Northern Archaeological Associates

ROEBUCK HILL, JUMP, BARNSLEY,

SOUTH YORKSHIRE

ARCHAEOLOGICAL EVALUATION REPORT

(DRAFT)

prepared for

Persimmon Homes

NAA 06/23

February 2006

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ROEBUCK HILL, JUMP, BARNSLEY, SOUTH YORKSHIRE

ARCHAEOLOGICAL EVALUATION REPORT

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Summary

This document presents a report on the results of an archaeological evaluation on the site of a proposed residential development to the south of the A6195 Dearne Valley Parkway at Roebuck Hill, Jump, near Barnsley, South Yorkshire (centred on SE 3790 0165). The work was undertaken by Northern Archaeological Associates on behalf of Persimmons Homes.

Thirteen trenches were excavated across the development area in positions that had been agreed with the South Yorkshire Archaeology Service. Archaeological features of a probable prehistoric date were identified in nine of the thirteen trenches. The features were concentrated on the top of the ridge across the northern edge of the development site. The evaluation of these features has shown that most of the anomalies recorded during a previous geophysical survey (GeoQuest 2004) relate to archaeological features, in particular boundary ditches. The features identified within Trench 6 appear to relate to the remains of an enclosure bounded by a double-ditched feature. To the south of this boundary were a number of pits one of which, contained pieces of burnt clay within one of its fills. It is likely that this part of the site contains archaeological remains of activity relating to prehistoric occupation although no evidence of structures was recorded within the limited area investigated. Possible industrial activity, in the form of a large pit containing evidence for in-situ burning, was recorded within Trench 1. The feature as yet remains undated, but probably represents an area of prehistoric industrial activity away from the activity in the centre of the site associated with occupation.

Further excavation of the site is required and this will provide a rare opportunity to investigate a prehistoric enclosure within its contemporary landscape in South Yorkshire. The site has the potential to supply new information relating to settlement, industrial and socio-economic activity within the region during the prehistoric period. It is recommended that the area including and north of the proposed road (Figure 12) be further investigated by open area archaeological investigation. It is also recommended that intermittent monitoring of topsoil removal should be carried out in selected areas of the remainder of the site.

1.0 INTRODUCTION

1.1 This document presents an assessment of the results of an archaeological evaluation by trial trenching on the site of a housing development. The site was situated to the south of the A6195 Dearne Valley Parkway at Roebuck Hill, Jump, near Barnsley, South Yorkshire (centred on SE 3790 0165, Figure 1).

1.2 This report has been prepared by Northern Archaeological Associates (NAA) for Persimmon Homes (South Yorkshire) Ltd. Previous to the groundworks, an assessment study of the development area (NAA 2003) including a site visit and a geophysical survey (GeoQuest 2004) were carried out. The evaluation excavation conformed to a method statement (NAA 2006) that had been agreed by the South Yorkshire Archaeology Service (SYAS) and comprised part of a scheme of works designed to mitigate the impact of the development upon the archaeological remains present at the site.

1.3 The evaluation consisted of the excavation of thirteen trenches extending to some 530m^2. The trial trenches were positioned with reference to the geophysical survey in order to target the areas of anticipated archaeology but also to investigate areas within the site that appeared to be devoid of archaeological remains (Figure 2). The work undertaken was in accordance with standards and guidance published by English Heritage (1991) and the Institute of Field Archaeologists (2001).

2.0 LOCATION, TOPOGRAPHY AND GEOLOGY

Site location

2.1 The site was situated to the south of the A6195 Dearne Valley Parkway at Roebuck Hill, Jump, near Barnsley, South Yorkshire (centred on SE 3790 0165). The development area comprised an irregularly shaped plot of land of approximately 2.7 hectares (Figure 1) situated at the crest of a gently sloping ridge to the north of the Jump valley at an elevation of approximately 130mOD. The site was being used for agricultural purposes, the major part being set-aside or lying fallow.

Geology and soils

2.2 The bedrock morphology of the area is composed of Upper and Lower Westphalian coal measures of the Carboniferous period (BGS 1977). The drift geology, where present, is composed of alluvial deposits in the river valleys (IGS 1979). The soils of the area are composed of the well-drained coarse loamy soils of the Rivington 1 Association, the deep stoneless silty soils of the Conway Association and the slowly permeable soils of the Bardsey Association. (Jarvis *et al.* 1984, SSEW 1983).

3.0 ARCHAEOLOGICAL BACKGROUND

3.1 The trial trenching formed part of a staged approach to the mitigation of the impact of the development upon the archaeological remains present at the site. A summary of these earlier stages of archaeological works and the geophysical investigation is set out below.

3.2 The assessment study (NAA 2003) identified a total of six archaeological sites recorded in the South Yorkshire Sites and Monuments Record within a 1km radius of the development, with eleven more being located between 1km and 2km from the site. A further five sites under 2km from the development site were identified in the National Monuments Record. In addition there were records of six archaeological events having occurred within the vicinity of the proposed development.

3.3 The most significant site recorded in the area was the scheduled earthwork complex in Wombwell Wood. Although no archaeological features were identified directly within the area of the development, the site lay in close proximity to a number of upstanding earthworks and cropmark features which are considered to belong to the Iron Age or Romano-British periods. Further archaeological remains were revealed during the construction of the Dearne Towns Link Road in the 1990s. These ranged in date from the Bronze Age to the post-medieval period.

3.4 As a consequence of the proximity of a large concentration of archaeological remains attributable to the prehistoric period, a geophysical survey of the area of the development was undertaken in December 2003 (GeoQuest 2004). The survey identified a number of linear and curvilinear anomalies within the development area which were considered to represent archaeological features, possibly of prehistoric date (Figure 2).

3.5 In order to mitigate the impact of the development upon the archaeological remains present at the site, a condition was attached to the development by the planning authority to ensure that arrangements were made to record or preserve these in situ. This required a programme of trial trenching in order to determine the nature, extent, importance, degree of survival and likely date of any archaeological features present within the development area. This would, in turn, inform an assessment of the requirement for further archaeological investigations during the course of the development.

4.0 AIMS AND OBJECTIVES

4.1 The principle aim of the trial trenching was to undertake the agreed levels of investigation necessary to evaluate the potential for archaeological remains to exist on the site.

4.2 The main objectives of the programme of evaluation are outlined below:

- to establish the date, nature, extent, degree of preservation and significance of archaeological deposits within the development area
- to establish the potential for the preservation of environmental evidence within the development area
- to provide a means of assessing in detail the archaeological resource of the area as a basis for future decisions about the preservation of deposits in situ or recording in advance of construction
- to undertake a scheme of works that meets with the professional standards for archaeological work both nationally and within the local authority within which the development will occur
- if the scheme of works identified significant archaeological remains, the results of all phases of archaeological work shall be combined to form a single report for publication within a local, regional or national journal as appropriate

5.0 METHODOLOGY

5.1 Thirteen trenches were established within the development area in positions designed to evaluate specific areas of archaeological potential identified during the geophysical survey and target blank areas within the proposed development in order to confirm the full extent of the archaeological remains present at the site. The trenches were between 10m and 25m long and were approximately 2m in width (with the exception of Trench 6, which was 4m wide). The total area of excavation accordingly amounted to *c.*530m². The location of each trench was surveyed using a Leica TC 500 total station linked to a Fujitsu Stylistic 1200 pen computer using PenMap software. Information was transferred to AutoCAD 2000iLT software and reproduced for incorporation within this report (Figure 2).

5.2 The trenches were stripped using a 20 tonne mechanical tracked excavator with a toothless bucket, under archaeological supervision at all times. The machine removed topsoil and subsoil down to a level at which significant archaeological deposits were identified or down to natural geology. Topsoil was stored by the edge of each trench and was kept separate from any subsoils. The trenches were backfilled upon the conclusion of the fieldwork.

5.3 All exposed surfaces were cleaned by hand where archaeological features were identified. Features were then planned and photographed. Hand excavation of selected archaeological features was undertaken to evaluate depth, dimension and preservation and to ensure recovery of sufficient artefactual and environmental

evidence. Discrete features were half-sectioned. Linear features were sampled a minimum of 20% along their length (each sample section not being less than 1m), or a minimum of a 1m sample section, if the portion of the feature exposed was less than 5m long. The deposits at junctions or interruptions of linear features were sufficiently excavated for the relationship between components to be established.

5.4 The trial trenching included a metal detector survey of trench locations and adjacent areas in advance of topsoil stripping and detecting of the cleaned trench surfaces and spoil heaps after stripping. No metal finds of archaeological interest were found.

5.5 Forty-litre bulk palaeoenvironmental samples were taken from appropriate deposits and submitted for assessment. Particular attention was paid to the recovery of samples from any charred deposits that were present. Secure contexts were sampled for dating as appropriate (whether on site or as sub-samples of processed bulk samples). This comprised samples containing burnt material suitable for C-14 dating. Recovery and sampling of environmental remains was in accordance with guidelines prepared by English Heritage (2002).

5.6 All finds recovered were appropriately packaged and stored under optimum conditions. Pottery and animal bone were collected as bulk samples, finds were recorded and processed using the NAA system and submitted for post-excavation assessment. Finds recovery and storage strategies were in accordance with published guidelines (English Heritage 1995; Watkinson and Neal 1998).

6.0 EVALUATION RESULTS

Trench 1 (Figure 3)

6.1 This trench measured approximately 15m by 2m wide and was aligned approximately east to west. The trench was located at the western end of the site and was designed to examine an area adjacent to a series of linear anomalies detected in the geophysical survey.

6.2 A single large pit (102) was recorded within this trench, cut into the natural geological deposits (103). It measured approximately 2.5m in diameter but extended beyond the area of excavation to the south and was a maximum of 1.1m deep. Discoloration in the natural deposits around the pit showed that *in-situ* heating had occurred within the feature which contained a charred deposit (106). Above this was a 0.8m thick layer of red brown sandy silt (104) containing a concentration of large stones (105) that also showed signs of heating. These stones may relate to a structure within the pit and this suggests that the pit may have been dug to house a furnace or kiln. A 0.55m thick deposit of red brown silty sand represented a final episode of back-filling (101). The entire trench was sealed by 0.3m of topsoil (100).

Trench 2 (Figure 4)

6.3 Trench 2 measured approximately 20m by 2m and was aligned north-west to south-east towards the north-western extent of the development site. The trench was located in order to evaluate a sinuous linear anomaly detected in the geophysical survey.

6.4 A ditch (204) that corresponded to this geophysical anomaly was recorded within the trench along with a posthole (206) and two natural features (208 and 210). The ditch (204) was 1.2m wide and 0.55m deep and extended beyond the trench to the north-east and south-west. It was filled with a brown pink silty sand deposit (203) some 0.25m thick, sealed by a red-brown subsoil (201). The north-west end of Trench 2 was sealed by a maximum of 0.05m of subsoil 201 which was in turn sealed by up to 0.3m of topsoil (200).

Trench 3 (Figure 5)

6.5 Trench 3 was aligned approximately north-west to south-east and measured *c.*15m by 2m. It was located to test the possible continuation of the linear geophysical anomaly tested in Trench 2.

6.6 The archaeological features recorded within this trench comprised two ditches (303 and 305), a possible gully (307) and a modern feature (309). Ditch 303 was located at the south-eastern end of the trench and corresponded with the geophysical anomaly mentioned above. It was 1.15m wide and 0.45m deep, extending beyond the trench limit to the south-east and north-west. It was filled with a red brown silty sand deposit (304). At the opposite end of the trench ditch 305 was recorded also running south-east to north-west. It measured 1.14m wide and 0.33m deep and was partially truncated by a modern ditch (309). It was filled with a red brown silty sand deposit (306). Ditch 309 also truncated a possible gully (307) in the north-eastern corner of the trench. The features in this trench, except the modern ditch (309), were sealed by up to 0.3m of red-brown subsoil (301) which contained post-medieval pottery and glass. This was in turn sealed by between 0.2m and 0.3m of topsoil (300).

Trench 4 (Figure 6)

6.7 This trench measured approximately 25m by 2m and was aligned approximately west to east. The trench was located in the south-western margins of the site in an area devoid of geophysical anomalies.

6.8 Archaeological features recorded within this trench comprised a possible ditch terminus or pit (403) and two possible postholes (405 and 407). Several patches of root or animal disturbance were also investigated including an irregular feature (409) that was interpreted as an animal burrow.

6.9 Feature 403 extended beyond the limit of excavation to the north and south, measuring *c.*2.7m wide along the northern trench edge but narrowing to 1.6m along the southern edge. The excavated segment was 0.4m deep and the feature was interpreted as either the terminus of a ditch or a large pit. It was filled with a red brown silty sand deposit (404). Posthole 405 was recorded 5m from the western end of Trench 4, it measured *c.*0.4m in diameter and 0.16m deep. It was filled with a red brown silty sand deposit (406). A second posthole (407) measuring 0.35m in diameter and 0.35m deep, was recorded close to the eastern end of the trench. It was filled with a red brown silty sand deposit (408). Considering the numerous root and animal holes investigated around both postholes it is possible that features 405 and 407 do not relate to archaeological activity. A deep layer of red-brown subsoil (401) *c.*0.5m thick, which contained a single flint flake, sealed the entire trench. This was overlain by up to 0.4m of topsoil (400).

Trench 5 (Figure 7)

6.10 Trench 5 was located toward the western centre of the development area to further investigate the geophysical curvi-linear anomaly in Trenches 2 and 3. The trench measured approximately 10m by 2m and was aligned north to south.

6.11 Four features were recorded within this trench including ditch 502 which corresponded to the curvi-linear geophysical anomaly and thus probably represented a continuation of the ditch (204 and 303) recorded within Trenches 2 and 3. The other features comprised a truncated gully (509) a pit or gully terminus (504) and a possible posthole (506).

6.12 Ditch 502 measured 1.65m wide and 0.6m deep and extended beyond the area of excavation to the east and west. It was filled with a red brown silty sand deposit (503). Unfortunately gully 509 was truncated when the machine bucket dug into a patch of soft sand within the natural deposits. However the feature could be seen in both sides of the trench and measured approximately 0.7m wide and 0.25m deep, extending beyond the area of excavation to the south-east and north-west. It was also filled with a red brown silty sand deposit (510).

6.13 Features 504 and 506 were both located close to the northern end of the trench. Both extended beyond the area of excavation to the east, the former (504) may have been the terminus of a gully *c.* 0.6m wide and 0.25m deep. Feature 506 was interpreted as a posthole measuring 0.8m by 0.5m and 0.22m deep. Both features were filled with a red brown silty sand deposit (505 and 507 respectively). At the northern end of the trench was a thin layer (up to 0.1m thick) of red-brown subsoil (501) indistinguishable from the fill of gully 504, which contained post-medieval pottery. The entire trench was sealed by 0.3m of topsoil (500).

Trench 6 (Figure 8)

6.14 This trench measured approximately 25m by 4m wide and was aligned north to south in the approximate centre on the site. The trench was located to evaluate a possible enclosure detected in the geophysical survey, and to examine the area within the enclosure in order to identify discrete features that may be associated with it.

6.15 Thirteen archaeological features were recorded within Trench 6. They comprised a broad double-ditched feature (602), two possible gullies (604 and 618) and several discrete features (606, 609, 611, 614, 615, 619, 621, 623, 625 and 627).

6.16 Feature 602 measured 2.2m wide and comprised two ditches running parallel across the trench approximately east to west. The northern ditch was 0.3m deep, the southern ditch 0.48m. Within the segment excavated, the ditches were recorded as contemporary and they were both filled with the same red brown silty sand (603). However, due to the limited scope of investigation within the evaluation stage of the project, further investigation of this feature is needed to confirm that the two ditches remain parallel along the entire length of the feature and that they are indeed contemporary.

6.17 To the north of feature 602 a shallow gully (604) and a possible posthole were recorded, it is highly probable that both were caused by roots. Immediately south of feature 602 was a line of three possible postholes (611, 615 and 609 east to west). All three were irregular in shape and profile and were interpreted as either root boles or voids caused by the removal of posts. Feature 611 measured 1.1m by 0.55m by 0.4m deep and had a near vertical western edge and pointed base. It was filled with a red brown silty sand deposit (612). Feature 615 was larger and shallower, *c.*1.3m by 0.75m by 0.3m deep and was filled with a red brown silty sand (616). Feature 609 extended beyond the limit of excavation but measured approximately 0.8m by 1.1m by 0.29m deep. It was filled with a red brown silty sand deposit (610).

6.18 Located 3m to the south of these features was a cluster of three pits (619, 627 and 621). Pit 619 measured 0.65m by 1.1m and 0.45m deep and contained four deposits. The primary fill (631) consisted of re-deposited natural of a maximum thickness of 0.15m. This was partially sealed by a 0.15m thick layer of dumped fire waste, which was in turn sealed by another dumped layer *c.*0.13m thick, of pink (possibly burnt) clay (629). The upper fill (620) a brown red silty sand, represented the final silting up of the feature. Pit 621 measured 0.8m by 0.65m and 0.25m deep. It was irregular in shape and was filled with a red brown silty sand deposit (622). Pit 627 was irregular in shape measuring approximately 0.5m by 0.8m by 0.18m deep. The primary fill was a layer of black fire waste (628) up to 0.1m thick. Above this was a red brown silty sand deposit (632).

6.19 South of these three pits was another possible posthole (623) measuring 0.75m by 0.7m and 0.28m deep. The feature was irregular in shape and suffered from heavy

bioturbation. It was filled with a red brown silty sand deposit (624). A short square ended gully (618) that was cut by a large oval pit (614) was recorded 1m south of posthole 623. The gully (618) measured 1.2m long and *c.*0.3m wide but was only 0.12m deep. It was filled with a pinkish grey brown silty sand deposit (617). Pit 614 measured 2.3m by 1.7m by 0.34m deep and it was filled with a mixed yellow and brown sandy silt (613) containing occasional fragments of charcoal and many large stones.

6.20 The final feature (625) within the trench extended beyond the trench to the south and may have been another oval pit similar to feature 614. It measured approximately 1.7m wide and over 1.6m long. However, the cut of the feature was very shallow and the 'fill' consisted mainly of large stones forming a raised pile. Thus feature 625 may represent a hollow containing a mass of stones. All the features within Trench 6 were sealed by a layer of red-brown subsoil (601) which was up to 0.25m thick. This was sealed by up to 0.3m of topsoil (600).

Trench 7 (Figure 9)

6.21 Trench 7 measured approximately 10m by 2m and was aligned approximately east to west. It was situated immediately to the east of Trench 6 in order to examine the potential for the continuation of two linear anomalies identified in the geophysical survey.

6.22 This trench contained two archaeological features, a possible posthole (803) and a ditch (805). Posthole 803 measured 0.35m by 0.6m and 0.07m deep and was filled with a brown red silty sand (804). Ditch 805 extended beyond the trench limit to the north-west and south-east and measured 0.9m wide and 0.38m deep. The primary fill of ditch 805 was a mid yellow brown silty sand (806) some 0.26m thick, the upper portion of the ditch was filled by the red-brown subsoil (801) that covered the entire trench. A single large piece of slag was recovered from within subsoil 801. A 0.2m thick layer of topsoil (800) sealed this subsoil.

Trench 8

6.23 This trench was aligned approximately west to east and measured approximately 10m by 2m. The trench was located towards the centre of the proposed site and was intended to evaluate an area of magnetic disturbance detected in the geophysical survey. No archaeological features or deposits were encountered within this trench. The natural geological deposits was overlain by up to 0.3m of topsoil (700).

Trench 9

6.24 Trench 9 measured approximately 20m by 2m and was aligned west to east. The trench was located to the south of Trenches 6 and 7 and was intended to evaluate an area of magnetic disturbance recorded during the geophysical survey. The natural geological deposits were disturbed by root and animal activity but no archaeological

features or deposits were encountered within this trench. The trench was sealed by a 0.4m of red brown subsoil (901), which was overlain by 0.3m of topsoil (900).

Trench 10 (Figure 10)

6.25 This trench measured approximately 25m by 2m and was aligned east to west. The trench was located towards the eastern limits of the area examined by geophysical survey and was intended to examine the character of two linear anomalies in this area.

6.26 A single ditch (1003) was recorded running north to south across the middle of the trench. The feature corresponded to one of the geophysical anomalies recorded during the survey, the other response seemed to relate to a change in the natural geology. Ditch 1003 measured 1.15m across and extended beyond the trench edge to the north and south. The excavated segment was 0.27m deep and was filled with a red brown silty sand (1004). This deposit was sealed by a 0.2m thick layer of brown red subsoil (1001) which extended across the entire trench. The subsoil was overlain by 0.2m of topsoil (1000).

Trench 11

6.27 Trench 11 was aligned north to south in an area not subjected to geophysical survey. The trench was located on a steep slope and measured approximately 30m by 2m wide. The trench was designed to sample an area of unknown archaeological potential.

6.28 No archaeological features or deposits were encountered within this trench. At the southern end of the trench, at the base of the slope a layer of red brown subsoil (1100) was recorded up to a maximum thickness of 0.4m. This layer thinned out further upslope and thus probably represents a deposit that has been washed or ploughed down the slope. The subsoil was sealed by up to 0.35m of topsoil (1100) which extended across the entire trench.

Trench 12 (Figure 11)

6.29 Trench 12 measured approximately 10m by 2m and was aligned west to east close to the eastern limit of the development site. This area was not covered in the geophysical survey and the trench was intended to sample an area of unknown archaeological potential.

6.30 A single shallow gully (1203) was recorded running north-west to south-east across this trench. It measured approximately 0.35m wide and 0.25m deep and was filled by a brown red silty sand (1204). A layer of brown red subsoil (1201) some 0.25m thick sealed the trench and was overlain by 0.3m of topsoil (1200).

Trench 13

6.31 This trench measured approximately 25m by 2m and was aligned roughly west to east. The trench was located in the south-eastern area of the development which was not examined by geophysical survey. The trench was intended to sample an area of unknown archaeological potential.

6.32 Two modern postholes were the only features recorded within this trench. A thin layer of brown red subsoil (1301) with a maximum thickness of 0.15m, sealed the trench. This was overlain by up to 0.2m of topsoil (1300).

7.0 DISCUSSION

7.1 Archaeological features of a probable prehistoric date were identified in nine of the thirteen trenches. The features were concentrated on the top of the ridge across the northern edge of the development site. The evaluation of these features has shown that most of the anomalies recorded during the geophysical survey (GeoQuest 2004) relate to archaeological features, in particular boundary ditches.

7.2 The features identified within Trench 6 appear to relate to the remains of an enclosure bounded by a double-ditched feature (602). To the south of this boundary were a number of pits one of which (619), contained pieces of burnt clay within one of its fills. It is likely that this part of the site contains archaeological remains of activity relating to prehistoric occupation although no evidence of structures was recorded within the limited area investigated.

7.3 Industrial activity represented by a large pit containing evidence of in-situ burning, was recorded within Trench 1. The feature as yet remains undated, but probably represents an area of prehistoric industrial activity away from the activity in the centre of the site associated with occupation.

8.0 ASSESSMENT OF THE SITE ARCHIVE

Initial analysis

8.1 As part of the assessment of the site records the initial archive analysis has been undertaken. A provisional matrix has been drawn up for the excavation site showing the stratigraphic relationships between the individual contexts. Plans and sections were checked against context record sheets to ensure full cross referencing. Catalogues of context and illustration records and slide and print photographs have been input onto a computerised database.

Primary archive inventory

Context descriptions	124
Plans	23
Sections	41
Colour slides (films)	5
Black and White photographs and negatives (films)	5

Recommendations for further analysis

8.2 Further analysis, including assessment of the environmental samples and radiocarbon dating of charcoal from selected features will be carried out in conjunction with analysis of the archive produced during later stages of the project. This will enable a cohesive combined analysis of all the stages of excavation to be produced.

Storage and curation

8.3 The written, drawn and photographic records are currently held by NAA. At the present moment in time, the palaeoenvironmental samples are still in the process of being assessed.

8.4 Subject to finalisation of discard policies after further analysis (particularly with respect to environmental material) it is intended that the site archive (paper records, artefactual and environmental material) will be transferred to the appropriate depositories. All material would be appropriately packaged for long-term storage in accordance with both national guidelines and to the requirements of the appropriate museum.

9.0 SPECIALIST FINDS ASSESSMENT

Pottery (Sarah Wilkinson)

Archaeological Potential

9.1 A small pottery assemblage was recovered from topsoil and subsoil contexts during the evaluation. All the pottery was post-medieval with a date range between the 17th and 20th centuries.

Recommendations

9.2 No further work is recommended at this stage.

Biological Remains

9.3 The assessment of environmental samples taken during the trial trenching is still in progress

10.0 STATEMENT OF POTENTIAL AND RECOMMENDATIONS

10.1 Trial trenching on the site of a proposed residential development on Roebuck Hill, Jump, South Yorkshire has uncovered significant archaeological activity of probable prehistoric date.

10.2 With the exception of a few scattered features, the focus of activity was concentrated along the top of the ridge, within the area of Trenches 1, 2, 3, 5, 6, 7 and 10. Archaeological features in Trench 6 relate to an enclosure and possibly occupation activity. The pit within Trench 1 suggests that some form of industrial activity was carried out on the site, potentially during the prehistoric period.

10.3 The results of the evaluation have demonstrated that a truncated but well-preserved prehistoric site of unknown date survives on the development area. The layout of the features investigated within the trial trenches in combination with the geophysical evidence suggests the archaeological features may comprise a small enclosure surrounded by fields with an industrial area located in the area of Trench 1. Further excavation will provide a rare opportunity to investigate a prehistoric enclosure within its contemporary landscape. The site has the potential to supply new information relating to settlement, industrial and socio-economic activity within the region during the prehistoric period.

10.4 It is recommended that the area including and north of the proposed road (Figure 12) be further investigated by open area archaeological investigation. It is also recommended that intermittent monitoring of topsoil removal should be carried out in the area not covered by the geophysical survey. The archive from the evaluation stage of the project will be stored and incorporated into the post-excavation assessment for the next stage of the project.

REFERENCES

British Geological Survey (1977) *Geological Survey, Ten Mile Map South Sheet (Solid)*

English Heritage (1991) *Management of Archaeological Projects*

English Heritage (1995): *A Strategy for the Care and Investigation of Finds* Ancient Monuments Laboratory

English Heritage (2002) *Environmental Archaeology – A guide to the theory and practice of methods, from sampling and recovery to post-excavation*

GeoQuest (2004) *Roebuck Hill, Jump, Barnsley, South Yorkshire, Geophysical Survey*

Institute of Field Archaeologists (2001) *Standard and Guidance for archaeological field evaluation*

Institute of Geological Sciences (1979) *Geological Survey, Ten Mile Map North Sheet Quaternary*

Jarvis *et al* (1984): *Soils and Their Use in Northern England* Soils Survey of England and Wales Bulletin No. **10**

Northern Archaeological Associates (2003) *Roebuck Hill, Jump, Barnsley, South Yorkshire. Archaeological Desk-based Assessment.* NAA Report Number **03/131**

Northern Archaeological Associates (2006) *Roebuck Hill, Jump, Barnsley, South Yorkshire. Archaeological Project Design.* NAA Report Number **06/05**

Soil Surveys of England and Wales (1983) *Soils of England and Wales: Sheet 1 Northern England*

Watkinson and Neal (1998) *First Aid for Finds*

Northern Archaeological Associates
Report No: NAA 06/23
Project No: 582
Date: February 2005
Text: Gav Robinson
Illustrations: Catherine Chisman
Edited by: Paul Johnson

Appendix A

CONTEXT AND FINDS CATALOGUE

Context	Description	Trench	C14 sample	flint	glass	ind waste	pottery	sample	slate
104	mid fill of pit 102	1						4	
106	primary fill of pit 102	1						2	
203	upper fill of ditch 204	2						4	
301	subsoil	3			2		7		
400	topsoil	4			1		15		
401	subsoil	4		1					
404	fill of ditch/pit 403	4						4	
501	subsoil	5					2		
600	topsoil	6					1		
603	fill of ditch 602	6						4	
613	fill of pit 614	6	1						
629	tertiary fill of pit 619	6						1	
631	primary fill of pit 619	6						2	
801	subsoil	7				1			
900	topsoil	9							1
1004	fill of ditch 1003	10						4	
1200	topsoil	12		1					
		Total	1	2	3	1	25	25	1

Appendix B
BIOLOGICAL REMAINS

The assessment of environmental samples taken during the trial trenching is still in progress.

Appendix C

ROEBUCK HILL, JUMP, BARNSLEY, SOUTH YORKSHIRE

ARCHAEOLOGICAL EXCAVATION

WRITTEN SCHEME OF INVESTIGATION

1.0 INTRODUCTION

1.1 This document presents a project design based on discussions with the South Yorkshire Archaeology Service (SYAS) for undertaking archaeological mitigation works in advance of construction on the site of a housing development. The site is situated to the south of the A6195 Dearne Valley Parkway at Roebuck Hill, Jump, near Barnsley, South Yorkshire (centred on SE 3790 0165, Figure 1).

1.2 This document has been prepared by Northern Archaeological Associates (NAA) for Persimmon Homes Ltd, and is based upon the results of an earlier evaluation and a desk-based assessment study of the proposed development area. The project design has been submitted to SYAS in order that the mitigation strategy constitutes an agreed scheme of works which would satisfy the archaeological condition attached to the planning permission.

1.3 The mitigation works would comprise machine stripping of the area shown in Figure 12 under archaeological supervision. Any archaeological remains exposed in that area would be recorded and investigated. Intermittent monitoring of topsoil removal will be carried out in selected areas of the remainder of the site, these areas being dependent on the results of the main element of the recording works and agreed in consultation with the archaeological officers of SYAS. The work will be undertaken in accordance with standards and guidance published by English Heritage (1991) and the Institute of Field Archaeologists (1999).

2.0 BACKGROUND INFORMATION

Site location topography and land-use

2.1 The site is situated to the south of the A6195 Dearne Valley Parkway at Roebuck Hill, Jump, near Barnsley, South Yorkshire (centred on SE 3790 0165). The development area comprises an irregularly shaped plot of land of approximately 2.7 hectares (Figure 1) situated at the crest of a gently sloping ridge to the north of the Jump valley at an elevation of approximately 130mOD. The site is being used for agricultural purposes, the major part being set-aside or lying fallow

Geology and soils

2.2 The bedrock morphology of the area is composed of Upper and Lower Westphalian coal measures of the Carboniferous period (BGS 1977). The drift geology, where present, is composed of alluvial deposits in the river valleys (IGS 1979). The soils of the area are composed of the well-drained coarse loamy soils of the Rivington 1 Association, the deep stoneless silty soils of the Conway Association and the slowly permeable soils of the Bardsey Association. (Jarvis *et al.* 1984, SSEW 1983).

Assessment

2.3 The assessment study (NAA 2003) identified a total of six archaeological sites recorded in the South Yorkshire Sites and Monuments Record within a 1km radius of the development, with eleven more being located between 1km and 2km from the site. A further five sites under 2km from the development site were identified in the National Monuments Record. In addition there were records of six archaeological 'events' having occurred within the vicinity of the proposed development.

2.4 The most significant site recorded in the area was the scheduled earthwork complex in Wombwell Wood. Although no archaeological features were identified directly within the area of the development, the site lay in close proximity to a number of upstanding earthworks and cropmark features which are considered to belong to the Iron Age or Romano-British periods. Further archaeological remains were revealed during the construction of the Dearne Towns Link Road in the 1990s. These ranged in date from the Bronze Age to the post-medieval period.

2.5 As a consequence of the proximity of a large concentration of archaeological remains attributable to the prehistoric period, a geophysical survey of the area of the development was undertaken in December 2003 (GeoQuest 2004). The survey identified a number of linear and curvilinear anomalies within the development area which were considered to represent archaeological features, possibly of prehistoric date (Figure 2).

Evaluation excavation

2.6 In order to mitigate the impact of the development upon the archaeological remains present at the site, a condition was attached to the development by the planning authority to ensure that arrangements were made to record or preserve these *in situ*. This required a programme of trial trenching in order to determine the nature, extent, importance, degree of survival and likely date of any archaeological features present within the development area.

2.7 Thirteen trial trenches were excavated and evaluated between the 13th January and 10th February 2006 (Figure 2). With the exception of a few scattered features, the focus of activity was concentrated along the top of the ridge, within the area of Trenches 1, 2, 3, 5, 6, 7 and 10. Archaeological features in Trench 6 related to an

enclosure and possibly occupational activity. A pit within Trench 1 indicated some form of industrial activity was carried out on the site, potentially during the prehistoric period.

2.8 The results of the evaluation showed that a well preserved prehistoric site of unknown date existed on the site. The layout of the features investigated within the trial trenches in combination with the geophysical evidence suggested the archaeological features may comprise a small enclosure surrounded by fields with an industrial area located in the area of Trench 1.

3.0 AIMS AND OBJECTIVES

3.1 The principle aim of the programme of work detailed below will be to undertake the agreed levels of investigation of the site necessary to fulfil the planning condition. This will involve the investigation and recording of those features which are impacted on by, or exposed during, construction in order to achieve preservation by record of the affected remains.

3.2 The excavation and recording of this site will enable the character, extent and form of prehistoric activity on the site to be established and this in turn should better inform an understanding of the history and development of the local area.

3.3 With reference to the prehistoric remains which have so far been identified, the objectives of this work would be to:

- confirm the nature and extent of the prehistoric features within the development area
- establish the presence and nature of any areas of occupation, and where present, to investigate such areas to determine their form, evidence for the range of domestic and agricultural structures, metalworking, crop processing, stock husbandry and any other activities
- establish, where possible, absolute and relative chronologies for the various activities and features represented
- investigate the nature and pattern of landuse and environment within the wider landscape through an appropriate sampling strategy
- confirm the nature and extent of any other archaeological remains which are identified and where appropriate carry out appropriate investigation and recording

3.4 The methodologies for the work shall meet professional standards for archaeological work and shall also comply with relevant health and safety requirements.

3.5 On completion, the results of the programme of archaeological survey, investigation and analysis will be published in an appropriate journal and a copy deposited with both the Sites and Monuments Record and the National Monuments Record.

4.0 EXCAVATION METHODOLOGY

4.1 The area to the north of and including the proposed road, shown on Figure 12 will be investigated. This will consist of:

- Constant archaeological monitoring of the removal of topsoil and subsoils within the area to expose archaeological features in plan.
- Recording of features.
- Targeted sample excavation of the exposed remains and any associated features in order to understand the relationships of the features and to obtain dating evidence for them.
- The extension of soil stripping in any areas where significant features extend beyond the limits which have been initially defined.

Soil stripping and sample excavation

4.2 Topsoil and subsoil will be removed by a mechanical excavator using a toothless bucket under the constant supervision of an appropriately experienced archaeologist down to a level at which significant archaeological deposits are identified or to natural deposits, whichever is encountered first. Mechanical excavation will cease at the discretion of the supervising archaeologist.

4.3 Stripped surfaces will be cleaned by hand where archaeological features are identified. Features shall then be planned and photographed. Hand excavation of selected archaeological features will be undertaken to record depth, dimension and preservation of archaeology, and to ensure recovery of sufficient artefactual and environmental evidence to enable dating and assessment of the archaeology to be achieved. Excavated sample sections will constitute 100% of features of ritual or ceremonial nature (including burials), 50% of domestic and settlement related features such as pits and post-holes and a minimum of 20% of the overall length of linear features within the stripped area. Pits or post-holes may be fully excavated in order to recover a larger environmental sample (see below) or to more accurately record their form. Each sample section of a linear feature will be not less than 1m, if the feature is less than 10m long a minimum of a 1m sample section will be

excavated. Other types of archaeological deposits such as flint scatters or isolated finds will be excavated and sampled as appropriate. Any variations in this sampling strategy will be agreed with SYAS. The deposits at junctions or interruptions of linear features would be sufficiently excavated for the relationship between components to be established. Surviving walls will be sectioned in order to record their construction and sampled to a degree whereby their extent, nature, form, date, function and relationship to other features and deposits can be established.

Recording and sampling methodologies

4.4 Archaeological features will be located onto an existing detailed survey of the development area and tied into the Ordnance Survey National Grid. A full written record of features would be made using the NAA context recording system. All archaeological features will be photographed and recorded at an appropriate scale. Sections will normally be drawn at a scale of 1:10. Archaeological plans will normally be drawn at a scale of 1:20. All levels will be tied to Ordnance Datum. A photographic record of the site will be taken using colour slides and black and white prints at a minimum format of 35mm.

4.5 Pottery and animal bone will be collected as bulk samples whilst significant artefacts will be three-dimensionally recorded prior to processing. Finds will be recorded and processed using the NAA system and submitted for post-excavation assessment in accordance with published guidelines (EH 1991). All finds recovered will be appropriately packaged and stored under optimum conditions. Finds recovery and storage strategies would be in accordance with published guidelines (English Heritage 1995; Watkinson and Neal 1998). Provision will be made for site visits from specialists and the conservator as necessary.

4.6 Bulk palaeoenvironmental samples (typically 40 litres) will be taken from appropriate deposits (such as ditch and pit fills) and submitted for assessment. Particular attention will be paid to the recovery of samples from any waterlogged deposits which may be present. Recovery and sampling of environmental deposits will be in accordance with guidelines prepared by English Heritage (2002). A detailed environmental sampling strategy will be agreed with John Carrott of Palaeoecology Research Services (PRS) should an extensive programme of sampling be necessary.

4.7 Where animal bones are well preserved, sieved bulk samples will be taken to retrieve assemblages that can be used to investigate the frequencies and identities of bird and fish bones, and to investigate the relative frequencies of bones of different species (avoiding the inevitable size-based biases in hand-recovered collections). Large bulk sediment samples in the order of 100 litres will be taken from deposits in which animal bones are well preserved and sieved (either wet or dry) through coarse mesh of approximately 5 - 10 mm diameter.

4.8 Secure contexts will be sampled for dating purposes as appropriate (whether on site or as sub-samples of processed bulk samples). This will include C-14 dating, dendrochronological and archaeomagnetic dating. Any concentrations of charcoal or other carbonised material recovered on site will usually be retained. Samples for archaeomagnetic and dendrochronological dates would be taken on site by the relevant specialist. Samples would be processed subsequent to initial post-excavation assessment.

4.9 A conservation strategy would be developed in collaboration with the English Heritage conservator at Durham University (Jennifer Jones). All finds would be assessed in order to recover information that will contribute to an understanding of their deterioration and hence preservation potential, as well as identifying potential for further investigation. All finds would be stabilised and packaged in accordance with the requirements of the receiving museum. As a guiding principle only artefacts of a displayable quality would warrant full conservation, but metalwork and coinage from appropriate contexts would be X-rayed, at a minimum.

4.10 Any human remains (inhumations or cremations) encountered during soil stripping will be excavated, recorded and recovered along with any associated artefacts. A Licence for the Removal of Human Remains will be obtained from the Home Office under the terms of section 25 of the Burial Act 1857 in the event that human remains are identified.

4.11 Any artefacts of gold or silver recovered or other finds which are considered to be treasure under the terms of the Treasure Act (1996) will be processed in accordance with the related Code of Practice.

5.0 MONITORING

5.1 Access will be provided at all reasonable times to the archaeological representative of the Planning Authority and English Heritage's Regional Advisor on Archaeological Science to monitor the progress and results of the archaeological investigations.

5.2 Access to the site will be on the basis of prior notification and subject to any necessary health and safety requirements.

6.0 POST-EXCAVATION ASSESSMENT

6.1 Post-excavation assessment will be carried out on the results of the mitigation works in accordance with national guidance (English Heritage 1991). A report on the

results will be submitted to the County Sites and Monuments Record within six months of the completion of fieldwork.

This will include:

- a summary of the project's background
- the site location
- a methodology
- a summary of the project's results
- an interpretation of the results in appropriate context
- a post-excavation assessment of the stratigraphic and other written, drawn or photographic records
- a catalogue and post-excavation assessment of each category of artefact recovered during the excavation
- a catalogue and post-excavation assessment of any faunal remains recovered during the excavation
- a catalogue of soil samples collected and post-excavation assessment of the results of the soil-sampling programme
- catalogues and post-excavation assessments and summary reports of all scientific dating procedures or other analyses carried out
- an appendix containing a list and summary description of all contexts recorded
- an appendix containing a list and summary description of the full archive
- trench plans, sections and photographs where appropriate
- a summary of the contents of the project archive and its location

6.2 The report on the site work will also include proposals for further archaeological analysis, if required, and the necessity of publishing the results within a local, regional or national journal as appropriate.

6.3 Provision will be made for publicising the results of the work locally, e.g. press release and on site notice boards (with the client's agreement), by presenting a paper at South Yorkshire Archaeology Day, talking to local societies, providing a summary of the results for SYAS' annual review, etc.

6.4 A brief summary of the findings will be supplied to SYAS in digital format. Text in ASCII format; images as .TIFFS.

7.0 PERSONAL

7.1 Northern Archaeological Associates have been commissioned by Persimmon Homes to prepare the project design and to undertake the excavation and post-excavation assessment report.

7.2 Richard Fraser will be the Partner of the firm with overall management responsibility for the project. He graduated from the University of Newcastle upon Tyne with a BA (Hons) in Archaeology and Ancient History. Between 1982 and 1990, he gained eight years excavation and planning experience as a field officer for Tyne and Wear County Council and then Assistant City Archaeologist with Newcastle City Council. He has considerable experience of preparing archaeological assessments in connection with planning applications and as part of the Cultural Heritage components of Environmental Statements. He is also responsible for the project management of a wide variety of archaeological schemes including excavation, building surveys, topographic surveys and estate surveys.

7.3 Paul G Johnson will be the Project Manager for the project. He graduated with a BA (Hons) in Archaeology from the University of Durham 1990 and was elected a Fellow of the Society for the Antiquities of Scotland in 1993. He has 21 years of archaeological experience and has managed and directed a wide range of archaeological projects and excavations throughout the UK. He joined NAA in April 2003 having previously worked for the University of Glasgow and Tees Archaeology.

7.4 Gavin Robinson will be the Project Officer undertaking the excavations. Gavin graduated from Durham University in 1997 with a BSc (Hons) in Archaeology and has subsequently obtained an MA in prehistoric archaeology. He has nearly twelve years archaeological experience on a wide range of projects including the supervision of a number of excavations in South Yorkshire. He also undertook the supervision of the initial evaluation at Roebuck Hill.

7.5 The Finds Supervisor will be Sarah Wilkinson who graduated from the University of Durham in 1996 with a BA (Hons) in Archaeology. She has ten years archaeological experience and has worked as a permanent finds supervisor for NAA since 1998, including on a number of sites within Yorkshire.

7.6 Additional staff would be engaged to assist with fieldwork and will be recruited from personnel with appropriate archaeological experience.

8.0 SUB-CONTRACTED STUDIES

Specialist studies

8.1 Although the range of artefacts that may be recovered cannot be accurately predicted at this stage, the most common specialist requirements are listed below, indicating the nature of the material, the name of the specialist and the organisation if applicable. Each of the specialists listed below has a proven record of expertise in both their particular field of work and the geographical area, and has previously undertaken specialist work for NAA.

8.2 Further details of all the individuals and organisations listed can be supplied if additional information is required.

Material	**Specialist**
Romano-British pottery	Peter Didsbury
Anglo-Saxon pottery	Peter Didsbury and Jane Young
Medieval pottery	Peter Didsbury
Post-medieval pottery	Peter Didsbury
Coins	Richard Brickstock
Metalwork	Jonathan Watt
Leather	Jonathan Watt
Worked bone	Jonathan Watt
Metalworking	Jane Cowgill
Human bone	Malin Holst
Animal bone	Deborah Jaques (Palaeoecology Research Services)
Palaeobotanical remains	Dr Allan Hall (Environmental Archaeology Unit)
Molluscs	John Carrott (Palaeoecology Research Services)
Insect remains	Harry Kenward (Environmental Archaeology Unit)
Conservation	Jenny Jones (University of Durham)

Archaeomagnetic dating	Prof Mark Noel (Geoquest Associates)
Archaeometallurgy	Jane Cowgill
Geoarchaeology	Wetland Archaeology and Environments Research Centre

8.3 The overall ceramic report would be produced by Peter Didsbury but consultation would be undertaken with specialists with knowledge of the local typologies in the relevant periods, such as Chris Cumberpatch.

9.0 SITE ARCHIVE

9.1 The site archive shall contain all the data collected during the investigative work detailed in section 4 above, including records, finds and environmental samples. It will be quantified, ordered, indexed and internally consistent.

9.2 Adequate resources shall be provided during fieldwork to ensure that records are checked and internally consistent.

9.3 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

9.4 The archive will be assembled in accordance with the requirements set out by English Heritage (1991). In addition to the site records, artefacts, environmental remains and other sample residues, the archive shall contain:

- site matrices where appropriate
- a summary report synthesising the context record

- a summary of the artefact record
- a summary of the environmental record

9.5 The integrity of the primary field record will be preserved. Security copies in digital format will be maintained where appropriate.

9.6 A copy of the site report and the full site archive would be deposited at the appropriate receiving museum, subject to the agreement of the landowners. Deposition shall be in accordance with written guidelines on archive standards and procedures. NAA will liase with the museum curator regarding their requirements in ordering, boxing and labelling the site archive.

9.7 In addition to the deposition of the archive copies of all relevant reports would also be deposited with both the South Yorkshire SMR and National Monuments Record (NMR).

10.0 CONFIDENTIALLITY, COPYRIGHT AND PUBLICITY

10.1 The results of the work will remain confidential – initially being distributed only to the client, their agents and the County Sites and Monuments Record – and will remain so until such time as the condition is discharged and is then deemed to have entered the public domain.

10.2 The copyright of any written, graphic or photographic records and reports will rest with the NAA, that is the archaeological organisation undertaking the fieldwork and analysis.

10.3 No publicity will be entered into with respect to the results of the work, during the course of any investigations, without the express consent of Persimmon Homes. The role of South Yorkshire Advisory Service will be acknowledged.

11.0 HEALTH AND SAFETY

11.1 The firm complies with the 1974 Health and Safety Act and its subsequent amendments in all its operations. In this respect the SCAUM manual on archaeological health and safety is followed for site works, and as normal practice, First Aid boxes, an Accident Book and a telephone is provided for each project. Where required, safety helmets and reflective jackets are also provided. It is normal policy for a vehicle to be available on site for emergency purposes and site staff must be appropriately equipped in terms of bad weather gear. For each project a list of contact names and telephone numbers is provided for Accident and Emergency

units, doctors, dentists, together with appropriate site identification. The site director is normally nominated as site safety officer and all supervisory staff have undertaken a first aid training course. Information on service locations is obtained prior to the commencement of any excavation works. A Risk Assessment to HSE requirements is prepared in advance of the commencement of site works.

REFERENCES

British Geological Survey (1977) Geological Survey, Ten Mile Map South Sheet (Solid)

English Heritage (1991) Management of Archaeological Projects

English Heritage (1995): A Strategy for the Care and Investigation of Finds Ancient Monuments Laboratory

English Heritage (2002) Environmental Archaeology – A guide to the theory and practice of methods, from sampling and recovery to post-excavation

GeoQuest (2004) Roebuck Hill, Jump, Barnsley, South Yorkshire, Geophysical Survey

Institute of Field Archaeologists (1999) Standard and Guidance for archaeological field evaluation

Institute of Geological Sciences (1979) Geological Survey, Ten Mile Map North Sheet Quaternary

Jarvis et al (1984) Soils and Their Use in Northern England Soils Survey of England and Wales Bulletin No. **10**

Northern Archaeological Associates (2003) Roebuck Hill, Jump, Barnsley, South Yorkshire. Archaeological Desk-based Assessment. NAA Report Number **03/131**

Soil Surveys of England and Wales (1983) Soils of England and Wales: Sheet 1 Northern England

Watkinson and Neal (1998) First Aid for Finds

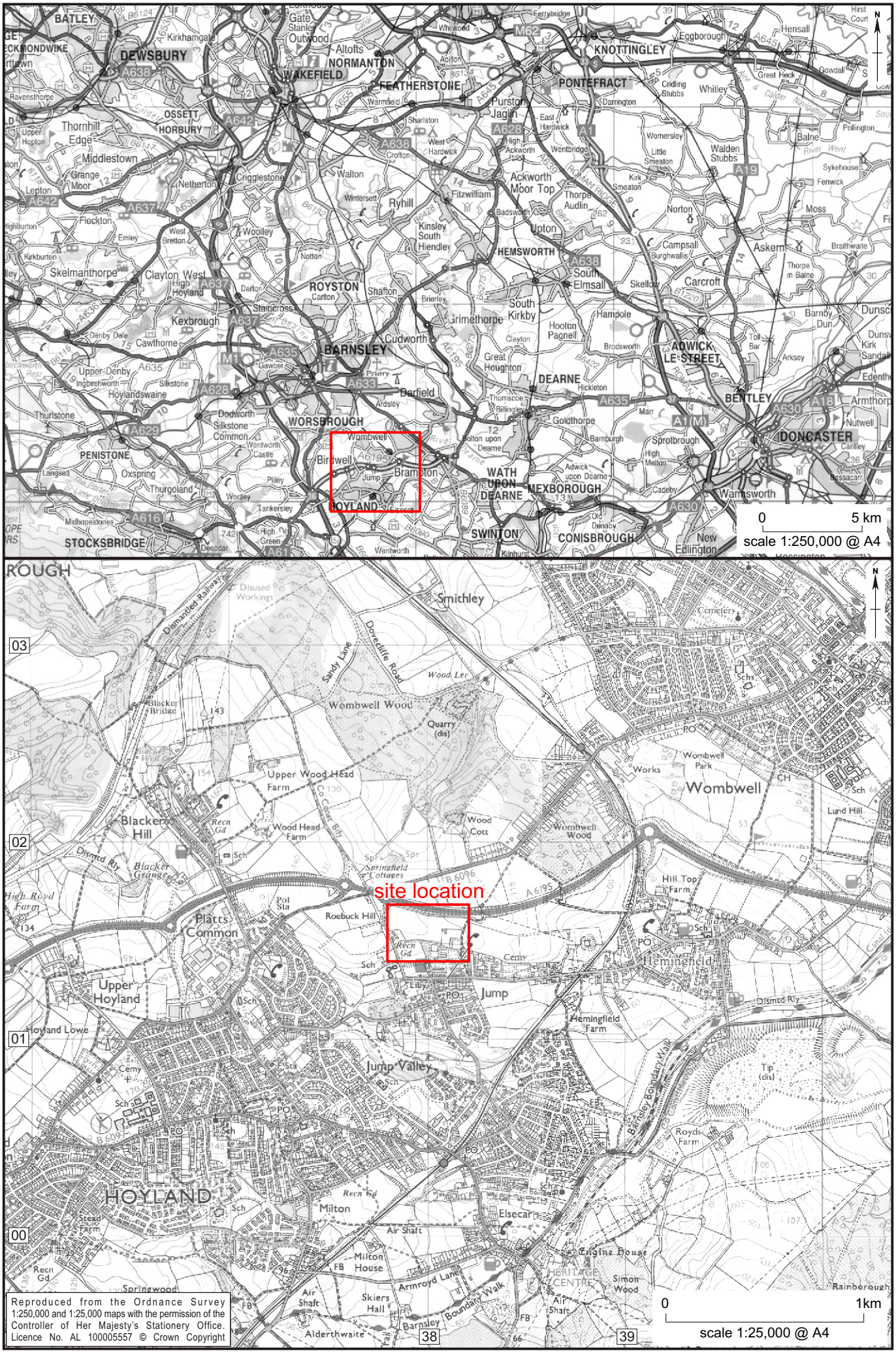


Figure 1 Jump: site location

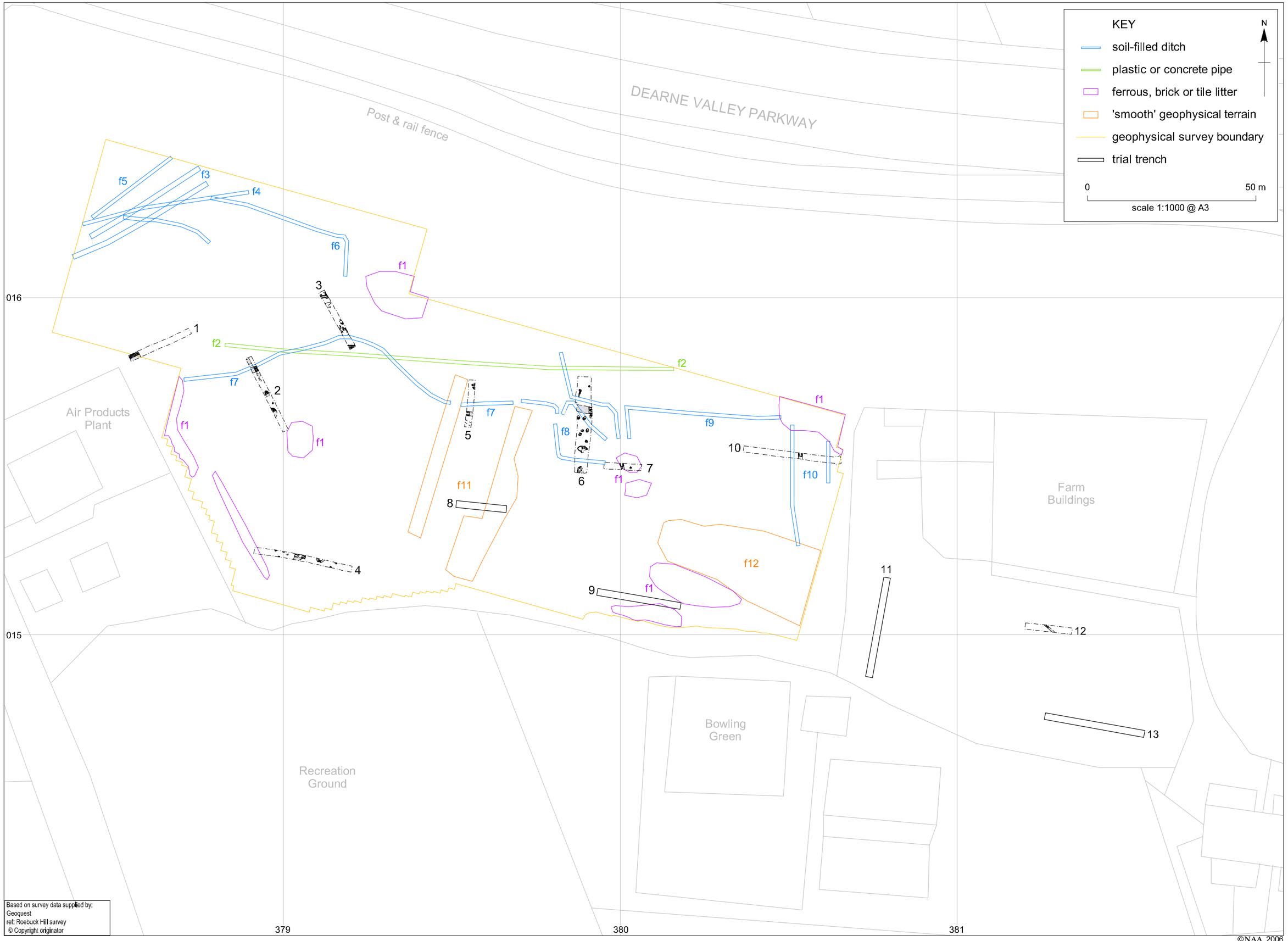


Figure 2 Jump: trial trench locations and results of geophysical survey

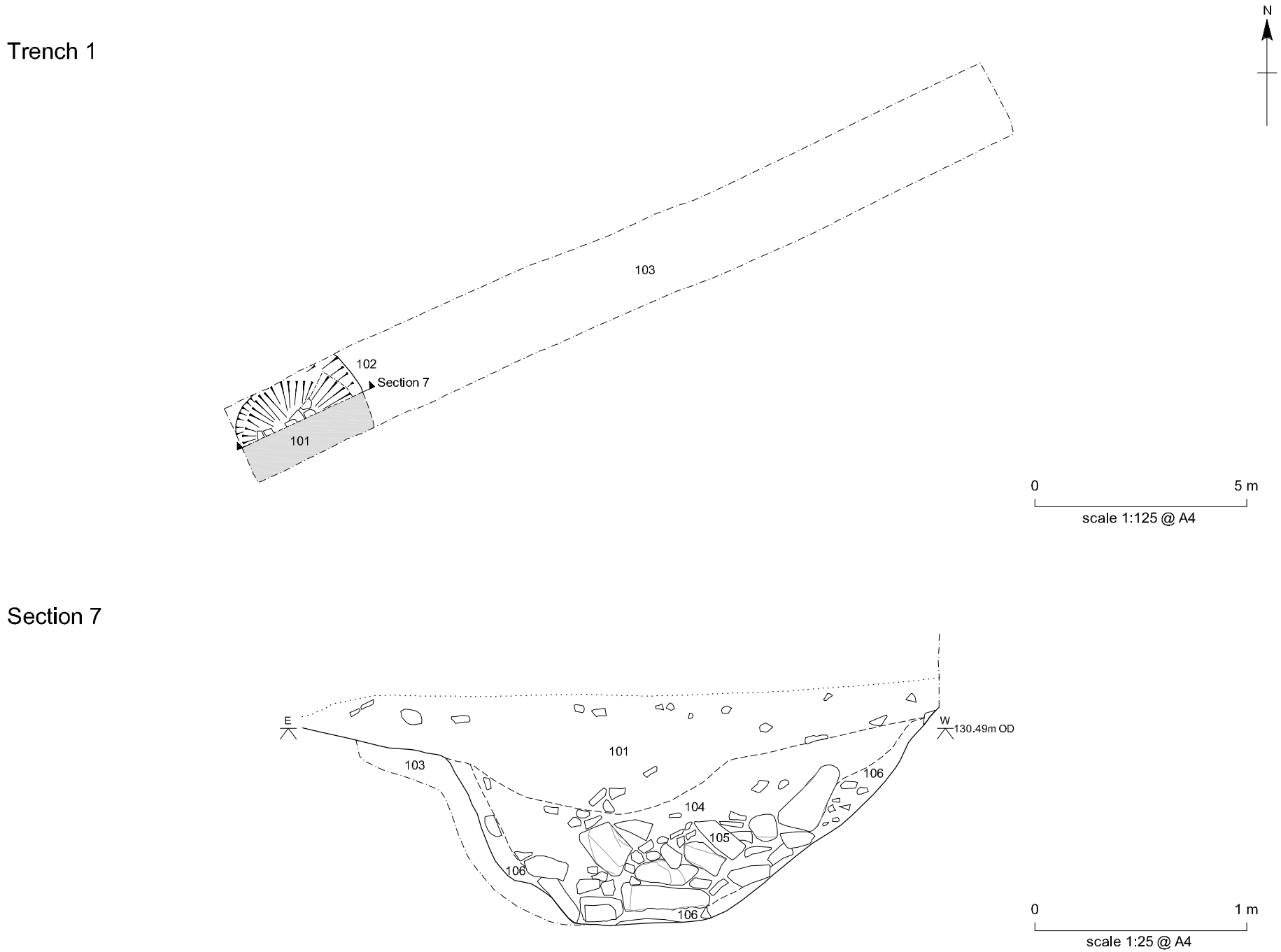


Figure 3 Jump: plan and section of Trench 1

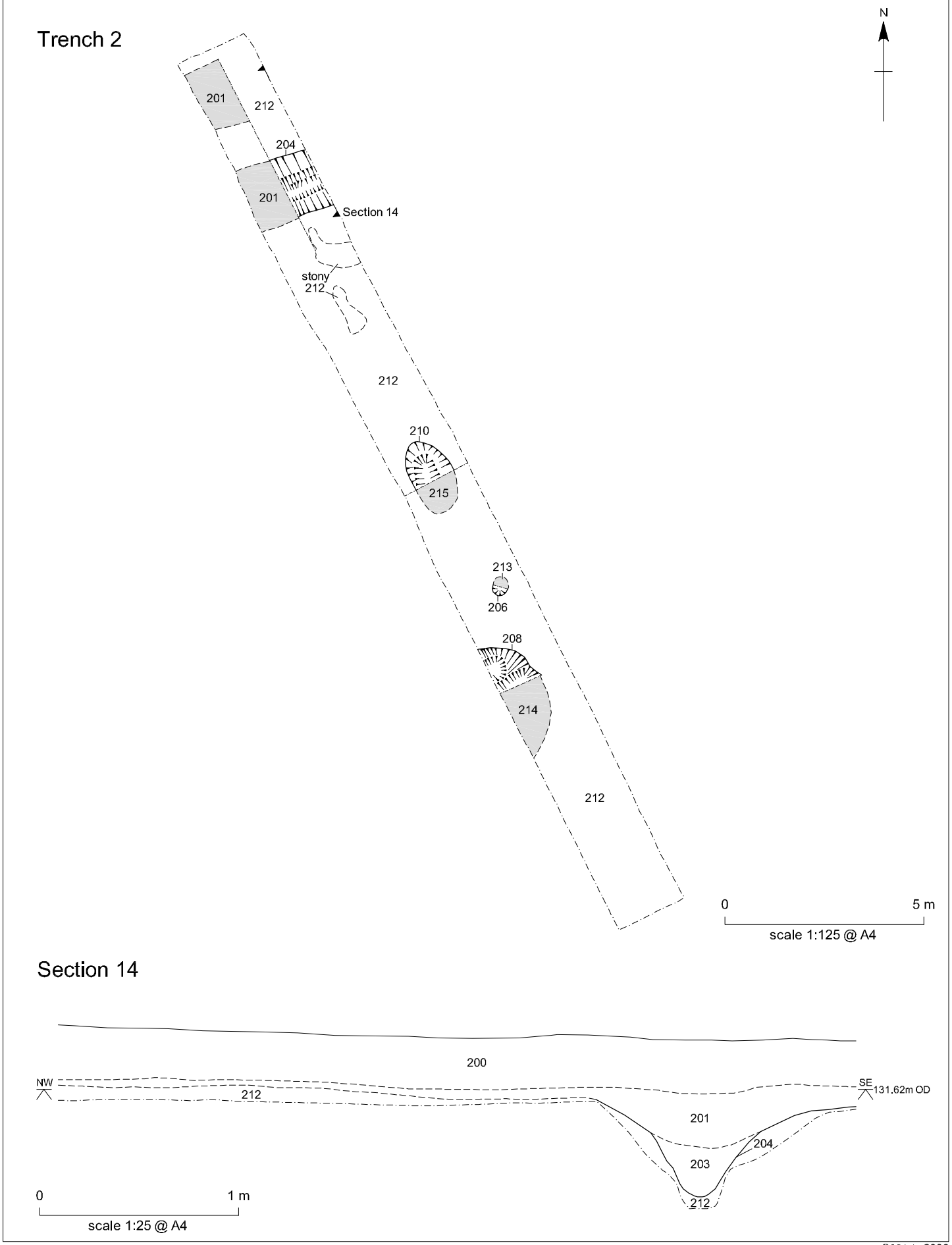


Figure 4 Jump: plan and section of Trench 2

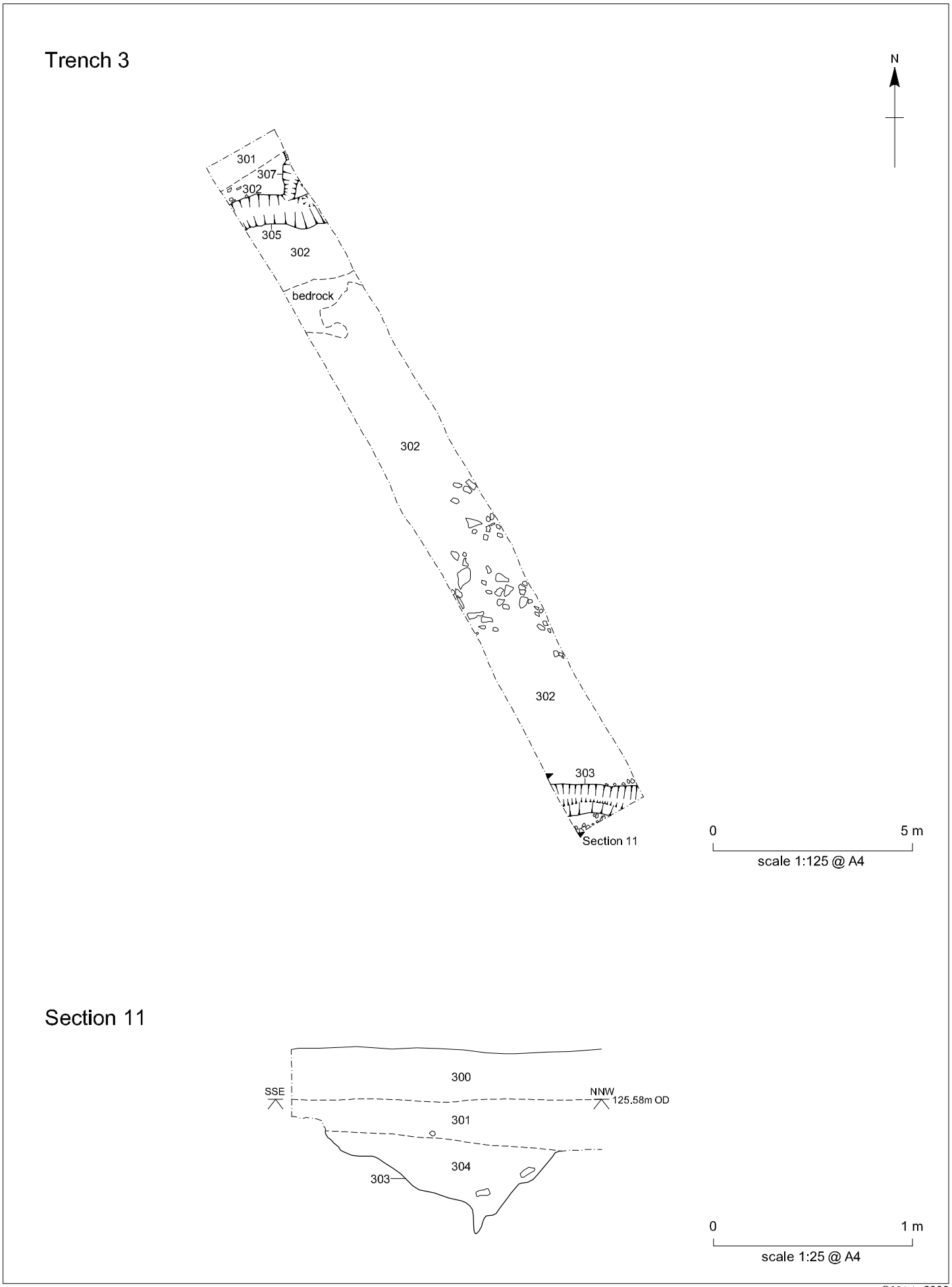


Figure 5 Jump: plan and section of Trench 3

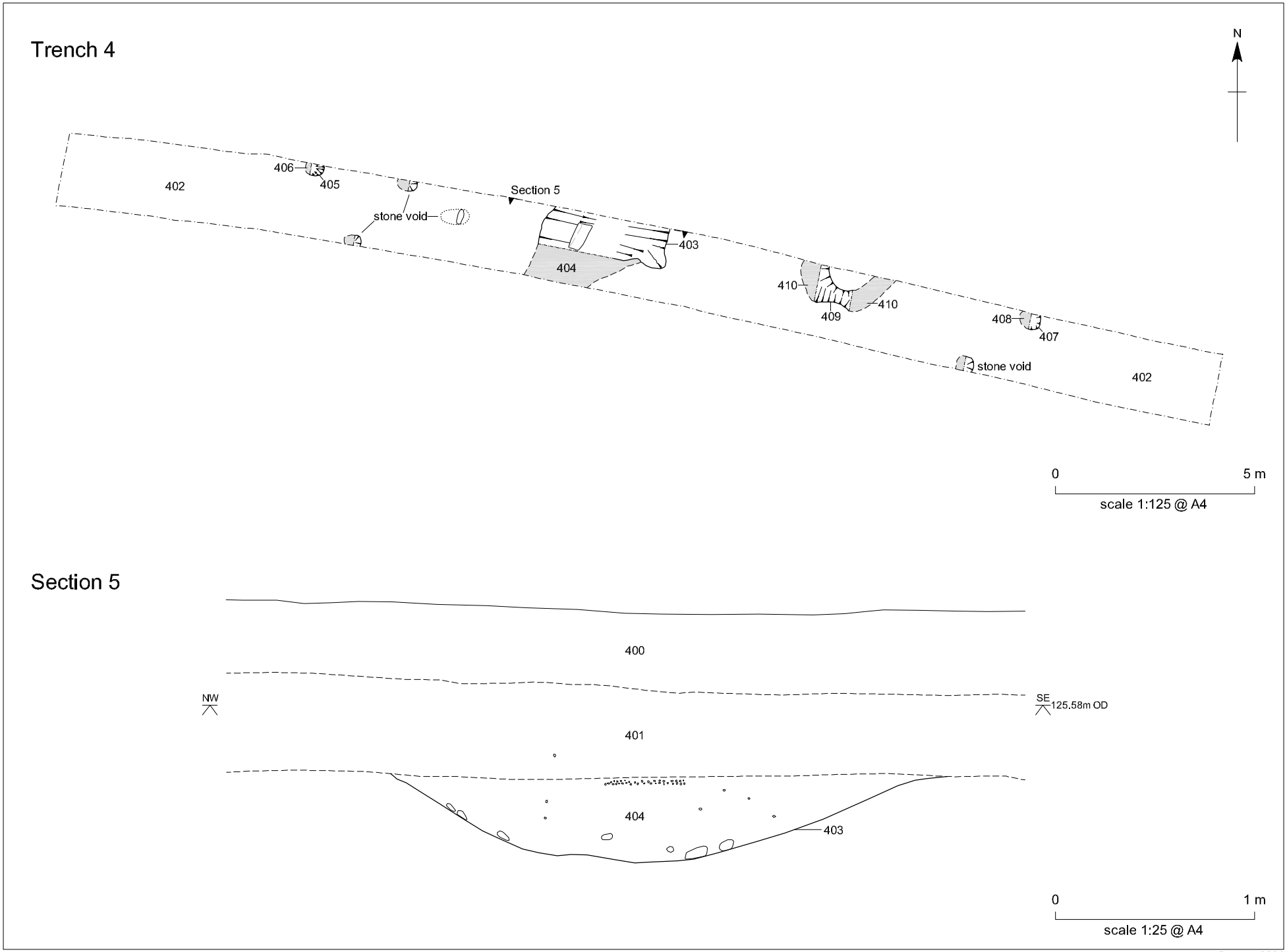
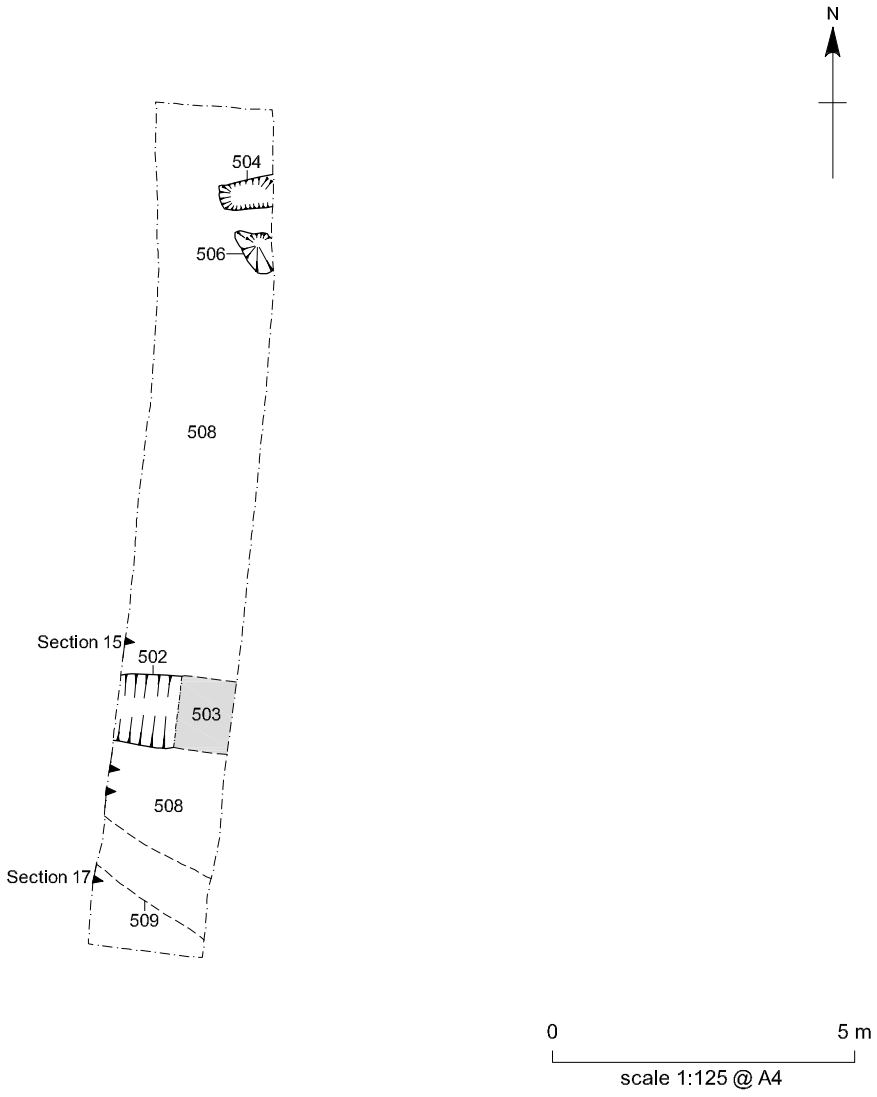
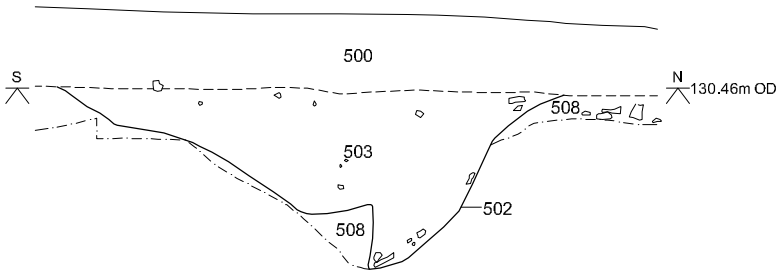


Figure 6 Jump: plan and section of Trench 4

Trench 5



Section 15



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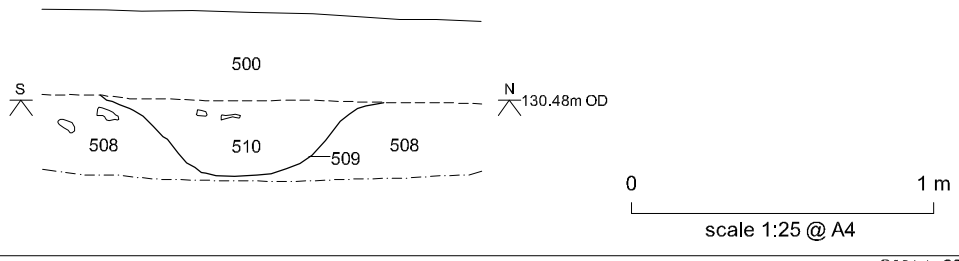


Figure 7 Jump: plan and sections of Trench 5

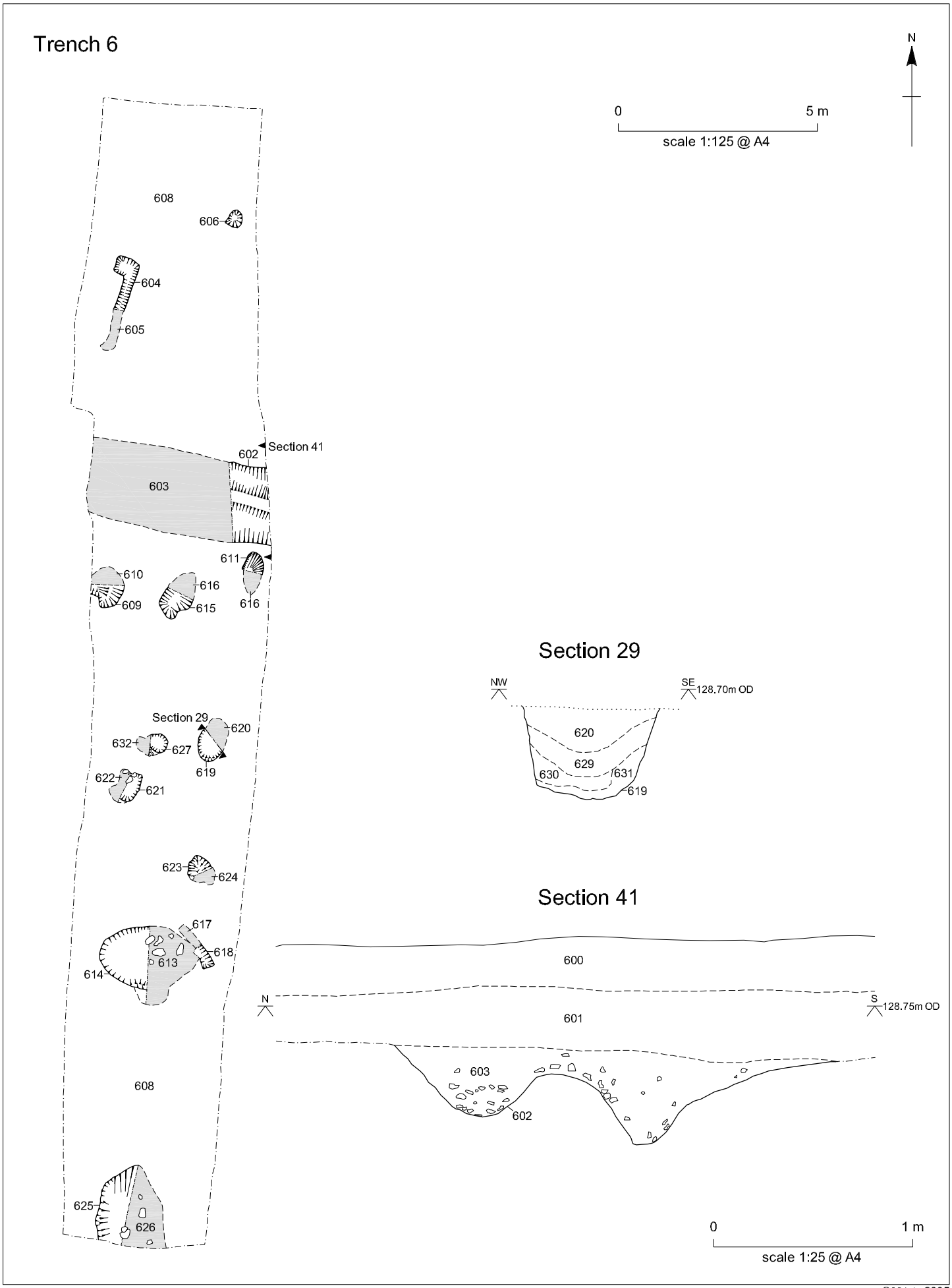


Figure 8 Jump: plan and section of Trench 6

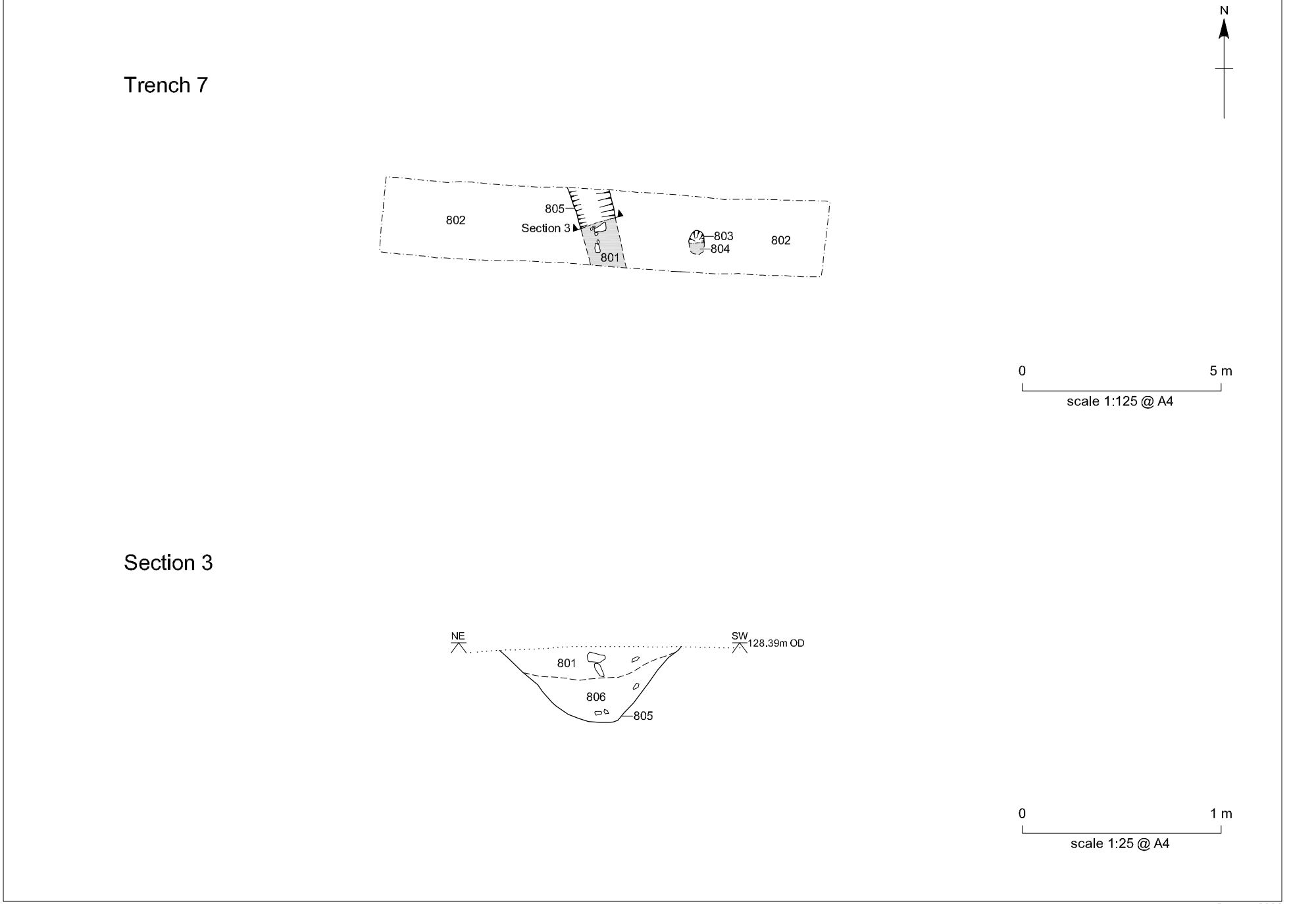


Figure 9 Jump: plan and section of Trench 7

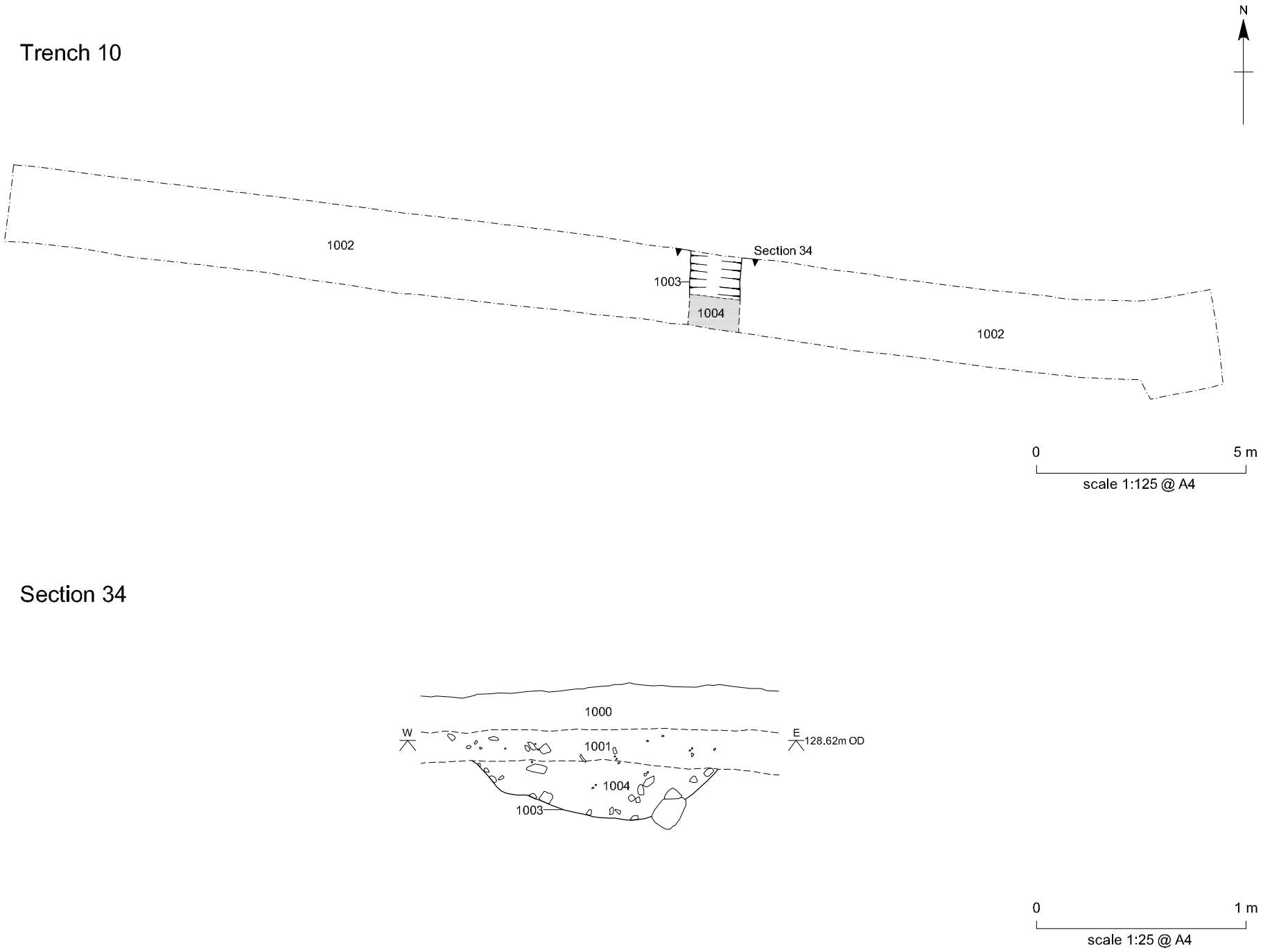
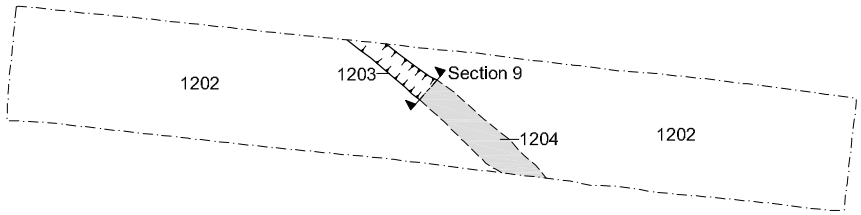
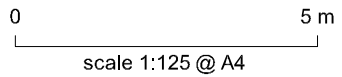


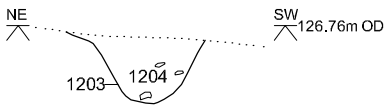
Figure 10 Jump: plan and section of Trench 10

Trench 12





Section 9



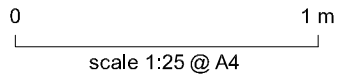


Figure 11 Jump: plan and section of Trench 12

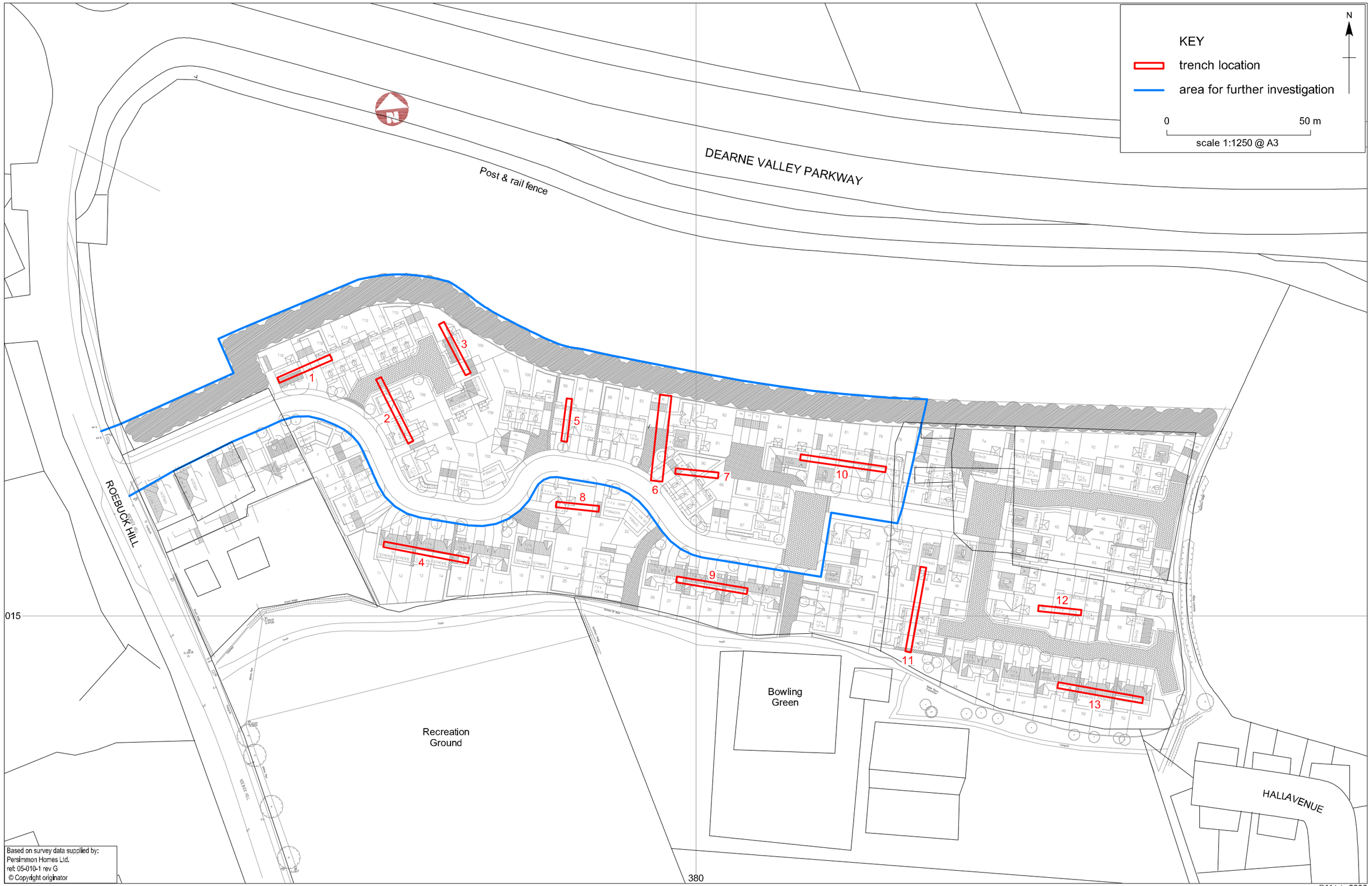


Figure 12 Roebuck Hill, Jump, Barnsley: plan of development showing trench locations and area for further investigation