

Mumby to Chapel St Leonard's Main Replacement



Archaeological Watching Brief Report



December 2013

Client: Anglian Water

OA East Report No: 1559

OASIS No: oxfordar3-166406

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Mumby to Chapel St Leonard's Main Replacement

Watching Brief

Site Code: MCWR13

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Excavator: Pat Moan

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Summary

On the 19th November and 10th December 2013, OA East carried out an archaeological watching brief at Mumby, Lincolnshire (TF 51969 74565). The monitoring was carried out during the replacement of the water main between Mumby and Chapel St Leonard's.

A large pit, two smaller pits and two boundary ditches were observed. An assemblage of briquetage was recovered from the large pit, within which a number of pedestals were identified. These indicate that marine salt production was undertaken within the vicinity of the study site, most likely during the Roman period. Furthermore, a large amount of medieval pottery was recovered from the topsoil. This is likely related to the moated manor located nearby.

1 GEOLOGY AND TOPOGRAPHY

- 1.1.1 The stretch of pipe to be monitored is located on Devensian glaciofluvial deposits, and tidal flat deposits, overlying the Welton Chalk Formation (BGS online map viewer).
- 1.1.2 The subject site lay at an elevation of approximately 2.8mOD to the west, rising to 3.9mOD in the middle of the field, and dropping to 1.7mOD in the east. The pipe route is situated on the south facing slope of a hill within the field. This location and elevation can be regarded as favourable for the salt making industry that was prevalent within this area of Lincolnshire.

2 ARCHAEOLOGICAL BACKGROUND

- 2.1.1 The archaeological background presented below is drawn from the Watching Brief specification (Drummond-Murray 2013).
- 2.1.2 The pipeline passes through an area of prehistoric or medieval crop marks and a medieval moated site.
- 2.1.3 This area of the Lincolnshire Marsh is known for its extensive salt making industry, concentrated in the area between Hogsthorpe and Ingoldmells. Finds from Hogsthorpe suggest that this industry was under way as early as the Bronze Age, although it became more widespread in the later Iron Age and Romano-British periods. The closest such site is of Romano-British date; discovered in the south-east corner of the parish, c.2km from the proposed development (HER data, see table 1 below). The County HER records the discovery of 2nd century Romano-British pottery from a drain trench, approximately 0.5km north-west of the village.
- 2.1.4 There is no extant evidence of settlement in the Saxon period, although the name of the village derives from the Old Norse personal name '*Mundi*' with the Old Danish suffix '-by', meaning 'Mundi's farmstead' (Cameron, 1998). This suggests a settlement in existence during the period of Viking influence, around the later 9th century. In the Domesday Book, Mumby appears as '*Mundebi*', with much of the land under the ownership of Eudo, on behalf of Count Alan. This appears to have been a substantial estate centre, with an outlier at Claxby and a jurisdiction in Theddlethorpe.
- 2.1.5 Further estates were owned by Gilbert of Ghent, and Eudo, son of Spirewic (probably the same Eudo who was managing the estates of Count Alan).
- 2.1.6 Medieval settlement activity has been recorded in the form of pottery scatters, and aerial photography has revealed settlement evidence and medieval field systems around Mumby, as well as ridge and furrow around Helsey, approximately 1km to the south. To the east of Mumby, the HER records a moated enclosure, which (when ploughed flat) yielded building materials and medieval pottery. This moated manor site appears to be directly to the north-east of the proposed pipe cut and can be seen in aerial photographs (see fig. 3). The parish Church, St. Thomas of Canterbury, which lies just to the west of the site, is predominantly 15th century, although its original foundation can be dated to the 12th. Marine salt processing is known to have continued throughout the medieval period and into the post-medieval. One medieval site at Wainsfleet Saint Mary's was excavated during the 1980s, which sits in a very similar topographic location as the study site (McAvoy, 1994).

| HER Ref. No. | Description | NGR |
|--------------|---|--------------|
| 41954 | Roman saltern site with briquetage & C2/3 pottery | TF 5219 7285 |
| 41976 | Medieval and later pottery | TF 5230 7460 |
| 41979 | Roman pottery | TF 5060 7480 |
| 41980 | St. Thomas' Church, Mumby | TF5156 7442 |
| 41981 | Remains of a churchyard cross | TF5156 7441 |
| 41982 | Mumby Grange (place name evidence) | TF5123 7410 |
| 41983 | Manor House (place name evidence) | TF 5155 7450 |
| 41990 | Medieval pottery | TF 5050 7490 |
| 42863 | Post medieval pottery | TF5151 7409 |
| 44045 | Medieval settlement of Mumby | TF515 745 |
| 44046 | Medieval settlement of Helsey | TF 519 730 |

Table 1: Nearby HER data.

- 2.1.7 A number of archaeological investigations in the area have yielded results. A Watching Brief at “Longways” Washdyke Lane revealed Roman pottery but no features. However, a Watching Brief at Land adjacent to Longways recorded a large Roman pit and wattle and daub structures. An evaluation and subsequent Watching Brief at Land off Hogsthorpe Road also uncovered Romano-British linear features.

3 METHODOLOGY

- 3.1.1 The objective of this watching brief was to determine as far as reasonably possible the presence/absence, location, nature, extent, date, quality, condition and significance of any surviving archaeological deposits within the development area.
- 3.1.2 The specification required that the topsoil within the easement (15m in width) be stripped by the main contractor using a tracked 360 excavator, under the supervision of an archaeologist. The subsoil within the cut of the pipe trench (approximately 800mm) was then to be excavated by a smaller machine with a ditching bucket. Any archaeological features uncovered were then to be excavated and recorded.
- 3.1.3 The area of investigation was located at the western end of the pipe route, just to the east of Mumby, next to the water treatment works (Figs. 1 & 2). The area to be monitored was 538m in length.
- 3.1.4 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 digital photographs were taken of all relevant features and deposits.
- 3.1.5 Site conditions were cold but sunny. Ground conditions were very wet.

4 RESULTS

4.1 Topsoil strip

4.1.1 The stripping of the topsoil took place on 19th November 2013 (Plate 4). The topsoil was found to be between 0.3 and 0.4m in thickness, overlying a mid yellowish brown subsoil for the majority of the strip. A total of 706g of late medieval pottery were recovered from the topsoil. The assemblage was dated to the mid 15th to 16th century, and is likely to have been ploughed into the topsoil from the nearby moated manor.

4.2 Subsoil strip

4.2.1 The subsoil was stripped on 10th December 2013. This layer was found to be between 0.1m to 0.2m thick, in some places no subsoil was present. Two sherds of Toynton Late Medieval ware were recovered from the subsoil.

4.2.2 An area of archaeological interest was uncovered in the centre of the monitored area (120m west into the area) where no subsoil was present (Plate. 3), and this area was cleaned and the features excavated and recorded before the trenching continued. The features recorded were two small pits (**3** & **8**), one large pit (**5**), a small boundary ditch (**1**) and a larger ditch or channel (**10**). The features will be discussed in detail below. No other features were observed within the remainder of the pipe cut.

4.3 Archaeological Features

4.3.1 Ditch **1** (Plate 2) was aligned north-east to south-west and extended across the full width of the strip before being masked by the subsoil in the southern 10m. It was 0.9m wide and 0.2m in depth and filled by a single deposit (2) comprising a dark brownish grey, silty clay that contained moderate quantities of fired clay and charcoal. The feature had an unclear relationship with pit **5**, and they may have been contemporary.

4.3.2 Pit/posthole **3** was 0.6m in diameter with a sub-circular shape in plan. It had a bowl shaped profile with a flat base and gently sloping sides and a depth of 0.1m. It contained a single fill (4), a mid brownish grey silty clay, from which moderate fired clay inclusions were recovered.

4.3.3 Pit **5** (Fig. 4, Plate 1) was sub-circular in plan with a diameter of 1.7m. The feature had a flat base, with steep sides and a depth of 0.26m. It contained two deposits (6 & 7), the basal fill (6) was a 0.1m thick, mid brownish red silty clay with moderate fired clay inclusions. Upper fill (7) was a mid reddish brown silty clay, 0.2m thick, with moderate charcoal inclusions and a large quantity of briquetage. The pit was possibly contemporary with ditch **1**.

4.3.4 Pit/posthole **8** was sub-circular in plan with a diameter of 0.6m. It was 0.17m deep with a bowl shaped profile, a flat base and gently sloping sides. It contained a single fill (9), a 0.17m thick, mid brownish grey silty clay with moderate charcoal and fired clay inclusions.

4.3.5 Ditch **10** (Fig. 4) was aligned north-east to south-west. It was over 1m deep and was 2.8m wide, with steeply sloping sides. Its full profile was not recorded due to the feature not being fully excavated. It contained three deposits (11, 12 & 13), slump fill 11 was a dark brownish grey silty clay with moderate charcoal inclusions and a thickness of 0.4m. Fill 12 was a 0.5m thick mid yellowish brown silty clay, containing moderate fired clay inclusions. Upper fill 13 was a mid brownish grey silty clay, 0.48m thick, with rare charcoal inclusions.

5 FINDS SUMMARY

By Carole Fletcher

5.1 Metalworking

- 5.1.1 The excavation produced a single metal object, a fragment of a tapered straight leg with a central ridge, from a cast copper alloy cauldron or skillet of 14th century or later date. The fragment is in reasonable condition although the central ridge has been damaged in several places. The majority of the pottery recovered from context 15 is mid 15th-mid 16th century and the vessel is likely of similar date.

SF1 Context 14. Fragment of skillet or cauldron leg from a cast vessel. Maximum length 61mm, width, tapering from 48 to 45mm, with a central ridge. Maximum thickness at ridge 14mm, height of surviving ridge 4mm, width at edge 8mm. Weight 120.5g.

5.2 Pottery

Introduction

- 5.2.1 The excavation produced a small pottery assemblage of 25 sherds, weighing 0.762kg, recovered from two contexts. The condition of the overall assemblage is moderately abraded. The average sherd weight from individual contexts is moderate to high at approximately 30g.

Methodology

- 5.2.2 The Medieval Pottery Research Group (MPRG) documents *A Guide to the Classification of Medieval Ceramic Forms* (MPRG, 1998) and *Minimum Standards for the Processing, Recording, Analysis and Publication of Post-Roman Ceramics* (MPRG, 2001) act as a standard.
- 5.2.3 Dating was carried out using OA East's in-house system based on that previously used at the Museum of London. Fabric classification has been carried out for all previously described medieval and post-medieval types using the Lincolnshire fabric codes. All sherds have been counted, classified and weighed. All the pottery has been recorded and dated on a context-by-context basis. The archives are curated by Oxford Archaeology East until formal deposition.

Assemblage

- 5.2.4 Context 14 produced two sherds from a Toynton Late Medieval ware jug or jar rim. The remainder of the pottery recovered was from context 15 (topsoil), which produced 22 sherds of pottery, the latest of which is an abraded sherd from a Glazed Red Earthenware bowl. Also present were four sherds from Toynton Medieval ware vessels, including a decorated jug sherd.
- 5.2.5 Young indicates that with undiagnostic sherds it can be difficult to differentiate between medieval and late medieval Toynton ware (Young, Vince and Nailor, 2005, p174) and three sherds within this assemblage fall into the uncertain category and are described as Toynton Medieval ware/Toynton Late Medieval ware vessels, this included two jug sherds. The majority of the pottery recovered was Toynton Late Medieval ware, mid 15th-mid 16th century with its distinctive heavily pocked, olive-green glaze. The sherds present include a large sherd from a jug handle with incised decoration and two jug rim sherds.

- 5.2.6 The late medieval sherds were relatively unabraded and may have recently been disturbed from their primary place of deposition. The medieval sherds are more abraded as a result of some reworking of deposits, possibly in the late medieval period. No medieval shell-tempered sherds were recovered, indicating that the main supply of pottery to the medieval and late medieval site (as yet unlocated) were local production centres, chiefly those at Toynton All Saints.
- 5.2.7 The assemblage is domestic in origin, these sherds representing low levels of rubbish disposal on the site. The overall assemblage is late medieval with few earlier sherds.

5.3 Briquetage

- 5.3.1 A small-moderate sized assemblage of ceramic material or briquetage, associated with the production of salt (137 pieces, weighing 5.172kg), was recovered from two contexts, with the majority recovered from pit **5**. The briquetage consists of supports, predominantly pedestals, a single spacer-clip, a small number of fragments tentatively identified as container body sherds, and a sub-rectangular flat object or slab (Plates 5 - 9). Also present are miscellaneous fragments with partial remains of surfaces, from fragmented pedestals and possible slabs alongside undiagnostic material.
- 5.3.2 No complete pedestals were recovered. The majority of the pedestals fragments are not of the hand formed-hand squeezed variety but are well formed, one having a sub-square, slightly flared base (Plate 5) similar to PD5 (Morris, 2005, p275, p279 fig 96, 230) and all have relatively well finished flattened surfaces. The surviving upper portions are wedge-shaped (Plate 6), somewhat similar to PD4 (Morris, 2001, p43), but without the horn/horns. The well-finished flat surfaces suggest that the pedestals were pre-formed and possibly pre-fired.
- 5.3.3 Briquetage is present in several fabrics, the majority of fragments containing organic material in varying quantities, however the spacer-clip is more heavily quartz-tempered. The bulk of the briquetage is discoloured on its surviving surfaces, indicating its exposure to salt solution and heat during the production of salt.
- 5.3.4 The briquetage was recovered, almost entirely, from a single isolated pit (**5**). While the saltern from which it originated was not definitively identified, its location must be relatively close to the area of excavation as the material, although somewhat fragmented, has not been subject to much reworking. Unrelated medieval and late medieval Toynton ware was recovered from the topsoil/subsoil and, although no Roman pottery was associated with the briquetage, the material appears to be Roman.
- 5.3.5 There are a number of excavated Iron Age, Roman and medieval salterns within Lincolnshire. The site at Wainfleet Saint Mary approximately 22km to the south of Mumby produced late medieval pottery (Healey 1994), similar to that recovered from Mumby, which accompanied the 15th-16th century marine salt extraction. Roman pottery (1st-2nd century AD) and briquetage was recovered from a saltern at Wrangle (approximately 32km south of Mumby).

Forms

- 5.3.6 Briquetage forms are extensively described by Morris *et al* in *A Millennium of Salt Making: Prehistoric and Romano-British Salt Production in the Fenland* and the references to forms are taken directly from, or based on, descriptions from that volume.

BS1/2 plain body sherd; fragments of the container wall, which may be slightly curved or simply straight in top-side view and profile due to the size of sherds (Morris, 2001, p42).

PD5 Sub-square footed pedestal: a sub-square footed, fired clay object with a sub-square stem; all examples of this pedestal type were broken and therefore the shape of the terminal end is unknown (Morris, 2001, p272).

Pyramidal like pedestal: four-sided, with rounded corners and flattened surfaces and rectangular-based fired clay object with a strongly narrowing profile culminating a narrow flattened (less than 10mm) or slightly angled top (After Morris, 2001, p43, based on description of PD4).

CL1 Spacer-clip: hourglass-shaped cylinders of clay with roughly triangular to oval cross-section which had been created by pressing a plastic clay lump end-on against a container thus creating a single lip at one end while at the same time pressing the opposite end, either against the side of another container gets the hearth/oven wall; this manufacturing technique often, but not always, created a slight lip to the top edge of the object at one end; the triangular-oval cross section of these objects, which is due to the pinching while pressing them, is very characteristic of CL1 stabilisers; the clip-effect of these objects is less pronounced than in type CL2 which have both ends with lips; in profile the end of the spacer-clip pressed against the container is always slightly inclined, reflecting the slight convex, container wall profile (Morris, 2001, p43).

FC1 Undiagnostic fired clay fragments, one or more smoothed surfaces: small fragments, undiagnostic as to form type, but containing at least one smooth surface indicating a broken support or piece of structural slab material.

FC2 Undiagnostic fired clay fragments, no smoothed surfaces: small fragments with no smooth surfaces. these pieces are completely undiagnostic on the basis of formal attributes (Crosby 2001, p117).

Fabrics

5.3.7 The bulk of the assemblage is Fabric 2 (c.63% of the total assemblage), a small number of pedestals were made in Fabric 1. The spacer-clip CL1 is hand squeezed-formed in Fabric 4, Morris suggests that Fenland clips are nearly always made from organic-tempered fabrics similar to the fabrics used to construct the containers at each site (Morris, 2005, p370). Fabric 4 contains small to moderate amounts of organic material that is only visible on the broken edges of the artefact. The small amount of material tentatively identified as container body sherds are also Fabric 4, the exception being a single sherd recovered from sample 1 which appears to be Fabric 3. The larger sherds of possible slab or brick supports are also found in Fabric 4 and Fabric 1.

5.3.8 The majority of the briquetage is tempered with organic material resulting in linear voids within the matrix where the organic material has burnt out. Impressions of organic material, grass or chaff can also be seen on the surface of some briquetage fragments.

Fabric 1: Quartz-tempered with common fine quartz and occasional coarse quartz, rare flint fragments from 2mm-6mm. Occasional organic material leaving large round or oval voids 1-3mm in the matrix and on the surface of the artefacts. Surface appearance buff-pink to buff surfaces pale grey core with occasional yellow swirls. Variant: increased amount of organic material.

Fabric 2: Common organic temper visible as common elongated and occasional round voids, common fine quartz, occasional coarse flint. The break is hackly and the colour red-pink with some darker red swirls and the fabric appears poorly mixed.

Fabric 3: Moderate amounts of organic material in a fine slit matrix that feels slightly rough to the touch. Light red-pink throughout.

Fabric 4: Quartz-tempered, rough feel, common fine and moderate coarse quartz, occasional coarse flint and moderate quantities of organic material only visible in the matrix on thicker artefacts. Oxidised dull red throughout.

5.3.9 Table 1 (Appendix D) acts as a full catalogue for the material recovered.

6 ENVIRONMENTAL SUMMARY

By Rachel Fosberry

6.1 Introduction

- 6.1.1 A single bulk sample was taken from fill 7 of large shallow pit 5 in order to assess the quality of preservation of plant remains and their potential to provide useful data as part of further archaeological investigations.

6.2 Methodology

- 6.2.1 Eight litres of the sample was processed by water flotation (using a modified Siraff three-tank system) for the recovery of charred plant remains, dating evidence and any other artefactual evidence that might be present. The floating component (flot) was collected in a 0.3mm nylon mesh and the residue was washed through 10mm, 5mm, 2mm and a 0.5mm sieve. Both flot and residue 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 flot was subsequently sorted using a binocular microscope at magnifications up to x 60

6.3 Results

- 6.3.1 The sample contains a single charred wheat (*Triticum* sp.) grain and two charred grass (Poaceae) stems.

6.4 Discussion

- 6.4.1 The small quantities of charred plant remains recovered preclude further identification of the sampled feature other than speculation that the charred grass stems may indicate the use of hay as kindling/fuel and that the wheat grain is a remnant of food waste.

7 DISCUSSION AND CONCLUSIONS

7.1 Roman salt production

- 7.1.1 The features uncovered during the strip are most likely related to marine salt production taking place during the Roman period. It remains a possibility that they are medieval as briquetage is difficult to date without more diagnostic finds such as pottery or pan remains from the same feature. Pans are of some importance as during the prehistoric period they were of ceramic construction whereas, beginning in the Roman period and continuing in the medieval period, lead pans were often used – although it has been noted that the evidence of lead use in salt production within Lincolnshire is rare, with ceramic pans being utilised for salt production through all historic periods. The majority of the briquetage, however, was typical of the Roman period, with similar artefacts having been recovered from sites such as Langtoft, Morton Fen, Cowbit (Lane 2001) and the nearby site within Mumby (HER 41954). A Roman date for the artefacts and features is therefore most likely, due to the lack of any lead artefacts, which are much more commonly found in features of medieval date.
- 7.1.2 The diagnostic fragments of briquetage recovered consisted of a variety of pieces associated with salting by the evaporation of brine during the Roman period. These included pedestals for elevating and stabilising the pans above a heat source and other structural pieces, such as spacer clips (Plates 5 - 9).
- 7.1.3 Topographically, the location of the site was well suited to salt production. It was situated at roughly 2mOD, with the surrounding land dropping to 1.3mOD. During the Roman period, this lower land would have been salt marsh, with channels bringing brackish water to the area during high tide. Satellite Images from 2007 show the topography of the land, and suggest the likely location of a saltern on higher ground next to the area of salt marsh and channels (Fig. 3).
- 7.1.4 While the limited scope of the Watching Brief precludes full interpretation of the features recorded, it is possible to draw some tentative conclusions about their likely functions. It is suggested that ditch **1** formed part of a system of gullies or channels, used to draw brackish water up to the salt production site. Similarly, ditch **10** may in fact be a large channel, either natural or man made, that was also utilised to draw brackish water. The recovery of small fragments of fired clay from the secondary silting of ditches **1** and **10** is a good indicator that they were both open during this period of activity.
- 7.1.5 There are several possible interpretations for pit (**5**). It may represent a settling tank, that was subsequently backfilled with briquetage material, or perhaps the remnants of a hearth system used for the evaporation of brine. Its basal fill (**6**), which appears to be a lining, suggests *in-situ* burning; in section it looks similar to the Langtoft hearth reconstruction (Lane 2001: fig. 121). However, without a wider perspective of the surrounding archaeology it is difficult to ascertain its true function. Similarly, pits **3** and **8** are of uncertain use, but their positioning suggests a possible structure around pit **5**, that may even indicate its use as a saltern.
- 7.1.6 The lack of evidence for a heating system is a common issue encountered with salt production sites and many other examples have revealed no actual evidence for a heating system (Market Deeping, Nordelph and Downham West (Lane 2001)).
- 7.1.7 Furthermore, any relationship between this site and nearby settlement remains elusive. It is common for coastal salterns to be set in isolated locations and only used at certain

times of year. However, links to a parent settlement may be seen through the location of nearby trackways. Unfortunately, in this instance, no trackways are visible in the satellite images or on the ground. The discovery of Roman pottery and features to the south-west of site, on Hogsthorpe Road and Washdyke Lane, may be the closest evidence for a nearby Roman settlement that could be related to the putative saltern.

- 7.1.8 The features and artefacts recorded during the Watching Brief are indicative of Roman salt production, although with a lack of firm dating from the stratigraphy it is difficult to confirm this date. The findings are of regional significance, however, as they have identified and, to a degree, characterised salt manufacture within the coastal areas of Lincolnshire.

7.2 Medieval Moated Manor

- 7.2.1 The pottery recovered from the topsoil is related to the medieval moated manor site, situated on the same hill as the Roman features. It is unsurprising that this hill would have been in use after the Roman period, as it is topographically favourable, situated on higher ground with views of the surrounding land. Since the manor site has been ploughed flat, it is to be expected that a large amount of medieval pottery would be distributed throughout the topsoil of the field. The satellite image from 2007 shows the impressive cropmarks of the manor site (fig. 3).

8 ACKNOWLEDGEMENTS

- 8.1.1 The author would like to thank Anglian Water who commissioned and funded the archaeological work. The project was managed by James Drummond-Murray.
- 8.1.2 The site was monitored by Louise Jennings of Lincolnshire County Council.

APPENDIX A. CONTEXT INVENTORY

| Context | Cut | Mater Number | Category | Feature Type |
|----------------|------------|---------------------|-----------------|---------------------|
| 1 | 1 | 1 | Cut | Ditch |
| 2 | 1 | 1 | Fill | Ditch |
| 3 | 3 | 3 | Cut | Pit/posthole |
| 4 | 3 | 3 | Fill | Pit/posthole |
| 5 | 5 | 5 | Cut | Pit |
| 6 | 5 | 5 | Fill | Pit |
| 7 | 5 | 5 | Fill | Pit |
| 8 | 8 | 8 | Cut | Pit/posthole |
| 9 | 8 | 8 | Fill | Pit/posthole |
| 10 | 10 | 10 | Cut | Ditch |
| 11 | 10 | 10 | Fill | Ditch |
| 12 | 10 | 10 | Fill | Ditch |
| 13 | 10 | 10 | Fill | Ditch |
| 14 | - | 14 | Layer | Subsoil |
| 15 | - | 15 | Layer | Topsoil |

APPENDIX B. POTTERY CATALOGUE

| <i>Context</i> | <i>Code</i> | <i>Full name</i> | <i>Form</i> | <i>Sherd Count</i> | <i>Weight (kg)</i> | <i>Pottery Date Range</i> | <i>Context Date Range</i> |
|----------------|----------------------------|--|---|--------------------|--------------------|---------------------------|----------------------------------|
| 14 | TOY II | Toynton Late Medieval ware | Jug/Jar rim | 2 | 0.056 | 1450-1550 | 1450-1550 |
| 15 | GRE | Glazed Red Earthenware | Bowl body sherd | 1 | 0.036 | 1500-1600 | Mid 15th- mid 16th century |
| | TOY | Toynton Medieval ware | Jug body sherd (applied Fe rich strips) | 1 | 0.008 | 1250-1450 | |
| | TOY | Toynton Medieval ware | Jug body sherd | 1 | 0.015 | | |
| | TOY | Toynton Medieval ware | Body sherd | 1 | 0.007 | | |
| | TOY | Toynton Medieval ware | Base | 1 | 0.129 | | |
| | TOY/TOYII | Toynton Medieval ware/Toynton Late Medieval ware | Jug body sherd | 1 | 0.027 | 1250-1550 | |
| | TOY/TOYII | Toynton Medieval ware/Toynton Late Medieval ware | Jug body sherd | 1 | 0.017 | | |
| | TOY/TOYII | Toynton Medieval ware/Toynton Late Medieval ware | Jar body sherd | 1 | 0.025 | | |
| | TOYII | Toynton Late Medieval ware | Bowl body sherd and base angle | 3 | 0.129 | 1450-1550 | |
| | TOYII | Toynton Late Medieval ware | Jug body sherd | 1 | 0.003 | | |
| | TOYII | Toynton Medieval ware | Jug strap handle incised decoration | 1 | 0.157 | | |
| | TOYII | Toynton Late Medieval ware | Jug rim | 1 | 0.019 | | |
| | TOYII | Toynton Late Medieval ware | Jug- rim | 1 | 0.024 | | |
| | TOYII | Toynton Late Medieval ware | Jug body sherd | 2 | 0.017 | | |
| | TOYII | Toynton Late Medieval ware | Jug body sherd | 2 | 0.046 | | |
| TOYII | Toynton Late Medieval ware | Jug body sherd | 1 | 0.018 | | | |
| TOYII | Toynton Late Medieval ware | Jug body sherd and base angle sherd | 2 | 0.022 | | | |
| TOYII | Toynton Late Medieval ware | Jug body sherds | 1 | 0.007 | | | |
| Totals | | | | 25 | 0.762 | | |



APPENDIX C. BRIQUETAGE CATALOGUE

| Context | Class/Form | Description | Dimensions | Fabric | No. Fragments | Weight (kg) |
|----------------|----------------------------------|---|--|--------------------|----------------------|--------------------|
| 7 Sample 1 | ?Body sherd BS1/2 | Small fragment of container wall | 6mm thick | Fabric 3 | 1 | 0.003 |
| 7 | ?Body sherd BS1/2 | Relatively flat fragments of container wall | 6-7mm thick | Fabric 4 | 4 | 0.019 |
| 7 | Spacer-clip CL1 | Irregular cylindrical object, one end has a lip at the top edge the other end is slightly dished and has no lip. | Central portion 33x25mm Lipped end sub rectangular 35x34mm un-lipped end 32x30mm | Fabric 4 | 1 | 0.037 |
| 7 | Pedestal ?PD5 | Partial lower half of a splayed sub-square base which is slightly convex, main body is wedge shaped, becoming rectangular in section with rounded corners, with relatively flat surfaces (preformed). | Length:99mm (max) At base:83x85mm tapering to 70x55mm | Fabric 1 | 1 | 0.508 |
| 7 | PD? Pedestal (partial upper) | Wedge shaped, sub-rectangular in section with rounded corners Well finished with relatively flat surfaces. | Length:100mm (max) At surviving widest point 63x45mm tapering to 55x13mm | Fabric 1 | 1 | 0.221 |
| 7 | PD? Pedestal (partial upper) | Wedge shaped, rectangular in section with rounded corners. Well finished with relatively flat surfaces. | Length:92mm (max) At surviving widest point 70x29mm tapering to 65x10 | Fabric 2 | 2 | 0.118 |
| 7 | PD? Pedestal (Fragment of upper) | Wedge shaped partial upper end of pedestal, most likely rectangular in section with rounded corners. Well finished with relatively flat surfaces. | Length:66mm (max) | Fabric 1 (variant) | 1 | 0.074 |
| 7 | PD? Pedestal (Fragment) | Tapering body section of pedestal, rectangular in section with rounded corners. Well finished with relatively flat surfaces. | Length:84mm Widest:79x64mm tapering to 67x49mm | Fabric 1 | 1 | 0.340 |
| 7 | PD? Pedestal (Fragment) | Tapering upper body of pedestal, rectangular in section with rounded corners. Well finished with relatively flat surfaces. | Height:75mm (max) Widest surviving:79x64mm tapering to 67x49mm | Fabric 1 | 1 | 0.166 |
| 7 | PD? Pedestal (Fragment) | Tapering upper body of pedestal, rectangular in section with rounded corners. Well finished with | Length:106mm Widest surviving | Fabric 2 | 1 | 0.238 |



| | | | | | | |
|---|-------------------------|--|--|--------------------|---|-------|
| | | relatively flat surfaces. | section:78x37mm | | | |
| 7 | PD? Pedestal (Fragment) | Tapering fragment (lower) of pedestal, would have been rectangular in section with rounded corners. Well finished with relatively flat surfaces. | Length:106mm | Fabric 2 | 1 | 0.198 |
| 7 | PD? Pedestal (Fragment) | Tapering fragment of pedestal, would have been rectangular in section with rounded corners. Well finished with relatively flat surfaces. | Length:75mm | Fabric 2 | 1 | 0.070 |
| 7 | PD? Pedestal (Fragment) | Tapering fragment of pedestal, would have been rectangular in section with rounded corners. Well finished with relatively flat surfaces. | Length:48mm | Fabric 2 | 1 | 0.034 |
| 7 | PD? Pedestal (Fragment) | Tapering fragment of ?pedestal, single surviving flat surface with part of rounded corner. | | Fabric 2 | 1 | 0.043 |
| 7 | PD? Pedestal (Fragment) | Tapering fragment of pedestal would have been rectangular in section with flat but roughly formed surfaces. | | Fabric 1 (variant) | 1 | 0.074 |
| 7 | Slab (near complete) | Sub-rectangular | Height:111mm Width 69mm Thickness 20mm (max) | Fabric 3 | 3 | 0.165 |
| 7 | ?Slab (fragment) | Flat side to fragment with domed upper surface | | Fabric 2 | 1 | 0.200 |
| 7 | ?Slab (fragment) | Flat side to fragment with domed upper surface | | Fabric 2 | 1 | 0.114 |
| 7 | FC1 | Fragment of ?pedestal, with partial, slightly rounded surface. | | Fabric 2 | 1 | 0.116 |
| 7 | FC1 | Fragment of ?pedestal possibly a rounded form | | Fabric 2 | 1 | 0.067 |
| 7 | FC1 | Fragment of ?pedestal, single surviving flat surface with part of rounded corner. | | Fabric 2 | 1 | 0.035 |
| 7 | FC1 | Tapering fragment of pedestal, rectangular in section with flat but roughly formed surfaces. | | Fabric 1 (variant) | 1 | 0.143 |
| 7 | FC1 | Various fragments possibly slabs | | Fabric 2 | 4 | 0.325 |
| 7 | FC1 | Possibly a brick form | | Fabric 2 | 1 | 0.136 |



| | | | | | | |
|--------------|------|---|--|----------|------------|--------------|
| 7 Sample 1 | FC 1 | Appears to be hand squeezed form, possibly a Spacer-clip but this is unclear, as the fragment is broken | | Fabric 3 | 1 | 0.033 |
| 7 Sample 1 | FC 1 | Fragments with a curved surface | | Fabric 2 | 2 | 0.200 |
| 7 Sample 1 | FC 1 | Fragments with a flat surface | | Fabric 2 | 4 | 0.348 |
| 7 Sample 1 | FC 2 | Undiagnostic fragments | | Fabric 2 | 2 | 0.066 |
| 7 | FC 1 | Possible base fragment from pedestal | | Fabric 2 | 1 | 0.061 |
| 7 | FC 1 | Possible base fragment from pedestal | | Fabric 1 | 1 | 0.037 |
| 7 | FC 1 | Fragment with a curved surface | | Fabric 2 | 1 | 0.056 |
| 7 | FC 1 | Fragments with a flat surface | | Fabric 2 | 4 | 0.200 |
| 7 | FC1 | Various fragments with flat or curved surfaces | | Fabric 2 | 22 | 0.338 |
| 7 | FC1 | Various fragments with flat or curved surfaces | | Fabric 3 | 1 | 0.022 |
| 7 | FC 2 | Undiagnostic fragments | | Fabric 1 | 4 | 0.026 |
| 7 | FC 2 | Undiagnostic fragments | | Fabric 2 | 59 | 0.330 |
| 12 | FC1 | Undiagnostic fragment | | Fabric 4 | 1 | 0.003 |
| 12 | FC1 | Undiagnostic fragment | | Fabric 3 | 1 | 0.008 |
| Total | | | | | 137 | 5.172 |

APPENDIX D. BIBLIOGRAPHY

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APPENDIX E. ELECTRONIC RESOURCES

| | | |
|---------------------------|---|----------------------|
| Geology of Britain Viewer | http://mapapps.bgs.ac.uk/geologyofbritain/home.html | Accessed 13/01/14 |
| Google Earth v.7.1.2.2041 | 2013, Getmapping plc. | 2007 satellite image |

APPENDIX F. OASIS REPORT FORM

Project Details

| | | | |
|---------------------------------|---|-------------|------------|
| OASIS Number | oxfordar3-166406 | | |
| Project Name | Mumby to Chapel St Leonard's Main Replacement | | |
| Project Dates (fieldwork) Start | 12-11-2013 | Finish | 10-12-2013 |
| Previous Work (by OA East) | No | Future Work | No |

Project Reference Codes

| | | | |
|-----------|-----------------|-----------------------|--|
| Site Code | MCWR13 | Planning App. No. | |
| HER No. | LCNCC: 2013.131 | Related HER/OASIS No. | |

Type of Project/Techniques Used

Prompt

Please select all techniques used:

| | | |
|--|---|---|
| <input type="checkbox"/> Field Observation (periodic visits) | <input type="checkbox"/> Part Excavation | <input type="checkbox"/> Salvage Record |
| <input type="checkbox"/> Full Excavation (100%) | <input type="checkbox"/> Part Survey | <input type="checkbox"/> Systematic Field Walking |
| <input type="checkbox"/> Full Survey | <input type="checkbox"/> Recorded Observation | <input type="checkbox"/> Systematic Metal Detector Survey |
| <input type="checkbox"/> Geophysical Survey | <input type="checkbox"/> Remote Operated Vehicle Survey | <input type="checkbox"/> Test Pit Survey |
| <input type="checkbox"/> Open-Area Excavation | <input type="checkbox"/> Salvage Excavation | <input checked="" type="checkbox"/> Watching Brief |

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 |
|----------|------------------|----------------|-----------------------|
| Ditches | Roman 43 to 410 | Pottery | Medieval 1066 to 1540 |
| Pits | Roman 43 to 410 | Kiln Furniture | Roman 43 to 410 |
| | Select period... | | Select period... |

Project Location

| | | |
|------------|--------------|---|
| County | Lincolnshire | Site Address (including postcode if possible) |
| District | East Lindsey | Thrumber Marsh Lane Mumby LN13 9TL |
| Parish | Mumby | |
| HER | Lincolnshire | |
| Study Area | 800sqm | National Grid Reference TF 51969 74565 |

Project Originators

| | |
|---------------------------|-----------------------|
| Organisation | OA EAST |
| Project Brief Originator | James Drummond-Murray |
| Project Design Originator | James Drummond-Murray |
| Project Manager | James Drummon-Murray |
| Supervisor | Pat Moan |

Project Archives

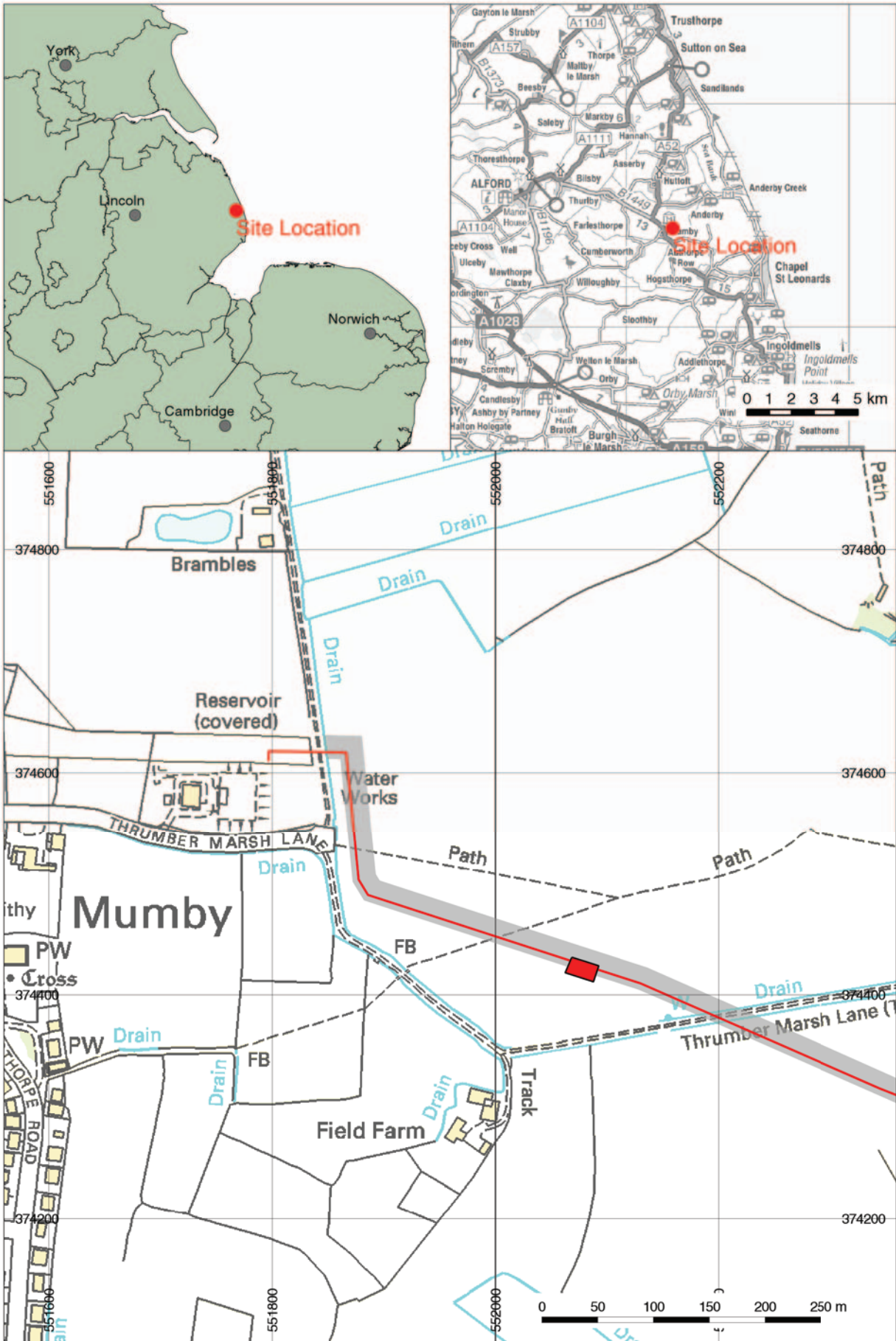
| Physical Archive | Digital Archive | Paper Archive |
|------------------|-----------------|------------------|
| Lincolnshire HER | OA East | Lincolnshire HER |
| LCNCC: 2013.131 | XLIMUM13 | LCNCC: 2013.131 |

Archive Contents/Media

| | Physical Contents | Digital Contents | Paper Contents |
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| Ceramics | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Environmental | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
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| Human Bones | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
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| 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 |
|---|---|
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| <input type="checkbox"/> GIS | <input checked="" type="checkbox"/> Context Sheet |
| <input type="checkbox"/> Geophysics | <input 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 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 area of archaeological interest (red box), route of pipe (red) and working strip (grey shading)

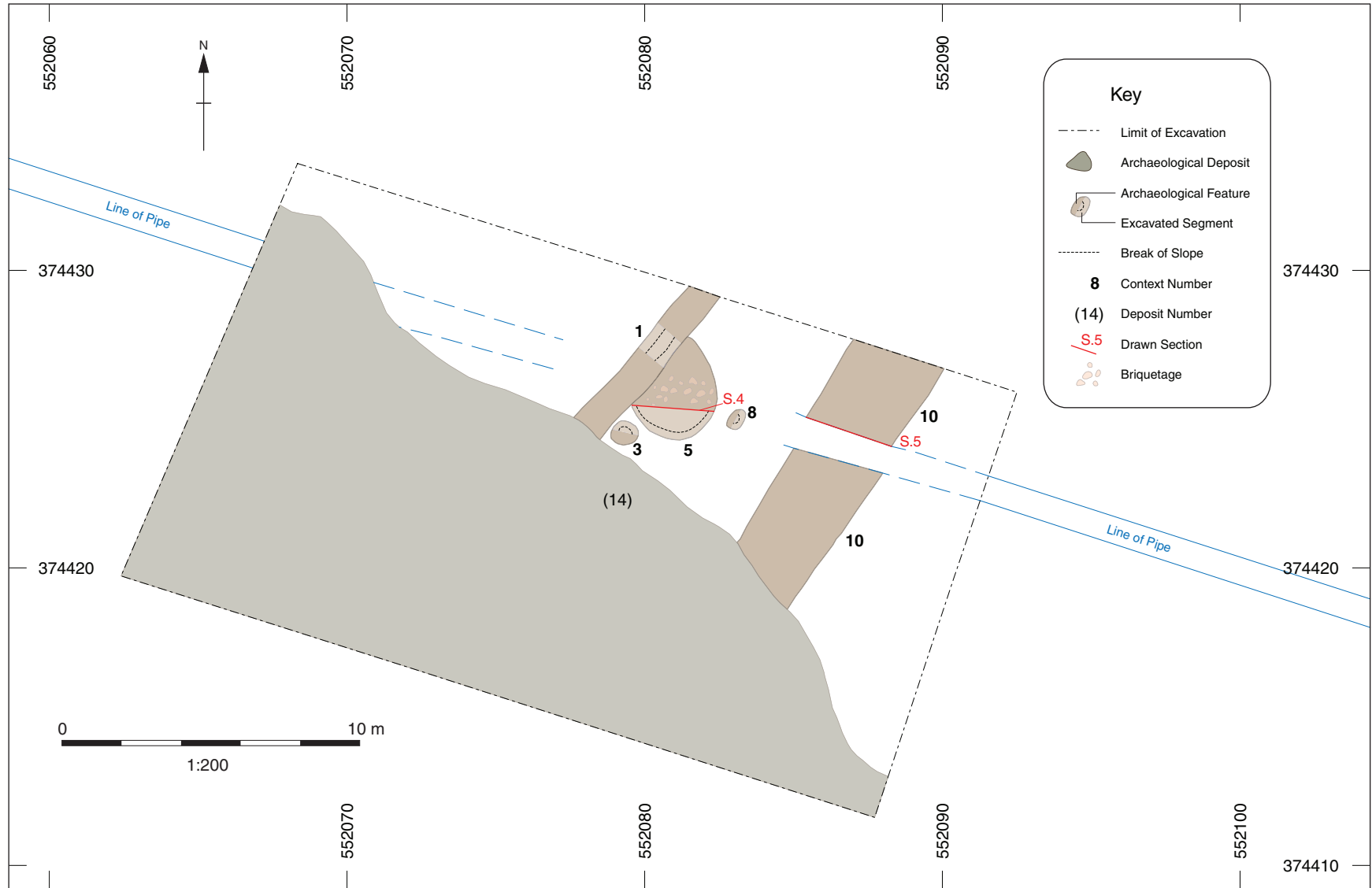


Figure 2: Area plan



Figure 3: Aerial Photography of Monitored Field

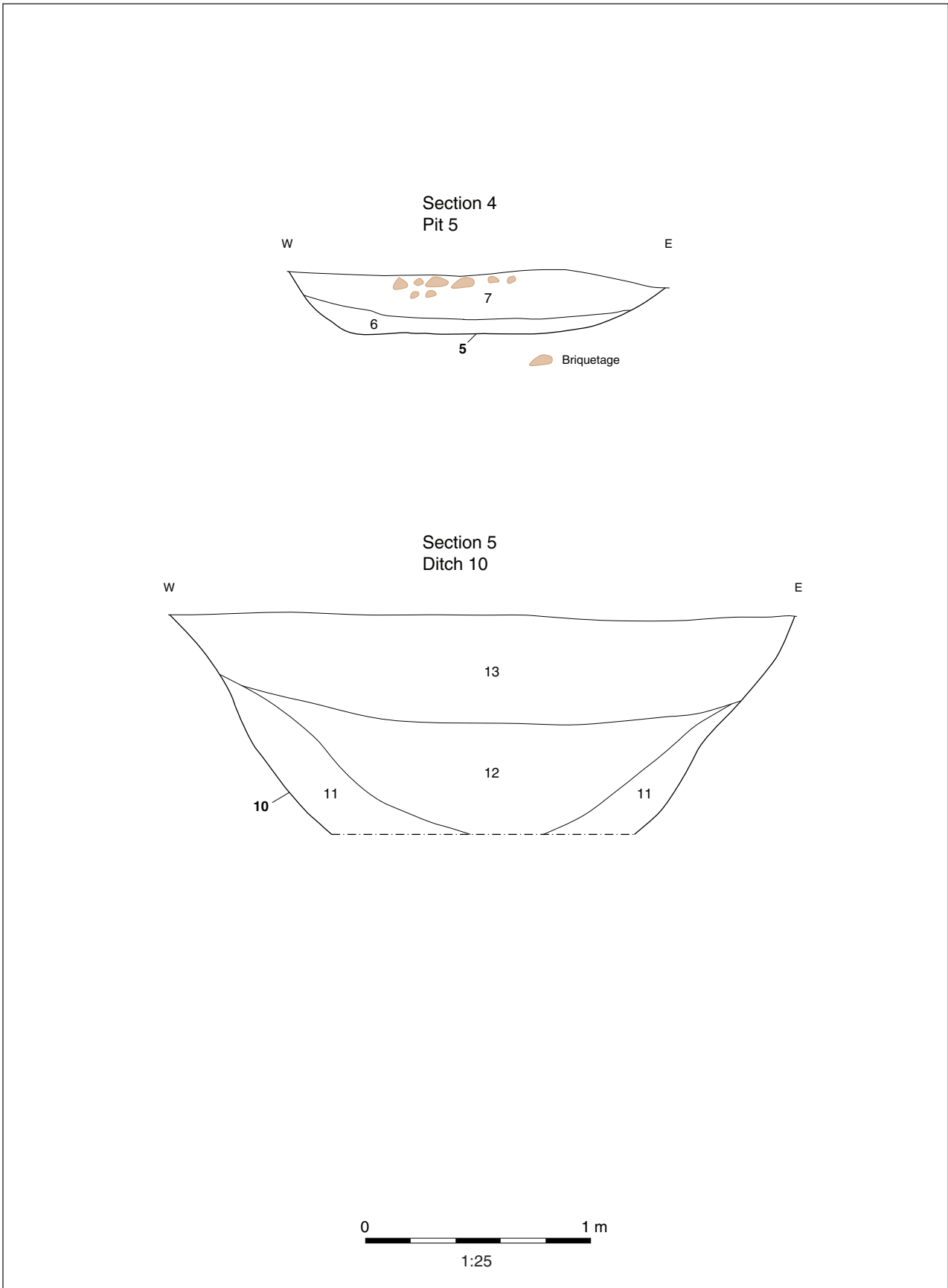


Figure 4: Sections of pit 5 and ditch 10



Plate 1: Section of pit 5, looking north-east



Plate 2: Section of ditch 1, looking north-east



Plate 3: Area of Archaeological Interest



Plate 4: Top Soil excavation



Plate 5: Pedestal. Partial lower half of a splayed sub square base which is slightly convex, main body is wedged-shaped, rectangular in section with rounded corners, with relatively flat surfaces. Fabric 1



Plate 6: Pedestal. Wedge-shaped partial upper, sub-rectangular in section with rounded corners, well finished with relatively flat surfaces. Fabric 1



Plate 7: Slab. Near complete sub-rectangular artefact. Fabric 3



Plate 8: Fragments of container wall. Fabric 4

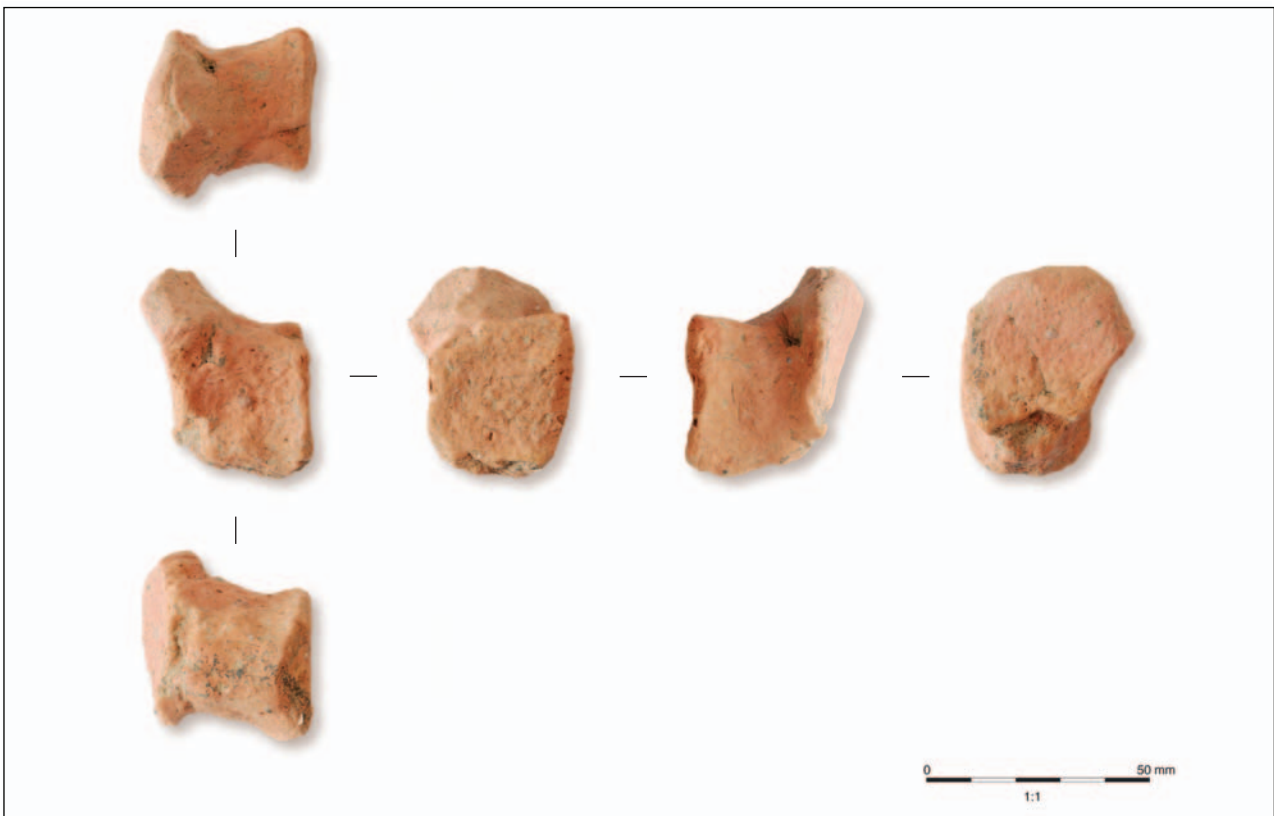


Plate 9: Spacer Clip. Irregular cylindrical object, one end has lip at the top edge the other end is slightly dished, with relatively flat surfaces



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