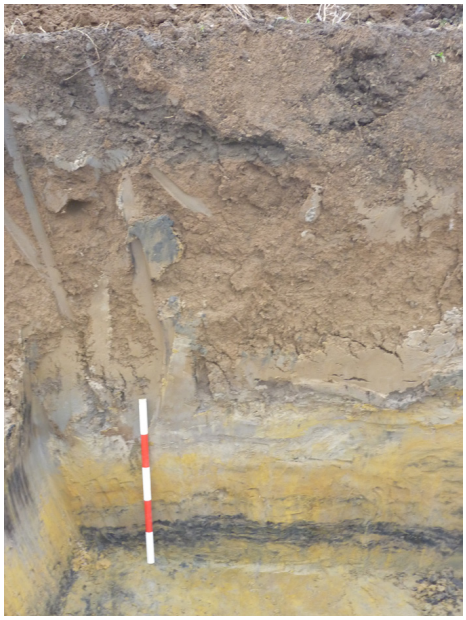

Plate 9 Trench 25 section through the palaeochannel deposits (immediately adjacent to the scale), facing south, scale unit 0.1m

The palaeochannel deposits were sealed by mid brown sandy-clay (Context 28079) which was interpreted as colluvium. Truncating the upper surface of 28079 there were two linear cuts aligned north-north-west to south-south-east. The westernmost cut (Context 28075, Plate 10) was 2m wide and 0.04m deep with barely perceptible sides and a slightly uneven base; it was backfilled with mid-brown sandy-clay (Context 2074). The easternmost cut (Context 28077) was 1.8m wide and 0.14m deep with barely perceptible breaks of slope at the surface, very gently sloping sides and a concave base; this was backfilled with mid brown sandy-clay (Context 28076). Both these features were interpreted as the poorly preserved remains of furrows from a ridge and furrow field system. The upper surface of

28079 was also truncated by a number of tiny animal burrows, each forming a circular void 0.06m in diameter; these were collectively numbered 28078).

Sealing the above features was a deposit of mid brown sandy-clay (Context 28073). This was indistinguishable in composition from the earlier deposit 28079, and may represent further colluvium. Three fragments of 13-16th century plain tile and two tiny fragments of abraded Roman brick were present within this deposit (none of which were retained); all of these artefacts were located in the uppermost few centimetres of the deposit, close to the interface with the plough soil.

Plate 10 Trench 25 facing east with Context 28075 directly beneath the scale, scale unit 0.1m

The plough soil (Context 28072) was c.0.3m thick and comprised mid-brown sandy clay with occasional small stones up to 0.05 x 0.04m in size. The height of the ground level of the trench varied from 11.61-11.73m AOD on the southernmost side of the trench to 11.75-11.89m on the northern side of the trench.

5.5 TRENCH 26

Trench 26 (Figure 5, Plate 11) was located in the north-western corner of Area B5; it measured 2.5 x 50 in area and was machine excavated to a depth of between 0.4-15m BGL.

Plate 11 Trench 26 facing east, scale unit 0.1m

Within Trench 26 the earliest deposits were a series of laminated silty-sands interpreted as the infilling of a palaeochannel (Plate 12). While it was possible to draw a section through these deposits, they were highly unstable rendering photography difficult as the sides of the trench constantly collapsed. The earliest of these deposits was soft pale yellow laminated silty-sand, Context 28111, which was 0.06m thick, which was sealed by laminated grey-black silty-sand, Context 28110, up to 0.3m thick. This was beneath laminated pale yellow silty-sand 0.27m thick (Context 28109), which was in turn below laminated pale dark-grey and yellow silty-sand (Context 28108) 0.13m thick. The uppermost of these deposits (Context 28107) was soft pale grey silty-sand up to 0.13m thick. The deposits described above were only visible in the westernmost portion of the trench where excavation was deeper. Roughly 27m to the east of the deposits described above was a pale-grey silty-clay (Context 28105) which was exposed in a linear band aligned north-west to south-east; this probably

represents the continuation of the palaeochannel deposits, the linear shape of the deposit being coincidental, having been exposed by machining over a limited area.

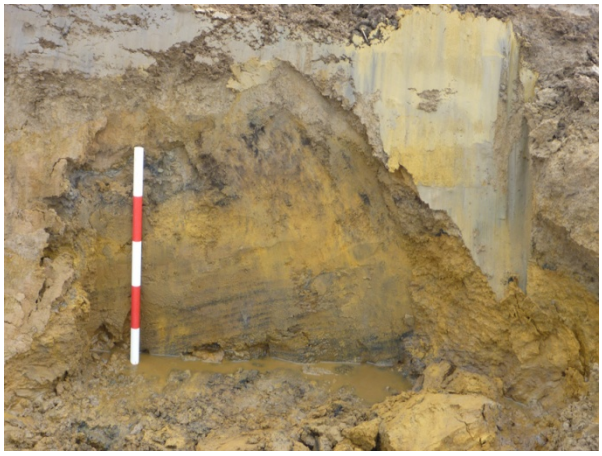

Plate 12 Trench 26 palaeochannel deposits facing east, scale unit 0.1m

The palaeochannel deposits were sealed by mid brown slightly silty-clay with occasional small stones up to 0.05 x 0.05m in size (Context 28106). At the easternmost end of the trench there was a deposit of mid brown slightly silty-clay with frequent small stones up to 0.1x0.08x0.06m in size, but typically 0.03 x 0.03 x 0.03m in size (Context 28104); this deposit petered out on the western side where it merged with 28016. These deposits both represented colluvium.

Truncating the upper surface of 28106 there were two linear cuts aligned north-north-west to south-south-east. The westernmost cut (Context 28096, Plate 13) was 0.15m wide and 0.06m deep with a sharp break of slope at the surface, gently sloping sides and a concave base. The backfill of this feature (Context 28095) was compact mid brown silty-clay with very occasional gravel and a single fragment of Roman brick 5 x 2 x 2mm in size (not retained). The easternmost cut (Context 28091, Plate 14) was 0.8m long, 0.08m wide and 0.04m deep; it petered out at the southern end and had a barely perceptible break of slop at the surface, concave sides and a concave base. The backfill of this cut was mid brown compact silty-clay (Context 28090) which did not contain any artefacts.

Four modern field drains were present, all aligned north-west to south-east. In each case they comprised a linear cut 0.15m wide with vertical sides and a flat base, containing ceramic field drains of square cross-sectioned pipes 0.34m x 0.075 x 0.075m in size, with a groove running centrally down each side and a circular bore; the cuts were backfilled with mid-brown sandy-clay with frequent gravel. From west to east the cuts were numbered

contexts 28103, 28099, 28094 and 28089, the ceramic drains contexts 28102, 28098, 28093 and 28088, and the backfills contexts 28101, 28097, 28092 and 28087. In addition to the field drains there was a barely perceptible groove (Context 28100 Plate 15) aligned almost east-west visible in the western half of the trench; this was only 0.03m wide and 0.01m deep with no discernible backfill; it probably represents a modern ploughing-scar

Plate 13 Trench 26 facing east, with Context 28096 to the immediate north of the scale, scale unit 0.1m

Plate 14…Trench 26 Context 28091 facing east, scale unit 0.1m

Sealing all the contexts described above was plough soil (Context 28086) which was c.0.28m thick and comprised mid-brown sandy-clay with occasional small stones up to 0.05 x

0.04m in size. The height of the ground level of the trench varied from 10.95-10.97m AOD on the southernmost side of the trench to 11.02-11.04m on the northern side of the trench.

Plate 15 Trench 26 Context 28100 immediately north of the scale, facing east, scale unit 0.1m

5.6 DISCUSSION

Natural deposits relating to the glacial moraine were seen in Trenches 22-4. As would be expected along a glacial moraine the natural deposits were highly variable in composition , though as a general trend they became increasingly stony towards the north-eastern corner of Area B5; the natural in the north-western portion of the area was pure sand (Trench 23), which changed eastwards to stony sandy-clay (Trench 24).and stony slightly sandy-clay (Trench 22).

Cutting into the moraine deposits was a palaeochannel aligned north-north-west to south-south-east, i.e. at right angles to the moraine (Kimberlow Hill). This channel is one of a series of similar channels running off the glacial moraine. On the upper portions of Area B5 the westernmost limit of the palaeochannel were probably very close to the western limit of excavation of Trench 24, and the eastern limit was somewhere between Trenches 22 and 23. While the precise limits of the palaeochannel at the southern side of Area B5 are unknown, the channel had clearly widened-out as it progressed southwards down the hill, covering the whole of Trench 26 and at least the westernmost 8m of Trench 25. The infilling of the channel with sand and silty-sand seems to have formed an uninterrupted process; there was no clear evidence for naturally-occurring re-aligning of the channel, as seen in

Area B6 (Antoni forthcoming, 23). In addition the Area B5 palaeochannel did not seem to have formed a focus for human activity as has been observed elsewhere on the Heslington East site, notably in Areas A1 (Antoni, McComish and Johnson forthcoming) and in Trench 20 of Area B6, (Antoni forthcoming,). It should also be noted that there were no organic deposits within the Area B5 palaeochannel, so no environmental samples were taken; the date at which the infilling of the channel occurred is therefore unclear.

Colluvium was present in all five trenches, and as was the case with the natural, the colluvium was stonier in the north-easternmost portion of Area B5. The colluvium was stoniest in Trench 22, becoming less stony in Trenches 24-5, and almost devoid of stones in Trenches 23 and 26. The presence of stones in the north-eastern portion of the trench may be due to a pocket of stony natural in the north-eastern portion of Area B5 and slightly to the north of it, or it could be the result of erosion of a Roman road surface seen in Trench 38 of the 2004 archaeological investigations (Macnab 2004, 98-9), with the resultant material being deposited down-slope.

Very little evidence for the survival of archaeological features was observed within the trenches; the only features present were located in the south-eastern portion of Area B5 in Trenches 25 and 26, and even here the features were of a very shallow nature having been almost ploughed-out.

It had been hoped that a linear ditch and a number of furrows seen in Trial Trench 31 of the 2004 archaeological investigations (Macnab 1004, 74-5) would be present within Trench 23, however, none of these features were observed. In the case of the ditch this may have petered out as it ran up the hill or changed alignment so as to run west of Trench 23.The furrows presumably petered out northwards.

Trench 25 was located to try and find the continuation of a curving cut-feature and plough furrow seen in Trial Trench 32 of the 2004 archaeological investigations (Macnab 1004, 75-6). While the curving feature was not seen within Trench 25 two furrows were located, showing that the ridge and furrow system was present over the south-easternmost portion of Area B5. Unfortunately no conclusive evidence was recovered from the furrows to suggest whether they were of medieval or post-medieval date.

Trench 26 was located to determine if two linear north-south aligned features seen in the westernmost 4m of Trial Trench 47 of the 2004 works (Macnab 1004, 126) continued northwards. These features were not seen, presumably terminating to the south of Trench

26. Two other shallow gullies of uncertain function and date were present, however, within the central portion of Trench 26.

In conclusion Area B5 offers little potential for further archaeological work. The palaeochannel seen did not provide evidence of human activity or organic deposits suitable for carbon 14 dating. In addition the preservation of archaeological features in Area B5 was limited.

6. LIST OF SOURCES

Antoni, B., McComish, J. M., and Johnson, M., forthcoming. *The University of York, Heslington East, York,* YAT Assessment Report

Antoni, B., forthcoming. *Area B6, Off Low Lane, Heslington East, York*, YAT Assessment Report

Macnab, N., 2004. *Heslington East, Heslington, York, A report on an Archaeological Evaluation*, YAT Evaluation Report 2004/23

7. ACKNOWLEDGEMENTS

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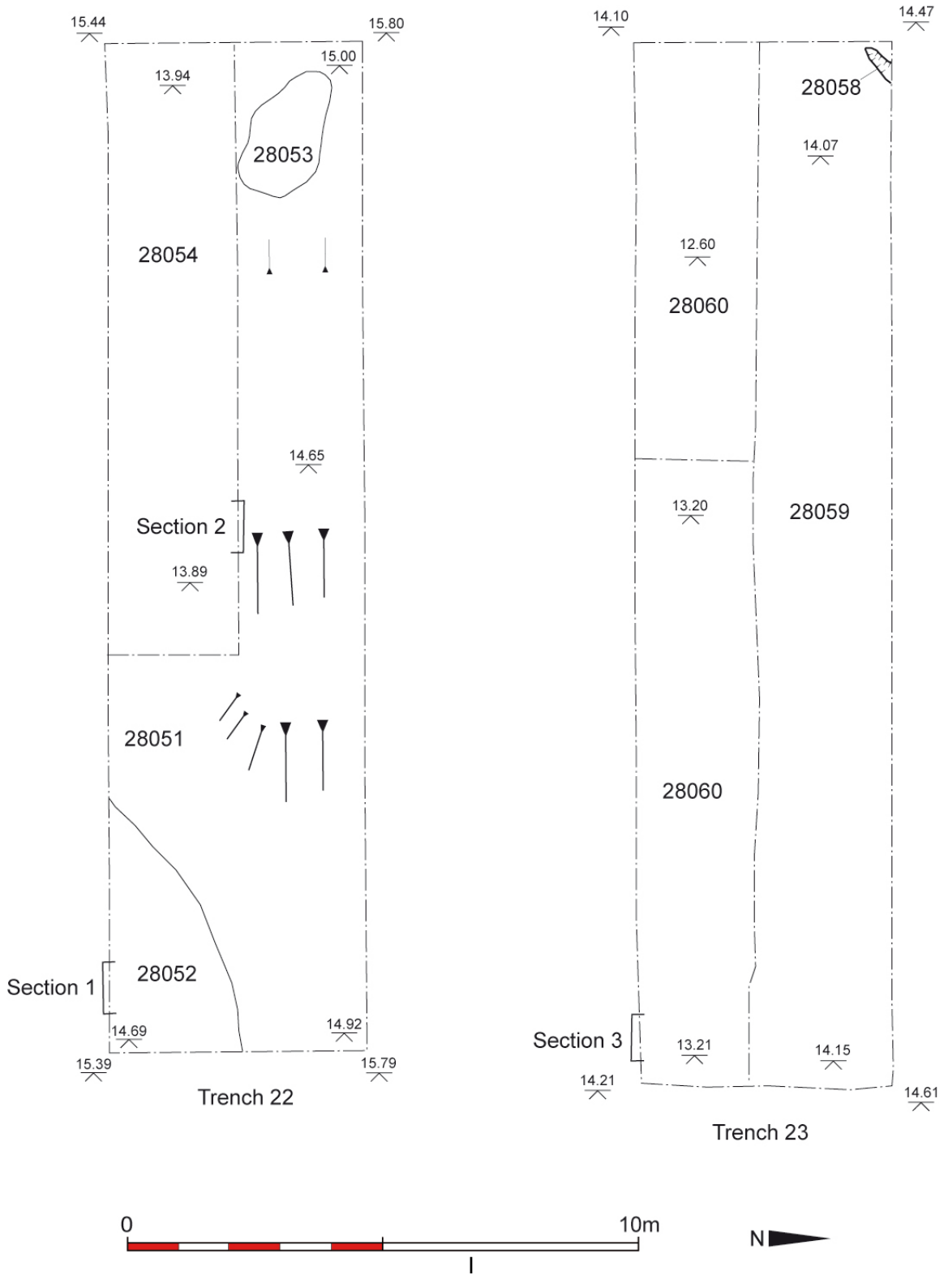


Figure 2 Trenches 22 and 23

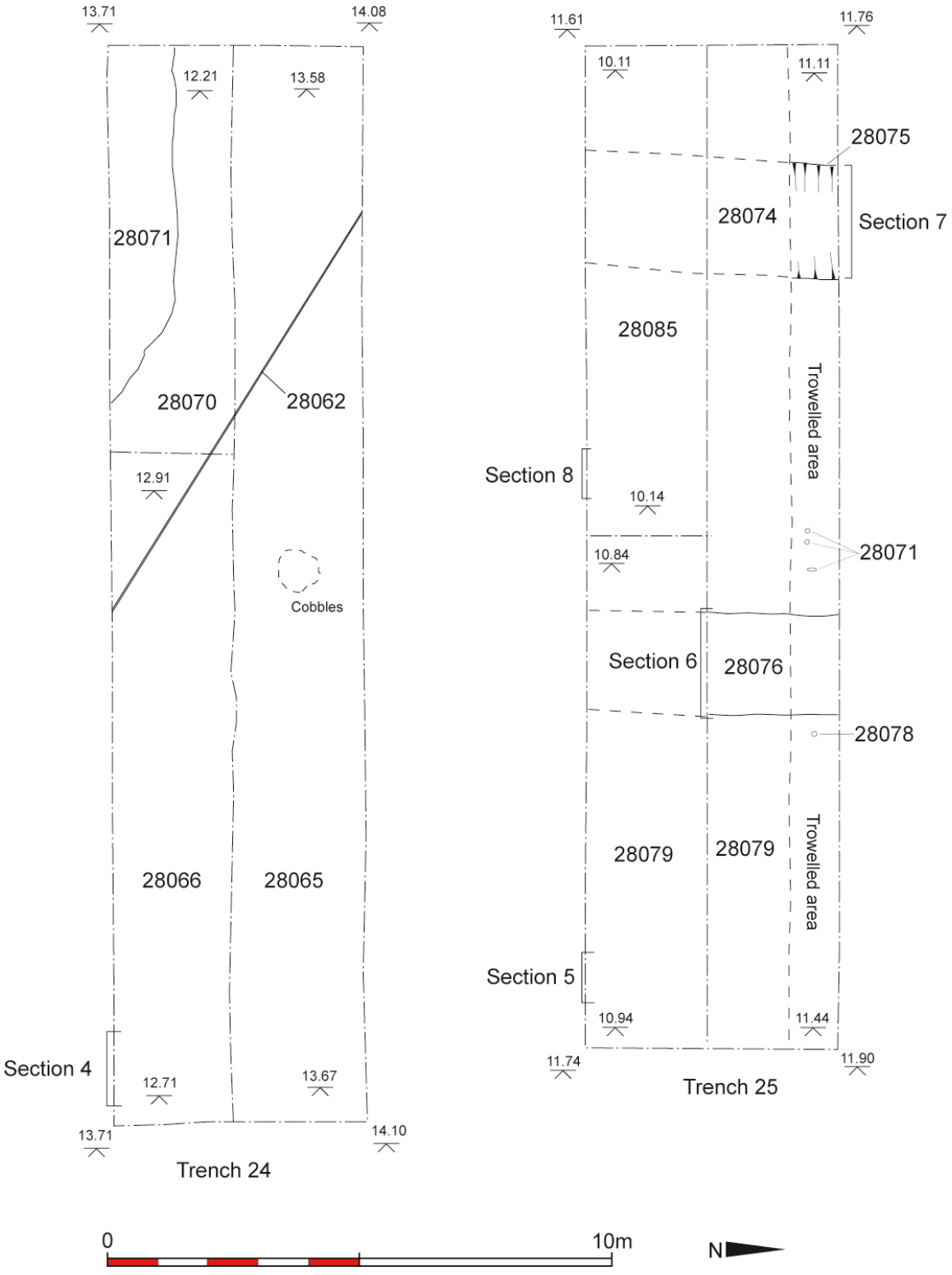


Figure 3 Trenches 24 and 25

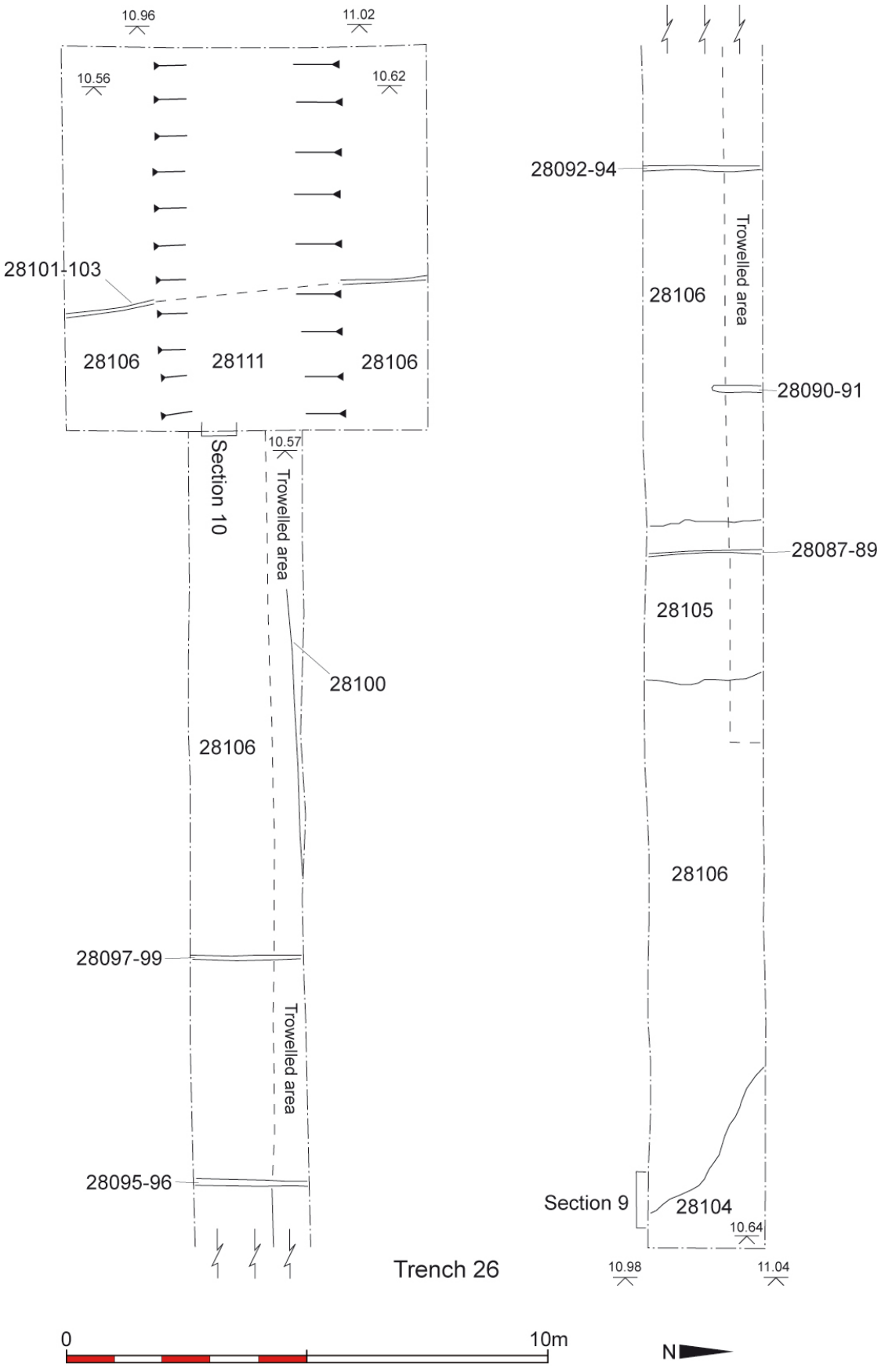


Figure 4 Trench 26

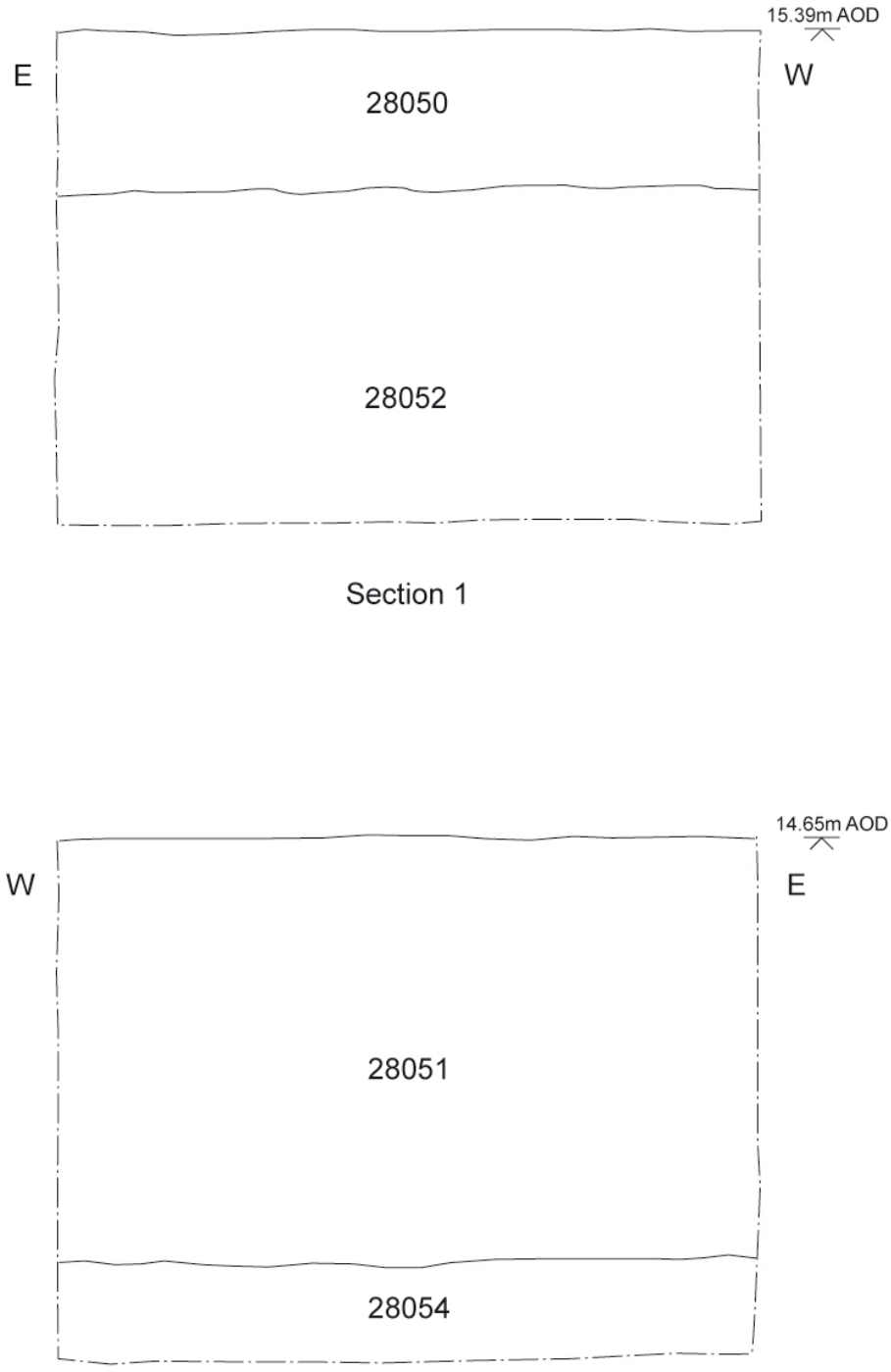


Figure 5 Trench 22 Sections 1 and 2

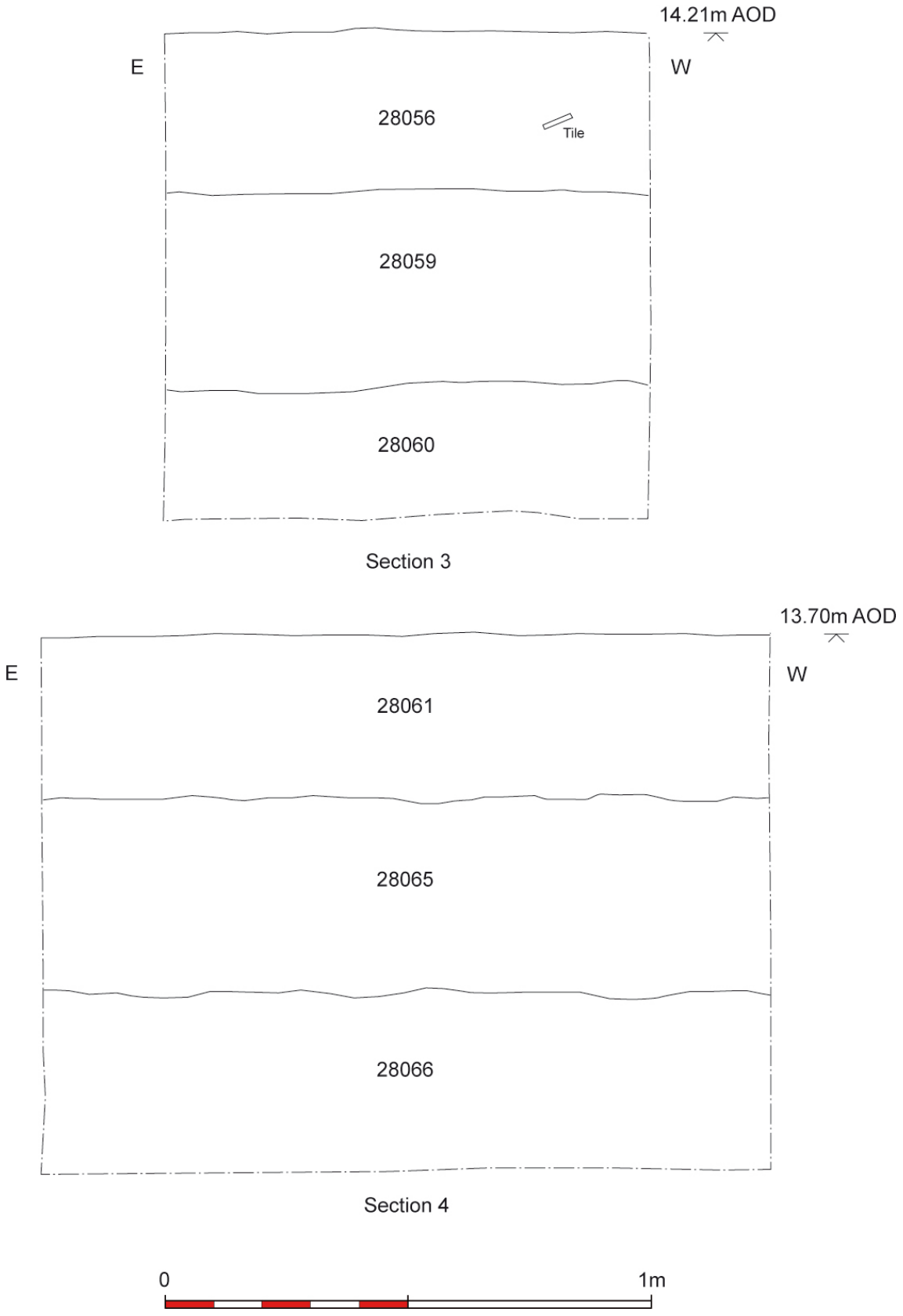


Figure 6 Trench 23 Section 3 and Trench 24 Section 4

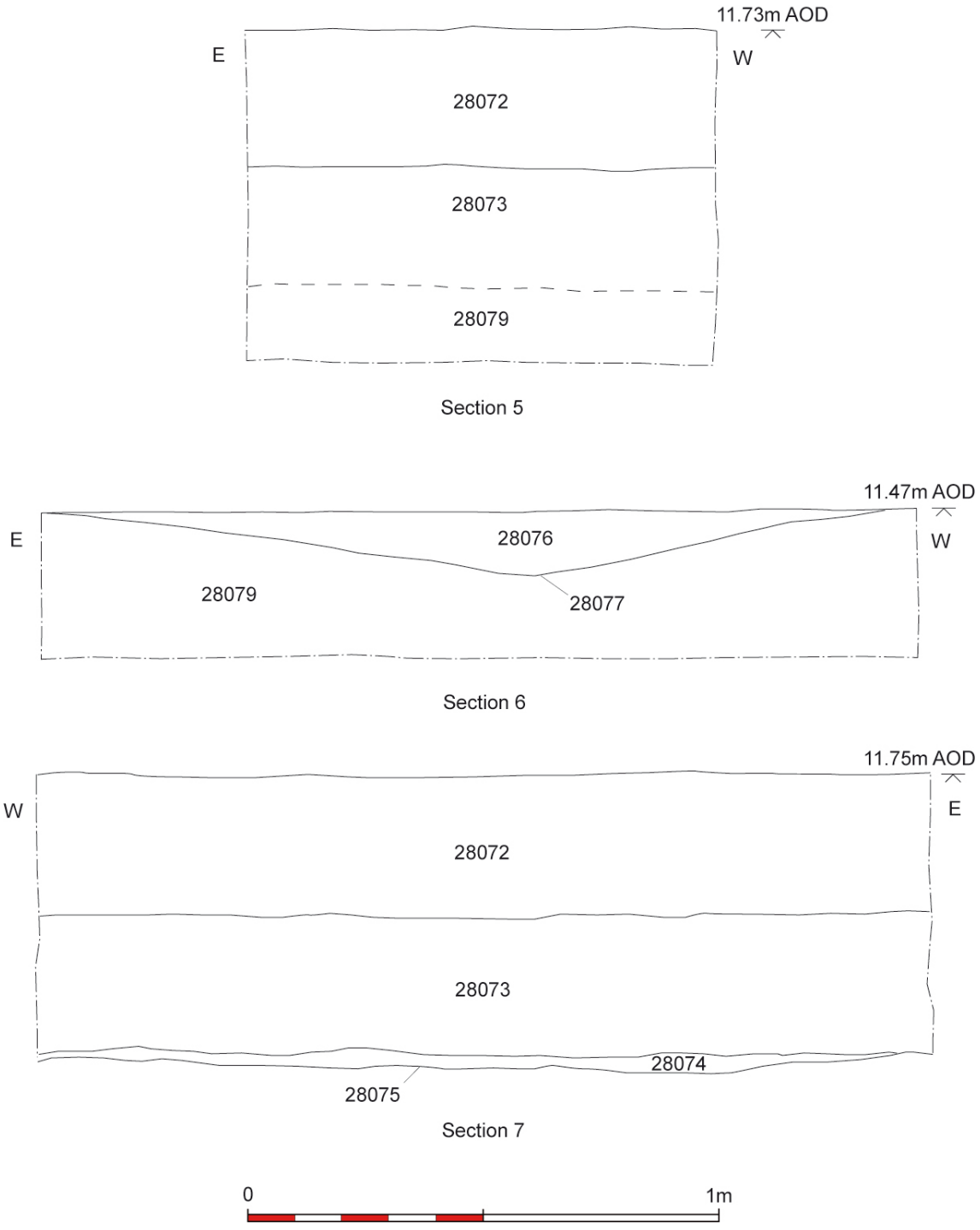


Figure 7 Trench 25 Sections 5, 6 and 7

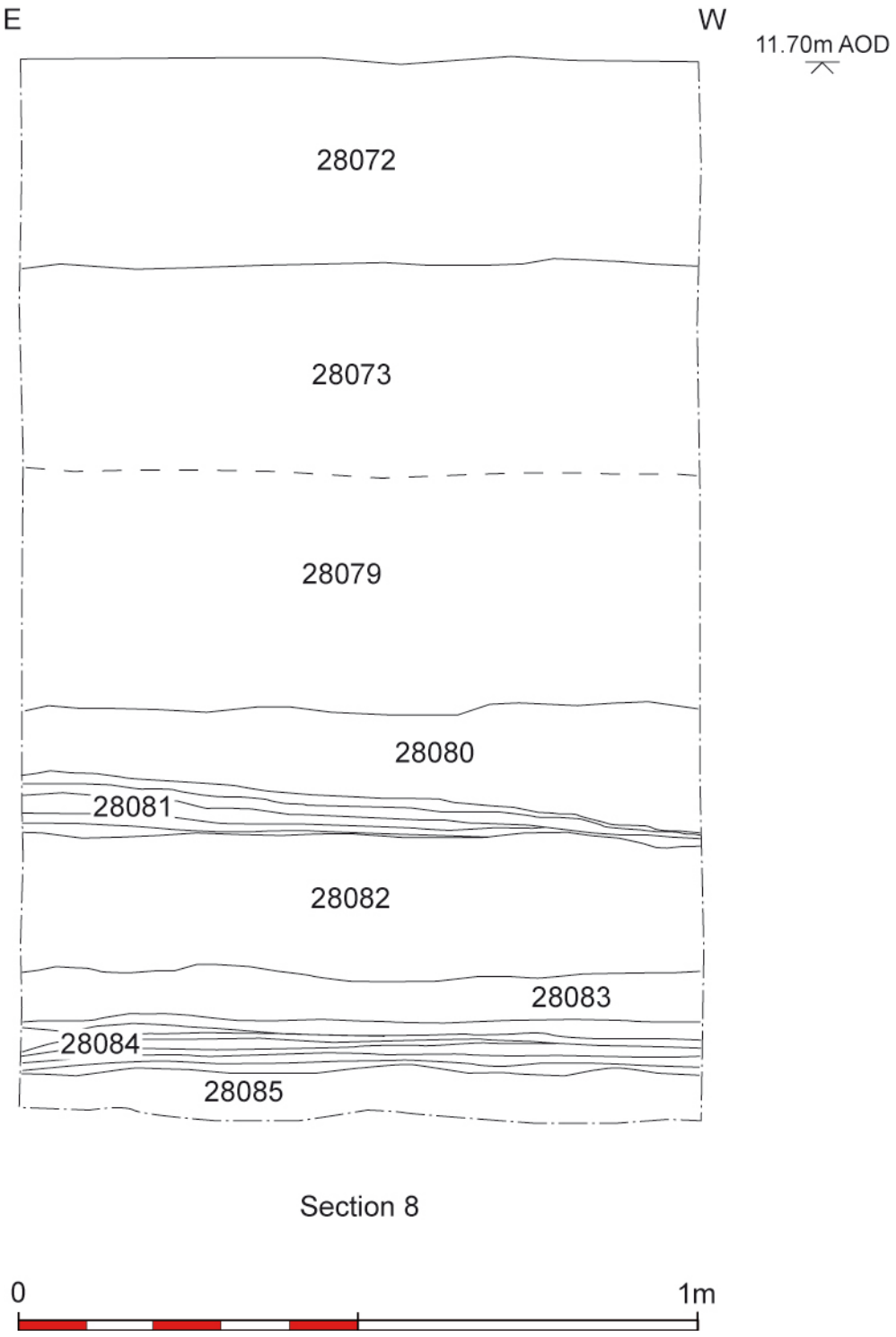
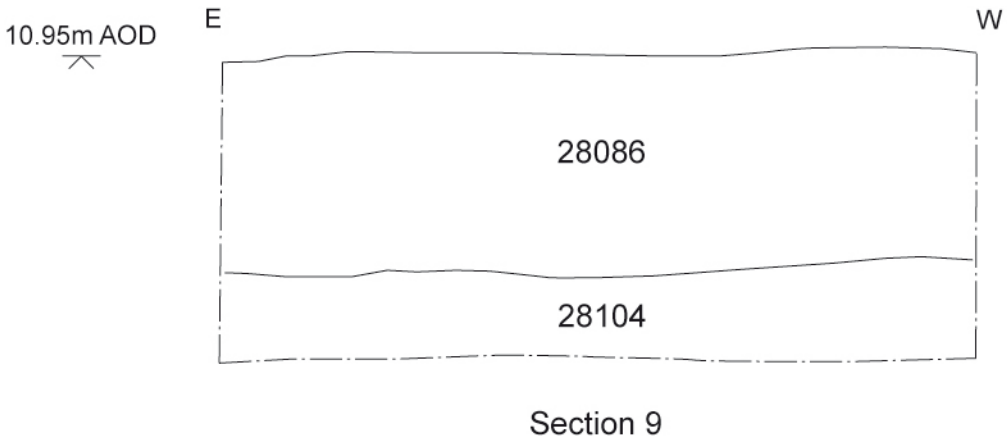
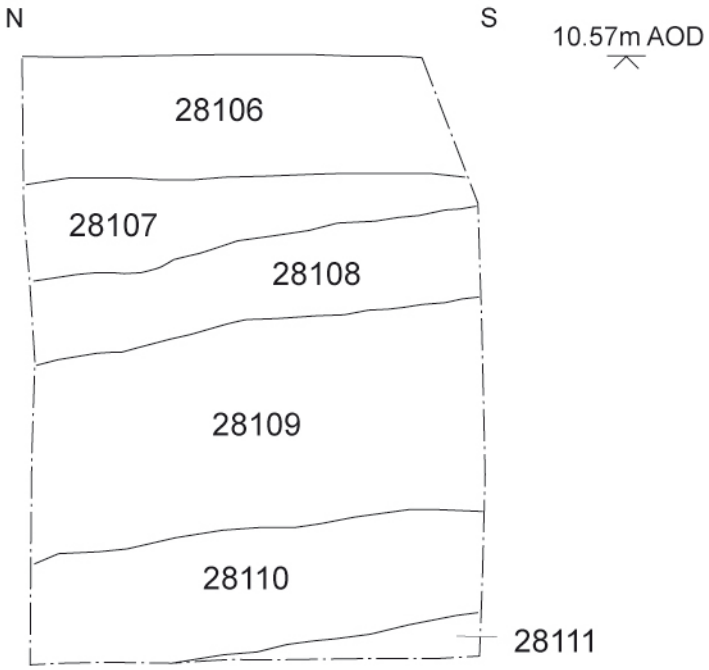


Figure 8 Trench 25 Section 8



Section 9



Section 10

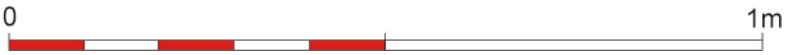


Figure 9 Trench 26 Sections 9 and 10