



**University of
Leicester**

Archaeological Services

An archaeological field
evaluation at
**Boulton Moor (Phase 1),
Snelsmoor Lane,
Elvaston,
Derbyshire
(SK 396 316)**

Leon Hunt



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(SK 396 316)**

Leon Hunt

for

Persimmon Homes Ltd.

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CONTENTS

Summary	1
Introduction	1
Location and Geology	2
Historical and Archaeological Background	3
Archaeological Objectives	3
Methodology	3
Results	4
Trench 01	4
Trench 02	6
Trench 03	6
Trench 04	7
Trench 05	7
Trench 06	8
Trench 07	8
Trench 08	9
Trench 09	9
Trench 10	10
Trench 11	10
Trench 12	10
Trench 13	11
Trench 14	12
Trench 15	12
Trench 16	13
Trench 17	14
Trench 18	15
Trench 19	17
Trench 20	18
Trench 21	18
Trench 22	19
Trench 23	22
Trench 24	23
Trench 25	24
Additional Trenches	24
Conclusion	25
Acknowledgements	26
Publication	27
Archive	27
Appendix I: List of Archaeological Contexts	29
Appendix II: The Iron Age Pottery	30
Appendix III: Written scheme of investigation for archaeological work	31

FIGURES

Figure 1: Site Location.....	2
Figure 2: Plan of evaluation trenches.....	5
Figure 3: Plan of southern end of Trench 16 and section within.....	14
Figure 4: Plan of north-western end of Trench 17 and sections within.....	15
Figure 5: Plan of north-east end of Trench 18 and section within.....	17
Figure 6: Plan of southern end of Trench 19, and sections within.....	17
Figure 7: Plan of western end of Trench 22, and sections within.....	20
Figure 8: Plan of southern end of Trench 23 and sections within.....	21
Figure 9: Plan of Field 2, showing apparent line of pits within trenches.....	26

PLATES

Plate 1: Field 1, looking south, with Trench 01 in foreground.....	4
Plate 2: Trench 04, post-excavation, looking west.....	7
Plate 3: Post-excavation view of Trench 13, looking south, with furrow just visible on right side of trench.....	11
Plate 4: Extension to Trench 22, showing pits, looking north-west.....	20
Plate 5: Extension to Trench 23, showing pits, looking east.....	23
Plate 6: Work in progress, Trench 25, looking south.....	24
Plate 7: View north-west showing line of trenches and alignment of pits, Trench C in foreground.....	25

An archaeological field evaluation at Boulton Moor (Phase 1), Snelsmoor Lane, Elvaston, Derbyshire (SK 396 316)

Leon Hunt

Summary

An archaeological excavation by trial trenching was carried out on land at Boulton Moor (Phase 1), Snelsmoor Lane, Elvaston, Derbyshire (SK 396 316) in advance of the proposed development of the site for new housing and infrastructure.

The site is currently arable land to the south-east of Derby and is close to an area rich in archaeological features, in particular the Bronze Age barrow site of Swarkestone Lows, which lies to the south-west. A geophysical survey carried out on the site in 2003 was largely inconclusive.

The evaluation consisted of twenty four 30m trenches placed over parts of two fields, covering the area of Phase 1 of proposed new development, with a further trench in a field to the east, in an area to contain a pumping station.

This trench, along with twelve trenches in Field 1 and six in Field 2 was negative for archaeological features. However, a group of trenches to the south-west contained sections of ditches, gullies and two small post-holes and to the north of these the trenches revealed a series of medium sized pits, all very similar in size and shape, running in an alignment from north-west to south-east, with another line possibly running north-east to south-west. All the linear and post-hole features appeared to lie to the south-west of the pit alignment, which was followed further to the south-east by the excavation of three further small test trenches.

Iron Age pottery sherds were retrieved from the largest of the ditch fills and one of the aligned pits.

The archive for this project will be deposited with Derby Museums with accession number DBYMU: 2014.8.

Introduction

University of Leicester Archaeological Services (ULAS) were commissioned by Persimmon Homes Ltd to carry out an archaeological field evaluation at Boulton Moor (Phase 1), Snelsmoor Lane, Elvaston, Derbyshire (NGR: SK 396 316) in advance of the development of the area for new housing, shops, a school, playing fields and infrastructure.

This archaeological work is in accordance with NPPF Section 12: Enhancing and Conserving the Historic Environment.

The Derbyshire Historic Environment Record (HER) indicates that the area around the southern part of Derby is rich in prehistoric archaeology, with two scheduled sites close to the assessment area, including the Swarkestone Lows barrow cemetery, which lies around 2.5km south-west of Boulton Moor.

The site consists of parts of three arable fields, partly under crop and partly under stubble at the time of the evaluation.

Location and Geology

Boulton Moor lies to the south-east of Derby (Figure 1). The evaluation focuses on the very north-eastern part of this area, which consists of the northern parts of two fields, both of which lie in the Elvaston parish on the western side of the new section of Snelsmoor Lane. Another part of the proposed development (a new pumping station), lies further to the east within a field on the eastern side of the road (Figure 2).

The site consists of arable land, under stubble at the time of the evaluation, of 4.5 hectares. The land is flat and lies at a height of 45m aOD. The field on which the pumping station is to be located was under crop at the time of the evaluation.

The British Geological Survey indicates that the underlying geology of the area is likely to be Branscombe Mudstone Formation, overlain by sand and gravel in the northern part of the site (Allenton Terrace Deposit), by Head (a combination of sand and gravel, silt and clay) towards the centre and south of the site and by Oadby Member Diamicton in the very south of the site.

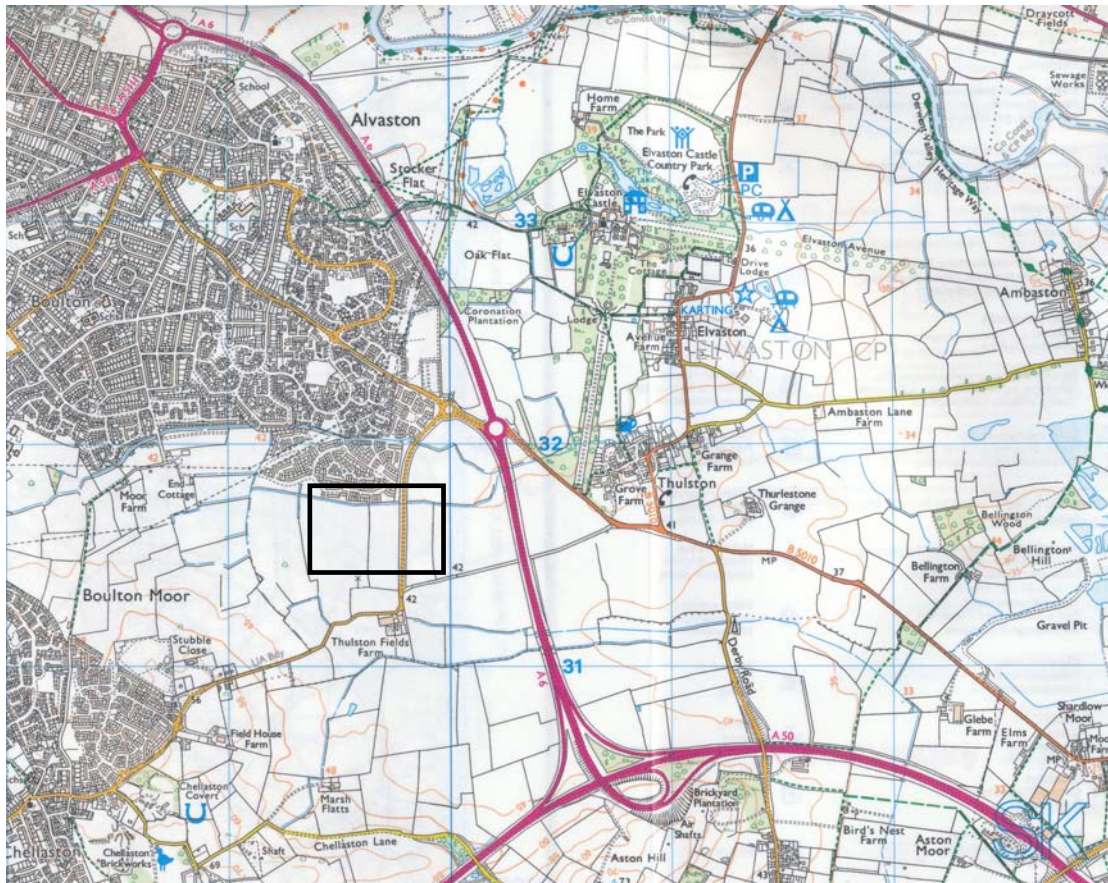


Figure 1: Site Location

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Historical and Archaeological Background

The Derbyshire Historic Environment Record (HER) indicates that the area around the southern part of Derby is rich in prehistoric archaeology, with two scheduled sites close to the assessment area, including the Swarkestone Lows barrow cemetery, which lies around 2.5km south-west of Boulton Moor.

A geophysical survey was carried out on part of the site in 2003 by GSB Prospection Ltd, but the results were largely inconclusive.

Archaeological Objectives

The main objectives of the evaluation were:

- To identify the presence/absence of any archaeological deposits.
- To establish the character, extent and date range for any archaeological deposits to be affected by the proposed ground works.
- To produce an archive and report of any results.

Within the stated project objectives, the principal aim of the evaluation is to establish the nature, extent, date, depth, significance and state of preservation of archaeological deposits on the site in order to determine the potential impact upon them from the proposed development.

Trial trenching is an intrusive form of evaluation that will demonstrate the existence of earth-fast archaeological features that may exist within the area.

Methodology

All work followed the Institute for Archaeologists (IfA) *Code of Conduct* (2010) in accordance with their *Standard and Guidance for Archaeological Field Evaluation* (2010). The archaeological work followed the *Written Scheme of Investigation (WSI) for archaeological work* (WSI) prepared by ULAS (Appendix III).

A 3% sample targeting the Phase 1 area was proposed for trenching (c. 1300m²), the equivalent of 25, 30m x 1.8m trenches. This was to include an area to the north along Shardlow Road, but this was inaccessible and so a trench was added to Field 1. A trench was foreshortened by 10m (Trench 25) in order to fit in the proposed pumping station area. Some of the trenches were extended and small ones added in order to define the extent of archaeological features.



Plate 1: Field 1, looking south, with Trench 01 in foreground

All the trenches within fields 1 and 2 were excavated using a large tracked excavator fitted with a toothless ditching bucket. The trench to the east was excavated using a JCB 3CX back-actor.

The work was carried out between 19th to 23rd May 2014.

Results

Trenches 01-12 were excavated within Field 1 to the east of the main site (Plate 1), with 13-24 excavated within the western field, Field 2. Trench 25 was placed within a field on the eastern side of Snelsmoor Lane (Figure 2).

Context numbers are provided for archaeological features, with cut numbers shown in square brackets [1], and context numbers in round brackets (2). A full list of contexts is shown in Appendix I.

Trench 01

Orientation: N-S

Length: 30m

Width: 1.9m

Topsoil: A mid yellowish grey friable clayey silt with 5% rounded pebbles

Subsoil: A light yellowish brown firm silty clay with 5% small rounded pebbles

Natural Substratum: Light orange brown sandy clay

No archaeological features or artefacts were discovered within this trench.

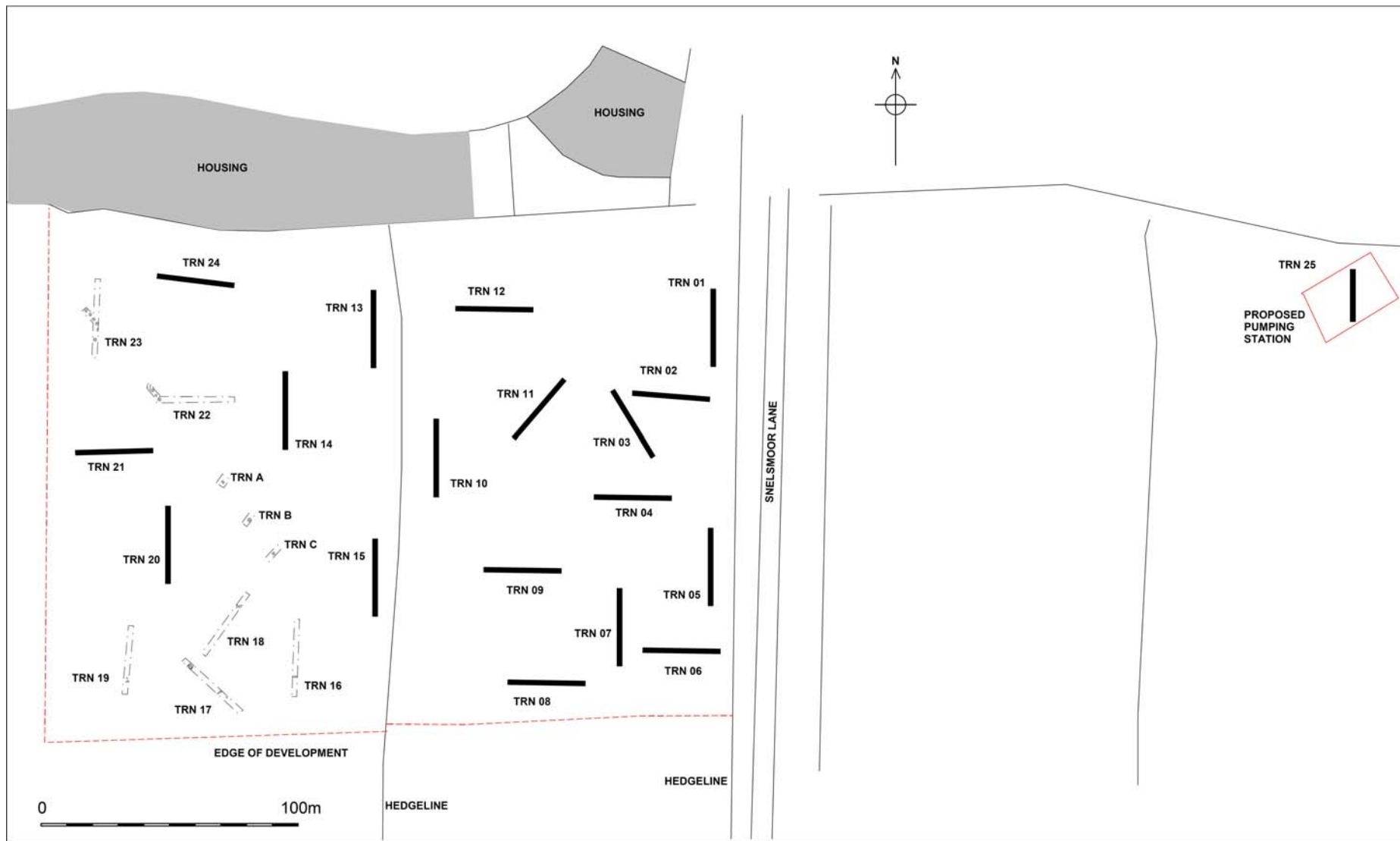


Figure 2: Plan of evaluation trenches

Interval	S 0m	5m	10m	15m	20m	25m	30m N
Topsoil Depth	0.25m	0.25m	0.25m	0.30m	0.30m	0.30m	0.40m
Subsoil Depth	0.10m	0.05m	0.05m	-	-	0.08m	-
Top of natural	0.35m	0.30m	0.30m	0.30m	0.30m	0.38m	0.40m
Base of trench	0.35m	0.30m	0.30m	0.35m	0.30m	0.38m	0.40m

Trench 02

Orientation: SE-NW

Length: 30m

Width: 1.9m

Topsoil: A mid-yellowish grey friable clayey silt with 5% rounded pebbles

Subsoil: A light yellowish brown firm silty clay with 5% small rounded pebbles

Natural Substratum: Light orange brown sandy clay

Interval	NW 0m	5m	10m	15m	20m	25m	30m SE
Topsoil Depth	0.28m	0.25m	0.28m	0.25m	0.30m	0.25m	0.26m
Subsoil Depth	-	-	-	0.09m	-	0.10m	-
Top of natural	0.28m	0.25m	0.28m	0.34m	0.30m	0.35m	0.26m
Base of trench	0.28m	0.30m	0.30m	0.34m	0.30m	0.35m	0.30m

No archaeological features or artefacts were discovered within this trench.

Trench 03

Orientation: N-S

Length: 30m

Width: 1.9m

Topsoil: A mid yellowish grey friable clayey silt with 5% rounded pebbles

Subsoil: A light yellowish brown firm silty clay with 5% small rounded pebbles

Natural Substratum: Light orange brown sandy clay

Interval	S 0m	5m	10m	15m	20m	25m	30m N
Topsoil Depth	0.28m	0.25m	0.25m	0.28m	0.20m	0.27m	0.25m
Subsoil Depth	0.10m	0.14m	0.18m	0.15m	0.12m	0.14m	0.12m
Top of natural	0.38m	0.39m	0.43m	0.43m	0.32m	0.41m	0.37m
Base of trench	0.38m	0.39m	0.43m	0.43m	0.32m	0.41m	0.37m

No archaeological features or artefacts were discovered within this trench.



Plate 2: Trench 04, post-excavation, looking west

Trench 04

Orientation: E-W

Length: 30m

Width: 1.9m

Topsoil: A light yellowish grey friable clayey silt with 5% rounded pebbles

Subsoil: A light orange brown friable clayey silt with 5% small rounded pebbles

Natural Substratum: Light orange brown clayey sand

Interval	E 0m	5m	10m	15m	20m	25m	30m W
Topsoil Depth	0.25m	0.30m	0.28m	0.30m	0.24m	0.20m	0.28m
Subsoil Depth	0.12m	0.19m	0.19m	0.20m	0.10m	0.12m	0.12m
Top of natural	0.37m	0.49m	0.42m	0.50m	0.34m	0.32m	0.40m
Base of trench	0.37m	0.49m	0.42m	0.50m	0.34m	0.32m	0.40m

No archaeological features or artefacts were discovered within this trench (Plate 2). Four plough furrows could be seen in the trench running north-to south.

Trench 05

Orientation: N-S

Length: 30m

Width: 1.9m

Topsoil: A light yellowish grey friable clayey silt with 5% rounded pebbles

Subsoil: A light orange brown friable clayey silt with 5% small rounded pebbles

Natural Substratum: Light orange brown clayey sand

Interval	S 0m	5m	10m	15m	20m	25m	30m N
Topsoil Depth	0.28m	0.20m	0.30m	0.20m	0.25m	0.28m	0.30m
Subsoil Depth	0.10m	0.06m	0.18m	0.07m	0.20m	0.15m	0.16m
Top of natural	0.38m	0.26m	0.48m	0.27m	0.45m	0.43m	0.46m
Base of trench	0.38m	0.41m	0.48m	0.39m	0.45m	0.43m	0.46m

No archaeological features or artefacts were discovered within this trench. A furrow ran along the edge of the eastern side of the trench, running north-south.

Trench 06

Orientation: E-W

Length: 30m

Width: 1.9m

Topsoil: A light yellowish grey friable clayey silt with 5% rounded pebbles

Subsoil: A light orange brown friable clayey silt with 5% small rounded pebbles

Natural Substratum: Light orange brown clayey sand

Interval	W 0m	5m	10m	15m	20m	25m	30m E
Topsoil Depth	0.25m	0.20m	0.26m	0.25m	0.25m	0.30m	0.26m
Subsoil Depth	0.14m	0.14m	0.24m	0.18m	0.20m	0.20m	0.12m
Top of natural	0.39m	0.39m	0.50m	0.43m	0.45m	0.50m	0.38m
Base of trench	0.49m	0.40m	0.50m	0.43m	0.45m	0.50m	0.40m

No archaeological features or artefacts were discovered within this trench. Two furrows were seen running north-south across the trench.

Trench 07

Orientation: N-S

Length: 30m

Width: 1.9m

Topsoil: Brownish grey firm silty clay with 5% rounded pebbles

Subsoil: Yellowish brown firm silty clay with 5% small rounded pebbles

Natural Substratum: Orange clayey sand and gravel, with patches of silt

Interval	W 0m	5m	10m	15m	20m	25m	30m E
Topsoil Depth	0.18m	0.27m	0.21m	0.25m	0.20m	0.23m	0.18m

Subsoil Depth	0.18m	0.15m	0.26m	0.22m	0.21m	0.23m	0.22m
Top of natural	0.36m	0.42m	0.47m	0.47m	0.41m	0.46m	0.40m
Base of trench	0.38m	0.43m	0.48m	0.48m	0.42m	0.50m	0.45m

No archaeological features or artefacts were discovered within this trench.

Trench 08

Orientation: E-W

Length: 30m

Width: 1.9m

Topsoil: Brownish grey firm silty clay with 5% rounded pebbles

Subsoil: Yellowish brown firm silty clay with 5% small rounded pebbles

Natural Substratum: Yellow orange or yellowish grey clayey sand and gravel, with patches of silt

Interval	W 0m	5m	10m	15m	20m	25m	30m E
Topsoil Depth	0.28m	0.25m	0.24m	0.23m	0.20m	0.20m	0.26m
Subsoil Depth	0.07m	0.10m	0.18m	0.10m	0.20m	-	-
Top of natural	0.35m	0.35m	0.42m	0.33m	0.40m	0.20m	0.26m
Base of trench	0.35m	0.35m	0.43m	0.42m	0.41m	0.30m	0.30m

No archaeological features or artefacts were present within this trench. Three furrows were identified running north-south across the trench.

Trench 09

Orientation: E-W

Length: 30m

Width: 1.9m

Topsoil: Brownish grey firm silty clay with 5%-10% rounded pebbles

Subsoil: Yellowish brown firm silty clay with 2%-5% small rounded pebbles

Natural Substratum: Orange grey clayey sand and gravel, with patches of silt

Interval	W 0m	5m	10m	15m	20m	25m	30m E
Topsoil Depth	0.28m	0.25m	0.24m	0.23m	0.20m	0.20m	0.26m
Subsoil Depth	0.07m	0.10m	0.18m	0.10m	0.20m	-	-
Top of natural	0.35m	0.35m	0.42m	0.33m	0.40m	0.20m	0.26m
Base of trench	0.35m	0.35m	0.43m	0.42m	0.41m	0.30m	0.30m

No archaeological features or artefacts were present within this trench. Two furrows were identified running north-south across the trench.

Trench 10

Orientation: N-S

Length: 30m

Width: 1.9m

Topsoil: Brownish grey firm sandy silt with 10% rounded pebbles

Subsoil: Yellowish brown firm silty clay

Natural Substratum: Orange brown clayey sand and gravel

Interval	N 0m	5m	10m	15m	20m	25m	30m S
Topsoil Depth	0.23m	0.23m	0.30m	0.20m	0.21m	0.25m	0.23m
Subsoil Depth	-	0.12m	0.12m	0.12m	0.10m	-	0.15m
Top of natural	0.23m	0.35m	0.42m	0.32m	0.31m	0.25m	0.38m
Base of trench	0.32m	0.36m	0.42m	0.40m	0.32m	0.36m	0.39m

No archaeological features or artefacts were present within this trench.

Trench 11

Orientation: E-W

Length: 30m

Width: 1.9m

Topsoil: Brownish grey firm sandy silt with 10% rounded pebbles

Subsoil: Yellowish brown firm silty clay

Natural Substratum: Orange brown clayey sand and gravel

Interval	E 0m	5m	10m	15m	20m	25m	30m W
Topsoil Depth	0.24m	0.22m	0.18m	0.14m	0.20m	0.20m	0.20m
Subsoil Depth	-	-	-	0.10m	-	0.12m	-
Top of natural	0.24m	0.22m	0.18m	0.24m	0.20m	0.32m	0.20m
Base of trench	0.40m	0.36m	0.35m	0.24m	0.32m	0.33m	0.30m

No archaeological features or artefacts were present within this trench. Two features were identified that after inspection were shown to be tree throws.

Trench 12

Orientation: NE-SW

Length: 30m

Width: 1.9m

Topsoil: Brownish grey firm sandy clay with 10% rounded pebbles

Subsoil: Yellowish brown firm sandy clay with frequent small rounded pebbles

Natural Substratum: Orange brown clayey sand and gravel with silty patches

Interval	NE 0m	5m	10m	15m	20m	25m	30m SW
Topsoil Depth	0.20m	0.20m	0.20m	0.26m	0.28m	0.26m	0.20m
Subsoil Depth	0.11m	-	0.08m	0.12m	0.15m	0.12m	0.20m
Top of natural	0.31m	0.20m	0.28m	0.38m	0.43m	0.38m	0.40m
Base of trench	0.32m	0.26m	0.28m	0.39m	0.44m	0.39m	0.41m

No archaeological features or artefacts were present within this trench. Two plough furrows were identified running north-south

Trench 13

Orientation: N-S

Length: 29m

Width: 1.9m

Topsoil: Brownish grey firm sandy clay with 10% rounded pebbles

Subsoil: Yellowish brown firm sandy clay with frequent small rounded pebbles

Natural Substratum: Yellowish orange and reddish orange sand and gravel



Plate 3: Post-excavation view of Trench 13, looking south, with furrow just visible on right side of trench

Interval	N 0m	5m	10m	15m	20m	25m	29m S
Topsoil Depth	0.30m	0.22m	0.25m	0.23m	0.30m	0.20m	0.30m
Subsoil Depth	-	0.14m	0.11m	0.11m	0.13m	0.14m	0.10m
Top of natural	0.30m	0.36m	0.36m	0.34m	0.43m	0.34m	0.40m
Base of trench	0.30m	0.38m	0.36m	0.40m	0.44m	0.40m	0.40m

No archaeological features or artefacts were present within this trench. A plough furrow was identified running north-south along the western edge of the trench

Trench 14

Orientation: N-S

Length: 30m

Width: 1.9m

Topsoil: Brownish grey firm sandy clay with 10% rounded pebbles

Subsoil: Yellowish brown firm sandy clay with frequent small rounded pebbles

Natural Substratum: Yellowish orange and reddish orange sand and gravel with some silty patches, possibly related to tree throws

Interval	N 0m	5m	10m	15m	20m	25m	29m S
Topsoil Depth	0.26m	0.30m	0.20m	0.20m	0.26m	0.23m	0.30m
Subsoil Depth	-	-	0.12m	0.10m	-	0.18m	0.05m
Top of natural	0.26m	0.30m	0.32m	0.30m	0.26m	0.41m	0.35m
Base of trench	0.26m	0.32m	0.33m	0.31m	0.37m	0.42m	0.35m

No archaeological features or artefacts were present within this trench.

Trench 15

Orientation: N-S

Length: 29.5m

Width: 1.9m

Topsoil: Brownish grey firm sandy clay with 10% rounded pebbles

Subsoil: Greyish brown firm silty clay with very rare rounded pebbles

Natural Substratum: Yellowish orange sand and gravel with some silty patches

Interval	N 0m	5m	10m	15m	20m	25m	29m S
Topsoil Depth	0.30m	0.29m	0.20m	0.23m	0.30m	0.33m	0.23m

Subsoil Depth	-	0.09m	0.22m	0.17m	0.20m	0.10m	0.27m
Top of natural	0.30m	0.38m	0.42m	0.40m	0.50m	0.43m	0.50m
Base of trench	0.30m	0.39m	0.43m	0.42m	0.51m	0.43m	0.52m

No archaeological features or artefacts were present within this trench. A furrow was identified partly visible along the south-western edge of the trench, running north-south.

Trench 16

Orientation: N-S

Length: 29m

Width: 1.9m

Topsoil: Brownish grey firm to weak sandy clay with 2% rounded pebbles

Subsoil: Yellowish brown firm sandy clay with common rounded pebbles

Natural Substratum: Yellowish orange sand and gravel with some silty patches

Interval	N 0m	5m	10m	15m	20m	25m	29m S
Topsoil Depth	0.33m	0.33m	0.35m	0.32m	0.33m	0.34m	0.24m
Subsoil Depth	0.18m	0.18m	0.19m	0.10m	0.20m	0.14m	0.12m
Top of natural	0.51m	0.51m	0.54m	0.42m	0.53m	0.48m	0.36m
Base of trench	0.52m	0.58m	0.56m	0.50m	0.55m	0.60m	0.37m

A furrow was identified running north-south along the eastern side of the trench. A small gully running east to west across the width of the trench was identified close to the southern end of the trench. The gully was 0.56m wide and the cut [16] was very shallow with a flattish base. The fill (17) was yellowish brown sandy silt with frequent small and medium rounded pebbles (Figure 3).

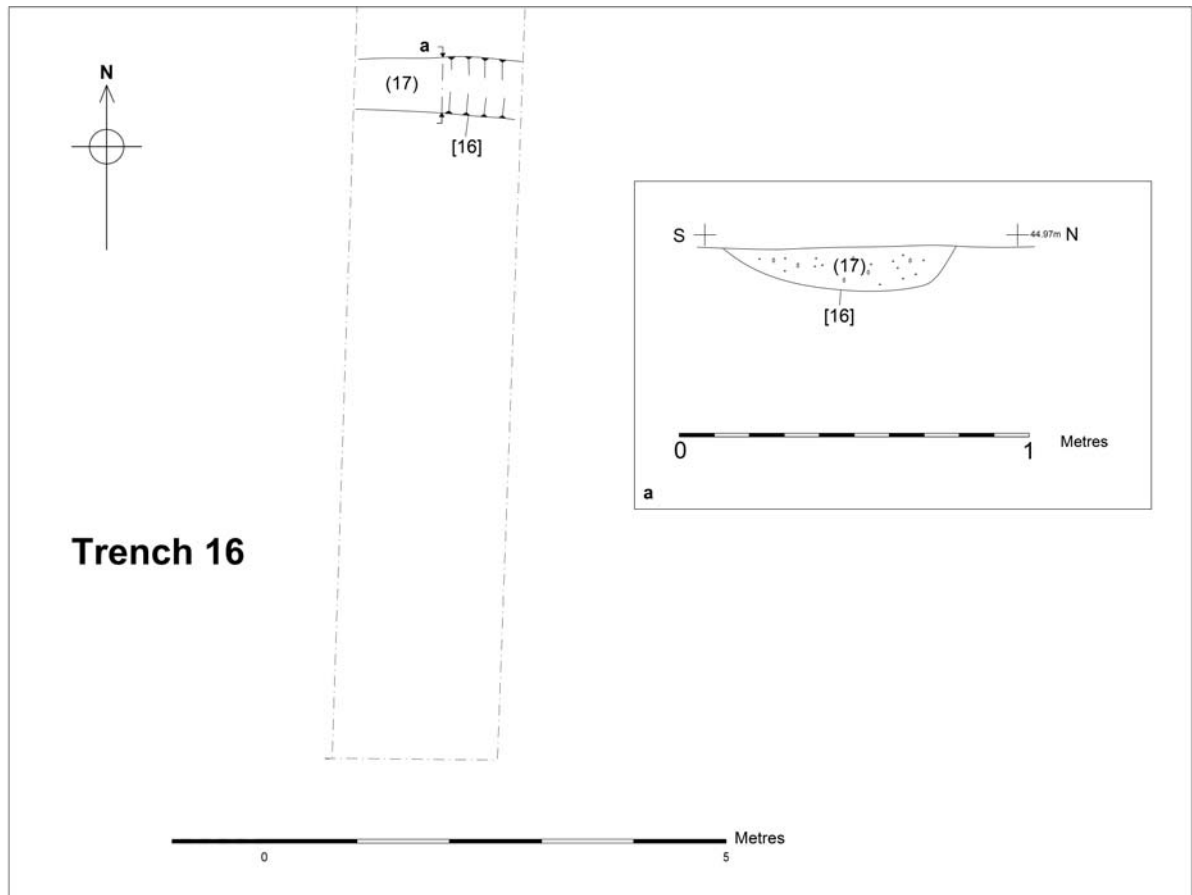


Figure 3: Plan of southern end of Trench 16 and section within

Trench 17

Orientation: NW-SE

Length: 29m

Width: 1.9m

Topsoil: Brownish grey firm to weak sandy clay with 2% rounded pebbles

Subsoil: Yellowish brown firm sandy clay with common rounded pebbles

Natural Substratum: Yellowish orange sand and gravel

Interval	SE 0m	5m	10m	15m	20m	25m	29m NW
Topsoil Depth	0.33m	0.33m	0.35m	0.32m	0.33m	0.34m	0.24m
Subsoil Depth	0.18m	0.18m	0.19m	0.10m	0.20m	0.14m	0.12m
Top of natural	0.51m	0.51m	0.54m	0.42m	0.53m	0.48m	0.36m
Base of trench	0.52m	0.58m	0.56m	0.50m	0.55m	0.60m	0.37m

A furrow was identified running north-south around the mid-point of the trench, running north-south.

Close to the north-west end of the trench was a ditch, running north-east to south-west across the trench. The ditch cut [12] was 1.77m wide with a shallow north-western side and a stepped south-eastern side. The base was concave at a depth of 0.66m.

The fill (13) was a brownish grey mottled yellowish brown sandy silt with frequent rounded pebbles and contained two sherds of Iron Age pottery in the very upper layers.

Further down the trench, on a similar alignment to ditch [12] was a narrower ditch or gully [14], which was 0.49m wide with 45° sides and a curved base at 0.22m depth. The fill (15) was a yellowish brown sandy silt with common rounded pebbles.

Close to this feature was a small post-hole [24]. This measured 0.44m by 0.25m with vertical sides and narrow curved base at 0.24m depth. The fill (25) was a yellowish brown sandy silt with frequent rounded pebbles (Figure 4).

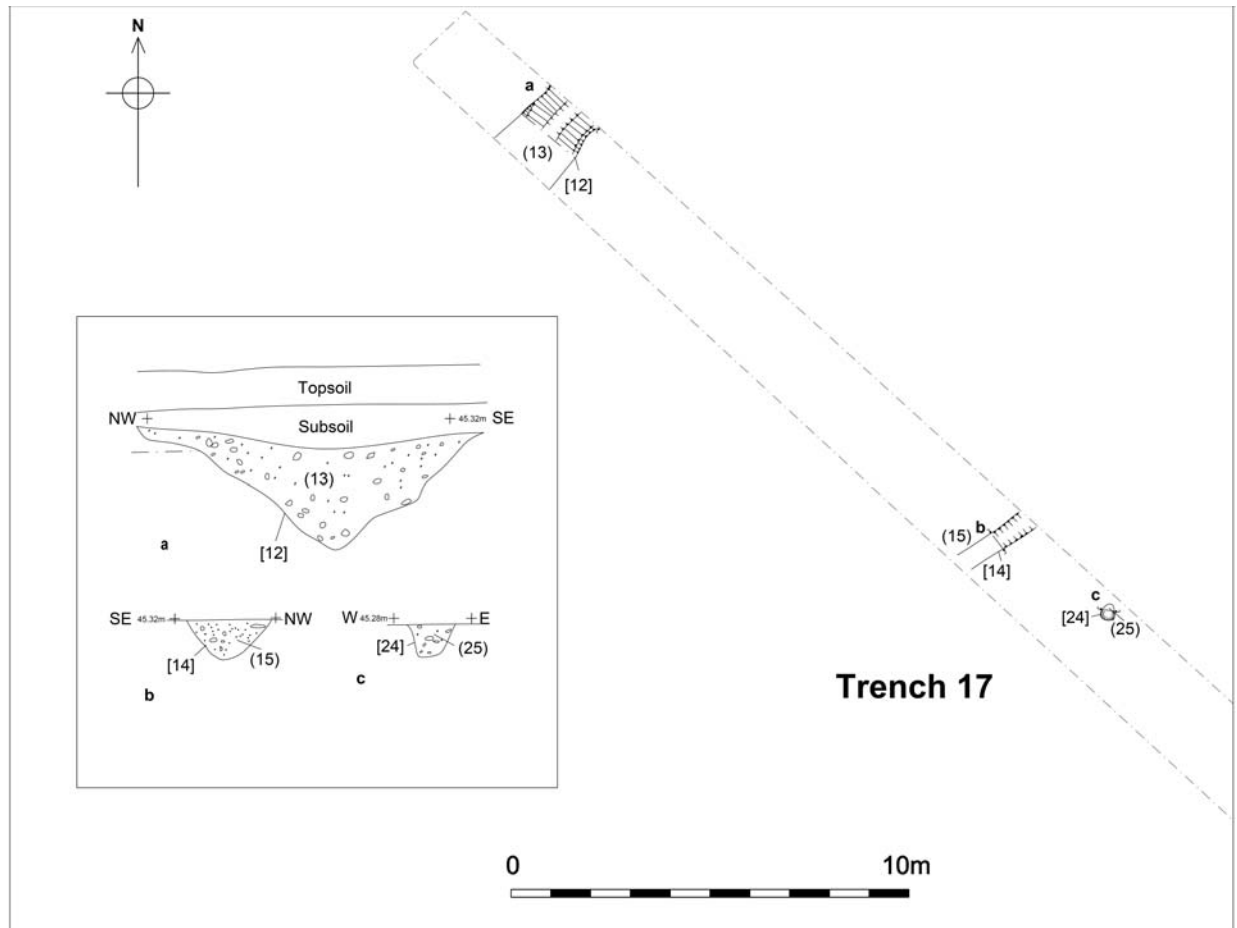


Figure 4: Plan of north-western end of Trench 17 and sections within

Trench 18

Orientation: NE-SW

Length: 30m

Width: 1.9m

Topsoil: Brownish grey firm to weak sandy clay with 2% rounded pebbles

Subsoil: Yellowish brown firm sandy clay with common rounded pebbles

Natural Substratum: Yellowish orange sand and gravel

Interval	SW 0m	5m	10m	15m	20m	25m	29m NE
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Topsoil Depth	0.26m	0.30m	0.29m	0.32m	0.33m	0.29m	0.30m
Subsoil Depth	0.22m	0.25m	0.04m	-	0.13m	-	0.07m
Top of natural	0.48m	0.55m	0.35m	0.32m	0.46m	0.29m	0.37m
Base of trench	0.60m	0.56m	0.34m	0.48m	0.48m	0.33m	0.38m

A ditch [18] running east to west across the trench was identified close to the north-eastern end of the trench. This was 0.87m wide and was partially obscured by a furrow along its western edge.

The sides of the cut were at a 45° angle and it had a concave base at 0.20m depth. The fill (19) was a yellowish grey sandy silt with common rounded stones (Figure 5).

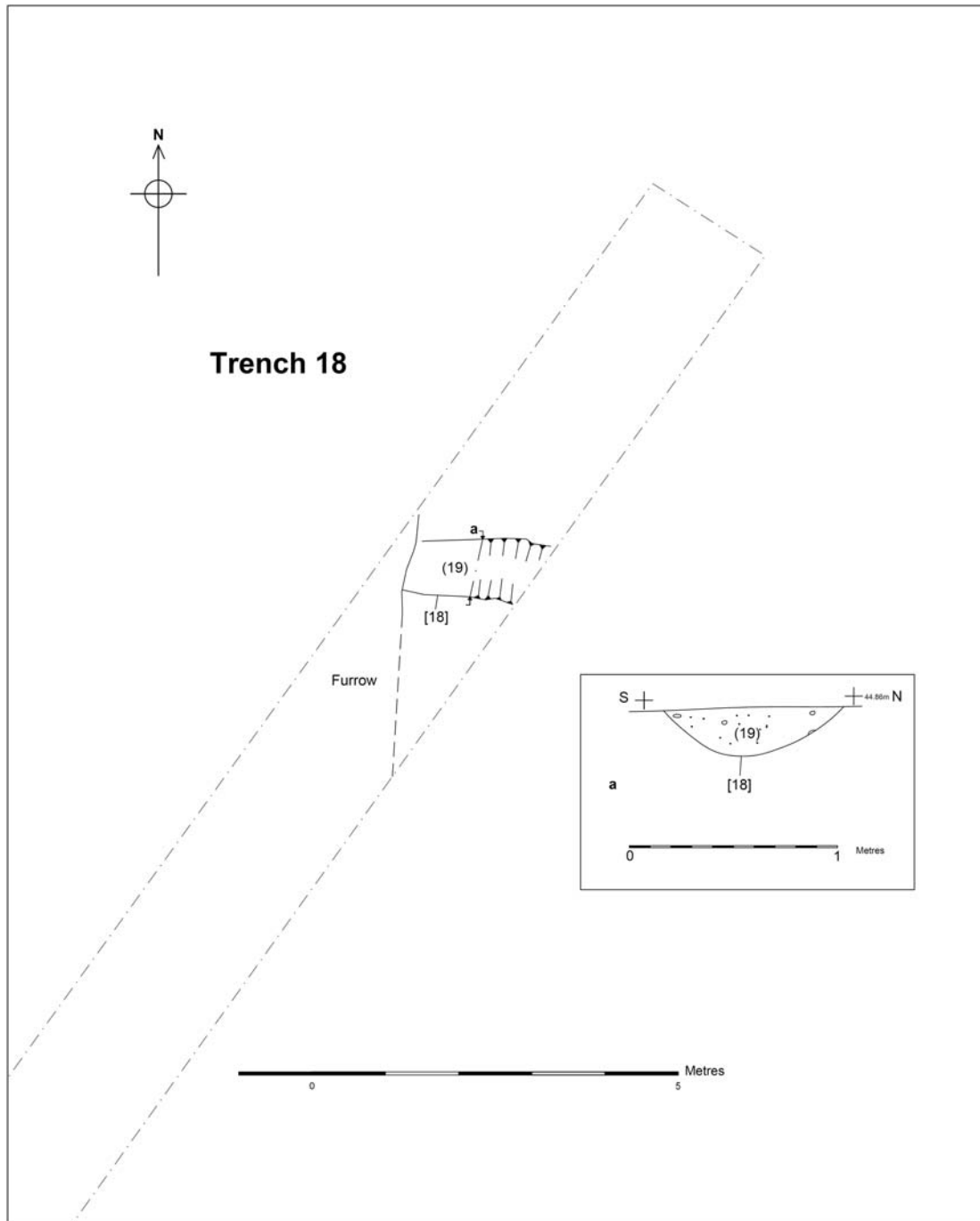


Figure 5: Plan of north-east end of Trench 18 and section within

Trench 19

Orientation: N-S

Length: 30m

Width: 1.9m

Topsoil: Yellowish grey friable loam with 5% small rounded pebbles

Subsoil: Mid orange brown friable clayey silt with common rounded pebbles

Natural Substratum: Light orange brown sand and gravel

Interval	S 0m	5m	10m	15m	20m	25m	30m N
Topsoil Depth	0.34m	0.26m	0.30m	0.30m	0.20m	0.30m	0.30m
Subsoil Depth	-	-	0.10m	0.14m	0.16m	0.10m	0.15m
Top of natural	0.34m	0.26m	0.40m	0.44m	0.36m	0.40m	0.45m
Base of trench	0.39	0.36m	0.40m	0.54m	0.44m	0.48m	0.53m

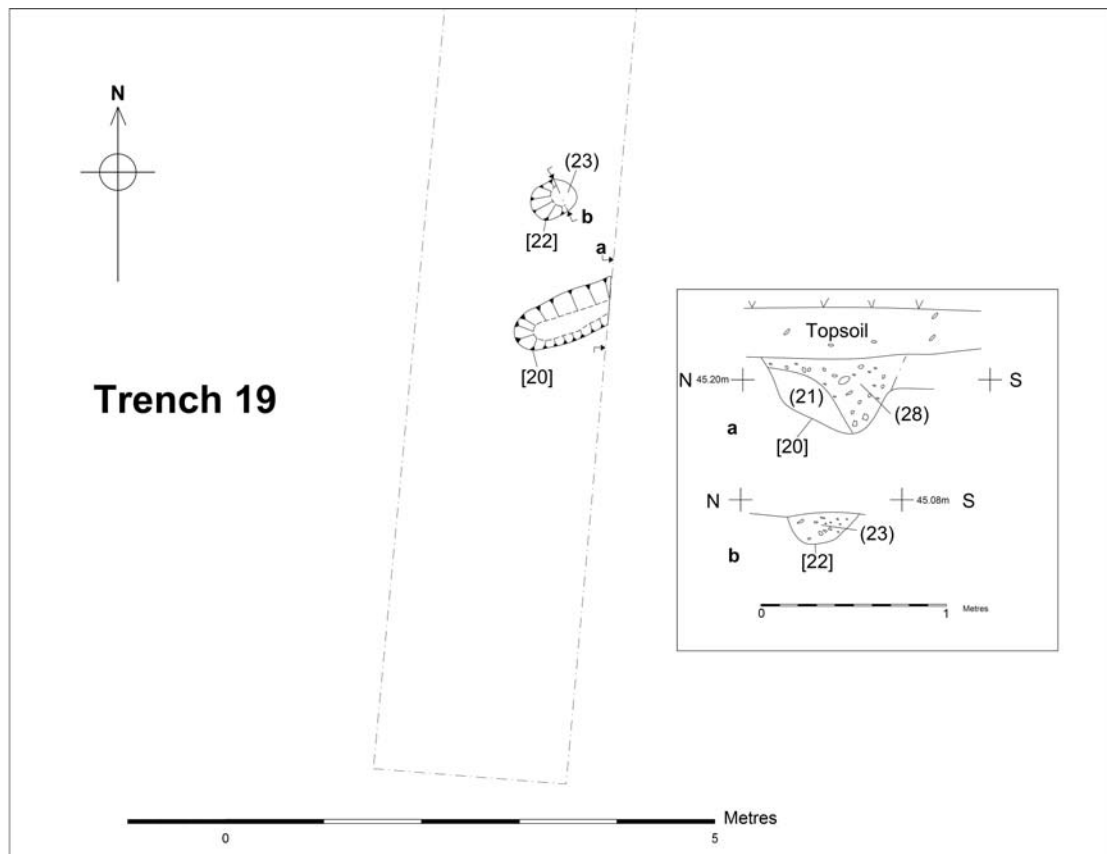


Figure 6: Plan of southern end of Trench 19, and sections within

Close to the southern end of the trench were a small post-hole [22] and a curved gully [20]. The post-hole was oval in shape and measured 0.36m by 0.40m, with a steep northern side and a moderately sloped southern side. The fill (23) was a mid orange brown clayey silt with frequent small rounded stones. The small gully [20] lay broadly east-west and was 0.80m long and 0.50m wide with steep sides and a narrow

curved base. The lower fill (21) was a light orange brown clayey silt with rounded pebbles and the upper fill was a light yellowish brown clayey silt with common rounded pebbles (Figure 6).

A further feature close to the centre of the trench was found to be a patch of silt within the sand and gravel.

Trench 20

Orientation: N-S

Length: 30m

Width: 1.9m

Topsoil: Dark yellowish grey friable clayey silt with 5% small rounded pebbles

Subsoil: Mid yellowish brown clayey silt with 2% small rounded pebbles

Natural Substratum: Light orange brown clayey sand and gravel

Interval	S 0m	5m	10m	15m	20m	25m	30m N
Topsoil Depth	0.28m	0.28m	0.30m	0.25m	0.30m	0.25m	0.30m
Subsoil Depth	0.09m	0.06m	0.15m	0.18m	-	0.10m	0.09m
Top of natural	0.37m	0.39m	0.45m	0.43m	0.30m	0.35m	0.39m
Base of trench	0.49m	0.9 m	0.45m	0.43m	0.40m	0.48m	0.42m

No archaeological features or artefacts were present within this trench. A furrow was identified running north-south along the western side of the trench.

Trench 21

Orientation: E-W

Length: 30m

Width: 1.9m

Topsoil: Dark yellowish grey friable clayey silt with 5% small rounded pebbles

Subsoil: Mid yellowish brown clayey silt with 2% small rounded pebbles

Natural Substratum: Light orange brown clayey sand and gravel

Interval	S 0m	5m	10m	15m	20m	25m	30m N
Topsoil Depth	0.22m	0.25m	0.29m	0.24m	0.24m	0.22m	0.20m
Subsoil Depth	-	-	-	-	0.06m	0.04m	0.06m
Top of natural	0.22m	0.25m	0.29m	0.24m	0.30m	0.26m	0.26m
Base of trench	0.25m	0.25m	0.33m	0.28m	0.32m	0.28m	0.30m

No archaeological features or artefacts were present within this trench.

Trench 22

Orientation: E-W, part NW-SE

Length: 30m + 6.3m

Width: 1.9m

Topsoil: Dark yellowish grey friable clayey silt with 5% small rounded pebbles

Subsoil: Mid yellowish brown clayey silt with 2% small rounded pebbles

Natural Substratum: Light orange brown clayey sand and gravel

Interval	S 0m	5m	10m	15m	20m	25m	30m N
Topsoil Depth	0.23m	0.20m	0.25m	0.25m	0.23m	0.20m	0.30m
Subsoil Depth	0.05m	0.10m	0.10m	0.10m	0.08m	0.08m	0.20m
Top of natural	0.28m	0.30m	0.35m	0.35m	0.31m	0.28m	0.50m
Base of trench	0.33m	0.30m	0.37m	0.35m	0.33m	0.30m	0.50m

Interval	NW 0m	2.5m	5m SE
Topsoil Depth	0.25m	0.25m	0.22m
Subsoil Depth	0.08m	0.08m	0.06m
Top of natural	0.33m	0.33m	0.28m
Base of trench	0.33m	0.33m	0.30m

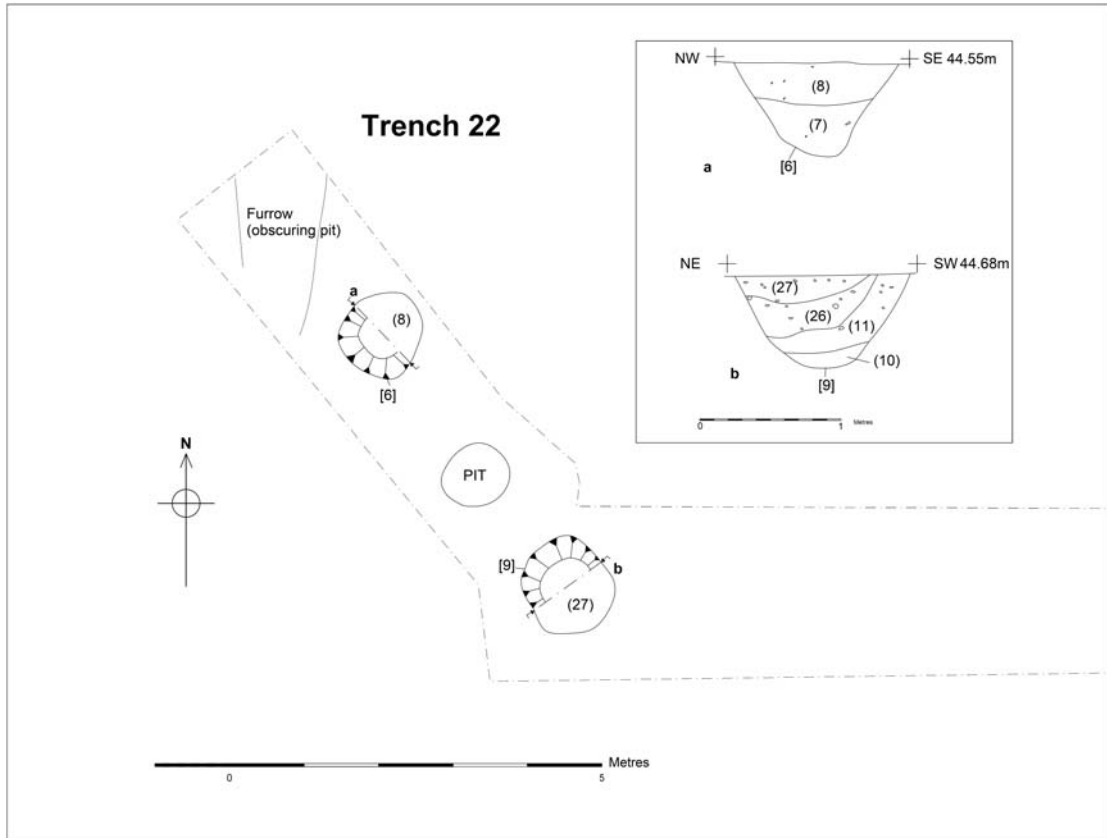


Figure 7: Plan of western end of Trench 22, and sections within



Plate 4: Extension to Trench 22, showing pits, looking north-west

A single large pit was identified during the excavation of the trench, but after the discovery of a similar pit in Trench 23, this trench was extended to the north-west and another two pits were identified (Plate 4: Figure 7).

Two of these pits were sampled. The northern most pit measured 0.75m by 1.15m, oriented north-south. The cut [6] was steep sided with a narrow concave base at 0.65m depth. The lower fill (7) was a light orange brown silty clay with few small pebbles. The upper fill (8) was a light yellowish grey clayey silt with very few small rounded pebbles and 17 sherds of Iron Age pottery, all from the same vessel.

The southern pit measured 0.75m by 1.25m, oriented north-west to south-east. The cut [9] was steep sided with a narrow concave base at 0.64m depth. The lowest fill (10) was a very pale grey clayey silt, underlying (11), a mid yellowish grey clayey silt with occasional small rounded pebbles, which slumps down from the south-west. This fill is very similar to (10), but has pebbles within the matrix. Over this lay fill (26), which was a yellowish grey clayey silt with small pebbles. Over this lay the upper fill (27), which was a light yellowish grey clayey silt with frequent rounded pebbles.

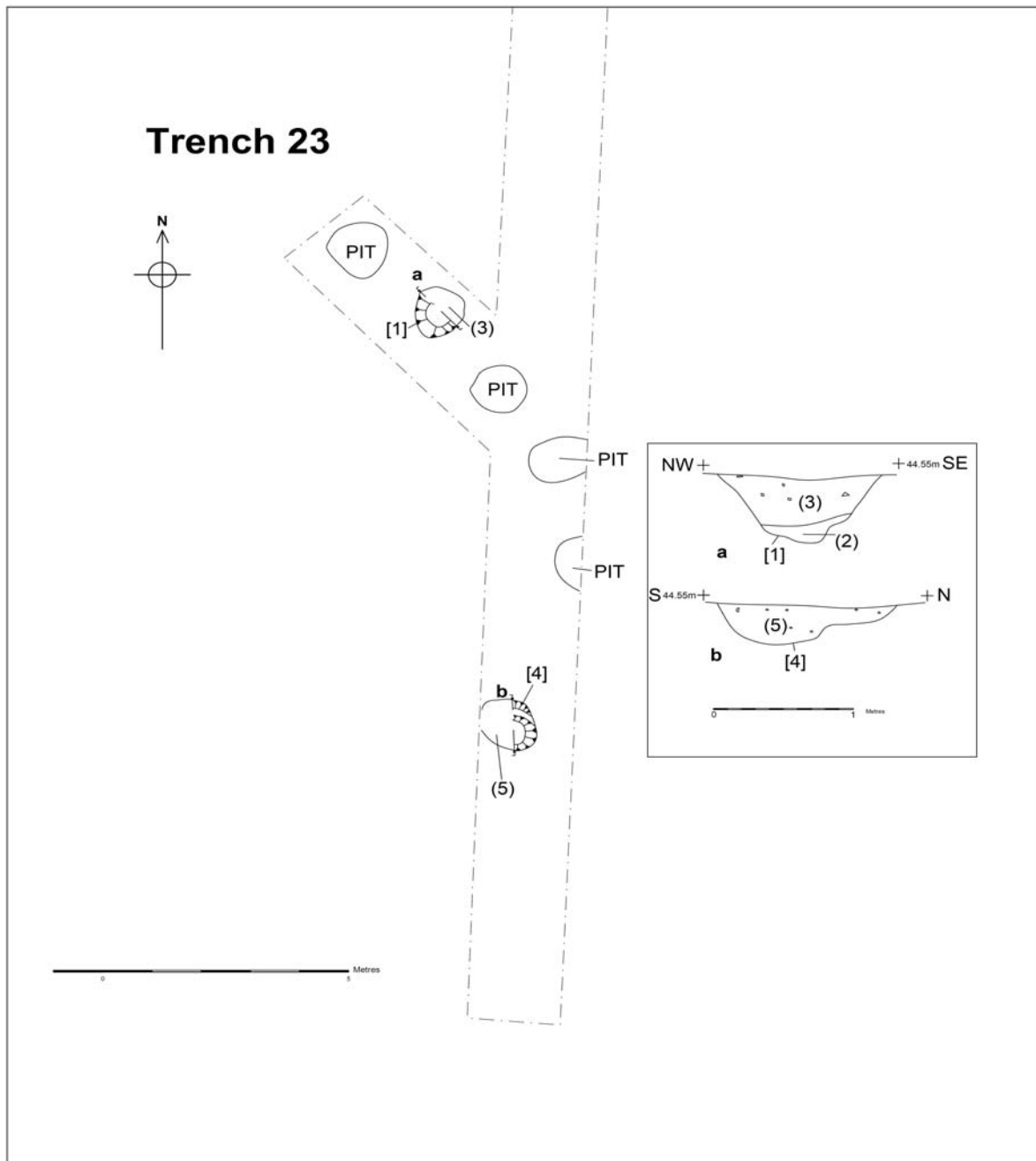


Figure 8: Plan of southern end of Trench 23 and sections within

Trench 23

Orientation: N-S

Length: 33m

Width: 1.9m

Topsoil: Dark yellowish grey friable clayey silt with 5% small rounded pebbles

Subsoil: Mid yellowish brown clayey silt with 2% small rounded pebbles

Natural Substratum: Light orange brown clayey sand and gravel

Interval	N 0m	5m	10m	15m	20m	25m	30m S	33m annexe NW
Topsoil Depth	0.25m	0.33m	0.23m	0.30m	0.26m	0.23m	0.28m	0.26m
Subsoil Depth	0.12m	-	0.10m	0.09m	-	-	-	-
Top of natural	0.37m	0.33m	0.33m	0.39m	0.26m	0.23m	0.28m	0.26m
Base of trench	0.49m	0.42m	0.43m	0.48m	0.39m	0.33m	0.36m	0.26m

Four pits were identified in this trench, which was then extended bringing the total up to six, with four along the same alignment as those in Trench 22, with another two apparently heading off south-west.

Two pits were sampled. The first, on the north-west to south-east alignment was pit [1], which measured 0.60m by 1.2m, with moderate to steep sides and an irregular base at 0.60m depth. The lower fill (2) was a light yellowish grey clayey silt, over which lay fill (3), which was a mid orange grey silty clay with occasional rounded pebbles and small sub-angular stones.

The second pit, which was on the south-western alignment, measured 1.30m by 0.65m. The cut [4] was steep sided on the southern side and stepped on the northern, with a concave base at 0.31m depth. The fill (5) was a light orange grey clayey silt with few pebbles (Plate 5: Figure 8).



Plate 5: Extension to Trench 23, showing pits, looking east

Trench 24

Orientation: E-W

Length: 30m

Width: 1.9m

Topsoil: Dark yellowish grey friable clayey silt with 5% small rounded pebbles

Subsoil: Mid yellowish brown clayey silt with 2% small rounded pebbles

Natural Substratum: Light orange brown clayey sand and gravel

Interval	S 0m	5m	10m	15m	20m	25m	30m N
Topsoil Depth	0.28m	0.28m	0.30m	0.25m	0.30m	0.25m	0.30m
Subsoil Depth	0.09m	0.06m	0.15m	0.18m	-	0.10m	0.09m
Top of natural	0.34m	0.34m	0.45m	0.43m	0.30m	0.35m	0.39m
Base of trench	0.44m	0.34m	0.45m	0.43m	0.40m	0.44m	0.42m

No archaeological features were identified within this trench. A single furrow, running north-south was identified 7m from the western end of the trench.



Plate 6: Work in progress, Trench 25, looking south

Trench 25

Orientation: N-S

Length: 30m

Width: 1.6m

Topsoil: Yellowish brown/grey sandy clay with frequent rounded pebbles

Subsoil: Yellowish brown sandy clay with rare rounded pebbles

Natural Substratum: Light orange brown sandy clay

Interval	N 0m	5m	10m	15m	20m S
Topsoil Depth	0.22m	0.30m	0.27m	0.23m	0.23m
Subsoil Depth	-	0.11m	0.09m	0.10m	0.09m
Top of natural	0.22m	0.41m	0.36m	0.33m	0.32m
Base of trench	0.23m	0.42m	0.38m	0.34m	0.33m

No archaeological features were identified within this trench.

Additional Trenches

Three small trenches (Trenches A-C) were excavated on a line running north-west to south-east in order to follow the line of the apparent pit alignment. Pits similar to those located in Trenches 22 and 23 were located in all three trenches.



Plate 7: View north-west showing line of trenches and alignment of pits, Trench C in foreground

Conclusion

The evaluation on this part of Boulton Moor had some potential for locating archaeological features, particularly from prehistoric periods as the area around the southern part of the City of Derby is fairly rich in archaeological features. Recent work by ULAS to the south of Chellaston, around 2.5km south-west of the current site has revealed prehistoric and early Roman features.

Field 1 of the evaluation of the land close to the new Snelsmoor Lane extension, and also Trench 25 in the field to the east of the lane were negative for archaeological features. There are the remains of medieval furrows running in a north-south alignment within many of the trenches excavated, within Fields 1 and 2, but these are almost ploughed out and are very shallow.

However, a series of medium sized pits all of a similar size, were located in Trenches 22 and 23 in Field 2 and further inspection via a series of smaller trial trenches and extensions to existing trenches, revealed a line of pits running north-west to south-east across the site, with another line possibly running to the south-west, with the junction of the two just falling within Trench 23.

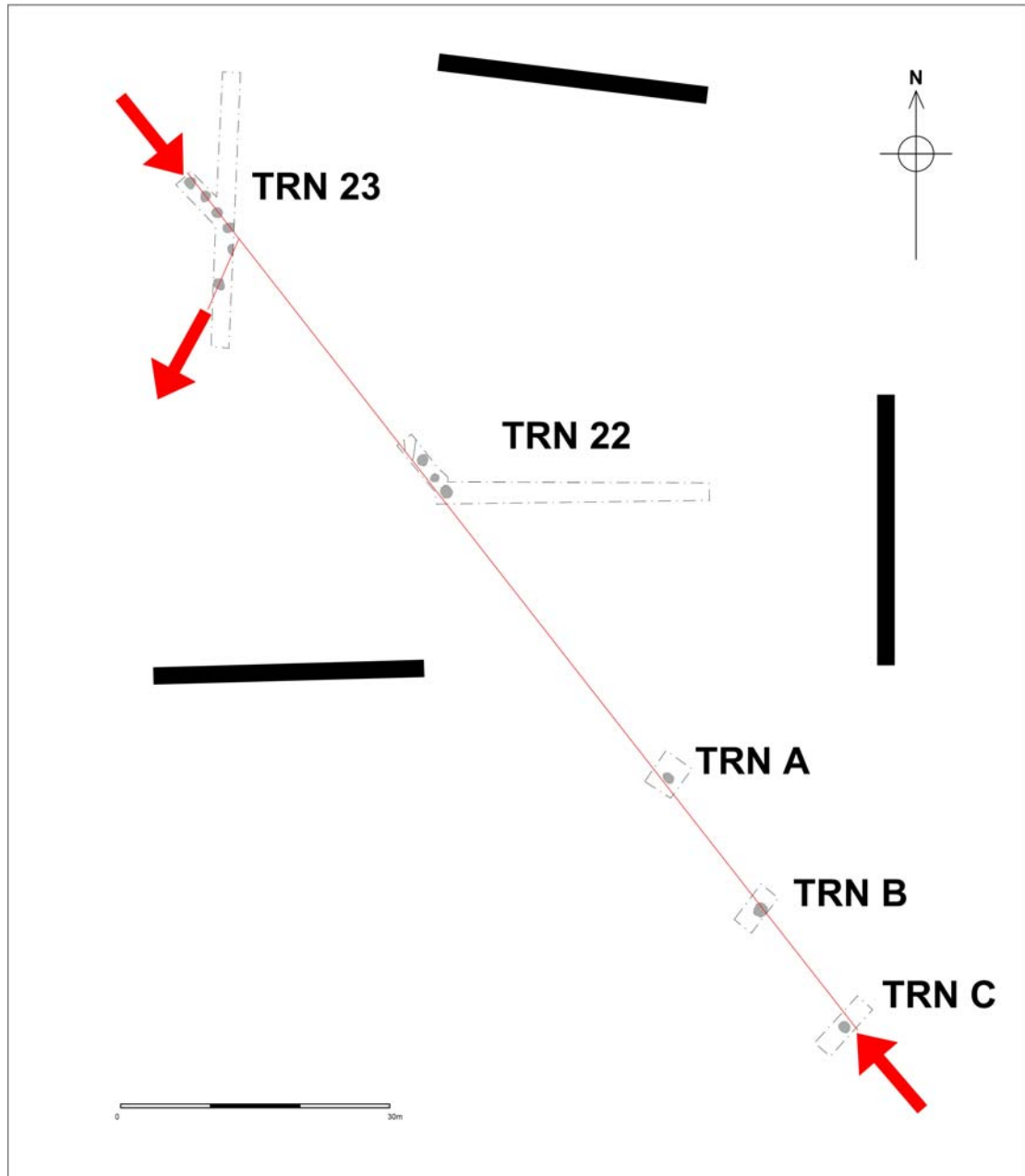


Figure 9: Plan of Field 2, showing apparent line of pits within trenches

All the other archaeological features, within Trenches 16-19 lie to the south-west of this line, suggesting that the NW-SE alignment of pits represents the very edge of the settlement. Although the fields here are basically flat there is a slight rise towards the centre of Field 2, just outside the current evaluated area. This may be better drained than the areas to the north and east and there may have been a settlement here.

Acknowledgements

ULAS would like to thank Persimmon Homes for their work and for their co-operation during the project. Leon Hunt would like to thank farmer James Chamberlain for his help during the work. The work was carried out by Leon Hunt and Jamie Patrick, with the machines driven by Michael Hall (360) and Richard Clark (JCB) of Planters Ltd. The project was managed by Patrick Clay for ULAS.

Publication

Since 2004 ULAS has reported the results of all archaeological work through the *Online Access to the Index of Archaeological Investigations* (OASIS) database held by the Archaeological Data Service at the University of York.

A summary of the work will also be submitted for publication in a suitable regional archaeological journal in due course.

OASIS data entry

Project Name	Boulton Moor, Snelsmoor Lane, Phase 1
Project Type	Evaluation
Project Manager	Patric Clay
Project Supervisor	Leon Hunt
Previous/Future work	Geophysical Survey/ Not known
Current Land Use	Arable
Development Type	New housing etc
Reason for Investigation	NPPF
Position in the Planning Process	Planning condition
Site Co ordinates	SK 396 316
Start/end dates of field work	19-05-2014 to 23-05-2014
Archive Recipient	Derby Museums
Study Area	4.5ha

Archive

The archive for this project will be deposited with Derby Museum and Art Gallery, Derby, with accession number DBYMU: 2014.8.

The archive consists of the following:

- 1 Unbound copy of this report (ULAS Report No. 2014-101)
- 25 Trench recording sheets
- 1 Context Record
- 28 Context Sheets
- 1 Drawing Record
- 4 Sheets of permatrace
- 1 Photographic record
- 4 Contact sheets of digital photographs
- 1 CD digital photographs
- 1 Set B&W contact sheets
- 1 Set B&W negatives

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03-06-2014

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Appendix I: List of Archaeological Contexts

Context	Cut	Below	Area	Notes
1	1	2	Field 2: Trn 23	Pit cut (alignment)
2	1	3	Field 2: Trn 23	Lower fill of [1]
3	1	-	Field 2: Trn 23	Upper fill of [1]
4	4	5	Field 2: Trn 23	Pit cut (alignment)
5	4	-	Field 2: Trn 23	Fill of [4]
6	6	7	Field 2: Trn 22	Pit cut (alignment)
7	6	8	Field 2: Trn 22	Lower fill of [6]
8	6	-	Field 2: Trn 22	Upper fill of [6]. Pottery finds
9	9	10	Field 2: Trn 22	Pit cut (alignment)
10	9	11	Field 2: Trn 22	Primary fill of [9]
11	9	26	Field 2: Trn 22	Secondary fill of [9]
12	12	13	Field 2: Trn 17	Ditch (large) cut
13	12	-	Field 2: Trn 17	Fill of ditch [12]. Pottery finds
14	14	15	Field 2: Trn 17	Gully/ small ditch cut
15	14	-	Field 2: Trn 17	Fill of gully/ ditch [14]
16	16	17	Field 2: Trn 16	Gully cut
17	16	-	Field 2: Trn 16	Fill of gully [16]
18	18	19	Field 2: Trn 18	Cut of ditch [18]
19	18	-	Field 2: Trn 18	Fill of ditch [18]
20	20	21 & 28	Field 2: Trn 19	Cut of curved (?) gully [20]
21	20	28	Field 2: Trn 19	Lower fill of gully [20]
22	22	23	Field 2: Trn 19	Cut of post-hole [22]
23	22	-	Field 2: Trn 19	Fill of post-hole [22]
24	24	25	Field 2: Trn 17	Cut of post-hole [24]
25	24	-	Field 2: Trn 17	Fill of post-hole [24]
26	9	27	Field 2: Trn 22	Tertiary fill of [9]
27	9	-	Field 2: Trn 22	Quaternary fill of [9]
28	20	-	Field 2: Trn 19	Upper fill of [20]

Appendix II: The Iron Age Pottery

Nicholas J. Cooper

Introduction

A total of 19 sherds of Iron Age pottery weighing 90g was retrieved from context (8) [6], a pit in the alignment identified in Trench 22, and context (13) [12] a ditch identified in Trench 17.

Methodology

The pottery has been analysed by form and fabric using the Leicestershire County Museums prehistoric pottery fabric series (Marsden 2011, 62, Table 1), with reference to the Prehistoric Ceramic Research Group's Guidelines (PCRG 1997), and quantified by sherd count and weight.

Analysis of Assemblage by Fabric, Form and Decoration

The complete record of the stratified assemblage is presented below (Table 1)

Table 1: Quantified record of Prehistoric pottery

Iron Age Pottery from Boulton Moor DBYMU.2014.8

Context	Fabric	Sherds	Weight	Dating	Context	Fabric
8	Q1 Ferr	17	70	?Scored	8	Q1 Ferr
13	Q1 fine	1	10		13	Q1 fine
13	Q1 ferr	1	10		13	Q1 ferr
Total		19	90		Total	

The material from pit (8) is all from one vessel, a jar produced in quartz sand tempered fabric (Q1 Ferr) with occasional ferruginous pellets which may be naturally occurring in the clay. One of the larger sherds may have faint scored decoration typical of the East Midlands scored ware tradition current from the 4th or mid-3rd century BC to the earlier 1st century AD (Elsdon 1992, 85, Fig.1.6) but is otherwise undiagnostic, and broader Iron Age date may be applicable given the likely context, which rarely contain artefactual material. The two sherds from ditch (13) are both in sand-tempered fabrics (Q1); one with fine rounded quartz from 0.1-0.5mm, the other with more angular quartz from 0.5-1mm, with occasional additional ferruginous inclusions. A broad Iron Age date is applicable to these.

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Marsden, P., 2011 'The Prehistoric pottery and briquetage' in J. Thomas, *Two Iron Age Aggregated Settlements in the Environs of Leicester: Excavations at Beaumont Leys and Humberstone*, Leicester Archaeology Monograph 19, 61-80. Leicester: University of Leicester, School of Archaeology and Ancient History.

PCRG (Prehistoric Ceramic Research Group) 1997. *The study of Later Prehistoric Pottery: General Policies and Guidelines for Analysis and Publication*. Oxford: PCRG Occasional Papers 1 and 2.

Appendix III: Written scheme of investigation for archaeological work

UNIVERSITY OF LEICESTER ARCHAEOLOGICAL SERVICES

Written scheme of investigation for archaeological work

Job title: Land at Boulton Moor, Chellaston, Derby (Phase 1)

NGR: SK 396 316

Client: Persimmon Homes Ltd.

Planning Authority: Derby City Council

Proposed start date: w/c 12.05.2014

1 Introduction

1.1 Definition and scope of the specification

This document is a design specification for archaeological field evaluation (AFE) at the above site, in accordance with National Planning Policy Framework (NPPF) Section 12: Conserving and Enhancing the Historic Environment. The fieldwork specified below is intended to provide indications of character and extent of any buried archaeological remains in order that the potential impact of the development on such remains may be assessed by the Planning Authority and an appropriate mitigation strategy put in place.

- 1.2 The definition of archaeological field evaluation, taken from the Institute for Archaeologists Standards and Guidance: for Archaeological Field Evaluation (2010) is a limited programme of non-intrusive and/ or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site on land, inter-tidal zone or underwater. If such archaeological remains are present field evaluation defines their character, extent, quality and preservation, and enables an assessment of their worth in a local, regional, national or international context as appropriate.

2. Background

Context of the Project

- 2.1 The site lies south of Alvaston and north-east of Chellaston, Derby (Figure 1). The site consists of a number of rectangular fields, divided by grown out hedgerows, oriented east to west with a total area of 9.2 hectares (Figure 1). This WSI is for the northern part of this area (Phase 1) covering c. 4.5 ha. (Figure 2)
- 2.2 An archaeological desk-based assessment has been prepared by University of Leicester Archaeological Services (ULAS) for the area to the west (Hunt 2013). Geophysical survey has been undertaken for an earlier scheme which included part of this area but with inconclusive results (GSB Prospection 2003).
- 2.3 The Derbyshire HER indicates that the area around the southern part of Derby is rich in prehistoric archaeology, with two scheduled sites close to the assessment area, including the Swarkestone Lows barrow cemetery, which lies around 2.5km south-west of Boulton Moor.
- 2.4 *Geology and topography*
- 2.4.1 The site is bordered by housing to the north, Snelsmoor Lane to the east and agricultural land to the west and south. (Figure 1) . The total size of the study area covers around 9.2 ha and the land falls from south to the north from around 55m aOD to 42m aOD.
- 2.4.2 The British Geological Survey indicates that the underlying geology of the area is likely to be Branscombe Mudstone Formation, overlain by sand and gravel in the northern part of the site

(Allenton Terrace Deposit), by Head (a combination of sand and gravel, silt and clay) towards the centre and south of the site and by Oadby Member Diamicton in the very south of the site

- 2.5 Following the NPPF the planning authority require that evaluation by trial trenching be undertaken in order to ascertain whether any archaeological remains are present and, if so, to ascertain their character and extent. This is the first stage of a conditioned scheme to assess the presence and as appropriate significance of any surviving heritage assets. In the event of the latter further measures for example, preservation in situ or mitigation excavation and recording may be necessary. These will be covered by separate WSI's.

3. Archaeological Objectives

- 3.1 All work will be considered in light of the National research context (English Heritage 1991 and 1997), the East Midlands Research Framework (Cooper ed. 2006) and strategy (Knight et al 2012), along with targeting national research aims. Potential research objectives that this scheme might contribute towards include:

Neolithic and Early Middle Bronze Age (Clay 2006; Knight et al 2012; English Heritage 2010)

- 3.1.1 The development of ceremonial monuments and their environs – the area contains several prehistoric ceremonial landscapes and the scheme may uncover archaeological assets associated with these. Palaeoenvironmental evidence may provide information on agricultural practices and land use.

Late Iron Age (Willis 2006; Knight et al 2012; English Heritage 2010)

- 3.1.2 There are Iron Age settlements in the vicinity of the scheme. Information on the sequence and chronology of settlements may be recovered and palaeoenvironmental evidence could provide information on agricultural practices and land use. Artefacts can provide evidence for evidence for craft industry and exchange across broad landscape areas.

The Roman Period (Taylor 2006; Knight et al 2012; English Heritage 2012)

- 3.1.3 There are several Roman sites within vicinity including enclosures and a Roman road. The evaluations may contribute to knowledge on Iron Age – Roman transitions in rural settlement, landscape and society. Artefacts may identify trade links and economy.

3.2 Objectives

- 3.2.1 The main objectives of the evaluation will be:

- To identify the presence/absence of any archaeological deposits.
- To establish the character, extent and date range for any archaeological deposits to be affected by the proposed ground works.
- To produce an archive and report of any results.

- 3.2.2 Within the stated project objectives, the principal aim of the evaluation is to establish the nature, extent, date, depth, significance and state of preservation of archaeological deposits on the site in order to determine the potential impact upon them from the proposed development.

- 3.2.3 Trial trenching is an intrusive form of evaluation that will demonstrate the existence of earth-fast archaeological features that may exist within the area.

4. Methodology

General Methodology and Standards

- 4.1 All work will follow the Institute for Archaeologists (IfA) Code of Conduct (2010) and adhere to their *Standard and Guidance for Archaeological Field Evaluation* (2008). The *LCC Guidelines and Procedures for Archaeological work Leicestershire and Rutland* (1997) will be adhered to.

- 4.2 Staffing, recording systems, health and safety provisions and insurance details are included below.
- 4.3 Internal monitoring procedures will be undertaken including visits to the site by the project manager. These will ensure that project targets are met and professional standards are maintained. Provision will be made for external monitoring meetings with the Planning Authority and the Client, if required.

Trial Trenching Methodology

- 4.4 Prior to any machining of trial trenches general photographs of the site areas may be taken.
- 4.5 A 3% sample targeting the Phase 1 area is proposed for trenching (c. 1300m²), the equivalent of 25, 30m x 1.8m trenches. The provisional trench plan (Fig. 3) shows the proposed location of the trenches. Another will evaluate the proposed location of the foul pumping station (Figure 1).
- 4.6 Topsoil and overburden will be removed carefully in level spits, under continuous archaeological supervision using a mechanical excavator using a toothless bucket. Trenches will be excavated down to the top of archaeological deposits or natural undisturbed ground, whichever is reached first. All excavation by machine and hand will be undertaken with a view to avoid damage to archaeological deposits or features which appear worthy of preservation in situ or more detailed investigation than for the purposes of evaluation. Where structures, features or finds appear to merit preservation in situ, they will be adequately protected from deterioration.
- 4.7 Trenches will be examined by hand cleaning and any archaeological deposits located will be planned at an appropriate scale. Archaeological deposits will be sample-excavated by hand as appropriate to establish the stratigraphic and chronological sequence, recognising and excavating structural evidence and recovering economic, artefactual and environmental evidence. Particular attention will be paid to the potential for buried palaeosols and waterlogged deposits in consultation with ULAS's environmental officer.
- 4.8 Measured drawings of all archaeological features will be prepared at a scale of 1:20 and tied into an overall site plan. All plans will be tied into the Ordnance Survey National Grid. Relative spot heights will be taken as appropriate.
- 4.9 Sections of any excavated archaeological features will be drawn at an appropriate scale. At least one longitudinal face of each trench will be recorded. All sections will be levelled and tied to the Ordnance Survey Datum, or a permanent fixed benchmark.
- 4.10 Trench locations will be recorded by an appropriate method. These will then be tied in to the Ordnance Survey National Grid.
- 4.11 Any human remains encountered will initially be left in situ and will only be removed if necessary for their protection, under Ministry of Justice guidelines and in compliance with relevant environmental health regulations.
- 4.12 In the event that unforeseen archaeological discoveries are made during the project a contingency may be required to clarify the character or extent of additional features. The contingency will only be initiated after consultation with the Client and Planning Authority. Following assessment of the archaeological remains by the Planning Authority, ULAS shall, if required, implement an amended scheme of investigation on behalf of the client as appropriate.
- 4.13 The trenches will be backfilled and levelled at the end of the evaluation.

Recording Systems

- 4.14 Any archaeological deposits encountered will be recorded and excavated using standard procedures as outlined in the ULAS recording manual. Sufficient of any archaeological features or deposits will be hand excavated in order to provide the information required.
- 4.15. Individual descriptions of all archaeological strata and features excavated or exposed will be entered onto prepared pro-forma recording sheets.
- 4.16 A record of the full extent in plan of all archaeological deposits encountered will be made on drawing film, related to the OS grid and at a scale of 1:10 or 1:20. Elevations and sections of individual layers of features should be drawn where possible. The OD height of all principal strata and features will be calculated and indicated on the appropriate plans.

- 4.17 An adequate photographic record of the investigations will be prepared illustrating in both detail and general context the principal features and finds discovered using both black and white 35mm and digital formats. The photographic record will also include 'working shots' to illustrate more generally the nature of the archaeological operation mounted.
- 4.18 This record will be compiled and fully checked during the course of the project.

5. Finds

- 5.1 The *IfA Guidelines for Finds Work* will be adhered to.
- 5.2 Before commencing work on the site, a Site code/Accession number will be agreed with the Planning Archaeologist that will be used to identify all records and finds from the site.
- 5.3 All antiquities, valuables, objects or remains of archaeological interest, other than articles declared by Coroner's Inquest to be subject to the Treasure Act, discovered in or under the Site during the carrying out of the project by ULAS or during works carried out on the Site by the Client shall be deemed to be the property of ULAS provided that ULAS after due examination of the said Archaeological Discoveries shall transfer ownership of all Archaeological Discoveries unconditionally to the appropriate authority for storage in perpetuity.
- 5.4 All identified finds and artefacts are to be retained, although certain classes of building material will, in some circumstances, be discarded after recording with the approval of the Planning Archaeologist.
- 5.5 All finds and samples will be treated in a proper manner. Where appropriate they will be cleaned, marked and receive remedial conservation in accordance with recognised best practice. This will include the site code number, finds number and context number. Bulk finds will be bagged in clear self-sealing plastic bags, again marked with site code, finds and context.
- 5.6 Finds which may constitute 'treasure' under the Treasure Act, 1996 must be removed to a safe place and reported to the local Coroner. Where removal cannot take place on the same working day as discovery, suitable security will be taken to protect the finds from theft.

6. Environmental Sampling

- 6.1. If features are appropriate for environmental sampling a strategy and methodology will be developed on site following advice from ULAS's Environmental Specialist. Preparation, taking, processing and assessment of environmental samples will be in accordance with current best practice. The sampling strategy is likely to include the following:
- A range of features to represent all feature types, areas and phases will be selected on a judgmental basis. The criteria for selection will be that deposits are datable, well-sealed and with little intrusive or residual material.
 - Any buried soils or well-sealed deposits with concentrations of carbonised material present will be intensively sampled taking a known proportion of the deposit.
 - Spot samples will be taken where concentrations of environmental remains are located.
 - Waterlogged remains, if present, will be sampled for pollen, plant macrofossils, insect remains and radiocarbon dating provided that they are uncontaminated.
- 6.2 All collected samples will be labelled with context and sequential sample numbers.
- 6.3 Appropriate contexts (i.e datable) will be bulk sampled (50 litres or the whole context depending on size) for the recovery of carbonised plant remains and insects.
- 6.4 Recovery of small animal bones, bird bone and large molluscs will normally be achieved through processing other bulk samples or 50 litre samples may be taken specifically to sample particularly rich deposits.
- 6.5 Wet sieving with flotation will be carried out using a York Archaeological Trust sieving tank with a 0.5mm mesh and a 0.3mm flotation sieve. The small size mesh will be used initially as flotation of plant remains may be incomplete and some may remain in the residue. The residue > 0.5mm from the tank will be separated into coarse fractions of over 4mm and fine fractions of > 0.5-4mm. The coarse fractions will be sorted for finds. The fine fractions and flots will be evaluated and prioritised; only

those with remains apparent will be sorted. The prioritised flots will not be sorted until the analysis stage when phasing information is available. Flots will be scanned and plant remains from selected contexts will be identified and further sampling, sieving and sorting targeted towards higher potential deposits.

- 6.6 Where evidence of industrial processes are present (eg indicated by the presence of slag or hearth bases), samples will be taken for the analysis of industrial residues (e.g hammer scale).

7 Report and Archive

- 7.1 A draft version of the report will normally be presented within four weeks of completion of site works. The full report in pdf/A-1a and A4 hard copy format will usually follow within eight weeks. Copies will be provided for the client and the Local Planning Authority and deposited with the Historic Environment Record.

- 7.2 The report will include consideration of:

- The aims and methods adopted in the course of the evaluation.
- The nature, location and extent of any structural, artefactual and environmental material uncovered.
- The anticipated degree of survival of archaeological deposits.
- The anticipated archaeological impact of the current proposals.
- Appropriate illustrative material including maps, plans, sections, drawings and photographs.
- Summary.
- a summary of artefacts, specialist reports and a consideration of the evidence within its local, regional, national context.
- Recommendations for the retention and discard of the material
- The location and size of the archive.
- A quantitative and qualitative assessment of the potential of the archive for further analysis leading to full publication, following guidelines laid down in *Management of Archaeological Projects* (English Heritage).

- 7.3 A full copy of the archive as defined in the IfA Standard and Guidance for archaeological archives (Brown 2008) will normally be presented to Derby City Museums within six months of the completion of fieldwork. This archive will include all written, drawn and photographic records relating directly to the investigations undertaken and will follow the DCC guidelines (in prep).

- 7.4 The following procedures will be followed:

- 1) Contact will be made with Derby City Museum using the notification form in the Museums in Derbyshire guidelines (appendix 1), copied to the DCC Development Control archaeologist as part of the WSI submission.
- 2) if the evaluation is negative there will be no archive deposition and the report will be submitted to the DCC HER
- 3) The OASIS record including uploading the report will be submitted
- 4) If the evaluation generates significant results then a Derby Museum accession number will be drawn and deposited in line with their guidelines.
- 5) The DCC Development Control archaeologist will be notified by email on final deposition.

- 7.5 The copyright of all original finished documents shall remain vested in ULAS and ULAS will be entitled as of right to publish any material in any form produced as a result of its investigations.

8 Publication and Dissemination of Results

- 8.1 A summary report will be submitted to a suitable regional archaeological journal following completion of the fieldwork. A full report will be submitted to a national or period journal if the results are of significance.

- 8.2 University of Leicester Archaeological Services supports the Online Access to the Index of Archaeological Investigations (OASIS) project. The online OASIS form at <http://www.oasis.ac.uk> will be completed detailing the results of the project. ULAS will contact the HER prior to completion of the form. Once a report has become a public document following its incorporation into the HER it may be placed on the web-site.

9 Acknowledgement and Publicity

- 9.1 ULAS shall acknowledge the contribution of the Client in any displays, broadcasts or publications relating to the site or in which the report may be included.
- 9.2 ULAS and the Client shall each ensure that a senior employee shall be responsible for dealing with any enquiries received from press, television and any other broadcasting media and members of the public. All enquiries made to ULAS shall be directed to the Client for comment.

10 Copyright

- 10.1 The copyright of all original finished documents shall remain vested in ULAS and ULAS will be entitled as of right to publish any material in any form produced as a result of its investigations.

11 Monitoring arrangements

- 11.1 Unlimited access to monitor the project will be available to both the Client and his representatives and Planning Archaeologist subject to the health and safety requirements of the site.
- 11.2 All monitoring shall be carried out in accordance with the IfA *Standard and Guidance for Archaeological Field Evaluations (2008)*
- 11.3 Internal monitoring will be carried out by the ULAS project manager.

12 Timetable and Staffing

- 12.1 A start date is to be arranged. The work is likely to take three - four days to complete and a minimum of two experienced archaeologists will to be present during the work.
- 12.2 The on-site director/supervisor will carry out the post-excavation work, with time allocated within the costing of the project for analysis of any artefacts found on the site by the relevant in-house specialists at ULAS.

13 Health and Safety

- 13.1 ULAS is covered by and adheres to the University of Leicester Statement of Safety Policy and uses the ULAS Health and Safety Manual (revised 2010) with appropriate risks assessments for all archaeological work. A draft Health and Safety statement for this project is in the Appendix. The relevant Health and Safety Executive guidelines will be adhered to as appropriate.

14. Insurance

- 14.1 All ULAS work is covered by the University of Leicester's Public Liability and Professional Indemnity Insurance. Employers Liability Insurance and Public/Products Liability Insurance Allianz Insurance plc Policy No. SZ/21696148 Professional Indemnity Insurance – Newline Underwriting Management Ltd Policy No. WD1100541

15. Contingencies and unforeseen circumstances

- 15.1 In the event that unforeseen archaeological discoveries are made during the project, ULAS shall inform the site agent/project manager, Client and the Planning Archaeologist and Planning Authority and prepare a short written statement with plan detailing the archaeological evidence. Following assessment of the archaeological remains by the Planning Archaeologist, ULAS shall, if required, implement an amended scheme of investigation on behalf of the client as appropriate.

16. Bibliography

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Knight, D., Vyner, B., Allen, C., 2012, *East Midlands Heritage. An Updated Research Agenda and Strategy for the Historic Environment of the East Midlands*. Nottingham Archaeological Monographs 6, University of Nottingham and York Archaeological Trust.

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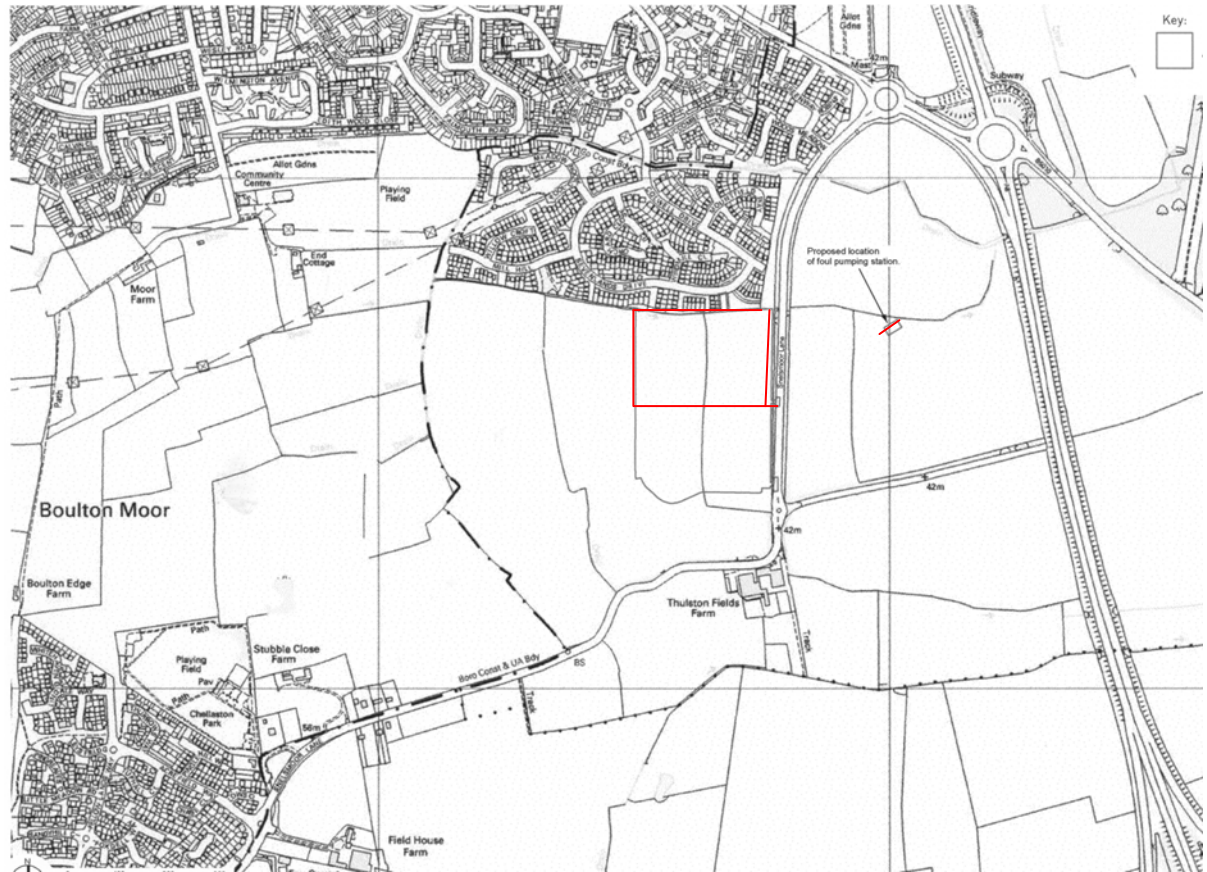


Figure 1 Location plan of Phase 1 outlined in red. A trench will be excavated to evaluate the site of the proposed foul pumping station to the east



Figure 2. Development proposal with Phase 1 outlined in blue

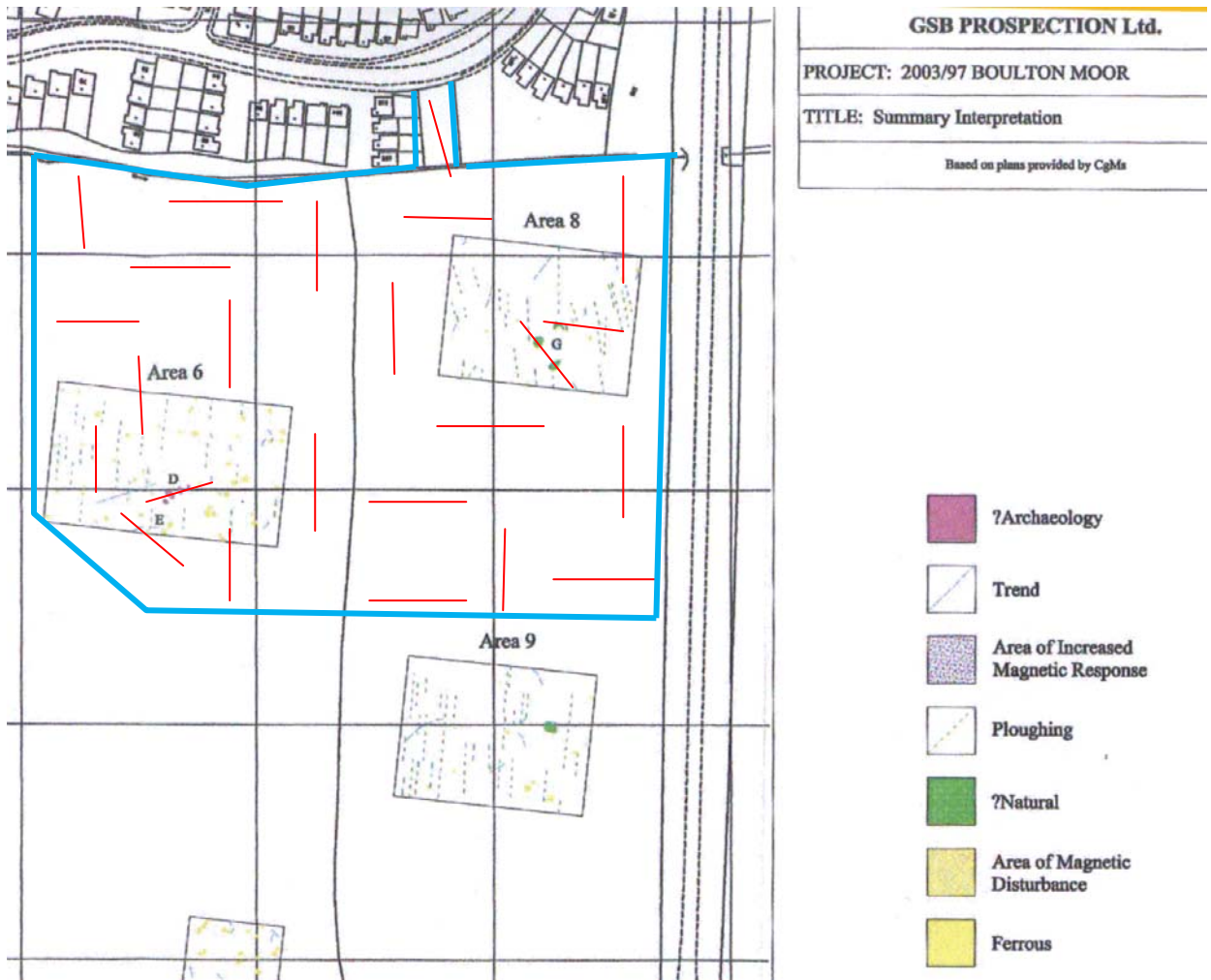


Figure 3: Site location plan in relation to geophysical anomalies, proposed trench locations.

ARCHAEOLOGICAL TRIAL TRENCHING METHOD STATEMENT & RISK ASSESSMENT

Site Name	Job No	PM	Contact
Boulton Moor East, Derby	14/708	Patrick Clay	0116 252 2848 07796940240
Site Director	Site Contacts	Team (Nos)	
TBA	TBA	2	

SITE WORKS & METHOD STATEMENT

Evaluation trenches are to be machine excavated as detailed in the specification to look at archaeological deposits

Excavation Method Statement

- Access and parking will be gained via authorised routes to be arranged with the land owner/tenant.
- All staff will be inducted by the site director prior to starting work on site (Appendix 3).
- **Services:** A CAT Scanner may be used in both POWER and RADIO mode to scan trench lines for services prior to excavation. [The CAT must be in calibration and used by a competent person and used in both POWER and RADIO mode.
 - Trenches will not be excavated within 15m of known water mains or sewers or in the vicinity of other underground services or electrical cables without a separate SSOW. Any known services will be marked on the ground and avoided. All machine excavation will be carefully monitored.
 - No work will be undertaken beneath overhead cables. If a tracked machine is required to pass below an overhead cable a separate SSOW will be followed.
- **Excavation:** Trenching we conducted as per the *Trial Trenching Methodology* in the specification. Machining will be conducted using ULAS SSOW1. Excavation of trenches will be undertaken according to ULAS SSOW3 (Appendix 1). All trenches will be inspected each day by an appointed person and noted on the trench sheet (Appendix 4).
- Any lone working on site will be undertaken according to ULAS SSOW2 (Appendix 1).
- A first aid kit and a site phone will be available on site at all times. At least one member of staff will have first aid training.

Equipment

A mechanical excavator will be used for trench excavation. The site director will ensure that the appropriate certification is carried.

ULAS vehicles or personal cars will be used (all appropriately insured and maintained).

Besides the plant, equipment will include a variety of hand tools (e.g. shovels, mattocks, trowels), recording materials (e.g. photographic equipment, computers, levels etc.), survey equipment (e.g. EDM, DGPS) CAT scanners and metal detectors may be used.

Personnel

The site director will be responsible for the day to day running of the site. Specialists and visitors may be invited to visit the site during fieldwork. It is expected to hire plant and operators from a reputable local company.

All personnel are experienced in working with plant and in the excavation of trenches. All site staff hold CSCS cards and many also hold a SPA quarry passport. All site staff have some first aid training.

Normal working hours are 7 hours a day between 8am and 6pm Monday to Friday.

Monitoring and communications

ULAS management and site staff details are as above.

Work will be monitored internally by the ULAS Project Manager and/or Health & Safety Co-ordinators.

ULAS method statements are prepared following standard guidelines and after consultation with the University Safety Services Department. Communication of the contents of the method statement to site staff is the responsibility of the Site Director. The risk assessment will be updated weekly or when conditions change.

Accident Reporting

All accidents will be logged using ULAS accident forms and report to the ULAS Main Office (0116 2522848) and if necessary to the University of Leicester Safety Services Dept (Appendix 2).

ULAS Contact Details

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