

Higham Ferrers Rising Main Replacement



**Archaeological Investigation
and Recording**



November 2015

Client: Anglian Water

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NGR: SP 95425 6935 to SP 94458 69606

Higham Ferrers Rising Main Replacement

Archaeological Investigation and Recording

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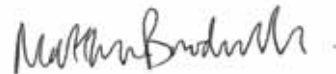
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Summary

Between 13th July and 21st August 2015, OA East carried out a programme of archaeological investigation and recording along the Anglian Water Higham Ferrers TPS Rising Main Replacement Scheme, Northamptonshire. The investigation was carried out during construction of the replacement main. The route was 1191.4m long, and ran from the Higham Ferrers pumping station in the east (SP 95425 6935) to the outskirts of Irthlingborough to the west (SP 94458 69606). As the scheme crossed environmentally sensitive areas (an SSA and RAMSAR site of international importance due to its bird population) the pipeline was directionally drilled. A series of 10 drill pits were required for the operation. Each was recorded. The drill pits measured between 2m and 4.5m wide, between 3m and 8m in length, and were excavated to depths of up to 2.7m.

The investigation discovered evidence of early Roman quarrying and domestic waste on the western side of the Nene valley. No archaeology was found across the bottom of the valley.

1 INTRODUCTION

1.1 Location and scope of work

- 1.1.1 A programme of archaeological investigation and recording was conducted along the Anglian Water Higham Ferrers TPS Rising Main Replacement Scheme, Northamptonshire. The route of the pipeline was 1191.4m long, and ran from the Higham Ferrers pumping station in the east (SP 95425 6935) to the outskirts of Irthlingborough to the west (SP 94458 69606; Fig. 1).
- 1.1.2 The investigation was undertaken in accordance with a Brief issued by Lesley-Ann Mather of Northamptonshire County Council Archaeological Advice Service (2014), supplemented by a Written Scheme of Investigation (WSI) prepared by OA East (Brudenell 2015). The work was conducted in compliance with the Anglian Water Code of Practice.
- 1.1.3 The site archive is currently held by OA East. It will be deposited with the proposed Northamptonshire Archaeological Resource Centre (NARC) in due course.

1.2 Geology and Topography

- 1.2.1 The route of the pipeline spans the base of the Nene Valley. The valley floor is roughly level, at a height of c. 37m OD, with valley sides rising to c. 48m OD to the east at Higham Ferrers, and c. 41m OD to the west at Irthlingborough.
- 1.2.2 The geology is predominantly a Sand and Gravel terrace of the Ecton Member. This is overlain by silt and clay alluvial deposits on the valley floor.

1.3 Archaeological Background

- 1.3.1 There is a background of Neolithic and Bronze Age findspots, flint scatters (MNN142948; MNN134763; MNN143071) and the presence of a possible barrow (MNN28538; MNN25886) in the immediate vicinity. However, the archaeological and historic significance of the area falls within two main phases: the late prehistoric-Roman period and late 19th century industry.
- 1.3.2 Extensive and dense areas of Iron Age and Romano-British settlement have been identified from aerial photographs on either side of the Nene floodplain. They appear on the low-lying valley slopes below Irthlingborough and Higham Ferrers (e.g. MNN751; MNN119975; MNN119978-84; MNN119991; MNN146548; MNN126543; MNN126545-6). These have been subject to piecemeal investigation over the past 40 years, through a combination of systematic and *ad hoc* surface collection, and more recently, evaluation, monitoring, observation and excavation in advance of development (e.g. ENN106101; ENN11106-09; ENN101355-6; ENN107659).
- 1.3.3 Cropmarks on the valley sides around the western end of the pipe scheme below Irthlingborough have been interpreted as the remains of ditched enclosure, trackways, hut circles and pits. These are most likely of Iron Age and Roman origin (MNN751; MNN119975; MNN119978-84; MNN119991; MNN136548). Parts of this cropmark complex have been subject to surface collection and observation during quarry working, with several scatters of pottery and stone spreads recorded (e.g. MNN27023; MNN20664; MNN34975; MNN35008; MNN20663). Some of these have been interpreted as the remains of buildings and even industrial foci in the wider occupation area, with hints that Roman-British leadworking was conducted to the north of the western end of the pipe route (MNN136547).

- 1.3.4 Of more immediate relevance are findings from a 2013 Watching Brief along a power cable installation which followed a similar route across the Nene valley to this pipe replacement scheme (Simmonds 2014). The exposure within Trench 2 of the cable route, located to the south of the substation and adjacent to the pipeline, revealed a dense network of ditches, pits, a few postholes, and patches of humic-rich buried soil with possible *in situ* occupation debris. The features and former land surface were sealed by alluvial deposits up to 1.1m thick. These were exposed at a height of 36.2-36.8m OD. Finds recovery was limited, but the ceramics found suggested activity dating from the Middle Iron Age to Early Roman period.
- 1.3.5 Extensive Iron and Roman settlement is also recorded on the opposite side of the Nene floodplain, on ground immediately east of the A45 at Higham Ferrers. Aerial photographs show a network of enclosures and trackways, parts of which have been subject to metal detecting, surface collection, geophysical survey, trial trenching, and excavation (e.g. ENN18004; ENN101355-6; ENN107659). Recent investigations have revealed a multi-period settlement (prehistoric to Anglo-Saxon), with concentrations of Iron Age and Roman features. These include ditches, wells, buildings, burials, and cremations (e.g. MNN2074; MNN5203; MNN115062-74; MNN134764)
- 1.3.6 Also of relevance to this scheme is the later industrial significance of the area, especially the former industrial sites and extant features west of the Nene around Irthlingborough. Of note is the Irthlingborough Brick and Tile Works (also known as the Three Chimney Brickworks), opened in c. 1900, which was located north of the western end of the pipe route (MNN13525; MNN29311). To the southwest was the Ebbe Vale Iron Ore Works, which included furnaces, wide-scale open-cast quarrying and a tunnel to take miners to the face of the ironstone mine (MNN100908; MNN136550).
- 1.3.7 The route of the replacement pipeline follows the embankment of the railway branch line that formerly linked the Ebbe Vale Iron Ore Works with the Peterborough-Northampton main line, which ran along the valley (MN16264; MNN2343). Trench 1 in the Watching Brief mentioned above was cut into the embankment to a depth of c. 1.1m, but did not penetrate deep enough to expose earlier, underlying deposits.

1.4 Acknowledgements

- 1.4.1 The author would like to thank Anglian Water, which commissioned and funded the archaeological work and particularly Jo Everitt and Stewart Gwaze. Thanks are also extended to Barhale, who undertook the excavation works and allowed sufficient time for archaeological recording. Lesley-Ann Mather of Northamptonshire County Council Archaeological Advice Service visited the site and provided advice on the project. The project was managed by Matthew Brudenell, and the fieldwork was undertaken by the author and Stewart Ladd.

2 AIM AND METHODOLOGY

2.1 Aims

2.1.1 The general aim of the investigation was to preserve by record any archaeological evidence revealed within areas of the scheme where topsoil was removed (drill pits). More specific project aims were to:

- establish, as far as reasonably possible, the presence/absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the drill pits
- establish the impact of past land uses, and the possible presence of masking colluvial/alluvial deposits
- recover palaeo-environmental remains that could be used to determine local environment conditions
- recover artefacts to help develop a typological series within the region

2.2 Methodology

2.2.1 The WSI required the continuous observation of topsoil and subsoil stripping of all drill pits excavated for the scheme, followed by the investigation and recording of any archaeological features revealed. In total ten drill pits were excavated (labelled 1-10 on Figs.1-3). Individual pits measured between 2m and 4.5m wide, between 3m and 8m in length, and up to 2.7m in deep.

2.2.2 Machine excavation was carried out under constant archaeological supervision with a tracked 360° excavator using a toothless ditching bucket.

2.2.3 The site survey was carried out using a Leica GS08 with SmartNet live correctional data feed.

2.2.4 Spoil, exposed surfaces, and features were scanned with a metal detector. All metal-detected and hand-collected finds were retained for inspection, other than those which were obviously modern.

2.2.5 All archaeological features and deposits were recorded using OA East's *pro-forma* sheets. Trench locations, plans, and sections were recorded at appropriate scales and high-resolution digital photographs were taken of all relevant features and deposits.

2.2.6 Environmental sampling was undertaken on selected contexts.

2.2.7 Site conditions were mostly dry, with some water seepage at the natural level of the drill pits located next to water courses.

3 RESULTS

3.1 Introduction

3.1.1 The scheme consisted of a total of ten drill pits running from Drill Pit 1 in the east (on the edge of Higham Ferrers) to Drill Pit 7 in the west (near Irthlingborough). Drill Pits 8 and 9 were inserted between Pits 5 and 6. Drill Pit 10 was placed adjacent to the south-east corner of Pit 7 (see Fig.3).

3.2 Drill Pit 1

3.2.1 Drill Pit 1 was located at the eastern end of the pipeline on the outskirts of Higham Ferrers. It measured 4m by 8m, and was aligned on a north-west south-east axis (surface height 48.6m OD). It was excavated to a depth of over 2m.

3.2.2 The excavation of the Drill Pit was not monitored and the pit was only seen after it had been shored up on all sides. It was not possible to see anything in section and the presence of any archaeological features is unknown. No finds were recovered during a visual survey of the spoil heaps.

3.2.3 The soil profile of the drill pit comprised a dark grey-brown sandy silt topsoil (1) roughly 0.3m thick, overlying a mid yellow-brown sandy silt subsoil (2). The depth of the subsoil could not be seen due to the shoring.

3.3 Drill Pit 2

3.3.1 Drill Pit 2 was located c. 70m north-west of the River Nene. It measured 4.5m by 2m, and was aligned on a north-west to south-east axis (surface height 36.4m OD). The natural was a grey-yellow clay found at a depth of 0.43m at the north western end and 0.46m at the south eastern end.

3.3.2 No archaeological features were identified in the drill pit.

3.3.3 The soil profile of the drill pit comprised a dark grey-brown sandy silt topsoil (1) 0.29m thick overlying a mid yellow-brown sandy silt subsoil (2) between 0.15m and 0.18m thick.

3.4 Drill Pit 3

3.4.1 Drill Pit 3 was on the south-east side of the public footpath running along the line of the disused railway. The pit measured 5m by 2m, and was aligned on an east-west axis (surface height 36.1m OD). The natural was a grey yellow clay found at a depth of 0.48m at the western end and 0.44m at the eastern end.

3.4.2 No archaeological features were identified in the drill pit.

3.4.3 The soil profile of the drill pit comprised a dark grey-brown sandy silt topsoil (1) between 0.26m and 0.29m thick, overlying a mid yellow-brown sandy silt subsoil (2) measuring between 0.15m and 0.22m thick.

3.5 Drill Pit 4

3.5.1 Drill Pit 4 was located at c. 40m south-west of a tributary/drain of the River Nene. It measured 4.5m by 2m, and was aligned on a south-west to north-east axis (surface height 36.2m OD). The natural was a reddish-grey sandy gravel found at a depth of 0.86m at the south-west end to 0.66m at the north-east end.

3.5.2 No archaeological features were identified in the drill pit (Plate 7).

- 3.5.3 Overlying the natural was a mid reddish-brown sandy silt alluvial deposit (7), which was 0.42m thick at the north-east end and 0.27m at the south-west end. Above this was a mid yellow-brown sandy silt subsoil (2) between 0.15m and 0.18m thick. The topsoil comprised a dark grey-brown sandy silt (1) between 0.25m and 0.28m thick.

3.6 Drill Pit 5

- 3.6.1 Drill Pit 5 was located c. 125m south-west of Drill Pit 4. It measured 8m by 2m, and was aligned on an east to west axis (surface height 36.1m OD) The natural was a grey-yellow sandy gravel found at a depth of 0.81m at the west end and 0.89m at the east end.
- 3.6.2 An undated linear gully terminus (5) was located 1.7m from the eastern end of the trench, entering from the southern baulk (Fig. 3). It was 1.25m long, 0.82m wide and 0.22m deep. It had a U-shaped profile and contained a dark grey clayey silt (6) (Fig. 4, Section 1; Plates 5 and 6). No finds were recovered from the gully. The fill was sampled for environmental remains, but none were recovered (see Appendix B.2).
- 3.6.3 Overlying this feature was a mid greyish-brown sandy silt alluvial deposit (4). It varied in thickness from 0.14m at the west end and 0.37m at the east end. Above this was a mid yellow-brown sandy silt subsoil (2) between 0.2m and 0.32m thick. The topsoil comprised a dark grey-brown sandy silt (1) between 0.30m and 0.35m thick.

3.7 Drill Pit 6

- 3.7.1 Drill Pit 6 was located c. 200m east of the west end of the scheme. It measured 3m by 2m, and was aligned on a north-west to south-east axis (surface height 36.1m OD). The natural was a yellow-grey sand at a depth of 0.57m at the north-west end to 0.7m at the south-east end.
- 3.7.2 No archaeological features were identified in the drill pit.
- 3.7.3 The soil profile of the drill pit comprised a dark grey-brown sandy silt topsoil (1) 0.3m thick, overlying a mid yellow-brown sandy silt subsoil (2) between 0.27m and 0.4m thick.

3.8 Drill Pit 7

- 3.8.1 Drill Pit 7 was located at the western end of the scheme. It measured 3m by 2m, and was aligned on an east to west axis (surface height 37.6m OD). The natural was a yellow-grey sand at a depth of between 0.92m at the west end and 1.11m at the east end, dropping into the valley to the east.
- 3.8.2 No archaeological features were identified within the drill pit. Overlying the natural was a mid grey-brown sandy silt alluvial deposit (3), between 0.38m thick at the west end to 0.6m at the east end. The alluvial deposit followed the slope of the natural.
- 3.8.3 Above the alluvium was a mid yellow-brown sandy silt subsoil (2) between 0.21m and 0.24m thick. The topsoil comprised a dark grey-brown sandy silt topsoil (1) 0.32m thick.

3.9 Drill Pit 8

- 3.9.1 Drill Pit 8 was located midway between Drill Pits 5 and 6. It measured 5m by 2m, and was aligned on a north-west to south-east axis (surface height 36.2m OD). The natural was a yellow-grey sand at a depth of 0.8m.

- 3.9.2 No archaeological features were identified in the drill pit. Overlying the natural was a mid greyish-brown clayey silt alluvial deposit (8), between 0.4m thick at the north-west end to 0.3m at the south-east end.
- 3.9.3 Above the alluvium was a mid yellow-brown sandy silt subsoil (2) between 0.15m and 0.20m thick. The topsoil comprised a dark grey-brown sandy silt topsoil (1) between 0.25m and 0.30m thick.

3.10 Drill Pit 9

- 3.10.1 Drill Pit 9 was located 30m south-east of Drill Pit 8. It measured 3m by 2m, and was aligned on a north-west to south-east axis (surface height 37.1m OD). The natural was a yellow-grey sand at a depth of 0.8m at the north-west end and 0.7m at the south-east end.
- 3.10.2 A tree bowl 1.9m long by 0.6m wide and 0.26m deep was located on the south-west edge of the pit, partially outside of the excavation area. Overlying the tree bowl was a mid greyish-brown clayey silt alluvial deposit (8), 0.29m thick at the north-west end and 0.3m at the south-east end.
- 3.10.3 Above the alluvium was a mid yellow-brown sandy silt subsoil (2) 0.15m thick. The topsoil comprised a dark grey-brown sandy silt topsoil (1) between 0.25m and 0.32m thick.

3.11 Drill Pit 10

- 3.11.1 Drill Pit 10 was located south-west of Drill Pit 7, and joining at its south-west corner. It measured 7m by 4.5m, and was aligned on an east to west axis (Fig. 3; surface height 37.6m OD). The natural was a yellow-grey sand at a depth of around 0.8m across the pit.
- 3.11.2 On the northern edge of the pit, 1.54m from the north-east corner, there was a small early Roman pit (**9**). This was 0.85m in width, extending 0.44m from the side of the drill pit, with a depth of 0.25m (Fig. 4, Section 2). The pit was filled with a dark greyish-brown clayey silt (10). It contained two large sherds of mid-1st century AD pottery (59g) and three fragments of animal bone.
- 3.11.3 On the southern edge of the drill pit was a large irregular Roman quarry pit (**11/15**). This was aligned roughly north-west south-east from the eastern edge of the drill pit, and was at least 0.5m deep (Fig. 4, Sections 3 and 4; Plates 1 and 3). It was filled by a dark greyish-brown clayey silt (12/16), and yielded 24 sherds of mid-1st century AD pottery (789g) and five animal bone fragments (see Appendix A.1 and B.1). Fill 15 was sampled for environmental remains, but yielded only sparse charcoal (see Appendix B.2).
- 3.11.4 Quarry Pit **15** truncated an earlier sub-circular pit (**13**) located 0.7m in from the southern edge of the drill pit. This was at least 0.52m wide and 0.29m deep, filled by a dark brownish-grey silty clay (14) (Fig. 4, Section 4). No finds were recovered during hand excavation of the pit, but small fragments of burnt bone were recovered from the an environmental sample, along with sparse charcoal and two sedge seeds (see Appendix B.2).
- 3.11.5 Also aligned north-west to south-east in the south-west corner of the drill pit was a second quarry pit (**17**). It was truncated by the south west edge of quarry Pit **15**. The pit was at least 0.7m wide and 0.36m deep (Fig. 4, Section 5; Plates 2 and 3). It was filled

by a dark grey silty clay (18) (Fig. 5, Section 5). It yielded 13 sherds of mid-1st century AD pottery (430g) and four fragments of animal bone.

- 3.11.6 Overlying the features and the natural in the drill pit was a mid grey brown sandy silt alluvial deposit (3), roughly 0.56m in depth. The alluvial deposit (3) and the quarry pit **15** were both cut by a modern sewage pipe trench roughly 2m in width running across the middle of the drill pit on a west-north-west east-south-east alignment (Fig. 3). This cut down below the archaeological layers.
- 3.11.7 Above the alluvium (3) was a mid yellow-brown sandy silt subsoil (2) between 0.20m and 0.32m thick. The topsoil comprised a dark grey-brown sandy silt topsoil (1) between 0.30m and 0.35m thick.

3.12 Finds Summary

- 3.12.1 A small assemblage of Late Iron Age and Roman pottery was recovered during the investigation. It totalled 39 sherds and weighed 1278g. The material was all from Drill Pit 10. Contexts 10 and 12 each produced two sherds, context 16 produced 22 sherds; and context 18 yielded 13 sherds. All the pottery is dated to around the mid-1st century AD, with a suggested peak between AD40 and AD60, spanning the Iron Age to Roman transition. The quantity of pottery indicates marginal domestic activity, perhaps suggesting that the excavation area lay on the periphery of a settlement associated site.

3.13 Environmental Summary

- 3.13.1 A total of twelve identifiable fragments of animal bone were recovered during the investigation. All come from features in Drill Pit 10. The assemblage included a mixture of cattle, sheep/goat, and one fragment of pig. Three fragments were recovered from contexts 10 and 16; two were recovered from context 12; and four from context 18. Two fragments showed butchery marks.
- 3.13.2 A total of three bulk samples were taken for environmental processing. These comprised samples from the fills of Gully **5** in Drill Pit 5, and Pit **13** and Quarry Pit **15** in Drill Pit 10. The processing yielded minimal charred plant remains, comprising occasional charcoal and two sedge seeds. Survival of charred remains appears to be poor.

4 DISCUSSION AND CONCLUSIONS

- 4.1.1 Although each drill pit provided only a limited window onto sub-surface deposits and archaeological remains along the route of the scheme, when they are combined, the result is a valuable transect across the Nene Valley between Higham Ferrers and Irthlingborough. Most importantly, the investigations have served to further define the extent and date of occupation remains to the east of Irthlingborough along the lower slopes of the valley adjacent to the Nene floodplain, with Drill Pits 7 and 10 revealing Late Iron Age/Roman features.
- 4.1.2 Drill Pits 7 and 10 were located within an area identified by previous surface finds and excavations as being part of an extensive Iron Age and Roman settlement (e.g. MNN751; MNN119975; MNN119978-84; MNN119991; MNN136548; MNN27023; MNN20664; MNN34975; MNN35008: MNN20663). The features revealed in Drill Pit 10 are contemporary, and comprised a small discrete sub-circular Late Iron Age/early Roman pit (**9**) and to slightly amorphous inter-cutting Late Iron Age/early Roman quarry pits (**15** and **17**). While these features indicate quarrying in the area, the artefactual and faunal remains recovered from these features suggest domestic occupation in the immediate vicinity. More broadly, the character of the archaeology and the contents and date of the finds assemblage match those from recent investigation of a cable route to the north (Simmonds 2014). This demonstrates the southern continuation of contemporary occupation across the 38.6m OD contour. In both these investigations, the Late Iron Age/early Roman archaeology was covered by alluvium, suggesting that the area was flooded and probably uninhabitable by the end of the 1st century AD.
- 4.1.3 With the exception of Gully Terminus **5** in Drill Pit 5, the lack of any archaeological features along the rest of the scheme may indicate that the lower slopes of the valley were too wet for Iron Age and Roman occupation. Indeed, Gully Terminus **5** was undated, and was located roughly 150m outside the Iron Age and Roman occupation area to the east of Irthlingborough. This feature ran approximately north-south, although it was difficult to determine the alignment because only a small part of the gully was revealed within the trench. This feature was, however, sealed by alluvium, and could conceivably be prehistoric.
- 4.1.4 All of the drill pits west of Drill Pit 4 contained alluvial deposits (Contexts 3, 4, 7, and 8) overlying the natural geology and archaeological features. This alluvial layer was not present on the eastern side of the disused railway line in Drill Pits 2 and 3.

APPENDIX A. FINDS REPORTS

A.1 Late Iron and Early Roman Pottery

by Katie Anderson

Introduction

A.1.1 A small assemblage of Late Iron Age and Roman pottery totalling 39 sherds, weighing 1278g and representing 0.66 EVEs (estimated vessel equivalent) was recovered from the evaluation. All of the pottery was analysed and recorded in accordance with the Study Group for Roman Pottery guidelines (Perrin 2011).

Assemblage Composition

- A.1.1 The assemblage comprised small to medium-sized sherds, with a relatively high mean weight of 32.8g, although several sherds were noted as being abraded. Although there were no complete or partially complete vessels within the assemblage, there were several examples of refitting sherds; all of which were within the same contexts.
- A.1.2 The material derived from four different contexts across the site, all of which dated to the mid-later 1st century AD. They comprised sherds in both the Late Iron Age tradition as well as those which were Romanised. The pottery suggests a peak in activity between c. AD40-60.
- A.1.3 A limited number of vessel fabrics were identified, and occurred in varying quantities (Table 1). Grog-tempered wares and shell-tempered wares were the most commonly occurring, totalling 16 sherds apiece. Each represents 41% of the total assemblage by count. Both groups could be divided into different fabrics, depending on the quantities, sorting and sizing of the inclusions, with four grog-tempered wares identified (see below for descriptions) and two shell-tempered fabrics. SHELL was the most commonly occurring, with 15 sherds weighing 202g, followed by GROG1 which comprised seven sherds, weighing 250g. The other fabrics represented minor components of the assemblage.
- A.1.4 The majority of the fabrics can be considered as Romanising, including most of the grog-tempered wares (the exception being GROG2). This is because although the fabrics are in a Late Iron Age tradition, the vessels themselves are wheel-made/wheel-finished and/or comprise Roman forms. Fabrics Q1 and GROG2 were Late Iron Age in date, defined by the vessel forms, and were handmade. The BUFF fabric group appears to have been the latest fabric as the fabric, forms, and manufacture are all in the Roman tradition.

Fabric	No. sherds	Wt(g)
BUFF	3	7
CSBLK	1	5
GROG1	7	250
GROG2	3	474
GROG3	3	113
GROG4	3	158
Q1	3	12
SHELL	15	202

SHELL2	1	57
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Table 1: All LIA/Roman pottery by fabric

Fabric Descriptions

- A.1.5 BUFF – Medium coarse sandy buff ware fabric with occasional silver mica – Romanising/Romanised
- CSBLK – Coarse sandy ware with black surfaces and occasional inclusions of larger quartz, up to 0.2mm – Romanising/Romanised
- GROG1 – Frequent to abundant buff and red grog, moderately well sorted, measuring up to 0.4mm, in a fine sandy clay matrix with common silver mica – Romanising
- GROG2 – Common to frequent small to medium grog (up to 0.3mm), well sorted in a moderately coarse sandy, micaceous clay matrix – Late Iron Age tradition
- GROG3 – Common very small to small grog in a moderately fine sandy, micaceous clay matrix. with occasional to common shell inclusions – Romanising
- GROG4 – Common to frequent small grog (up to 0.1mm), with occasional pieces up to 0.3mm, in a micaceous, sandy clay matrix – Romanising
- Q1 – Moderately coarse sandy ware with common silver mica and occasional calcareous inclusions – Late Iron Age tradition
- SHELL – Abundant small well-sorted linear shell inclusions (up to 0.2mm) - Romanising/Romanised
- SHELL2 – Frequent small, well sorted shell (0.1mm) with occasional grog inclusions – Romanising/Romanised

- A.1.6 Due to the size of the assemblage, many of the sherds (49%) comprised non-diagnostic body sherds, where no vessel form (beyond 'closed') could be established. Of the diagnostic sherds in the assemblage, jars were the most common (Table 2), with a minimum of five different vessels identified, based on the number of unique rims present (MNV). The rim diameters ranged in size from 12cm (probably a cooking vessel) to a large storage jar with a rim diameter of 38cm. Three jars were decorated; two had cordons, and one was rilled. The latter, from Context 16, was also noted as having sooting on the interior, indicating that it had been used for cooking. The only other vessel forms identified comprised one small SHELL bowl (10) with a short neck and everted rim, and a GROG4 lid (16), with a slightly in-turned rim.

Form	No. sherds	Wt (g)	MNV
Bowl	1	47	1
Closed	12	138	0
Jar	18	989	5
Lid	1	66	1
Unknown	7	38	0

Table 2: All LIA/RB pottery by vessel form

With the exception of abraded sherds and the jar from Context 16 with sooting/burnt residue on the interior, there was no further use-wear evidence. That said, the fabrics and few forms identified are indicative of domestic activity.

Contextual Analysis

- A.1.7 Pottery was recovered from four different contexts in varying quantities (Table 3). In all cases, sherds in a Late Iron Age tradition occurred alongside Romanising/Romanised wares. Rather than the Late Iron Age sherds being residual, it is likely that these contexts actually represent occupation around the time of the Roman conquest.
- A.1.8 Context 16, Quarry Pit **15**, contained the largest quantity of material, totalling 22 sherds weighing 739g. This included three sherds from a grog-tempered beaded rim jar (AD40-60), as well as a sherd from a grog-tempered lid. The majority of sherds from this context were wheel-turned, although two sherds were noted as being handmade.
- A.1.9 Context 18, Quarry Pit **17**, contained 13 sherds (430g), which included the large grog-tempered storage jar sherd, as well as a small sherd from a ring-base of a buff sandy ware vessel. This context contained several sherds of Romanised pottery, thus is likely to be slightly later in date than the remaining three contexts, although the date is unlikely to go beyond the pre-Flavian period.
- A.1.10 Contexts 10, (pit **9**) and 12 (quarry pit **11**), contained two sherds each (59g and 50g respectively). Noteworthy sherds included a shell-tempered channel rim jar (10) and the small shell-tempered bowl (10).

Context	Cut	No. sherds	Wt(g)	Spotdate
10	Pit 9	2	59	AD40-60
12	Quarry Pit 11	2	50	AD40-60
16	Quarry Pit 15	22	739	AD40-60
18	Quarry Pit 17	13	430	AD40-60

Table 3: LIA/Roman pottery quantification by context

Discussion

- A.1.11 Overall, the pottery demonstrates that there was activity around the mid-1st century AD, with a suggested peak between AD40-60, thus spanning the Iron Age to Roman transition. The occurrence of Late Iron Age handmade tradition wares alongside Romanising and Romanised wares does not imply that the former is residual, but rather that activity was around the time of the Roman conquest, before the more 'native' potting traditions had gone out of use. They can therefore be considered to be contemporary with the Romanising/earliest Romanised wares. The pottery evidence also suggests that activity had ceased by the latter stages of the 1st century AD. The quantity of pottery indicates marginal domestic activity, perhaps suggesting that the area of the excavation lay on the periphery of any associated site.

APPENDIX B. ENVIRONMENTAL REPORTS

B.1 Faunal Remains

by *Vida Rajkovača*

- B.1.1 The assemblage contained twelve specimens, with moderate to good levels of preservation, which allowed nine pieces (75%) to be assigned to species (Table 4). Two specimens were recorded as butchered. Both identified as cow, and both were recovered from Context 16, Quarry Pit **15**. First cervical vertebra (atlas) comprised two fine cuts, suggesting dismemberment of carcass from the skull, and the ulna had fine knife marks consistent with preparation for disarticulation.
- B.1.2 An ovicaprid mandible from context 18, Quarry Pit **17** provided the age of 4 to 6 years at death, indicating that selected individuals were kept for secondary products. In addition to this, a probable sheep/goat foetal radius, recorded from the same feature, suggests that sheep were being reared on the site or locally.

Taxon	Context			
	10	12	16	18
Cow	2	1	2	.
Sheep/goat	.	1	.	2
Pig	.	.	.	1
Sub-total to species	2	2	2	3
Cattle-sized	.	.	.	1
Sheep-sized	1	.	1	.
Total	3	2	3	4

Table 4. Number of Identified Specimens (NISP) for all species from all contexts.

- B.1.3 The prevalence of livestock is typical for any assemblage of domestic character and the presence of cut marks in such small assemblage also confirms this. It is impossible to assess the assemblage's economic significance any further in the absence of ageing data.

B.2 Environmental Samples

by *Rachel Fosberry*

Introduction

- B.2.1 Three bulk samples were taken from the excavated area at Higham Ferrers Rising Main Replacement, Northamptonshire in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations. Features sampled include undated Ditch **5**, and early Roman Pits **13** and **15**.

Methodology

- B.2.2 The total volume (up to 19 litres) of each bulk sample was processed by water flotation (using a modified Siraff three-tank system) to recover charred plant remains, dating evidence, and any other artefactual evidence that might be present. The floating component (flot) of the samples was collected in a 0.25mm nylon mesh and the residue

was washed through 10mm, 5mm, 2mm, and 0.5mm sieve. Both flot and residues were allowed to air dry. A magnet was dragged through each residue fraction prior to sorting for artefacts. Any artefacts present were noted and reintegrated with the hand-excavated finds. The dried flots were subsequently sorted using a binocular microscope at magnifications up to x 60, and a list of the recorded remains are presented in Table 5. Identification of plant remains is with reference to the *Digital Seed Atlas of the Netherlands* and the authors own reference collection. Nomenclature is according to Stace (1997).

Quantification

B.2.3 For the purpose of this initial assessment, items such as seeds, cereal grains and legumes have been scanned and recorded qualitatively according to the following categories

= 1-10, ## = 11-50, ### = 51+ specimens ##### = 100+ specimens

Items that cannot be easily quantified such as charcoal, magnetic residues and fragmented bone have been scored for abundance

+ = rare, ++ = moderate, +++ = abundant

Results

B.2.4 Preservation is by carbonisation and is generally poor with only two seeds of the dock/knotgrass family (Polygonaceae) surviving in Sample 2, fill 14 of pit 15.

Sample No.	Context No.	Cut No.	Feature Type	Flot contents	Residue contents
1	6	5	Ditch	No preservation	No finds
2	14	13	Pit	Sparse charcoal, 2 x charred sedge seeds	Burnt bone
3	16	15	Quarry Pit	Sparse charcoal	Burnt and un-burnt bone

Table 5: Environmental samples

Discussion

B.2.5 The samples were poor in terms of charred plant remains precluding further interpretation of the features sampled.

APPENDIX C. BIBLIOGRAPHY

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APPENDIX D. OASIS REPORT FORM

All fields are required unless they are not applicable.

Project Details

OASIS Number	oxfordar3-231863		
Project Name	Higham Ferrers Rising Main Replacement		
Project Dates (fieldwork) Start	13-06-2015	Finish	21-08-2015
Previous Work (by OA East)	No	Future Work	No

Project Reference Codes

Site Code	XNNHFR15	Planning App. No.	
HER No.	ENN108017	Related HER/OASIS No.	

Type of Project/Techniques Used

Prompt	Planning condition
Development Type	Pipelines/Cables

Please select all techniques used:

<input type="checkbox"/> Aerial Photography - interpretation	<input type="checkbox"/> Grab-Sampling	<input type="checkbox"/> Remote Operated Vehicle Survey
<input type="checkbox"/> Aerial Photography - new	<input type="checkbox"/> Gravity-Core	<input type="checkbox"/> Sample Trenches
<input type="checkbox"/> Annotated Sketch	<input type="checkbox"/> Laser Scanning	<input type="checkbox"/> Survey/Recording Of Fabric/Structure
<input type="checkbox"/> Augering	<input checked="" type="checkbox"/> Measured Survey	<input type="checkbox"/> Targeted Trenches
<input type="checkbox"/> Dendrochronological Survey	<input type="checkbox"/> Metal Detectors	<input checked="" type="checkbox"/> Test Pits
<input type="checkbox"/> Documentary Search	<input type="checkbox"/> Phosphate Survey	<input type="checkbox"/> Topographic Survey
<input checked="" type="checkbox"/> Environmental Sampling	<input type="checkbox"/> Photogrammetric Survey	<input type="checkbox"/> Vibro-core
<input type="checkbox"/> Fieldwalking	<input checked="" type="checkbox"/> Photographic Survey	<input type="checkbox"/> Visual Inspection (Initial Site Visit)
<input type="checkbox"/> Geophysical Survey	<input type="checkbox"/> Rectified Photography	

Monument Types/Significant Finds & Their Periods

List feature types using the [NMR Monument Type Thesaurus](#) and significant finds using the [MDA Object type Thesaurus](#) together with their respective periods. If no features/finds were found, please state "none".

Monument	Period	Object	Period
Extraction Pit	Roman 43 to 410	Jar	Roman 43 to 410
Pit	Roman 43 to 410	Animal Remains	Roman 43 to 410
Gully	Uncertain		Select period...

Project Location

County	Northamptonshire	Site Address (including postcode if possible)
District	East Northamptonshire	Higham Ferrers Riverside Park Higham Ferrers Rushdon
Parish	Higham Ferrers	
HER	Northamptonshire	
Study Area		National Grid Reference SP 95425 6935

Project Originators

Organisation	OA EAST
Project Brief Originator	Northamptonshire County Council
Project Design Originator	Matt Brudenell
Project Manager	Matt Brudenell
Supervisor	Nicholas Cox

Project Archives

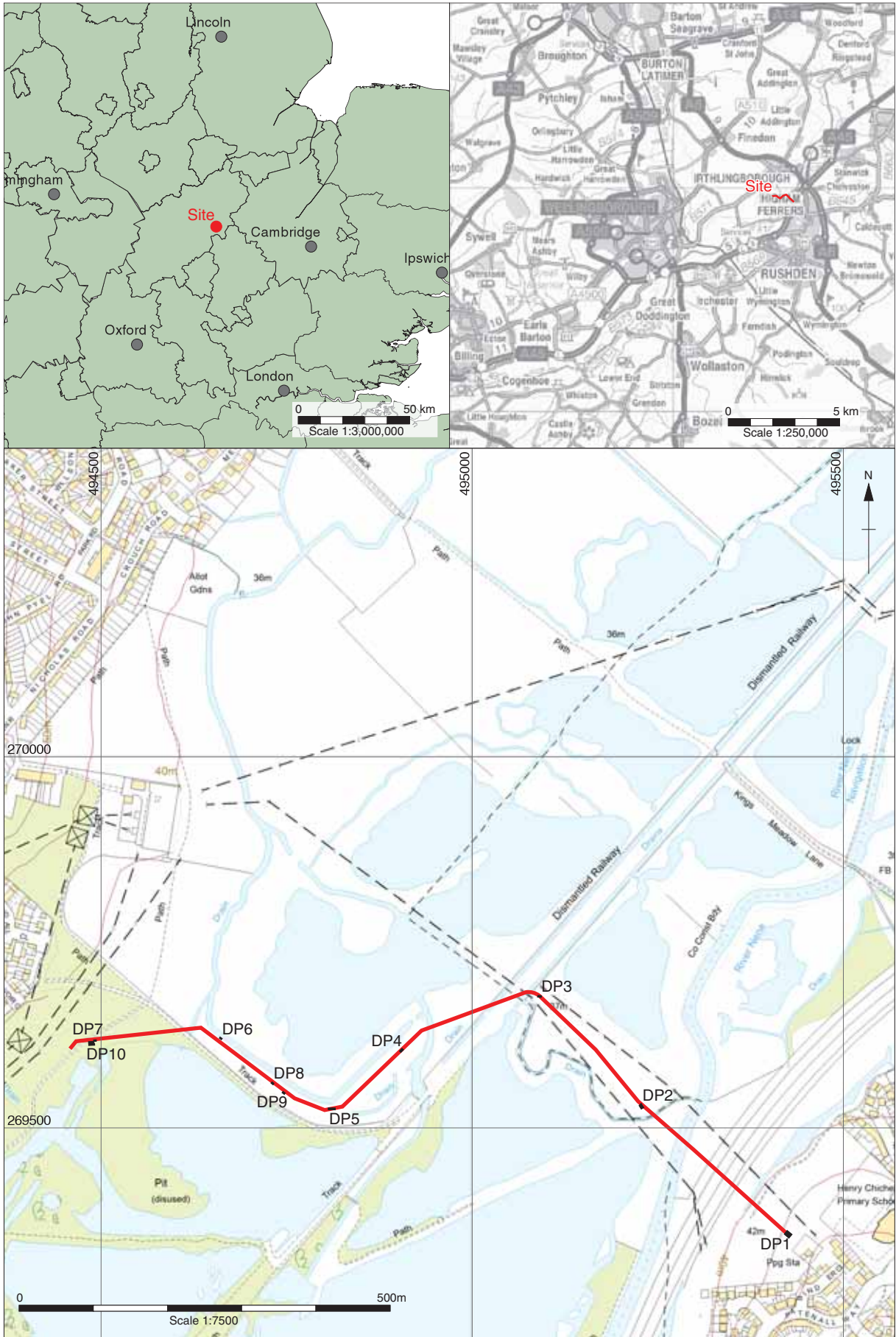
Physical Archive	Digital Archive	Paper Archive
Northamptonshire County Store	OA East	Northamptonshire County Store
ENN 108017	XNNHRF15	ENN108017

Archive Contents/Media

	Physical Contents	Digital Contents	Paper Contents
Animal Bones	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ceramics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Glass	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Human Bones	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leather	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Metal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stratigraphic		<input type="checkbox"/>	<input type="checkbox"/>
Survey		<input type="checkbox"/>	<input type="checkbox"/>
Textiles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wood	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Worked Bone	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Worked Stone/Lithic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Digital Media	Paper Media
<input checked="" type="checkbox"/> Database	<input type="checkbox"/> Aerial Photos
<input checked="" type="checkbox"/> GIS	<input checked="" type="checkbox"/> Context Sheet
<input type="checkbox"/> Geophysics	<input checked="" type="checkbox"/> Correspondence
<input checked="" type="checkbox"/> Images	<input type="checkbox"/> Diary
<input checked="" type="checkbox"/> Illustrations	<input type="checkbox"/> Drawing
<input type="checkbox"/> Moving Image	<input type="checkbox"/> Manuscript
<input type="checkbox"/> Spreadsheets	<input type="checkbox"/> Map
<input type="checkbox"/> Survey	<input type="checkbox"/> Matrices
<input checked="" type="checkbox"/> Text	<input type="checkbox"/> Microfilm
<input type="checkbox"/> Virtual Reality	<input checked="" type="checkbox"/> Misc.
	<input type="checkbox"/> Research/Notes
	<input type="checkbox"/> Photos
	<input checked="" type="checkbox"/> Plans
	<input checked="" type="checkbox"/> Report
	<input checked="" type="checkbox"/> Sections
	<input type="checkbox"/> Survey

Notes:



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Figure 1: Site location showing archaeological drill pits (black) and pipeline route (red)

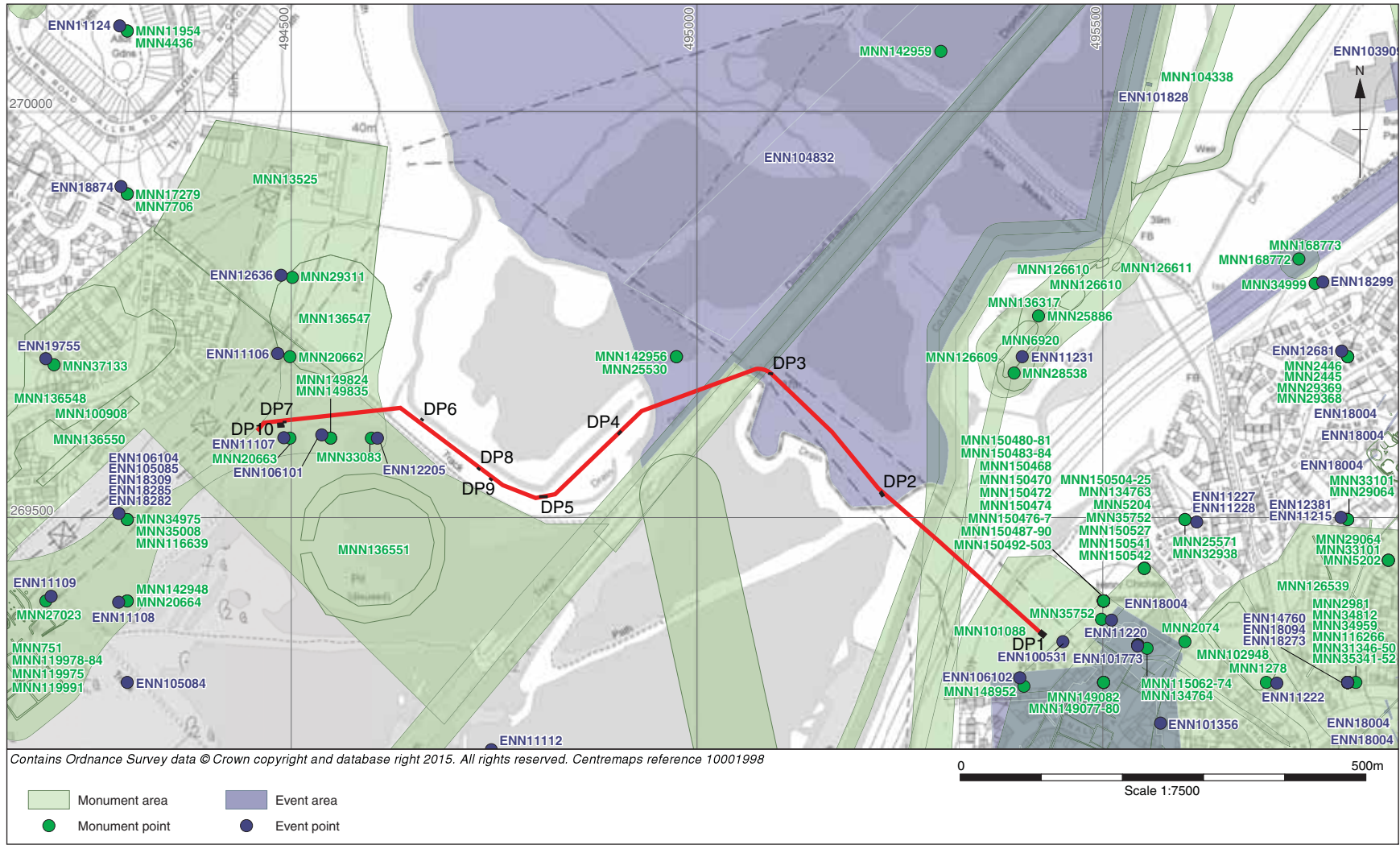


Figure 2: HER plot

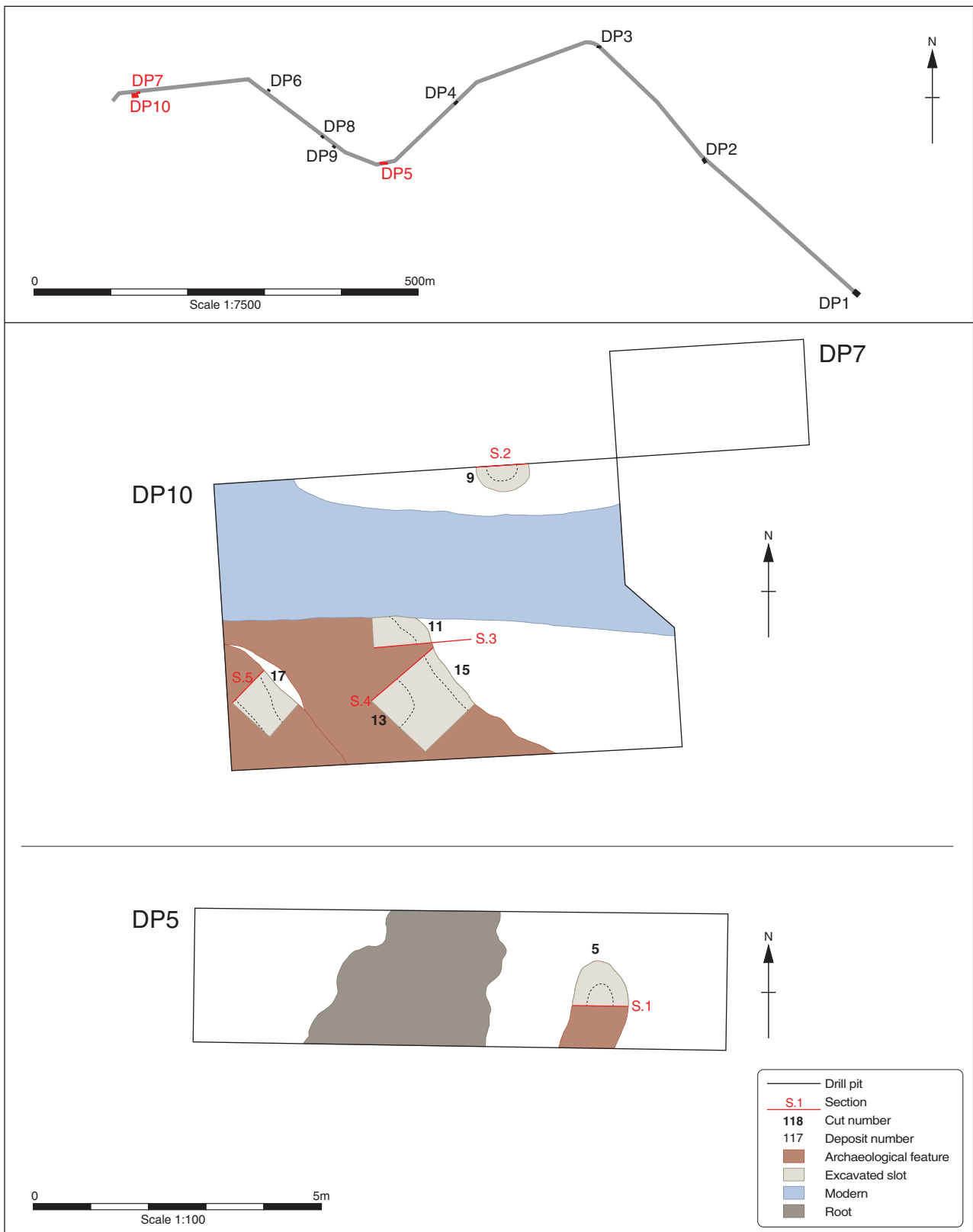


Figure 3: Plan of archaeological features in Drill Pits 5, 7 and 10

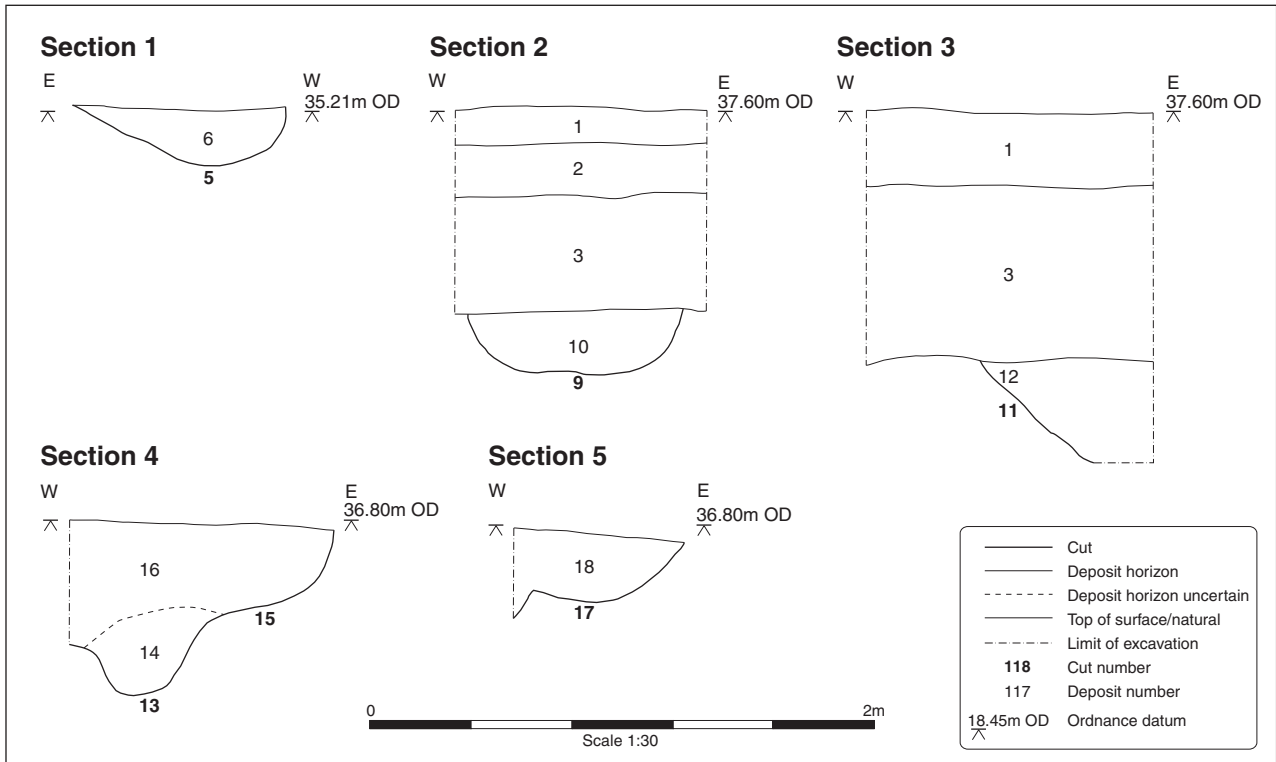


Figure 4: Selected sections



Plate 1: Quarry Pit 15, looking north-east



Plate 2: Quarry Pit 17, looking north-east



Plate 3: View of Drill Pit 10, looking north-east, showing both Pits 15 and 17



Plate 4: Roman Pit 9, looking north



Plate 5: Gully Terminus 5, looking south



Plate 6: View of Drill Pit 5, looking east, showing Gully 5



Plate 7: View of Drill Pit 4, looking north-east



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