

**An Archaeological Watching Brief
During geotechnical ground investigations
on land adjacent to the
M1 motorway (J. 23a-24)
Keyworth,
Leicestershire**

Leon Hunt

for
Fugro Engineering Services
&
The Highways Agency

Checked by Project Manager

Signed:**Date:**

Name:

University of Leicester

Archaeological Services

University Rd., Leicester, LE1 7RH

Tel: (0116) 2522848 Fax: (0116) 2522614

ULAS Report No. 2007-079 ©2007

CONTENTS

Summary	1
Introduction.....	1
Aims and Methods	1
Site Location and Geology.....	1
The Results.....	5
Conclusion	8
Acknowledgements.....	8
Archive.....	8

ILLUSTRATIONS

Figure 1: Site Location. Scale 1: 250,000.....	2
Figure 2: Location of geotechnical trenches at J.24	3
Figure 3: Location of geotechnical trenches at J.23a, A453 and A6 to the east.....	4

PLATES

Plate 1: Work in progress on Trench 1070, looking south	9
Plate 2: Post-ex shot of Trench 1077, looking south	9
Plate 3: West facing section of Trench 1084, looking east.....	10
Plate 4: Post-ex shot of Trench 1082, against hedge, looking north east	10

An Archaeological Watching Brief during geotechnical ground investigations on land adjacent to the M1 motorway (J. 23a-24), Kegworth, Leicestershire (SK42).

Leon Hunt

Summary

A watching brief was carried out by ULAS for FES and The Highways Agency close to the M1 between Junctions 23a and 24 during the excavations of geo-technical trenches, in advance of the widening scheme for the motorway. Fifteen trenches were monitored in all over five days. None of the geo-technical trenches contained any archaeological features, or finds associated with archaeological features. The archive for this project will be deposited with Leicestershire Historic and Natural Environment Team with accession number X.A78.2007.

Introduction

An archaeological watching brief was carried out by University of Leicester Archaeological Services (ULAS) for the Fugro Engineering Services (FES) & The Highways Agency on land adjacent to the M1 motorway during the excavation of geotechnical trenches by FES. The trenches and their archaeological monitoring were in advance of a widening scheme for the motorway, between junctions 21 and 30.

The watching brief was carried out on farmland and roadside areas between Junctions 23a and 24 (Figure 1).

Aims and Methods

The purpose of the watching brief was to ascertain whether archaeological deposits were present. If so, the character, extent and date range of any deposits identified would be established, in order to assess their significance. Recording of these deposits would be carried out as appropriate, and an archive and this report produced. The work followed the Institute of Field Archaeologists (IFA) *Standard and Guidance for Archaeological Watching Briefs*, and adhered to the University's Health and Safety policy.

The trenches were excavated using a JCB 3CX backactor using a 0.6m ditching bucket. The trenches were c.2.6m long and 1.7m wide, except Trench 1080, which was widened to avoid service pipes. The depths of the trenches was determined by geotechnical and geological considerations, but were at least 2.4m deep. The exception was 1080, where a service pipe was encountered at 1m.

The geotechnical trenches had been located and numbered prior to the archaeological monitoring. This report follows this numbering system and covers trenches 1045, 1063, 1068, 1070, 1076, 1077, 1080, 1081 1083, 1084, 1087, 1278, 1279, 1281 and 1282.

Site Location and Geology

The trenches were placed on specified areas to the west and east of the M1 motorway, between Junctions 23a and 24. Most were located on farmland, except trenches 1080,

1082 and 1076, which were placed on tarmac areas between or adjacent to the motorway or A453 (Figures 2 & 3).

Trench 1080 was not placed in the place intended due to its proximity to a gas main. It was positioned to the south and west of the intended position.

The expected geology of the area was glacial till overlying Mercia Mudstone.

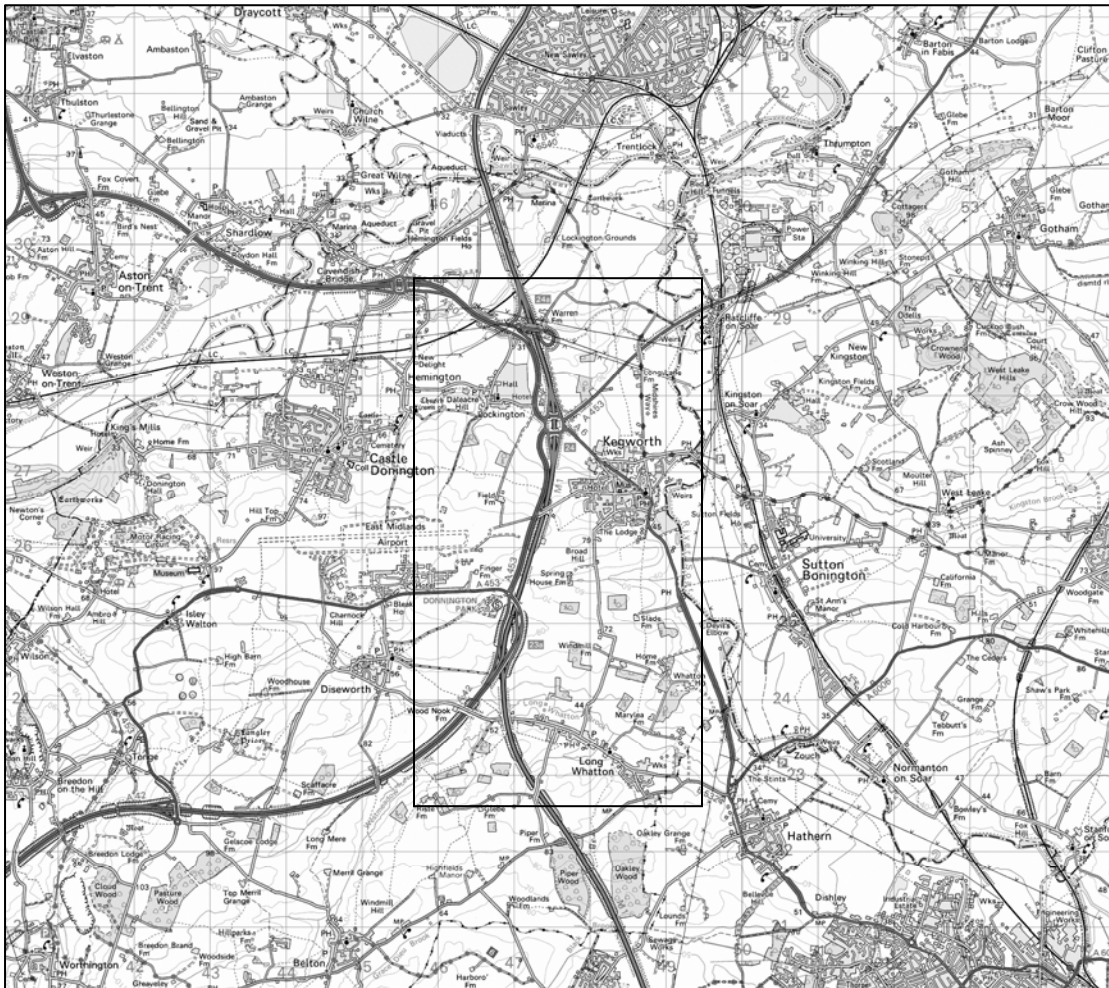


Figure 1: Site Location. Scale 1: 250,000

©Crown Copyright. Licence No. 100021186.

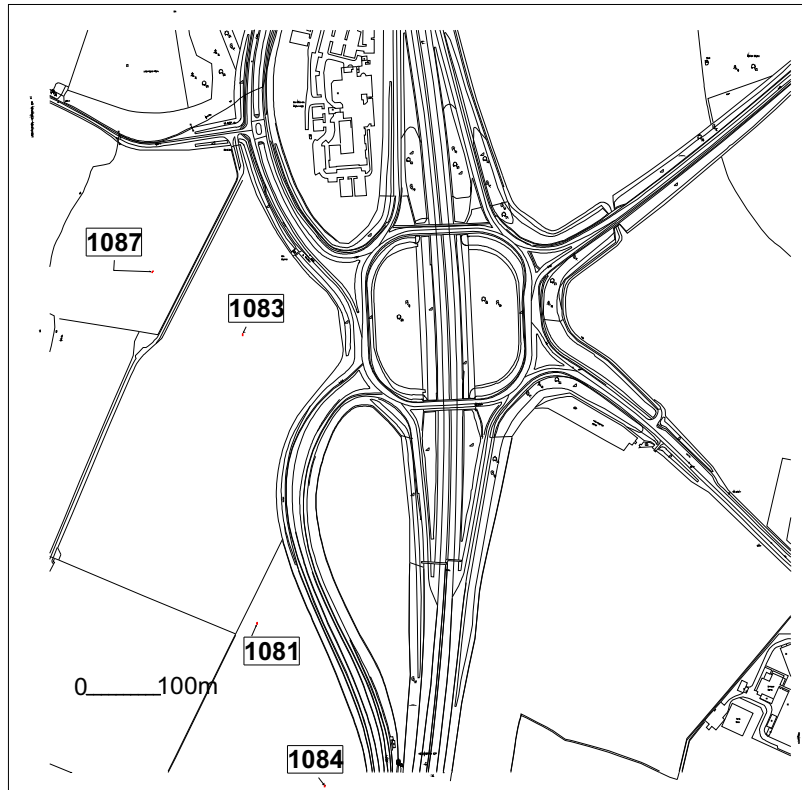


Figure 2: Location of geotechnical trenches at J.24

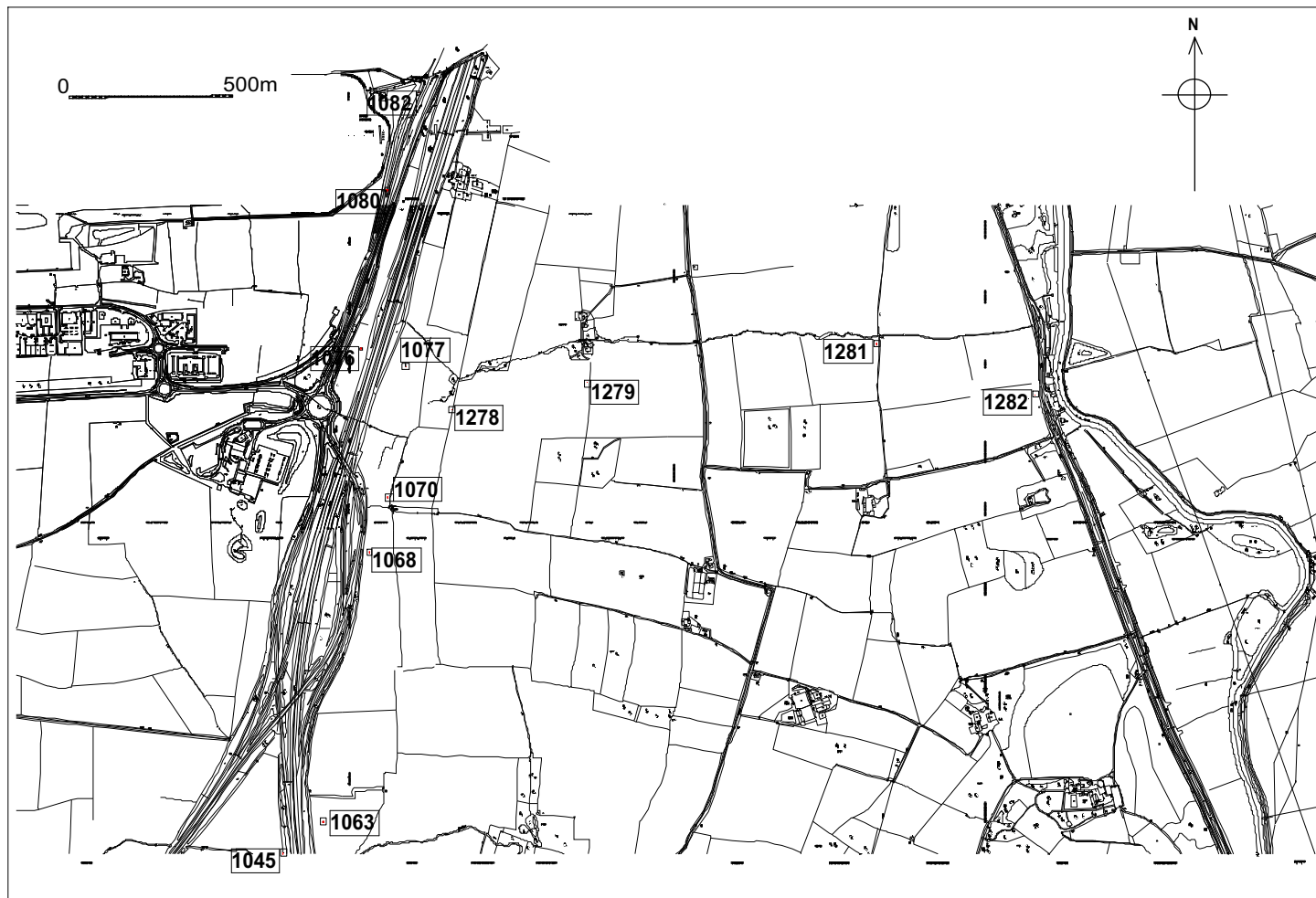


Figure 3: Location of geotechnical trenches at J.23a, A453 and A6 to the east

The Results

The geotechnical trench excavations were visited at five junctures covering a total of five days. Trenches 1070, 1077, 1080, 1082 and 1278 were observed on 18th October 2006. Trenches 1076,1081,1083,1084 and 1087 were observed on 23th and 24th October 2006 and trenches 1045, 1063, 1068, 1281 and 1282 were covered on 10th and 11th of January 2007.

In each case the trenches were observed, measured and photographed.

Trench 1045

Length: 2.3m

Width: 0.7m

Depth: 3.5m

Sequence: Topsoil: 0.1m red brown clayey loam overlying *c.*2.5m made ground of clay and sand and gravel. Overlying Mercia Mudstone. Hard bedrock at 3.5m

Trench 1063

Length: 2.5m

Width: 0.7m

Depth 4m

Sequence: 0.3m of clayey topsoil over *c.*2.5m of made ground of gravelly clay with patches of sand. Overlying Mercia Mudstone.

Remarks: Groundwater discovered at 3.8m.

Trench 1068

Length: 2.3m

Width: 0.7m

Depth: 3m

Sequence: 0.2m of topsoil over Mercia Mudstone.

Trench 1070

Orientation: East-West

Length: 2.6m

Width: 0.7m

Depth: 3.5m

Sequence: Topsoil: 0.2m deep clayey loam with large and small roots and very few small stones. Overlying Mercia Mudstone

Remarks: Top of Mercia Mudstone looks very weathered or might be glacial till.

Trench 1076

Orientation: North-South

Length: 2.6m

Width: 0.7m

Depth: 1.9m

Sequence: Topsoil: 0.25m deep. Overlying 0.5m of mixed (disturbed) red clay and sand. Overlying 1.2m of reddish brown weathered siltstone and Mercia Mudstone.

Trench 1077

Orientation: North-South

Length: 2.6m

Width: 0.7m

Depth: 2.4m

Sequence: Topsoil: 0.3m deep reddish brown clayey loam with very few stones. Overlying Mercia Mudstone.

Trench 1080

Orientation: North-South

Length: 2m

Width: 0.7-1m

Depth: 1m

Sequence: Topsoil: 0.3m deep dark brown clay loam with many roots (close to hedge). Overlying re-deposited Mercia Mudstone and gravel (pipe trench backfill).

Remarks: Pipe encountered in east facing section, so trench moved to east slightly and re-excavated. A larger metal pipe was encountered at 1m depth and excavation was halted. This trench was placed on an old slip road that runs parallel to the present A453.

Trench 1081

Orientation: NW-SE

Length: 2.6m

Width: 0.7m

Depth: 3.4m

Sequence: Topsoil: 0.5m overlying 2.1m of glacial till/weathered mudstone over red Mercia Mudstone.

Trench 1082

Orientation: NW-SE

Length: 2.4m

Width: 0.7m

Depth: 2.5m (deepest)

Sequence: Topsoil: 0.15-0.2m overlying Mercia Mudstone. Metal pipe at base again.

Remarks: moved from intended position due to gas main. Dug into bank and so deeper at rear face. Encountered metal gas pipe again and excavation halted at this point.

Trench 1083

Orientation: North-South

Length: 2.6m

Width: 0.7m

Depth: 4m

Sequence: 0.3m of clay loam topsoil overlying 0.5m of clayey sand, over 0.9m of sand and gravel over Mercia Mudstone.

Trench 1084

Orientation: North-South

Length: 2.6m

Width: 0.7m

Depth: 3m

Sequence: 0.25m of topsoil overlying 1m of Glacial Till over friable sandstone.

Remarks: Field drain running north-south visible in west facing section.

Trench 1087

Orientation: NE-SW

Length: 2.6m

Width: 0.7m

Depth: 3.5m

Sequence: 0.2m of clayey loam topsoil overlying 1.8m of sandy clay and gravel over sand.

Remarks: Collapsing sand halted further excavation

Trench 1278

Orientation: North-South

Length: 2.6m

Width: 0.7m

Depth: 2.6m

Sequence: 0.3m of topsoil overlying 0.4-0.5m of Glacial Till over Mercia Mudstone.
Solid bedrock at 2.6m

Trench 1281

Length: 2.5m

Width: 0.8m

Depth: 3.8m

Sequence: 0.4m topsoil over 2.4m of silty clay (Head Deposit?), overlying Mercia Mudstone.

Trench 1282

Length: 2.2m

Width: 0.7m

Depth: 2.6m

Sequence: 0.3m of clayey topsoil 2.3m of sandy gravelly clay or gravel and clay (Head Deposit)

Remarks: Excavation stopped at 2.6m as walls of pit unstable.

Conclusion

No archaeological remains and no finds associated with archaeological features were discovered during the excavation of these test pits. The small size of the trenches provided a very limited window of investigation that was conducive to geotechnical examination but not to a system of archaeological examination.

Acknowledgements

ULAS would like to thank Fugro Engineering Services and the Highways Agency for their help and co-operation during this watching brief. The watching brief was carried out by Leon Hunt, Martyn Henson and Alex Beacock. Patrick Clay was the project manager.

Archive

The archive for this project will be deposited with Leicestershire Historic and Natural Environment Team with accession number X.A78.2007 and consists of the following:

- 3 watching brief recording sheets
- 8 Trench recording sheets
- 1 CD of digital photographs
- 1 B&W contact sheet
- 1 Set B&W negatives
- 1 Set of Colour Slides
- 5 A4 Geotechnical Sheets
- 1 unbound copy of this report

Leon Hunt

31/05/07

ULAS
University of Leicester
University Road
Leicester LE1 7RH

Tel: 0116 252 2848

Fax: 0116 252 2614

lh90@le.ac.uk



Plate 1: Work in progress on Trench 1070, looking south



Plate 2: Post-ex shot of Trench 1077, looking south



Plate 3: West facing section of Trench 1084, looking east



Plate 4: Post-ex shot of Trench 1082, against hedge, looking north east